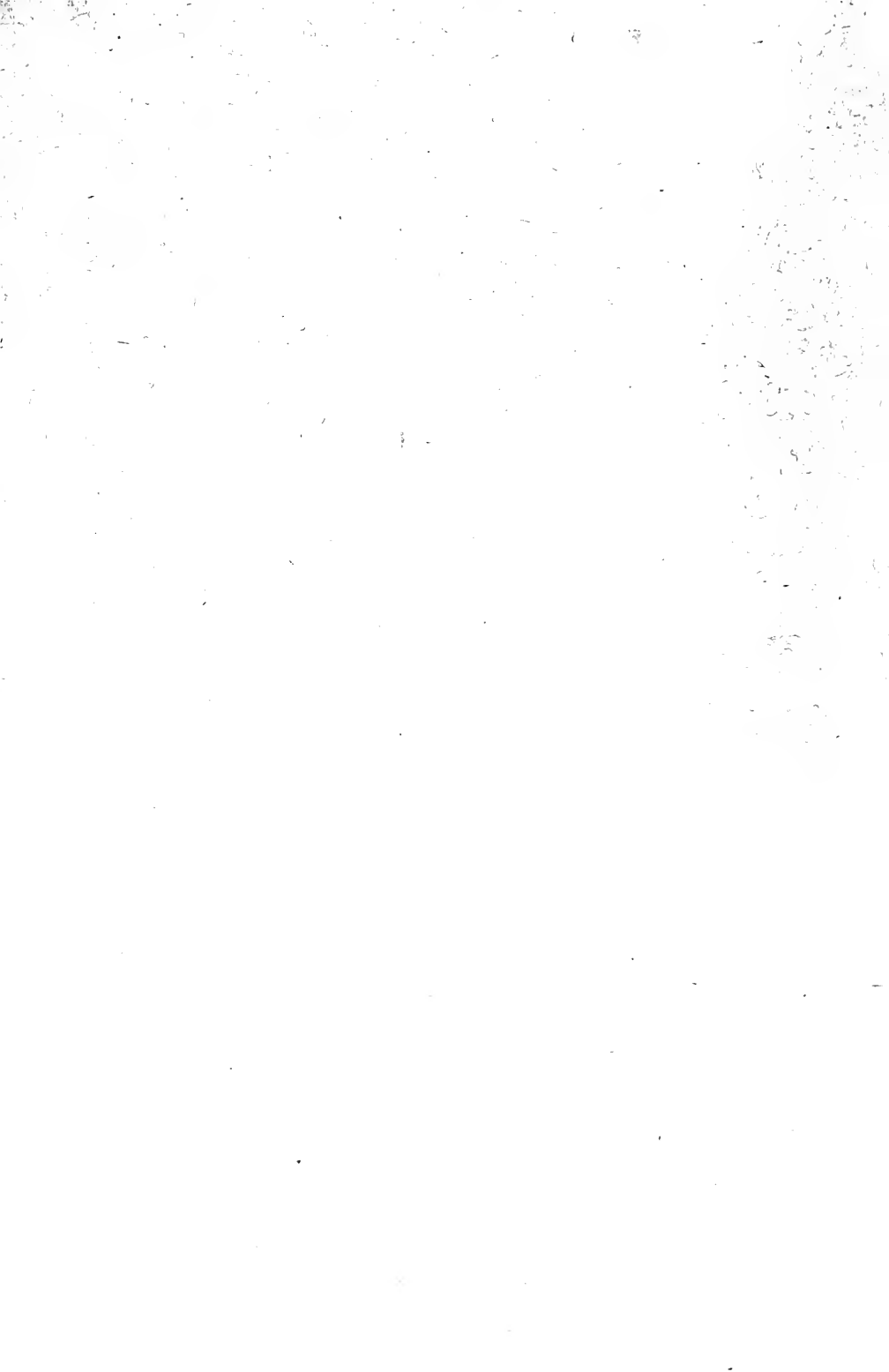


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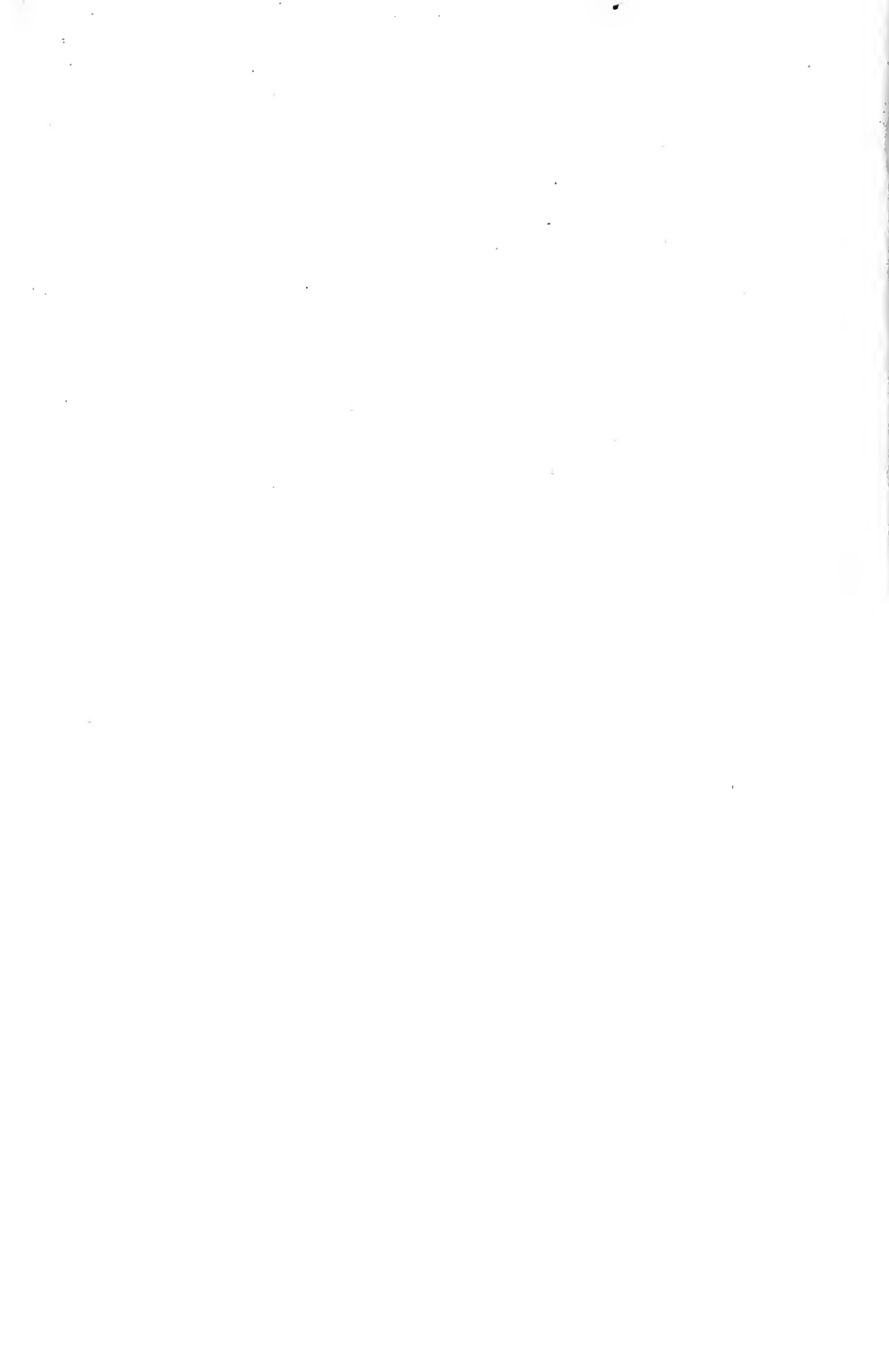
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THE OOLOGIST
FOR THE
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THEIR NESTS AND EGGS

VOLUME XXXIII

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1916

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INDEX TO VOLUME XXXIII

CONTRIBUTORS.

Abbott, Gerald Alan.....	183,	185
Baer, Alvin.....		88
Bailey, H. H.....		12
Barnes, R. M.....	1 8, 15, 24,	31
	32, 34, 36, 62, 63, 64,	83
	97, 99, 100, 101, 103, 104,	112
	113, 114, 122, 144, 146, 167,	191
	200, 202, 203,	210
Baynard, Oscar E.....	17, 18, 19,	23,
		27
Benjamin, W. H.....		177
Blincoe, Ben J.....		207
Bowles, J. H.....	33, 61, 151,	152
Bryant, Wm. Cullen.....		127
Brown, Cecil.....		13
Burleigh, Thos. D.....		138
Burnham, Stewart.....	97, 98,	99
Burtch, Verdi.....		55, 56
Campbell, I. D.....		164, 167
Carryl, F. M.....		12,
Carter, James B.....	51, 102,	190
Cookman, Alfred.....		122
Danforth, Stuart T.....		177
De Groot, Dudley.....	90,	91
Dickey, S. S.....	64, 65, 67, 68,	73
	75, 77, 133, 155,	160
Donahue, Ralph.....		96, 178
Eastman, Lieut. Francis B....		124
		125
Edwards, H. A.....		50
Ellis, J. B.....		24
Fitzpatrick, Leverette... 74, 189,		207
Flint, H. W.....	91, 92, 209,	210
Flower, Frank R.....		210
Giles, Roscoe I.....	29, 110, 111,	112
	118, 119, 132, 134, 140,	141
Goelitz, Walter A...104, 146, 147,		153
Green, Horace H.....		57
Green, Horace O...112, 113, 131,		132
		181
Graham, R.....	13, 31, 33, 34,	41
	42, 76, 81, 137, 139, 170, 171,	171,
		187, 188

Guy, Edwin.....		163
Hanaford, A. W.....	173, 174,	176
Harrington, P.....		24, 141
Hoffman, Hilton J.....	78, 142,	178
Howes, Paul G.....	42, 43, 128,	129
Hess, Isaac E.....		175
Jackson, Ralph W.....		88, 90
Jackson, Thomas... 28, 32, 134,		138
		150, 154
Kenworthy, E. M.....	72, 203,	204
Kohler, Louis S.....	70, 104, 106,	110
	119, 120, 121, 137, 147, 149,	163
Love, Guy.....		12
Maxon, First. Sargt. G. E.....	172,	173
	178, 205,	206
McConnell, Thos. L.....		114
McGrew, Albert D.....	72, 192,	193
	194, 195, 196,	197
McLeod, J. R.....		171
McLendon, Chas. R.....		31
McMullen, Turner E.....	100,	101
Mercer, Miller T.....		79
Meyers, Harold.....		209
Miller, Richard.....	181,	183
Miller, Lyle D.....		185
Mills, Dr. R. H.....		25
Moffat, Earl E.....	13, 135, 136,	147
	149, 153,	159
Moore, Chas. F.....		174, 175
Nicolls, Oliver C.....	128,	151
Osterhout, Geo. E.....	92, 93,	161
Peck, Geo. D.....		122
Perry, T. D.....	179, 182, 184,	186
Peyton, Sidney B.....	96,	97
Pope, E. F.....		159
Preston, J. W.....		11
Purdy, James B.....		8
Reinecke, Ottomar.....	13, 104,	105
	126, 127,	149
Reinecke, Edward.....		70
Sanford, Colin Campbell....		26
Sharples, R. P.....	207, 208,	209
Shepardson, D. I... 54, 93, 94,		95
	96, 116, 117, 161, 162,	163
Simmons, Finlay.....		49

Stone, C. F.....	74	Cliff and Golden Eagle's nest.	5
Stierle, J. F.....	59, 109, 115	Cotton artificial egg nest....	41
Stoner, Emerson A.....	58	Cut showing collection box..	45
Strode, Dr. W. S...106, 107, 108,	110	Drawer of eggs showing ar-	
Shufeldt, R. W...84, 85, 86, 88,	89	rangement	49
145, 168, 169, 170,	175	Eggs of birds and reptiles...	89
Strong, W. A... 60, 113, 114, 116,	134	False nest of Northern Pileated	
135, 139, 140,	190	Woodpecker	73
Sutton, Geo. M.....	60, 100	Nesting cliff showing steep	
Tarrington, Paul.....	64	cliff, etc.....	4
Treganza, A. O... 44, 45, 47,	49	Nesting site of Golden Eagle.	2
Trefts, R. W.....196, 198, 199,	200	Shore bird skins.....	57
Tufts, Evelyn Smith.....	171	Tray arrangement of collec-	
Ulbert, Emil.....	93	tion of nest and eggs.....	55
U. S. Biological Dept.....	76	Type collection of birds' eggs	
Van Kammen, I. J.....156, 157,	158	arranged in trays.....	43
171, 172		White Oak snag near Waynes-	
Vos Burgh, Geo. W. H... 11, 26,	32	burg, Pa., showing excava-	
53, 92, 118, 119, 122,	190	tion of Pileated Wood-	
Vandercook, O. B.....	42, 44	pecker	73, 75, 160
Walker, Alex.....	177	Well marked sets of birds of	
Wharram, S. V.....	30, 181	prey	51
Willard, F. C..... 2, 3, 4,	5		
7, 9, 10,	53		
Williams, R. H.....	83		
Wilson, Ralph R... 30, 31, 42,	80		
81, 82, 106, 107,	129		

ILLUSTRATIONS.

Adult Birds.

Hawk, Broad-winged.....	115
Red-tailed	142
Owl, Great Horned.....	155
Pigeon, Passenger.....	126
Woodpecker—	
Northern Pileated.....	65

Young Birds.

Eagles, Golden.....	10
Gull, Herring.....	197
Owl, Great Horned.....143, 148, 150,	154
Woodpecker, Red-headed.....	138

Eggs and Nest of Birds.

Blackbird, Red-winged.....	182
Eagle, Bald... 17, 19, 21, 23,	126
Golden	7, 9
Gnatcatcher, Black-tailed....	168
Gull, Herring.....	196
Guira	87
Junco, Shufeldt's.....	171
Merganser, Red-breasted....193,	194
Plover	179
Rail, Wagner's Clapper.....	186
Shore birds.....	102
Warbler, Mourning.....	105
Willett	184
Woodpecker—	
Northern Pileated.....	67, 69

Miscellaneous

Bohemian, mounted and pho-	
tographed	59

Oscar E. Baynard in Bald	
Eagle's nest in Florida....	25
Dr. W. F. Blackmon, Presi-	
dent Florida Audubon So-	
ciety, with young Bald	
Eagles in his hands.....	27
Lieut. Francis B. Eastman,	
U. S. A., Forth Sam Hous-	
ton, San Antonio, Tex....	126

Portraits.

Oscar E. Baynard in Bald	
Eagle's nest in Florida....	25
Dr. W. F. Blackmon, Presi-	
dent Florida Audubon So-	
ciety, with young Bald	
Eagles in his hands.....	27
Lieut. Francis B. Eastman,	
U. S. A., Forth Sam Hous-	
ton, San Antonio, Tex....	126

INDEX—BIRDS.

Ahinga	125
Auk, Great.....	158
Bittern	209
American	203
Least	82, 125
Bob-o-link	34, 79, 82, 141
Bob-white	114, 175
Blackbird, Brewer's.....	177
Red-winged	74, 82, 98, 125
.....	134, 147, 175, 177
Bluebird	24, 79, 81, 141, 171
.....	175, 182, 122
Western	122
Bunting, Indigo.....	88, 203
Painted	76, 79, 82, 203
Buzzard, Turkey.....	207, 208
Cardinal	72, 79, 81, 88
.....	124, 171, 175, 181, 203
Texas	206
Catbird	72, 79, 98, 175, 203
Chat, Yellow-breasted...106, 107, 153	
.....	175, 203
Chaparral	31
Chickadee	72, 110, 117, 164, 171
.....	189
Black-capped	74
Carolina	137, 175, 203

Oregon	122	Gnatcatcher	177
Mexican	76	Blue-gray	72, 100, 152, 208
Chuck Will's Widow.....	173, 203	169, 175,	208
Coot	124, 125, 181, 183	Grackle	171
American	137	Boat-tailed	79
Condor	159	Great-tailed	125
California	161	Bronzed	72, 82, 108, 141
Cowbird	81, 84, 107, 137	Purple	209
146, 147, 194, 203,	205	Grosbeak, Cardinal.....	124
Crane	167	Blue	203
Sandhill	137	Pine	110
Creep, Brown.....	164	Grebe, Pied-billed.....	125, 137, 175
Crow	74, 81, 119, 172, 173	Grouse, Oregon Ruffed.....	152
203, 181	175	Ruffed	29, 114, 141, 164
American	141, 164, 171, 175	171, 177	152
Cuckoo	84, 125, 203	Sooty	152
Yellow-billed	72, 108, 165, 175	Guira	86, 87
Curlew	167	Gull, Black-backed Great....	70
Eskimo	112, 122	Bonaparte	181
Dickcissel	73, 82, 203	Franklin	181
Dove, Mourning.....	72, 81, 82, 124	Herring	118, 137, 141, 171
141, 163, 175, 181,	203	192, 196,	197
Ground	79, 181	Mackerel	110
Inca	206, 207	Ring-billed	181
Duck	64, 152	Hawk	31, 81, 112, 116, 144
Black	194	173, 205	203
Mallard	110, 177, 181, 194	Broad-winged	29, 30, 115, 203
Ruddy	125	Cooper's	22, 26, 29, 30
Wood	33, 78, 151, 167	129, 144, 163,	203
Eagle	1, 112, 151, 158	Duck	30, 178
161, 205	7	Ferrgu, Rough-leg.....	32
Golden	2, 3, 4, 5, 9, 10	Krider's	31, 81, 82
Bald	8, 11, 17, 18, 19	Marsh	26, 30, 97, 98
21, 23, 25, 27, 31,	133	163,	185
156, 157,	181	Northern	146
Egret, Snowy.....	181	Pigeon	30
Emu	86	Red-shouldered	22, 29, 30
Falcon	161	79, 80, 101, 203, 137, 163,	181
Finch, Purple.....	164, 209,	Red-tailed	6, 11, 22, 28
Rosy	157	30, 101, 142, 203, 144,	146
Flicker	64, 79, 141, 164,	203	146
Hybrid	161	Sharp-shinned	22, 29, 30
Northern	190	72, 164	163
Northwestern	122	Sparrow	26, 30, 79, 163
Red-shafted	90, 91, 161	175, 181,	203
Southern	181	Swainson's	12, 142
Flycatcher, Adler.....	99	Texas Night.....	124, 137, 141, 172
Crested	203, 209	175, 205,	206
Great Crested.....	72	Hen, Blue.....	30
Green Crested.....	203	Heron, Black-Crowned Night.....	26
Mexican Crested.....	125	125, 137	203
Scissor-tailed	33, 82, 124, 137	Great Blue..	104, 141, 175, 181,
153, 194,	203	Green	26, 125, 137,
Vermillion	205	Louisiana	181
Gallinule, Purple.....	185	Yellow Crowned Night....	203
Geese, Snow.....	116	Hummingbird	88, 93, 161, 170
Goldfinch	64, 137, 141, 164	Allen's	89, 95
171,	203	Anna	94
Goshawk	30	Broad-tailed	89
American	122	Black-chinned	82, 89, 93
		Calliope	89, 95
		Costa's	89, 94

Ruby-throated	89, 93,	141	Partridge, Sealed.....	205
Rufous		94	Petrel	171
Jaeger, Long-tailed.....	83,	201	Leach's	111,
Jay, Blue.....	79, 114, 141, 53,	164	Socorro	121, 122
Steller's	171, 175, 181,	203	Pewee, Wood.....	141, 175,
Florida		152	Pheasant	29, 74
Junco	14,	92	Phoebe	34, 79, 81,
Pink-sided	92,	93	141, 181,
Montana		93	Pigeon	125
Slate-colored	72, 74, 93,	141	Band-tailed	6, 167
.....	171, 175,	177	Passenger	112, 122,
Shufeldt's	92, 169,	170	129, 159,
White-winged		92	Sea	111
Killdeer	79, 81, 85, 125,	141	Plover, Golden.....	85
.....	171, 181,	203	Mountain	85
Kingbird	92, 98, 122, 141,	203	Semipalmated	181
Kinglet, Golden Crowned....	110,	164	Snowy	85
.....		171	Upland	167
Western Golden-crowned...		122	Wilson's	85, 79
Ruby Crowned.....		122	Puffin	111
Kingfisher	79, 84, 163, 171,	176	Quail	31, 91, 139,
Belted	141, 175,	181	Quillemot, Black.....	111
Kite, Mississippi.....		203	Rail, Carolina.....	209
Lark		74	King	149, 151
Horned		74, 164	Sora	209
Prairie Horned... 74, 141, 171,	203		Virginia	209
Meadow 79, 81, 82, 103,	104		Wayne's Clapper.....	186
.....	122, 136, 141, 164, 171,	203	Raven, Northern...196, 198, 199,	200
.....		181, 210	White-necked	172, 173,
Longspur, Lapland.....		74	Redpolls	149
Martin		84	Roadrunner	15, 31, 82,
Purple	141, 175,	203	137, 153,
Merganser, American.....	171,	195	Robin	79, 101, 131,
Red-breasted	193,	194	141, 171, 181,
Mockingbird	72, 79, 81, 82		American.....	203
.....	124, 175, 181,	203	Western	122
Nut-hatch, Brown-headed....	170,	171	Redstart	106,
Red-breasted	140, 171,	203	American	203
White bellied	140,	171	Sandpiper, Least.....	194
White breasted....	164, 171,	175	Bartramian	203
Osprey		181	Solitary	108
American	13, 30, 79,	139	Spotted	134, 137, 141,
Oriole, Orchard.....	72, 82,	203	181, 194
Hooded		205	Shrike	141, 205
Onzel, Water.....		161	Loggerheaded	79, 181
Ovenbird	104, 106,	205	Northern	164
Owl	112, 144, 145, 146, 147,	205	Shearwater	171, 172
Barred	44, 81, 86, 100,	104	Snipe, Wilson's.....	137, 152,
.....	137, 144, 146, 147,	149	Sapsucker, Red-breasted....	122
Barn	33, 100, 139, 176,	203	Yellow-bellied.....	164, 190
California Screech.....	90,	92	Siskin, Pine.....	164
Dusky Horned.....		152	Snowflake	24, 109, 164,
Great Horned.... 24, 32, 70,	104		Skua	13
.....	143, 144, 203, 146,	148	Sparrow	74, 124,
.....	150, 152, 154,	155	Black-throated	124
Screech	32, 81, 100, 104,	137	Bachman's	181
.....	139, 146, 170, 203, 171,	175	Cassin's	82
Snowy		122	Dusky Seaside.....	181
Texas Barred.....		100	English	134, 175,
Paroquet, Caroline.....		159	Field	34, 203
			Chipping	141, 175

Fox	164	Black and White	106, 107, 141
Lark	81, 82, 203	Black-throated	106
Pine Woods	79	Blue-winged	106
Grasshopper	73, 82, 88	Cerulean	104, 203
	90, 203	Chestnut-sided	91, 106, 107
Rusty Song	122	Golden Swamp	100
Shumegan Fox	157	Green	106
Song	72, 96, 134, 141	Hooded	104
	157, 171, 194	Kentucky	203
Swamp	185, 209	Magnolia	107
Tree	74, 164, 171	Mourning	104, 105, 209
White-throated	164	Myrtle	107, 141, 181
White-headed English	113	Nashville	177
Swallow, Chimney	135, 136, 141	Parula	203
Barn	122, 124, 203	Prothonotary	203
Bank	141	Yellow	141
Cliff	114, 139	Swainson's	203
Tree	79, 108, 114, 124, 141, 209	Waxwing	141
Swift, Vaux	162	Bohemian	59
Chimney	203	Cedar	164, 171
White-throated	161, 162	Widgeon, European	12, 137
Starling	164	Willet	167, 184
Tanager, Scarlet	141	Woodcock	167, 181
Summer	203	Whip-poor-will	29, 91, 141, 172, 203
Tern	132, 134	Woodpecker	14, 84
Arctic	110, 111, 132	Downy	92, 137, 141, 164, 170, 175, 203
Black	135, 141, 181, 183	Golden-fronted	125
Caspian	141	Hairy	29, 72, 171, 190, 203
Common	24, 110, 132, 141, 194	Northern Downy	190
Thrasher, Brown	72, 175, 203	Northern Pileated	64, 65, 69, 71
Curved Billed	205	Red-bellied	79, 137, 181, 203
Thrush	76	Red-headed	72, 138, 141, 164, 175, 178, 190, 20
Hermit	171	Wren, Cactus	124, 204
Water	209	Carolina	137, 203
Wood	175, 203	Canyon	161
Varied	122	Bewick's	203
Tit, Bush, California		Florida	79
Bush Coast	116, 117	Golden	151
Titmouse, Tufted	81, 82, 137	House	175
	164, 203	Long-billed	88
Teal, Blue-winged	176, 177	Western Winter	122
Green-winged	137, 176, 177	Winter	114, 164
	181, 183	Yellow-legs	125, 177
Towhee	79, 81, 141	Greater	137
Oregon	122	Yellow-throat	209
Red-eyed	117	Florida	181
Toucan	129	Maryland	106, 107, 203
Veery	141		
Verdin	124	Miscellaneous.	
Vireo, Bell's	72, 82, 203	Alligator	86
Cassin's	168, 169, 170	Bats	145
Red-eyed	203	Beetles	120, 121
White-eyed	72, 81, 141, 203	Butterflies	13
Vulture	174, 187, 188	Cats	83, 145, 146
Barred	81	Crocodiles	89
Black	153, 175, 178, 181	Deer	129
Turkey	24, 29, 74		
	79, 81, 137, 153, 159		
	170, 203, 175, 178, 181		
Warbler	55		

Faun	8	Rabbit	145
Foxes	157	Rats	144, 145, 146
Frogs	145	Squirrel, Red	29
Fish	156	Gray	125
Gophers	145	Ground	144, 146
Grasshopper	145, 178	Spiders	120, 121
Jack Rabbit	6	Snakes	84, 89, 108
Lizzards	84, 86, 89	Toads	129
Mice	144, 145	Turtles	84, 86
Mink	110	Wasps	129
Monkey	129	Wolf	8
Moles	144		

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THE EAGLE'S FLIGHT.

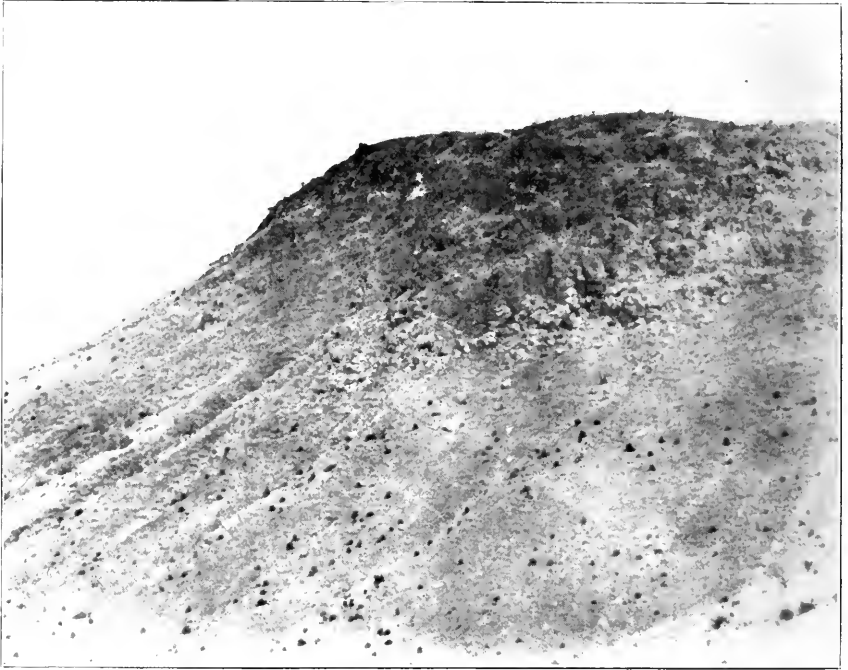
A grand, beautiful, wondrous sight,
Wide sweeping circles of the Eagle's
flight;
Strong, confident and boundless of
sight
King of the Air, by right and by
might.

Wider and wider, swing thee thy way,
When and where, Oh, none can thee
gainsay;
On pinions sought in the Indian's day,
To feather an arrow, to kill and to
slay..

With speed of the wind, sail through
the sky
Cleaving the air with thy scream and
thy cry;
Meeting the sun, an eye for an eye
A warrior bold, not afraid to die.

With spiral windings through a rift
in the cloud
Now gowned in pure ether, floating
silent and proud;
Guardian thy erie, while young cry
aloud;
A knight and a soldier whom law hath
not cowed.

R. M. B.



General View and Nesting Site of Golden Eagles, showing white-washed rock. Photo taken at a distance of one-half mile,
By F. C. Willard

THE GOLDEN EAGLE IN COCHISE COUNTY, ARIZONA.

by F. C. Willard, Tombstone, Ariz.

For some years after taking up my residence in Arizona I made an unsuccessful series of efforts to locate nests of the Golden Eagle (*aguila chrysaetos*). Previous to the year 1910, I had located but two. One was a deserted nest in Ramsay canon of the Huachuca Mountains, and the other was on an inaccessible cliff in Carr canon of the same mountains.

In March, 1910, I was first successful in locating an occupied nest and on the 6th of that month secured my first set of eggs, two in number. This nest was in a niche in an overhanging cliff in the Dragoon mountains and was an immense affair, six feet one way by eight the other. Dried 'cactus' leaves comprised most of it but there were some sticks in the base, the most of these were well rotted showing that the nest must have been a very old one. The eggs were sparingly spotted and unusually large. The bird sat very close and would not flush until almost hit with a rock. As I was working alone the overhang of the rocks made securing the eggs a matter of some difficulty. The cliff was about 200 feet high and the nest was 75 ft. down from the top. I studied this nest for some time from an opposite cliff trying to be sure that there was a bird on it. The dark blotch in the midst of the sticks might be a shadow or a log for all I could tell even with the aid of a pair of binoculars. As I gazed thru the the glasses steadily, trying to make out the form of a bird, I noticed the head begin to turn very, very slowly toward me until the bill pointed straight in my direction. After looking at me for a minute or two the head was turned back into its original position parallel with the face of the

cliff. I was the happy collector then and made short work of getting around the head of the canon and above the nest and then secured the eggs as above related.

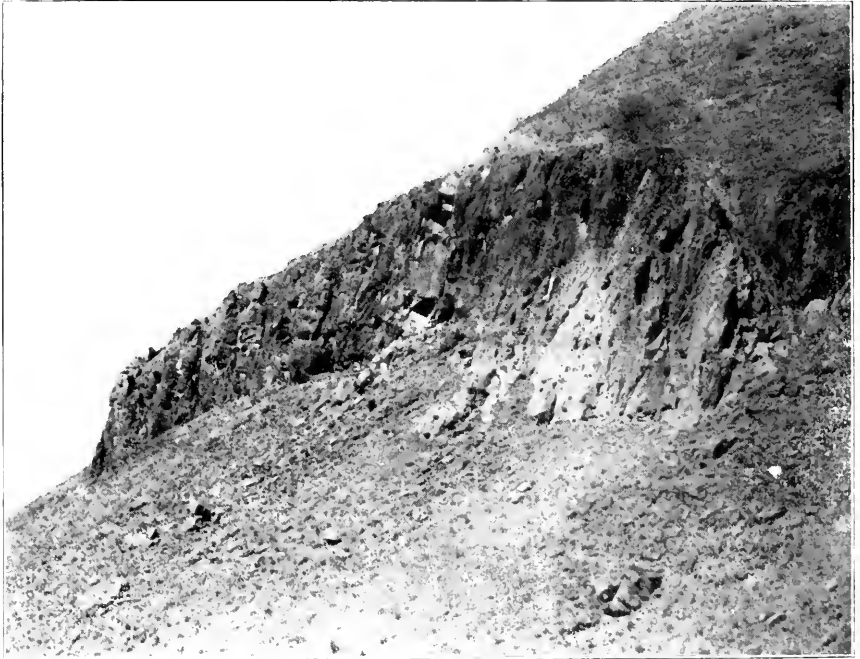
March 26th of the same year I secured another set close to the city of Tombstone. The nest was on a ridiculously low cliff and only 15 ft. down from the top. The eggs were easily secured. On account of the narrowness of the ledge the nest was small. Most of the sticks seemed to have fallen to the ground at the base of the cliff 35 ft. below. The eggs were fresh. The bird left the nest as soon as I appeared at the top of the cliff and returned but once during the time spent in trying to take some pictures and in taking the eggs.

The successes of this season seemed to break the ice and I have taken one or two sets each year since then. I had supposed that the eagle was a rare bird in this section as I seldom saw one but I have now located eight pairs within a radius of twenty miles from Tombstone. They seem to prefer rather barren mountains and nest on cliffs near the extreme top of the ridges. These cliffs are rarely over 150 ft. high but face very steep talus slopes which try wind and muscle greatly in making the ascent.

At nearly every nest there is one special rock that is used as a perch and its white-washed side can be seen for miles. One such rock in the Dragoons is visible from my window without the aid of a glass tho its airline distance is over ten miles.

As previously remarked, the eagle, when flushed, flies straight away and rarely returns while the collector is around. I have never had an old eagle make any threatening move toward me even when the nest contained small young.

On one occasion I was interested in



Typical Nesting cliff showing steep talus slope at its foot, and nest of Golden Eagle almost in exact center of the picture

—Photo by F. C. Willard



View of Cliff and Golden Eagle's Nest found March 6, 1910

—Photo by F. C. Willard

watching one collecting sticks for its nest. It would alight in the top of a half dead juniper tree, walk clumsily out on a dead branch and break off a stick with its beak. It carried this stick in its beak as far as I could see it, passing close by me enroute to its nest. I watched it make several trips, using a powerful glass to assure myself that it really carried the sticks in its beak and not in its talons. A short time there after I watched another eagle carrying dried "nigger-head" leaves in its talons. It was using them as lining. The ragged bunch of leaves hung down prominently and an occasional piece dropped off as the bird sailed toward its nest.

Each pair has two or more sites for a nest which are usually quite close together tho sometimes a mile or more apart. One of these sites is the favorite and is used year after year unless they are disturbed. Then it is deserted for a year or two and one of the other sites is used. One pair I know has five old nests scattered along a single cliff within a distance of half a mile. Sometimes the birds seem undecided which sites to use and fix up two of them at the same time. A few sticks are added and the lining renewed each year that the nest is used.

The weak voice of the Golden Eagle is a disappointment to one who expects to hear an eagle "scream." A Redtail Hawk does a much better screaming act. The only time that an eagle's note seems really fitting is when they are at play, gamboling in the air. I watched an immense big one doing some aeronautic stunts over the summit of the Huachuca mountains. Soaring to a height of some thousand feet, it closed its wings and dropped like a black bomb, head first, straight down. Within a short dis-

tance from the tree tops it half opened its wings and, turning a sharp curve upward, shot straight up as far as its momentum would carry it. It then turned a back summersault, caught itself with extended wings and soared away aloft to repeat the performance time after time. During all the time it was at play it gave frequent utterance to its call, the rather don't care tone fitting admirably with its antics.

Fast as the Bandtailed Pigeon (*Columba fasciata*) is, I have seen it flying its fastest to get away from a pursuing eagle. While seated near the summit of the Huachucas watching some warblers, a sudden rush and roar of wings startled me and close by, on a level with my eye shot a bandtailed pigeon. Its short, quick wing beats fairly made it sizzle as it dodged along close to the ground, under and among the towering pines. Almost within reach, followed a huge eagle, its motionless wings almost closed. In spite of its great size it followed accurately the track of the fleeing pigeon, its swiftly moving bulk as it rocked from side to side, making a roar like an express train. I am happy to say that a few seconds later a thick clump of fir trees enabled the pigeon to dodge its pursuer and it dashed down the mountain side into the safety of the deep canon below.

Most of the eagles' hunting takes place on the treeless plains at the foot of the mountains. Here a scanty growth of bushes offers little cover to its principal quarry, the Jack Rabbit. In company with some friends one day, I watched a pair of these eagles hunting jack rabbits. They swooped down and drove the rabbit to cover under a mesquite bush. Then one alighted close by and began to walk toward the rabbit. He was so frightened he dashed from his shelter only to be snatched up by the other



Typical Nest and Eggs of Golden Eagle in situ
—Photo by F. C. Willard

eagle which had been hovering close overhead.

The cattlemen say they attack young calves and injure them so badly that they die. They cannot carry the calf off and do not seem to feed on it after it dies. I have never seen such an attack made but Mr. William Lutley, an absolutely reliable man and accurate observer saw such an occurrence and witnessed the death of the calf. What damage it does in this way is very insignificant however. Young fauns suffer severely and many of them go to fill the stomachs of an eagle family. I saw two does and a faun race into the cover of a thicket of pine saplings and hide while the eagle, a minute late, sailed around overhead, waiting for them to come out. The faun in this case was some months old too.

Eggs from this region are more sparcely marked than those from California. I have taken several almost immaculate and one quite so. It is not uncommon to find one of the eggs unfertile. I have never taken or seen more than two in a nest.

In but one instance have I any record of a nest being built any place except on a cliff. This nest was on the flat west of the Huachuca Mountains and was placed about twenty feet up in a large oak (*quercus arizonica*). This was in June and the nest contained two fully fledged young almost able to fly.

NOTE—Of the foregoing halftones illustrating Mr. Willard's article those of the "Typical Nest and Eggs" and of a "Closer View of Nest and Eggs of Golden Eagle" and "General View of Nesting Site Showing White-washed Rock," all refer to the same nest.--Editor.

THE BALD EAGLE.

We have a splendidly illustrated ar-

ticle illustrating the breeding of the Bald Eagle in Florida by Oscar E. Bayard, which we had hoped to present with this issue of *The Oologist*; but owing to the wealth of illustrations accompanying the same we have not room for it, and expect now to use it in the February issue which is the issue we had hoped to devote to Hawks.—Editor.

PAUL G. HOWES.

It is a pleasure to announce that Mr. Paul G. Howes of the Maplewood Biological Laboratory, Stamford, Connecticut, and one of the staunchest friends the *Oologist* ever had, has recently been appointed Research Assistant of the New York Zoological Society's new station in British Guiana and sails for South America January 18th in company with C. William Beebe and G. I. Hartley. This expedition is not simply a collecting trip, but will take up every important question concerning the bird, animal and insect life of the region which will be studied in the minutest detail.

We long ago predicted that in due time our friend Howes would be found in the head ranks of American Scientists and a reference to a file of the *Oologist* will bear this out. We congratulate him upon his new assignment and hazard this further prediction with, it is merely one more step in what is destined to be a brilliant scientists career.

JAMES B. PURDY.

Of Plymouth, Michigan, one of the oldest subscribers to *The Oologist*, renews for two years, and a sentence in his letter accompanying the subscription touches a soft place in the heart of the editor. It is,

"I am growing old, and may not live to see my subscription expire; but in that event some of my family will



Closer view of Nest and Eggs of Golden Eagle
—Photo by F. C. Willard



Young Golden Eagle Almost Ready to Fly

—Photo by F. C. Willard

get *The Oologist* and I hope they will enjoy it as much as I do, and renew the subscription."

Mr. Purdy is a veteran of the war of the Rebellion, having enlisted with Company F of the 24th Michigan Infantry, and was one of the Guard of Honor at Lincoln's funeral when his remains were placed in their final resting place in the vault at Springfield, Illinois. Through all his years as a civilian and a soldier, this patriarch has never lost his interest in the birds nor his friendship for our little publication.

Eagle's Nest at Short Range.

I am thinking to night of days long gone, mellowed by passing years.

Those were glad times when boyish enthusiasm led for a field where Song of Wood-thrush and Oven-bird blended with rippling brook and leafy shade.

The sky was bluer and the bird-song clearer than now; yet some way memory clothes those halcyon days in gold. We associate eagles with forest and flood and Mountain crag, and their nesting with inaccessible rock; with lofty trees remote from path of man; surroundings befitting so fierce a creature.

But the following examples will show how varied are the habits of this great bird. It was in 1873 I met with the first of these; a genuine Bald Eagle's nest placed twelve feet from the ground at the branching of a gnarled, under-grown post-oak tree which stood in a brushy, hilly thicket a half mile from my father's house and not more than six rods from a public road. The nest also was of the modest form; a small platform of twigs on which was placed a large cup-shaped nest smooth and deep, of soft grass, shredded corn-husks and corn silk, a unique structure, compact and thick-

walled; an ample home for the two eaglets which occupied it until they were big birds and deserted the humble place for the high branches of a tall, dead red oak tree which stood on a great ridge where daily they could be seen. At the approach of an intruder they would fly screaming away, only to return after a time to their wanted perch.

Only on the occurrence of a great ring hunt which frightened most of the "prairie chicken" and other game from the region and netted one wolf, did the Eagles take their departure for other parts.

Another of these unusual nests I found during the spring of 1882 in a small elm tree in a wood where I frequently hunted for nests of the red-tailed hawk—of which splendid eggs I still retain a series, of these eggs Judge John N. Clark once said "they are the best of the kind I have ever seen."

This nest was similar in every way to the first, but of its history I know little. Since then I have sought these great birds in their wildest haunts and been chased by them, and thrilled by the shrill scream, but never have I been more interested than by boyish studies of these two lowly-born young Eagles.

J. W. Preston.

Bald Eagle.

One day while sitting on the porch of a flat in Waterbury, Connecticut, I noticed some men across the street staring up into the sky and using a glass also. I crossed over to find what it meant, and looking up I beheld something grand to me, something I had wished to see, but had never had the opportunity. Away up in the blue ether, were a pair of magnificent Eagles, which the man with the glass said were Bald Eagles; around and

around they sailed, always going higher and higher every move, gracefulness itself, higher and higher, until they were mere specks, and still higher and higher till lost to sight completely. I stood a long time and looked where I had last seen them even after they had disappeared from my sight, and then I wished I could see them longer though my neck ached like the toothache.

Geo. W. H. vos Burgh.

A Golden Eagle's Nest in Decatur County, Kansas.

The following notes will show how very near I came to taking a much desired set of Golden Eagle. The nest was seventy feet up in a very large Cottonwood at the head of a rather remote draw. Mr. N. S. Goss sites the nesting of the pair of Golden Eagles in Comanche County in his, "Birds of Kansas," pp. 273.

May 10, 1906, climbed to a Golden Eagle's nest in a high cottonwood tree; nest built in forks of large horizontal limb, a very large structure, strong enough to hold me as I lay across it and showed signs of recent occupation.

March 2nd, 1907, visited my Eagle's nest today. It has been rebuilt, one of the parent birds near the nest, but no eggs.

March 15th, 1907, returned to the Eagle's nest; no eggs. A fellow killed one of the Eagles; am much disappointed, would surely have taken a set if the birds had been let alone.

March 10th, 1908, visited the Eagle's nest today; no eggs. No Eagles were in sight and the nest has not been rebuilt.

March 8th, 1909, visited Eagle's nest; no eggs. Nest looks as if it had been rebuilt but no birds in sight.

March 30th, 1910, visited Eagle's nest; no eggs. Nest in poor condition

owing to hard wind storms during the past winter.

February 28th, 1911, visited Eagle's nest; no eggs; no birds; nest in same condition as last year.

March 4th, 1912, visited Eagle's nest; no eggs; nest almost in same condition as last year.

April 13th, 1913, again visited the Eagle's nest; no eggs; no birds. A Swainson's Hawk has taken up her abode in the tree. Her nest is in the very top of the tree above the Eagle's nest.

March 14th, 1914. The Eagle's nest is still a large nest but shows a neglect. Swainson's Hawk still at home.

April 8th, 1915. Visited the Eagle's nest; had blown out during the winter, hopes of a set of Golden Eagle's eggs from this nest have now vanished.

Guy Love.

EUROPEAN WIDGEON.

(*Mareca penelope*)

H. H. Bailey of Newport News, Virginia, furnishes us the following unpublished records relating to the European Widgeon in Virginia.

December 4, 1911, Mrs. William Dexter and her son Phillip, shooting from the same blind on the property of the False Cape Club, Princess Anne County, Virginia, killed two European Widgeons (*Mareca penelope*). Mrs. Dexter states this record from the club score book and has not been heretofore published. They were both believed to be male birds and neither were preserved.

On December 28, 1915, Mr. L. D. Grinstead killed in the tributary of Bach Bay, Virginia, a male European Widgeon (*Mareca penelope*). It was the only duck killed that day and was sold to a store keeper where I happened to see it and purchased it. New Year's day was a fitting day to

skin it and I presented it to my father for his collection.

H. H. Bailey.
Newport News. Va.

American Osprey at Ft. Worth, Texas.

As I was making a trip in R. Graham's sailboat, "Sea Gull" on Lake Worth, nine miles north east of Fort Worth, Texas, I observed the American Osprey in the act of catching fish. This country is in their breeding range, but is rarely ever seen around Fort Worth.

Earl E. Moffat.

A GIFT FROM NATURE.

Here is a gift from Nature. A gift that is perfect in its simplicity, beautiful in its meanest existence and harmless in its beauty.

Nature has given to us beauty in abundance, the trees, birds, flowers, butterflies and all living things. Each living thing a volume of beauty and harmony.

The humblest little worm in its crawling existence has grace and beauty, and will after the transformation delight the eye in its wonderful blending of colors. A thing now of gentle harmony and beauty, as it smiles in the bright sunlight and magestically sips the nectar of the flowers. And well it is said that as they sail and glide along among the grasses and flowers, they are telling the little worms of a life to come, but not of a life through Death but of a life through living. And a glad message it is because it is unconditional, except in one part, "Violate not the laws of Nature." Happy are they and well may they be so, because they are unencumbered by superfluous laws. They have no moral laws because Nature knows no immorality. They have no debts except one, and that is that they live the life established by pre-

cedence and then complete Nature's cycle by the reproduction of their kind.

Cecil Brown,
Pipestone, Minn.

The foregoing accompanied one of the most beautifully prepared and perfect glass encased specimens of the common Yellow Butterfly we have ever seen, and the sentiment accompanying it is so charming, we publish it here.—Ed.

FRANK M. CHAPMAN.

Last Friday, December 10th, Mr. Frank M. Chapman, the well known Ornithologist from the New York Museum was to lecture before the Buffalo Society of Natural Science "From Lake Lerel to Snow Line in Mexico," with moving pictures. The previous day we received a telegram from his wife in Florida that he was seriously ill, had to undergo an operation and was confined in a dark room, and his engagement had to be cancelled. We all, that know Mr. Chapman, hope that he may recover from this ordeal.

His place was taken by Dr. Cummings, an efficient member of our Society. His topic was "Six months in New Zealand," illustrated.

Ottomar Reinecke.

Rarities.

On the 3rd of December two of my friends from Niagara Falls came to Buffalo in their auto and brought me a fine adult specimen of a Skna or Sea Hawk which had been sicked up in the gorge of the falls. There is only one record of one being shot in 1886 by the late Charles Linden, Buffalo's naturalist.

It is blackish brown, the feathers more or less tipped with chestnut spots; shafts of the wing and tail feathers, excepting toward the tip; more or less streaked with white and

chestnut around the neck; under parts lighter; bill and feet blackish iris brown.

It is very interesting to me, because I have two sets of their eggs in my collection from the Orkney Islands in Scotland.

Ottomar Reinecke.

AN ORNITHOLOGICAL WONDER.

Gentle reader, we are going to take you into our confidence but you must promise not to breathe a word to anyone of what we are about to tell you.

He was seated upon a log in the woods and watching a wood pecker. Noting this apparent interest in the Class Aves we proceeded to get acquainted. The reward was some facts relative to birds such stupendous magnitude that it made us dizzy. His cranial end was a mine of ornithological knowledge. He described some common birds we never dreamed existed and took apparent pleasure in over aweing one more modest in store of learning. He was positively shocked when we admitted that after some years of careful research we had seen no bats' eggs and considered them rare in collections. He had seen lots of them. The nests were made of sticks glued together and to the inside of a tree or chimney and the eggs were white without "any freckles on 'um." A very mild intimation that a difference existed between a bat and a swift met with a storm of indignation and we never again questioned his statements. There was some consolation, however, in the discovery that he was a trifle deficient in a few minor details—for instance, he did not know whether the candal vertebra was situated in the liver or organs of respiration and was a little uncertain whether the intestinal canal was located in Michigan or California. Great as was his brilliancy it posed as

an infant beside his egregious conceit but we found a conceit of such abnormal proportions more amusing than oppressive and as he felt that we looked up to him with a sort of reverential awe a mutual liking took root that lasted into the following nesting season. So it came to pass that he condescended to honor us with his presence on our early hawking trips. He did no climbing but what he did not know about that art was unworthy of mention. Somehow we never executed an ascension that met with his full approval and from the start a volume of advise followed us to the first limb and from that point back to terra firma. Difficulties were often encountered and at such moments he would recollect how some far more expert climber fell not half the distance and knocked his spirit into the great unknown. So while we worked and perspired, our friend sat in the cool shade and passed judgment with a bearing of ineffable wisdom and an expression that said plain as words,— "Someday I will become so disgusted that I will be obliged to take the irons and give you a few lessons."

The season of high climbs was drawing to a close and we were putting the finishing touches to a particularly difficult one when the irons tore loose and down we came. Instead of sympathy the self appointed advisory board almost wept with indignation that we would not retain his advice in our empty head piece and despaired of ever learning us anything. If the reader thinks there is much joy in dropping fifteen feet and fondling a pair of skinned shins let him try it, anyhow, we were not overwhelmed with joyous emotion; besides, this unvarying, never ceasing, monotonous outpour of unsolicited criticism had commenced to undermine our nervous system and this lit-

tle drop brought things to a climax. We so far forgot our dignity as to say unkind things—sort of handled the English language in comprehensive terms emphasized as “rubbing it in.” We even doubted his ability to perform what he preached and put things so strong and forcible that he had either to give an exhibition of artistic climbing or acknowledge disgrace. When we started in he looked intensely surprised, then pained and finally his features took on an expression of supreme contempt. We were so delighted when he commenced to slowly strap on the irons that we tendered our services which were coldly rejected. He glanced about with critical eye and selected a sycamore—one of those big fellows about 15 feet around the base with the first limb up near the cloudland and smooth backed as a poker chip. Injustice is not a part of our composition and we suggested a near by elm. He considered a moment and decided to follow our advice. Stroke by stroke he ascended. Six feet above the ground was a large knot but he mastered this with credible skill and higher and higher he went. He went away up to almost 12 feet above the ground, then paused and looked down. Kind reader, did you ever look at an object through a field glass and then view it through the other end? He was now getting the other end view of height. We had read somewhere that the cold increases with the distance from the earth and believed it because we had seen snow on mountain tops in summer time but with the temperature at 85 degrees we were surprised at the intensity of cold only twelve feet up. He commenced to shake and shook so hard that owing to the immense size of the stately monarch he bestrode it also shook to the topmost branches fully 30 feet above his head.

His pedestals wobbled like a man supporting a small brewery and as he gazed a combination of pathetic yearning and foreseen disaster beamed from his eagle eye. The cold benumbed his fingers so that he could no longer hang to the bark and he gathered the tree in a tender embrace and followed suite with his legs and began to slide. All went well until the knot was reached. Here he got tangled up somehow but solved the difficulty by finishing the descent without any aid from the tree and wrong end up. An ordinary skull might have received injury but not so his opaque dome. He sat up and rubbed it and gazed about at the dent it had made in the ground and ineffable gratitude was depicted upon his countenance. We approached and suggested sycamores and with a look more eloquent than words he arose and started for home and has ever since regarded us as the perpetrator of some heinous crime.

Moral—It is better to know too little than too much.

J. Claire Wood.

A Correction on the Road Runner.

In the description of a Road Runner, page 182, November, 1915, number of *The Oologist*, where I said their feet were like Kingfishers. This is a mistake. I meant to say their feet were like most Woodpeckers.

R. Graham.

The March Issue, which we promised to devote largely to the preparation and arrangement of ornithological and oological specimens “provided we could secure sufficient copy” is still in the making; but we are distressed at the slowness of response to calls for copy on these subjects. If it is not up to standard, it will be because of this failure, and not because of any intent on our part.

WANTED.—Bulletin of the Cooper Ornithological Club, Vol. I, odd numbers. W. LEE CHAMBERS, Eagle Rock, Los Angeles County, Calif.

FOR SALE.—Out of print Ornithological books by Bendire, Cones, Ridgway, Goss, Baird and Dawson. All bird magazines. W. J. ERICKSON, 208 West 40th St., Savannah, Ga.

FOR EXCHANGE.—Back volumes of the Auk in original cover; also American and foreign bird skins for A. I. skins of Western and foreign birds. HENRY K. COALE, Highland Park, Ill.

WANTED.—Books, Magazines and Pamphlets about Birds and Natural History Subjects. In all cases state what you have and the lowest cash prices. No other prices considered. Address FRANK BENDER, 128 Fourth Ave., New York City. (3-14)

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals (mostly Ornithological) to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. (2-p)

WANTED.—For cash, Osprey Vol. I Nos. 2 and 4; Vol. III Nos. 8-9-10-11-12. Also need many numbers of Bird Lore, Oologist, etc. Send list of duplicates and receive mine. R. W. GLENN, Room 107 Penna. Sta., Pitts burgh, Pa. (1-p)

FOR EXCHANGE.—For cash, to best offer; Newman's British Moths and Newman's British Butterflies. Condition good. Inquiries answered. CHRIS FIRTH, Durham, Ont., Canada. (1-p)

WANTED.—Back numbers of Condor, Bird Lore and others. Exchange in other numbers a reasonable cash price. E. A. DOOLITTLE, Box 444, Painesville, O.

FOR SALE BIRD LORE.—Lot A, Vols. I to XII inclusive without volume indexes; Lot B, Vol. II No. 1 to Vol. XII No. 2, inclusive without volume indexes and Vol. II No. 2 missing. Will not break lots. State best cash offer. THOMAS L. MCCONNELL, 1813 Huey St., McKeesport, Pa.

FOR SALE.—Fishers Hawks and Owls; Birds of America, Audubon, Vol. 2 (tw) plates and binding injured) Vol. 4 good; Geological Survey West of 100 Mer., 8 Vols.; Geol. Zoology, Botany, Archaeology, etc. complete sets; cash. GEO. W. H. VOS BURGH, Columbus, Wis.

WANTED.—For exchange or cash. Plates from Studers Birds of N. A. Nos. 28, 60, 61, 68, 80, 81, 86, 87, 88, 107, 109 to 119. C. M. CASE, 7 Holcomb St., Hartford, Conn.

FOR EXCHANGE.—Tobacco tags and coupons for eggs in sets or Bird Lore Vol. 7 No. 1, Vol. 10 No. 4, also sets of 339 and 360 for exchange. C. M. CASE, 7 Holcomb St., Hartford, Conn.

WANTED.—In good condition: Nidologist Vol. I, No. 6; Osprey of Washington, Vol. IV No. 3 and index; Vol. I New Series 1902 No. 4-5-7; Bird Lore Vol. I No. 2-3-4-6 and index; Vol. II No. 1-2-5; Vol. III No. 1-2-3-6; Vol. IX No. 6 and index. How many back numbers Oologist, Osprey, Bird Lore, Museum and some others to exchange for any of above! Will pay a reasonable cash price, and will sell any of my duplicates, cheap. JOHN WILLIAMS, Iowa City, Ia., R. No. 9.

BIRD BOOKS bought and sold by John D. Sherman, Jr., 403 Seneca Ave., Mount Vernon, N. Y. Important, New Catalogue ready February 1st. Sent to all interested.

WANTED.—Ornithologist and Oologist Vol. 1, No. 2 and 4, Bulletin Cooper Club, Vol. 1, No. 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

Books bought, sold and exchanged. Highest cash prices for books and magazines about Birds and all other Natural History Subjects. Send list of what you have and state your lowest price. Correspondence on all matters relating to old books solicited. THE NEW YORK BOOK MART, 30 Lexington Ave., New York, N. Y.

WANTED.—For cash or exchange.—Bird Lore, Vol. 1 No. 2-3-4-5-6; Vol. 2 No. 1-2-3-4-5; Vol. 3 No. 1-2-3-4-5; Vol. 4, No. 1-2; Vol. 5, No. 1; Vol. 7, No. 1-5; Vol. 9 No. 3-5-6; Vol. 10 No. 1-3-4-5-6; Vol. 11, No. 5-6; Vol. 12 No. 4-6; Vol. 13 No. 1-2-3-4-5; 14 1-2-3-4-5; Vol. 15 No. 4-6; vol. 16 1-2. I also will purchase Vols. 1-2-3-10-13-14-15 complete if seller prefers. Also The Auk, Vol. 1 to 13 and 31 and 32. The Condor, Vol. 1 to 7. The Osprey, Vol. 1-2-3. Blue Bird, Vol. 6. American Ornithology, Vols. 4-5-6. Ridgway's Birds of North and Middle America, Vol. 1-2-3-4. W. H. BROOMHALL, Stockport, Ohio.

MISCELLANEOUS.

FOR SALE AND EXCHANGE.—Live Snakes, Lizards, Baby Turtles, also general line of Florida insects. NAT. P. FRY, Eureka, Marion County, Florida. (1-p)

For Collectors, a fine collection of specimens, all large and very fine, one Chistolite Tourquoix Matrix, Toursonite Tourmaline, Californite, Kuzite, Semi Opal, Amazon Stone, Opal Wulfenite. Opals are very fine, will sell for \$5.00 cash with order. E. W. KELLY, Box 186, Seneca, Ill. (1-p)

Make me offers on fine Sea Lion skins for mounting. Also Sloth Bear from India. WIRZ, TAXIDERMIST, 1422 Gwinnett, St., Augusta, Ga.

FOR SALE.—5 x 7 photographs of the nests and eggs of 26 species of birds of this locality. Mr. I. E. Hess says they are as good as he has seen. Send 40c in stamps for one. E. PERRY, 610 Baylor St., Austin, Texas.

WANTED.—A good Stereopticon Lantern for which I will give good exchange in sets of bird magazines, books and mounted birds. Anyone having such please communicate with ARTHUR W. BROCKWAY, Hadlyme, Conn.

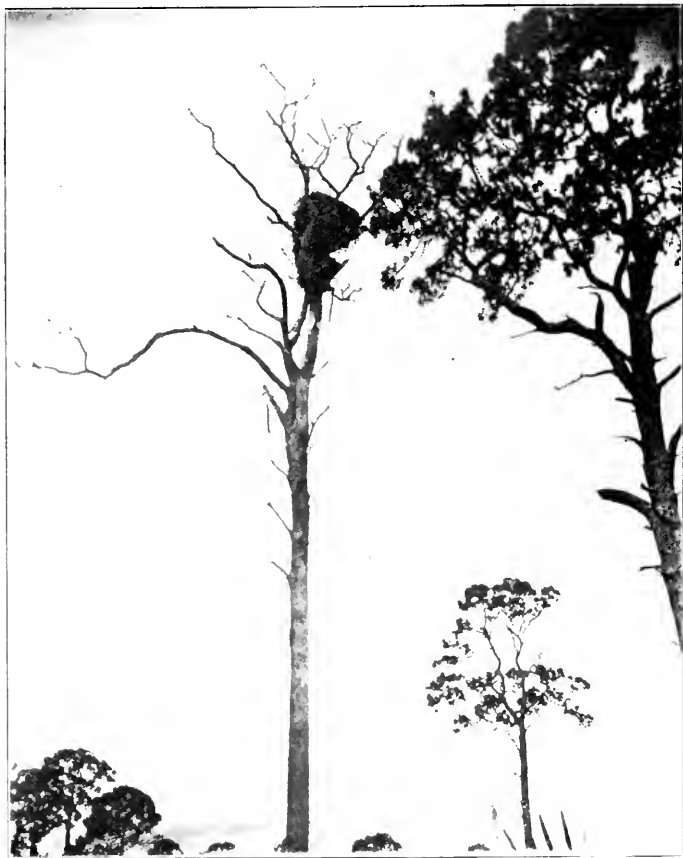
WANTED.—A good Graflex Camera, either 4 x 5 or 5 x 7. Will give good exchange in sets, mounted birds, back volumes to Auk, Oologist, Condor and books on birds. ARTHUR W. BROCKWAY, Hadlyme, Conn.

COLLECTORS ATTENTION.—A couple interested in Natural History who desire to spend the winter in the South, can act as care takers on farm in Virginia. Six room house, fire wood, and milk given, and a chance to collect. No pay. If interested address HAROLD H. BAILEY, 319 5th St., Newport News, Va.

THE OÖLOGIST.

VOL. XXXIII. NO. 2. ALBION, N. Y. FEBY. 15, 1916. WHOLE NO. 343

Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.



The largest Bald Eagle's nest ever known in Florida, measuring 18 feet from top to bottom and having been used over 40 years.

—Photo by Oscar E. Baynard

The Bald Eagle in Florida.

Of all the birds that it has been my good fortune to study here in Florida during the past eleven years, none have been so baffling and unsatisfactory from the point of view of the Oologist as the Bald Eagle.

Each year I promise myself that I will waste no more time chasing around after this bird, but every winter about November first I begin to look over my climbing apparatus and wonder if this year won't be a better one for me, and usually decide that it will so by December 1st I am chasing around every spare moment looking up all the old sites and hunting for new ones so that by the last of January I have generally climbed into no less than 20 to 30 Eagle nests with the results that I usually have a very few sets (if I am real lucky) and a bunch of photographs that are generally unsatisfactory to me and an ingrown conviction that I will never waste another season on this noble bird of prey. Bald Eagles are what my late lamented friend Billy Crispin said once, "a darned unsatisfactory bird for the Oologist."

However, one cannot spend as much time as I have in the past eleven years with any respect and rever it. I will record some of these facts for future ornithologists who might wish to study this bird, provided however, they don't put it off too long in the future, because I am very much afraid that Bald Eagles will soon be classed with Paroquets and Sand Hill Cranes.

Baldy usually nests here in Florida from early in December, (rarely before) with the ones in the interior and Northern parts of the State, until February 15th with the ones of the Coast and the Keys in the Southern part. My idea of this great difference in time is account of the food supply, is the Eagles of the interior feed more gen-

erally on Ducks and Rabbits, while his brother on the coast is more of a fish eater and not being so good a fisherman as the Osprey waits until this bird begins to nest so as to have a sure supply of fish for its young, as I have noted that the Eagles of the interior do not as a rule harry the Osprey nearly as much as the ones of the Coast.

Eagles are becoming more scarce in all parts of the state, due partly to the settling up of the country, but mainly due to the fact that every man's hand is against this grand bird. Alas, the Eagle is fond of young "Razor Back Pig" and as the natives have been known also to like this dish, the Eagle naturally has to suffer. I have known of several instances where the farmer has waited until the nest contained young, cut the tree and destroy the young and at that time shoot the parents who are so solicitous for the young that they lose their usual caution. Then again Eagles do not always lay every year, and as they usually lay one and two eggs, very rarely three, they naturally cannot increase very fast. Contrary to the conclusions of most ornithologists I find that the Bald Eagle will many times lay the second set if the first one is collected and I know for a fact that this will happen with over 50 per cent. of the pairs. Only on one occasion did I ever find four young in a nest but a careful study of this pair showed that they had been unable to raise any young for three years and undoubtedly Nature helped them in this instance to sort of even up. For three years this pair had been broken up by our timberman cutting the tree in which their nest was located, each time this pair moved back in the timber about a mile and built and laid the next year and was cut each time until they moved beyond our timber operations.



Oscar E. Baynard climbing to nest of Bald Eagle in Florida, December 26, 1910
Nest 125 ft, from the ground

E. J. Court of Washington, wrote me about a nest of four he had observed and my late lamented friend Darlington almost made me envious when he showed me his set of four the last time I was home. Sets of four are so rare that very few collections will ever have one, and a set of three will be just about as great a rarity and my personal opinion is that many of the sets of three are not authentic sets by any means.

On eight different occasions I have found that an adult female will mate up with an immature male, but never have I seen an immature female mated up with an adult male. In each of these eight cases there was one infertile egg, and I never in all my experience found an infertile egg in a set from a pair of adult birds.

The female is much the braver bird about the nest and will take more chances than the male every time. Never, though, have I been attacked by an Eagle, although I have climbed into a few, or at least it might be considered a "few" by some folks, my notes show 259 Eagle nests in the past eleven years that I have been in.

The nearest to being attacked was the time I spent the entire night in a nest with a young pair. See Bluebird, December, 1914.

Except on the keys along the Coast, our Eagles here always use a live pine tree, deserting it usually when the tree dies. On the keys I have found them as low down as ten feet in the mangroves while in the interior they go as high as 140 feet. The preference for pine trees is shown very plainly on an island in the Gulf that is about 8 miles long and contains one little runty scrub of a pine about 18 feet high, this bush has an Eagle's nest in it and is yearly looted by boys, while on this same island there are thousands of better locations in the man-

grove thickets that it would be almost impossible for any one to locate.

I have had many thrilling experiences in climbing into these 259 Eagle nests, but a recital of these would make a story in itself, however, from the ornithologist's point of view I have gleaned the following facts, which when I compare them with the experiences of Billy Crispin the last time we were together, fitted in with his observations to a nicety.

If the pair of eagles are sitting around when you arrive at the nest tree, they have either not laid yet or there is young in the nest, previous observations on this nest as to time of eggs will be a help here to one.

If one bird stays on the nest until the tree is rapped upon there will be a set of eggs, unless it is very cold or about daylight or sundown, when if they have really young they will stay on and hover them.

If the eagle is standing up in the nest when first seen, she has either one egg or is about to lay, so if you want a full set from this nest refrain from climbing up for several days because if you climb up and find one egg and leave it for a full set you will get left sure, as they invariably break the egg and you will find the shell on your next visit. I find one exception to this, however, in one nest in which I left an egg when I went back I found the egg gone, no shell anywhere or any sign on the lining of the nest where it had been broken, and to deepen the mystery the pair never were seen about this nest again that year. I always thought they moved it to another nest somewhere.

As near as I can judge it takes five weeks for an eagle egg to hatch, and the young are born with their eyes open and up to a month old show no fear of man but will eat readily of any food that you give them that is usually in abundance on the nest. The young are covered with greyish down and show no sign of feathers until three weeks old when their wings begin to sprout a few. While I am unable to state exactly, it takes about 12 weeks from the time of hatching until the young can fly, and at that age are usually much larger than the parents.

Oscar E. Baynard.

December 26, 1915.



Bald Eagle's nest and eggs in situ, nest in pine 125 feet up
—Photo by Oscar E. Baynard

The Red-shouldered Hawk of Cayuga County, N. Y.

In this locality of Cayuga County, New York, especially around the City of Auburn, the Red-shouldered Hawk is the predominating "Buteo". There are no woodlands as a rule large, or wild enough for the Redtail, Sharpshinned, or Broadwinged to breed in, although the latter are common migrants. However, there are exceptions to all rules. In the Southern part of our country we have a number of heavily wooded hillsides, and here the Redtail is found breeding to some extent; also I have found the wild little Sharpshinned Hawk breeding in this locality, although very rare. I have known of no instances of the Broadwinged breeding. The Cooper's Hawk is a fairly common breeder with us and one can usually collect several sets of this species in the month of May.

However, coming back to my topic, the Red Shouldered Hawk, I would say that this bird is generally found breeding very commonly in any sizable woods, whether swampy or of a highland nature. In the swamps the bird invariably picks out the maple as a nesting place, sometimes other trees are used but very seldom. On the highland woods the beech is the favorite tree, and I think that the latter is the common site for the Red Shouldered Hawk. Out of sixty-nine habited nests examined, thirty-eight were in beech trees, seventeen in maple, basswood, and elm and contained three each, birch and sycamore, two each and evergreen, ash, iron wood and chestnut, one each.

Occasionally this bird stays over winter with us. A case of this kind is seldom, and occurs no more than in the case of a Robin staying over, like the latter the Hawks confine themselves generally to the densest

swamps. In the case of an early spring, and an unusually mild winter, in the latter part of February a few Hawks appear from the South. This is an extreme case. Usually the Red Shouldered Hawk begins to appear from its winter home from the middle of March on to April when all of its kind should be with us.

From now on to about April 12th is the nest building time. The earliest date for a set of eggs in this locality to my knowledge is April 8th and I have taken eggs not far advanced in incubation as late as May 17th. These are extreme cases. The time for collecting full sets of eggs of this species, is between the 20th and 25th of April. After breeding and living with us during the spring, summer and part of the fall months, the Hawks migrate to their winter homes around October 15th.

As to the number of eggs layed by the Red Shoulder, I would say that I think three is the average number in a set. Out of sixty-nine nests examined, thirty-seven contained three eggs, nineteen contained four, thirteen contained two. I have never taken a set of five eggs, but I know of two sets of that number taken in this county in one season.

The nest of the Red Shouldered Hawk is very easy to locate for a person knowing the country in which they breed and to a person that has in the past studied the birds to some extent. Instances are known in this country that this species has used the same nest for a period between twenty and thirty years. This is not saying that the same pair of birds used the nest, but the same pair of birds will invariably come back to their home nest if the latter is not destroyed or the female bird killed. In taking sets of eggs from year to year thus forming a series, a person can tell by the type



Bald Eagle's nest 125 feet from the ground in which Oscar E. Baynard spent an entire night Christmas Eve, 1910. (For publishing account see "Bluebird" for December, 1910)

—Photo by Oscar E. Baynard

of egg when a new female bird has taken the nest for her home. This is shown by the distinct difference in shape or color of the new eggs.

Seventy-five feet is the greatest height I have ever found a nest above the ground and twenty-feet is the least. The average height for sixty-nine nests is forty-one and one half feet.

The nest of this Hawk is composed of sticks of all sizes and barks. Some nests that are repaired from year to year get to be very large, and consequently the bottom of some nests are a mass of decaying wood.

The most common lining used is hemlock and grapevine, although feathers, corn husks, moss, cow and pig's hair, leaves, fine twigs, and dried ferns are commonly used. I have found nests lined with paper, milkweed, fine vines, an old Oriole's nest and a piece of a grain sack, but the latter are exceptional cases.

I am in such a position this year that it eliminates me from visiting the haunts of my old friends but the fever is upon me just the same, so I thought I would do the next best thing and write a few notes on the Red Shouldered Hawk.

Carl F. Wright.

An Albino Turkey Vulture.

J. B. Ellis of Florida, writes under date of December 12th, "I have just killed and prepared skin for mounting of an Albino Turkey Vulture. A few feathers are black, some of the wing and tail feathers are white on one side of the quill and black on the other side, but nearly all the feathers are chalk white. I would like to know if any others are in existence, and if so, how many."

We are sure that this is indeed a rare find and have never heard of another Albino of this species.—Ed.

An Old One.

Recently in the purchase of a collection of eggs of the late Henry W. Beers, we received a set of eggs accompanied by data on the blank of the late J. B. Canfield, filled out in Mr. Canfield's handwriting, for a set of two eggs of the Great Horned Owl, taken by Dr. W. S. Strode in Fulton County, Illinois, February 8, 1888.

Not having the original data for this set, we wrote the Doctor regarding it, and he kindly forwarded us an original data for this set of eggs in his own handwriting, and has the following to say, which we publish without his knowledge or consent. It reads:

"It has been a long while since I collected that set of eggs, but I recall the occurrence very well, as it was one of the hardest climbs I ever made. And when I got safely down with the eggs, I lay on the ground and panted for breath for quite a long while. I was all alone, and the tree stood in the bottom of a deep hollow about a mile from anywhere."

Odd Finds.

1. Common Tern.

One runt egg (96 x 83) found June 16, 1912, Georgian Bay, Ontario. The egg was deposited in a slight hollow of the ground, which formed the nest. It is of grayish color and marked only at the smaller end.

2. Bluebird.

A nest of this species was found in a cavity of a dead birch a few feet from the ground. It contained three young a few days old and two fresh fertile eggs; one of which was an albino.

P. Harrington.

Toronto, June 2, 1912.

The Stork.

The well-known oologist, Gerald A. Abbott announces that a stork's egg



Oscar E. Baynard in Bald Eagle's nest in Florida, holding Young Eaglets
in his hands

—Photo by Dr. R. H. Mills

hatched at his home for the first time, January 5th, leaving Dan Arlington Abbott, weight eight and one half pounds.

Oscar E. Baynard, the leading oologist in Florida, is likewise celebrating a visit from the same wise bird.

Our brothers are to be congratulated.

Hawk Nests.

April 7, 1915, Red-Shouldered Hawk. This nest was about 35 feet up on a Black Oak. The two eggs it contained were white with brown and purplish washes and streaks on them. Four days later when this set was collected there were four eggs; one of which was blotched with brown and one which was pure white.

April 8, 1915. Red-Shouldered Hawk. Nest about 40 feet up in White Oak in woods along Des Plaines River and at this time was only half built. On the 16th it held one egg and on the 22d two eggs which were all they laid and so were left. The next visit to the nest was made on June 5th, when I took some friends over to photograph the young which were now about three weeks old. Some of the fresh green leaves in the nest were blood stained and a farmer nearby told us the hawk had been getting his baby chickens.

April 18, 1915. Red-Shouldered Hawk. This was an old nest from which I took a set of three eggs last year, and on this date had a few feathers in it. On the 29th it held one egg and on May 15th two. I waited until June 5th before I visited it again and then I found only some broken egg shells in the nest.

April 29, 1915. Cooper's Hawk. When this nest was found it had just been finished. It was about 45 feet up in a Black Oak and was build on top of an old crow nest. On May 9th it held one egg and on the 16th three

eggs which I supposed were all they lay but when I visited the nest on June 5th there were four eggs. The next and last visit was on June 16th when two of the eggs were just hatching.

May 9, 1915. Sparrow Hawk. A nice set of five fresh eggs was taken from a hole about 20 feet up in a telephone pole. A set of Flicker eggs was taken from this same hole about three years ago.

May 10, 1915. Sparrow Hawk. The birds were found today around a dead stub where they nest last year. On the 17th four eggs were found in the stub and on the 19th they were collected. At the same time a pair of Bluebirds were nesting in the stub and on June 29th a set of Flicker eggs was found in the old Sparrow Hawk nest.

May 19, 1915. Marsh Hawk. While tramping around in a weedy patch on the edge of the Skopie Slough where a pair of Hawks nested last year, I flushed a female from a nest and five eggs. On May 25th after a heavy three day rain the nest was found in a foot and a half of water with eggs broken. About 25 feet from here an American Bittern's nest was found with three eggs which had also been flooded out.

Out of the nine Red-shouldered Hawk nests found this year by a friend and I, we were only attacked once while climbing to them. All the nests were found near Highland Park, Lake County, Illinois.

Colin Campbell Sanborn.
Evanston, Ill.

A Wisconsin Herony.

Some twenty-five years ago I discovered a fair sized herony of the Black Crowned Night, and the green. It had just been shot up by some boys and the nest robbed; dead birds lay all about. I later obtained a few nice sets from here of each species. There



Dr. W. F. Blackmon, President Florida Audubon Society, with young
Bald Eaglets in his hands

—Photo by Oscar E. Baynard

was maybe a hundred nests of both kind. The boys kept shooting the birds and breaking the eggs until they entirely broke it up and I thought I had seen the last of the herons in this locality, because mainly the scarcity of suitable nesting sites; so, if you please, imagine my agreeable surprise when on Christmas Day, 1915, I discovered a new herony in a piece of virgin timber, containing about thirty nests, all in good condition and apparently of the Black Crowned variety.

George W. H. vosBurgh.

A Young Red-Tail.

Madam Red-tail (*Buteo borealis*) certainly expressed wisdom when she selected the main flock of a giant ash as a nesting site and would have remained in undisturbed possession had she displayed an equal sagacity in vacating at our approach but she calmly sat upon her lofty domicile regardless of the noise made by application of irons and clubs to the tree trunk accompanied by a song and dance. It was no unconquerable craving to ascend tall trees that inspired me to climb but a curiosity to ascertain how near the nest could be approached before madam would leave. The almost imperceptible sound of the climbers alarmed her more than all previous demonstration and scarcely ten of the seventy-five feet of limbless tree trunk was covered when she glided silently away. I was inclined to call the climb off but my companion failed to see the matter in that light. He was anxious to learn what the nest contained and had no serious personal objection to sitting in the shade and allowing me to ascend and find out. As he was not addicted to the climbing habit his mind conceived no greater labor in the ascension of a large tree than riding on a street car, but why weary the reader with detail. In

brief, the nest contained two handsome juveniles clothed in grayish white down with flesh colored legs, black beaks, yellowish green ceres and eyes with dark brown iris and dark blue pupils and one of these youngsters was abducted and the date was May 3d, 1903.

On May 6th, I took the following data: Spread of wings from fleshy tips, not end of down, 12 inches and weight one pound. One week later to an house the above was repeated with the following result. Spread 18 $\frac{1}{4}$ inches; weight 1 $\frac{5}{8}$ pounds.

It was my intentions to repeat this each week and also note further development, but the captive was so unkind as to tumble from a second story window and now, above his lovely grave behind the woodshed, the inquestive citizen may read these pathetic lines:

Window high
Near sky
Heard shout
Rubbered out
Big drop
No step
Stone walk
Dead Hawk.

J. Claire Wood.

Detroit, Mich.

J. Hoopes Mattack.

Death has called another Pennsylvania Oologist, in J. Hoopes Mattack, who died January 1st, 1916. Mr. Mattack was born near West Chester, September 28, 1832. During the period of his greatest activity from 1870 to 1885 he was an ardent collector and succeeded in getting together a very creditable collection of our local species, together with others acquired by exchange.

His collection did not boast of any very rare species, but he collected quite a good many that at the time

were considered very desirable, among the coterie of younger collectors who were then just beginners.

He had a very fine set of five Sharp-shinned Hawk taken near by, which the writer was fortunate enough to acquire. He also secured the first set of Broad-winged Hawks recorded in this county and which at that time was really quite rare, compared with the present. The eggs of the Turkey Buzzard at that time were also considered great prizes and he took probably the first set in Chester County as well as those of the Whip-poor-will and Ruffed Grouse. Mr. Mattack was a man of abundant leisure and during the collecting season devoted much of the time to his hobby, much to the envy of some of the younger members of the fraternity, myself among them who only had a day off now and then. He retained most of his collection to the time of his death but it now probably will be disposed of at an early date.

Thomas H. Jackson.

Cooper's Hawk.

(*Accipiter Cooperii*)

This Hawk is called common by very many and no doubt is in other localities but here the Red shouldered easily beats it. A description of the bird itself is unnecessary and the only excuse for these notes is that my experience has been different from some others I have read in regard to its nesting and eggs.

This Hawk was named by Bonaparte in his *American Ornithology* (1828) Cooper's Hawk, and by Audubon in his *Orn. Bioy.* (1831) Stanley Hawk. The name given it by Bonaparte stands today and I think few outside the very scientific world know what a Stanley Hawk was.

I believe it to be the very greatest bird destroyers in this locality and am

glad it is no commoner. The young, however, make fine subjects to photo on account of their contrasty color. Too many farmers call all Hawks Hen Hawks, but this one seems to be known to them and is hated by all who raise chickens, etc., and a pair of Cooper's Hawks in his neighborhood causes a farmer more worry than his money, for once they get a chicken from his yard, they will return for more every time. Like the claim of many medicines they are the "only original and genuine,"—in this case poultry and game destroyers.

A few years ago on the Wayland Meadows, I saw a Cooper's Hawk dash after a Hen Pheasant. The Pheasant hit it up pretty well but was soon overtaken but in the mixup the Hawk must have missed a hold on the Pheasant's back and caught her head, for I saw her drop and ran to where she fell and found that her head had been torn off.

One morning in early May I was trying to open up a Hairy Woodpecker hole in a big Maple tree that wasn't very dead with a key hole saw that wouldn't cut. I had a regular monkey hold on the tree and was perspiring freely. High up in the top of the tree eating the buds was a red squirrel. He chatted to me while he ate and I cursed at him while I tried to saw. Suddenly a Cooper's Hawk brushed across the top of the tree and took the red squirrel with him and I thought to myself—those that laugh last, etc.

The ideal place to look for this Hawk's nest here and where ninety per cent are found (in 1894 found my first one) is in a tall pine or cedar that stands in good big woods. Some nests have been only twenty feet up but more forty to sixty. Now in Maine, a very fine writer, Prof. Knight, states that an old Crow's nest or other large bird's nest is used but here a nice.

large, new nest of dead sticks is made with a lining composed of a few small bits of bark.

When a bird is broken up then a nest of another bird is patched up and used. To illustrate this, on the 29th day of April, one year, I took a set of five eggs from the usual brand new nest; May 16th took four eggs, which I believe to be the same birds that patched up an old Crow's nest two hundred yards from first nest and June 18th took three eggs from a made over Crow's nest one hundred yards from the second nest.

For a number of years I believed (as many books state) that the eggs of this Hawk were bluish white with faint markings of red or brown on some and had passed up Cooper's, as they are a drug on the market, until one day having found nothing up to nearly noon decided to start my luck with a set, as I saw a bird fly from a pine that to climb was a regular ladder. On looking at the set in the nest I saw that all were quite heavily spotted and wondered if I had found a new Hawk. They proved to be, of course, Cooper's. Since then I have found sets even better marked and a number with one to three marked nicely.

In three out of five nests, five eggs is a set in my experience and nest in photos had five eggs, one being infertile.

Roscoe I. Giles.

Hawks of N. E. Ohio.

Including the Osprey as a visitor here, we have ten species of Hawks to be found in this part of Ohio sometimes during the year. They are—Osprey, Goshawk, Red-tailed, Red-shouldered, Cooper, Sharp-shinned, Broad-winged, Marsh, Sparrow and Pigeon Hawk, which I consider the most rare of the list as I have found but a few

specimens of this bird here. The Goshawk is only a winter visitor, while the Broad-winged and Sharp-shinned are to be found here I have not found them nesting. The Cooper and Red-shoulder are our most plentiful hawks. While the Marsh, Harrier is next. The Red-tailed is becoming more scarce each year. I have a very few nesting sites left occupied, one in the top of a large beech tree eighty-five feet up. This hawk if undisturbed, will occupy the same nesting site for several years and the old nests when left are often used by the Red-shouldered as are also those of the Cooper.

I have one site built four years ago by a pair of Cooper's and every season since it has been occupied by a pair of Red-shouldered. I have not known of the Marsh Hawk using the same nest a second time, but will nest for several years in the same swamp. Last year the State of Ohio saw fit to place a bounty of one dollar on the head of each Goshawk, Blue Hen, Cooper and Duck Hawk killed in the state, providing the trustees of a township appropriated a fund for that purpose, which in many cases they failed to do. I have never seen a duck hawk in Ohio and would be glad to hear from anyone that has.

S. V. Wharram.

After Cooper Hawk Eggs.

During the winter of 1914 and 1915 I read every available bit of material about the nesting of this chicken thief and fully determined that I would hunt for nests in the spring. When spring did come I scoured every strip of woods that was accessible but it was not until May 2d, 1915, that I found my first nest.

Early that morning I entered a ten acre strip of woods and saw several squirrel nests. While examining these I saw a Hawk's tail sticking over the

edge of a nest in an oak and I threw a stick at it. I was delighted to see a Cooper Hawk pop off the nest and fly away. The nest was about thirty-five feet from the ground and there were dead limbs two-thirds of the distance, but I was soon at the nest and found that it contained one bluish white egg. As this was the first hawk nest I had ever found, I was surprised to find it to be such a pile of trash. It was lined with pieces of white oak bark as big as an ordinary watch and there was scarcely any cavity, the top being almost flat.

On May 7th, I again climbed to the nest hoping to secure a full set of eggs but was completely disappointed in finding two eggs. I took the first one home and blew it out. It was fresh and measured 1.89 x 1.41. I visited the nest again next day and found two eggs, so I took the second. It was fresh also and measured 1.76 x 1.41. I did not again go to the nest until May 16th. I did not see either Hawk. There was one egg in the nest and it was warm. I brought it home also; it was slightly incubated and measured 1.83 x 1.41. I suppose this was the second set of eggs for they generally lay five around here.

Ralph R. Wilson.

The Bald Eagle.

On December 4th, 1915, I saw a Bald Eagle flying over our farm. The bird was flying about 250 feet above the ground. The white tail and head were distinctly visible. This is the first eagle I ever saw here. This one was flying towards the Missouri River.

Ralph R. Wilson.

Hawks Slaughter Quail in Texas.

Thousands of quail have been slaughtered in West Texas during the present hunting season by hawks and chaparral birds, according to San An-

gelo, Tex., hunters, who say the supply of quail was less this year than in many years previous.

Some hunters are advocating killing these birds, saying that for every hawk or "road-runner" killed at least fifteen quail are saved.—Star Telegram.

Here is a clipping which might interest you. This is the Road Runner in a new light. Such things as this when published in a newspaper of good standing do more to destroy our bird life than a dozen boy hunters. Let's let off yelling "kill the cats" and sing "Educate the Editors." This thing of bad nature is getting to be a habit now days. Many a farmer boy will grab his "trusty rusty" and solely on the strength of this bit of ignorance, go forth and leave a ruin of Hawks and "chappersals" in his wake.

Chas. R. McLendon.

It is just such silly half-baked copy as the foregoing drifting into the office of the daily publications that is responsible for a great deal of the dense ignorance existing with relation to the Hawks and Owls of this country. We agree with Brother McLendon that something ought to be done to educate the editors.—Ed.

A Krider's Hawk Trick.

In March, 1915, while G. E. Maxon and myself were looking for some old hawks' nests a Krider's Hawk played a trick on us two different times. Mr. Maxon was climbing up to a nest and the Hawk flew over him screaming. The nest had green leaves in it which was a good sign of eggs soon, so we left this locality not hunting in the other timber. Returning to the nest at a later date the Hawk was still there. After climbing up and finding no eggs things looked funny to us. We searched the surrounding timbers

but had no luck. In April we happened through this country again. The Hawk was still there, but no eggs. We watched her for a while and she disappeared over the hill. That gave us an idea to look in that direction. Going up the hill side about one-half mile we examined some small timber finding the nest with young ones in it. Her trick was when she saw us coming she would leave her nest and fly over the old nest making us believe that it belonged to her. If we had found the new nest when first observing the old one we could have collected a fresh set of eggs.

Ft. Worth, Texas. R. Graham.

A Peculiar Set of 348.

When Mr. Darlington received his last lot of 348 eggs, there was in it one set of four which seemed to me out of the ordinary. Three of the eggs were marked more or less evenly but the fourth egg was fairly heavily marked on one side and plain white on the other. The separation was very marked, that is the markings stopped abruptly and the white began.

I have often seen eggs marked on one end more than the other, but never on one side so pronounced as this egg is. E. M. Kentworthy.

The Birds of Yuma County, Colorado.

Mr. F. C. Lincoln of the Colorado Museum of Natural History has gotten out for that institution a very comprehensive list of birds of the foregoing Yuma County. The list is thorough and shows much familiarity with the birds of that little known region and is a credit to the institution responsible for its appearance.

R. M. Barnes.

A Proud Day.

One Easter Sunday, the Easter away back in the '80s, that came on the

25th of April, I and my chum, or my chum and I, hard to tell which was the more enthusiastic, and the ever present tag, the kid his brother, hitched up old Charles and set out for a ride and to do a little hunting on the side, for early eggs. We, of course, headed for the old farm for I was not yet weaned from my boyhood haunts. We anchored the rig near the famous glen, of our old homestead, and started out for a hunt, almost immediately we discovered a hollow in a large tree trunk and, could I believe my eyes, the face of a screech owl filling the opening. I, of course, shinned up, while my chum stood below and urged me on. I had to pull the old birds out by force and the nest contained two eggs, my, wasn't I happy, and wasn't my chum. Well, I took them and put them in my handkerchief and on the way home we stopped and showed them to a playmate of mine. They were nearly ready to hatch but I blowed them and gracious, I wouldn't have taken five dollars a piece for them. They went the way of most early attempts in this line.

Geo. W. H. vos Burgh.

The Great Horned Owl.

The Great Horned Owl has become one of our scarcest raptors. The last nest I have known was one from which I took two young about two weeks old on the second of April, about six years ago. Usually these birds select the most lonely portion of the woods for their home, but in this instance the nest was placed in a swamp oak in a meadow, close to a stream, and was about the last place I would think of looking for them to nest. Food seemed to be plentiful with them, as the nest, in addition to the young, contained a crow and a robin, while plenty of squirrels and mice had helped to furnish their menu, judging from the

bones and fur contained in the pellets lying around.

A farm-yard with its stock of poultry was nearby, but no complaint was made about the Owls disturbing them. I am inclined to think the meadow nearby with its swarms of mice, furnished the greater part of their food, which was also shared by a pair of Barn-owls that occupied a large oak tree, on the other side of the march, not a quarter of a mile away.

Contrary to expectation these young owls proved very tractable and interesting pets. One of them, the larger—probably the female—was quite playful; the other rather morose and more free to use beak and claws when handled.

Apparently their vision was just as keen by broad daylight as in the evening, and a small bird flying high above would instantly attract their attention. The presence of a cat would arouse their ire quicker than anything else, and their feathers would stand on end as shown in the accompanying picture. Whenever pussy put in an appearance, they would assume a defensive attitude, snap their beaks loudly and make an imposing display, but how far they would carry it, I never had a chance to see; for the cat got away as quickly as possible.

In this part of the country, the Horned Owls generally use an open nest, that of a crow or hawk, sometimes repaired and added to, and sometimes just as the original owner left it. Out of upwards of fifty nests I have found but a single one in a hollow tree.

I greatly regret that these fine birds have become so scarce. There is no sound coming out of the deep dark woods more attractive to my ear than the solemn booming notes of these great birds, as they answer each other through the night; but it has been a

good many years since I have enjoyed that experience.

Thomas H. Jackson.

Westchester, Pa.

Mr. Jackson sends us a photo of the two young Owls described in the foregoing article but not having room for the same in this issue, it will appear in the March issue.—Ed.

Notes on the Wood Duck.

My friend Dr. G. D. Shaver, of Tacoma, Wash., owns a small lake near here, part of which he has fenced in as an enclosure for the study of different kinds of wild ducks. All are in the best of health, but none are able to fly. Among them is a male Wood Duck, the mate to which was killed a few years ago, but during the past spring Dr. Shaver was interested to see that a wild female of that species would fly out of the enclosure nearly every time he visited it. After a while the visits of the female ceased, but later in the summer she again made her appearance, this time accompanied by four fully fledged young ones.

The above is the first breeding record that I have had for the Wood Duck in Western Washington in many years. In fact they have become so exceedingly rare as summer residents that I think the inference is fairly correct that the wild female mated with the captive male.

J. H. Bowles.

Tacoma, Wash., Dec. 13, 1915.

The Scissor-tailed Flycatcher.

A. O. U. 443 *Muscivora forficata*.

To my estimation these birds are the most active of the flycatchers and are plentiful here in the nesting season. I will try to give an accurate description of these birds as follows: They measure from twelve to fourteen and one-half inches. The male is gray

with red or yellowish tinge on back. Middle of crown red. Tail is shaped like scissors. And is nearly three times as long as the body. The wings and legs are short. The female is somewhat like the male but is smaller and of a duller plumage. The song is "teezip," repeated. They are seldom noticed on the ground. Only when collecting material for a nest. The tail being long and feet short they find it more comfortable in the air. Most of their food is caught while in flight. They seem to be pretty good fighters as I have noticed them chasing hawks and crows and while examining their nests both male and female play a tune over my head and many times came in reach. They arrive here in April and are found on the prairies looking for a nesting site in the scattered mosquito trees. I have found their nests on top of wind mills and telephone poles but they prefer the mosquito trees. The nests are large and bulky, made mostly of rags, strings, cotton, paper, and Indian tobacco. This Indian tobacco is a weed named by the people of this country, believing that the Indians smoked it when they roamed the prairies here. This tobacco forms about half of the nest which is well made in the utmost tops of the trees. After a week's hard work four or five eggs are laid. The eggs are white with brown spots on the large ends mostly. Incubation begins and if not molested nearly every time they hatch the whole set. These birds breed from Texas north to Kansas. Spend the winter in southern United States.

R. Graham, Taxidermist.
Ft. Worth, Texas.

NOTES.

No. 1, Field Sparrow.

To my knowledge the field sparrow nests in only one part of Tarrant

County, Texas. I find them in the dry valleys northwest of here. These birds are not plentiful in this locality but are common in other parts of the state. They nested early in 1914. April 12th, I examined three nests of four eggs and one of five eggs. This date is a month early according to my back dates. These birds in this locality select a lonesome place out of sight and hearing of other birds and builds the nest in low grass and briars composed of grass and weeds and lined with finer grasses.

No. 2, Phoebe.

April 11th, 1915, I found a Phoebe nest with three eggs in it, and on the 12th there were a set of four; no more eggs were laid. The nest was made of moss and grasses and was in a sand bank near a spring. The eggs were white and two of them had tiny brown specks on the large end. Phoebes are common birds but I have only three dates of them nesting in this county.

No. 3, Bobolinks.

May 17, 1915, I saw three bobolinks two males and one female. This is the first time they have been noticed here during the nesting season. They were in a flat of high grass near a creek. And were noticed there several different times. It's hard to tell whether they nested there or not as their breeding range is from Kansas northward.

R. Graham, Taxidermist.
Fort. Worth, Texas.

The Federal Bird Migration Law.

The editor hopes every reader of this publication will do everything in his power to see the complete and literal enforcement of the Federal Bird Migration Law during this coming spring. The only way that the water fowl of this country can be preserved from complete extinction is to enforce this very sensible law to the letter.—
Editor.

THE OÖLOGIST.

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Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.

This issue of THE OÖLOGIST is devoted to things collectors should know, methods and the like. The most advanced and well known collectors have kindly contributed their mite to tell how it should be done, and it is at the request of considerable number of our readers that we re-publish the following article, from pages 78 and 135 of Vol. XXXI (1914) of this publication.

A reference to page 10 of Volume XXXI of THE OÖLOGIST will disclose an article descriptive of the methods and collections of a large number of prominent Eastern collectors.—R. M. Barnes.

Collecting Birds' Eggs.

What is needed—Preparing Specimens
R. Magoon Barnes.

It is useless, even wanton, to collect eggs of our birds unless with a definite purpose. Eggs are absolutely worthless or worse unless properly collected, prepared, preserved and recorded. To do these things one must be equipped with some things, chiefest of which is a settled determination to do whatever is done well.

First of all you will want a note-book in which to record your observations. Do not rely on memory for anything, the fuller and more complete the notes the better. From two to a half dozen egg drills and a blow-pipe or two are necessary. Get the "cut the lining" kind of drills of assorted sizes. These with the blow-pipes may be had of dealers in such instruments. They should be thoroughly cleansed after each using. Some sort of a receptical, a cigar box filled with cotton or something of the kind is necessary to carry eggs in while afield and a safe and secure one in which to keep them after coming home. A copy of the American Ornithologists Check List (The A. O. U. list) and either Bailey's "Birds of the Western United States," or Chapman's "Birds of Eastern North America," will be well nigh indispensable. Likewise Charles K. Reed's "North American Birds Eggs," or Oliver Davies' "Nests and Eggs of North American Birds," will be found some help.

Assuming you have some or all of the above let us start out some bright morning in quest of specimens. The sun is bright and warm; there is a slight balmy south wind. Spring is wearing her splendid garb fresh, bright green and her brow is garlanded with bloom of ritous color while perfume floats in the air. With collector's box full of cotton slung over our

shoulder and our note-book in our pocket we start out, full of anticipation and life.

We know the Woodpeckers nest in holes, and Meadowlarks on the ground while Robins in trees and Indigo Buntings in bushes. We are starting a collection, and of course begin with the common varieties.

Suppose we find a Robin's nest in an apple tree. Here is what we do or should do. First make absolutely sure it is a Robin—of course we know a Robin, but later we may find some nests where we do not know the birds. So begin right now to look and be certain of the identity of the owner of the nest. Then we climb up and peep into the nest. Only two eggs! An incomplete set so we leave them and pass on.

Next we find a Blue Bird's nest in an abandoned Woodpecker's hole in a small dead limb of an apple tree. We are first very sure it is a Blue Bird. The identity of the bird is ALWAYS first. Then we look into the nest. Five fresh eggs! Good! Our first specimen for "our collection." How shall we get them out? Our hand is too large to get into the hole. It is not so very far to the house and we go back and borrow a saw. Slowly and very carefully we saw the small limb off below the nest and lower it to the ground, turn it slightly over and take a spoon out of our pocket and lift out the beautiful blue eggs one at a time. These we roll separately in cotton and place in our cigar box. Then we take our note-book out and sit down and enter the following:

"(1) 766 a-5. Nest 7 feet up in abandoned Woodpecker's hole in dead limb of an apple tree in an orchard. Birds seen, eggs fresh, nest saved. Remarks. This nest was on the south side of the tree and the opening was toward the south east. The cavity

was 9 inches deep and the opening $2\frac{1}{4}$ inches across. Nest typical, of fine grasses, weeds and feathers."

Then we replace the note-book in our pocket and place the figure (1) on the nest stub, stand it up against the foot of the tree where we can get it when we return home, and pass on.

Next we find a Phoebe's nest under a bridge across the road, stuck onto one of the projecting rocks of the retaining walls. The bird is gone in a flash but we know her. The nest contains six eggs, a very unusual number, but they show signs of incubation, however we decide to chance it, so carefully remove the eggs and as with the Blue Bird's eggs, roll each one carefully in cotton and place them in our collecting box. Then, after removing the nest and wrapping it in a newspaper cornu-copia and marking it (2), we enter in our note-book:

"(2) 456 a-6. Nest stuck on a projecting stone of a retaining wall of a bridge across the Lacon and Henry road 5 miles north of Lacon, 7 feet above the creek bed and 3 feet from bridge floor. Birds seen. Nest of rootlets, moss, fine grass and mud, lined with hair and feathers. Eggs, size a very unusually large number; incubation commenced. Nest saved."

We pass on and find a Kingfisher's nest in a hole in the cut bank of this same creek. As the birds fly about we admit we are for sure stumped. We remember reading in one of the Wood's books that the nest of this bird was almost untakable in its natural state and likewise have a vivid recollection of reading in THE OOLOGIST Vol. XXVI, page 92 of the tragic death of Richard Smithwick, who dug into a bank after a nest of this species and crawled into the hole he dug when the earth caved in on him and smothered him. But we must have these eggs! Are we not forming a collection of

eggs and we have no Kingfisher's eggs yet? Well, we go to a nearby farm house and borrow a spade. As luck would have it the nest was not over three feet below the top so we scramble up to the nest hole and insert an arm full length without finding anything but air. Then we get a small switch and push it as far as possible with the same result. This makes fully six feet of the tunnel we have explored. Then we go on top and dig down to the burrow. To our surprise we find it at two feet and four inches, showing it slopes upwards. After cleaning away the dirt and digging almost two times as much as was really necessary in the hot sun, we get where we can see the eggs. Seven of them at the enlarged end of this nine foot tunnel lying there on the soil with only a few straws about them. Disappointed? Yes! Where is the beautifully fashioned and delicately assembled nest of white fish bones and scales that we had been taught to expect? A myth? Yes, and nothing more. Then the eggs were not as white as we had expected. Or are they dirty? Yes, and they, like Woodpecker's eggs, must be the most carefully cleaned both inside and out of all dirt, foreign matter and the last vantage of contents with perfectly clear water, else the taking of them is in vain. They will surely spot and blotch and ultimately become entirely ruined unless this care is used in preparing them. We pick these specimens, with more care and more cotton because they are larger and heavier. Then we carefully collect the few straws composing the nest, place them in some more newspaper marked (3) and in our pocket. Then we enter in our notebook:

"(3) 390 a-7. Nest in a burrow 9 feet deep in the side of a creek bank 7 feet above the creek and 3 feet

down from the surface in sandy soil, composed of a few straws at the enlarged end and sloping upward. Opening 4 x 3 inches. Birds seen; eggs dirty but fresh."

Then we start home. Across the fields we travel when suddenly from under foot flutters a mass of feathers. Finally it arises awing and floats away. A Meadow Lark! Looking down we see a tuft of grass with a small opening in the side. Peering in, five fresh eggs are disclosed and transferred, cotton wrapped, to our collecting box. Then we sit down beside the nest and enter in our note-book:

"501 a-5. Nest on the ground in a pasture, partially sunk into the ground in the middle of a tuft of last year's grass, arched over and lined with fine grasses. Eggs fresh. Female flushed from nest. Nest saved."

Nest saved! Yes. But how? As we are not far from our home we go there, get another spade and a small box 8 x 10 inches and three inches deep. We carefully cut the sod around the nest and under it to the same size and depth as the box, being careful at all times not to in the least disturb the nest or grasses about it, and slip the spade under it, setting the sod with the nest into the box. All the time we are handling the whole affair most delicately, else we ruin it. And if properly and carefully done, we have preserved one of the very hardest kind of specimens,—a ground sunken nest amid vegetation.

We then go home for the day with four nests and four sets of eggs, having picked up our Blue Bird's nest on the way back.

Having arrived home with a set of 5 Bluebirds, a set of 6 Phoebe, a set of 7 Kingfisher and a set of 5 Meadowlark, the next thing is to prepare these specimens in such a way that they will last and make a desirable appearance when placed in the cabinet.

The first thing to do is to lay aside each set of eggs separately on a cloth or layer of cotton batting, something that will prevent them from rolling; then procure a basin of water, a tumbler filled with water and the blow pipes and drills we have before mentioned; sit down at a low table or on a door step or some similar place, so as to bring the basin above the object you sit upon.

We will commence now with the preparation of the set of Blue Bird's eggs. Picking up one of the specimens, look it over carefully to see if there are any stains or any foreign matter on it which can not be removed, and if there is, that is the side we blow it on. First pierce the shell with a fine pointed pin or needle, then select the smallest of the drills, which should be No. 0, carefully insert the point of the drill in the hole left by the needle, and holding the egg between the thumb and finger of the left hand, with the larger end away from you, and the second finger under the smaller end of the egg slowly twirl the drill back and forth with the thumb and finger of the right hand, gradually enlarging the orifice until you have drilled clear into the egg. If you have the right kind of a drill the rear end of the burr part of the drill will cut the lining as it enters the egg. If it does not do this, it will be necessary to draw the drill back until the rear of the burr comes in contact with the inner surface of the shell at the hole made by the drill. A few more twirls will then cut the lining. Then withdraw the drill, turn the egg over, still holding it between the thumb and finger of the left hand, take a small blow pipe and hold the point of the same near the orifice of the egg, turning the egg upside down over the basin of water. Then blow through the blow pipe and the air will

gradually enter the egg and force the contents out of the same hole.

After the entire contents of the egg has been blown out in this way, then take some water in the mouth from the tumbler of water standing nearby and blow the water through the blow pipe into the egg. Do this with some force, but not enough to destroy the egg shell. After the egg has been blown full of water, then blow the water out of the egg. Repeat this two or three times until the contents of the egg are thoroughly cleansed out; for any foreign matter of any kind or any of the contents of the egg that may be left in surely stain the shell and ultimately destroy the specimen.

After this has been done and you are sure that the contents of the egg is entirely out and the inner surface of the shell thoroughly cleansed, then lay the egg upside down with the hole resting on a piece of blotting paper. This should be clean and not ink stained.

Continue the same process with each one of the eggs in this set, laying them side by side on the blotter when the blowing is completed. They should be left in this position until they are thoroughly dry and all the other eggs taken should be drilled in exactly the same manner, using care to see to it that the sets do not become mixed, and that each different set is kept separately until marked.

If the eggs are not thoroughly cleansed, their taking and preparation will be all to no purpose, for they will finally become spotted and ultimately disintegrate. It is always important to use the smallest drill possible on each egg.

The above is the proceeding for blowing all eggs which are fresh. Makes no difference whether they are the size of a goose egg or the size of a Hummingbird's egg. The same pro-

ceeding is followed from the beginning to the end.

Assuming now that all of the eggs we took on the day before mentioned have been blown and arranged on the blotter as directed, and have been left there long enough to become thoroughly dry, the next thing is to mark them. The marking of specimens is one of the very important steps in their preparation. Care should be taken to mark each set legibly and according to the system used by Oologists. They should be marked with a soft, pointed lead pencil unless you are a high class expert with India ink like E. J. Court at Washington and a few others of his kind, who are very rare indeed; but if you are then you may assay the use of India ink.

The set of Bluebird's eggs should be marked as follows: Above the blow hole on the larger end of the egg and near the blow hole should be placed nearly the figures "766," which is the number of the bluebird in the American Ornithologist's Union ("A. O. U.") Check list of North American Birds. To the right of the blow hole should be placed a short straight line as near as may be opposite the center of the blow hole. Above this line should be placed the letter "a" and beneath the line the figure "5". The letter "a" indicates the fact that this was the first set of Bluebirds taken this year. And subsequent sets should be indicated by the letters b, c, d, etc. The figure 5 beneath this line will indicate the number of eggs in the set. If the set has been 4, 6 or 7 the numbers 4, 6 or 7, according to the number of eggs in the set would be placed beneath this line. And beneath the blow hole should be placed numbers designating the year in which the set was taken, as 1910, 1911 or 1912, or whatever the year might be. Each egg in the set should be marked in exactly the same way.

In this way it is easy to keep track of the specimens. The A. O. U. number will at once identify the specimen, the set number "a-5" will show that it is the first set taken and that there were five eggs in it. The year number beneath the blow hole will show the year in which it was taken, and reference to the data and to the original notebook will disclose these same figures.

Having marked all of the eggs taken according to the above method, the next important thing is to place them in a dark cabinet of some kind with closely fitting drawers that will exclude both dust and light. The light will cause many specimens to fade; in fact, nearly all. Dust if it settles upon the egg and the atmosphere then gets damp, will set up a peculiar character of fungus growth on the shell that will ultimately disfigure the eggs for all time; particularly those having solid color, like the Bluebird, Catbird, Wood Thrush, Woodpecker and the like.

Of course it follows that the larger the egg the easier it is to blow. Likewise the larger the egg, the same rules apply to prepare it with as small a drill as possible.

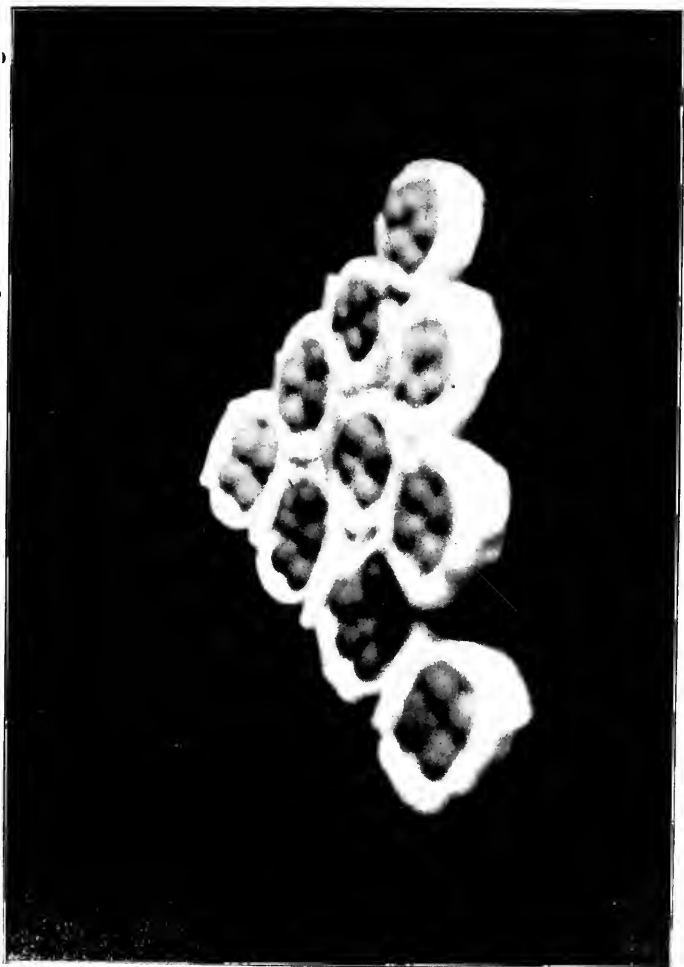
Many times it will be found that the specimens taken are more or less incubated, though it is a bad practice to take incubated eggs unless they are specimens of unusual varieties in that case the taking is entirely justified. The blowing of a badly incubated specimen is a matter of tedious hard work. Frequently you will have to use an embryo hook as well as a pair of very fine, sharp pointed embryo scissors and cut the embryo within the egg through the orifice made by the drill with the scissors and drag it out, piece at a time with the embryo hook, or force small pieces of it out by inserting the point of the blow pipe en-

tirely within the shell of the egg. To do this neatly and softly will require a larger hole in the shell and much patience and care.

It is never very satisfying to attempt to use caustic potash or any similar substance for the dissolving of the contents of an incubated specimen, as is sometimes recommended, for the reason that ultimately the shell of the egg so treated will disintegrate entirely and the strong alkaline action will injure the tint and colors on the shell.

After a little practice it is not hard to become proficient in the preparation of specimens of this kind, and you will discover that your standing and rank as an oologist will depend very largely upon the character of your work in preparing your specimens. Accuracy, neatness and cleanliness above all things should be your motto.

With each set of eggs—and a set is the number of eggs found in the nest—should be made out and kept and sent with the eggs whenever they are disposed of, a "data." Many forms of data blanks are in existence and they may be procured either of a local printer or of the advertisers in the columns of THE OOLOGIST; but freak datas should be avoided. They should neither be too large or too small. A data which will just neatly go into a number 6 envelope is recommended. On this data should appear the A. O. U. number by which the bird is known, its common and scientific name, the data of taking and the locality in which the set was collected, the number of eggs in the set, the set mark by which the set is identified, the state of incubation of the specimen, the means by which the eggs were identified, the location and a general description of the nest followed by any special matters of interest pertaining to the set under the head-



Cotton Artificial Egg Nest used by R. Graham of Ft. Worth, Tex.,
for holding specimens in his collection

ing "remarks." This should be signed by the collector in his own handwriting.

Cotton Nests For Small Eggs.

This is a great help when moving small eggs. It keeps you from taking each egg separately. These nests are easily made. Take a strip of card board three fourths inch wide and any length according to size of nest desired. Bend it in a circle and tie or glue together. Take a piece of cotton two times as large as the card board circle. Lay it flat on a table, then place circle in the middle of cotton, turn the cotton over the top and round into shape. This makes a good nest and is handy when moving eggs from one drawer to the other and saves all risks of breaking. It takes a little time to make but when finished they can be used for a long time. It's a good idea to use white cotton for some nests and colored for others, according to the eggs that show up better in different colors. R. Graham.
Worth, Texas.

A New Method of Arranging Eggs for The Cabinet.

From time to time I have seen notes in various Ornithological publications on the subject of egg arrangement. I have tried many of these ideas, but none of them ever proved entirely satisfactory in the long run. Others may have had the same experience and I therefore give a description of the method now used by me and which gives an extremely neat appearance to the collection.

Instead of using cotton or sawdust, fill the tray half full of DRY plaster of paris. Now press it down with a card or other devise until flat and smooth and of the same depth in all parts of the tray. Be sure that the pressing devise is the same size as the interior

of the tray, otherwise there will be ridges in the plaster. The eggs are then gently set in the soft substance and a label or number placed in the corner of the tray, according to the idea of the owner.

The advantage of this method is that each egg is held in a cavity which exactly fits it, and prevents it from rolling about as is the case when cotton is used. It is also by far the neatest method that I have ever seen, each tray appearing as though it contained a solid immaculate block of pure white plaster, into which the eggs had been set. The accompanying photograph gives a fair idea of the appearance of a small type collection arranged in this manner.

Paul G. Howes.

Take Care of Your Calipers.

If you have a pair of calipers do not allow them to become wet or to be left in a damp place. If you do, you will find that in a short time they will rust or tarnish. To prevent this, get some "Three-in-One" oil. Place a few drops on a cloth and rub your calipers thoroughly. Do not pour the oil direct upon them, for a thorough rubbing is sufficient. The oil fills the pores of the metal and thus forms an impervious guard against rust or tarnish. It is also well to wrap them in tissue paper when you will not use them for a length of time.

Ralph R. Wilson.

Unusually Large Set.

On the 6th of November, 1915, three men were hunting in the Kaskaska River bottoms about sixteen miles northwest of Odin. They were climbing trees which they thought might be a "coon" den and they claimed to have found one which was full of eggs. To verify this statement, they delivered to me a small bucket



Type Collection of Birds Eggs Arranged in Trays Containing Plaster of Paris. Photo by P. G. Howes

containing nine eggs of the Barred Owl, claiming they were all in one tree when they found them. I found upon unpacking the eggs that they undoubtedly were Barred Owls. They all appear to be about the same size and shape, while some were very badly settled and dried while others contained some liquid matter. All appeared to have been fresh as I found no signs of embryo. One very noticeable thing was an unusually hard shell and quite a little thicker than the usual Owl egg. I took the drill and twirled it round and round until I got tired and hardly left a mark, so I sharpened the point of my pocket knife and scraped until I could see liquid oozing out or smell the "delicious perfume;" then I tried the drill again and found it the hardest drilling I ever done. It required about three-quarters of an hour to make a hole 3/32 to 1/8 inch. I have not succeeded yet in getting them cleaned but they are slowly coming my way so I feel like I will be able to save them.

I have no reason to doubt the men's word, having known them intimately for over thirty years, during which time one of them has assisted me in getting quite a few sets of Hawk; and Owls. While the shells are badly nest stained I hope I may be able to save them as I feel confident it is the largest set of Barred Owls in existence. I have collected over one hundred sets and saw about as many more which I did not collect and I find two or three is generally the number. I have taken five sets with four and consider them very desirable.

O. B. Vandercock.

Preparation of Oological Specimens From Field to Cabinet.

We venture this chronicon in response to the Editor's request in the November OOLOGIST.

It never having been our good fortune to spend a collecting season afield with any of the older or younger collectors of today, we know, therefore, little or nothing regarding the methods that maintain among those who are so privileged to associate and exchange ideas; and it is under this cowl of isolation we beg leniency should that which follows long since have been buried in the discard of obsoletes.

To us it has been a rather slow process of evolution through a succession of events not unmixed with calamities; hence it seems befitting that we here record event and calamity number one.

Among the first of those with whom we exchanged was Edward J. Court of the Geological Survey, Washington, D. C. We sent our specimens in advance, and rather self-satisfied, too, with the preparation of our material. Since the malady of ignorance is ignorance, and self satisfaction is one of the symptoms of the malady, our first Oological shock arrived with the box of specimens shortly received for the ones sent. We have not here the courage to express the distress of shame felt, when we saw for the first time — immaculate preparation — and thought of the monocle-holed-deplorables we had offered. A solemn vow was then taken to reach as nearly a Court standard as our ability permitted.

We have since learned to know and respect many other collectors for this same high standard of preparation; but it is to Mr. Court that we are indebted for being at least once removed from an inhibitory influence, and we can never look at specimens of his, either those of past years, or of our present day exchange—for our correspondence has never ceased, and his standard of excellence never dropped —without feeling a certain quality in



Fig. 1—Cut showing Collecting box. A. O. Treganza, 614 E. 6th South,
Salt Lake City, Utah

the personality of the man indicative of that innate sense of the fitness of things. Else why the sincere respect he pays to Oology by his infinite care and painstaking preparation?

We have come to recognize three fundamental principles for thorough and consistent care of Oological specimens: First, proper equipment for field work; second, patience, care and practice in both the removal of shell contents and inscription on shells for identification; third, prompt cabinet disposal.

About February 15th of each year is commenced a thorough renovating of all our collecting paraphernalia, which, no doubt, consists of the same working equipment that is in general use. The following however, may be a slight departure and contain a suggestion for overhanging cliff work. A four strand self-locking block, and tackle of three-eighth inch Sampson spot cord fastened to the end of a heavy anchor rope and dropped over the cliff to the desired height. A canvas seat swung below the lower block a sufficient distance to allow a strap around the body just under the arms and fastened to the block, gives perfect freedom to both arms. One only hoists about one-quarter of his weight and whenever the hoisting strand is released the block automatically locks. With the aid of a jointed fishing pole at the end of which is attached a heavy cloth bag, the mouth of which is held in shape by a circular wire and provided with a thin puckering flap operated from the handle by a line; the bag inverted placed over the egg, the puckering line drawn taut slipping the egg up into the bag enables the collecting of many specimens otherwise impossible.

The conditions under which we collect probably have much to do with the methods we have adopted. Few of

our trips are less than twenty miles distant and many are eighty to ninety miles and remote from water or habitation. It is partially this no water question for the proper rinsing out and cleaning of shells that has brought us to the carrying home of all specimens for preparation. Then, too, we feel that better and quicker work can be accomplished when one may avail themselves of every possible convenience. Hill, cliff and tree climbing, or even moderate exercise keeps up a blood circulation that is certainly not conducive to the steady hand necessary for operating on small and delicate specimens.

It is to Mr. H. W. Carriger we here owe a word of thanks for a safe means of specimen transportation, in the nature of a collecting box. Just how clearly we interpreted Mr. Carriger's written explanation and description of his box, we are not sure; but the cut here (Fig. 1) shows a box that may be depended upon for most rough treatment with positive assurance that its contents are perfectly safe. Each half of this box is filled with removable tubular compartments made by cutting into proper lengths exceptionally heavy mailing tube which are lined with perfectly fitting sacks of the best grade of eider down cloth glued to the tubes one-third of the way from the top leaving the other two-thirds free and swinging like a cradle. Thus when unpacking eggs, the tubes may be removed one at a time and a slight pressure into the cradle end pushes the egg out. It does not require a very large assortment of tube sizes to accommodate all eggs from the largest to the smallest. Large and medium sized eggs are placed one in a tube, whereas smaller eggs may be packed several in a tube with a layer of cotton between. The box should be made so that both inside dimen-



Fig. 2—Water method of egg blowing. A. O. Treganza, 614 E. 6th South,
Salt Lake City, Utah

sions are divisible by the various diameters of tubes to be used, then all tubes will be more or less interchangeable in part or in whole. One of the two boxes we now use is shallower than the other, as is also one-half of each box; thus four lengths of tubes are obtained and these compactly accommodate everything we take up to Goose eggs. A heavy card board lined on both sides with the same eider down cloth forms a fly leaf protection between the two halves of the box. A small box made to contain but four or five of these tubes offers very quick and effective packing, especially in cliff work, and afterwards they may be replaced in the larger box.

That we may not carry home eggs that can not be prepared in a manner worthy of them, or perchance have to be thrown away due to excessive incubation, we test them using water as a medium; for this in no way retards the development of the embryo if the egg is too far advanced to take. Many eggs of which the shell density, lining, heavy or ground color make it impossible to determine the exact state of incubation any other way, succumb to the water test. A fresh egg sinks in fresh water, and it soon becomes an easy matter to determine the exact stage of incubation.

Bringing material home for preparation affords an additional advantage to us since we use water pressure for the removal of shell contents. Figure 2 shows a short piece of flexible tubing with one end slipped over a reducer which is screwed onto a cold or hot water hose bib over a sink, and a blow pipe fitted into the other end of the tubing. If the hose bib or valve is of a good compression cock type, the water can be adjusted to any degree of force to suit the size of egg, hole or state of incubation.

The exact method of procedure is

difficult to describe, as practice, judgment and discrimination are necessary factors in the blowing of each egg. The final rinsing is accomplished by a mouth blow pipe.

Back from a three days' trip on the sloughs, we have averaged in an evening individually, one egg every two minutes; handling each egg but twice, once in the unpacking, second in the drilling, blowing, cleaning and placing ready to mark on the drying tray, the eggs ranging in size from Savannah Sparrows to Red-head Ducks, with holes from one thirty-second to three thirty-seconds inch diameter, depending on the state of incubation. In the case of far advanced embryo, we prepare for the inevitable—time, patience and the necessary tools. Where a solvent is necessary we resort to concentrated lye. One third lye and two-thirds water injected into the body of the embryo by means of a large needle hypodermic syringe, taking care that the solution does not come in contact with the membrane lining of the shell—a wait of two or three hours—and the contents can generally be removed. It is advisable to first blow out the yolk, viscera, etc., before the lye is injected; otherwise a soft soap forms, which, however, may be disintegrated by a strong salt solution.

After years of interchange in correspondence and specimens we know that there are collectors who see no virtue in the hole made in an egg bearing some relation to the size of the egg. We honestly believe, however, that the law of proportion and balance would have undoubtedly improved some material, that but for its rarity only, is now granted a place in our collections. Surely science would sacrifice nothing, if, in the case of beautifully marked specimens, the least attractive side received the hole,



Drawer of Eggs Showing Arrangement Adopted in Collection
of Dr. Perry. Photo by Finlay Simmons

and identifying inscription. It may be quite unethical to remove such foreign colors and matter, as mud coatings, lice markings, nest filth, etc., as may entirely conceal the eggs true ground color and markings—even so—there are times, when the ability to discern just what nature originally intended is very gratifying. After an egg has fulfilled all the demands of science there still remains something more, at least in those eggs that have pigment markings, for surely there is no phase of nature which offers more schemes or suggestions of wonderful and varied color combinations. Well might we apply many of these combinations to our every day life, supplanting much of the hideous, man-conceived color discord.

Higgin's Water-proof India ink and a crow quill pen offers a good medium for small, compact and distinct identifying inscription. A pencil is apt to rub and become dim, and many of the common writing inks will eventually fade, indelible pencils and inks indelibly deface an egg should they ever be subjected to moisture.

In our earlier collecting we found that the greatest percentage of loss resulted from the multi-handling of specimens before they were blown-due to bunglesome equipment and lack of system in quick transmission to the cabinets: and much effort has been directed in minimizing this percentage. Specially commendable is any short method in the field as it leaves more time for observations, notes, photos, rest, or more collecting.

A. Owen and Antwonet Treganza.

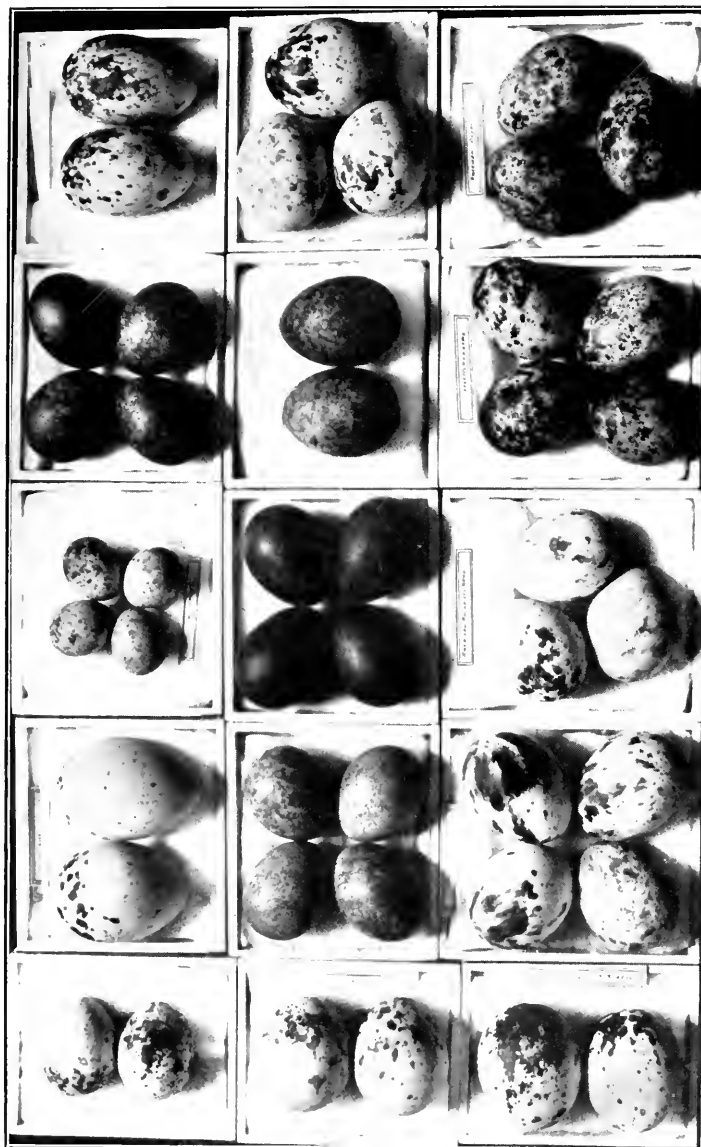
Preparation of Oological Specimens.

I suppose that at some time or other, every collector has had the thought come to him, that it would be fine if the drill hole could be eliminated entirely. Thinking along these

lines I began to experiment with the result that I found two methods to come close to the desired object. The first of these consists in using a very thin mixture of No. 1 moulding plaster, and injecting it into the inside of the shell with the aid of a long necked medicine dropper, first wetting the inside of the shell by squirting it full of water and emptying it again. After putting in the plaster mixture lay the shell with the hole down on a piece of glass, and in a few minutes time you will have a whole shell again, which only needs a touch of color to make it absolutely perfect. This method will be found of use where you wish to get rid of large holes in badly incubated eggs, and also to repair broken shells, (from the inside).

The second method is one that must appeal to all students who care for neatness in the scientific preparations of their specimens, and as it is just as simple as the everyday way, there should be no excuse for not using it. It consists simply in the hiding of the hole with the A. O. U. number. Take for instance the common Phoebe, (A. O. U. No. 456), drill as small a hole as possible; when ready to mark, place the figure "4" in front of the hole, start your "5" just above the hole and end it by making the lower loop of it encircle the hole as far as it goes; then put the "6" behind it, and you will find that the hole is practically invisible. As another example try a Summer Tanager's egg; in this case you have numbers "6, 1, 0." The figure "6" will go in first; the "1" in the middle; and the "0" will encircle the drill hole.

You will find that almost all the numbers will lend themselves to this system of marking, and the greatly improved appearance of the shell will more than pay you for your trouble, and prove a credit to you no matter which side happens to be up.



Some Well Market Sets of Birds of Prey in collection of James B. Carter, Waynesburg, Pa.

Now a word in regard to the medium for marking: the old time honored method, is by a soft lead pencil, which does very well for field use, but I wish to recommend a small steel crow quill pen, and a bottle of waterproof India ink. These two articles will cost you just fifty cents, and with them you can mark the smallest or largest specimens without the danger of breakage from pressing it too hard, as sometimes occurs with the pencil. With the knowledge that it will stay on until you wish to remove it, which is very quickly done by moistening the figures you wish to remove, with a touch of alcohol, and wiping with a damp ray, otherwise no amount of handling, wetting or polishing will smear them, as happens quite often with the soft lead pencil. Every collector knows that it is always a ticklish job to mark a Hummingbird's egg neatly and yet small enough to look good on so small a shell. With the crow quill it is quite easy.

Now one more thing before I quit: I received some specimens from correspondence, and wishing to change the progressive number to my own series, I started to wash them off, but alas! for they were written on with indelible, and the rest is too sad to tell.

H. A. Edwards.

Los Angeles, Cal.

G. A. Abbott.

After April 1, 1916, the address of Gerald A. Abbott, the well-known Chicago Oologist and business manager of the Wilson Ornithological Club will be, Portland, Oregon, care Marshall Wells Hardware Company, with whom he has accepted a position as traveling representative.

Egg Preparation.

I will tell you my plan by which I prepare my eggs at small holes very

easily. I now never use any egg drill but the smallest drill made for any egg up to the size of the Red-tailed Hawk egg. Unless incubation is one-third on, all eggs up to the size of a Bob White I drill the hole in the egg the size I want, then I take a lining cutter of my own make and run it around in the hole drilled in the egg and cut out the little round plug which wants to keep the hole stopped up as all collectors know this lining bothers a lot about blowing the contents out of an egg. When this is done I then take a blow pipe of my own make and blow a small bit, all that will come out easily, then I take the egg between my finger and shake same until the yellow and white in the egg is thoroughly mixed together and becomes then like water, then the contents of the egg can be blown out in a moment with ease. I only do eggs this way that is above the size of a Bob White egg. Where eggs are advanced in incubation and the embryo formed, I drill into them and blow out of them all I can, then I put water or alcohol in them enough to fill all the space in the egg, then I put the eggs in a safe place with holes up so water or alcohol will stay in them. I let them stand about twenty-eight hours, then I take them up and blow everything out of them I can and if the embryo has not become thin like blood so it will blow out all of it, I put the water or alcohol in again until the egg is full, then let it stand twenty-four hours again and by this time the embryo is nearly always rotted to where it will come out very easily. This is my plan to prepare eggs to prevent having large holes in them.

I do hate to see a fine valuable set of eggs with holes in them that look as if they were bored out with an inch drill like many I have in my collection taken by collectors in all parts of the

United States. I can blow a fresh Brown Thrasher's egg and thoroughly clean it at a hole so small you can hardly find the hole. I use for washing eggs out, a small oil can the size used for oiling sewing machines. This can I fill with water and hold the point of the can where the oil is to come out at near the hole in the egg; then knock the can to throw the water in the egg at the hole; or if the egg is large enough to let a medium size hole be drilled large enough, the point of the oil can can be inserted in the hole in the egg. The water can be easily pumped into the egg then, but this requires very careful work. This is much easier than to blow the water with the mouth through a blow pipe into the egg to wash it clean. After I wash an egg out clean, I then light a common lamp and hold the egg over the top of the lamp chimney until it is dry, with blow hole down; the heat from the lamp will also draw all the water out of the egg shell at once and you don't have to let the water drop on your hot lamp chimney. If you do, the chimney will break. I also have learned that drying egg shells by a lamp heat in this way prevents them from fading, which is of great importance as the shells of eggs of many birds are bad to fade and become very dull in color.

Valuable.

This issue of THE OOLOGIST will be a valuable hand book for those starting a collection of birds' eggs, as well as a reference mine for the older collectors.

The Preparation and Arrangement of Specimens.

While this field is a wide one I will not undertake to say much. I would like to speak about oological specimens only. If you are collecting or

contemplating doing so, do it with system and elegance; carefully select each specimen or set of specimens and after taking all notes and measurements, just as carefully, as to identification locality, situation, material in nest, etc., pack carefully for transportation, all this if you are sure the set is complete. If you cannot make sure of this, better wait a day or two for completion, a week or more if necessary. When you prepare the eggs, use all care necessary to prepare a first class specimen, cleaned through a small, perfectly drilled hole, use water and rinse perfectly clean, be sure and remove all of the contents of every specimen: dry slowly and carefully on a card with various sized holes in, in which to rest each egg. In number use a soft A. W. Faber drawing pencil about BG or BB, have a point and make small numbers done with neatness. Measure carefully the nest, and bind it about with black thread, 50 cotton size, wrap in tissue paper or make a cartoon of a heavy paper and put carefully away unless you intend to use it in the cabinet. In a small collection, I like to use a cabinet of drawers and place each nest with its egg in the drawers, write out a full data with some notes on the back, always having the number of the egg and nest on each data, so as to avoid confusion. If you wish to use the name of the bird on the nest of eggs in the cabinet, print them or have them printed in neat small letters. Whatever you do, use neatness and system, for nothing looks worse than a poorly kept, disorderly collection.

George W. H. vonBurgh.

Marking Eggs.

Among the numerous offerings you will doubtless receive giving methods and means used in the preparation of specimens, I would like to submit one on kindred subjects.

One is the subject of marking specimens. I frequently receive sets with none of the eggs marked or at most but one. Specimens in this condition seem little better than nameless waifs. They are genuine as to species and are bona-fide sets but when once away from the hands of the man who collected them they assume a doubtful status. It seems to me each of the eggs in a set should have marks on it conveying three items of information, i. e., the species, a set mark peculiar to this one set, and the number of eggs in the set. The first should be shown by the A. O. U. check list number. The second may be selected at the discretion of the collector. My set mark system at present is a consecutive collection number beginning at 1. In this way similar sets of different seasons are never confused by the same set mark. Until the series number reaches five figures it is not at all cumbersome. When 9999 is reached I intend to begin at 1 again and prefix "a" as the index of the new series. This method fits in very nicely with a loose leaf field note book I use where in each page is numbered. This page has on it only the notes referring to one particular set and the number of the page is the one given to that set as a set mark.

The third mark is naturally the number above the hole toward the large end of the egg, and in the other two in the shape of a fraction at the opposite side of the hole, the numerator being the set index and the denominator the number of eggs in the clutch.

Some collectors use only a set index, which has one serious objection. When separated from the note book of the collector containing the numbers in regular order it is impossible to tell the species (in many instances) or the number of eggs in the set. We

should remember that we are preparing eggs that will exist in collections after we are gone and they should be marked so as to leave no chance for confusion.

Other collectors begin each season with number 1 and use a different letter each year to designate the year. Probably this is as good a plan as mine but doesn't fit my notebook system. There are several other systems in use which entail more writing on the eggs and therefore do not seem as desirable, though in the event of lost data the more facts concerning the set that are written on the eggs the better.

There is one other point I would like space to mention. It is the almost universal habit of collectors sending nests by mail or express, to pack cotton either in the nests or around them or both, with nothing between the cotton and the nesting material. Many a wasted hour have I spent patiently picking the fuzz of cotton from a lichen-covered nest of one species or from the bark strips and straw of another. The wrapping from an orange or a bit of newspaper would make this unnecessary and the nests would arrive in as good if not in better shape.

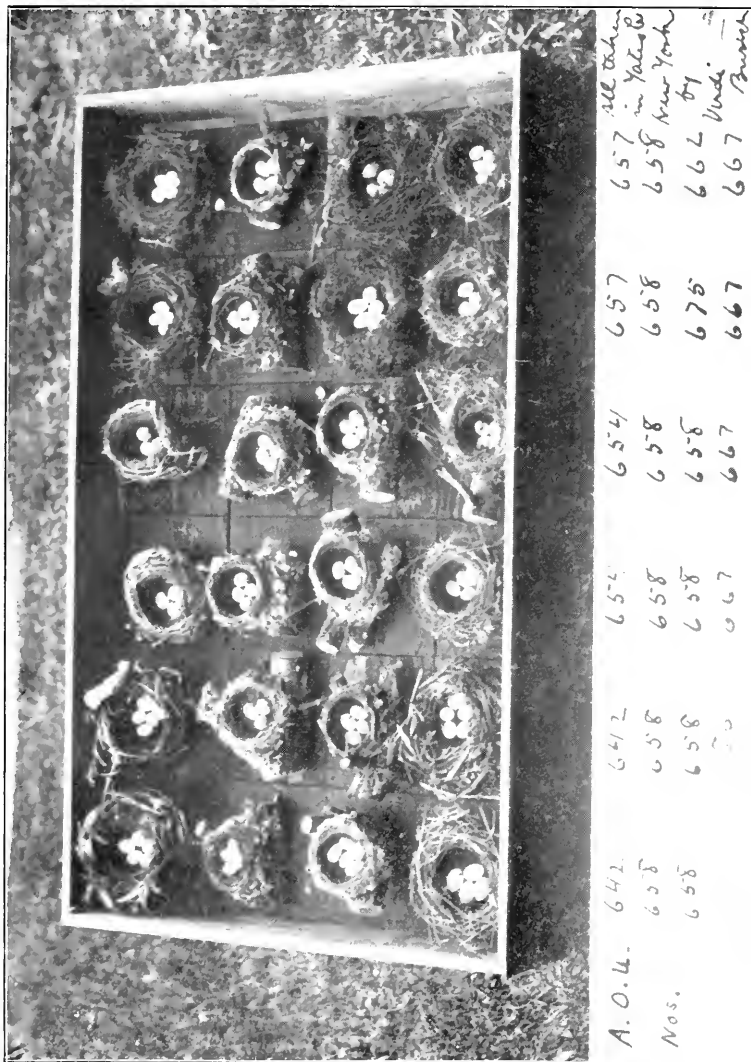
F. C. Willard.

1916.

Spring is here, hie to the woods and fields. Report all the good things, the rare finds, and the interesting observations to THE OOLOGIST.

An Open Letter.

Your promise in the November OOLOGIST to devote an entire number to discussion of methods for the arrangement and preparation of specimens was of particular interest to me, and if carried out successfully should prove of benefit to collectors in general.



Tray Arrangement of a Collection of Nest and Eggs of N; American Warblers.
 Taken in Yates County, N. Y. Photo by Verdi Burtch

It seems to me that there is a crying need for more complete data, especially for the rarer sets. Some years ago I received several large lots of European eggs, and was quite disgusted to find that as a rule the only data consisted of the name of the species, the date, and the locality. In the majority no reference was made to such obviously important items as the name of the collector, nesting-site, materials of the nest, incubation, etc.

Fortunately we are considerably in advance of this method in America, but even here there is often much to be desired. Just recently I received a set, the data for which made no mention whatsoever of the locality where the eggs were taken. Such sets are of course of no value as scientific specimens. Some collectors merely sign their initials, or in other instances write—"collected for"—so-and-so. This may be all right where the party for whom the set was taken is very well known but even then I think it would be better to show the full name of the collector proper.

To write "nest in an oak tree" does not tell us anything. There is no excuse for taking a set of eggs unless something is learned thereby of the nesting habits of the birds. Under the head of "Nest" should be written not only a description of the materials used, but also of the general shape and structure; whether a loosely constructed platform or a skillfully woven cup, basket or whatever the case may be. The nesting-site itself is fully as important, and the height from the ground, distance out from the trunk, and whether in a fork, saddled on a limb, or suspended among the twigs, should all be given. Also the character of the country where the set was taken, whether open woods, river bottom, brushy hill-side, etc. If of a species nesting in the mountains the ap-

proximate elevation above sea-level should be given whenever possible. When the set is a rare one no detail is so small as to be unworthy of record.

Another point is the set-mark. Taking the Robin as an example, the first set of three taken in any year will be numbered 1-3, the second 2-3, the third 3-3, etc. The following year the same thing occurs again, so that after a time there will be dozens of sets of the same species taken by the same collector, and all bearing the same set-mark. Then when you lose the data for a set and ask the collector for a duplicate he is up against it. A better plan is to write the year in which it was taken on every egg of each set; or better still to give each separate set an individual number in addition to the set-mark. This avoids a great deal of confusion, especially to those who collect in large series.

Looking forward to the publication of the promised number from which I am sure we all will glean something of value, I remain,

Yours very truly,

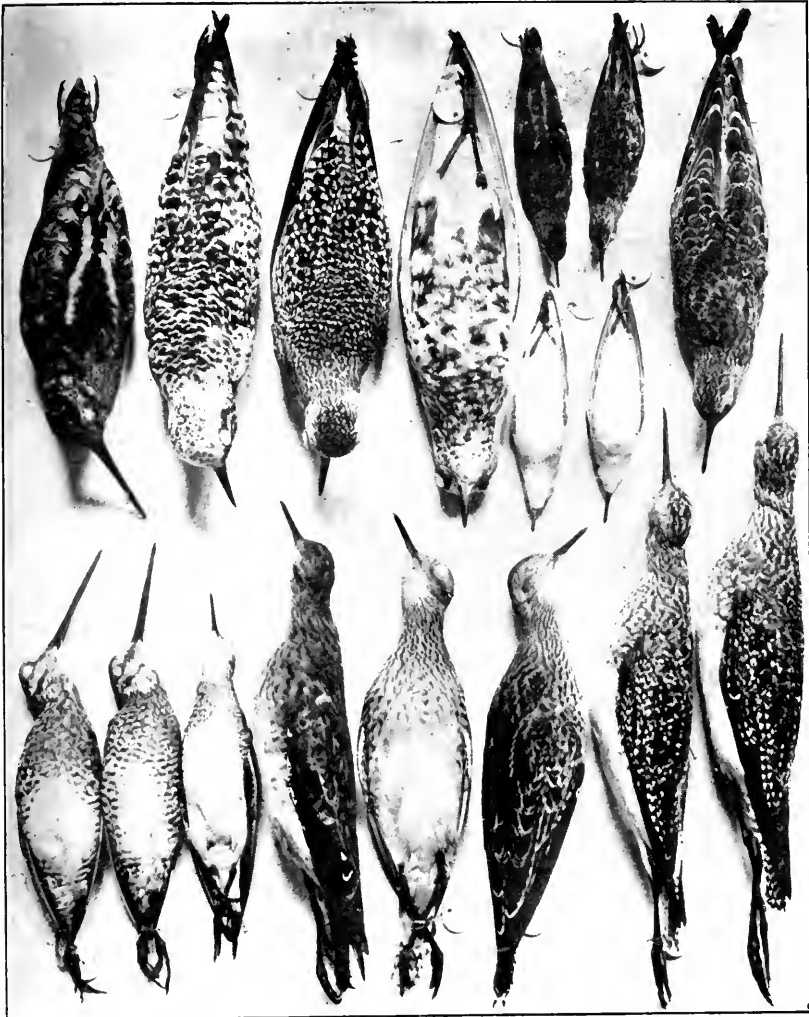
D. J. Shepardson.

Look 'Em Over.

Your collection should be looked over at least once a month, to keep watch for signs of deterioration, dampness, dust, insects and the like.

My Way of Caring For Nests.

In preparing nests for the cabinet I mount them on little boards $4\frac{1}{2}$ x 5 inches, twenty-four of these just fit a drawer in my cabinet, which is 18 x 30 inches inside. Orange box covers make the best as they are about the right width. I cut them to the right size and leave them rough just as they come from the saw and stain them a dark moss green with a stain made of chrome green and drop of black made



Shore Bird Skins Prepared and Photographed by Horace H. Green

very thin with turpentine. The grain of the wood shows nicely and the rough finish is much more artistic than to have the boards planed and they harmonize with the bark of the branches on which some of the nests are placed.

For the ground nests I make little wire baskets and fasten them to the little board mounts. The nests which are on a piece of the branch are fastened by putting a screw up through the bottom of the mount and into the branch, thus fastening the nest securely to the mount.

For Vireos nests and others that are in a forked branch I put a standard on one side or in a corner of the amount and making a hole in the top of the standard fit the end of the branch into the pole in the standard. Several Hummingbirds nests can be mounted on one board by using standards.

The accompanying photograph shows one of the Warbler drawers in my cabinet. Reading from left to right the nests and sets are Golden-winged Warbler (2), Black-throated Blue Warbler (2), Magnolia Warbler (2); Second row, all Cerulean Warbler; third row, Cerulean Warbler (4), Northern Water Thrush, Blackburnian Warbler; fourth row, Mourning Warbler, Canadian Warbler and Black-throated Green Warbler (4).

Verdi Burtch.

Collecting Birds' Nests.

There is nothing that enhances the value of a collection of eggs more than having the accompanying nests of the various species. The greatest objection to the formation of a collection of nests is the fact that they are as a rule bulky or I am sure there would be more collectors who would make it a rule to obtain for their private collection at least one nest of each species. In collecting nests it is always

desirable to secure the nest "in situ". By in situ is meant the procuring of the nest attached to the limb of the tree or any object on which the nest rests. Even the larger nests can quite often be secured "in situ" if one has the patience and time and means of conveyance for securing same. I secured my first of the larger nests, a crow's, after probably three hours' work. It was some thirty feet up in an oak and about $\frac{3}{4}$ of a mile from my home, but with a common hand saw and a rope to let it down with I secured the most interesting specimen, at least so to my visitors, that I had at that time. With certain situations you may have some difficulty. In one instance, I wanted a phoebe's nest showing the method of fastening to the side of a vertical surface. I found a nest thus attached on the side of a wooden beam under a low bridge. The beam was about a foot wide and two inches thick but I got the nest as originally fastened and also about a square foot of bridge after bringing the hand saw into play. I have also had difficulty in securing a nest of the green heron; the only nests of these birds I have found were in hawthorne tangles and I have as yet to secure one of these frail structures in presentable condition.

All birds have nests; even if the eggs are laid on the bare ground the spot where the eggs rest is the nest. To show that the species nests on the ground, the soil, sand or gravel on which the eggs were deposited can, with a little care, be transferred to a shallow box of a size varying with the dimensions of the nest; the eggs after preparation being placed in situation as when found. A trowel or spade is necessary in getting these ground nests. If you live near the ocean, where, as in the case with certain ocean birds whose eggs are deposited on rocks, it is, of course, impossible



Group of Bohemian Waxwing mounted and photographed by J. F. Stierle

or impracticable to attempt to take the nest unless you are a prospector and have mining tools and dynamite to work with. But with the average collector who collects near his home he can soon work up a collection of nests of much educational value.

The nests of birds such as woodpeckers can often be secured without much difficulty; when these birds nest in fence posts I have often taken the whole post home, sawed off the section containing the nest and put the rest of the post on the wood pile. Quite often some collectors saw a nest hole below the hole dug out by the birds to show the bed of the nest and the eggs. This is very satisfactory.

Where the nest is small it is well to place it in your cabinet, as with hummingbirds, vireos, knatcatchers and and some warblers, as nests are great dust collectors and should be protected by the cabinet or a glass show case when possible. When your oological specimen is rare or you have no duplicates I should not advise the placing of the specimens in the nest as they are more liable to breakage than in the recesses of your cabinet and also light, continually falling on your specimens will cause the eggs to fade to some extent. However, the private collector will find much pleasure in forming a collection of this kind. Some of these little nests are beauties of nature and what is more wonderful than the nests of some of the small warblers, the vireos, the hummingbirds, marsh wren, and the Baltimore oriole? And you will have no trouble in their preparation as a nest needs no skinning nor blowing as in the case with other ornithological specimens. As most of the nests will be found in trees you will need only a good pocket knife or with others a hand saw. So let us have more nests in our collections.

Emerson A. Stoner.

Ant Poison.

With one gallon of cheap syrup mix 1-3 ounce of Arsenate of Soda. Soak a sponge with the mixture and enclose it in a paper bag, perforated to admit the ants and parafined to protect the poison from the rain, small buckets or quart cans perforated near the top, will do. Tack the bags up where the ants will readily find them. Two or three bags should be placed in the infested territory. Replenish the bags with the poison at frequent intervals, as it is imperative that the entire colony be killed or the remaining ants will breed rapidly. If you find a bird's nest infested by ants place a few bags of poison where it will do the most good, otherwise the ants will eat the young birds.

W. A. Strong.

San Jose, Cal.

Blood Stains.

If I had known what I do now, about removing blood stains, I would have a good many more specimens on hand. One often hears or reads "Specimens too shot up or perhaps, bloody to save." Since I have used this method, which may be old, but which is new as far as I know, I have lost only one specimen, from its being too bloody,—an American Woodcock, whose head was all but shot off. Of course if feathers are riddles, or feet lost, this method will not save your bird, but at least try it on a bird which looks hopelessly bloody.

Take for instance, an Owl whose facial disc is a mass of blood, and whose eyes are shot to nothing. Follow this course: Get some luke warm water, several rags, plenty of cotton and some Kingsford's Cornstarch. Now dampen the face thoroughly with water, and mop off as much of the blood as possible; continue this process until the feathers seem free from

blood. Then lift them all up, and plug wounds with cotton, carefully fill up the space between the eyes and eyelids with cotton, and wash again, very thoroughly. Now apply very liberally the cornstarch. It will form a paste probably. With a tooth brush, take this off, and apply more. Gradually the pastiness will discontinue, and the feathers will assume their individual shape. Now shake, apply more cornstarch and when the pastiness stops entirely, begin using your old tooth brush. Brush and shake. The feathers will become fluffy. Put more cornstarch on if necessary, and continue to brush and shake. Eventually you will not know the bird had been shot in the face.

The gasoline-plaster paris method is no doubt good, but to me water is more agreeable than gasoline, and surely less expensive. The cornstarch is generally easier to get than gasoline.

George M. Sutton.

Hints On Egg Blowing.

By J. H. Bowles, Tacoma, Wash.

The first set of eggs that I have on record as personally collected is that of a Ruby-throated Hummingbird N-2, taken by my brother and myself at Canton, Mass., in June, 1882. One egg was broken in blowing, so the remaining one was turned over to my father, who was successful in making a perfect specimen of it (something of a feat for a man who had never even tried to blow an egg before.)

I advanced gradually in the study of oology, evolving and discarding many strange ideas. Among these was the theory that an egg was at its best when blown with a good big hole, whether it was fresh or advanced in incubation (let me pause here to say that some collectors of modern times seem to be of that same opinion). This was especially true of big eggs, such

as Red-shouldered Hawks. I thought these fine large eggs surely were worthy of the full capacity of my very largest drill. Happily I outgrew this stage before many years, gradually reducing the size of the hole until now I can prepare an egg in moderately presentable shape. An egg the size of that of the Crow, unless considerably advanced in incubation, should not require a hole larger than will admit the head of a common pin. A hole the size of the body of a pin is amply large for warbler eggs and the like. Personally I like even smaller holes, but perhaps I am something of an extremist in that direction.

Another disastrous scheme was trying to have the hole free from the lining of the shell. This utterly useless idea ruined several rare sets for me as first class material before I threw it into the discard. Blow your egg, clean it thoroughly with water, dry it, mark it with the A. O. U. number and the number of your own set-mark, and, if you have done your work neatly, no reasonable collector will find any fault with it. Mark the egg with small figures, one number above the hole with the other below it. Some of our very best collectors use ink in marking their specimens, but I greatly prefer a very soft lead pencil for many reasons.

Still another of my numerous mistakes was in using small shot to remove the membrane from an incubated egg after the rest of the contents had been removed. Again eggs were made second class and much time wasted before I found that, by filling the egg with water and twisting a horsehair around in it, the membrane could be removed quickly and easily. In eggs of warbler size and smaller a fine hair should be used, and care should be taken that it does not double together inside the egg. I think that I can safely say that this method

will be found a vast improvement upon the use of shot.

Removing the contents of an egg that is so nearly hatched that it is just short of being "pipped" is, I rather think, a rock upon which nearly all of us have foundered at times. I always test one egg from a nest if I am in the smallest doubt as to the stage of incubation, pricking a small hole with a pin where I should drill and testing the solidity of the contents with a grass stem. It is better to spoil one egg from a set in this way than to take the whole set home and then have to throw it away. It is unworthy of a true oologist for him to take a very hard set egg unless the species is so rare that he is unlikely to find another set. This rule should be applied only to small eggs, because the size of Quail eggs, or larger, can be safely prepared if the collector is able and willing to take plenty of time. In preparing eggs in this condition I have tried many advocated chemicals with more or less success (generally less), but have discarded them all for the following very simple plan. Do not drill the eggs at all, but set them aside where they will not get broken and leave them for at least two weeks. They should be turned every day in order that the contents may not adhere to the shell. By the end of two weeks, or more, drill the hole and the contents should become so softened that quite a little may be blown out, then fill the egg with water and set it aside for a day, continuing this treatment until the contents have been entirely removed. This method sounds much more tedious than it really is, and with the use of an embryo hook I have prepared with small holes eggs containing well feathered young of such species as Mountain Quail, Ancient Murrelet, Peal's Falcon, etc. Heavily marked eggs, such as the falcons, can be badly discolored by using

chemicals for dissolving the embryo, which fact I learned on a set of Sparrow Hawk. Be sure to let the contents get thoroughly softened before trying to remove the harder parts. If you are on a camping trip pack the eggs carefully and do not attempt to blow them until you get home. It will not hurt them if you do not look at them again for a month, as they will get turned sufficiently by the shifting of the camp equipment.

Well, I will stop now and give some other fellow a chance.

News For Bird Hunters.

Bloomington, Ill., Feb. 18.—[Special]—P. F. Flanagan, deputy game warden for central Illinois, received advices today that federal authorities had decided not to enforce the migratory game bird law, conflicting, as it does, with the Illinois statute, and that hunters may shoot water fowl this spring, the same as in years prior to the adoption of the federal statute.

The foregoing telegram appeared in one of the metropolitan Chicago dailies and is illustrative of the condition of law in the State of Illinois. Is it any wonder that the general public is getting disgusted with the law-making and law-enforcing officials throughout the land? The failure to enforce this Federal Statute would be an encouragement to every illicit seller of liquor, counterfeiter, post office burglar, and violator of the Mann Act to continue violating Federal Law. It does seem that sometime, somewhere, some person should be placed in office who has the ability and the nerve to enforce the law as he finds it, and who is not always either looking for graft or endeavoring to find a loophole through which he may avoid doing what it is his duty to do. The decision of the Federal authorities above referred to is an outrage and a disgrace.

THE OÖLOGIST.

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Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.

THE DOMESTIC CAT

The State Board of Agriculture of Massachusetts has issued a Bulletin—No. 2, on the subject of the domestic cat, and all bird lovers should procure a copy of the same and peruse it as early as possible, and then make it a point to destroy every cat possible, regardless of race, color, or previous condition. The petted and pampered house tabby as well as the alley cat and the half wild cats of the woods are all exceedingly destructive of bird life.

This bulletin shows the destruction of 170 species of birds of all sizes destroyed by cats, from the most diminutive species up to the size of the goose. The Bob-white. Grouse. Chipping Sparrow. Junco. Song Sparrow. Yellow Warbler, Catbird, Bluebird and Robin leading as to the number destroyed in the several species.

KILL THE CATS AND SAVE THE BIRDS.

The Federal Migration Law.

Our reference to the enforcement of this law or its lack of enforcement along the Illinois Valley, one of the great highways for migratory water fowl has brought a reply from the Bureau of Biological Survey, which says that the Department has not suspended the regulations of the Federal Migratory Bird Law, "but proposes to enforce them to the best of its ability," and asks THE OOLOGIST to announce this fact in its columns. This we are glad to do, and we hope that the Department will not only "propose" to enforce this law, but that it will enforce it.

The manner of its enforcement along the Illinois River is a disgrace to the government. Hunting is publicly and continually carried on. Anyone traveling on the Rock Island railroad or any of the roads running up and down the Illinois Valley, sees hunters fully equipped, carrying guns, wearing rubber boots, and with suspicious looking bags, getting on and off at all places. The boom of the guns can be heard in early morn and late evening from the office and home of the writer almost any day, and the flagrancy of the violation is further evidenced by account in the Peoria Transcript of March 27th of one Thomas Thompson of 200 North Adams street, Peoria, who shot his left hand off the day before "while hunting ducks across the river yesterday forenoon shortly before 6 o'clock," as runs the account in the Peoria daily paper aforesaid.

The Federal Migratory bird law is the one great corner stone for the preservation of the fast diminishing family of birds, and it is up to those whose duty it is to see that it is enforced.

THE OOLOGIST will be glad to give them all aid within its power.

Since writing the above the following is taken from the Lacon Home

Journal of March 30th, which shows how the law is being enforced in this vicinity:

"Shooting Ducks.

"Some of the hunters are taking the risk and are shooting ducks in opposition to the Federal law. A hunter passed our place Sunday with a bunch of eight or ten."

Flicker.

On May 10, 1915, I found a Flicker's nest twelve feet up in a dead elm containing three fresh eggs. My next visit to the nest was on the 18th of May and it contained thirteen eggs fresh. Now if the bird had laid an egg every day from the tenth until the eighteenth, that would account for eleven eggs. All the eggs were fertile but three were quite a bit larger than the remaining eight. Therefore I think, as it is reasonable to suppose, that two different Flickers laid eggs in this nest. (Toronto).

Goldfinch.

On August 27, 1915, I flushed a Goldfinch from her nest about fifteen feet up on a horizontal branch of an oak. The nest contained four perfectly fresh eggs. (Toronto).

Paul Tarrington.

The Northern Pileated Woodpecker.

(*Phlaotomus pileatus abieticola*)

By S. S. Dickey.

That scarlet-crested and attractive bird, the pileated woodpecker, known in some localities as Indian Hen, Logcock, and Woodcock was once a tolerably abundant species of woodpecker in most of the Eastern as well as the Central and Northern States. Years ago it is said not to have been uncommon to hear these wary birds as they uttered their flicker-like notes or paused to hammer on some hollow tree trunk. At that time the birds inhab-



Drawing illustrative of the Northern Pileated Woodpecker
—Made by S. S. Dickey

ited all forests. But with the vanishing of more cherished game, hunters began to persecute our great woodpecker, shooting the birds at every opportunity and leaving them as food for insects. As the country became more populated, the forests, necessarily, became smaller and smaller until the Indian Hen was compelled to seek refuge in the lesser timber tracts. Here, of course, their destruction was sure; for squirrel hunters, particularly slew each bird on account of its size and attractive coloration.

So, today, we find the pileated woodpecker driven by ruthless man, their greatest enemy, into the wilder and less frequented mountain slashings, primeval forests, or wooded tracts removed from the habitations of man. It is true that in some regions, where the birds are not molested, they will resort to woods quite near the dwellings of men.

This giant woodpecker has been divided by scientists into two geographical races, the Pileated Woodpecker, *Phloeotomus pileatus pileatus*, and the Northern Pileated Woodpecker, *Phloeotomus pileatus abieticola*. The Northerner is said to be of a larger size than the species found farther south. It ranges from the southern Alleghany Mountains into the central parts of the Dominion of Canada; while the true Pileated ranges throughout the Southern States. The species are similar in habits. They flit about the darker forests, feeding extensively upon large ants, beetles, and larvae, thus ridding the trees of quite noxious insect pests. Undoubtedly the birds are valuable to the forests.

For nesting places these birds usually select some dead, or partly dead, snag, hidden away in the deeper recesses of a forest or slashing. In this snag they excavate a cavity to a depth of from fifteen to twenty inches, en-

larging it as they dig downwards. Upon soft chips of wood they deposit from three to five pure white and glassy eggs. Early May is the usual time for completed sets in the North, while in the South the middle of April is the time for a full clutch. A nest found by the writer on May 8, 1913, in Central Pennsylvania, was dug into a somewhat leaning red maple (*Acer rubrum*) snag which was secluded in a dense and wet timber slashing, deep down in a mountain valley. It was thirty feet above the ground and about seven feet below the top of the snag. The entrance hole faced the East. The bird was at home on four fresh eggs which appeared very beautiful, their intensely yellowish yolks giving them an attractive tinge of color. The eggs measured 1.30 x .99, 1.35 x .97, 1.27 x .96, 1.28 x .96.

For several years past I knew that the pileated woodpecker regularly inhabited some of the larger and more secluded woods of southwestern Pennsylvania. Mr. J. Warren Jacobs had found them nesting many years ago. On May 22, 1904, I saw my first pileated woodpecker. It was picking at the dead part of an apple tree that stood in an orchard bordering an extensive woods of huge oak, ash, and tulip trees. I felt sure that a pair of the birds nested there each season and was assured of it when my friend, Mr. James Carter, noted in early June, 1906, an adult bird accompanied by three well grown young. They crept up the side of a giant white ash tree and Mr. Carter watched them a short time. I made several searches for a nest with the result that I found a dilapidated excavation, 10 feet up, in the top of a sugar maple snag that stood on a steep hillside. The excavation was not a deep one, being probably 8 or 9 inches. Since the preceding notes I have had no signs of the birds



Nesting Stub of Northern Pileated Woodpecker in Red Maple
tree, Huntington County, Pa., May, 1913
—Photo by S. S. Dickey

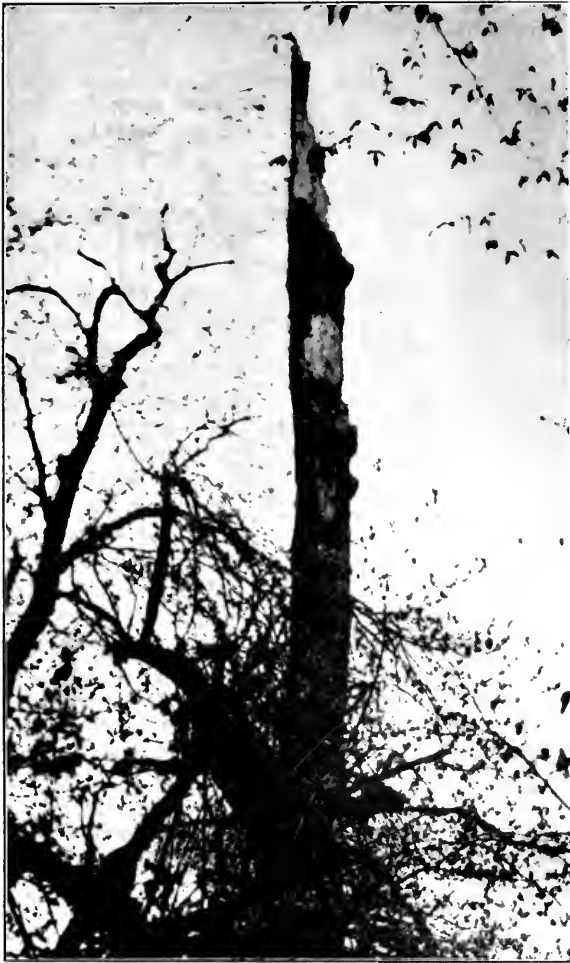
and it is quite probable that they have gone the way of all worldly flesh at the hands of some squirrel hunter. I talked with several men who roam the woods during Sundays and spare time and they have reported the pileated woodpecker as inhabiting several of the larger woods. An old man said he had seen a pair about 1907 and had shot one of the birds.

I asked my friend, Mr. Guy Garrison, who lives some twenty-two miles southwest of Waynesburg, if he had seen these large woodpeckers in that region. He told me that he had at one time observed five in a bunch and had shot one bird. This happened in the summer several years since. I requested him to keep a close watch for the birds and late in the summer of 1913 he reported that he had seen one of them fly across a deep ravine between two wooded hills, and just above his home. Late last March I again inquired about the birds and my friend told me they had been pounding in the woods above his house. When a few days had passed I went into that section of the county in search of Red-tailed Hawk's nests. Mr. Garrison directed me to the place where he had frequently heard the birds "pounding." I was not long in detecting numerous chips upon the ground, and peering up I discovered a newly made hole, 35 feet above the ground, in the dead top of a slender live sour gum (*Nyssa sylvatica*). This tree stood on a small flat and just below the crest of the ridge. The woods there was small but became more extensive as it crossed the hill into a deep ravine. The day following I went home with high hopes of returning to this place when early May should come.

On May 7, accompanied by Professor R. C. Harlow, who had come to spend several days with the birds, I

took the hack for Pine Bank, a post office seventeen miles away. From this point we tramped over the hills to the home of Mr. Garrison, arriving after dark. Early the following morning we were all three at the base of the gum tree. Harlow said the nest looked fine; and I imagined the bird was sitting on her eggs. However, upon ascending the tree, no bird appeared at the opening. I cut away the tough outer bark and found that the cavity held many large chips and two black beetles alive. Such was the luck! We went down the hill to the house, not over an eighth of a mile away, and after an hour had passed we heard a pileated woodpecker calling from the vicinity of our false nest. I am unable to say whether the cavity had been dug for nesting purposes or whether it was one of the false holes sometimes prepared by woodpeckers. Guy told me that the birds had been there digging all through April and it seems strange that they should work so diligently on a false hole. We spent the next day in the neighborhood and twice heard pileated woodpecker's call notes. I found an old excavation in the top of a gum snag. Mr. James Carter visited the region a week later and saw one of the birds picking at an apple tree that stood in an orchard near the house. It soon flew away to the woods.

On May 20 I was hunting for a nest of Whip-poor-will in a forest of huge oaks, that lay in a deep ravine, four miles from my home. In the top of a big white oak snag, and probably 25 feet above the ground, I spied a large and new entrance hole of the pileated woodpecker. There were chips on the ground beneath the cavity, so I expected to find young birds in the nest. No amount of pounding on the snag produced a bird's head at the opening. Upon ascending to the hole I



Nesting Stub of Northern Pileated Woodpecker in Sour Gum
Tree in Southwestern Pennsylvania, May, 1914
—Photo by S. S. Dickey

found that it held spider webs and many chips. However, the excavation had been made quite recently and was about 10 inches in depth.

Now there still remain a few pairs of these elegant birds in our Green County woods. Perhaps sometimes I shall be so fortunate as to locate an occupied nest, and if so I shall be the happiest man in all these parts, for there is no bird that lends to me the attractiveness that does the noble pileated woodpecker.

The Great Black-Backed Gull on the Hudson River.

The Great Black-backed Gull (*Larus marinus*) during the past winter has been rather common on the Hudson River from Yonkers to the Battery and even more so on upper New York Bay.

On December 7th the first of the season appeared off Barclay Street, Manhattan and was feeding on the river in company with the Herring Gulls which were unusually abundant on this particular date. On the 17th two individuals were observed off Hoboken near midstream, both resting on the surface of the river. On the 23d one was seen near the Franklin Street piers, Manhattan. This also was resting on the river surface.

In January ten were recorded during the month. On the 5th, one was observed just west of Governor's Island. On the 10th, two were seen near the ship canal at Spuyten Duyvil and about an hour after one was observed near the Edgewater Ferry at 130th Street, Manhattan. On the 18th one was observed flying low over the river at Englewood Cliffs, New Jersey. On the 26th, four individuals were seen near St. George, Staten Island. On the 29th one was recorded off Christopher Street, Manhattan.

During February seven individuals were observed, two near Liberty Island

on the 4th; one off the sugar refinery at Yonkers on the 8th; two near midstream just above Twenty-third Street, Manhattan, on the 10th, and two near the southern end of Governor's Island on the 14th.

The above records constitute the most abundant season that the writer has experienced with these birds during the past decade and a half.

Louis S. Kohler.

Bubo Virginianus.

The Great Horned Owl.

I want to state my experience in observing the nesting and collecting the eggs and young in the different seasons and dates from 1891 to 1912 and show the variation which in these years amounted to twenty-six days, in 9 years from one location:

Set of 3 March 9th, 1891.

Set of 2 March 9th, 1893.

Set of 2 March 16th, 1894.

Set of 2 March 9th, 1895.

Set of 2 April 5th, 1896, in vacated nest of Hawk in nearby high pine.

Set of 2 March 18th, 1901.

Set of 2 March 16th, 1904.

Set of 2 March 20th, 1911.

Set of 2 March 20, 1912.

Seven of these sets were taken from the same nest which was located in a large cavity produced by the breaking down of a very large limb on an old elm tree, large enough so that I could stand erect in it, and one set in a nearby pine tree in a vacated Hawk nest after the elm tree was cut down.

Later I found a nest of the Great Horned Owl which contained three very large young, and took them home. One of them I presented to Brother Crucius in Casisus College and it was a great favorite with the brothers. It was kept in the college and had free access to their dining room. When they called for "Hans" it came to them



Nesting Stub of Northern Pileated Woodpecker, Huntington Co., Pa.
—Photo by S. S. Dickey.

and liberally fed. One day it flew out of the open window and led by her instinct went to a nearby chicken coop for some young chickens. The owner observed it and struck it a vicious blow with a heavy stick and broke the wing bones, which finished it. The other two are mounted, which makes a handsome group with a large Horned Owl.

I have other sets in different localities.
Edward Reinecke.
Buffalo, N. Y.

Accipiter Velox.

It is not often that a person gets the opportunity of observing a Sharp-shinned Hawk around Pittsburgh as these birds are exceedingly scarce in this vicinity. The last occasion I had of seeing one was not a very joyful one, yet it was intensely interesting.

On the seventh of February while waiting for a shy Cardinal, which was rendered more shy by the proximity of the camera, to come to my feed-box I was suddenly surprised to see both Cardinal and several Song Sparrows go scudding to the shelter of some nearby brush. A moment later *Accipiter Velox* shot past, about five or six feet above the ground, alighting in a tree some fifty feet behind me. A few minutes later he disappeared.

I settled down again to wait for any more birds that might come within range of the camera. Five minutes or more passed without any sound except the distant notes of a few Chickadees, when behind me I heard a couple of weak chips and a brief scuffle. Turning around I was greeted by the sight of the triumphant Hawk bearing its small feathered victim across the ravine to the opposite hillside where it doubtless meant to enjoy its repast. What the unfortunate bird was I could not make out, but I think it was a Slate-colored Junco.

Albert D. McGrew.

Birds of a Kansas Farm-Yard.

While spending some time at home during June, 1915, was impressed with the large number of birds seen. On making a survey of the house-yard, orchard, cottonwood grove near barn yard and hedge fence through field, found twenty-four nests of the Mourning Dove, some were on top of Grackle nests and one on top of a Brown Thrasher's; nineteen nests of the Bronzed Grackle were found, some had eggs, some young, but mostly empty. The air was full of Grackles, especially with their "grackle."

Orchard Orioles were next in existence. They had six nests, three with eggs and young; three pair of Brown Thrashers in orchard and yard, two held young. A catbird had a nest in a plum patch and a Bell's Vireo had four well incubated eggs in another plum thicket, June 18th another pair was in the Cottonwood grove. A pair of Red-eye Vireos had one young in a Box alder near the house and another pair in a cottonwood near the barn yard. A pair of Red-headed Woodpeckers had eggs in the same hole in which they, or some other pair had nested last year. I cut into the nest hole the year before from the upper side of limb and saw the eggs and tied the bark with some twine, the young came out in due time.

A pair of Kingbirds nested in the top of an apple tree; a pair of Grackles farther down and below it a Mourning Dove; all held eggs at the same time. A yellow-billed Cuckoo had two young in a peach tree and two other pair were in the hedge row. A Mocking bird's nest held three eggs in a peach tree in the back part of the orchard. A pair each of Downey and Hairy Woodpeckers were in the Cottonwood grove, also a pair of Chickadees and Great Crested Flycatchers. Quite a number of Grass-



False Nest of Northern Pileated Woodpecker, 22 miles southwest of
Waynesburg, Pa. Hole made about May 8, 1914.

—Photo by S. S. Dickey.

hopper Sparrows were seen about the farm, also some Dickcissels.

I found the neighboring farm yards to have a like number of birds. One farm, however, having usual trees but no buildings had but one Brown Thrasher's nest and one Dickcissel's.

This country, Saline County, was at one time a great prairie, except along rivers and water courses, the birds coming as the country was settled up.

Albert J. Kirn.

The American Vulture.

Have you not noticed a marked decrease in the number of Black and Turkey Vultures in the last year or so. Not only have I noticed the decrease of one of our most common birds but also have had it brought to my attention by other naturalists of this section of the state as well as the southern portions. This does not mean that they are almost all gone but that they have begun to diminish in number greatly. I first noticed this a couple years ago and it has increased until now it is very noticeable.

Even though declared disease carriers by scientists, why should we sit calmly and see this bird of prey become extinct so that our children will look back on it as we look on the California Vulture and several other species that I could name with ease and that are now almost extinct but were once plentiful. Everything is for some good purpose. Why not the Vulture?

Let us hear how your notes have run for the last couple years so that we may determine whether this decrease is universal or if it is only local. My last trip was only for a day but in a whole day in the country I only recorded having seen five Turkey Vultures.

Leverette Fitzpatrick.

Waco, Texas.

A Bird Roof Garden.

Since January I have been finding large numbers of Horned and Prairie Horned Larks, Snowflakes, Sparrows, Crows, Pheasants and Juncos and have secured in the meantime about one hundred fifty fine negatives of these birds in all sorts of places.

One unique photo shows a Lapland Longspur feeding on weed seeds in company with female Redwing Blackbird and a Snowflake. Other photos show Larks, Snowflakes and Sparrows eagerly feeding on weed seed (clear weed seed obtained from grain elevators and I fed eight bushel of it).

Also obtained many photographs illustrating spiteful attitudes, playful antics and other natural expressions of a bird's happy disposition.

Besides these ground feeding spots I have a very choice assortment of old shrubs, evergreen, a log, an apple tree, branch with rotten apples attached, all placed on the roof of my front porch and as I write this I look from by den window and within six feet of me are now feeding a noisy lot of Tree Sparrows who burst forth into a clear sweet whistling melody at frequent intervals. Several spic and span slate colored Juncos are also there, trilling incessantly. One of these Juncos has been so unfortunate as to nearly lose all the dark feathers of his tail, so that his tail is nearly all snow white on top, and so I call him silver-tail. He has visited this roof-garden now for over two weeks.

Another bird who I am able to know every time is what I call the Black Chickadee. This Chickadee's sides and flanks are wholly black leaving but a narrow breast or belly streak of normal color. This bird's sides are as dark and pure colored as the darkest Junco.



White oak snag near Waynesburg, Pa., showing excavation of Pileated Woodpecker (the hole near the top).

—Photo by S. S. Dickey.

If you will look in Birdlore for January-February, 1916, you will see a colored Mexican Chickadee. This Chickadee is all black on the sides (like the throat) where the Mexican is so much lighter colored. But this must be a Black-capped Chickadee; it does not seem at all possible that the Mexican could be way up here.

This roof garden of mine is located near a lot of pine, maple, and red cedar trees, so it is quite woody and specially attractive to many species of birds.

Although my wife says "our" front porch and "my" roof garden is a disgrace to the place, yet nevertheless, just the same, I shall maintain this roof garden all the year and offer a menu that will meet the varied tastes of every bird from the lowly old English Sparrow to Warblers and Kinglets, with everything served on the European plan with no prices attached.

So far as I have obtained five negatives of Hairy Woodpecker, Downy Woodpecker, White-breasted Nuthatch, Chickadees, Junco, Tree Sparrows, Song Sparrows, many in groups all leading a gay life on my bird roof garden.

C. F. Stone.

Branchport, N. Y.

Painted Bunting.

A. O. U. 601, *Cyanospiza ciris*.

The Painted Bunting is the most beautiful bird nesting in this county. They are five and one-half inches long. The male has a red breast, blue head, green back and red rump. Female has bright green back, and greenish yellow breast. Unlike most birds where the male is brightly colored and the female is duller these birds are both as pretty as a painting from which I suppose they got their name. They arrive here in April. I have often seen them on phone wires singing

as good as any canary I ever saw in a cage. They spend considerable time in and around town before looking for a nesting site. In May they are found visiting thickets and hedges, after deciding where to place the nest it is built of grass, paper and rootlets at a low distance from the ground. I find that they have no good way to stick the nest securely to the branches, and are often blown from the tree or bush by strong winds, destroying many eggs in this manner, although the nest is well made and stays together. Usually four eggs are laid, measuring .78 x .58, having a white background, thickly specked and blotched with brown.

R. Graham, Taxidermist.

Ft. Worth, Texas.

Welcome The Thrushes.

That Thrushes—the group of birds in which are included Robins and Bluebirds—do a great deal of good and very little harm to agriculture, is the conclusion reached by investigators of the United States Department of Agriculture who have carefully studied the food habits of these birds. Altogether there are within the limits of the United States eleven species of Thrushes, five of which are commonly known as Robins and Bluebirds. The other six include the Townsend solitaire, the Wood, the Veery, the Gray-cheek, the Olive-back, and the hermit thrushes.

The Robins and Bluebirds nest close to houses, and even the shyest of the other species are content with the seclusion of an acre or two of woodland or swamp. For this reason the Thrushes are among the best known and most carefully protected of native American birds, and at times their numbers become so great that it is feared they will do much harm to crops and fruit. The recent investigations of the Department of Agricul-



Nearer view of cavity made by Northern Pileated Woodpecker in 1914
Near Waynesburg, Pa.

—Photo by S. S. Dickey.

ture, however, show that there is very little ground for this fear. On the other hand, they destroy such a vast number of insects each year, that it is probable that without them many crops would suffer serious damage.

Of all the Thrushes, the Robin is probably the best known. It has been frequently accused of destroying fruits and berries, but it has now been ascertained that this only occurs in regions that are so thickly settled that there is no wild fruit upon which the Robin may subsist. In some years the bird is a great pest in the olive orchards of California, but it is probable that they are driven to the orchards because of the scarcity of native berries at these times. Where wild fruit is available, the birds seem to prefer this to the cultivated varieties.

Like the Robin, the Bluebird is very domestic, but unlike the Robin, it does not prey upon any cultivated product or work any injury whatever to the fruit grower. During the fruit season, in fact, five-sixths of its food consists of insects. It seems, therefore, that the common practice of encouraging the Bluebird to nest near houses by placing convenient boxes in which it may build its home is thoroughly justified.

A detailed description of the habits of the Robins and Bluebirds is contained in Bulletin No 171 of the United States Department of Agriculture. Bulletin No. 280, which has just been published, takes up the habits of the six other species of the thrush group, which are not quite so well known. These birds also feed principally on insects and fruit, but a great portion of the fruit which they consume is wild berries. Domestic fruits are eaten so sparingly by these species that the damage done is quite negligible.

The bird known as the Townsend solitaire is noted chiefly for its

song which is said to be at times the finest of any of the Thrush family. This Thrush, however, confines itself almost entirely to the mountains and gorges of the West. The Wood Thrush, on the other hand, is distributed over the eastern part of the United States, and is a frequenter of open groves and bushy pastures. This Thrush also is noted for its sweet song, especially in the early evening. It does not nest in gardens or orchards, however, and is seldom seen about farm buildings, so that many people who are familiar with its song would not know the bird by sight. The Wood Thrush consumes a number of very harmful insects such as the Colorado potato beetle and white grubs. The fruit which it eats, it usually picks up from the ground instead of taking fresh from the tree. There is therefore no reason why the Wood Thrush should not be rigidly protected.

The food of the other varieties also seems to consist of little that it injures anyone to have the birds eat, while on the other hand they destroy multitudes of harmful insects each year.

U. S. Biological Dept.

Wood Ducks.

I was greatly surprised to see a pair of Wood Ducks today while walking around in the woods of Jamaica. This is the first pair of these beautiful ducks I have ever seen in their wild state. But I have seen enough that had been raised in captivity and otherwise tame, besides mounted ones to be sure of identification.

They were found in a sort of flooded woods and I unconsciously saved them from being shot by a hunter. Although hunting is not allowed in this place because of its being within the city limits, I noticed four fellows were out with guns shooting at crows. I saw

one of them coming in my direction but took no further notice of him until he suddenly fired a shot and looking up saw these two ducks directly over me. As they passed I could see the male bird very plainly with the female on the side. The green head with its white markings on the first bird, and its nice round body with its short wings, quickly beating the air, could all be distinctly seen in that second before they had disappeared behind the trees.

It happened that I had chased the birds up before he could get within range for a good shot and had to fire quickly as they took to flight. When I told him they were ducks he couldn't believe it. He had never seen ducks "sit on trees."

Milton J. Hofmann.

Books Received.

THE WINTER BIRD LIFE OF MINNESOTA by Thos. S. Roberts, (Geological and Natural History Survey of Minnesota, Occasional Papers No. 1.)

The above is a very desirable local list of the winter birds of Minnesota, comprising 86 species, divided into four separate lists, as permanent residents, winter visitant, half hardy and accidental; illustrated by many half tones and a splendid colored plate of the Evening Grosbeak, male and female.

UNIVERSITY OF CALIFORNIA PUBLICATIONS OF ZOOLOGY, Vol. XII, No. 13 (Report upon Minerals and Birds found in portions of Trinity, Siskiyou and Shasta Counties, California, by Louise Kellogg), and No. 14 (An Analysis of the Vertebrate Fauna of the Trinity Region of Northern California, by Julius Grinnell).

Both of these papers are thorough and scientific and a goodly number of high class half tones accompany the

publication. They are a valuable addition to the literature pertaining to the subjects covered.

Cocoanut Grove.

Dade County, Fla.

Birds are plentiful here this season and my notes for recent trips give a number of individual of following species:

Kingfisher, Phoebe, Red-bellied Woodpecker, Flicker, Blue Jay, Florida Jay, Bob-o-link, Meadow lark, Boat-tailed Grackle, Pine Woods Sparrow, Towhee, Cardinal, Painted Bunting, Tree Swallow, Loggerhead Shrike, Pine Warbler, Mockingbird, Catbird, Florida Wren, Blue Gray, Gnatcatcher, Robin, Bluebird, Buzzard, Osprey, Killdeer, Ground Dove, Sparrow Hawk and Red-Shouldered Hawk.

Hope to go on a trip among the keys in a few weeks and if I have any notes worth while will write them up and send to you. Miller T. Mercer.

Ignorance.

The following comes from Troutville, Virginia, and is illustrative of the great lack of ornithological knowledge on the part of the general public, and we are not real sure but that the bird mentioned here is not an immature Bald Eagle as the Golden Eagle is very seldom found in that territory:

Nov. 27, 1915.

Two weeks ago, Harry Caldwell, son of our tenant, captured a Golden Eagle. He is a poor boy, and has been too ill to work all summer. He tried all of the physicians around here without improving his health. Finally a Roanoke (Va.) doctor told him to go to Johns Hopkins at Baltimore, for treatment, but he had no money.

Mr. Shaver had an article put in the Roanoke paper telling about the eagle, and said that Harry hoped to make something from the bird to help pay his hospital bill. The next day an answer came suggesting that Harry put the bird on exhibit in Roanoke and charge ten cents admission. He did

so, and in two weeks made \$300 above expenses and besides a man offered him \$500 for it. Someone told him that the last one that was captured came from Scotland, and sold for \$1500, so he is holding it a while longer. Harry has gone to Baltimore.

The eagle is thirty-five inches long, and measures six feet ten inches from tip to tip of its wings. It was first seen in Mr. Caldwell's garden on Sunday evening. The next morning Harry took his gun and went to look for it. He shot at it three times, but fortunately only stunned it, and with the assistance of two men, bound it and carried it home.

My First Set of Red-Shouldered Hawk's Eggs.

It is with cherished memory that I recall the taking of my first set of Red Shouldered Hawk's eggs. It was when I was a young lad and spent every moment of my spare time roaming about the fields, being interested in nature in general. Although I often wandered quite a distance from home, in the open fields, I did not venture far into the woods. However, one bright day in the latter part of April I took upon myself the responsibility of going into the woods, without the guidance of my older brother, whom I had accompanied on a few trips for the purpose of setting traps and etc. After wandering some little distance in the woods, taking care to mark my way sufficiently to guide me on my return, I by chance sighted a bulky nest about twenty-five feet up in a large chestnut tree. Upon approaching it I was greeted with a sharp "keeyook" as a huge Hawk glided rapidly away. As I recall it the bird appeared to me as large as an Osprey would now, rather a magnified imagination apparent I think, in most youths. You can imagine how my heart fluttered and the great desire I had of securing the eggs which would be as golden treasures in my collection. I made several unsuccessful attempts to climb

the tree but timidity coupled with my inability to climb well prevented me from reaching the nest and had it not been for my oldest brother, I would not have procured climb in all the woods, and loaded him that it was the most difficult tree to climb all the woods, and loaded him down with straps and ropes, we made our way back and were soon beneath the tree. To my great surprise he very easily climbed the mighty tree and by means of a pail attached to a string lowered the three eggs. They were very much incubated and the markings were few and faded, but they were cherished by me, and it is with fond reminiscence that I recall the incident.

Since that time I have examined dozens of nests of this specie of Hawk, many nests having only two eggs, a few four but the majority contained three. The markings range from heavily blotched to very light and very rarely a set will be almost or wholly unmarked. Freak eggs are sometimes found but only one such set have I had the good fortune to find. It contained four eggs, one being about one-half normal size. Most all kinds of trees were used to nest in, perhaps more often chestnuts. I have found a nest as low as twelve feet and one as high as seventy-two but the average height was about thirty feet. The nests were made of sticks, lined with dry leaves, shreds of cedar bark or green cedar and hemlock boughs and usually placed in a crotch. I have observed that the birds frequently adorn their nests outside and in with fluffy downy feathers plucked from their own bodies; a peculiar custom which for no perceivable reason, I believe is practiced by nearly all variety of Hawks. The birds are not very sociable in the nesting season and I find that seldom more

than a single pair nest in one piece of woods, unless an extensive piece of woodland and then probably at least a mile apart. They return to the same nesting grounds each spring and unless disturbed, the same nest is generally used. A few sticks and the usual lining completes the necessary additions.

Ralph R. Wilson.

Elevated Towhee Nest.

On August 5th, 1915, I found a nest of the Towhee containing four fresh eggs. The nest was five and one-half inches high and was situated about twenty inches above the ground in a buckberry bush. This was evidently a second set. The eggs measured .69 x .79, .69 x .80, .69 x .83, .69 x .88. This was the first nest of this species which I have found containing eggs, although I have found old nests and they were on the ground placed in little hollows.

Ralph R. Wilson.

Nesting Dates of Texas Birds.

By R. Graham, Taxidermist.
Ft. Worth, Texas.

These are some of the nests that G. E. Maxon and myself examined in 1915:

March 6th—1-3, American Crow in elm 10 feet up, found 6 fresh eggs.

March 15th—1-5 American Crow in elm 15 feet up.

March 17th—1-4, 2-4, 1-5, 2-5, 1-6 American Crow, all in elm trees from 10 to 20 feet up.

March 18th—Hawk nest and 2 young horned owls.

March 19th—1-2 Krider's Hawk, 1-3 Horned Owl, 1-2 Black Vulture; 1-2 Barred Owl.

March 21st—1-6 American Crow 12 feet up; 1-4 American Crow 20 feet up.

April 7th—Found rock resembling a hen egg.

April 9th—1-4 Blue Bird in hole 8 feet up, dead tree; 1-2 Turkey Vulture in rock cave.

April 12th—1-5 Tufted Titmouse in small hole 5 ft. up in elm; 1-4 Phoebe in crevice near spring on sand bank 6 ft. up.

April 13th—1-4 Cardinal in vines 4 feet up.

April 14th—1-2 Mourning Dove, 8 feet up; 1-2 Mourning Dove on top of a broken off tree top 10 ft. up; 1-4 Cardinal in bush 3 feet up.

April 16th—1-6 American Crow in elm 12 feet up; 1-5 American Crow in elm 10 feet up.

April 19th—1-4 Cardinal in thorn tree 4 feet up; 1 White-eyed Vireo at edge of thick woods 3 feet up on overhanging limb.

April 20th—1-4 Mocking bird in hedge 4 feet up; 1-4 screech Owl in dead tree 2 feet hollow, 10 feet up.

April 21st—1-4 Killdeer near railroad in gravel; 1-4 Screech Owl in dead elm 9 feet up; 1-4 Mocking bird in bush 4 feet up.

April 24th—1-4 Lark Sparrow in hedge 3 feet up.

April 27th—1-4 Meadowlark on prairie near small ditch; 1-3 Screech Owl in dead hollow tree 10 feet up; 1-3, 2-3, 1-4 Cardinal in thicket 3 to 6 feet up; 1-1 White-eyed Vireo and 2 Cowbirds, Vireo smashed, in low tree near edge of woods 3 feet up; 1-4 Roadrunner in fallen tree 3 ft. up; 1-5 & 1-4 American Crow 10 and 12 feet up in elm.

April 30th—1-3 Screech Owl in dead tree 10 feet up; 1-4 Mocking bird in bush 2½ feet up.

May 4th—Found Killdeer's nest; it was sunk in the ground; lined with small gravel; near creek.

May 5th—1-4 Tufted Titmouse in post 4 feet up; 1-4 Painted Bunting in thorn tree 3 feet up; 1-3 Lark Sparrow on ground; 1-4 Grasshopper Sparrow on Prairie; 1-4 Mocking bird in bush 4 feet up; 3 Krider's Hawk in elm 15 feet up; 1-4 Cassin's Sparrow unusually late in this locality; nest on rocky hill side on ground. They lay early here.

May 13th—1-4 Grasshopper Sparrow on Prairie; 1-5 Dickcissel in hedge; 1-4 Mocking bird in hedge; 1-4 Bell's Vireo in hedge; 1-1 Roadrunner in low tree 5 feet up.

May 16th—1-4 Lark Sparrow on ground; 1-4 Scissor Tail Flycatcher; 1-4, 1-5 Dickcissel in weeds.

May 17th—1-4, 2-4, Dickcissel; 1-3 Lark Sparrow; 1-2 Mourning Dove; 1-4 Bell's Vireo; 1-3 Bell's Vireo & Cowbird; 1-3 Bell's Vireo in a hedge; 1-4 Red-winged Black Bird in tall grass near creek. Saw 3 Bobolinks, rare.

May 23d—1-4, 2-4, 1-5, 2-5, Dickcissel in weeds; 1-4 Bell's Vireo in hedge; 1-5 Orchard Oriole in Mosquito tree; 1-3 Lark Sparrow on ground; 1-5, 1-4 Scissor Tailed Flycatcher in Mosquito tree.

June 7th—1-4, 2-4 Bell's Vireo in hedge; 1-4, 2-4 Lark Sparrow on ground; 1-5 Grasshopper Sparrow on ground; 1-4 Painted Bunting in hedge; 1-4, 2-4, 3-4, 4-4, 1-3 Dickcissel in hedge; plentiful this year.

June 27th—Nest and one young of Black Chinned Hummer on small limb in tree near River. Only data I have for these Hummers in this County; rare location also.

A Set of Bronzed Grackle.

I have a set of 511b 1-3 in my collection which was taken May 8, 1914. Is not this a small number for a full set? I waited three days after the

third egg was laid and the bird began to set on the day I took them. I have never before or since seen a set with three. The most common number is five here but I have also seen set of four, six and seven, the latter being extremely rare. The three eggs in the set measure 1.06 x .79; 1.07 x .81; 1.05 x .81 inches.

Ralph R. Wilson.

Nest of the Least Bittern.

Both Chapman and Reed state that this bird builds its nest in the rushes in a pond, swamp or marsh or in a low bush. In this section of the country I have never found the nest in such a location, although I have hunted for nests in sloughs and ponds. Every nest which I have seen was in a tree, all the way from five to fifteen feet from the ground. The location was invariably by the water, and the nest was but a slight platform of twigs. The nests were either in dense crab apple tree or trees overrun with wild grape vines. I would like to hear from some one who has seen nests in such positions as the above authors cite.

Ralph R. Wilson.

Wanted, Information.

In the March OOLOGIST, pages 81-2 is an article entitled "Egg Preparation." This article was forwarded to us by one of our valued contributors, but in some way the name got detached from the article.

With the article also came a letter and two sets of most beautifully prepared eggs; one set of White-bellied Nuthatch and one of the Meadowlark, being prepared as well as any eggs we have ever seen anywhere. The letter and data accompanying these eggs as well as the name of the writer has been lost, and we would appreciate it if the writer would communicate with the Editor.

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ALBION, N. Y., MAY 15, 1916.

WHOLE No. 846

Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.

THE DOMESTIC CAT

This is too good to be lost in the wilds of the waste basket and should, by all means, be preserved to posterity by publication in these columns. Strange as it may seem however, THE OÖLOGIST will not suspend publication because of the cancellation of this subscription, but will continue to give its readers bright, live bird news and leave the cats to the mollycoddles and the old maids.

DISCONTINUE SENDING ME "THE OÖLOGIST."

I am somewhat amazed at the intemperate tenor of your outburst in the April OÖLOGIST against the domestic cat. Hitherto, I have not observed that the most extreme ranters have gone so far as to counsel the unrestrained killing of cats. I doubt not that there are many of your subscribers, particularly of the younger, thoughtless, and inexperienced class, who regard as legal and ethical any advice or suggestion contained in THE OÖLOGIST. Many of these undoubtedly will be encouraged, after reading your editorial, to commit the most flagrant violations of the rights of their neighbors who own pet cats, and who forfeit the right to own them only when the cats depredate upon other people. For aught that appears in your editorial, the readers of your magazine are advised to enter the premises of an owner of a cat, and finding the cat quietly asleep on its owner's front porch, to kill it. Your editorial encourages breaches of the peace, and aside from its pernicious effect, is highly improper and ill advised.

I have no idea that your interest in birds is any greater than my own. Nor do I believe that your efforts have been any greater for their protection and preservation. I claim the right to own a cat, and exemption from forfeiture of that right until the cat depredates upon my neighbor. There are a great many people who do not share your and my interest in birds, but who are interested in cats. These people have some rights. They, of course, have no right to allow their cats to invade the premises of other people and catch the birds there. The owner of the premises has a right to have the birds if he wants them, and the owner of the cat has no right to object if the owner of the premises takes necessary measures to enforce his right to have the birds. I want the birds and I want the cats. I expect the cats to be restrained within proper limits. I have had both all my life.

Yours truly,

Washington, D. C., April 15, 1916.

R. H. Williams.

Eggs of Birds and Reptiles.

By R. W. Shufeldt, Washington, D. C.

As every one now knows who has paid any attention to the subject, modern reptiles and modern birds have arisen—or descended, as you choose—from a common stock that was in existence far, far back in geologic time. The truth of this is as well established as anything biology has to offer, and far better established than some other accounts we read, referring to the origin of living forms on this planet and their relationships.

In the structure of many existing species of birds, we meet with vestigial evidences pointing to their reptilian ancestry, and these were, in some extinct species, far more pronounced, as is well shown in the fossil remains we have found of them. For instance, some of the great, extinct divers of the Cretaceous Beds of Kansas possess teeth, these being structures which no bird now living exhibits the barest vestige of along the opposed margins of its jaws.

Most intelligent observers and general readers, however, are, in these days, more or less familiar with all such matters, even the scholars of the high-schools having found them in their text-books. So, then, I will not touch upon them in the present article, but reserve my space for the presentation of other points, by means of which we may still further contrast reptiles and birds.

For example, it is to be noted that a very large proportion of the species of birds now representing the existing world's avifauna build very elaborate nests in which to lay their eggs and rear their young. Some birds, however, build no nests at all, but lay their eggs on the bare ground, rock, or elsewhere, and their young are hatched out in such places. Others lay their eggs in burrows which they

excavate for themselves, as the woodpeckers do in the trunks or trees, or as kingfishers, and martins, and many other species do, by digging subterranean tunnels for themselves. Again, some birds are parasitic by nature and deposit their eggs in the nests of other species, abandoning their young to the tender mercies of the foster parents, as do cuckoos, cowbirds and others. Then there are the mound birds or megapodes of Australia, Samoa and elsewhere, which bury their eggs in immense mounds of earth and vegetable matter erected by themselves, and there leave them to hatch out. Their young fly almost at once, having very promptly assumed the plumage of the adults; indeed, we may say the identification and deposition of the eggs on the part of birds not only varies greatly in different groups, but is extremely interesting. In this connection it may be said that no species of bird now in existence is viviparous—that is, brings forth its young alive; nor are any ovo-viviparous, or where the eggs are retained in the oviduct until complete development of the embryo takes place.

Many birds lay pure white eggs, while in the case of others a few specks may be distributed over the surface, or else confined chiefly to the butt or larger end. From these immaculate ones and the sparsely speckled varieties, the eggs of birds present an almost endless series in the matter of form, coloring and markings. The beauty of some is extraordinary and almost transcends our powers of description.

None of the Reptiles—snakes, lizards or turtles—in so far as I am aware, build any structure which may be dignified by the name of "nest." Most Chelonians, or turtles, bury the eggs beneath the surface of the ground, and marine turtles beneath



fig. 1.

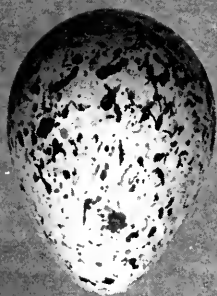


fig. 2.



fig. 3.



fig. 4.



fig. 5.



fig. 6.



fig. 7.



fig. 8.



fig. 9.

Plate 1-3, Killdeer (*Oxyechus vociferous*); Fig. 4, Mountain Plover (*Podasocys montanus*); Fig. 5, Wilson's Plover (*Ochthodromus wilsonius*); Fig. 6, Snowy Plover (*Egialitis nivosa*); Fig. 7, Golden Plover (*Chardardrius dominicus*); Fig. 8-9, Black-necked Stilt (*Himantopus mexicanus*).

the sand, where they hatch out in due course of time. The entire Order is oviparous.

"All lizards," says Dr. Gunther, "are oviparous, the eggs being of an oval shape and covered with a hard or leathery calcareous shell. The number of eggs laid is, in comparison with other reptiles, small, perhaps never exceeding forty, and some, like the anolis and geckos, deposit only one or two at a time, but probably the act of oviposition is repeated in these lizards at frequent intervals. The parents do not take care of their progeny, and leave the eggs to hatch where they were deposited. In a few lizards, however, the eggs are retained in the oviduct until the embryo is fully developed; these species, then, bring forth living young, and are called ovoviparous."

What I desire especially to invite attention to here is, that the eggs of all lizards and chelonians are white, the form of the first-mentioned being ellipsoidal, and of the last named more or less globular. Some serpents, as the pythons, incubate their eggs by surrounding them with coils of their bodies. They also defend them with marked fierceness against those who attempt to take them. No turtle or lizard ever does this, in so far as my knowledge carries me.

Eggs of the Crocodilia, or the crocodiles and alligators, with their near allies, lay elliptical eggs, with hard, glossy shells, as in some birds. They are buried in the earth by the female and left to hatch out by the heat of the sun. In color, these eggs are of a creamy white, some of them quite white, thus being, in this respect, much more like the eggs of ordinary birds than are those of any of the other reptilian orders.

In Figs. 1-9 of this article, I give some of the eggs of common bird, all

of which are good examples of the ovate form of them in this group, as well as of the most unusual markings of the "blotched" and "speckled" kind, as we find them in such genera. No reptiles of any species lay eggs which at all resemble these, either in form or otherwise.

Some birds, however, do lay eggs of an ellipsoidal form, or like those of a great many reptiles, but the color is present. This is the case with the beautiful eggs of the Guira (*Guira guira*) of Australia. A pair of these are given in Fig. 10, they being a reproduction of my photograph of them, and they belong to the superb collection of birds' eggs of Mr. Edward J. Court, of Washington, D. C., who most kindly loaned them to me for the above purpose. They are of a rich, pale, topaz blue, overlaid with a raised network of a lace-like deposit of limy substance. The eggs shown in Figs. 1-9 are also from Mr. Court's and were photographed by me along with many others, which I propose to publish in various connections.

In going over birds' eggs, however, I do meet with some which have the exact form of eggs laid by certain reptiles, as for example the globular eggs of certain owls, which bear a close resemblance to the eggs of marine turtles. Moreover, they are both white, the chief difference being that the shell of the turtle is leathery and flexible, while that of the egg of the owl is brittle and more or less chalky, as in the case of the eggs of other birds.

Mr. Court at one time had the egg of a Barred Owl (*Strix varia*) in his collection, which lacked but very little of being a perfect sphere. This egg I published a figure of in *The Emu* a while ago, which is the official organ of the Royal Australasian Ornithologists' Union of Melbourne, Australia. It was of natural size and a very beautiful object.

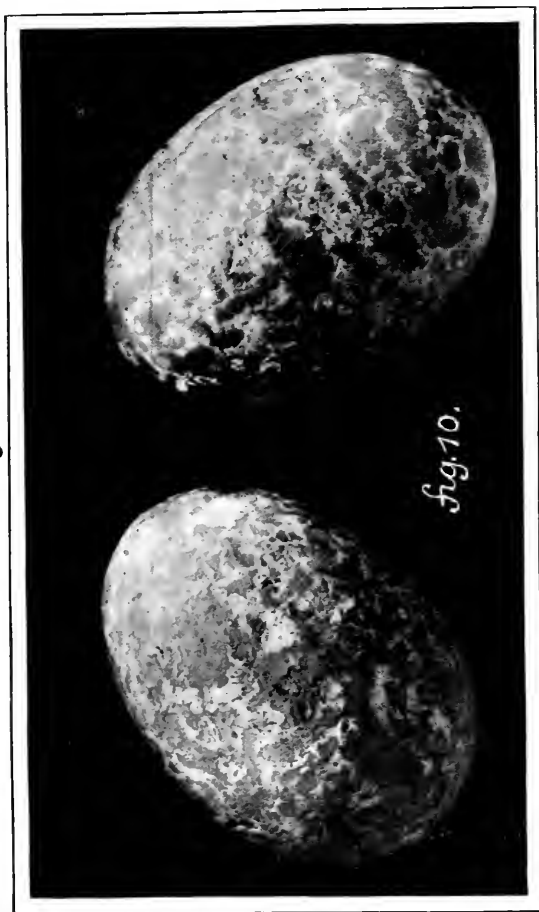


fig. 10.

Fig. 10, Plate II—Two eggs of a clutch of four of the Guira of Australia.
Natural size.

It is most interesting that in form and color the eggs of humming-birds (*Trochili*) very closely resemble those of certain small reptiles, and examples of these are given in Figure 11 of the present article. The reptile eggs have been kept in alcohol, and show up dark in consequence. They also exhibit some pitting due to handling, which is unavoidable. When first laid, however, they look, in some cases, almost exactly like the eggs of humming-birds, which is a very interesting fact, when we take into consideration the relationship of the two groups.

Figure 11 is also reproduced from a photograph of mine, the eggs of the hummers belonging to Mr. Court; while I am greatly indebted to Dr. Leonard Stejneger, and his assistant, Mr. Paine, for having selected for me the reptile eggs and for the loan of them from the collection of the Division of Reptiles of the U. S. National Museum. The figures of them show well the relative size of the eggs of the species figured, as well as their forms, as contrasted with the eggs of the humming-bird; all are of natural size.

Six Cardinal Eggs.

On April 27, 1915, while walking through the woods, on an old vine I saw what looked like an old nest. On going up and looking in, two eggs were found so I decided to come back later. About a week later, as I approached the nest a female Cardinal flew hurriedly away. The nest which was three feet six inches up in an old grape vine, held six freak Cardinal eggs. Four of these eggs, the last four laid, are natural Cardinal eggs, one of the others has lighter markings and the other is about the size of an Indigo Bunting's egg. This egg is gray blue about three-fourths of the way

and a Long-billed Marsh Wren, brown the other part, including the larger end. In Reed's North American bird eggs, it gives the number of eggs, "three or four and sometimes five eggs." Are six so rare?

Alvin Baer.

Six is an unusually large set.—Editor.

Nesting of the Grasshopper Sparrow.

The hot days of early Summer bring to mind pleasant memories in the pursuit of eggs of my favorite sparrow—the Grasshopper Sparrow. Mr. Harold H. Bailey in his admirable work, "Birds of Virginia," says: "In this section the nest is one of the hardest of all ground-nest-building birds to find." The above seems to fit this locality also, as I never collect over one or two sets in a season. While incubating the female is very hard to flush and hardly ever takes flight upon leaving nest but rather runs ahead on the ground for several feet before taking flight. The nest in question is always aptly concealed and it is quite a task sometimes to ever locate the nest after flushing the incubating bird. It is a compact affair usually arched over with exit on northerly side; composed of grass and small rootlets and lined with very fine grass.

During latter part of July 1911, I stumbled across my first nest of this species. I was crossing a hay field and as I stepped over a small bunch of hay left at haying time, out flew a Yellow-winged Sparrow between my legs. Upon lifting the hay, a deep-cupped nest revealed three slightly incubated eggs. This was quite unlikely a second set which probably accounts for the small size of the set.

My second set was collected on June 18, 1912. While mowing a field of clover hay a Grasshopper Sparrow

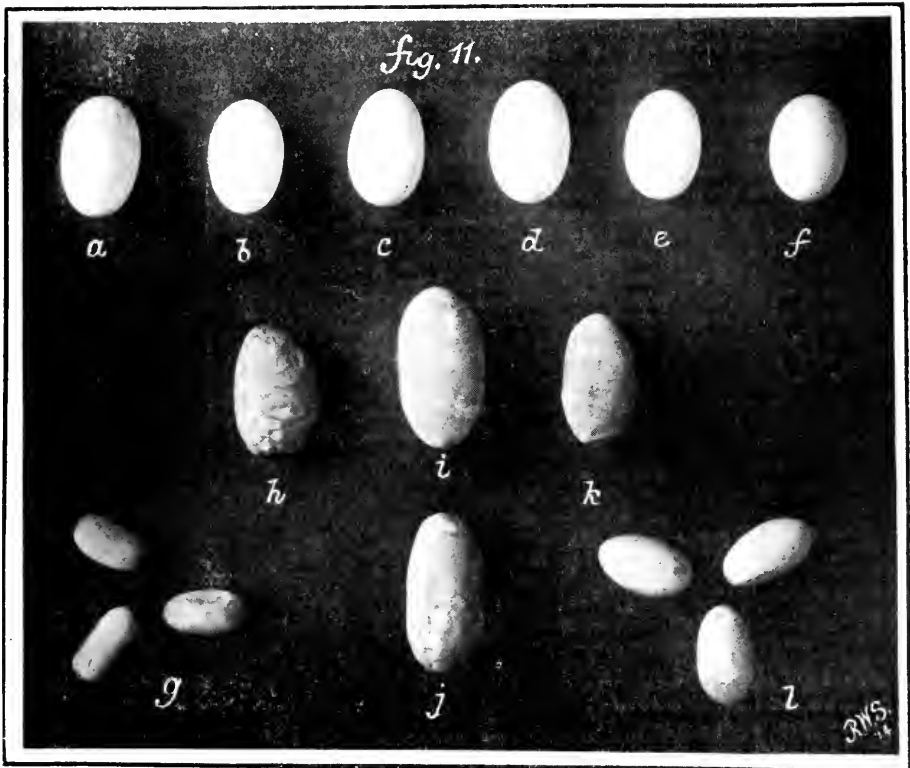


Fig 11—Plate III—a, Ruby-throated Humming-bird (*Archilochus colubris*); b, Black-chinned Humming-bird (*A. alexandri*); c, Costa's Humming-bird (*Calypte costae*); d, Broad-tailed Humming-bird (*Selasphorus platycercus*); e, Allen's Humming-bird (*S. alleni*); f, Calliope Humming-bird (*Stellula calliope*); g, *Liopelisma laterale*; h, Burrowing snake (*Carpophiops amoenus*); i, and j, Six-lined lizard (*Cnemidophorus sexlineatus*); k, Common Swift or Alligator lizard (*Sceloporus undulatus*); l, Common American Chamaeleon (*Anolis carolinensis*).

flew out of the standing hay directly in front of the mower blade. I stopped the horses and was soon down on my hands and knees looking for the nest. A slight search brought to light a beautiful set of four at the base of a bunch of plantine and not more than six inches from the mower blade. Nest arched over and composed of dead grass.

Later on the 5th of August I found a set of three Grasshopper Sparrow placed under a small parcel of hay left at haying time. Nest typical. Incubation about three or four days.

In 1913 my first nest came to hand on the 17th of July, when I had an occasion to carry a neighbor's wagon home and in crossing a recently cut hay field, I noticed several tufts of hay left at haying time. As I drove past one of these, I observed a Grasshopper Sparrow sneaking off in a mouse-like fashion—doing her best to get away unobserved. I knew by her actions that there must be "something doing" and likewise investigated. A slight search revealed a beautiful set of four eggs, placed in a slight depression, arched over with exit on side. Made very compactly of dead grass and lined with new paverly grass. This field was cut on the 7th inst. and the hay hauled the next day. On the 17th inst. I collected a set of four with incubation slight. Rather quick work!

A nest found on the 23rd of June, 1914, by means of a rope drag, contained five eggs, so heavily incubated that I was unable to save same.

Another nest found on the 7th of July, 1914, was placed on the ground in clover field containing four slightly incubated eggs. Nest typical and arched over.

June 29, 1915, is the date upon which I found my first set of five fresh eggs and placed in a plant of standing tim-

othy. Nest typical. The manner of placing this nest reminded me very much of the way Field Sparrows place their nest in clumps of weeds. This nest was not arched over and did not touch the ground by an inch—the only case I have ever come across.

On the same day I found a second set of three fresh eggs, and which I knew was an incomplete set, but as this was rush season we could not leave the hay for the completion of the clutch. The next day I was raking and to my utter astonishment, about 100 yards from the original nest I found laying on the top of the hay an egg which was the exact counterpart of the three collected the day previous. I could swear to the identity of this egg belonging to the set as there were only three pairs of this species in the field; one had young, another I took a set of five from and this egg naturally belonged to the other pair. Thus ends my collection of this very interesting species.

Ralph W. Jackson.
Cambridge, Maryland.

"They Didn't Scrap."

On May 18th, 1915, while out on a field trip, I noticed a tall dead tree directly ahead of me. It was about forty feet high and upon closer examination, proved to contain many likely looking holes. Upon rapping, out flew a female Red Shafted Flicker from a hole about 18 feet up. Upon ascending and about two feet below lady flicker's residence, what should I stick my nose into, but a California Screech Owl's nest. The old lady was at home but sound asleep. Even after tickling her in the ribs she wouldn't wake up so I imagined she must have been out on a spree the night before. Upon picking her up, I discovered four little balls of cotton that had not taken a glimpse of this "cruel,

cruel world" as yet. I then put the mother back and went up to Mrs. Flicker's hole. About 18 inches down I found five partly incubated eggs lying on the sawdust. Eighteen inches down; that left about six inches or less between the bottom of the Flicker's hole and the top of the owl's nest. Well I have read a number of accounts where Flickers and Owls have tried to live together and have also witnessed several of these processes, but this is the first account that I have either heard of or seen where they have succeeded.

Dudley De Groot.

San Francisco, Cal.

Nesting of the Whippoorwill at New Haven, Conn.

The article on habits of the Whippoorwill in a recent number of THE OOLOGIST has induced me to add my experience on the breeding of this bird, which while not extensive, may perhaps be of interest.

The birds arrive in this vicinity usually about the first of May (May 2d, 1888, being my earliest record) and their presence among us is soon made known by the unmistakable song of the male. In fact my record of arrivals is oftener made from this evidence than by actual sight of the bird itself. They share the habit common to most birds of being most musical just previous to the nesting season and sing most often in the vicinity of the nest, or in other words, after marriage they remain at home nights, a trait of character by the way that might well be emulated by certain members of the genus homo. I can vividly remember the first set of their eggs that fell in my way, found entirely by accident, too far incubated to be saved whole but still a set of whippoorwill: a bird of which at that time I knew very little. This was

fully forty years ago but I doubt whether the sets taken since have ever furnished greater pleasure. It was, of course, upon the ground in a slight depression among fallen leaves entirely surrounded by mountain laurel (or *Kalmia*) bushes. My next set was taken several years later (June 2d 1878) on an island in the Connecticut River, well wooded and again by accident—two eggs fresh.

The following year early in June I was informed by a boy that he had found a "Quail's nest in the woods, containing two large white eggs spotted with red," this being considerably out of the line of Quail's eggs and suspecting that they were whippoorwills, I induced him to conduct me there and was disappointed to find instead of two beautiful eggs a pair of open mouths and four eyes set off by pot bellied bodies covered with a dirty yellowish brown.

In 1880 I took a beautiful set of two eggs near the site of my first set, somewhat incubated but exceptionally handsome and withal peculiar, each egg having a very large blotch of lavender in addition to other smaller markings. Again in 1882 I was so fortunate, as to find a set of two fresh eggs near my former home in a piece of woods where the birds can always be found in spring. A change of base and business obliged me to forego collecting to a great extent for several years and I did not see a nest of the whippoorwill again until the season of 1888.

On June 16th while following a female chestnut sided Warbler that I had detected skulking off with nesting material in her bill I flushed a Whippoorwill by nearly stepping upon her and looking down soon saw a pair of the yellow downy young which by the way are about as queer looking objects as our fauna furnishes. This

was highly provoking as I had passed within at least thirty feet of the spot on May 30th when the eggs were without doubt deposited. In this instance I picked up the young and was greatly interested by the antics of the parent who kept flying around me continually uttering the peculiar "chuck" which can also be heard between the notes while the bird is singing if the listener be very near. She would stretch out her wings upon the leaves as if in great distress and tumble about in plain sight but would not allow me to approach nearer than eight or ten feet before fluttering off. Finally I walked away a short distance and hid myself under a bush and watched the young. The mother bird soon appeared and the little ones ran to her and were covered by her wings much after the manner of the domestic hen.

To sum up I have found twenty-three nests in all, two with young, one with incubation far advanced and twenty sets of perfect eggs which are at present in my collection. In every instance the eggs have been placed in slight depressions on leaves in dry open mixed woodland always on a considerable elevation above the surrounding country and never near logs or rocks as some writers assert.

In my opinion the birds though fairly common are far from abundant. Their song renders them conspicuous and therefore they are considered more common than they really are, and does not the fact of two eggs only being laid and these exposed to all the added dangers to which ground nesters are exposed suggest a possible reason for their comparatively limited numbers. It surely cannot be ascribed to the gunner or small boy as the birds are not often shot and their eggs are far from being a drug in the oological market. H. W. Flint.

Nighthawk Nests.

When I was a small boy, well do I remember how on any summer night we could hear the booming of the nighthawks, "spoo-oo-ook," as they made a long swoop downward, then returned again to the upward plane of their flight. All through the long warm evenings and often during cloudy days they could be seen beating the upper air, in quest of insect food. They gradually become scarce and scarcer about here until there were years about the '90s that I seldom ever found one. At present, however, there are quite a number again. I never succeeded in finding their nest about here, but my father and brothers found several. While in Central Rock county, a few years ago, I could on any night, when it was warm, all through the nesting season, see dozens of them beating back and forth over the Rock River, during the late afternoon and evening hours. The eggs are two in number, layed on the bare earth, usually in a cultivated field, creamy white ground and heavily marbled with grayish brown.

Geo. W. H. vos Burgh.

Juncos in Weld County, Colorado.

The Juncos at Windsor, in Weld County, Colorado, fifteen miles from the foothills, are not resident. They come in the fall, and if the winter is favorable, some remain till they leave for their summer home. The most common, and the first to arrive in October, are pink-sided Juncos. They are said to summer and nest in the Rocky Mountain regions of Idaho and Montana. Following them are the Shufeldt Juncos; these are said to nest further north in the mountain regions of British Columbia and Alberta, and westward to Oregon. Somewhat less common among them are the white-winged Juncos. These are larger and

easily distinguished by the white wing bars. I suppose the Montana Junco is found among them but it is too similar to the Pink-sided Junco to be readily recognized. Sometimes, too, the Slate-colored Junco is found here but it is not at all common.

It is peculiar that the Gray-headed Junco, which is the only permanent resident of Colorado among all the Juncos, is not found among these winter visitors. They are common in the mountains, some twenty miles to the west, and nest abundantly, but I have never seen any of them on the plains about here, though I have looked for them.

The Juncos are admirable little birds, neat and trim in appearance, and have a peculiar call note, easily recognized when once it is known. Their instinct of play is well developed, and they chase each other about in the sheer joy of life and fun.

Geo. E. Osterhout.

They Never Lose Interest.

Although my egg collecting days are over for lack of time, my interest in everything pertaining to bird life will never leave me and it will always be a pleasure to me to read in the pages of your valuable magazine, of the finds and near finds of other bird students more fortunate than myself.

Emil Ulbert.

New Haven, Conn.

Some Western Birds.

The Hummingbirds.

Eighteen species of hummingbirds are credited to the United States by the A. O. U. Check-List. Only one of these is found east of the Mississippi River, the balance being distributed over that great stretch of territory called "The Southwest." Southern California can boast of six

species, all but one of which nest within her borders.

To give these six "winged jewels" the attention that they deserve in one short article would be impossible, a brief description of each must suffice. The females are often so much alike in different species as to be easily confused, and as the males are seldom found in the vicinity of the nest identification at times is extremely difficult unless the bird is collected.

Black-chinned Hummingbird—First to be considered is the Black-chinned Hummingbird (*Archilochus alexandri*). This species closely resembles the Ruby-throat (*Archilochus colubris*) of the eastern states. The male is about three and one-half inches in length; the chin is velvety black, scaled below with brilliant metallic violet of an iridescent nature that shows blue and green in the sunlight; the upper parts are bronzy green; the under parts grayish white. The female is slightly larger, and lacks the black chin and colored gorget.

With us the Black-chin is a summer resident, appearing toward the middle of April and remaining until late in July. Its presence is variable, seemingly depending upon the amount of rainfall. Thus in dry seasons it is found in much smaller numbers than in the summers when the hill-sides are covered with an abundance of verdure after heavy rainfalls. This rule also holds good for all our hummingbirds.

This species frequent the canyons of the foot-hill regions, nesting in large numbers along the sycamore-lined water courses. The nests are built usually in May or June, and are placed in bushes or such trees as sycamores, cottonwoods and willows, seldom out of sight of water, and from four to twenty feet from the ground. The nest of this species can usually be distinguished from others by its spongy

appearance, being composed of light-colored plant down and fibre without any exterior decorations of moss, flowers or lichens. The yellow fuzz from the under side of the sycamore leaf is a favorite material. The eggs are pure white, two in number, elliptical, and measure about .50 x .35 inches.

Costa Hummingbird.—The Costa Hummingbird (*Calyte costae*) is also a summer resident in this locality, arriving about the same time as the preceding species but remaining some six weeks later. The male is about three inches in length, bearing a long flaring ruff of burnished iridescent violet, the head and gorget are the same brilliant hue; the upper parts and belly are bronzy green; the under parts whitish. The female, averaging about one-half inch larger, is bronzy green above and whitish below without the ruff of the male, the throat being relieved by a few spots of metallic purple.

Costa is a desert-loving bird, inhabiting the brush- and cacti-covered washes and mesas. Here he adds a bit of bright color to the otherwise drab surroundings. Some time between late April and the middle of June a little nest is built, about 1½ inches in diameter, and placed at a low elevation in some sage-brush or cactus. This nest is loosely constructed for a hummingbird's, being made of soft down and fibres, the exterior covered with bits of lichen, bark and sage-flowers fastened on with spider-web. Sometimes a few feathers are added by way of lining. The two white eggs will measure about .48 x .32 inches.

Anna Hummingbird.—We have but one resident hummingbird in Los Angeles County. This is the Anna Hummingbird (*Calypte anna*), which is found here in greater or less abundance throughout the entire year. This species is slightly larger than the Cos-

ta which it so closely resembles; the ruff of the male and the throat spots of the female are deep rose pink instead of the violet of the latter.

Annas Hummingbird is distributed generally over the entire country from sea-level to as high as 9000 feet in the mountains. He is perhaps the commonest and best-known of his family, nesting about the door-yards and parks of the city, and more numerous in the orchards, eucalypti, and live oaks. This little feathered mite is the earliest breeding bird in California, and also has one of the longest breeding seasons. It begins to nest around Christmas time and the season continues until late August, thus covering a period of nearly eight months. This is indeed a record for so small a bird. Of course many of the earlier nests are destroyed by heavy rains, but some escape and I have often found shivering young early in January.

The nests are placed in a variety of locations such as vines about buildings, in slender upright crotches of young eucalyptus sprouts, or saddled on a live oak limb; as well as on such artificial sites as bucket-bails, telephone cables, ropes, etc. The structure is well made of plant down and feathers, usually covered on the exterior with bits of moss and lichens. The eggs are not to be distinguished from those of the Black-chin.

Another unique feature about Anna is the fact that he is the only hummingbird possessing a song. Even as I write this one is twittering merrily from the rain-drenched branches of an acacia near my door.

Rufous Hummingbird.—The big red Rufous Hummingbird (*Selasphorus rufus*) is unfortunately absent from this vicinity during its breeding season, appearing here only as a transient during the fall and spring migrations.

It nests far to the north, from the mountains of Central California to the bleak shores of Alaska. The male is a handsome bird about three and one-half inches in length; his gorget is of fiery red and orange with greenish gleams; the belly and a band across the chest are white; the general color of the rest of his plumage is bright rufous brown, usually glossed with bronzy green. The slightly larger female is rufous brown and bronzy above and on the sides, the under parts whitish, sometimes with a few specks of red or orange at the throat.

I was once presented with a nest of this species that had been built near the top of a giant redwood over one hundred and fifty feet high. The tree had been felled, but strangely enough neither nest nor eggs had been injured in the crashing descent. The nest was a handsome structure, made of felted shreds of redwood bark, lined with soft down, and covered exteriorly with bits of fine green moss. The eggs measured .50x.31 inches.

Allen Hummingbird—To a certain extent the absence of the Rufous Hummingbird is compensated for by the presence of his first cousin, the Allen Hummingbird (*Selasphorus aleni*), which differs from rufous principally in having more bronzy green on the head and back. While only a migrant over the mainland of Los Angeles County it is an abundant resident on the adjacent islands where it breeds in countless thousands. It is a common thing to find forty or fifty nests in the course of a morning's walk about the eucalyptus-lined streets of Avalon, the little summer resort on the north-east coast of Santa Catalina Island, while along the streams in the canyons of the same island the birds are equally abundant. The breeding season extends there from the middle of March to May.

Around Avalon the nests are built of cotton and down, decorated with bits of eucalyptus blossoms, and are placed usually on top of a bunch of eucalyptus seed-pods (at an average height of twelve feet. Some of these nests are built on top of those of former years, so that it is not unusual to find two- or even three-story structures. Along the canyons the nests are much handsomer, surpassing those of any of the humming birds with which I am familiar. They are placed usually over running water at no great elevation, and are composed almost exclusively of sheep's wool, of which there is an abundance on all the islands. A lining of tiny feathers is added, the ends of which sometimes curl over inward so as to almost conceal the eggs. The outside is decorated with bits of bright green moss, the whole affair being neatly and compactly put together, and beautiful beyond description. The eggs are the same as those of the preceding.

Calliope Hummingbird—The Calliope Hummingbird (*Stellula calliope*) has the distinction of being the smallest member of its family found within our borders. The male is from two and three-quarters to three inches in length. The gorget and flaring ruff are rose purplish, the exposed white bases of the feathers giving a streaked appearance; the upper parts are metallic green, the under parts white, and the sides brown. The female is of course about one-half inch larger and lacks the colored gorget and ruff of her mate.

This species is a summer resident in the higher mountains of Southern California, seldom breeding below 5,000 feet. Due to the rugged nature of the country that he inhabits, Calliope is hard to observe. The little midgets are soon lost to view among the towering pines and firs along the

rocky ridges of the mountain peaks, Still harder to locate are the tiny nests, built of soft fibres, covered with bits of bark and moss, and placed high up on a dead limb or pine-cone, usually far out over some precipitous canyon where an accident would mean instant death to the unfortunate collector. The eggs average .45 x .28 inches.

To see a hummingbird daintily poised on whirring pinions in mid-air with its long beak inserted into the heart of some flower, one would naturally suppose that honey was its main food; but it has been found that more often the bird is in search of minute spiders and insects that live on the flowers. Some honey is eaten, however, and I have seen hummingbirds feeding upon the nectar from an over-ripe apricot or peach, looking like a huge brightly colored bumble bee.

Incubation lasts in all species from twelve to fourteen days. The young are born naked, and are fed the first few days upon regurgitated food. They develop amazingly, and leave the nest in a couple of weeks to take their place in the world.

D. I. Shepardson.

Los Angeles, Cal.

Texas Bird Incidents.

Last Friday, March 3, 1916, I closed the windows of the school house and in so doing I caught part of the roller shade between the sash and the upper part of the casing in one of the windows. In this position the shade formed a loop about six inches wide with an opening at each end outside of the window.

Monday morning I found a half completed English Sparrow's nest there—nearly a half pound of straws, feathers and the like. I did not remove it until some of the teachers saw it.

One day this winter (1915) my

mother heard a fluttering out near the grape arbor; on investigating found a Black Capped Chick-a-dee standing on a limb with it's wing tips frozen to the under side of a limb above it. The trees were all covered with ice and apparently this bird became so interested in digging out a grub that it remained too long in one place. In a weakened condition it was brought into the house, and after getting warm and partaking of crumbs, expressed a desire to regain it's freedom; this desire was carried out and this tiny bit of flesh and feathers flew to the top of an old Box-elder with a hearty little "thank you" in the notes of "Chick-a-dee."

Ralph Donahue.

Bonner Springs, Kansas.

California Birds.

On June 9, 1914 I collected a set of four of the Greenbacked Goldfinch from an orange tree 5 feet up. All the eggs are lightly marked over the entire shell with fine reddish brown spots with a slightly defined wreath around the larger end.

June 7, 1914, I collected a set of four of Anthony Green Heron; incubation advanced; from a willow tree 25 feet up, in the middle of a large tract of willows.

June 1, 1913, collected 1-5 California Woodpecker from hole in Sycamore 10 feet up. One egg is a runt about half the usual size.

June 7, 1914, collected 1-4 Californit Woodpecker from hole in same tree and one of these was a runt about half the size of the others.

June 15, 1914, collected 1-5 from the same hole and the eggs are different sizes from the usual size down to about half size. A third set was layed by these birds in the same hole, about a week later but I neglected to look at them and they were allowed

to hatch. All the eggs were fresh when collected and the runts were without yolks.

May 23, 1915, collected a set of five slightly incubated eggs of the Dotted Canyon Wren from a ledge of a small cave in the face of a shale cliff. The nest was well made of small sticks, spider webs, feathers, hair and fine grasses.

May 23, 1915, collected a set of four half incubated eggs of the white-throated Swift, from a crack in a shale cliff thirty feet from the top and about the same from the bottom. The nest was situated about a foot back in the crack and was cemented to both sides of the crack, and was composed of feathers and plant down and fine grasses. The nest was fairly alive with some kind of vermin, presumably bedbugs; but after exposing to the sunlight for a short time they all left. It took half an hour by the watch to dig in so I could reach the nest and then the crevice was so narrow I could just get my hand in edgeways and pick up the eggs with the tips of my fingers and from the nest they were transferred to my mouth and then I climbed up the rope hand over hand, with slight assistance from the foothold in the cliff. A number of the birds were seen but this was the only accessible nesting place.

June 11, 1915, collected two sets of two eggs of the Xantus Murrelet and a single egg, incubation advanced, of the Black Oystercatcher from Cat Rock Anacapa Island, Ventura Co., California. The Murrelets were collected from natural crevices in the rock and both nests were occupied by one of the birds, sex not determined, and they were removed by hand from the nest. One set was advanced in incubation and the other was just begun. A large colony of California Brown Pelicans were noted on the

same date, nesting on the eastern end of the island. There must have been at least a thousand pairs of birds on the island and the nests contained young nearly full grown and from that on down to nests still in course of construction.

Sidney B. Peyton.

Lespee, Calif.

The June Oologist.

As is known to most of our subscribers it has been the practice to issue the June number of this magazine, devoted to the family of Warblers. Up to date, though we have carefully conserved all our Warbler copy, we are sorry to say that there is not one-half enough to get out a creditable issue. Will you let it go by default for want of copy as was done last year?—Editor.

Becoming Acquainted With the Marsh Hawk.

The 26th of July, 1914, approaching a little wooded swamp north of Hudson Falls, New York, seven Marsh Hawks, which kept close together, flew out and for a moment or two circled near me and then disappeared over the hilltop. That day was put down as a red-letter one for me.

The 25th of June, 1915, in the same little wooded swamp was discovered in the open swale of *Carex riparia*, by the red-raspberry bushes; the Marsh Hawk's nest with four "cottony" fat young and one egg. By the nest lay a dead Song Sparrow, which was taken along a few steps down the creek; but on my return I left the dead bird, thinking there might be one more song-bird to live. The Mother flying from the nest first attracted my attention to it; and later on my return she flew off again; but the male bird was scarcely in evidence. The nest was hardly more than bare clay earth

with a few twigs and sedge leaves gathered together; and the structure had become much flattened out of shape.

June 29th, there were five young Hawks, all varying in size and age, probably two or three days or more between each. They would spit at you and would snap at the flies which tormented them. Neither parent about when I approached the nest but the mother seen put in appearance; but soared high, which hawk-like cries. She would not come near the nest, even after I hid amid the dog-wood bushes. Very suddenly the father came and he was very angry indeed and continued to circle and wheel and fly low and come directly towards you: but before quite reaching you, suddenly to rise and sail over your head. Most of the time I stood by a little elm; but finally went out to the nest waving a green branch. During the father's passion, the young birds, which had previously crawled from the nest under the partial shade of the sedges and bushes from the hot sunshine, lay quiet and almost as if dead, except the youngest occasionally peeped. The larger of the young were beginning to show the black of starting wing feathers. Male Redwing Blackbirds and the Kingbirds almost rode through the air on the male Hawk's back. It was very evident from the excited alarm that the Redwings had a nest somewhere among the sedge tussocks; and the Kingbirds a nest in the swamp. The mother made no great ado and seemed to leave the protection of the young mostly to her spouse. During the fracas the Catbird in the swamp was trying to imitate some bird song as if nothing happening.

July 2d, the mother flew from the nest, soared high and went off in search of her mate, who finally came

over the meadowlands and when he saw me, dropped his mouse in the grass. Although the father circled a good deal, I did not think he was quite so angry as the last time. I went and picked up the mouse and offered it to the little Hawks but they refused to look at it, even when the mouse was torn a bit. Three of them were fat and large and the black of the wing feathers beginning to show more conspicuously through the light gray down. The youngest bird was very puny and did not look as if it had had its share of food. Their feet were yellow with black sharp claws and the bill black, with some yellow on the upper mandible. The eyes bright, black and beady, and at a short distance the young Hawks looked like little "old men" or almost superhuman like living skeletons. The father followed me quite a distance when I left and then went mousing.

The 4th of July, I again visited the nest and got quite close before the mother flew off. She circled about and made more ado than usual and I almost began to think something had happened to her mate, when suddenly he appeared with a much louder cry than usual. He was more angry at me than ever before and circled nearer my head as I stood by the little elm, so close that one felt the breath of his wings. The mother stayed by also and tried to drive me away. First she soared higher, and after resting on an oak tree out of my sight; she began circling almost as close as her mate. She is a beautiful bird, so speckled and is larger in every way than the light-colored mate, and in flight shows the conspicuous white spot on the rump. The Redwings and Kingbirds chased them again with loud cries, and the Hawks resent the intrusion and decidedly quicken their flight. The smallest young Hawk had grown

some. The two larger ones were cross and one could scarcely touch them, and it made them mad to point your finger at them and one had to be careful for their yellow feet would fly. one of the other larger ones seemed quite docile. The wing feathers a bit more grown and the tail feathers coming. Except the smallest one, none of the young birds were in the nest. After staying about for a while I left as the parents were becoming weary.

On the 8th of July, 2.6 inches of rain fell; or during the first eight days of July, 6.5 inches. This rain raised the water in the creek and flooded the lowlands.

July 9th, the mother flew from the nest where only two of the young Hawks were left; the others drowned and by what means these two escaped I do not know. One suspicious the parents were responsible somehow, for the nest must have been under water for a while. The two largest and crossest of the five were left, and today were very formidable little birds, beginning to feather out on the back as well as the wings and tail. The next two larger ones lay dead by the nest, but I did not find the smallest one. The old birds were very angry, probably thinking I was somehow the cause of their misfortune. Both parents made vain attempts to drive me away, the male using strategy, by often flying from around bushes and small trees, which concealed his coming, and often came within less than a couple of feet of your head. The old Hawks seemed rather fatigued, and of course had been having a strenuous time of it. The mother alighted on a dead swamp ash tree several times and is about one-third larger than her mate; her feet are very yellow and her eyes dark. The father was obliged to rest on the

same tree and was not quite as wary as his mate; his feet are darker but his eye a striking bright yellow with a dark pupil. When I finally left, the male followed me quite a distance scolding.

The 14th of July, again visited the nest but as a thunder shower was coming, remained but a few moments. The mother flew from the nest on my approach. The dead birds had been removed. The two remaining Hawks were rapidly becoming feathered out, and were probably female birds. Shaking a cloth in their faces, they tumbled over backwards in their anger, showing the small brown feathers coming, beneath. The father, not far away, came at the alarm call of his mate, and began to scold, but I could not stay.

On account of a shower suddenly coming up, 17th July, the nest, was not reached, but the 20th, when I did visit the nest, the young were gone, evidently becoming full-fledged enough to fly away into the bushes. The mother was about, but no longer had occasion to go and call her mate.

Stewart H. Burnham.

Books Received.

CASSINIA, Vol. XIX, March, 1915.

Few publications come to the desk of the Editor of THE OOLOGIST that give us more real pleasure than Cassinia, a record of the proceedings of the Delaware Valley Ornithological Club. This issue, for some reason, appears to be about a year late, but none the less is full of interest, containing as it does, the following, viz.:

Titian Ramsey Peale, by Whitmer Stone, being a splendid review of the services of this great naturalist.

Nesting Birds of Pocono Lake, by J. Fletcher Street, illustrated with two splendid half tones illustrative of the nest and eggs of the Alder Flycatcher.

Days with the Blue-gray Gnatcatcher and Prothonotary Warbler, by George Stuart, the Third, which is a well written article disclosing among other things the amount of work necessary at times and in localities to become even slightly acquainted with that splendid bird, the Golden Swamp Warbler.—Prothonotary Warbler with which our boyhood studies and investigations are closely associated, it being one of the commonest Illinois Valley nesting birds.

Egg and Nestling Destruction, by Julian K. Potter, which is a splendid article discussing the success and non-success of the nidification of the various birds, reducing the deductions to a percentage basis. These figures are truly interesting.

Mortality Among Birds at Philadelphia, by Deloss E. Culver, discussing the destruction of birds, caused by flying against the City Hall tower, giving a list of nineteen varieties, aggregating 424 birds; a truly appalling number.

Bird Notes, consisting of records of unusual occurrences for the year 1915.

Report of Spring Migration of 1915, compiled by Whitmer Stone, being a very exhaustive review of this migration.

An Abstract of the Proceedings of the Delaware Valley Ornithological Club for 1915, by J. Fletcher Street, Secretary.

Club Notes, being a review of the Club's activities for the year, and a list of specimens donated to the Club Museum for that year.

Concluding with a Bibliography for 1915 of papers relating to the birds of Pennsylvania, New Jersey and Delaware, not the least interesting of which to the Editor is the fact that this discloses that of all the published articles therein listed, ten appeared in *The Auk*, eleven in *Bird Lore*, twenty

in *The Oologist*, and four in the *Wilson Bulletin*, showing that *THE OOLOGIST* recorded almost twice as many as all the other publications put together—a record which we owe to our friends who kindly sent us the observations for publication, and to whom we are under obligations for the same.

R. M. Barnes.

Owls Within Owls.

On Thanksgiving day, 1915, a local hunter brought me an adult female Barred Owl for mounting. From all external appearances, it was a usual specimen; but I was greatly surprised upon examining its stomach to find it well filled with feathers. I washed and dried these feathers and was still more greatly surprised to find them feathers of an adult Screech Owl, grey phase! I have heard of Hawks eating Owls, and I once had a Texan Barred Owl caught by Ramon Graham—an old Fort Worth friend of mine—which was just cannibal enough to kill and eat a Barn Owl which lived in the same cage,—but I never knew before that live wild Owls ever ate their "cousins."

George M. Sutton.

Data Blanks.

I would like to say a few words concerning datas.

Both common and scientific names should be used. The A. O. U. number and the date in full, also the locality. Incubation should state whether fresh, just started or how far advanced; such a statement as advanced is rather indefinite. Identifications such as sure, positive, no question and certain, are very poor, and should not be used; saw birds, flushed male or female, are much preferable.

Under "Remarks" or "Nest," a full statement concerning exact location, construction and material used should

be given. If in a tree, state where in tree; if on a horizontal limb near the top or near the ground and how far from trunk or if at the trunk. We want to learn all that is possible concerning the habits and nesting of birds and under this heading is a good place to state them, but don't write on back of data. Always write it as it should be, your signature as to correctness of set.

And right here I want to say that some collectors make out duplicate dates and send them with sets and retain the original datas themselves, this practice should be stopped as it is unfair to the one that collected the set and also to the one the set is sent to.

Keep eggs in boxes made square with close fitting lids nearly filled with cotton shaped like a nest. A hole should be cut in the lid nearly the entire size of same, allowing sufficient space to fasten on the under side of the lid; a piece of glass or transparent celluloid larger than the hole or as large as the lid, allow a small space on top of lid where the A. O. U. number, name, set mark and county, and state procured, it may be written or printed. These boxes, keep out dust and insects and the fingers of those who delight in picking up eggs while looking over your collection and they are less liable to be broken. Now arrange your eggs in cabinet so when showing them to anyone you can start with Grebes and keep right on through to Bluebirds. Don't show your eggs in a haphazzard way, use system and keep a journal.

Turner E. McMullen.

Hawks' Eggs.

The collecting season is now approaching and we desire to advise our friends engaging in collecting that in our judgment there is no occasion to gather more eggs of the Red-tailed or Red-shouldered Hawk than the collec-

tor wants for his own personal collection as there is now in existence hundreds of eggs of these two species; more than demand calls for. They are a drug on the market and to further uselessly sacrifice the birds is a mistake.

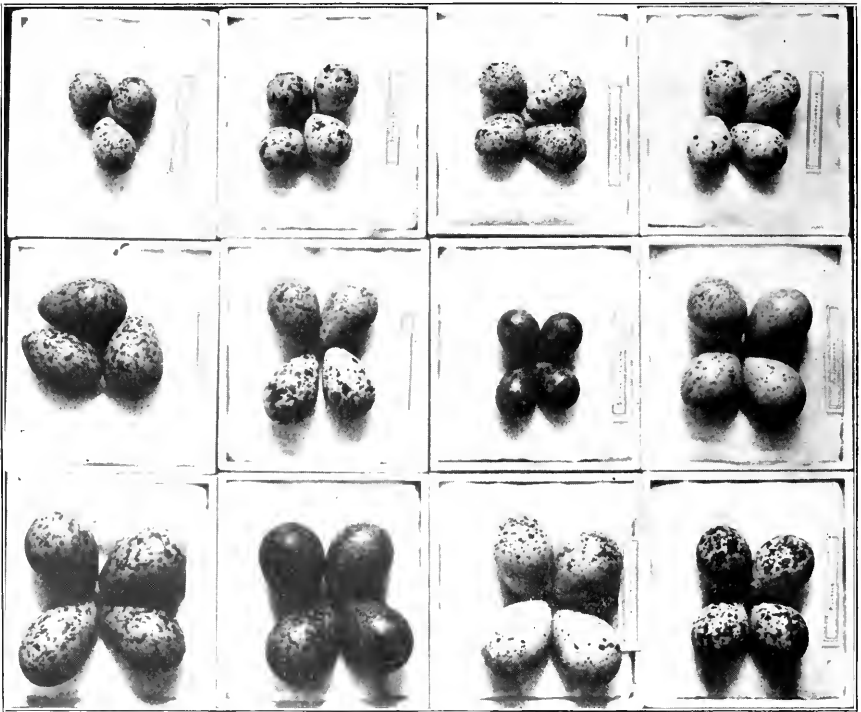
Silly.

The following clipping from the daily press shows the need of the State of Pennsylvania for a new State Game Commissioner. A man that has no more knowledge of wild life than is disclosed by the following clipping, appearing from the daily press dispatches, should be promptly removed, and someone who had more knowledge appointed in his place.

Everybody that knows anything, knows that the Robins in the Spring, of course are always plentiful in that part of the country, and it is both useless and silly to endeavor to work up a scare among the fruit growers over that fact. But the following shows what a lamentable lack of natural history knowledge the State Game Commissioner of the State of Pennsylvania is afflicted with.

Pittsburg, Pa., April 5.—Speaking to a council of scoutmasters of the Boy Scout movement here last night, John H. Phillips, state game commissioner, sounded a warning from what he termed an invasion of robins. Mr. Phillips said the woods and fields of this entire section were filled with more robins than he had ever seen at this season before and unless mulberry and other trees were planted to give them food they would attack fruit trees and become an expensive nuisance.

Robins are protected by state law and have rapidly increased, while the trees upon whose fruit they formerly fed, have gradually disappeared as the forests were cut down.



A few sets of Shore Birds in collection of James B. Carter, Waynesburg, Pa.

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WHOLE No. 847

Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.

THE MEADOWLARK

His golden breast a-blaze in the sun
Of the new born day just begun;
Wet with dew, his feet on the sod
Of a meadow home; he carols to God.

Facing the East with a clear, bright eye
Watching morn's purple and gold mount high;
He sends to his Maker with heart full of cheer
A whistle freighted with love, mellow and clear.

Again and again his glad song he repeats,
His mate on her nest, her heart swiftly beats;
She lists to the sound that through the mists drift
Proud of her Lord and His heavenly gift.

When suddenly awing, and sails he away,
To the sweet little mate, whose heart he did sway;
There in the meadow, diamond with dew
Two little birds, their love they renew.

R. M. B.

Meadowlark—(Concluded).

The above lines suggested themselves to the Editor while lying in the hospital at Los Angeles in March of 1915. Every morning a Western Meadowlark came and lit on a telephone pole near the hospital and facing the rising sun, bubbled over with melody for nearly an hour; when suddenly he would wheel and fly off towards the Southwest.

The regularity with which he did this, the joy with which he seemed possessed and the unusual surroundings of a noisy city thoroughfare selected by him, all impressed themselves upon the Editor's mind. To this little bird we owe much for having taken our mind off of physical suffering during our stay in that institution.

R. M. Barnes.

Mourning Warbler.

This handsome Warbler comes in our section rather late. We never found it breeding before the first part of June. The head, neck and throat are bluish-gray, changing to black on the breast, rest of upper parts, wings and tail, olive-green, belly yellow. The eggs are white, speckled with reddish lots near the larger end. As can be seen by the photo. The nest is near the ground, surrounded by ferns, etc. We always found it in the Tonawanda Swamp about fifty miles from Buffalo. The Tonawanda Swamp is drained and no more such rare birds like Carulean Warbler, Hooded Warbler, Ovenbird will be found there now. We at one time could have purchased the section of six hundred acres where a colony of the Great Blue Heron nested and I at one time counted one hundred and ten nests, some as high as one hundred up in the high elms, for \$6,000, but could not raise the money for this purpose. Now a corporation has charge of it,—too bad.

Ottomar Reinecke.

A Jinx.

Until the present nesting season the owls have been my jinx. In the last five years of more or less consistent search I have never found an owl nest of any variety, not even that of the common Screech Owl.

But the jinx is broken at last by a lucky find on February 27, 1916. On that date I went sixteen miles west of Champaign to the heavy timber along the Sagamon River. As I knew there were Great Horned and Barred Owls about, I was ready to climb every hollow tree in the wood in order to find a nest. I soon found a promising-looking, round hole in an Elm tree, twenty-five feet up. Upon circling the tree I saw a crack on the opposite side from the hole and from it a long, soft owl feather protruded. Making quick work in strapping on the climbers I started up the tree. I had not taken more than six steps upward when an owl flew out and settled on a nearby limb for a few seconds to inspect me. I instantly recognized it as a Barred Owl. I climbed the remaining distance in record time, and in the cavity saw my first set of Owl eggs and the first set for 1916, consisting of five clean Barred Owl eggs. Incubation had just begun. Having no collecting box along I was forced to carry them in my sock cap upon my head on the sixteen mile journey home. Various other passengers on the interurban car showed much curiosity about the peculiar shape of my toque.

Walter A. Goelitz.

Champaign, Ill.

**Nesting of the Wilson Warbler
in New Jersey.**

On June 16th, 1915, while making observations along the trail to the north of Mud Pond, Passaic County, New Jersey, I located a nest of the Wilson Warbler (*Wilsonia pusilla*) di-



Nest and eggs of Mourning Warbler

—Photo by Ottomar Reinecke.

rectly on the ground under the sheltering branches of a hazelnut bush. This nest, at the time, contained a set of four eggs heavily incubated. The female was covering them at the time of discovery and the male was perched in a cedar about a dozen feet off. The female was quite silent on being flushed and quickly disappeared in the surrounding undergrowth. The male, however, continually uttered a sharp metallic "chip" and was very nervous and excited while I was making observations of the nest and contents. On two occasions, this feathered mite, actually flew directly at my face, coming within a few inches and then dodging off to a nearby sapling.

The nest, as above mentioned, was placed in a hollow in the turf of the bordering bank and was composed of strips of bark and weeds, and lined with plant down, fibers and a few slender grasses. The eggs were a cream-white heavily speckled with chestnut-brown principally at the center portions, both ends being only sparsely spotted.

On the 20th, I again visited this nest and found it to contain four nestlings about a day old. Both parents were providing food for the young. This consisted wholly of insects which they captured on the wing. The female at this time had lost considerable of her former timidity and was coming to the nest at intervals of about four minutes and feeding while I was seated on the ground about five feet off watching the proceedings.

On the 22d I visited the nest and found it to contain only three of the young, the fourth having disappeared. The remaining three were progressing very rapidly and appeared quite healthy. The food brought this day was wholly insectivorous and like the former day, was caught by both parents on the wing.

On the 27th the nest was again visited for the purpose of placing bands of the American Bird Banding Association on the young, but found that the nest was empty and torn apart and the whole colony missing from the neighborhood.

This is the only nest of this species that has thus far come to my attention in this state. During the last fifteen years, during the breeding and nesting seasons of the Mniotiltidae in this section of New Jersey, about a dozen pairs of this species have been observed up to the 15th of June, but in no instance was a nest or the semblance of one located, nor were the birds observed gathering nesting materials. On two occasions copulations of the sexes of this species were observed in this immediate vicinity but that was as near as I ever succeeded in finding a home of this warbler.

On the 16th nests of the Redstart, Black and White, Black-throated Green, and Blue-winged Warblers were found in this same locality. Immediately to the west of this pond, nests of the Maryland Yellowthroat, Yellow-breasted Chat, Yellow and Chestnut-sided Warblers and Ovenbird were located during the period between June 13th and 28th during this year, which indicates that the section is particularly conducive to the nesting and rearing of the young of the Mniotiltidae.

Attempts were made to secure a dozen pictures with a small camera of the above Wilson Warbler nest, but failed most signally and did not secure one exposure of the twelve worth the trouble.

Louis S. Kohler.

Warblers in the Vicinity of Jonesburg, Missouri.

Warblers are indeed hard to follow; some are here one day and are gone

the next; again, some appear, remain a few days and then pass northward. A few are permanent residents and are indeed welcome, for as far as I have observed and according to the best authorities no maledictions are cast at them for bad habits. On the contrary they are rather pitied by some naturalists because of the fact that they are so imposed upon by the detestable Cowbird (*Molothrus ater*.)

Their plumage is, on the whole, brilliant and no sight is ever so pleasing to me as several warblers hunting for food.

The most abundant Warbler I have observed is the Myrtle Warbler; next comes the Northern Water Thrush; then the Maryland Yellowthroat, Yellow-breasted Chat, Louisiana Water Thrush, Magnolia Warbler, Black-and-White Warbler, Wilson's Warbler, Chestnut-sided Warbler, and Yellow Warbler.

The Myrtle Warbler arrives about April 25th and is common by the next two days. It remains here until May 15 and then passes northward. On its return migration it passes through Jonesburg from October 20 until the 26th.

Both the Northern Water Thrush and the Louisiana Water Thrush appear about the last day of April and are common by May 2. They are all gone northward by May 10th.

The Maryland Yellowthroat arrives April 25-27, is common by 26-28 and remains here during the spring and summer. I do not recollect seeing them after August 1st and have no notes of their presence after that date.

The Yellow-breasted Chat arrives May 1-5, is common by May 7-15 and remains here during the remainder of May and the month of June. I have never observed it after July 1st.

Of the other Warblers named I have scarcely observed their movements

long enough to state with sufficient accuracy any dates relative to their migrations.

Ralph R. Wilson.

Jonesburg, Missouri.

**Pine Warbler (*Dendroica vigosii*) at
Bloomfield, N. J., During
December, 1915.**

On the morning of December 19, 1915, in Watsessing Park, near Bloomfield Center, a male Pine Warbler was observed by the writer. The bird was in company with several Juncos and Golden-crowned Kinglets and seen among the shrubbery and on the ground feeding. The ground was covered with about ten inches of snow and it was bitter cold at the time with the thermometer registering ten degrees above zero. Under the shrubbery were several patches of bare ground and it was on one of these patches this unusual visitor was feeding.

On the morning of the 21st and 22d it was again seen at this point and then disappeared.

The latest record I have of this species was made in 1912 at Haskell, New Jersey, on November 2d, and the earliest record was made on April 6, 1906.

Louis S. Kohler.

The Prothonotary Warbler.

The Thompson Lake region on the Illinois River is probably the central breeding place of this beautiful warbler. The nearby lakes of Mud Grass and Flagg are also much frequented. Mud Lake is about a half mile long and an average width of two hundred yards and yet around this small body of water probably twenty-five pairs were breeding this year.

The writer for about forty years has made a journey at least once a year to some one of these bodies of water to collect a few of these birds and their

eggs; going about the 20th of May. On this date the present year accompanied by a niece, an understudy in bird oology and taxidermy, we drove five miles to Thompson and securing a boat were soon rowing down the west side of the lake where the dead willows were in considerable number. The loud, clear weet! weet! weet! notes of the males were soon heard after leaving the boat landing. Many Tree Swallows too were all about us, very tame. Perhaps less than fifty yards was made before a beautiful male was secured falling in the water but was quickly retrieved and dried with corn meal and then wrapped in paper. After examining several cavities in the dead snags and trees one was found that looked very promising and when Miss Edna stood up in the boat to peep into it a female flew out almost in her face and almost making her fall out of the boat. The dead bark and wood being removed, six eggs were found to be the complement. This I have found to be the usual number; sometimes only five are laid. And three times in my experience I have found sets of seven. The eggs are very beautiful, almost spherical, shell hard, markings exquisite and varied, and usually each one of a set following the same pattern. A set mark is almost impossible as the egg is so covered with colorings. As a rule the female is not taken and a new set is produced in two or three weeks. When it can be had the nest is often composed entirely of the green moss that grows on the nearby live willows. When the lake is high and the moss covered up, dry grass, stems and stalks and fine rootlets are often used. The cavity is usually filled with this material to within four or five inches of the opening, and then a cuplike depression is made and the eggs laid. Sometimes the cavity is

filled with moss all but a lining of grasses for the nest proper. A cavity over the water is preferred and one not over four to six feet above it. This, however, is not strictly adhered to as last year a nest was found sixteen feet above the water in a little live ash tree containing the usual six eggs, and this year one was found back on dry land quite a distance from the water line.

Continuing down the lake several fine males were secured, using light loads of No. 12 shot, smokeless powder and a 20 gauge hammerless double barrel Utica N. Y. gun, which I have found to be about perfection for all kinds of collecting. Several more sets were taken, in all about seven or eight. A fine Solitary Sandpiper was seen picking on the moss covered water and was easily secured.

A good many Yellow-billed Cuckoos were in the willows and several were taken which proved to be males. Two sets of Tree Swallows eggs, one of five and the other of six and a pair of the glossy greenish black males were secured. One nest of Prothonotus containing six young was found but not disturbed.

Bull, Black and Water Snakes were seen on many of the willows and some apparently searching for nests as they are not averse to a dinner of eight young birds or the eggs, as I have often discovered. A fisher brought me a few days ago a Bull snake that he captured on Grass Lake that was over seven feet long and on skinning it was found to contain a whole family of nearly half grown Bronze Grackles.

Returning to the landing and eating our lunch we left the boat and went up the lake on land; finding up here the nests contained no eggs at all or only partial sets which we did not care for. In the top of a hollow



Group of Snowflakes mounted and photographed by J. F. Stierle

stump and over the water a Mallard's nest was found containing fourteen eggs, the duck being on the nest. As they looked much incubated, they were not touched. Back in the dense big timber the fine notes of the American Redstart was heard on every side. Two males were taken. A Cardinal's nest was found in the Button Ball bush but not molested.

Our dog Heine chased something through the dense bush with much bellowing, we supposed it to be a rabbit. Coming up to where he had treed it, we were surprised to find him twelve feet up in an old willow tree literally tearing the dead top out of it. It was limbed from the ground up and not hard to climb by an enterprising dog. We were much surprised to see a large mink dislodged out of the top of it by the dog and which he barely missed. It ran down the tree and off to safety towards the lake, while the canine, who had to descend backwards, was quite a while reaching terra firma.

Our half day's outing was successful and satisfactory and we returned to our buggy and home.

Dr. W. S. Strode.

Lewiston, Illinois.

Pine Grosbeak at Tea Neck, N. J.

On January 9, 1916, Mr. B. S. Taubehaus, of New York city, and the writer found a pair of Pine Grosbeaks (*Pinicola enucleator leucura*) among a group of conifers in the Phelps Estate at Tea Neck, N. J. These birds, a male and female, were in a hemlock about twenty feet from the ground and in a position to easily determine their identity. They were in company with several Golden-crowned Kinglets and Chickadees and remained in the vicinity for about ten minutes before they flew off and we had ample time to observe them. This is the first

record which we have for this species in New Jersey. The Report of the New Jersey State Museum mentions several records in the northern counties but none since 1904. We would be glad to know if other observers have seen them at this point, or at other places in northern New Jersey, this winter.

L. S. Kohler.

Birds on Matinicus Rock, Maine.

This small and nearly barren ledge is in the western part of Penobscot Bay, and is about twenty-five miles from the mainland. There is a light house on it which has twin lights and the people connected with it are the only inhabitants. Visitors are allowed, your name is requested and no firearms permitted.

From the Rock eastward are a great many ledges and islands, most of them the home of some species of bird in spring time. While many of the birds are of the so-called common variety, they are very interesting to anyone living inland. The great size of some of their colonies and the prettiness of the scenery in Penobscot Bay.

June is the best month in which to visit the Rock and an early morning start is advisable for there is generally a good swell on the water which seems to increase by afternoon. Approaching the Rock a great many Common and Arctic Terns are seen coming and going. They are part of the large colony living on it, which is estimated at over fifteen hundred pair. The greater part being the common species. All Terns are called either Medricks or Mackerel Gulls by Maine people.

Looking the place over, after you land, you find that one end is entirely covered with immense granite boulders. Toward the other end there are little patches of soil between the

rocks which are not spread on so thick. The Terns live on the rocky end, and as you wander about upon them you are glad you wore rubbers for these boulders are hard to walk on, being slippery and tilted every way. No attempt is made to make a nest and their eggs lie about on the flat rocks anywhere and everywhere. Some tossed about by the wind are broken, others lie in crevices filled with rain water, but the greater part are safe and will hatch. Two or three eggs are in most sets of both species. A set of four is rare and Dr. Dyar, the keeper, pointed out a set of five of the Common Tern to me once. The eggs vary greatly in color and marking. Many odd eggs may be found.

When first you appear among them, the birds are much annoyed and persist in flying about directly over your head, uttering their noisy repeated chir-r-r and teat-r-r and this sound will stick in your head a long time after you have left. In a short time, however, many of them quiet down and return to their eggs.

Formerly the Rock had but a single light, but a few years ago another was added. The Terns arrive about May 15th, and in the night and the keeper told me that the night they came after the second light had been installed, they seemed to know they were at the right place for they kept flying about over the Rock but didn't know what to think of the new light and refused to land for three days.

A good sized colony of Leach's Petrel breed there. They are seldom seen about their breeding grounds in the daytime so it is hard to estimate the size of a colony. It is said that one of a pair will feed out to sea all day returning at dusk to relieve its mate in the burrow. In the little soil patches, which is of a very light texture, are the burrows in which they

lay their single white egg. Dull white as a rule but often eggs will be found with a distinct wreath of fine red dots about the large end. As all the soil had been used here for the burrows many were forced to dig in under the smaller stones and by tipping over these stones you will generally find a Petrel and its single egg. The nest seems to be at the best only a few pieces of grass.

Under the boulders on the highest part of the Rock a colony of perhaps forty pair of Black Guillemot breed; Sea Pigeons they are called there. The size of a colony may be fairly well determined by the number of birds noted sitting about on the rocks and in the water nearby, for they will all be males and each one will have a maid tucked away under the rocks on the eggs. Unless you can crawl in among these immense boulders you cannot move them and very often the eggs are placed where they cannot even be seen. When eggs are fresh there is very little to go by in looking for them but as incubation advances the bird white washes the rocks leading to them, making it easy to follow the trail. Sometimes a few broken mussel shells, but more often the one or two eggs lie on the bare rock. Occasionally an egg will be noted that appears from its position to have been pushed to one side and will be found to have either a crack or dent in it. The bird probably knows such an egg will not hatch and pushes it away. The eggs are very pretty and vary in size considerably.

A few pair of Puffins formerly came to the Rock to breed but several years ago when I was there last Mr. Dyar said they remained about for a while that spring but felt sure they went up the coast to breed.

As these birds and their eggs are well known to all, I submit these notes

more as a list of the birds living on Matinicus Rock than anything else.

Roscoe I. Giles.

Notice.

Owing to the unusual stress of important law business the Editor has been unable to give any attention to oology during the last month or two; but shortly after the middle of June will take the matter up again and catch up with all correspondence. This notice is given that all those interested may govern themselves accordingly.

R. M. Barnes.

A New England Collection.

There is one collection of New England birds and animals that I have never seen mentioned in our Ornithological literature and I think a few facts in connection with it may be of general interest, for in some respects it is a remarkable one. I refer to the collection in the private museum of Mr. Dinsmore Green, the veteran taxidermist of Greenwood, Mass., who, by the way, is not a relative of the present writer, although a personal friend of many years standing, and one to whom I owe many a debt of gratitude for aid and information in regard to procuring specimens of our rarer birds.

Mr. Green's Museum is a very large, well lighted room, an addition recently built on his house and designed especially for the purpose it now serves. His collection includes mounted birds and animals and big game heads, and represents Mr. Green's own individual efforts for nearly forty years, for not only has he mounted all his specimens himself but nearly all of them were collected by him on the numerous trips he has taken throughout New England and New Brunswick.

The animals range in size from the small mice and moles to the Caribou

and moose. The birds include many of our larger and rarer species, the Eagles, Hawks and Owls being well represented by specimens in full adult plumage, most of them taken by Mr. Green many years ago when they were very plentiful and it was possible to pick out birds in exceptionally good plumage.

Many of his birds which were collected here in Massachusetts are now rare or extinct all over the country. His Passenger Pigeon is one of the best ones I have ever seen and is probably one of the very last of this species which was killed in this vicinity. A very fine specimen of Eskimo Curlew is probably the rarest of his group of shore birds, although many other rare ones are represented there.

Hawks and Owls, game birds and water-fowl form the bulk of the bird collection, very little space being given to common birds which are easily obtained.

The taxidermist work is remarkably good, the forms and attitudes of both the birds and mammals being very life-like, which not only adds great value to this collection but also offers conclusive evidence that the owner has studied them closely and faithfully in their nature haunts.

Very few taxidermists can show a collection of "personally taken" specimens which can compare with this one, for at the present time one's opportunities to collect rare material are necessarily limited by the decrease in wild life. Although Mr. Green occasionally picks up a few rare specimens now, he devotes much of his leisure time to the making of bird houses and attracting wild birds to the vicinity of the museum. During the last few years he has had quite a numerous colony of birds breeding nearby, thus affording visit-

ors a chance to study both live ones and stuffed ones also.

Anyone who visits the museum always receives a very cordial welcome from the owner, who is a very pleasant and entertaining man, to talk with, as his vast store of information was gathered from his own experience in the woods and fields and along the shore. Mr. Dinsmore Green is a man much loved and respected by nature students and sportsmen, and as he formerly conducted a very successful taxidermist business here for many years, he has a very large circle of acquaintances and friends. We all wish that men of his kind and capabilities were more plentiful.

Horace O. Green.

Wakefield, Mass.

Albino.

I noted February 2, 1916, a White-headed English Sparrow in company with a few others eating the new sown barley. I observed it closely for a few moments at a short distance, when moving nearer it flew to the fence, then flew away and did not return. Head light grayish white, with wide bars on the wings, was in company of about 30 English Sparrows. 4-26-16. Young White-headed English Sparrow, head and neck white, no white on back, male bird, learning it to pick up its own food.

W. A. Strong.

San Jose, Cal.

J. Parker Norris.

J. Parker Norris, one of the best known of the old-time Oölogists, died at his residence in Philadelphia on March 17, 1916.

Mr. Norris had been suffering from the disease, which eventually killed him, for several years. He continued, however, to keep up his interest in the "J. P. N." collection to the last.

Mr. Norris was born in Philadelphia on November 2, 1847, and commenced to take an interest in Oology when twelve or thirteen years old. He formed a collection, and in the sixties wrote a series of articles on Ornithology and Oology for the Country Gentleman, one of which, about the collecting and preparation of eggs, was re-printed in the first number of THE OÖLOGIST (Vol. I No. 1 Young Oölogist).

Mr. Norris' first collection was a good one for the time and contained series of Short-eared Owls, Sandhill Cranes and other species that were quite rare then. L. Kumlien of Wisconsin, who afterward became well known, was one of his collectors. Mr. Norris at one time spent several days in Washington helping Spencer F. Baird arrange the Oological collection in the Smithsonian Institute.

Shortly before his marriage, which occurred in March, 1870, Mr. Norris sold his first collection. About this time he began to take an active interest in Shakespeariana, and eventually accumulated a splendid library on this subject. In 1885 he completed a book on the Portraits of Shakespeare, which to this day remains the standard authority on the subject.

In the Fall of 1885 Mr. Norris' interest in Oology which had lain dormant for a number of years became active again and he started the Norris collection with his eldest son, J. Parker Norris, Jr., at this time fourteen years of age. One of the principal things to reawaken Mr. Norris' zest for Oology was a visit to Thomas H. Jackson at West Chester, and a sight of the latter's fine, well arranged and interesting collection. Soon after this Mr. Norris met Samuel B. Ladd, Harry G. Parker and a number of other active Oölogists of this period.

In January, 1886, Mr. Norris became

one of the editors of the *Ornithologist & Oologist* and continued in that capacity until the decease of that able journal in the Fall of 1893. A large number of well-written and interesting articles appeared in its columns from his pen.

Mr. Norris was the first to point out the many erroneous statements about the number of eggs laid by Raptorial birds, notably the Swallow-tailed Kite, up to that time credited with laying four to six eggs. Years before this in 1868-1869 he sent specimens of the eggs of the Small Green Crested or Acadian Flycatcher to E. A. Samuels from which the first correct description was published.

For many years Mr. Norris built up the Norris collection, until it became one of the finest in the country. He took more interest in the eggs of the Warblers and Raptores than any other families and was a thorough believer in having the majority of the species represented in series. He was most particular about the identity of his specimens.

About 1894 he turned over the collection to his son, J. Parker Norris, Jr., though still continuing to take an active interest in it.—Communicated.

The Editor knew Mr. Norris by correspondence, long and well; and likewise had a personal acquaintance with him, growing out of a number of visits in Philadelphia during which we had the rare pleasure of inspecting this truly wonderful collection of eggs. We had formed a very high opinion of Mr. Norris, both as a man and a scientist, and the Oological collection which he leaves is without doubt the greatest monument of its kind in North America under private ownership. We have no doubt that his son, J. Parker Norris, Junior, will take pride in conserving, improving and increasing the same.—R. M. B.

Bird Brevities.

My notes for the last winter seem to show a scarcity of the Winter Wren for this vicinity. A hundred miles of bird hunting failed to find the saucy little fellow. In suitable places a few Ruffed Grouse still live in spite of an army of hunters. This game bird is undoubtedly growing scarcer in Allegheny county. The Bob-white, I have never seen in this county in five years time, although one of my friends noted a few in his back yard less than a block from my home. Very few Bluejays are to be found around here which is due perhaps to their preference to some localities. The Cliff Swallow has never made an entry in my notebook and I would like to find a colony of them in this county. The Tree Swallow appears not to nest in this vicinity, but this bird was very abundant around Cambridge City, Indiana, where I lived in 1910.

The absence of some birds in certain regions is one of the things that is impressed upon the bird student when he moves from one part of the country to another. There is a fascination about a new place which only a birdlover can appreciate.

Thos. L. McConnell.
McKeesport, Pa.

Bird Tragedies in Oil.

Waterfowl are not devoid of instinct by any means, and yet new conditions are with them, as with other "people," sometimes misleading, according to the following extract from the *Standard Oil Bulletin*:

"Among the Waterfowl the death rate do to misinformation supplied by instinct is appalling and the circumstances are peculiarly pathetic: A gusher well—of a sort that have made the California oil fields famous the world over—is brought in, or gets beyond the control of the drillers and



Series of Broad-winged Hawks in collection of J. F. Stierle and Charles Pelton

comes in of its own accord. To tank the enormous flow is out of the question, so the oil is run into sumps already made, or held in canyons that are hastily dammed to meet the emergency. Sometimes these oil lakes cover acres, as in the case of the Lakeview gusher. In the dark of night or during the beautiful desert twilight, and in the windless dawn when reflections are strongest, these tar-colored lakes appear as bodies of water.

Instinct does not always save the birds. Men employed around the great Lakeview sump tell how the migratory waterfowl, flock after flock, dropped out of the turquoise sky and plunged into that lake of oil. Majestic pelicans, deliberate of flight; snow geese, Hawkes, fast-flying canvassbacks and ducks of all varieties that take the annual trip from Alaska to the flats of the lower Colorado river, alighted by the thousands in that oil sump, never to rise again. When these struck, their feathers became saturated with oil and their flying days were over. Many would remain on the surface, to be soon overcome by the heat and fumes of rising gas. Others would dive when excited or closely pressed. One old watchman long in the fields maintained that they committed suicide. The sight of birds struggling in the oil and countless blackened bodies floating on the surface had not the effect of deterring others from making the fatal plunge." W. A. Strong.
San Jose Mercury Hospital,
San Jose, California.

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Some Western Birds.
California Bush-Tit.

Three species and sub-species of the Genus *Psaltriparus*, a truly western genus not ranging east of the Rio Grande in southern Texas, are found in California. But as all forms are

similar in habits and differ but slightly in appearance, I shall in the present article deal mainly with the one most familiar to me, passing quickly over the others.

In northern California, we have the Coast Bush-Tit (*Psaltriparus minimus minimus*), which is the type species. The bird is from four to four and one-half inches in length; the plumage is brown, darker on the head and grayish down the back. The desert form of southeastern California is the Lead-colored Bush-Tit (*Psaltriparus plumbeus*). As its name would imply, this form is mostly bluish-gray in plumage.

The subject of this article, the California Bush-Tit (*Psaltriparus minimus californicus*), is well distributed throughout the Transition and Upper Sonoran Zones of the balance of the State. It is of the same size as the Coast Bush-Tit and differs from the type species only in the general lighter tone of the plumage.

In my home county of Los Angeles, *californicus* is an extremely common resident throughout the year. Herein lies one of his main charms, for like the poor he is always with us. Gathering in large flocks after the young are fledged, our little friends make themselves at home anywhere and everywhere, ranging high up in the mountains until the first flurry of winter snow drives them down to the warm valleys. Here they remain in the parks and gardens until the spring awakening of the mating instinct breaks up the jolly little bands.

While not in a position to state positively that they do so, I believe that the birds raise two broods a season, at least in the years when there is no heavy rainfall after early spring. At any rate eggs may be found from early March until late July, thus placing the species among our earliest breeders.

The nests are to be found everywhere, from the swamp willows within a stone's throw of the Pacific to the buckthorn thickets at more than five thousand feet elevation in the mountains. Almost every clump of oaks harbors as many pairs as its size will permit, in fact these trees seem to shelter more nests than all other kinds combined. Pepper and sycamore trees are often built in, as are also several varieties of cacti and countless shrubs and bushes.

As a nest-builder the Bush-Tit stands without a peer in North America. His home is one of the Seven Wonders of the feathered world. Much has been written of these beautiful structures, the weaving of which would seem to be a Herculean if not impossible task to the diminutive artisans. These nests are long, pensile pouches from ten to fifteen inches in length; about two inches in diameter at the neck and four to five inches at the bottom. The entrance, a small round opening about the size of a dime, is placed in the side near the top. The materials used are oak blossoms, cowbews, plant down, fine gray mosses, grasses, fibres, and feathers. Sometimes the outside is covered with small gray and brown lichens. To give an idea of the amount of material used I may say that more than three hundred tiny feathers have been counted from one nest. About ten days is spent in the building, and so well are they constructed that some nests weather the wind and rain of two or three winters, although they are used but one season.

Like the Gnatcatchers our Tit-Bit will sometimes find a spot more to his liking than the one where his half-completed nest is situated and then nothing will do but that he must move to the new location, tearing down the old nest and using its materials for the new.

The eggs are pure white, in size averaging about .55x.40 inches. From four to nine constitute a set. Twelve days is required for incubation; the young are entirely naked when hatched.

The birds call to each other almost continuously with a weak lisping note that is difficult to describe in words. Perhaps the well-known "tsit-tsit-tsit" of the Gnatcatcher is more like it than anything else. The male apparently has no "courting" song.

The Bush-Tit ranks as one of the most beneficial birds to the agriculturist, feeding on small insects, their eggs and larvae, and on several varieties of harmful tree scale. I have often noted flocks of the birds in the bush to all appearances feeding upon weed seeds, although it is possible they found some insect food there that escaped my notice.

A more confiding little fellow cannot be found anywhere. I have stood many a time so close that I could almost put my hand on them as they fed in the oak boughs, searching over each twig carefully for food, and then dropping to the next upside down for all the world like a Chickadee. I have watched their home-building with my face scarcely a yard away from the pretty nest. So familiar and trusting a bird cannot fail to appeal to every lover of the wild things.

D. I. Shepardson.

Los Angeles, Cal.

Red-Eyed Towhee.

One of our most interesting birds is the Red-eyed Towhee, always lively and busy, sometimes kicking up as much racket as an old hen in their efforts to find food among the leaves and litter among the underbrush. The nest is nicely hidden among the grass beneath a bush or among the hazel bushes. I never succeeded in finding

but one nest, which contained a very fine set of four almost fresh eggs. These birds eat an immense quantity of insects, I should judge for they are always hunting in the underbrush. The female is not quite so conspicuous as the male, because of her more quiet disposition and more sober colors and when nesting she sets very close.

Geo. W. H. vos Burgh.

No Man's Land, Maine.

In Penobscot Bay, about a mile east of Matinicus is the island of No Man's Land. It is owned by the Audubon Society who protects the great colony of Herring Gulls that breed on it. The number of pair is supposed to be about fifteen thousand and is the largest colony in Maine.

It is a good sized island. At one time a few spruce grew on it but several years ago when I was there last these were all dead, killed by the immense number of birds alighting on them I suppose. The soil, well fertilized by so many birds, produces a rank growth of grass, but much of the surface is pretty well studded with big boulders. The shore is very rocky and to make a landing with a good rough sea on is difficult except at one point on the western end locally called rum guzel.

As in all colonies, the birds rise to greet you and here a few thousand gulls uttering their harsh cry make a noise that is wonderful. After the feeling produced by the sight of so many eggs quiets down you take note of things. The nests of course are everywhere and anywhere. Some are in the hollows formed by the surrounding rocks, some are tucked away under the boulders but the majority are placed in the thick grass. Many are bulky affairs composed of dry seaweed and other water plants, many

are made of dry grass and hundreds of them are just a spot in the rank grass the bird has matted down with her feet into what a nest should be. With nests placed so close together that you have to be careful where you step, how any bird can tell her nest after once leaving it is a mystery to me. That they sometimes do return to the wrong nest may be noted for at times one will see two or more birds fighting when one of them had sought to return to her eggs. A number of adult dead Gulls may be seen lying about but whether death was due to these fights or to disease, I do not know.

Throughout June and into July eggs may be found but the July eggs are badly incubated. Three eggs are in most sets but many sets of two are seen. Eggs decidedly lacking in coloration and with a washed out look are generally infertile and are quite common.

About the 20th of June the first eggs layed are ready to hatch. The young are helpless for a short time and remain in the nest if not disturbed. Along the last of June, if you go there, you can soon start the biggest flock of various sized fowl running you ever saw, of that kind. They try to hide in the grass and under the boulders.

The cries of the young Gulls make a wonderful noise. It seems to be continuous. It was the last sound I heard it night on Matinicus, over a mile away, and in the morning when I awoke, they were going full blast.

When the fishermen clean their fish in the harbor at Matinicus, the old Gulls gather around to clean up the refuse. They are very interesting to watch for their cleverness in picking up the parts of the fish thrown away is wonderful. Quite often some Gulls would pick up a yard or so of this

stuff and start off for some good place to eat it and following close behind would be another, not so lucky but determined to get a meal somehow. When close enough to the tail a firm hold would be secured with the bill and then the brakes applied. The first Gull drops the tid-bit, shakes her tail a few times then turns and wings back to try luck over again while the thief neatly scoops up the prize and makes for a secluded spot to enjoy it.

Roscoe I. Giles.

Notes on the Eggs and Food of the American Crow.

During the breeding season of 1915, on a farm of sixty acres at Carman-town, Passaic County, N.Y., the writer spent the greater portion of the period between April 10th and June 30th in intensive work on the bird residents of the section.

In all, there were ten families of Crows reared on this farm during this period and ample opportunities and possibilities were afforded which permitted the writer to form, at least, a few definite conclusions. In addition to the parents of the broods which were reared, about seventy-five of this species, all of which were nesting within a radius of a mile, visited this tract almost daily and fed in some portion thereof.

The farm was so divided that three fields of corn were necessary in order to raise it in paying quantities and these were one ten acre tract at the southeastern corner; another tract of eight acres at the northwestern corner and a third tract of twelve acres along the southern boundary about eight hundred feet from the first tract.

On the 10th of April the first plowing for corn was made on the southeastern tract. This tract had been heavily limed and fertilized prior to plowing. The grain was sown in this

lot about April 25th because of the extremely early season prevalent this year. The young corn began showing through the earth about May 8th. On the 10th the entire assemblage of Crows began attacking this and continued to do so until the second field was plowed and then a portion of them assembled at this field.

On the 8th of May the tract at the northwestern boundary was plowed and about an average of twenty-five for ten days foraged over this and gathered a large percentage of the vertebrates, invertebrates and the lepidoptera found in the food of the young. The grain was tarred in this case and planted on the 13th and 14th. After planting a few of the Crows remained here but they had entirely deserted the field by the time the young corn began showing through on the 22d. The birds gave this field a wide berth and it was quite evident that the tar had its desired effect on them and their inroads.

On the 10th and 11th of May the third and last tract was plowed and was planted on the 15th and 16th. The Crows visited this field daily in large numbers prior to the planting and after the young corn began to show through, their inroads were about equal to that in the case of the first tract. Prior to planting a goodly portion of the vertebrates, invertebrates and insectivorous food was gathered here. Considerable lime and fertilizer was used on this field, but in the case of the second field, only fertilizer was applied.

The first nest with eggs was discovered in a cellar near the first tract of corn, about twelve feet from the ground and contained on the date of discovery, April 16th, four eggs uniform in color and size. These four were greenish white and heavily marked with brown and lavender and

averaged 1.55 x 1.12. On the 18th another egg was deposited which was bluish white, much lighter in color than the others and but sparsely speckled with light brown and lilac and measured 1.62 x 1.21. On the 31st the last egg deposited hatched first during the early morning. During the afternoon about four o'clock the other four hatched. This brood was allowed to be fed by the parents for eight days and when then one of the young was killed and dissected for examination of the alimentary track.

This stomach contained the following: Corn, 12%; Beetles, 8%; Spiders, 22%; Orthoptera, 30%; Invertebrates, 5% and Vertebrates 23%.

On the twentieth day another young bird was killed and its alimentary track was examined and contained the following: Corn, 35%; Beetles, 30%; Lepidoptera, 10%; Spiders, 12% and Vertebrates, 13%.

On the same day the adult male was killed and its stomach contained on examination: Corn, 62%; Beetles, 23%; Vertebrates, 5%; Lepidoptera, 5% and Invertebrates 5%.

The second nest with eggs was found near the second tract on the 19th and contained a set of five eggs, all uniform in color and size and resembled the first four of the first set. This set averaged 1.58 x 1.14. The young all emerged on the 3d of May. The young of this brood was fed from the first tract largely from the time of hatching until the 9th and then the parents foraged on the second tract plowed until the planting and then from the first and third tracts.

On the eighth day one of these youngsters was killed and stomach examined and differed but slightly from the first stomach examined except that the percentage of corn was 8% more and the percentage of Orthoptera was decreased by an equal amount,

Another of the youngsters of this brood was killed and examined on the twentieth day and the following result was obtained: Corn, 42%; Beetles, 25%; Lepidoptera, 12%; Spiders 13%; Invertebrates 5% and Vertebrates 3%.

On the same day of the last examination, the stomach of four adult males were examined and the following average was obtained from these: Corn 72%; Beetles, 12% Vertebrates, 11%; Spiders, 2% and Invertebrates 3%.

The next two nests were located on the 23d about two hundred feet apart near the first tract and as in the first case in cedars about fifteen feet from the ground. The eggs in these two cases distinctly showed the effect of the lime in their coloration. In the two nests nine eggs were deposited and all were uniform in color. These eggs were bluish white and but sparsely spotted with brown and lilac and averaged 1.60 x 1.15.

The young of these broods were fed from the first and third tracts and two stomachs examined at the age of twelve days contained the following: Corn, 30%; Beetles, 30%; Lepidoptera, 4%; Vertebrates 20%; Spiders, 12%, and Orthoptera 4%.

In the fifth nest, which came to light on the 25th in an oak about forty feet from the ground near the second tract, the eggs were of the dark phase and averaged 1.58x1.14. No stomachs were examined in this brood because of the nests being inaccessible. The parents fed the young of this brood wholly from the third tract.

In the sixth nest, which was in a cedar near the third tract and discovered on the 28th, a set of five eggs were deposited and, as in the case of the second and third, the eggs were of the light phase. In fact, but little of the bluish tinge was apparent, indicating clearly that the effect of the

limed ground had had a material effect on the coloration of the eggs. The young in this brood hatched about the 11th and on the 20th a young bird was killed and dissected and a result similar to the young of the second and third broods was obtained.

Three stomachs of the adults were examined on this day and the average of the stomachs was as follows: Corn, 64%; Beetles, 15%; Vertebrates, 20% and Invertebrates 1%.

The remaining four nests were located between the 28th and 30th and the eggs in each of these cases were of the light phase, but were all heavily speckled with brown and lavender and the eighteen eggs averaged 1.59x1.14.

Four young were taken from these four nests at the age of eight days and their stomachs were examined and the following average was secured: Corn, 35%; Beetles, 22% Lepidoptera, 12% Vertebrates 5%; Orthoptera 20% and Invertebrates 6%.

On the 18th of June five stomachs of adult males were examined and the following result obtained: Corn, 55%; Beetles, 21%; Invertebrates, 12% and Vertebrates 12%.

The foregoing observations and examinations brought forth the following facts:

First: That the eggs of the dark phase demanded a period of incubation of approximately fifteen days and the light phase from thirteen to fourteen days.

Second: That where the adult females fed on limed ground for a period of no less than two weeks, the effect of the lime was clearly indicated in the coloration of the shell of the eggs.

Third: That the food of the young birds at the age of eight days averaged: Corn, 29%; Beetles, 20.5%; Spiders, 8.5%; Orthoptera, 17.5%; Invertebrates, 4.25%; Vertebrates 13.25% and Lepidoptera 7%.

Fourth: That the food of the young birds at the age of twenty days averaged: Corn 38.5%; Beetles, 27.5%; Lepidoptera 11%; Spiders, 12.5%; Invertebrates, 2.5% and Vertebrates, 8%.

Fifth: That the food of the adult males, thirteen stomachs in all, during the period between the 20th of May and 18th of June, contained the following: Corn, 62%; Beetles, 17%; vertebrates, 13%; Invertebrates, 7%; Lepidoptera .4% and Spiders, .6%.

Sixth: That, while the food of the young birds during their life while in the nest contained about one-third in corn, the remaining two-thirds were of a class which are helpful rather than detrimental to the corn grower in this section. On the other hand, the food of the adults, in which the corn diet approximated two-thirds, the birds in this case are proven detrimental during the early stages of the corn growing and every safeguard against them and their inroads should be adopted to decrease this percentage.

In all forty-six eggs were measured and the averages in size of these were 1.61x1.15.

Louis S. Kohler.

Socorro Petrel Captured at Sea.

Last Saturday evening, April 1st, I was on the hurricane deck of the "Steamship Queen" bound for Los Angeles, when a heavy fog fell upon the deep. We were moving slowly in the Santa Barbara Channel and the islands could be faintly seen through the mist. Suddenly, a Socorro Petrel (*Oceanodroma Socorroensis*) flew into the cabin and dropped into a ladies lap. Believing the object a bat, she uttered a piercing scream. I ran below and captured the bird before the passengers could destroy it. It is a male species and is now in the Museum of History, Science & Art in Los Angeles.

Mr. Willet states that the Socorro Petrel occasionally straggles northward at least to San Diego. Mr. A. W. Anthony found it to be fairly common during April and May, 1895. It breeds on the island off the coast of lower California from the Coronados Islands south.

Alfred Cookman.

Western Meadowlark in Wisconsin.

In the spring of 1910, I was in the southern part of the state, Wisconsin, in Rock county, (very appropriately named.) It was here, I first heard the Western Meadowlark in Wisconsin; soon got to see them, but never found a nest. Every spring since then, I have noticed that they have been encroaching on the domains of the Eastern Meadowlark, farther and farther to the east and north. Well they are welcome I am sure. They are in about equal numbers here now, but I have never yet succeeded in finding a nest here of the Western variety. I first heard the Western variety in Minnesota in Wandena County in 1907 and again in Marin County, California, where I finally found two nests in the Alpine meadows of the Coast Range in 1908.



Geo. W. H. vos Burgh.

A Recent Addition to Our Collection.

The Editor has recently purchased a large collection of mounted birds lately belonging to Edward P. Carman of Portsmouth New Hampshire, including therein such rare specimens as Passenger Pigeon, Eskimo Curlew, Snowy Owl, American Goshawk, etc. Also beautiful albinos of the Barn Swallow and Kingbird.

The following is quoted from a letter of Mr. Carman under date of May 1st, closing up the deal:

"Sure there are some honest white men when it is such a hustle after the dollars. I hope you have plenty of them; surely you ought to have, as a man so square as you have been to me, I hope will never be in need of them."

Gone Forever.

For about a week during April we placed in the window of our law office the specimen referred to in the following, accompanying it with this explanatory statement:

R. M. BARNES.

THE PASSENGER PIGEON, COMMONLY CALLED WILD PIGEON (*Ectopistes migratorius*)

This specimen of this rare and now extinct bird was killed and mounted near Brighton, Maine, in the early '80's. The bird is now totally extinct, the last survivor having died in the Cincinnati Zoological Gardens in confinement in the Fall of 1915.

Formerly the Passenger Pigeon was one of the most common birds in all North America, passing in its migrations from North to South and vice versa in flocks containing millions, at times darkening the sky. It formerly, in periods of migration, was very common in this country. The older resident have seen thousands of the birds.

At one time there were 1,500 trapped birds shipped to Lacon and shot at a live bird shooting match on the river front west of the present water works. But a few dozen eggs and a few skins and mounted birds are all that remain of this most splendid game bird. As the result of persecutions it has ceased to exist. It was a martyr to the fool with the shot gun.

Oregon Birds.

Our birds have had a hard time; we have had a snow storm with cold weather. Here is a list of birds that I have observed from my window: Oregon Junco, Varied Thrush, Western Robin, Oregon Towhee, Rusty Song Sparrow, Northwestern Flicker, Red-breasted Sapsucker, Oregon Chickadee, Western Winter Wren, Western Golden-crowned Kinglet, Ruby-crowned Kinglet, Slender-billed Nuthatch, Western Bluebird.

The Western Bluebird I think are all dead. I found seventeen birds, I tried to feed them, but I think they starved. The Oregon Juncos are hardy fellows. We fed more than two hundred of them. They like corn meal. The Varied Thrush stands the cold better than the Western Robin.

GEORGE D. PECK.

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Photo Lieut. Francis B. Eastman, U. S. A., Ft. Sam Houston,
San Antonio, Texasc, June 1916.

A Soldier Ornithologist.

News From the Mexican Border.

That prince of bird men Lieut. Francis B. Eastman, U. S. A., sends us the following note relative to the bird life near Fort Sam Houston, Texas. It is to be hoped that he returns without misfortune and that before returning he will give the readers of THE OOLOGIST the benefit of many observations.

"There is a chapparel grove near my camp which is simply alive with birds, but the heat makes it hard to do anything. The most common birds nesting in the grove are the Mourning Dove, Mockingbird, Cardinal, Verdin, Nighthawk, and some kind of sparrow. In two-thirds of the nests of the Sparrow and Verdin are one or two white eggs about the size and shape of the Bank Swallow. Please don't laugh at my ignorance, but I am not very well posted in Texas fauna, and my first attempt to get acquainted resulted in a good dose of chiggers, which most ate me up.

"I am going to try to save some sets of the Verdin and also that sparrow, and Scissor-tailed Flycatcher if I can get some instruments. I saw a Road-runner's nest, too, in a cactus bush, with four addled eggs. It was deserted of course—I think because of a big storm we had here about a week before.

"I have only had two evening tramps in the brush, but hope to have some more now that I have cured the chigger bites. It is too hot to go out in the afternoons and there is so much going on in the evening that it is hard to get out,—conferences, lectures, calling, etc."

A Late Letter Says.

On June 11th I went on a little expedition to a small lake some eight miles west of here with a San Antonio

friend, and got a pretty good idea of the local fauna. Mourning Doves and Mocking Birds are everywhere. I have noticed no less than twenty nests of each with a few hundred yards of camp, in the mesquite bushes. I have never seen half that many anywhere in so small an area. Cardinal Grosbeaks, Curved-billed Thrashers, Verdins, Black-throated Sparrows and Night Hawks are also nesting plentifully close to our camp. So you can imagine the chorus we have every morning and evening. Some of the birds sing at all hours of the day and night.

On our trip of June 11th the first find was an Oriole's nest with four young, about 12 feet up in a mesquite tree. A little further along we found several Scissor-tailed Flycatchers' nests. One had 5 fresh eggs, one 4 young and the others well incubated eggs. All of these were in mesquite trees from six to twelve feet up. At our next stop we found a Cactus Wren with 4 slightly incubated and a Black-throated Sparrow with one egg, apparently fresh that morning. While looking for another nest in the chapparel, we flushed a Poor-will, which fluttered along the ground as if she was just leaving her nest, but we could not find it. We reached the lake about 10 o'clock and started out in a row boat. The lake covers about fifteen hundred acres—I would say roughly—and contains numerous patches of saw grass, cat-tail weeds and willow trees growing in shallow places. Also a few scattered trunks of dead trees. Several pairs of Scissor-tailed Flycatcher and Tree Swallows were nesting in these dead trees some distance from shore. The Swallow had young. Two of the Flycatchers nests had young; the others eggs from fresh to well advanced.

The weeds were alive with Coots,

Purple Gallinule, Red-winged Blackbirds, and Great-tailed Grackles. Also saw one Least Bittern, numerous Green Herons and Black-crowned night Herons which were nesting in willow and mesquite trees, about six pairs Pied-billed Grebe, several Ruddy Ducks, one pair Yellow Legs, several Killdeer, a flock of Black Terns (not breeding), and a small colony of Anhinga.

The following are some of the nests noted on the lake and not mentioned above:

Purple Gallinule—One with 5 fresh eggs, several with from 1 to 3, and about fifteen new but empty; perhaps some of these were shams. Some were in the willow swamp, but most of them in the weeds. They were rather shallow platforms made by bending down the grass and weaving it together.

Red-winged Blackbird and Great-tailed Grackle—We found nests of these two birds scattered all through the weeds, the former being the most numerous. Some were just commencing to lay, while many had already hatched. A few had full sets of fresh eggs.

Pied-billed Grebe—One set of 6 slightly incubated.

Anhinga—Four new nests apparently just completed, three with 1 egg each, two with 2 eggs each, one with 3 eggs and 1 Cuckoo, and one with 4 fresh. The nests were large, but not bulky—compactly built of sticks and willow leaves, lined with leaves and willow down. They were placed in crotches or on horizontal branches of trees from four to ten feet above the water.

The Coots had not commenced nesting.

On our way up from the boat, we found a set of 4 fresh Mexican Crested Flycatchers, in a fence post. A set of Golden-fronted Woodpecker was taken from the same hole two weeks before.

F. B. Eastman.

Will Crispin and E. J. Darlington's Work.

Mr. E. M. Kentworthy into whose possession came the collection of E. J. Darlington after his untimely death, likewise the records and bird eggs of both Darlington and Crispin, gives us the following interesting information:

"I have added the sets and eggs taken by each of these gentlemen and find that between the years 1898 and 1915 Mr. Darlington collected 298 sets, and 1031 eggs. And that Mr. Crispin between 1892 and 1913 took 811 sets totalling 2686 eggs."

These figures are interesting as showing that both these collectors were moderate in their methods.

MY LAST PIGEON HUNT.

It does not seem possible but it was forty-six years ago last October, I was out after Gray Squirrels and had no idea of Pigeons, when I started up some dozen pigeons on a side hill where they were feasting on poke berries and sweet acorns. They had become so scarce in Litchfield County, Conn., where I was at the time that finding them was a great surprise and all got out of range before I could shoot. They settled down about a half mile and I started for them. They were not at all wild and I got quite close to them and watched them feed and play for some minutes for I like to study every bird's habits when I get the chance. Finally hearing some one else in the woods close by, they all rose and as they flew over me I shot just one, and such a beauty. I wish they all lived once more; yet up to that last bird I had done my share of the killing. Several times later I could have killed more of them and now I am quite thankful I did not do so. Suppose all hunters had done the same, the birds, a few at least, would still be with us.

F. M. Carryl.



Pair Mounted Passenger Pigeons owned by Ottomar Reinecke,
Buffalo, N. Y.

Passenger Pigeon.

Ectopistes migratorus.

By Ottomar Reinecke.

The photo of the above Pigeons recalls recollections of their occurrence in this section of the state. When they flew in great swarms over the City of Buffalo, the gunners went on the flat roofs, and from the southeast corner of Genesee and Oak streets, quite a number were shot. A small flock lit on the roof of a one-story building on the northwest corner of Michigan and Genesee streets. The gunners went in large numbers in the woods near Genesee and Fongerou streets and shot a great many, mostly on Sundays, and the following day, Mr. Albert Liegele, our veteran brewer, who occupied the Brewery on Genesee street, near the Tollgate, went into the nearby woods and picked up the Pigeons which were lying around dead and wounded, and his employees were glad to get such a dainty morsel to eat.

The Buffalo Gunners had their shoot-

ing grounds out Main street, men like Steve Roberts, Charles Gerber, Arthur D. Bissell, Ed. Fish, George Newman and others secured large crates full of live Wild Pigeons and it took some very good shots with their muzzle-loaders. At that time we had no breech loaders to bring down the birds, which when released from the traps, flew away like greased lightning.

At that time the Pigeons were in such large flocks from one end of the horizon to the other that they obstructed the rays of the sun.

From the Hudson Bay to the Gulf of Mexico and from the Rocky Mountains to the East coast, the Passenger Pigeon inhabited all the states of North America.

As our great Ornithologist, Audubon, said, it flies with great rapidity, from 300 to 400 miles in an hour, or much over one mile in a minute, which has been proven by the contents of her stomach, which contained rice from the fields of Georgia and the Carolinas when shot near New York. He wrote in the fall of 1813:

"As I travelled several miles below Hardenburgh on the Ohio river across the dry plains, I noticed a flock of Passenger Pigeons that flew from northeast to southwest. I was tempted to count the flocks that passed the vision of my eye in an hour. I made a spot with a lead pencil on a piece of paper, but gave it up. I found that in twenty-four minutes I had 163 dots, but the masses increased from there on and the sun was darkened. I tried to shoot some with my good rifle but they flew so high that they were not within reach. It is estimated that this flock contained 1,115,136,000 Pigeons, and as each one consumes daily one-half pint of nourishment, the whole flock needed 8,712,000 bushels daily."

As a species this incredible multitude has been ruthlessly extirpated by netting and by professional plundering of nests of the young. Near breeding grounds hogs were fattened on slaughtered pigeons. In New York city squabs have been sold by the barrel at a less price than potatoes.

In early September, 1891, I went with a party to Town Line where a buckwheat field surrounded by woods was alive with a large flock of Pigeons, and was fortunate to secure the handsome photographed male, and a week later my son Edward went to Sherkston, Ontario, and secured the other younger male. The upper parts are of a rich, bluish slate color, back and sides of the neck with metallic olive-brown.

The American Audubon Society has offered a reward of \$3000 to the person that can produce a verified statement of a pair of Passenger Pigeons in the territory of the United States.

Books Received.

D. APPLETON & COMPANY of New York have just issued a little volume of 160 pages by Frank M. Chapman, entitled "The Travels of the Birds," price 40c, which is a popular presentation of the subject of migration as applied to certain birds therein referred to. It is an interesting little volume illustrated by a number of not very high class illustrations.

To a Waterfowl.

Whither 'midst falling dew,
While glow the heavens with the
last steps of day,
Far, through their rosy depths, dost
thou pursue
Thy solitary way
Vainly the fowler's eye
Might mark thy distant flight to do
thee wrong,
As, darkly painted on the crimson sky,
Thy figure floats along.
There is a power whose care
Teaches thy way along that pathless
coast—
The desert and illimitable air—
Lone wandering, but not lost,
All day thy wings have fanned,
At that far height, the cold, thin at-
mosphere,
Yet stoop not, weary, to the welcome
land.
Though the dark night is near,
Thou'rt gone; the abyss of heaven
Hath swallowed up thy form; yet
on my heart
Deeply hath sunk the lesson thou hast
given,
And shall not soon depart.
He who, from zone to zone,
Guides through the boundless sky
thy certain flight,
In the long way that I must tread
alone
Will lead my steps aright.
—William Cullen Bryant.

European War and the Birds.

Major Nicolls of the British Army has long been an ardent student of ornithology and collector of oological specimens. For many years he was located on the Bermuda Islands, and has been a reader of THE OOLOGIST for a long, long time. Our readers will be under obligations to him for the following:

"You asked me sometime ago if I would relate my bird experience at the Front: I'm afraid the part of the Front I was on (Loos) was far too noisy for any birds. There wasn't one to be seen anywhere: in fact, near the firing line there was no animal visible at all; that was a most curious effect. If one were to stand on any elevated place (out of bullet range!) and look over the trench region which was all in the plain, not one single living thing could be seen, and yet of course one knew that the ground one was looking at held simply tens of thousands. It made one feel very queer. The only bird I saw near the firing line was dead, and the sight was rather pathetic. In a small village where, like nearly all other small villages, every single house is a shapeless ruin, in one house which had no roof, and in fact only had two rooms left, one over the other, and two walls, in the top room were two rather pathetic articles: a baby's bassinette and a little cage lying on its side with a dead canary in it. One of course couldn't get at the room as there was no ladder at hand, and staircase and everything else had as usual, been blown away, so I turned my field glasses on to see what kind of bird the poor little mite had been.

"The only experience I had in the oological line was that a large box of eggs from Salt Lake City (sent by Dr. D. Moore Lindsey) reached me in my Billet which was a ruined farm. They

seemed rather incongruous in such surroundings, and I had to bring them back when I came home on promotion.

"I am expected to be sent out again pretty shortly now, and if I should happen to come across any bird life I will of course note down data; but I'm afraid I am not likely to see anything. There is far too much "frightfulness" in every direction for any bipeds except the featherless ones!!!

"Oliver C. M. Nicolls,
"Major R. G. A."

From British Guiana.

A letter from Paul G. Howes, who is at the Tropical Research Station of the New York Zoological Society at Kalacoon, Mazaruni River, British Guiana, . . . under date of June 5th, gives us among other things, the following:

"We are situated on top of a hill overlooking this beautiful, mile wide river, which is dotted with islands grown with beautiful tropical foliage. At our back door lies the virgin jungle, and by walking six miles we can be in forest that probably no white man has ever visited.

Hunting is superb and we live almost entirely on game, including deer, currasow, tinamou, partridge, pigeon, agonti, monkey, laba, and tapir. Often while hunting, we run across an Indian hunter, naked except for his little scarlet band about the waist. His skin is the most beautiful copper color, and to see him moving noiselessly under the forest giants among the tangle of lianos and jungle vegetation, bow and arrows ready, it is a sight that leaves a deep impression and makes one glad to be alive.

"We have had tremendous success in our ornithological work. I have secured over 250 perfect, 5x7 photographs of birds, nests, eggs, animals, vegetation and insects in all phases of their life, and the studies made by

Beebe and Hartley of South American birds will prove of great value.

"I had the honor of securing the first authentic set of eggs of Toucan, together with the first photos of young Trumpeter, and a full series of Hoatzin, showing the reptilian characters of the young in detail. I have twelve photos showing day old Hoatzin crawling about among the branches with the ease of a lizard; also old birds on nest, eggs, etc.

"We have sent a fine collection of animals, birds and reptiles to the park, including Bushmaster, Boa, Fer de Lance, monkeys, Laba, Sloth, Ant-eater, Haka Tiger, small rodents, frogs, lizards, toads, parrots, vultures, a host of small birds and above all, a live Cock of the Rock in perfect condition. This, I believe, will be the first live bird of this species ever to be shown in The United States.

"I am working in intensive entomology, working out the life histories of South American Wasps, and the significance of their behavior and illustrating my work with photos and color plates, charts, maps, etc. This seems to us the best way to show the importance of our new found field in Guiana.

"One interesting event of the trip was a visit from Theodore Roosevelt, who is a close personal friend of Mr. Beebe. He spent two days with us at Kalacoon, hunted and tramped with us and made us all love him the more.

"Would that I could give you full details of all the above, but of course, we are reserving all of the "big stuff" for the Society, who will publish our work, and to whom we are all under obligations.

"With best wishes and regards to you and THE OOLOGIST,

"P. G. Howes."

A Strange Experience.

On April 23, 1916, I found a nest of a

Cooper Hawk fifty feet up in a maple. The tree stood at the edge of a small slough in a comparatively dense woods. The nest bore the appearance of having been recently completed. On April 30th I again climbed to the nest hoping to find a full set of eggs but I was disappointed as the nest was empty.

On May 7th, when I visited the nest I found one plain bluish-white egg. Exactly one week later I climbed the tree, confidently expecting to see a full clutch of eggs in the nest. But I was thoroughly disappointed and surprised to see the same egg, dirtier than when I first saw it, lying in the bottom of the nest. By this time I was becoming disgusted with the hawks and finally concluded that there was no hope of my securing a full set of eggs, so I did not return to the nest.

This is the first time that I ever heard of any species of hawk laying only one egg. It has never been my experience at least, and of all accounts of the nestings of the various species of hawks, which I have read, not a single one contained anything of a similar character. Perhaps some one has had such an experience, if so, I would like very much to hear of it.

Ralph R. Wilson.

Jonesburg, Missouri.

J. Claire Wood.

J. Claire Wood was born at Salina, Michigan, July 27, 1871, and died at his home at Detroit, Michigan, June 16, 1916. By his death the oological and ornithological fraternity of the United States loses one of their brightest and most beloved members. He was widely, well and favorably known throughout the length and breadth of this land as a careful, accurate observer and conscientious collector. And no man sent specimens

into circulation which were held in higher esteem by the real scientists of the country.

Mr. Wood was unexcelled in his preparation and his datas were without question works of real art. We have a number of such in our personal collection upon which hours must have been spent in decorating them with the pen. It is a sorrow to know that we must sometime part with such as he whom we hold as friends.

In the fall of 1884, already being interested in natural history and already having started a boy's collection of birds' eggs, he answered an advertisement by Frank H. Lattin of Albion, New York, who then was advertising birds eggs for sale, and who then was publishing the first year of THE OOLOGIST, then called the "Young Oologist." From the date of the receipt by Mr. Wood of an answer to that letter, the end blown eggs so far as he was concerned, were discarded, and he started to build up a collection scientifically arranged and prepared. At one time this reached the aggregate of something like 8,000 specimens. Later a large part of it was disposed of.

In business, Mr. Wood was a surveyor by profession, and he was a bird man by natural inclination. A large number of the contributions from his pen appeared from time to time in THE OOLOGIST, and it is a pleasure to be able to present in this issue the last contribution made to the columns of the little journal that he read and loved so long, with this notice of his going into an unknown beyond.

The following poetic contribution was only recently received from Mr. Wood, and is without doubt the last penned by him for publication anywhere, which gives it a sentimental value in addition to its literary merit.

The Egg Crank's View of Spring.

(J. Claire Wood.)

And now comes the spring poet
 A loaded up with verse,
 That sets some people wishing
 He was planted in a hearse;
 But a fellow can take his pencil,
 And escape the charge of crime,
 When he can not write poetry—
 Just ordinary rhyme.
 But we admire the spring poet,
 And know just how he feels,
 And can not believe what people tell us
 About his head chucked full of
 wheels;
 For if he's gone plumb crazy,
 We should feel most mighty blue,
 For then, to a dead certainty
 We've gone plumb crazy too.
 For everywhere about us
 We see the signs of spring
 A new warmth in the sunshine
 And the wild geese on the wing;
 And from the corn stalk stubble
 Comes the whistle of the quail,
 And a bluebird is a warbling
 From his perch upon a rail.
 And from the distant woodlands
 Comes the partridge's muffled drum
 And about the sunlit place
 The bees begin to hum
 And we see the gentle farmer
 with a gun upon his back,
 And hear him jawing at the crows,
 And the crows a jawing back
 But it is the wary Red-tail
 Away up in the sky
 That sets our pulse a throbbing
 As we hear his well known cry
 For it brings a flood of memories
 Of times down in the woods
 When we went and sort of borrowed
 His stock of household goods
 Say boys! get out your egg tools
 And blow off the winter dust
 And sharpen up the climbers
 And polish off the rust
 For the hawks are all a breeding
 Just where they did last year

And the noise that they are making
 Is a pleasure to the ear.
 Of all the egging season
 Reaching away up to the fall
 The hunting of the Hawk's eggs
 Is purely best of all
 And we'll keep right on'a taking
 Some dozen sets or so
 And 'a minding our own business
 Even if some people blow
 For they know not the sweet pleasure
 That swells up in our breast
 At the mere sight of a hawk's tail
 A protruding from the nest
 Or when she leaps into the air
 And we see her on the wing
 How it sets our hearts a thumping like
 Well, just like everything
 And they tell us that we'll never
 Get beyond the golden gate
 That for villains of our stamp
 Is reserved another fate
 But we keep right on expecting
 A harp of sweetest tone
 And a sort of privileged station
 Right up next to the throne
 But if what people say is true
 And in punishment for our crime
 We'll enjoy a balmy climate
 Through all eternal time
 The prospect is a pleasure
 And not a grim despair
 For Wilson, Cones and Audubon
 And such like will be there
 And the editor of the Oologist
 And egg cranks by the score
 And times will be lively
 And no one'll be a bore
 And for a further comfort
 Just let us state the fact
 That if heaven admits only
 Those who keep the narrow track
 She is doomed to remain forever
 A vast solitary space
 Say Boys! we'll have for company
 The entire human race.

Spotted Eggs of the Robin.

Near a grove of fine trees in the

Northern part of the town of Stoneham, Mass., there stands the remains of an old, low building, now deserted but probably at some former time used to keep pigs in.

During the winter I had found an old nest of the Phoebe on one of the rafters inside this structure so I occasionally looked in there during the early part of May, 1916, to see if the Phoebe had returned. But no signs of a new nest were visible and I gave up all hope of discovering anything of interest there this season.

As I happened to be passing the end of this building on May 27th I was startled by the loud cry of a Robin as she flushed from a nest situated on a beam about eight feet from the ground. As I glanced in I saw a lot of new nests on the beams which supported the rafters of the building, and I became curious to find out why so many nests had been constructed there, for an actual count revealed the fact that there were no less than fourteen built, new ones, all of them unquestionably the work of Robins. The nest from which the bird had flushed contained three eggs which were rolling around on a bare spot on the wood, with a very poorly arranged fringe of straws to keep them from rolling off the beam entirely.

All the nests proved to be of the same style of architecture and were undoubtedly the work of the same birds which for some reason could not make a nest worthy of the name.

After looking over all the other nests I stepped up on a plank so that I could see more plainly into the one where the eggs were and I was very much surprised to find that two of the eggs were plainly and profusely spotted with pale brown, while the third one appeared to be normal in color, but on closer examination a few very small spots were noticed on this egg also.

I visited this nest again May 30th and found it deserted. I think that after building so many nests and leaving them as unsuitable to lay eggs in, the bird finally decided that the one she had used was unfit to rear a family in and she had probably started again somewhere else.

I never saw but one other set of the Robin which contained spotted eggs, and that was a set of four which I found about twenty years ago. I remember very distinctly that three of them were decidedly spotted and the fourth was a plain blue one. I believe these spotted eggs of the Robin are very unusual here in eastern Massachusetts.

Horace O. Green.

Wakefield, Mass.

Stratton and Bluff Islands.

The Tern Colony

All along the rocky coast of Maine the scenery is very pretty. The heavy surf, from an ever rough sea, is hurled up over immense boulders and churned into foam in ever so many places. The dark spruce and other similar trees on the mainland, and on many of the islands, are very noticeable.

There are many bays along the coast wherein are located a great number of islands, some, just small barren ledges, some low, grassy ones and others large and wooded. Casco Bay alone has 365,—one for every day in the year,—and two of them lying close together are Stratton and Bluff. They are about two and one-half miles out from Prouts Neck which is a part of Cape Elizabeth, Maine.

Strattons is a low, grassy island and has a dairy farm on it. Bluff is much smaller, very rocky, and uninhabited. On them a colony of over one thousand pair of Tern breed; the greater part of them are the Common Tern;

the smaller, the Arctic. In most of the Maine colonies, the Common species will be found in much the greater numbers. They arrive at these islands in spring about May 15th and depart about September 15th. These dates seem to prevail on most of the islands and were obtained from the keepers, who, also said that the Terns always came in the night and departed in the night. They are very noisy when they arrive at their breeding places and at Strattons, the man in charge of the Jordon Dairy, said he was always awakened the night they came by their loud cries.

It seems as though they must be guided in migration by light houses for they appear to prefer to live on some island where there is a light house or nearby. At night the great light on Cape Elizabeth may be plainly seen and these are the two nearest islands. Farther along up the coast this feature is noticeable and the big colony that breed on Matinicus Rock will refer to in other notes. Visitors are allowed on Strattons, your name is requested and of course no firearms are allowed.

It was a wonderful sight to me, when I first visited an island where a large colony were breeding and even now, after seeing many of them, enjoy it and make them a call if I have time.

They seem so pretty, so active, and so different from our inland birds. It is very interesting to watch a Tern covering her eggs in the pebbly shingle, with the hot sun shining down on her—(not leaving the incubating to the sun, as some have stated by the way)—and note the pretty little things she does. One thing they seem to like to do is to draw their bill through the shingle like a person would in making marks with a stick. You can get within twenty feet of them by being careful. How much time they put in



Nest of Bald Eagle on Susquehanna River, Pa., Feb., 1914.

—Photo by S. S. Dickey

incubating, I cannot say, but noticed particularly that in many such sets the eggs were well advanced in incubation and that it was not a case of piling out the set.

Although, these two species are rated as common, they are very interesting, and it is very fascinating to look over a large number of their eggs, to note the variations. Sets may be found having the very deepest ground color up to an almost white, and with different sized blotches and markings. Most sets contain but two or three eggs, larger sets of either species are rare in Maine Colonies. Here there are three distinct ways in which they place their eggs: First, on Bluff, where the landscape is rocky, the eggs are placed on the bare rocks. No nest is made; next on one end of Stratton, which is covered with a pebbly shingle, sometimes a slight depression is made to receive the eggs. The third way, is in the beach grass and wild pea, that grows back from the stony shingle. Here many nests are seen, substantially, though loosely made of dry grass and some hold together when taken up. Others have just a rim of grass around the eggs and resemble a straw hat minus the crown.

Terns are always much annoyed when anybody walks about where their eggs are. They resemble a swarm of bees as they fly about over your head and many dart down at you and come pretty close to your head sometimes. Their continuous cries gets on your nerves after the novelty of the sight wears away for it is a noisy repeated chir-r-r-r and tear-r-r-r. After they get quieted down and return to their eggs you are able to identify the two species apart, by their eggs alone you cannot.

By June 10th the majority of sets are complete, but some of the birds from different causes lay earlier and

some later so that during the whole month of June and even into July, eggs may be found.

Young Terns are peculiar speckled little fellows when they first leave the shell and seem able to run about in a short time. They have all the agility of young Sandpipers in hiding when in danger.

The rest of the bird population of these islands are several pairs of Red-winged Blackbirds and Spotted Sandpipers with one or two pair each of Song and Savanna Sparrows.

Roscoe I. Giles.

Spraying and Killing Birds.

An imaginary story from some Sentimental Bird Lover has been published as a fact.

Sometime ago there appeared in various papers a statement from some bird lover in which the poisoning of birds by spraying with poisonous compounds was declared to be "something awful" and that cats were killed from eating the poisoned birds. Considerable interest was created by this statement, especially among fruit-growers who, of all persons, should be and are awake to the importance of protecting birds which eat insects that injure the trees or fruit and while this poisoning scare would be welcomed as a truth in some localities where the English Sparrows are plentiful, it has transpired that there is absolutely no truth in the statement. One fruit-grower who sprays his own trees and largely his neighbors', says that he has never noticed any dead birds under the trees after spraying, and besides as it has been estimated that a man must eat about three barrels of apples which have been sprayed with arsenate of lead, in order to make himself sick, he can hardly believe in the bird poisoning story.

In California where clean cultiva-

tion is practiced during the summer months, and at the time much of the spraying with poisonous mixtures is done, any killing of birds would be readily detected, but no reports of dead birds as a result of spraying the trees has ever been made from the large apple districts where most of the arsenate of lead is done. In orchards where corn crops are grown or where the natural growth of alfalfa, brown clover, wild oats, etc., is allowed to get its growth before plowing, the forage is often mowed as wanted, and fed to the stock regardless of the fact that the evidence of arsenate of lead spray is visible. If any bad effects have ever appeared among the farm animals, they have not been made public. So it appears that in this case at least some over zealous and sentimental bird lover has started a story which has been evolved from pure imagination and with no foundation in fact.

W. A. Strong.

San Jose, Cal.

The Chimney Swift.

By Earle Moffett, Marshall, Tex.

The Chimney Swift, or, as it is probably better known, among the people of the South as the Chimney "Sweeper" or Chimney "Swallow," is a sooty, brownish black bird, measuring about 5½ inches long, and has long, pointed wings, which is characteristic of the Swift family. Instead of the tail feathers being rounded, as in the case of most birds, they taper to a point, or in other words, the feathers are slightly rounded, with the main stem of the feather protruding about 1-8th of an inch from the end. This acts as a prop, which enables them to stick to the sides of the chimney. It serves them much in the same way that climbers serve a telephone lineman.

These birds build a nest which looks very much like a beautiful little bas-

ket, being semi-circular in shape and made of small dead twigs, nearly about 2 inches long and held together and to sides of chimney with a glutinous saliva, which flows from the birds mouth.

When the glue dries and hardens, it becomes so firm that when the nest is pulled loose from the wall of the chimney, pieces of mortar and hard soot to which it is fastened often adheres to the structure. The nest is placed down the chimney usually about 9 feet. Most of the nests I have found were placed on the east wall of the chimney.

I have never seen the Chimney Swift light on a limb, chimney, twig or anything else; but it catches its food while on the wing, which consists mainly of insects, and will come gliding down over the surface of a lake or pond like an aeroplane, making a landing, and at the same time will have his mouth slightly open, keeping about 2 or 3 feet over the water. Then suddenly he will barely hit the water and scoop up enough water to quench his thirst. Sometimes they will miss getting the water, and then will go back and make another attempt. They also collect twigs for the nest on the wing. In flying by the dead tops of trees, the bird will pause a few seconds in the air, (the same as Hummingbird) so as to break a little twig off with its bill. Often he will miss the twig and circle around and try it again, keeping this up until he succeeds in breaking the twig off.

The Chimney Swift begins to lay the first week in June. Now about collecting their eggs and nest, it is merely a gambling game after all. I collect about five sets out of every ten that I try for. The best way I know of to get them, is to get a long pole, say about 18 feet long; find a cigar box and tack a piece of tin on

the front side of the box, protruding over the tip edge about 2 inches, nail the box on the back, or, opposite side to the pole, load bottom of box with cotton, lower it down past nest, then come up slowly, keeping the tin side close to side of chimney. First thing you know it feels like you have struck a snag, but you have struck the nest. Right here is where a queer "shakey" feeling comes over you, fear some of the eggs have slipped between the tin and the chimney. But when you pull up the box and find out you have got the full set without breaking any, just consider yourself lucky. But, in the long run you will find out you are gambling, when it comes to getting a full set, without breaking two or three of them.

Chimney Swifts may be seen on a bright sunny day (early in the morning or more so, late in the evening) flying very high over the city in search of insects, performing their wonderful aeronautical feats and uttering their unmusical twittering. But, on a dark, cloudy evening, when the black clouds are hanging low, they can be seen skimming low over back yards, and grassy pastures, in the act of catching the insects, but they give forth little twittering, if any, when flying low on a day of this kind.

The Chimney is a very common bird around Marshall, and I have seen during the mating season, as many as eight or ten hundred go to roost in the Court House chimney at one time, which would take an hour and a half for all of them to file in. The reason it takes so long for them to get in the chimney is that sometimes they don't get quite high enough over the top of the chimney, or some of the other birds get in their way, therefore they are often compelled to circle around and make another attempt at it, sometimes as many as four or five times.

To see these birds going to roost, would remind one of the contents of a huge funnel circling around and around, occasionally a few drops dropping down the spout. They will fly around in this manner until all succeed in gaining entrance into the chimney, which is rarely accomplished before dark.

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Abundance of *Sturnella Magna* in Northern New Jersey During the Present Winter, 1915-16.

On eight different dates since December 15, 1915, the writer has found an unusual number of Meadowlarks present in several sections of the northern half of New Jersey.

On December 15th at Wayne, Morris County, near the powder works, a flock of twenty-four were observed feeding in the adjacent fields.

On December 21st, a flock of ten were observed near Butler, Morris County.

On the 25th, while making the census for Christmas day, found three at Pompton Plains, Morris County, near the canal feeder.

On January 1st, five were observed at Hawthorne, Passaic County in the fields adjacent to Passaic River.

On the 4th, on Newark Meadows, Hudson County, near the Hackensack River, a flock of forty were observed roving about.

On the 16th, seven observed at Great Notch, Passaic County.

On the 22d, fourteen including a partly albino male, were observed at Midvale, Passaic County during the early morning.

And on the 24th, four were observed at Lincoln Park, Morris County, in the open fields near the railroad.

The above records constitute the most abundant year that I have ever experienced during my experience as an observer.

L. S. Kohler.

Notes From Camp Graham at Lake
Worth, Nine Miles Northwest
of Ft. Worth, Texas.

By Ramon Graham.

March 5, 1916. Ducks are plentiful, observed many, Green Winged Teal, Canvas Back and Widgeons on this date.

March 7, 1916. Not many Pied-billed Grebes, observed one on this date and have noticed one at several other dates.

March 9, 1916. Eight Geese observed flying north, too high to identify.

March 12, 1916. Six Black Crowned Herons, have noticed a few since this date.

Earl Moffat collected 1-3 Barred Owl. I collected 1-3 Red Shouldered Hawk.

March 13, 1916. Found Carolina Wren making herself at home in my tent.

March 15, 1916. Observed 1 Wilson Snipe and have noted a few since this date.

March 19, 1916. Observed 4 Goldfinch, have not seen any since.

March 24, 1916. Caught 2 flying Squirrels near Camps; found Screech Owl nesting in hollow tree 100 feet from Camps.

March 27, 1916. Observed 4 Spotted Sandpiper, 1 Greater Yellow Legs Snipe, 1 Green Heron.

March 28, 1916. Observed Sand Hill Cranes and Geese.

April 9, 1916. Made an unusual find for this locality. It was the nest of a Red-bellied Woodpecker and was the first I ever found nesting here. Nest in dead stub out in water 4 feet up, hole 10 inches deep, bird tame, pulled male bird out of hole, 4 fresh eggs were found, also 1-2 Red-shouldered Hawk.

April 11, 1916. Found Carolina Chickadee nesting in natural cavity

in Live Oak tree. This is unusual around here as they usually nest in pecked out holes in dead trees.

Found nest and young of Southern Downey Woodpecker, very few of these birds breed here.

April 12, 1916. Turkey Vultures are scarce around the lake, 1 set of 2 eggs collected on this date.

April 16, 1916. Tufted Titmouse found nesting in small Elm five feet up. Hollow, 5 inches wide and 1 foot deep facing the sky. Exposed to any kind of weather. Nest of hair and snake skin with a little moss, containing 6 well incubated eggs; birds were shy at first, but became very tame after they found out we were not going to get the eggs. This was an unusual nesting site. Around here they usually nest in natural cavities protected from the weather.

April 21, 1916. Noticed the arrival of Scissor-tailed Flycatcher.

April 24, 1916. Noticed the arrival of Night Hawks.

April 25, 1916. Many Laughing and Herring Gulls around the lake.

May 1, 1916. Observed hundreds of Cliff Swallows flying around and over the lake.

May 13, 1916. (Lark Sparrow V. S. Cow Bird). Found nest of 3 Lark Sparrows with 2 Cowbirds eggs. The Lark Sparrow got the best of old lady Cowbird by one egg which made a full nest.

The Road Runner is holding out pretty well. Mr. Earl Moffett has collected two sets while at my camp.

American Coots. Coots have been plentiful on the lake from November up to April and quite a few are still here. Mr. A. L. Hartshorn, Game Warden of the Lake, fined a man \$22.50 the other day for killing a Coo. The man said he thought it was a flying fish as it fled and swammed all the same and could walk on the water.



Young Red-headed Woodpeckers, July 28, 1912
—Photo by Thos. D. Burleigh.

Hornea and Barred Owls have been scarce this year on account of the hunters killing them during the winter.

The Screech and Barn Owls are as plentiful as ever. They are in every hollow not in use.

American Osprey. One bird observed this year. Am still at the lake and will be all summer so all the bird lovers are welcome.

Characteristics of the Quail.

The natural food of the Quail consists of the seeds of the vast number of plants known as weeds, with a little foliage of the same, especially in the winter when the leaves are young and tender. Considering how small is the amount of fruit usually found in the stomach of this bird, it is a surprise to learn that it sometimes does serious damage to vineyards. Investigation, however, shows that, as in most other similar cases, the injury results only when too many birds gather in a limited area. Nearly all the complaints against the Quail for eating fruit are that it visits vineyard in immense numbers and eats grapes. When thousands visit a vineyard, even if only occasionally, and each bird eats or spoils at least one grape, the result is disastrous. In the writer's interviews with California fruit growers, only one mentioned the Quail as harmful. His ranch was situated along the hills on the side of a narrow valley, adjacent to wild grazing land with much chaparral and forest, among which the Quail lived. In this case the annual loss was estimated at two or three tons of grapes.

In the laboratory investigation of the food of these Quail, six hundred nineteen stomachs were examined. Animal food, principally insects, amounted to three per cent. of the food and ninety-seven per cent. vegetable food

The latter consists of seeds of plants, most of which are noxious or troublesome species. Ants appear to be a favorite food, but the Quail will eat caterpillars, beetles, grasshoppers, flies, spiders, snails and scale insects. In this connection the following extract from a letter from Dr. W. G. Chambers of Los Angeles, is interesting:

"Last May during the hatching season one of my female Quail died a week prior to completing the hatch. An incandescent light of eight candle power was substituted, the result being fifteen baby Quail, very wild at first, not understanding human souls or language, but finally becoming as docile as pet chickens. They were raised in my back yard, running at large after the first week. A number of Marguerite bushes which grew in profusion in the yard were so infested with black scale that I had decided to uproot them and had postponed doing so as the Little Quail worked so persistently among the branches. Upon investigation I discovered them eating the scale, and twittering happily; they would swallow the fully developed scale and thoroughly clean the branches of all those undeveloped.

From numerous experiments and careful analysis of the food of the California Quail it is apparent that under normal conditions the farmer and fruit grower have nothing to fear from its ravages. When, however, large areas of chaparral are cleared and brought under cultivation it is natural that the products of garden and vineyard should be eaten to a greater or less extent by Quail, which abound in such localities. On the other hand, its seed-eating record is in its favor. Usually there is little difficulty in getting rid of superfluous game birds; in fact, in most cases the trouble is to prevent their extermination. A bird

so large, so easily trapped, so valuable for food, and withal one whose pursuit affords such excellent sport as the Valley Quail, will rarely become numerous enough to do serious damage, and then only locally and under unusual conditions.

W. A. Strong.

San Jose, Cal.

Red Breasted Nuthatch.

Passing through Massachusetts in their spring migration in large numbers very few of these small Nuthatches stop here to breed.

In his book, "Birds of New England, (1857)", Mr. E. A. Samuels stated that he knew but one nest being found in this state up to that time. Others, writing, continue to mention it as a rare breeding bird here.

I have had the good fortune to find it breeding locally in a few places but still consider it rare, although not quite so much so as in Mr. Samuel's day. Quite a number of the birds he found to be rare, have since become fairly common (with decidedly so) and with others it has been the reverse.

The Red Breasted Nuthatch is a bird of the Canadian fauna and may be found in Maine, from Knox County, northward. I have found it nesting fairly common in the woods along the coast where its choice of a nesting site and materials used are different from those in Massachusetts.

Throughout nearly the entire year a few of these little birds may be seen here in their favorite localities—dense pine woods on the higher land, seldom in the low, swampy country. Whether or not they are the same birds that remain to breed here, or go north to breed and others come in migration to take their places, I am unable to say. We generally have a month or so of very severe winter weather soon after the first of January

and think these Nuthatches go a little south of here during that period for seldom is one seen then, but when ordinary winter weather prevails they re-appear.

Ever looking for food, their sharpe notes of yauk or auk (which ever way you think it sounds to you) may be heard long before their little sombre colored bodies can be seen itching up or down some larger tree trunk. The course bark on the tree covering the hiding places of their food of insects, eggs, etc.

The few places I have found them breeding here have been somewhat similar. High ledgery ground, covered with a dense growth of trees, mainly pine but with a few populars growing in the scant soil on the top of the ledges. Some of these populars live long enough to attain a diameter of six inches or so and then die. When the wood has decayed enough to be punky it is then suitable for the little Red Breasted. The hole they make is very similar to a Downy Woodpecker, although the entrance is a trifle smaller. From four to twenty feet up were the heights selected. The foundation for the nest is about a handful of pine needles, then a loosely constructed nest of fine, dry grass and bark strippings. The eggs in a set vary from four to seven and are white with reddish dots. In some sets these dots may form a wreath about the larger end, in others may be scattered over much of the surface; resembling the eggs of the Chickadee and are about the same size.

The peculiar custom of smearing pine pitch on the outside bark directly under the entrance to nest and downward over a space perhaps two inches wide by six inches long is always followed but the reason for it, I do not know.

The female is the most concerned

when you are near the nest and lingers nearby while the male selects a tree a little farther away but interrupts his feeding now and then to look you over and to utter a few encouraging notes to his mate. They nest here about May 10th and when disturbed lay a second set but think one brood a season is what they intend to raise.

The last nest I found of the little Red Breasted she had for neighbors, a Ruffed Grouse, who had scratched a few leaves together for her nest that contained thirteen eggs at the foot of a big pine,—a Phoebe had placed her nest, that had five eggs, under a shelving bit of the ledge and in a little ten foot pine, six foot up, a Blue-headed Vireo had made a nest and layed two eggs. Making in all a very interesting group of bird-life.

Roscoe I. Giles.

Marlborough, Mass.

Wasago Beach, Ontario.

The following is a day's observation at Wasago Beach, Ontario, July 24, 1915:

A.O.U.

- 51 Herring Gull, common.
- 65 Caspian Tern, few.
- 70 Common Tern, common.
- 77 Black Tern, fairly common.
- 133 Black Duck, one brood.
- 194 Great Blue Heron, one.
- 263 Spotted Sandpiper, fairly common.
- 273 Killdeer, fairly common.
- 300a (Can.) Ruffed Grouse, three.
- 316 Mourning Dove, one.
- 390 Belted Kingfisher, Common.
- 394 N. Downey Woodpecker, five young.
- 406 Red-Headed Woodpecker, one.
- 412a N. Flicker, common.
- 417 Whip-poor-will, one, several heard (in evening).
- 420 Nighthawk, common.
- 423 Chimney Swift, three.

- 428 Ruby Throated Humming Bird, one.
- 444 Kingbird, common.
- 456 Phoebe, common.
- 461 Wood Pewee, fairly common.
- 474b Prairie Horned Lark, few.
- 477 Blue Jay, five.
- 488 American Crow, common.
- 494 Bobolink, one.
- 501 Meadowlark, three.
- 511b Bronzed Grackle, common.
- 529 American Goldfinch, common.
- 540 Vesper Sparrow, common.
- 558 White-throated Sparrow, one (several heard).
- 560 Chipping Sparrow, fairly common.
- 567 Slate Colored Junco, one.
- 581 Song Sparrow, common.
- 587 Towhee, one.
- 608 Scarlet Tanager, one.
- 611 Purple Martin, fairly common.
- 613 Barn Swallow, common.
- 614 Tree Swallow, two.
- 616 Bank Swallow, common.
- 619 Adar Waxwing, common.
- 622c Migrant Shrike, two.
- 624 Red Eyed Vireo, few.
- 636 Black and White Warbler, few.
- 652 Yellow Warbler, two.
- 655 Myrtle Warbler, few.
- 675 Water Thrush, one.
- 681 Maryland Yellow-Throat.
- 687 Redstart, fairly common.
- 704 Catbird, common.
- 705 Brown Thrasher, three.
- 721 House Wren, common.
- 735 Black Capped Chickadee, fairly common.
- 755 Wood Thrush, several heard.
- 756 Veery, few.
- 761 Robin, common.
- 766 Bluebird, few.

Total, 56 different.

This was a day's observation, from 6 a. m., until 6 p. m., and we drove about eighteen miles in the morning, thus covering a lot of ground.

Paul Harrington.



Redtailed Hawk. Mounted by M. J. Hoffman, Brooklyn, N. Y.
A sample of high-class modern taxidermy.

THE OÖLOGIST.

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Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.



Young Great Horned Owl, two weeks old

—Photo by Thomas H. Jackson.

Killing the Hawks and Owls.

Not long since there was a display in Lacon (Illinois) in the window of a department store, a splendid specimen of Barred Owl which had been thoughtlessly killed by a citizen of this town, who did not know that in so doing he had destroyed one of man's best friends, and that in so doing, he had laid himself liable to a fine of a large amount for violating the laws of the United States. And this law may yet be enforced against him. The bird destroyed never injures poultry.

Not long since the Government of the United States, at a very large expense, made an exhaustive investigation into the food of the various Hawks and Owls of the United States, and after an examination of the contents of more than four thousand stomachs of these birds, killed in various parts of the United States, issued a book entitled "The Hawks and Owls of North America," and in that book each species of both these families of birds was taken up and treated separately and the analysis of the contents of the stomachs of each of the 4200 specimens was set forth and the Barred Owl was given a clean bill of health as an entirely beneficial, harmless and non-destructive bird.

A few days ago, driving from Peoria to Lacon, passing the place of one Herbert Bischel near Spring Bay, in Woodford Co. the writer saw hanging to the barbed wire fence, the dead body of a Red-tailed Hawk, another of the farmer's best friends, that had been thoughtlessly, perhaps, ignorantly killed by someone and hung on the fence, who supposed he had done a public service in destroying a "Chicken Hawk." This bird like the Barred Owl, is a beneficial bird and should never be killed under any conditions.

True it is that the Red-tail when

driven by stress of hunger and scarcity of his natural food, will occasionally take a chicken. But the conclusion reached by the Government in its investigation was to the effect that for each chicken taken, this bird destroyed not less than one hundred field mice and many gophers and ground moles, in addition to its more desired food, the striped ground squirrel. And this bird, like the Barred Owl, is protected by law, and the killer of the bird that hung on Herbert Bischel's fence is likewise liable to a heavy fine for violating the law in killing this bird, and it may be, will sometime be called upon to face Uncle Sam's legal department for so doing.

Most of the killing of this class of birds is the result of the densest sort of ignorance. A failure or refusal on the part of the killer to inform himself as to the character of the birds.

There are in this part of the country, but two birds belonging to the Hawks and Owls that should be destroyed. One, the large Great Horned Owl, the largest owl we have, with large round, yellow eyes and ear tufts that are called "horns." The other, the long slim, bluish-gray colored Hawk with feathers marked somewhat like a Barred Plymouth Rock Chicken, with a long slim tail, known as the Cooper Hawk. Other than these, all the Hawks and Owls of this part of the country are beneficial, and should be protected; as they live almost entirely upon man's enemies, vermin of some kind, mice, rats, moles, ground squirrels and the like.

The Country Gentleman of October 30, 1915, contains an article by R. W. Schufeldt, one of the most prominent of American bird students, a resident of Washington, D. C., upon this same subject which is as follows:

DON'T SHOOT THE OWLS
They do Untold Good as Destroyers of
Vermin.

By R. W. SHUFELDT.

There are forty-four different kinds of owls in the United States. Some are very small, as the pygmy owls of the southwest; while others, the great gray owl and the various horned owls, are as big as the largest hawks and falcons.

These birds are, as a rule, largely nocturnal in habit, and this fact has doubtless had much to do with preserving their kind from utter extermination at the hands of man. Boys are encouraged to shoot them, because they are alleged to prey upon young chickens and other poultry of the farmyard.

Where farms are much isolated, and in parts of the country where the bird is found, it is very likely that the great horned owl will prey upon domestic fowls; but he will also destroy his share of such vermin as rats, weasles, mink, and so on. The pygmy owls, on account of their habitats and diminutive size, need not be taken into consideration here. Disregarding these species, then, it may be said with the greatest certainty that there are few birds of greater use, and practically none that perform more incalculable services to the agriculturist in all parts of the country, than owls.

Many hundreds of common barn owls are destroyed every year. When the farmer kills them on the plea that they steal his young chickens he is paying for slight losses by murdering some of his best friends.

The late Charles Bendire, in his work on American birds, says of this owl that it is "one of the most useful and harmless bird of prey, subsisting almost entirely on noxious vermin, such as ground squirrels, rats, pocket gophers, mice and on shrews, bats, frogs, small reptiles, grasshoppers and beetles. Very rarely small birds are caught by them and occasionally a young rabbit varies the usual bill of fare. Looked at from an economic standpoint it would be difficult to point out a more useful bird than this owl, and it deserves the fullest protection; but, as is too often the case, man, who should be its best friend, is generally the worst enemy it has to contend with, and is ruthlessly destroying him."

Further on he says: "The number of rats, mice and other noxious ver-

min required by a pair of these owls to feed their family, usually consisting of from five to seven young, is almost incredible, and I am certain exceeds the captures of a dozen cats for the same period. The young owlets are always hungry and will eat their own weight in food daily, and even more if they can get it."

WOULD PAY TO IMPORT OWLS

In support of this last statement another witness at hand has published the fact that when "one of these birds has young it will bring a mouse to its nest about every twelve or fifteen minutes. But in order to have a proper idea of the enormous quantity of mice that it destroys, we must examine the pellets that it ejects from its stomach in the pace of its retreat. Every pellet contains from four to seven skeletons of mice. In sixteen months from the time when the apartment of the owl in the old gateway was cleaned out there had been a deposit of more than a bushel of pellets."

Here doubtless 7,000 or 8,000 mice were destroyed by only one pair of barn owls in less than a year and a half. Any farmer may entertain a fairly correct notion as to how much grain 7,500 mice will consume in the course of a year.

In rural districts where the barn owl is either very scarce or is not found at all it would prove a distinct benefit to import a few pairs and protect them by efficient legislation. They would be a terror to all rats, field mice and pocket gophers of the country all round, and they would keep the latter down to a minimum at all times of the year. Every time we slay a barn owl we give a lease of life to vermin to spread disease and to eat up the products of the farm.

Edward Howe Forbush, in a bulletin entitled *Rats and Rat Riddance*, published by the State Board of Agriculture of Massachusetts says: "Rats are the most expensive animal that man maintains—forerunners of famine, disease and pestilence, disseminators of the dreaded trichina and the terrible bubonic plague, or black death, which has slain its miserable horror-stricken millions since the dawn of history, and now has spread to the United States."

In America we not only have no reg-

ular government organizations whose work it is to destroy rats, but all over the country we are killing owls which prey upon rats!

Rats not only consume hundreds of tons of grain in the United States every year but they likewise climb our fruit trees and eat any quantity of all kinds of fruit, of which they are very fond. They ruin houses; kill hundreds of people by spreading disease; flood farm lands by opening dikes; set houses on fire by nibbling matches; eat thousands of eggs; kill poultry; eat dressed meats and provisions by the ton; and they kill and eat all kinds of small pets and game.

It has been shown that, upon the whole, the cat is a perfect failure as a destroyer of rats; while, were owls sufficiently numerous, they would destroy thousands every month. Farmers all over the land should favor the introduction and subsequent protection of all medium-sized owls, the American Owl in particular.

The months of October, November and December are the months of migration for the Hawk family and thousands of them wing their way southward. Most of those passing in October and early November are the Swainson Hawk, which is about the size of a large Redtail and has a white breast with a dark band across it. This bird is wholly harmless, easy to approach, fearless, and is ruthlessly killed by those who desire to destroy "chicken hawks," with little knowledge of the fact that they are destroying one of their real good servants.

Later in the fall and winter, the large Northern Hawks are to be seen sitting about on the fences and trees watching for furred animals, which is their natural food. These birds are harmless as to poultry, and should never be killed. They are usually larger than our big Redtail Hawk, generally have a white breast and a dark brownish or black face and wing; sometimes they are seen with the dark plumage throughout, both above and below.

It is to be hoped that some day the prejudice of the general public against Hawks and Owls as a class will be overcome, and that those who desire to kill for the fun of killing will be curbed.

Ninety per cent. of the Red-tail Hawks in Marshall county have been killed off in the last twenty years, and we now have four times as many field mice and ground squirrels, moles, gophers and the like as we had twenty years ago as the result of this barbarous practice.

It is to be hoped that some day the laws against those who kill for the mere pleasure of killing will be enforced and that the general public will then take the trouble to inform itself as to the difference between a harmless and beneficial Redtail Hawk and a smaller, longer, slimmer Cooper Hawk; and also of the difference between the harmless and beneficial Barred Owl and of the destructive Great Horned Owl.

Not long since a citizen of Lacon, who makes great pretensions as to piety, enjoyed the sensation of ruthlessly murdering four little young, harmless Screech Owls for the pure sake and fun of killing them. These birds are classed by the Government as being among by far the most beneficial of all birds found in North America. It is to be hoped that this killer, when he thinks of the great service he did to his community by destroying these harmless, beneficial little young birds will be satisfied with what his own conscience tells him of the work.

R. M. Barnes.

The Lazy Bird.

Cowbirds have either become unusually lazy or else overworked in this locality this year. June 21st of this year I found a fresh Cowbird egg in a Goldfinch nest that must have been

two years old at least. Also earlier in the season I found a Cowbird egg lying in a field.

Until this year I have never found the eggs of this bird in Red-wing nests, but in a little colony of some twenty-five pairs of Red-winged Blackbirds, I destroyed eleven Cowbird eggs on June 17th and six on June 27th of the present season.

Walter A. Goelitz.

Ravina, Ill.

Notes on the Chipping and Field Sparrows.

During the breeding season of 1915 in the vicinity of Butler, New Jersey, from June 1st to 30th, I located fifty-two nests of the Chipping and Field Sparrows, either with eggs well incubated or with young a few days old. Being very much interested in the bird banding movement, permitted each of these that had not as yet hatched to do so and kept a daily record of each hatching so that bands might be placed at the proper age on the young birds. But out of all these nests, bands were placed on only two young birds, because of the nestling becoming infested with a small mite similar to that which attacks young chickens and of the fifty-two nests one hundred and sixty-eight young birds succumbed to the inroads of these minute insects at the age of three or four days. Forty of these broods were hatched in nests in scrub cedars. The remainder with the exception of two were in smilax and blackberry tangles and the last two in huckleberry bushes. These were the only two not to be attacked and which survived. One of these broods were destroyed by a house cat on the sixth day and in the other two birds reached the banding age of six days.

This is the only record I have and the only one that inquirers among my

bird loving friends has brought to light on this matter. Would be glad to hear from other oologists and ornithologists in THE OOLOGIST who have been fortunate enough to observe a similar invasion of this species of insects among the different small species of the Fringillidae.

Louis S. Kohler.

Hunting Owl Eggs From a Boat.

On February 19th, found Raymon Graham and myself scouting around in and out of the tree tops out to Lake Worth looking for Owl hollows.

Lake Worth, or better known among the people of Fort Worth as the Reservoir, is in a large tract of bottom land with the Trinity river flowing through it. So the city decided to throw up a dam or two and make a reservoir of it. By so doing, the river soon went out of its banks, took in all the trees that could be found in the bottom, leaving only the tops protruding from the water, making it a cinch to collect from a boat. (That is, the trees that are smaller in diameter than the one following).

As I was saying, we were zig-zaging in and out of the trees, keeping a close watch out for good hollows. We had gotten no more than two hundred yards in the trees, when I happened to cast my optics on a good hollow down three hundred feet in front of us. Then we put on full steam ahead. Just as we neared the stub, the bow of the boat hit it, and out flew Mrs. Barred Owl. Right there a free for all scramble liked to have taken place, to see which would get up and see in the hollow first. Raymon tried first to get up to it, then I tried, then he, then my time again. It had no limbs on it, and was as slick as glass, therefore neither could "coon it" up. All this time our boat was doing the Hesitation.



Pair of Young Great Horned Owls, three weeks old
—Photo by Thomas H. Jackson.

We happened to look down in the boat, and there we found about four feet of old rope tied to an old anchor. By putting the anchor over the end of one of the oars, we hooked it in the hollow, and I started up hand over hand, but—to our sad luck, the rope snapped in two, leaving the remaining ten inches in my hand, and the other three feet and the anchor fell down in the bottom of the cavity. Then we were guessing again how to get up.

Raymon, after putting his wooden brain to work, suggested stacking some life belts, which we always carried along, up on the hood of the boat, by doing this it put me up about four feet. Then I held to the trunk until Raymon could get under me where I could stand on his shoulders, then I could hold the hollow with one hand and pulled myself up where I could look down in it. And lo and behold, after all this hard brain work and labor, there was nothing in it but the bottom, and the pieces of rope and the anchor that fell over in it. Tough luck again. In my haste to get down on account of my hold growing tiresome, I forgot to remove the obstacles that fell in the hollow.

Tired, scratched up and perspiring, we drifted on down through the woods meeting with very little luck. Getting back to camp late in the evening.

On the 12th of March, found us back at the same hollow. On approaching when the boat hit the stub, nothing came out, but a few raps with an oar soon brought Mrs. Barred Owl out in a hurry. This time we were prepared to get to the top, as we brought along some cleats, nails and a hatchet. It took only a few minutes to nail the cleats on. Then I was on my way towards the apex.

Upon looking down in the hollow, what should greet my eyes, but that anchor pushed to one side, and the

rope coiled up, and in the middle of it was a well incubated set of three eggs.

I sure was surprised to find a set of eggs in this one hollow. Because, I thought by this junk being in the bottom, would interrupt their actions.

But at any rate, they added the first set of Barred Owls to my collection. This one also being the first set of eggs collected in and around Fort Worth this year.

The stub which contained this hollow, was located a quarter of a mile from the nearest bank, and was in twenty feet of water.

Earl E. Moffat.

Fort Worth, Tex.

**Redpoll on Bloomfield, New Jersey, on
February 12th, 1916.**

Two male Redpolls and five females were observed at Bloomfield, Essex County, New Jersey, on the above date by the writer, at noon, in a small copse of sassafras near the southern end of the town. When first observed, this flock was perched among the lower branches of the saplings in this growth and then soon all descended to the ground and began feeding upon the seeds of the dead vegetation about. Later on during the afternoon one male and two females were again seen near this copse feeding on the ground. This is the first record the writer has made of this species since March 5, 1905, in this county.

Louis S. Kohler.

Raleus Elegans.

America's great Ornithologist, Audubon, called or rather named this the "King Rail" and he was well aware that this was the appropriate name for this handsome bird.

The upper parts are brown or brownish black; the feathers margined with



Pair of Young Great Horned Owls, six weeks old
—Photo by Thomas H. Jackson.

tawny-olive; wing and tail feathers varying from rufous to richest nut; top of head and hind neck plain dark brown, throat and line over the eye nearly white; breast and foreneck deep cinnamon or rufous; sides, flanks and axillaries brownish black, distinctly barred with white; under tail coverts white, coarsely spotted with blackish; bill dusky brown on top and tip, base, and lower mandible mostly yellowish brown; eyes reddish-brown; legs and bill tinged with reddish in high plumage. Length, 17-19 inches.

The eggs vary from a dull white to cream or pale buff, sparsely dotted and spotted with reddish brown and lilac. Size from 1.55 to 1.72 long by 1.25 broad, averaging 1.67 by 1.12.

It is a fresh water species.

It is very rare in our locality. To my knowledge only several sets were taken. In May, 1891, the late George Harris, in South Buffalo, shot a King Rail and brought it to me. In mounting it I was surprised to find a well developed egg in the body, which is now in my collection. May 30, 1894, my son Albert found a handsome set of ten eggs in rear of Point Abino, now a much frequented pleasure resort on the Canadian side near Buffalo. June 8, 1902, my son Edward found a fine set of twelve eggs in the Tonawanda Swamp, Orleans Co., N. Y. The nest was composed of sedges on swampy ground. Now the Tonawanda Swamp has gone out of existence. Too bad. Besides these I have a fine set taken May 20, 1903, at Rail Lake, Cook Co., Ill., by G. A. Abbott.

Ottomar Reinecke.

In California.

The Editor of this little magazine is spending a short vacation period at Hollywood, California, visiting his mother. It will be remembered that a

goodly portion of Mr. Barnes' last visit there was spent in a hospital in Los Angeles, as the result of falling from a tree while hunting birds eggs. It is to be hoped that the nesting season for California birds is over and that this trip will not result similarly.

From the European War.

A further letter from Major O. C. C. Nicolls, R. G. A., gives us the sad information that he is at present confined in a hospital in London, and is uncertain as to when, if ever, he will get out. We are very sorry that misfortune has visited itself upon our friend Nicolls.

The letter also contains among other things, the following:

"I can add one other incident from a letter recently received from one of the officers out there (in Loos) in my old battery. He said a nest had been found in a huge shell which had the top blown off, but as he is not a connoisseur in birds he merely described the eggs (four) as speckled, and as this includes those of a wide range, from the Golden Wren to the Golden Eagle, with many more beyond the latter limit, the event is not of much scientific interest I am afraid, except, perhaps, to show that even birds are getting callous out there. (They certainly weren't when I was there) as this anxious mama apparently deposited her goods quite close to the firing line."

Notes on the Feeding Habits of the Dusky Horned Owl.

(*Bubo virginianus saturatus*).

By J. H. Bowles, Tacoma, Wash.

A short time ago I sent in to THE OOLOGIST a few notes on the breeding of the Wood Duck in western Washington. On the night of November 12th, the male duck met with an unfortunate ending, as it was found

floating in the water by Dr. Shaver close to shore. The head had been eaten, and previous experience at once suggested Horned Owls to the doctor. He dashed it liberally with strychnine and put it on the shore close to where he found it in the morning. Upon visiting the spot on the morning of the 14th he found the duck with a few more bites taken out of it and on the shore near it a fine Dusky Horned Owl. While congratulating himself upon the results of his experiment he glanced up into the woods and some distance away saw a suspicious looking object at the foot of a large fir. Investigation showed it to be another owl of the same species, probably the mate of the first one as dissection showed them to be male and female. Both birds had been poisoned by the same bait, which makes it seem likely that these birds may at times hunt in couples. The female of this pair smelled so strongly of skunk, upon which she had undoubtedly made a recent meal, that I found it by no means a pleasing task to prepare her for my collection.

Dr. Shaver has had a great deal of trouble from the depredations of this species of owl upon his ducks, and during the past two years has killed eight or ten of them. A fine Mallard that was killed by them had been dragged through the brush to a large fallen fir, under which it was hidden. The doctor gave it the proper treatment and next morning showed a dead Horned Owl, its claws deeply buried in the body of the duck. Returning to a kill seems to be a common habit with them, but it was new to me that they hid their prey after they had eaten sufficiently.

They are very large eaters, the stomach of one that I examined containing an entire house rat, about two-thirds grown, and a Wilson's Snipe that had been torn into three pieces.

At the base of a nesting tree, after the young had flown, I have found the remains of Sooty Grouse, Oregon Ruffed Grouse, Ring-necked Pheasant, Steller's Jay, and the skull of one squirrel. All owls are on the protected list in Washington, but, although I am considered somewhat of an extremist on bird protection, I think that in the case of the Ducky Horned Owls our sympathy is for the most part wasted.

An Expensive Set of Blue Gray Gnat Catchers.

While looking for a Scarlet Tanager's nest, I noticed a Blue Gray Gnat Catcher fly from the top of a tall sweet gum tree, alighting on a small bush on the ground, collecting cob-webs. This bird coming near the ground was unusual; as a natural rule they dwell in the utmost tops of the trees. By it coming near the ground I kept my eyes on the Gnat Catcher. She left the bush with cob-webs in her mouth flying straight up to the top of the sweet gum tree, alighting on a small limb about one inch in diameter and two feet from the trunk, which was about 58 feet up. I knew the nest was nearly completed as cob-webs are the finishing touch on their nests, so I sat down at a distance from the tree and saw her make three different trips to this certain limb. After convincing myself that the nest was there I returned home; then on May 23d I was back again expecting a full set. So strapping on my climbers I proceeded up the tree to where I thought the nest was, but not finding it there, I went on up ten feet farther, and while looking around for the nest there I recognized the small limb, then two feet from me was the nest which was a fine specimen of architecture and matched the limb so natural that it was difficult to find, as it resembled a

small knot, and to my surprise it contained five fresh eggs. As I was wrapping the eggs to lower them in my collection box, both birds appeared on the scene. They seemed very tame, coming within a few feet of my head. They showed no fighting ability, but would drop from the top branches down near me with the same antics as the Yellow Breast Chat, with the tail straight up; at the same time affording me a good view of both birds. I then cut the limb off that had the nest on it with my pocket knife, tying both nest and collecting box together I lowered them 58 feet to the ground and started down the tree. As I was within about 25 feet from the ground I caught hold of a rotten limb which, of course, broke and sent me on a downward journey at a full rate of speed, head first. But as I was an acrobat in my younger days, I found a chance to use it here; giving my body a wiggle, I landed in a sitting down position. After I woke up and the smoke cleared away, I found my left arm sticking in the ground (you will hear of my arm later), pulling it out I wound up 65 feet of cord, dug a hole with my foot under the tree and buried my climbers (they are still there). I started home at my leisure, still looking for other nests. I met two of my friends, and after talking with them for about half an hour, I continued my trip home. Arriving at home I put up the eggs, washed my face and hands, got a newspaper and read awhile, then I happened to think about the condition of my arm. I went and saw a doctor about it. He pronounced it broken. After setting my arm he said, "\$15.00 please." A short & Lattins catalogue prices the Blue Grey Gnatcatcher eggs at 35 cents each, the five eggs cost me at the rate of \$3.00 per egg. How is this for paying a high price for cheap eggs?

I blew this set and others the next day with that broken arm of mine.

I am at present spending my time in Fort Worth, Texas. I have met Mr. R. Graham, who runs a taxidermy shop here and has a collection of eggs, Emmett Maxon and several other egg collectors, and find them to be good fellows. I expect to hunt Turkey and Black Vultures, Road Runners and Scissor Tail Flycatchers next spring with Mr. Graham, and hope to send in an account of our luck.

Hoping everyone good luck this coming season, I remain,

Earl E. Moffat,

Govt. Bird Censor for Marshall, Tex.

Two Trials.

There is nothing rare or especially interesting in a Blue Jay nest, but when two sets of eggs are collected from the same nest it becomes at once out of the ordinary and well worth mentioning. On April 25, 1916, I secured a set of five Jay eggs from a nest in the city park at Urbana Illinois. The nest was of the usual type, placed twenty feet up from a platform formed by the growth of a bunch of small twigs vertical to the trunk of a white oak. The eggs, which were alive, tan in color and spotted with darker brown and black, were taken, but the nest was left intact.

May 23, 1916, I passed under the tree and saw a Jay brooding on the old nest. I ascended and found a fine set of six fresh eggs of the same general color as the preceding set. The nest had not been repaired nor enlarged. It is a decidedly unusual occurrence for a Jay or similar bird to lay two clutches in the same nest, is it not?

Walter A. Goelitz.

Ravinia, Ill.



Pair of Young Great Horned Owls, seven weeks old
—Photo by Thomas H. Jackson.

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Great Horned Owl on its nest near Waynesburg, Pa., 1910.
—Photo by S. S. Dickey.

Relative to the Bald Eagle in Alaska.

How many of us have seen a flock of Bald Eagles? Very few I wager. In most sections of the country such a sight is not common. When one speaks of eagles as occurring in flocks he is rather looked upon with suspicion. Yet in Alaska, especially south-eastern Alaska, in the spring of the year, such a sight is not uncommon. In fact, at times the Bald Eagle is seldom seen unaccompanied by three or more of its fellows. Of the larger land birds only the raven exceeds it in point of numbers for from the most southerly part of the Alexander Archipelago to far out in the Aleutian chain the eagle is ever present. So plentiful is the eagle in the territory at present that it is becoming extremely obnoxious and several Alaskan enterprises which are suffering from its depredations are making efforts to bring about a reduction in its numbers.

In speaking of eagles in Alaska I do not wish to convey the impression that this bird appears only in flocks. This is not true. More often it is seen singly or in pairs. Only during the spring months does it go about in flocks and then only in certain parts of Alaska. While attached to the U. S. S. Manning the writer spent the spring of the current year in the south-eastern section of the territory, and here had the opportunity of seeing the Bald Eagles moving about in flocks, and hovering about the bays and inlets in much the same manner as so many gulls. Especially at Sitka on Baranof Island were these flocks exceedingly abundant. Practically throughout the entire day could at least one be seen, each containing a score or more birds. On one occasion a flock of thirty-two were observed from the deck of the vessel, and I was told by a local naturalist that flocks of forty and fifty

were frequently seen at one time. At the time of my stay I estimated that there were not less than one hundred birds within a radius of three miles of Sitka. When not in flight the birds would remain perched in the trees on the small islands that surround the village, and not infrequently a score or more were observed occupying the upper branches of a dead white cedar.

Fish is the great attraction that collects the eagles in bodies at this time of the year. In the spring the waters of south-eastern Alaska fairly swarm with the Herring and Salmon coming in to spawn, with the result that these birds come from miles around to engage in the great feast of the season. And feast they do for this food is obtained with the expenditure of but little energy. They themselves do but little fishing. Such work is evidently considered menial for when the gulls and cormorants are around they much prefer robbing them who are much more expert at capturing their finny prey. However, at times they are forced to fish themselves, for not always is an opportunity afforded to pilver the waterfowl. When thus engaged the eagles walk about the beach at low tide in much the same manner as gulls and swoop out over the water whenever a school of herring or other fish is in evidence.

Around the spawning grounds the eagles remain plentiful until the fish leave and only until this occurs do they return to their customary haunts among the mountains and along the streams and inlets further in the interior. It is only a few months that they frequent spawning waters in numbers but even in this short time it is claimed that an enormous quantity of fish is eaten by them. The salmon, Alaska's most valuable fish, suffers the most. This has been shown by the investigations of the fish commission

who have proved conclusively that the Bald Eagle is one of the strongest contributing causes in the destruction of the salmon during the spawning season, and recommend that a bounty be placed on the birds similar to the one now in force in British Columbia. Their contention is without doubt correct. The evidence against the eagle is overwhelming for one only to see it at work along the streams to satisfy himself that there must be thousands of salmon that become its victims as they attempt to work their way up stream. The destruction of this number of salmon is a great economic loss and the recommendation of the Bureau of Fisheries is only a logical one.

Omitting further discussion relative to Bald Eagle flocks and the fish consumed by them let me now mention another instance where due to its abundance and pernicious habits this raptore is proving itself a pest. To the westward, from Kodiak to far out in the Aleutian chain, many Alaskans, both whites and natives, are engaged in what is known as fox farming, the breeding of the rarer foxes—blues, silver-greys, and crosses—for the fur market. These farms are usually located on the smaller islands and in most cases the foxes are unprotected since the owners of these enterprises seldom live in the immediate vicinity. Our subject the eagle, cunning as he is, is well aware of this fact and does not hesitate to attack both the adult and young foxes whenever the opportunity is afforded. All breeders of foxes in the open must contend with this plunderer. At Sand Point, in the Shumigan Islands, I was shown the badly mutilated skins of two blue foxes that had been victims of eagles raids. Both skins were hopelessly torn and practically worthless. When one considers that a blue fox skin

brings from thirty dollars upwards in the fur market, it is little wonder that the fox breeders have become the sworn enemies of this unpopular bird. It is the worst foe with which they have to combat, and every effort is made toward its extermination. Every eagle is shot when possible, and nests found containing young or eggs are promptly destroyed.

In the foregoing I have attempted to give some sort of idea of status of the Bald Eagle in Alaska. In concluding one other point should be touched upon, which particularly concerns the ornithologist. This is relative to the slaughter of song and other birds by the above. From my observations no other reptore is more destructive to bird life. No member of the feathered tribe is immune from its attacks; both land and water birds are treated alike. At Unalaska there was found at different times around several eagle cyries the feathered remains of nearly every species common to those parts indicating that seemingly a bird diet is as desirable as one of fish. Among the water birds found were puffins, auklets, murre, murrelets, gullimots, ducks, and several species of waders, while among the song bird victims were Alaskan Longspurs, Aleutian Rosy Finches, Western Savannah Sparrows, Shumigan Fox Sparrows, and a sub-species of the Song Sparrow. Identification of many of these birds was difficult but in the cases of the Longspur and Rosy Finch it was comparatively simple for their beautiful markings could always be recognized. Birds captured by the eagle and not taken to the nest are usually carried to some cliff or knoll on an islet to be devoured. When rambling about the hills and cliffs in the vicinity of the village of Unalaska one frequently runs across these places that have been selected by the

eagles as butchering grounds, each one strewn with the remains of their victims. In these places it seems that the Pigeon Gullimot's feathers are found most often. Fully half the birds found are of this species. I can only account for this by the fact that they are rather slow about diving and also that they seem to experience great difficulty in rising from the water. It would be quite easy for the white headed marauder to swoop down upon them when attempting the latter.

From the above does it not seem that in order to preserve our more valuable birds in Alaska the ranks of the Bald Eagle should be thinned out? Bird life would thrive much better without it. But little can be said in its favor. It has no economic value. Why then, should it be allowed to continue its depredations? In the Aleutians its abundance is in all probability one of the reasons for the scarcity of bird life there. Besides its destruction of birds I have touched upon two other cases where its presence is undesirable. There are still others. Throughout Alaska its rapaciousness is notorious. It is to be regretted that so handsome and majestic a bird causes so much havoc, but leaving aside sentiment one cannot get away from the fact that its presence is deleterious to the natural resources of the territory.

I. J. Van Kammen.

[The foregoing is certainly a splendid contribution to our readers. We hope Mr. Van Kammen will "come again" and often.—Editor.]

Alarming Scarcity of Vultures.

By E. F. Pope.

After an absence of three or four years the writer returned to Texas in 1911, and at once noted a marked decrease in the numbers of both *Cathartes aura* and *Cathartes uruba*. Each

succeeding year the decrease in the number of these birds has been steady and more marked, until now, they are actually scarce. Eight or nine years ago it was no uncommon sight to see more than 100 vultures (about equally divided as to species) gathered around a single carcass, with the result that in a very short time nothing but closely picked bones were left to bleach in the sun, instead of a slowly decaying mass of flesh to menace the health of those living in the vicinity. Two weeks ago a neighbor's cow mired in a small creek near our home—too near for comfort,—became chilled over night and died. Water rendered cremation out of the question; the expected freshet in the creek to carry away the carcass never came, therefore the only thing left was to hire a bunch of negro laborers to bury the remains,—an expensive and * * * words fail us * * * proceeding. During the ten or twelve days which elapsed between the death and burial of this unfortunate bovine only three vultures were observed at the carcass, two *aura* and a single *uruba*, which of course were entirely unequal to the task before them, and either through indifference which comes with satiation or from disappointment at the failure of expected reinforcements, after a few hours visit for three successive days, the lonely trio took wing and were seen no more.

Vultures no doubt convey germs of a deadly disease of cattle, for which single fault our wise(?) Legislators have legalized and encouraged their destruction, with the result that nature's chief scavengers, whose only price for their inestimable service to man is permission to breathe of the air which their very existence helps to keep from contamination, are now entering upon the same trail which has been traveled by the Great Auk, Pas-

senger Pigeon, Carolina Paroquet and others. Permitting the extermination of the birds above enumerated is a hideous blot on the escutcheon of our Republic which can never be effaced. The very best and the very least that we can do from now on is to prevent the smear from spreading. We can do it, but will we?

In the case of the Vultures the time to act is NOW!

By the simple act of vaccination cattle may now be rendered practically immune from the disease which the vulture has helped to spread and for which unwitting sin he has paid so dearly, so why not let the veterinarians do their work and protect the vultures while there are still a few to protect. Surely we should be able to profit by California's unspeakable shame in the case of her noble Condor.

There are perhaps few if any oologists who do not possess at least a small series of sets of the beautiful eggs of both *aura* and *uruba*. Hang on to your Vultures. Unless speedy action is taken to check the threatened extinction of these birds, vulture eggs will soon be as rare in Texas and other southern states as they are in Canada.

Turkey Vulture Eggs.

While looking through the rocky hills around Ft. Worth, I found one egg of the Turkey Vulture. This is the way I found it. The bird flew out and on looking under an overhanging rock I discovered what looked to be a set of two, but on closer examination I found the bird was setting on one egg and a nearly round stone the same size of the egg, and a few broken egg shells laying just outside of the nest, or the spot where she was sitting, as though there were once two eggs in the set.

And the thing I would like to know

is this: The egg is so heavily spotted that I would like to save it as a set, but I don't know if this one egg would be counted as a set or not. So any information along this line in regard to it being a set, would be highly appreciated. Earl E. Moffatt.

In a letter to Mr. Moffatt, under date of April 21, 1916, Mr. E. F. Pope of Colmesneil, Texas, says:

"In reply to your letter of the 17th inst., would state that I have never found a nest of the Turkey Vulture corresponding in every particular with the nest you mention, although I have found several nests containing but one egg more or less incubated, as well as many nests with but one young, however, the result of many years of close observation and study of our vultures, leads me to believe that a complete set of but one egg is very rare.

In this instance the broken egg shells you observed near the nest are pretty good evidence that this set was composed of two eggs. The first egg laid may have been broken by being rolled around with the stone in the nest, or it may have been destroyed by one of the numerous prowlers which delight to feast upon eggs. Under the circumstances, I hardly think you would be justified in calling this egg a full set, but if the egg is a well marked specimen, as you state, it is well worth preserving, as the day is fast approaching when vulture eggs are going to be quite desirable.

Vultures in this section are becoming quite scarce and in localities where I once found dozens of nests, I am now fortunate to find one or two in a whole season.

I would be glad to learn if you have noted any marked decrease in the numbers of vultures in your section of the country."



White Oak Snag near Waynesburg, Pa., containing excavation of Pileated Woodpecker (the hole near the top).

—Photo by S. S. Dickey.

The Hybrid Flicker.

The case of the Hybrid Flicker is not that there is an occasional hybrid among the Flickers along the eastern base of the Rocky Mountains but that hybrid birds are common. Dr. Elliott Coues in his Key to North American Birds, says of them: "A species, subspecies, variety, race, strain hybrid, or transitional form, in which the respective characters of *C. auratus* and *C. mexicanus* are blended in every conceivable degree in different specimens. Moustaches red or black, or partly both, on one or both sides of the body, and present or absent in the g; red moustache present with yellow wings and tail, or black ones with red wings and tail. Red nuchal crescent present or absent; present in connection with red wings and tail." "Such Flickers prevail widely in the Rocky Mountains, in some parts to the exclusion of birds showing the proper characters of either species." Here in Weld County, Colorado, fifteen miles from the foothills of the mountains, the Red-shafted Flicker is the common Flicker, and I have never seen the eastern Yellow-shaft, but the Hybrids are quite common. I have not seen the mixed moustache characters which Dr. Coues mentions, but I have noticed the yellow shafts, and the red nuchal crescent in the male.

Dr. Coues' remarks are so entertaining and instructive that I quote further from him. "The case is unique in ornithology, and has proved refractory to the machinery of zoological classification—tot homines, tot sententiae. It was first brought to light in 1843 when Audubon found the birds he subsequently named *C. Ayersii* at old Fort Union at the mouth of the Yellowstone river, on the Missouri, at the present border between North Dakota and Montana; I have read in his manuscript, penned on the spot, his naïve

expression of amazement at a phenomenon which has served to pique the curiosity and complete perplexity from that day to this."

Geo. E. Osterhout.

Windsor, Colo.

Some Western Birds.

White-throated Swift.

Aeronautes melanoleucus! What a charm the very name has for me. There is something about it suggestive of the wildness and freedom of the bird himself. White-throated Swift! To me it always brings a picture of a precipitous rock-wall above the foaming Santa Clara where I first met this dashing aeronaut; the memories of lofty pine meadows beloved of the California Condor, and of boulder-strewn gorges where the murmur of falling waters mingled with the song of Canyon Wren and Water Ouzel.

Since that first memorable day I have met the handsome fellow many times, and learned to love him well. With the heart of an Eagle, the speed of a Falcon, and the trim neatness of a Hummingbird, he is indeed the very spirit of the storms that blow about his rocky fastness.

In Southern California the White-throated Swift is a permanent resident. During most of the year the birds remain in the isolated mountainous regions, coming down into the lower country only when driven by the wintry gales. Yet common as they are in chosen sections, so swift and sure is their flight that they defy the efforts of the most expert wing shot, and their eggs are seldom taken from the usually inaccessible crevices of the cliffs.

The bird is from six and one-half to seven inches in length; black except for white throat and breast and white patches on wing and side of rump; the wing is from five and one-half to six

inches in length; the forked tail is about half as long as the wing. This species lacks the spiny tail feathers of the Vaux Swift (*Chaetura vauxi*), which is sometimes found during the late fall in company with our bird.

As has been stated before, the White-throated Swift is preeminently a mountain-loving species, nesting in what are known as the Upper Sonoran and Transition Zones. Where some high bare-faced cliff rears its crest above the cool canyon depths, and there is little or no evidence of human existence, you are likely to find a colony of these birds, dashing and wheeling in mid-air, darting in and out of the nesting rannies; all the while twittering incessantly in their peculiar high-pitched voice.

But few birds can compare with this Swift in powers of flight. He seems to be forever on the wing, now diving like a plummet straight down the mountain side, now shooting up into the bright sunlight with the speed of a rocket, pursuing his insect prey with almost incredible rapidity, or restlessly darting in and out of the crevices in the rock that perhaps conceals his nest.

The bird is a comparatively late breeder in this vicinity, starting to build about the middle of May, and fresh eggs may be found from the last week in May to the latter part of June. The Swifts are always gregarious, from six to fifty pairs nesting together. As they are somewhat erratic in their choice of a nesting site a cliff that shelters a large colony one year may be entirely deserted the following summer.

The nest is usually situated in some inaccessible crack or pocket in the face of a high cliff. It is no mean task to swing down fifty or a hundred feet at the end of a rope and try to get at a nest placed three or four feet back

in an opening perhaps only three inches in width, and usually all but concealed from view by some projecting point of rock.

Vegetable fibers, straws, and large feathers are used in the construction, cemented together and to the rock by the bird's saliva. The nest forms a rather small shallow basket, irregular in shape to conform with the requirements of the particular cranny in which it is placed. There is seldom any lining added, at most a few soft feathers are glued to the inside.

The eggs are from three to five in number, pure white, and average about .84x.50 inches. Very frequently one or more eggs in a set are damaged by being struck with bits of rock dislodged from above the nest.

Sometimes the White-throated Swift will be found nesting about some old mission or deserted adobe ranch house, but as a rule he does not take kindly to conveniences provided by man, preferring the secluded cliffs of his forbears.

To this brave bird I offer the following verses which will perhaps better express my sentiments than the preceding cold prose.

Hail! You wild thing on restless wing,

Free pilot of the air,

You dart on high 'midst peaks that lie

Above our valleys fair.

You scorn the strife of urban life,

The flatness of the plain,

Along the marsh and desert harsh

We look for you in vain.

But far on high where earth and sky

Are blended as in one;

Where pinnacles kissed by storm-racked mist

Each morning greet the sun.

Where icy stream 'neath cliff does gleam

And speckled trout to play,

'Tis there you swing on flashing wing

Along the rock-walls gray.

Long may you ride down mountain
side

With heart that ne'er shall fail,
Long may you call from canyon wall,
You Spirit of the Gale.

D. I. Shepardson.

Los Angeles, Cal.

Collecting Kingfisher Eggs.

I have read with interest in recent numbers of THE OOLOGIST articles on collecting Kingfisher eggs and would like to add a method of my own to the list.

Any eggs that are laid at the end of a fairly straight tunnel as Swallows, etc., can be collected this way. As a rule these eggs are difficult to collect in fresh sets as being at the end of a small tunnel. It is hard to tell when the set is a complete fresh one, unless the hole is dug into and this is almost sure to make the birds leave the nest.

I overcome this pretty well by the following method. First I get two mirrors, one small one, the other any large hand mirror. Next I fasten a piece of wire a few inches long on the end of a long stick or cane and slip the wire through a small slit cut in the paper back of the smaller mirror and bend the wire so it will be about 45 degrees with the stick.

Thrust the cane with the mirror end first into the nest hole and by flashing sunlight on the smaller mirror from the larger one which is held in the hand on the out side it is very easy, especially if the hole is only 4-7 feet deep, to see the eggs by looking in the small mirror which being bent at an angle forms a very good "periscope." As the sunlight is flashed on the eggs at the same time it is possible to tell if the eggs are fresh or not. This way I have been able to see what was at the end of a few such nests, some of them pretty long ones.

Edwin Guy.

Camden, S. C.

A February Day Afield.

On the 6th of February, 1916, Mr. B. S. Taubehaus and the writer made a trip on foot through the lower half of Passaic County, New Jersey, starting at Totowa and journeying through Laurel Grove, Little Falls, Lower Preakness, Preakness, Upper Preakness and to and around Pompton Lake, a jaunt of approximately twenty miles.

The ground was covered with about five inches of wet snow at the out-start, but, as the day wore on, this rapidly decreased because of the rising temperature.

In all, twenty species of birds were observed. This number is about ten species less than is usually met with in this section at this period of the year, but, on the other hand, a number of species were present which are worthy of more than passing interest.

Below is an annotated list of the species observed and a few remarks pertaining to them:

Mourning Dove—At Preakness, five of this species were observed perching in an apple tree about fifty feet from the roadside. As we approached them they flew off to another tree at the center of a large open field. This record is the only one which the writer has made of this species in New Jersey during the past decade and a half during the month of February.

Marsh Hawk—One was recorded at Little Falls and one at Preakness.

Cooper Hawk—One was seen flying over the northern end of Pompton Lake during the afternoon near sunset.

Red-shouldered Hawk—One was observed at Little Falls and one at Upper Preakness.

Sparrow Hawk—One was observed near Laurel Grove Cemetery during the early morning. Another specimen was seen at this same spot on Sunday, January 30th. This was probably the same bird.

Hairy Woodpecker—One was observed in the conifers just south of Pompton Lake in Upper Preakness.

Downy Woodpecker—The first one was seen in Little Falls and the remaining four in Preakness and Upper Preakness.

Horned Lark—About twenty-five were first observed feeding on the ground in Preakness and shortly after about twenty more were seen also on the ground. Single birds were continually passing overhead while walking through this village. These are the first of this species the writer has observed since February 22d, 1914. These were in a flock of ten at Bloomingtondale, Morris County.

Blue Jay—Common at all places visited.

American Crow—Common throughout the day.

Starling—Common at all points visited.

Pine Siskin—Two males were observed in the conifers on the eastern shore of Pompton Lake. These two and two more which were observed at Little Falls on the 30th of January are the only ones to be found this winter.

Snowflake—Twenty-five were observed in a field in Preakness. These were feeding on the snow and flying about near the ground while we were observing them. This is the first record the writer has made of this species since January 14th, 1910, on the eastern slope of the Bearforts in West Milford Township, Passaic County.

Tree Sparrow—During the day, ten individuals were observed at the different points visited.

Slate-colored—Ten individuals were observed in Laurel Grove, Little Falls and Lower Preakness.

Northern Shrike—One was observed at Preakness at noon resting on a fence post near the road and afforded us an excellent opportunity to ob-

serve him. This is the first to come to the writer's attention since February 22d, 1909 when one male was observed at Midvale, Passaic County.

White-breasted Nuthatch—Two were observed at Preakness and two in Upper Preakness. This species was particularly conspicuous because of its rarity during the day.

Tufted Titmouse—Two were observed in Totowa, the only ones of the day's outing.

Chickadee—Common at Little Falls, Lower Preakness, Preakness and Pompton Lake.

There were a number species which were very conspicuous because of their total absence and the writer is at a loss to offer suggestion as to why we did not meet with them. These were the Goldfinch, Brown Creeper, Flicker, Meadowlark, Sharp-shinned Hawk, Bluebird, Purple Finch, Fox Sparrow, Golden-crowned Kinglet, White-throated Sparrow, Yellow-bellied Sapsucker, Red-headed Woodpecker, Ruffed Grouse and Winter Wren. Frequent trips in the section during the past decade and a half have brought these species to light and it is strange to have to note their absence.

Louis S. Kohler.
Bloomfield, N. J.

Late Dates.

The following seemed unusually late dates for this locality: Bernardsville, N. J., August 6th, flushed a Vesper Sparrow from nest on golf course, (this nest was in the line of play and many people passed within a few feet of it daily.) On the 7th I collected 3 slightly incubated.

New Hamburg, N. Y., August 15th, found 2 nests of the Cedar Waxwing in an orchard. One nest contained a fresh set of 4 eggs, the other 3, slightly incubated, one of these is marked entirely around the smaller end, leav-

ing the upper end unmarked.

Lake Mokegan, N. Y., August 16th, found a female Yellow-billed Cuckoo sitting on 2 heavily incubated eggs.

This last date is the latest I have ever heard for this bird.

I. D. Campbell.

Good.

M. L. Alexander has been appointed by the governor of Louisiana to be the Commissioner of Conservation of the new Department of Conservation created by the legislature of that state during its last session.

The Department of Conservation supersedes the former Conservation Commission of Louisiana, which was composed of three commissioners. The new department of state has but one head, the Commissioner. Mr. Alexander was the president of the former commission and his appointment to the head of the new conservation body is in the nature of a recognition of his efficient management of the old board.

Business(?)

In the course of a lifetime many amusing business experiences come to the lot of those who are so engaged, not the least of which is the following, viz:

Some time before leaving for California we received a letter from a collector named J. J. Wirz at Augusta, Georgia, inquiring whether or not we would purchase certain specimens of birds eggs. We replied that if he would quote us the price on said specimens we would then let him know whether or not we could use them.

July 24th after we had left for California a communication came to our office reading as follows:

"Your letter Received. Im also Sending you one Set of Swainson war. letting you have them at 75c Per egg.

if you can youse any more let me know at once. I have Several Sets More. Mr. Wirtz and I also have Some more Rear egg. I will let you have them at your own Price. these is what we have

king fisher Set of 5 2

trail fly catcher Set of 3

SProfanitary Set of 5

Wood Pee

Vireo Set of - - - 3

great cursted fly catch Set 4

½ Set of Summer Red Bird 2 eggs

6 indigo Bunting Set of 3

1 Set of Painting Bunting with Double nest.

3 eggs in Bottom nest. 3 egg in top nest.

These eggs all was found Perfectly fresh. Im the Professional Bird egg collector of Augusta Ga.

We Receive your letter. Thanking yours kindly.

I have one Extraordinary Set of Swainson war on the Road. it is a Set of 4 very unusually find a Set of four.

Answer at once Please.

Yours Truly

Johnnie Smith."

August 1st there came to our office during our absence a telegram as follows:

"Please send check at once.

Johnnie."

This of course remained unanswered because of our absence in the West, though it was forwarded to us there, and being an entire mystery, not having heard from the aforesaid Johnnie, it was ignored.

August 14th another telegram came to our office during our absence, sent "Collect," as follows:

"Please send check for Swainson Warbler eggs; answer.

Johnnie Smith."

Upon our return home the aforesaid Johnnie was written fully and his eggs returned to him unopened.

Thus closes what has been one of our real amusing and interesting business experiences.—Editor.

Notice of Removal.

Gerard Alan Abbott advises THE OOLOGIST that he bid farewell to the slopes of Oregon where he saw over one hundred breeding varieties. Mr. Abbott is on Lake St. Clair, Michigan, where he has been made Village Superintendent of Grosse Shores.

A Letter.

I was always interested in collecting birds eggs and interested in birds, their habits. As a boy I had the usual boy's collection and as a young man back in 1895 I started a collection, however, not a scientific one, but one of these "holes-at-both-end" kind and I only collected two eggs of each kind. I didn't even know then that so many men made a very enjoyable past-time of the work. I knew nothing of THE OOLOGIST, didn't even suppose there was a paper devoted entirely to the subject printed. I knew most of the common birds about our town, knew their habits and songs which is more than one out of a thousand in this "neck of the woods" knows. How much of life they miss and how very uninteresting the woods must seem not knowing the songs and undoubtedly not even hearing the songs of our feathered friends.

Since subscribing for THE OOLOGIST, I have been awakened to a new and a more scientific study of birds and my spare time has been given over to a more thorough investigation: data has been taken, blow pipe used and full sets collected. I have been enthused the more by the earnestness with which my friend "Bud Kans" has gone into the work with me. He is but a boy enthusiastic and a love of nature and the wilds. We have had

many enjoyable trips this summer and made what to us were rare finds.

L. E. Healy.

A Remarkable List.

During the season of 1915 I found the nests of these birds: Wood Duck, Least Bittern, American Bittern, Least Bittern, Great Blue Heron, Green Heron, Bl. Cr. Night Heron, Clapper Rail, Virginia Rail, Sora Rail, Black Rail, Florida Gallinule, Spotted Sandpiper, Killdeer, Mourning Dove, Turkey Vulture, Red Shouldered Hawk, Broad Wing Hawk, Sparrow Hawk, Osprey, Barn Owl, Horned Owl, Screech Owl, Belted Kingfisher, Hairy Woodpecker, Downy Woodpecker, Flicker Woodpecker, Chimney Swift, Kingbird, White-eye Vireo, White Warbler, Blue-winged Warbler, Maryland Yellowthroat, Catbird, House Wren, Crested Flycatcher, Phoebe, Wood Pewee, Acadian Flycatcher, Blue Jay, American Crow, Fish Crow, Starling, Cowbird, Red-winged Blackbird, Meadowlark, Baltimore Oriole, Purple Grackle, English Sparrow, Seaside Sparrow, Chipping Sparrow, Field Sparrow, Song Sparrow, Swamp Sparrow, Towhee, Cardinal, Rose Breasted Grosbeak, Indigo Bunting, Scarlet Tanager, Purple Martin, Tree Swallow, Bank Swallow, Rough-wing Swallow, Cedar Waxwing, Red-eye Vireo, Yellow Warbler, Ovenbird, Yellow Breasted Chat, Brown Thrasher, L. B. Marsh Wren.

T. E. McMullen.

Camden, New Jersey.

Copy.

We need—we must have copy. Cannot you, dear reader, help us?

—Editor.

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The New Bird Laws

All lovers of wild life are to be congratulated over the fact that the new Federal Migratory Bird Law has been construed by the regulations which were adopted and issued August 21, 1916, in such a way as will prevent all Spring shooting of water fowl. Also to protect Band-tailed Pigeons, Cranes, Wood ducks, Swan, Curlew, Willet, Upland Plover and the smaller shore birds until September 1, 1918, at which time it is to be hoped that those having charge of these matters will have sense enough to extend the closed season for Cranes, Wood ducks, Swan, Upland Plover, Woodcock and similar birds indefinitely.

Likewise bird lovers are to be congratulated over the fact of the ratification of the United States—Canadian bird treaty which protects 1022 species of migratory birds for all time. This is as it should be a move in the right direction, and will result in an estimable benefit to the agriculturists in both Canada and the United States, if it is enforced without fear or favor as it should be.

Both the new Federal Migratory Bird Law and the United States-Canadian Bird Treaty referred to, make proper provisions for reasonable scientific collecting.—R. M. Barnes.

Notice To Advertisers

The holiday season will soon be here. THE OÖLOGIST will, as it has since coming under the present management, issue a specially attractive number for Christmas, which will be

sent out to many who are not subscribers as an advertising sample copy. All who desire to take advantage of this fact should get their advertisements to us early.—The Editor.

Interesting Nests and Eggs.

By Dr. R. W. Shufeldt,
Washington, D. C.

(Four photographs by the author.)

Upon numerous occasions, during the past fifteen years, I have had opportunity to mention the exceptionally fine oological collection of Mr. Edward J. Court, of Washington, D. C. He has brought together not only a wonderful series of the eggs of North American birds, but his enthusiasm is responsible for what we find added to these in the way of eggs of the birds of the Philippines, South America, and especially Australia, of which last he probably owns the finest collection of any private individual residing at the National Capital. Of recent years he has paid no little attention to collecting the nests of many North American species, and these now number several hundred varieties.

Very recently Mr. Court afforded me the opportunity to examine many of these nests, together with the clutches of eggs that had been taken with not a few of them; indeed I believe, in most instances where he has the nest of some species not commonly found in nidological collections, he also has to show the set of eggs that were collected with it.

While going over many of these treasures the other evening, it occurred to me that descriptions of a few of the rarer specimens of nests—and incidentally the eggs—of Mr. Court's cabinets might be quite worth the while. With this in view, and accepting his usual kind offer, I borrowed a number of specimens for study and description. Among these I find the following: First, an unusually beautiful nest and set of eggs of Cassin's Vireo (*Lanivireo s. cassini*). This is an elegant structure, even for a Vireo.—birds that build handsomely in any event. Its walls has an average thick-

ness of about a centimeter and a half, being somewhat thicker below and in front than elsewhere. (Fig. 1). In form it is hemispherical. Its nearly circular entrance or opening is in the horizontal plane, with the margins cleverly woven round the forked twigs of a branch of a black oak tree,—the fork having an angle of about fifty degrees,—while in front a small twig is incorporated into the weave, which greatly adds to the support of the entire nest. There is but very slight constriction to the entrance, which has an average diameter of five and a half centimeters, the central depth being three and a half centimeters. This nest is heavily lined with a very fine wiry root of some kind or other, of a light tan color. As a lining, this presents many advantages, for it is cool, strong, and not capable of retaining moisture for any length of time; so that, were it wet from a rain, it would quickly dry again. Externally, the builder first used rather longish pieces of what appears to be the bark of some reed or other; they are pale in color, vary in length, and woven in the most intricate manner possible. As it is not easy to say just what kind of plant furnished any part of the nest, I am compelled to describe it and place it as near as I can, so that, between the figure and the description, a fair idea may be gained of the structure as a whole.

Not satisfied with this compact and commodious home, this vireo must needs undertake to decorate the outer surface of her nest, which, in this instance, has been done with tiny bits of some vegetable substance that resemble the white sheaths to the buds of a sage-brush or artemesia. These dot the structure at irregular intervals all over, at average distances of half an inch or less apart. There is also present a thin, almost impercep-

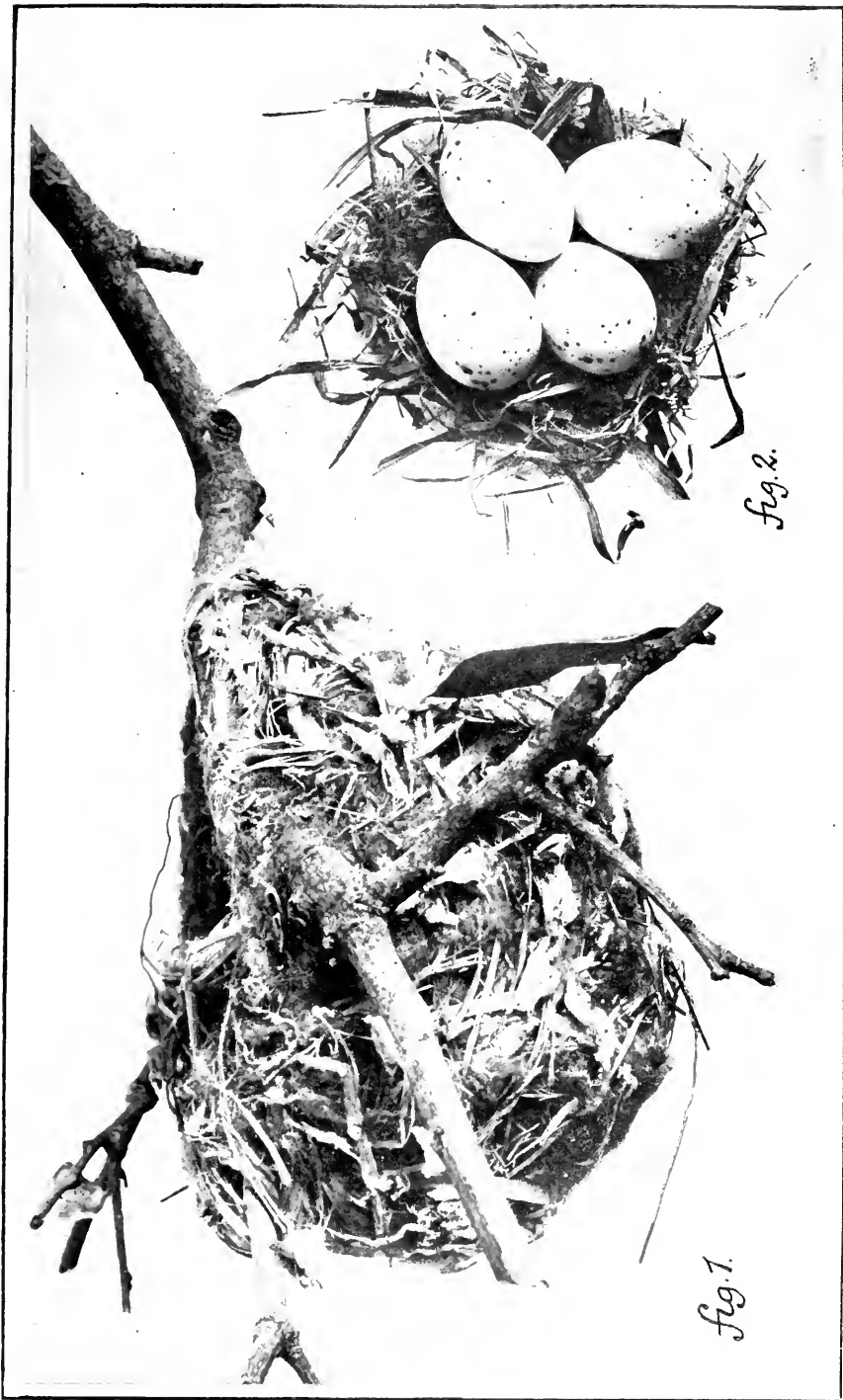
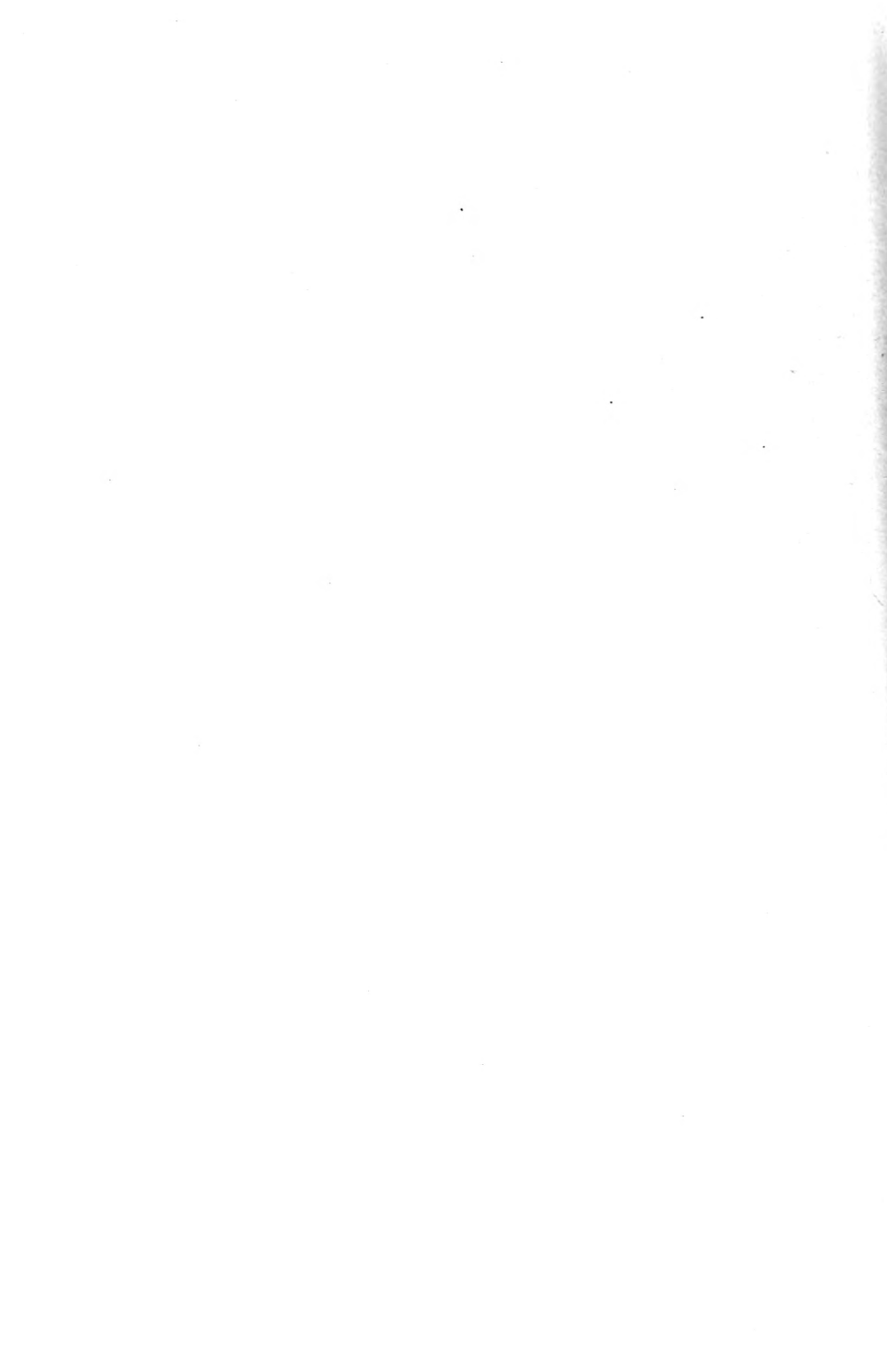


fig. 1.

fig. 2.

Nest and eggs of Cassin's Vireo (*Lanivireo s. cassini*)

—Photo by Dr. R. W. Shufeldt.



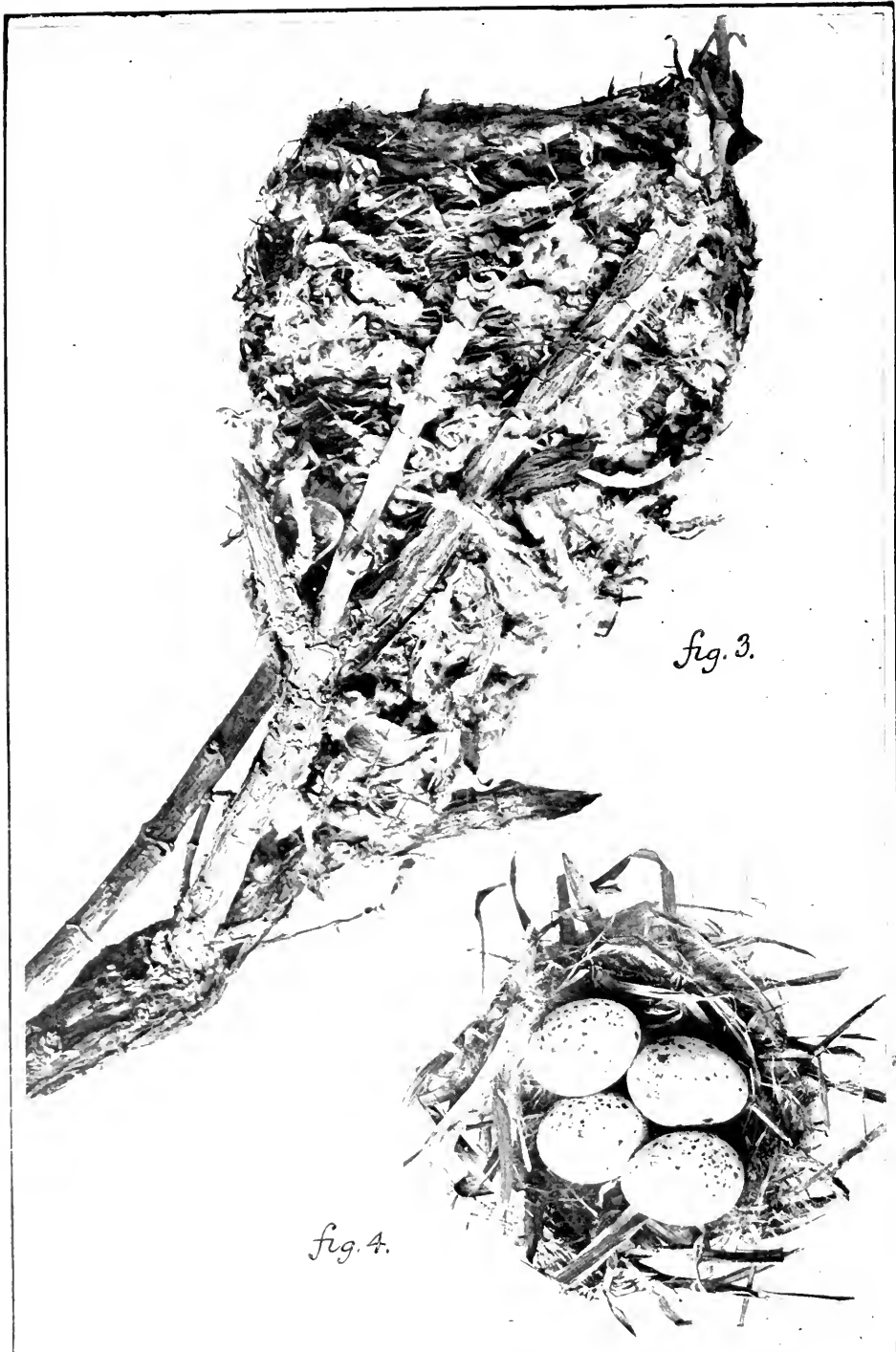


fig. 3.

fig. 4.

Nest and Eggs of Black-tailed Gnatcatcher (*Poliptila californica*)
—Photo by Dr. R. W. Shufeldt.



tible, broken net-work of an extremely fine vegetable wool of a tan color, which has been applied with extreme skill and neatness, and with the evident purpose of keeping the aforesaid white bits in their respective places. As a matter of fact, both may have been gathered from the same brush or plant, and I am inclined to believe that they were.

Mr. A. M. Ingersoll collected this nest at Cuyamaca, San Diego County, California, on May 31, 1908; he also took with it the four fresh eggs that had been laid by the bird. It was about seven feet up; and when he visited it, four days before collecting the specimen, it contained two eggs, and the bird was singing on the rim of the nest. (Set mark, 2163).

The eggs are pure white, and measure on the average 2x1.5 cms. Each is sparsely speckled with extremely fine little specks of a rusty brown color, chiefly about the larger end (Fig. 2.); in fact, there are no specks at the apical moiety of any one of them.

Another very remarkable nest of this collection is a fine one of the Black-tailed Gnatcatcher (*Polioptila californica*), here shown, with the set of the four eggs it contained, in Figs. 3 and 4. This specimen was likewise collected by Mr. A. M. Ingersoll, in San Diego County, California, April 12, 1892. Its label states (Set mark, 1643) that the nest was in a white sage on a bushy hillside. The female was very tame, and allowed the collector to touch her several times before she flew off the eggs.

In its general form, this nest is of an elongo-pear-shaped form, snugly set in between the branching twigs of the bush in which it was built, having a moderate incline toward the centre of it. It has a length of nearly 10.5 cms., while its circular entrance has a di-

ameter of but 3.5 cms., the rim being about a centimeter thick all around. There is a very slight contraction of the latter toward the center, while the depth of the concavity is about 3.5 cms.

The general color of this nest is stone-gray, it being composed of densely woven, fine plant fibres, with whitish, young, shriveled leaves and bud-sheaths thickly covering its external surface, particularly the lower half of the structure.

The four ovate eggs average 1.5x1.2 cms., and are of a pale blue color, finely speckled with minute specks of tan. In two of them the specks are larger at the butt, near which they form a circlet, a character but very faintly seen in the other two. They surely are very small eggs to build such an elaborate nest for; but then, there are wide differences in such matters among birds.

Shufeldt's Junco (*Junco hyemalis connectens*) builds a nest closely resembling other members of the genus (Fig. 5.) The specimen in Mr. Court's collection was taken, with its five eggs, by Mr. J. H. Bowles, June 30, 1912, at Spanaway, Pierce County, Washington, it having been found in a dry prairie country with scattered fir and oak. In places, these were distributed in small clumps, as it was at the edge of one of these, on the ground, at the foot of a fir four feet high, that the bird had selected as the site for its nest. The female was flushed from the nest by Mr. Bowles having brushed against the tree, and she at once became very demonstrative, remaining in the near vicinity of the spot. For some reason or other the male bird did not put in an appearance.

This nest is composed entirely of fine, dry grasses, woven together in a most compact and intricate manner.

The lining material is but very slightly finer than what is used for the balance of the nest. As with other Juncos, the form is circular and somewhat flattened from above downwards. Across the top it measures about 10 cms., the circle of the concavity proper having a diameter of 6 cms., and a depth of about 3.5 cms.

For the size of the bird, the pale blue eggs are rather large, measuring, on the average, 2.1x1.6 cms. A very few fine specks are on the body of the egg, while a well-pronounced circlet of rather pale, rusty brown dottings surround the butt, being about equally well marked in all specimens. Set mark, T. 56.)

Our Brown-headed Nuthatch (*Sitta pusilla*) lays one of the smallest eggs of the Class Aves, it averaging but 1.4x1.15 in size. The eggs are almost white, being more or less thickly speckled all over with very minute specks of a pale, rusty-brown, chiefly at the larger end. This nest (Fig. 6) was taken by Mr. Court and Mr. George Woodruff from an old Downy Woodpecker's hole, found in the neighborhood of Point Lookout, St. Mary's County, Maryland, April 30, 1911. (Set mark, N-5). For a nest of this species, or, indeed, of any Nuthatch, it is in very perfect condition, for it is usually very loosely put together, and easily falls apart upon being taken out of the excavation where found. This one is composed of the fibrous bark of some vine or other, with considerable blackish wool on one side, mixed with the thin, flaky, and very light and fragile bark of apparently some sort of grape-vine. All is very loosely held together, and flattens out considerably when placed on a hard, plane surface, as I arranged it for the purpose of making my negative. It shows very well, however, the component parts of the nest, and the beautiful set of eggs it contained.

Legends for Figures.

(Figures all natural size and reproductions of photographs by the author.)

Fig. 1. Nest of Cassin's Vireo (*Lani-vireo s. cassini*).

Fig. 2. Eggs of Cassin's Vireo (*Lani-vireo s. cassini*). Found in the nest shown in Fig. 1.

Fig. 3. Nest of Black-tailed Gnatcatcher (*Poliophtila californica*).

Fig. 4. Eggs of the Black-tailed Gnatcatcher (*Poliophtila californica*). Found in the nest shown in Fig. 3.

Fig. 5. Nest and eggs of Shufeldt's Junco (*Junco h. connectens*).

Fig. 6. Nest and eggs of Brown-headed Nuthatch (*Sitta pusilla*).

Texas Bird Notes.

March 24, 1916—Screech Owl found nesting one hundred feet from camp, in a live elm. Hollow ten feet up, and one foot deep; small hollow. Tree near Hodgkins bayou of Lake Worth, on this date one egg in nest, and on the 31st there were three eggs, so it took the owl seven days to lay two eggs. April 3d there were a set of four eggs. No more eggs were laid. So Mrs. Owl was eleven days laying a set of four eggs. These owls were noticed around the tree about a week before they ever laid.

June 19, 1916—Humming bird. 1-2, Nest on tree wart; the limb that held the nest had been broken off of the main tree by the wind, and fell hanging on another limb below; nest of tree bark, moss and tiny seed pods, woven together with spider webs and lined with cotton.

June 20, 1916—Turkey Vulture. 1-2. Under rock six feet back, near top of rocky hill. No nest eggs laid on shelled rock. I had these eggs for five days then I decided to blow them, and they were hatching, so I set them aside to watch the hatching process. They



fig. 5.



Nest and eggs of Shufeldt's Junco (*Junco h. connectens*)
—Photo by Dr. R. W. Shufeldt.



fig. 6.



Nest and eggs of Brown-headed Nuthatch (*Sitta pusilla*)
—Photo by Dr. R. W. Shufeldt.

hatched in three days, so I had to murder them. I never knew before that it would take the eggs that long to hatch.
Ramon Graham.
Ft. Worth, Texas.

The Hermit Thrush.

Here, on the river, a shining reach,
My loved canoe and the sunset glow;
Gray rocks inverted in the tide,
Two silver birches that lean below.
Sudden, as twilight gathers round,
And the ripples stir as I drift along,
Close to the bank, where the branches
 bend,
The Hermit Thrush bursts into song.
Joyous and clear on the quiet air,
Peals forth that wonderful silver
 strain,
Like the sunset bells from the wild
 tower
Of some gray convent in far-off
 Spain.

In the streets I left an hour ago,
News of battle across the foam—
Strife and carnage in lands afar—
Grief and mourning with us at home.

War's red hand over land and sea,
Ruin that smites the field and
 hearth;
Thunder of guns on the Northern
 main,
Tramp of armies that fill the earth.
Yet here on the river, a shining reach,
Golden ripples that stir and cease,
And clear and sweet through the gather-
 ing gloom,
The silver voice that sings of
 Peace.

Evelyn Smith Tufts.

Winter Birds at London, Ontario.

Perhaps some of THE OOLOGIST readers will be interested in the following list of birds which have been observed in and around our city during the months of January and Febru-

ary of this year, 1916: American Crow, Bluejay, Downy Woodpecker, Hairy Woodpecker, White-breasted Nuthatch, Red-breasted Nuthatch, Chickadee, Golden-crowned Kinglet, Cedar Waxwing, Tree Sparrow, Slate-colored Junco, Prairie Horned Lark, Screech Owl, American Merganser, American Herring Gull, Robin, Cardinal, Kingfisher, Flicker, Ruffed Grouse, Song Sparrow, Red-bellied Woodpecker, Goldfinch, Snowflake.

Two or three Cardinals stay here every winter. A pair or two breed here, and we hope they may soon become more common. Nearly every winter a lone Robin, Flicker, Kingfisher and Song Sparrow may be seen. Our first spring migrant, a Song Sparrow was seen and heard on February 23d, but his song was a trifle wheezy. The sun is getting strong now and a few more days of warm weather will loosen up his vocal cords, and give us Robins, Bluebirds, Grackles, Meadowlarks and Killdeers.

J. R. McLeod.

London, Ontario.

"Whale Birds."

On cruisers in the North Pacific and the Bering Sea it has always been of interest to the writer to see the myriads of petrels and shearwaters and occasionally other birds that frequent the vicinity of schools of whales. To sea-going men they are known under the one name, of "whale birds" regardless of species, and when a flock of them is met with at sea it is almost invariably a sign that a school of whales is not far distant. This fact is of great value to whalers operating in northern waters and is frequently made use of by them, for a horde of "whale birds" can be seen at a much greater distance than the spouters, enabling the whalers to locate the school quicker than by the blows

alone. The presence of many a school of these leviathans has been betrayed by their winged attendants.

During a recent cruise to the Pribilof Islands via south-eastern Alaska two such flocks of "whale birds" were observed in company with schools of whales and were noteworthy in that each flock consisted, in as far as I could see, of but one species of bird. The first of these, encountered about 25 miles of Cape Scott, B. C., on May 16, was the largest flock of whale following birds that I have ever seen, and was made up entirely of Dark-bodied Sharwaters. The second flock, slightly smaller than the first, and seen off Yakutat, Alaska, on May 25th, were, if my identification be correct, Leaches Petrel. Both of these flocks contained myriads of birds. They were visible at a distance of three or four miles and appeared as a dark cloud over the surface of the sea. As the vessel approached nearer it was seen that not only was the air filled with them but the water was supporting a still greater number. Their cries as they flittered or swam about were deafening. In both instances schools of about a dozen whales were being followed and as they rose to the surface at intervals to spout, the birds would rush in that direction with movements that bordered on a frenzy and with incessant screams. The fact that it seemed to be the sole aim of the birds to keep as closely as possible to the school tended to indicate that the whales were better able to locate the food supply. The cetaceans appeared to do all the hunting; the birds simply trailed behind to feed on what the former had found. Just what type of marine animal life serves to satisfy the tastes of both whale and bird is unknown to me, but it is undoubtedly tiny fish, crustaceans, and the like. That the excretory matter of the whale is also

used by the birds is not improbable. The attraction, whatever it be, must remain very close to the surface of the sea for it is readily picked up by the latter either when flitting along the water and when resting on its surface.

From my observations "whale birds" of the petrel family are in attendance on whale schools during the greater part of the year. Around Unimak Pass—a great whaling ground—they may be seen from early spring to late in October and it is not unlikely that they follow the above as they seek the south in the fall. The shearwaters, on the other hand, are rarely found in northern waters following whales but further south they are found in their company as often as the petrels.

I. I. VanKammen.

Military Oologing in Texas.

I received my first copy of THE OOLOGIST since I have been in the field and certainly was overjoyed to get it. Our company, which is Co. A, 4th Texas Inf., has been stationed in the "Big Bend" district ever since the Militia was called out. We are 118 miles from the nearest railroad and get all of our supplies by motor trucks.

Am not much of a writer but if some of the subscribers would like to hear from the lower Rio Grande district will make a try. The birds here are entirely different from the ones I am acquainted with in the Northern portion of the state. The Nighthawks are more like a Whip-poor-will than our Nighthawks are in the northern part of the state. The White-necked Ravens take the place of the Crows. The Ravens swarm all around our camps to get scraps and rubbish for food supply is scarce here in the desert and it makes birds of all kinds tame. The Spanish dagger cactus takes the place of the trees and they

are scarce, one finds from one to ten nests in each. The Oven Bird is the most common and its nest can be found in great numbers in all the cactus.

I found my first Hawk nest that was nearly low enough down for me and my friend (Mr. C. R. McLendon, who with a slight boost he stood on my shoulders and observed a pretty set of three eggs but as we were not sure of the identification of the bird, we did not collect. We observed several sets of Ravens before we knew what they were, thinking they were Crows, until one day I came near enough to one on the nest to tell that they were not. I collected several sets and made two shipments to Mr. H. W. Carriger unblown and they arrived safely and he was successful in saving them. I had another set of five of them to hatch in my trunk while I was waiting to get something to pack them up in. Cotton is worth its weight in gold here, so I had to shake hands with the cooks and get some oat meal and pack them up in that and they went through safely.

There has been several pairs of Eagles in and about nearly every location we have been in. Two pairs were observed at Glenn Springs (the place of one of the raids and where three American soldiers were killed) one nesting in the cliffs across the river in Mexico from Bonquillas; two pairs observed in the vicinity of Alpine Sixos (which is on the railroad) and one pair and nest found in Hot Wells, Texas in the cliffs. The Scales Partidges are here in any number and one can be seen feeding in the corral at any time. But have not seen a single nest or egg of this bird since I have been down here, the native "Spicks" (as we call a Mexican) say they are quite common but I guess I must be out of luck for they are quite rare

when it comes to me finding them.

1st Sergeant Geo. E. Maxon.
Terlingue, Texas.

A Chuck Will's Widow.

In my collection I have a specimen of the Chuck Will's Widow which was taken near Bardstown, Nelson county, Kentucky, on June 25, 1915. The bird was killed by a fellow who claimed to have seen three of them.

The specimen measured 12½ inches in length and 25 inches the expanse and is a female bird, there being no white in the tail.

Is not north central Kentucky rather out of their range?

Ben J. Blincoc.

Egg Trays.

Having been able to make very satisfactory egg trays for myself, I will try to explain how I make them.

Get cardboard of uniform thickness for framework, some paper or cambric for wrappers and wrapping paper similar to the envelope which holds THE OOLOGIST for pockets and some quarter inch boards for fronts. Suppose the trays are to be 4x5x1 this makes easy figuring. Get a board as long as your cardboard, square both ends and plane one edge, nail a planed lath or similar material six inches from planed edge, using a notch stick to get same distance one end as other, trim one edge of card board, lay it on your cutting board, lay the pattern or gauge you have made on top with card board tight against shoulder, with sharp knife cut down side and across end, turn cardboard around with end against shoulder making as many cuts as material will make. Now you have pieces of cardboard just six inches square and if your gauge was true, and you worked it right, they will be perfectly true. Now take piece of wood 2x6 inches, plane it true, nail on piece

of smooth lath just one inch from edge, use this similar to larger pattern, only cutting half way through cardboard on three sides; now cut out two back corners with scissors, turn up your three sides. Next cut up your quarter inch pine into pieces 1x4 inches, tack the sides and bottom with 1 oz. lasting tacks from your shoemaker, cut strips wrapping paper 1 inch wide and paste around the back corners. Next cut the data pockets from the wrapping paper about 3x5 inches. These cover two-thirds of tray bottom, the bare third being towards the wooden front. Now cut a generous piece from two rear corners, soak them in water, then paste the edges on three sides, but get no paste on bottom as this would prevent the data from being inserted. Now cut the wrappers 19x2 inches long, paste a board, lay wrapper on it, paste that and lay on another and paste that until you have a pile; allow them to soak. This makes them pliable; draw them snugly around tray lapping at back, take sharp scissors cut two perpendicular cuts at front quarter inch apart, nip off bottom corners folding back top corners, pressing them in with back of knife.

Trays made this way hold data blanks, have a place for name and numbers complete, nothing gets lost. Data blanks should be pasted to ticket board to give best results.

A. W. Hansford.

Los Angeles, Cal.

Vultures.

After reading Mr. Pope's article in the September OOLOGIST, I decided to write something of the Vultures of this section. Vultures, both the *Cathartes aura* and the *Catharista urubu*, are very abundant in this section of Rutherford county. It is probably the same in surrounding counties. Our

Vultures are very interesting birds, and I delight in studying them. There is a slaughter house on the river a short distance from town, and almost any time one may observe from a small number to several hundreds of these birds sitting around on the buildings; or circling in the air above them. They are so plentiful that at almost any time they may be seen flying over above the town, or circling high in the air. Because of their abundance it is difficult to say positively if they are decreasing in numbers. But I am almost certain that they are not so plentiful as they were five years ago. I never hear of a Vulture being killed in this locality. There was a law providing for a fine for killing these birds; but since the passage of the law enforcing burial of all carcasses, I suppose the former law is as good as repealed. And soon the gunners will be shooting the Vultures because they afford a splendid flying target. If our Vultures are becoming victims of the fools with the guns, then something must be done, quick. It will not take long to destroy these birds. I shall certainly work to prevent the slaughter of these birds in this locality. I would be delighted to correspond with Mr. Pope and others on this subject.

Charles F. Moore.

Cliffside, N. C.

Abundant Bird Life in Rutherford County.

This locality seemed to be more abundant in bird-life in the season of 1916 than formerly. There has been a decrease in some species however. Especially in water fowl has the increase been most marked. There were numerous water fowl on the river that I could not get the time to identify, having only Saturday and Sunday afternoons for the study of birds. These

birds were very common here until the middle of July; then came the terrible floods. Rivers overflowed with the highest waters ever known in the Southern States of the Atlantic. Where there were swamps, now are huge masses of sand. The favorite nesting places of the Red-winged Blackbird are almost completely destroyed, and in place there are sand-bars. I have not seen a Red-wing since the floods. The following list is far from complete, as I did not have the time for extensive observation this season.

Pied-billed Grebe—Very few seen during season.

Great Blue Heron—Several here until July 12. Have seen none since.

Spotted Sandpiper—Very common.

Bob-white—Very abundant. There seemed to be more quail than the former season. It wont take hunters long to thin them out when the season opens.

Mourning Dove—Very abundant. We have thousands of these birds. At this date, Sept. 24, they have gone into flocks.

Turkey Vulture—Very common. There are thousands.

Black Vulture—Common.

American Sparrow Hawk—Plentiful.

Screech Owl—Not as common as a few years ago.

Yellow-billed Cuckoo—Common.

Belted Kingfisher—Common.

Southern Downy Woodpecker—Not very common.

Red-headed Woodpecker—Common.

Flicker—Very abundant.

Whip-poor-will—Not very common this season.

Nighthawk—Abundant.

Wood Pewee—Very plentiful.

Blue Jay—Very plentiful in this locality.

American Crow—Not so plentiful as formerly.

Red-winged Blackbird. Plentiful until July 12.

Chipping Sparrow—Plentiful.

English Sparrow—Thousands.

Slate-colored Junco—Plentiful in winter.

Cardinal—Very plentiful.

Purple Martin—Very abundant.

Yellow-breasted Chat—Common.

Mockingbird—Plentiful.

Catbird—Very common.

Brown Thrasher—Unusually common.

House Wren—Abundant.

White-breasted Nuthatch—Common.

Caroline Chickadee—The Chickadee is one of our most common birds.

Blue-gray Gnatcatcher—Rare.

Wood Thrush—Plentiful.

Bluebird—This bird is becoming more scarce each year in this section.

Charles F. Moore.

Dr. R. W. Shufeldt.

This well known scientist publishes in "Science in a Series," Vol. XLIV page 380 a very interesting review on the subject of the Revival and Interest in Bird Anatomy in the United States National Museum, in which a great deal of historic recitation relating to the growth of this study in that Institution is set forth.

He also publishes in a late issue of the Washington Star a full page of half tone photographs entitled "Nature Photography," the subject of which range all the way from birds and moths to a dandelion seed head. It is not sufficient to say that all this material lives up to the high standard always maintained by Dr. Shufeldt.

Albinoism.

During May last I saw a male Red-wing Blackbird that had two pure white patches on its back. They seemed oval in shape, each being about 1½ inches long by about one inch wide as near as I could make out. Each patch was margined all around with black making a very handsome bird. I

should like to have secured it for my collection but had no gun with me.

A. W. Henaford.

Los Angeles, Cal.

Kingfisher Spying.

By Isaac E. Hess.

I was greatly interested in Mr. Edwin Guy's account of Kingfisher nest investigating. I have had a somewhat similar experience with equally successful results. With great labor I had upon three occasions (one in a down-pouring rain) tunnelled dog-fashion into Kingfisher retreats, only to find my labor in vain. In addition I experienced the chagrin of realizing homes destroyed all to no purpose.

During a week's outing in early May, with Guy Day, the Barn Owl expert, we observed many Kingfisher tunnels upon either bank of the Salt Fork creek while we lazily floated along in a boat.

Each of us had fine sets of six deposited by Mrs. "Alcyon" but with the insatiate appetites of real Oologists we each desired a set of seven.

Not desiring to bother the common nests of five or six, we wondered how we might examine all Kingfisher domiciles, with no harm to the little fisher-folks, abodes, until we unearthed the lucky seven.

Mr. Day's fertile brain finally evolved a simple yet highly efficient method. Selecting a slender twig or weed growth six to eight feet long, we split the ends and inserted matches. Lighting the match at the entrance of the tunnel, the stick was slowly pushed back. The absence of drafts in the tunnel allowed the match to burn slowly and brightly all the way back. If the tunnel was a straight one and Madame Kingfisher not present, the set and surroundings could be plainly observed. When present the irate little owners, usually snapped viciously

at the lights and when the pole was with drawn would sally forth. Then the tunnel could be examined in her absence. Of course a bending tortuous tunnel could not be examined in this manner but in our vicinity, sandy soils along our streams with an absence of rock do not interfere with straight excavations.

Isaac E. Hess.

Philo, Illinois.

Nesting of the Green and Blue Winged Teals.

All through May and June in 1905, the writer spent the time in Central Saskatchewan and mostly in the wild new country about fifty miles west of the charming city of Prince Albert.

The country in the vicinity of Mista-wasis, my address at that time, was mostly Black Poplar "bush," with here and there patches of pine and spruce and almost everywhere there was water in some manner either running streams, cold and swift, small ponds or treacherous swamps.

And the ducks, I have often when out after a mess for the table, been compelled to back away from a pond I had been skirting, far enough so as not to blow my meal to atoms. And everywhere there were teal, Green-winged. The former about two for every one of the latter.

The Green-winged nested in all manner of places, but generally quite close to some pond and nearly always in the bushy timber close to the edge, underneath the body of some fallen poplar, being the most common nesting site. The earliest date on which I collected a full set of this species, was on May 21st and the latest fresh set on June 12th. The eggs ran in number from eight to eleven in a set, with nine and ten the general run of the sets. The Blue-winged Teal nested in more open situations as a rule in the low grassy

patches near the larger ponds. Their eggs were from eight to twelve, rarely the latter number. They also nested later than the hardy Green-winged; June 4th and 16th being the extreme nesting dates.

The eggs of the Green-wing were usually smaller and had more of a buffy tinge with a decided greenish case. They were also more elliptical than the eggs of the Blue-wing, and always an abundant amount of down was furnished by the females for both species for the eggs to lay among.

The Mallard was often found nesting up close, once within three feet of a Green-wing's home and rarely the Pintail was the neighbor. I have found the nests within twenty-five yards of an occupied cabin, and one nest of the Green-wing was found in the midst of a large black sand plain, with the grass not over three inches in height and no tree for an eighth of a mile. In just such a position and surroundings as I took my only set of Lesser Yellow Legs, excepting the Yellow-legs nest was underneath a lone scrub pine, not over a foot in height. Of all the sets I discovered of both species only one set of each with their profusion of down remain in my possession. Needless to say they are the choice sets of a very large number, but some day somebody will want them worse than I do and of course then the sets and I will part.

W. H. Benjamin.

Algona, Iowa.

New Hampshire Mountain Notes.

In June, 1911, while descending Mt. Monadnock I discovered at the foot of a large White Ash tree a Ruffed Grouse's nest containing eighteen eggs. In my opinion that is an unusually large set.

July 10, 1912, I found a set of four Nashville Warbler eggs slightly incu-

bated. It is a late date for this region.

The slate-colored Junco is a very abundant breeder on this mountain. Despite this fact nests are very hard to locate, as they are so skillfully concealed. We have such a cold climate that this bird leaves us in October, not to return until April.

Stuart T. Danforth.

Another Unusual Nesting Site of Brewer's Blackbird.

I have recorded in the pages of THE OOLOGIST the common occurrence of the Brewer's Blackbird (*Euphagus cyanosephalus*) nesting in cavities in dead trees, stumps and snags, in the North Willamette Valley of Oregon, but the most peculiarly situated nest of this species was examined on May 25th, 1916, near Hemlock, Tillamook county, Oregon.

This nest was placed in the center of a clump of rushes or wire grass as it is locally called and which is characteristic of the low meadows and open bottom lands. The sides of the nest were not fastened to the upright stalks or stems and the bottom of the nest rested upon the ground. The nest was of the usual type, built by this specie, the inside being lined with fine dry rootlets. The five eggs were fresh or nearly so.

The meadow in which this nest was located is bordered by a stump pasture, and Brewer's Blackbirds were abundant both in the pasture and the meadow. They nest in the stumps and no doubt frequent the meadows because of the abundance of food.

In August and September, this specie in company with the northwest Red-wing (*Agelaine P. Caurinus*) congregate in large flocks to feed in oat-fields after the grain has been cut for hay. Both species are residents in Tillamook County.

Alex. Walker.

Easy Food For Red-head.

One day last summer, 1915, while out "oologying" I saw seven Red-headed Woodpeckers, both young and old, seated on a barb-wire fence in company with a pair of Logger-head Shrikes. These latter were busily engaged in catching grass-hoppers. Cicadas and the like and impaling them on the barbs. No sooner than this is done a couple of Red-heads would dive for it, and generally the first one there got the impaled insect. The Shrikes did not seem to care in the least for they kept on the lookout for more prey.

I had never seen or heard anything of the like before; have any of you birdmen?

Ralph Donahue, Taxidermist.
Bonner Springs, Kansas.

"The Texan Nighthawk.

Up until a few years ago I have found the Nighthawk quite a hard bird to locate their eggs, but have about gotten them figured out right now, I find as a general rule the Nighthawk likes freshly turned earth to deposit their eggs on, and the best place I have found is to look up some new addition or town site where they have graded off the roads and follow the road from one end to the other, keeping a close look at the ground about 25 feet in head of me for the birds to flush from. I have used this plan and always collect as many sets as I have exchange for, but there are others that collect here that don't have as good luck as myself, you may find a place that is a fine place for them but you won't find any birds in that location. It seems like they have certain parts of the country to nest in, I have seen it when you could collect all the sets one would need on the south side of town and never find a set north, east or west of town.

George Emmett Maxon.

Black and Turkey Vultures.

Would like to ask someone that knows more about the Vultures than I do, if they take an off year and don't lay. In this portion of the country where we hunt the Vultures, it is very hilly and one has a lot of climbing to do to collect many sets. Now what I would like to ask, when we went collecting this year we found the birds in twice the number than ever before, and they seemed to be mating, but we made five or six trips to their nesting grounds and only collected about that many sets; whereas in previous years we could collect as many sets as one would care to make trips, always taking 10 or 12 sets. each trip.

George Emmett Maxon.

DUCK HAWK IN NEW YORK CITY.

Last winter a large hawk seemly made his headquarters on the upper stories of the Municipal Building in New York City. Nearly every one who saw it called it an Eagle and large crowds stopped to watch it. It proved to be a Duck Hawk and stayed around the neighborhood all winter, right in the heart of the city and seemed to choose this building (which is twenty-nine stories high) as its favorite place. It lived on pigeons and as there are always plenty of them around eating in the streets, etc., he must have gotten all that he wanted and that probably induced it to stay there all winter.

I wonder if it will come back again this winter. So far I have not heard of it. But I saw a large one over the city about a month ago which kept sailing around and around for quite a while; probably watching for something in the way of a good dinner of pigeon to show up.

Milton J. Hofmann.

THE OÖLOGIST.

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Eggs of Wilson's Plover in situ

—Photo by D. T. Perry, Savannah, Ga.

An Egg Book.

Perhaps some readers of THE OOLOGIST may be interested to know that a limited edition of the "Oology of New England," by Elwin A. Capen, is now on sale in a book store in Boston, Mass.

This book was originally published to sell at fifteen dollars a volume, but I understand that some time after Mr. Capen's death his heirs found parts of this first edition which for some reason had never been bound in book form. Although many of these pages of text and plates were damaged, enough perfect ones were found to make it possible to have about one hundred copies bound in fine condition.

This book is described in the catalogue as "quarto, one hundred and ten plates, and twenty-five plates showing more than three hundred eggs in their natural sizes and true colors." Although these plates were made up some years ago before the art of printing in colors was as well developed as it is now, the pictures are good and this is a fine chance to obtain a copy of one of our well known New England books.

I believe that only about fifteen copies are left unsold at the present time.

I sometimes wonder why it is that no one now tries to publish a bird book which would contain good large pictures in natural colors of the birds in their various plumages and a full set of their eggs. Surely such a work would be appreciated by ornithologists and oologists all over the country and would stand to the ever-lasting credit of the man who produced it. The art of printing in colors has been much improved and is surely much cheaper than in the early days of Wilson and Audubon, and the people of this country today are better able, and I think

quite willing, to buy books with satisfactory colored plates. The tendency of the times, however, seem to be to get out a "hand book" which can be sold for two or three dollars, and this certainly does a lot of good by making the study of bird life popular.

But one really good, large book with good colored plates copied from artists' drawings which showed both birds and eggs would find a ready sale. Of course it would necessarily be rather an expensive venture, because of the cost of the original drawings. But color photography is very unsatisfactory on account of the difficulty of obtaining well-prepared specimens to work with. Our color photography pictures generally show up the faults of the taxidermis work so plainly as to be disgusting to the true nature student. Although a reproduction of an artist's painting may be somewhat faulty in some of the minor details of coloring, the nice positions, outlines and expressions of the birds more than make up for it. A book picturing all the birds of this country and also their eggs would certainly be almost too much to expect. But if someone would get out a book on one order of birds, the Raptores, or the Limicolae for instance, the cost would not be excessive and we would have a start in the right direction. Anyone knows that you can learn more about the appearance of a bird or bird's egg by one glance at a colored picture than you can possibly learn from a half hour's study of printed description alone.

In nearly all things we are making good progress, but some of our recent bird books are not all that could be desired in that line. Perhaps it would be possible to issue a work of this kind in twelve or more separate parts to be delivered once a month

until the series was completed as several of our old works on birds used to be published. In this way the money received from the sale of the first parts could be used to help finance the remainder of the series.

Let us hope that some of our artists who have the necessary ability will try some thing along this line in the near future, for we all wish to see the science or ornithology and oology kept well up in the front ranks of the world's general progress.

H. O. GREEN,

Wakefield, Mass.

A Pleasant Day on the Halifax River, Near Daytona, Fla.

The morning of December 22d, 1915, broke clear and pleasant. The breeze from the ocean was just strong enough to quicken the ambition of a northerner and set on fire his inclination for the wilds. I got up with the sun and after breakfast started for the jungles south of town in search of bird. The thick foliage of the underbrush making small birds very difficult to see. Still I identified several species such as Myrtle Warbler, Woodcock, Whip-poor-will and Florida Yellowthroat. In the open and about town I met Robins, Bluebirds, Phoebees and Meadowlarks. While the Mockingbird is by far the most numerous of the small species. After a half day's tramp among a growth so dense that in places one must force a way through, I went to the river front in the city limits where I passed a most pleasant afternoon, with almost an endless stream of Gulls passing, among which I identified several species.

Following are the birds I listed on this date: Crow 6, Robin 10, Cowbird 4, Southern Flicker 1, Bluebird 6, Red Shouldered Hawk 3, Florida Quail 7, Great Blue Heron 2, Louisiana Heron 4, Snowy Egret 3, Osprey 2, Bald Eagle 3, Mallard 2, Lesser Scaup Duck 2,

Phoebe 3, Red bellied Woodpecker 3, Bluejay 5, Belted Kingfisher 3, Red-winged Blackbird 8, Mourning Dove 2, Coot 1, Whip-poor-will 1, Woodcock 1, Cardinal 3, Mockingbird 20, Bronze Grackle 30, Killdeer 10, Semipalmated Plover 70, Ducky Seaside Sparrow 5, Meadowlark 14, Brown Pelican 3, Bachman's Sparrow 10, Spotted Sandpiper 2, Turkey Vulture 15, Ringbilled Gull 3, Franklin Gull 4, Bonaparte Gull 6, Black Vulture 9, Loggerheaded Shrike 3, Vesper Sparrow 2, Sparrow Hawk 1, Myrtle Warbler 4, Florida Yellowthroat 5, Ground Dove 2. Making 45 species and 249 birds observed—not so bad.

All shooting is forbidden within the city limits of Daytona and many species of birds and especially waterfowl have taken advantage of this protection. Mallards and Scaup Ducks were swimming within a few feet of the walk, while many people were passing. At times the river here seems full of ducks, while few are seen in the unprotected parts.

The Louisiana Herons allowed me to come within fifty feet of them. The Semipalmated Plovers let me get fully as near; also did a large flock of Gulls stand on a small island not fifty feet from me while I sorted out the different species. The Turkey Vulture has become a nuisance and I understand a bounty has been placed on his head.

S. V. Wharram.

New Jersey Bird's Notes.

In early July, 1913, I camped for three days near Lenola on the north branch of the Pensuaken Creek and during that period I observed several birds not supposed to occur in South Jersey at this season. These were the Black Tern, Green-winged Teal, Coot and Blue-winged Warbler. A few remarks from Stone's "Birds of Eastern Pennsylvania and New Jersey," with



Nest and eggs of Red-winged Blackbird in situ

—Photo by D. T. Perry, Savannah, Ga.

respect to their supposed status in this state will not be amiss.

Black Tern.—Stone says it is an “irregular migrant on the coast during the late summer and autumn, sometimes very abundant, occasionally on the large rivers.” According to my experience the Black Tern is a common migrant on the Delaware River at Camden, N. J., occurring regularly every year in late August and throughout September; a few linger till late in October as I observed one on October 20th, 1906 at Richmond, Philadelphia and near North Camden.

On July 8th and 9th I saw an adult on the Pensauken Creek and the farmer on whose grounds we camped informed us there had been a pair about for several days. However, we only observed the single bird and that on the last two days of our trip. It was a very tame bird and monotonously hunted about the marshes, flying up and down the creek, often overhead our boat in which we fished and not over twenty feet away at times. When I told the farmer of its rarity here he wanted me to take his gun and shoot it but I told him there was no necessity in killing the bird as I had no doubt of its identity.

The occurrence of the Black Tern in summer in South Jersey is an unusual thing, as this bird does not nest east of Ohio to my knowledge, and I cannot explain why it was here at this season. It is another puzzling bird mystery.

Green-winged Teal. On July 8th a bunch of five birds flew in at dusk and probably roosted on the marshes. This species, according to Stone, is a “transient and occasional winter resident in New Jersey. Migrants occur in September and April.” Then what were these five birds doing here in July?

Coot. Stone says it is a “common

migrant . . . occasionally inland; March 30th to May 3d, September 1st to October 29th.” I saw one on July 8th and in 1912 one was seen by my brother William on July 31st and by my father on August 1st. However, in 1914 none were seen during the week I camped here—July 27th to August 3d.

Blue-winged Warbler. The Blue-winged Warbler is not supposed to breed in this part of New Jersey and it certainly is a rare nester here. On July 7th I saw an adult; on the 8th inst. a pair and their two fledglings were seen and on the 9th inst. another (one of this pair) was observed. They were all seen in the same woods in which they probably nested as there were many suitable places for them to nest in and the environments were adapted to their needs, according to my experience with them in Pennsylvania. However, in 1912 and 1914 I found no Blue-winged Warblers here during my camping trip in the summer.

Richard F. Miller.

Long Tailed Jaeger in Chicago.

I. A Long tail Jaeger was shot (November, 1915) in the Calumet Marshes near the Southern Limits of Chicago. It seems too bad that the only record for this beautiful fork tail creature should involve the destruction of these long dainty streamers from which the species derives its name. The gunner when shooting the sea wanderer demolished the tail.

The “remains” were placed with The Field Museum of Natural History.

II. Mr. Charles K. Knickerbocker while shooting on the Sanganoy Club near Beardstown, Illinois, took a beautiful albinistic Mallard. The speculum is a slight shade of tan, and elsewhere the feathers all over the body are nearly immaculate white.

III. The most curious freak among



Nest and eggs of Willett in situ.

—Photo by D. T. Perry, Savannah, Ga.

waterfowl is a cross between a Mallard and some variety of Goose. The bird weighs ten pounds, is colored precisely like a mallard drake, including curled feathers on tail, white ring around neck, green head and typically colored bill and feet. In shape the outline and general pose is identical with Hutchin's Goose. This bird was shot on the Mississippi River near Minneapolis, during November.

The specimen is on exhibition in Chicago but taxidermy is a lost art if this game bird represents the work of a professional.

Gerard Alan Abbott.

More Important But Untrue!

The following example of newspaper ornithology is the limit.

It is from the Philadelphia, (Pa.) Record.

Wild Swans Attack Ship.

Hundreds of wild swans, which had apparently lost their way in the fog, dashed against the steamer Ericsson, early in the morning, while the vessel was in the mouth of the Chesapeake bay. The huge birds shattered many panes of glass and caused so much disturbance that many passengers sprang from their berths and rushed on deck, thinking some mishap had befallen the boat.

Several of the birds were captured and were brought to this city on the steamer, which docked at pier 3, South Wharves. F. S. Groves, president of the company, declared them the finest specimens he had ever seen. The prisoners, which were pure white in color, were among a number which flew in the forward gangway, which was open, and failed to find their way out the other side of the boat. Some of the birds became confused among the cargo and were easily captured.

Captain McNamee, commander of the Ericksson said that the odd attack

occurred about 2:30 a. m. He ventured the opinion that the birds were attracted by the electric lights of the vessel.

The Marsh Hawk.

While looking for Swamp Sparrow nests May 28th, 1916, a pair of Marsh Hawks suddenly put in their appearance. By their actions I knew they had a nest somewhere in the vicinity but finding a flushed birds nest in a swamp with no idea of its whereabouts would be no easy task so I decided to wait until the preceding day.

The next day found my cousin and myself in the swamp on the alert for Mrs. Marsh Hawk. After navigating most of the swamp in vain I succeeded in flushing her from a growth of wild rose bushes.

The nest was built on a muskrat house and composed of rushes lined with marsh grasses. A fine set of six and a good photo rewarded our efforts to the regrets of Mrs. Marsh Hawk. The eggs were pale bluish white splashed with light brown, measuring 1.80 x 1.40.

I also collected four eggs of the Swamp Sparrow in this swamp. Neither of the above species are numerous in this section.

There are about eighty-five species of birds in this locality, none of them being rare everywhere, though some are here.

E. Clarion, O. Lyle D. Miller.

The Stork Again.

Our friend Robie W. Tufts of Wolfville, Nova Scotia, one of the most accurate and reliable oologists that we know of, is celebrating the visit of this old bird to his home, where a wee daughter was left late in January.

[This note slipped by the printer, but is too good not to be published even now. We congratulate Bro. Tufts.—Bro.]



Nest and eggs of Wayne's Clapper Rail in situ
—Photo by D. T. Perry, Savannah, Ga.

Important If True.

The following is a sample of newspaper ornithology which is both silly and dangerous. In the first place, there is not one chance in ten thousand that the birds referred to are the Passenger Pigeon. In the next place, even if they were, putting a money value of \$2,000 or any other sum in print and scattering it broadcast would certainly lead to the extinction of the entire flock if they were the birds supposed to be:

Passenger Pigeon Flock Found Feasting on Farm.

Warren, Pa., Oct. 17.—A flock of 25 passenger pigeons, a species long thought extinct, has been feasting in the buckwheat patch on the farm of Jesse J. Garber, in Watson township for the past week. Garber, an old-time hunter, identified the birds as the species which the government has been searching for several years and for a pair of which the Smithsonian Institute offered a reward of \$2,000. An effort will be made to trap the birds.

The passenger pigeons almost completely disappeared following a terrific storm twenty years ago and until recently the only one of the species known to be alive was in the zoological garden at Cincinnati. This bird died some time ago and it was thought then that the species was gone. Garber expects to realize a small fortune on the birds if he can trap them.—Philadelphia Inquirer.

Carolina Rail Accidentally Killed.

September 29th, 1916, an express man found a Carolina Rail dead in the street. The bird was a mystery to the express man and all who saw it. He brought it to town and everybody was guessing what it was. They called it everything from a Sparrow to a Duck, but no one guessed it. My father came along and overheard the guessing

match. They asked him what kind of a freak bird it was. He said turn it over to me and I will find out for you. He brought it to my Taxidermy Shop and I identified it. I mounted it and will let the guessing bunch guess as much as they like. Upon examination of the body after skinning, I found bruises about the neck and came to the conclusion that it had hit a telephone wire at night and was killed in this way. This is the second rail found on the streets here.

Ramon Graham.

Ft. Worth, Texas.

Vulture Conditions in North Texas.

R. Graham, Ft. Worth, Texas.

A question will soon be asked by many people,—“Where did the Vultures go?”

The answer will be—they were destroyed by the people with traps, guns and poisons, when God sent the Vulture here to protect these people, from disease, sickness and death.

I noticed in the September number of THE OOLOGIST a very interesting piece by E. F. Pope of Colmesneil, Texas. He sure hit the key note when he said they were getting scarce. I have noticed that they are going fast and won't last long in this state. Just a few years ago they were more than plentiful and all dead cattle, horses, etc., were kept clean from the prairies by them, but today the few Vultures have plenty to eat and leave plenty to spread disease. For example, a few years ago, when a cow died the Vultures would leave nothing but a mass of bones and skin, which stood a slim chance to spread disease, but now days cattle lay and are half eaten up by the few Vultures that are left to destroy disease. If I am not mistaken, sometime ago there was a \$5.00 fine for killing a Vulture. As long as this lasted they were quite plentiful, but

now every hunter and boy that sees a Vulture must shoot it. Most hunters say when they kill a Vulture, "We have done our country a great deed because these birds carry disease and we hunters ought to get a large bounty for killing them." I think a man with such little brain of sense to say this, is lacking in the upper story. I have saved many Vulture by begging hunters not to kill the useful bird that God put here to protect us from disease.

I look at it this way,—if a Vulture does carry a little disease, why do we have to destroy them? When a common sense will tell us that they destroy ten times as much disease without carrying a little with him. There ought to be a fifty dollar fine for killing a Vulture, and if I had anything to do with making laws, I sure would make this one stick. I have carefully studied the Vulture for a good many years and haven't been able to see where they have hurt this country, but I can see where they are a benefit to the southern states. To prove it there are more flies and other disease spreaders raised in dead animals than ever before. When the Vultures were plentiful, they would destroy these breeding grounds of disease, but when few are left do not succeed. We cannot blame the Vultures; we can only blame these so-called hunters and ignorant boys that shoot everything that has hair or feathers. You can't go along a country road anywhere in this part without finding the remains of a disease destroying Vulture. They were placed here for the good of the people, but the people can't see it, so the poor Vulture that does no one harm has to be shot and poisoned.

Speaking of poison, a good many Vultures are destroyed in this way. Ranchmen and farmers poison dead animals intended for wolf bait but the first one to fall prey to the poison is

the innocent Vultures. Speaking of law again, I think there ought to be a fine for poisoning dead animals. Besides the loss of Vultures by poison, many ranchers have lost their best sheep or goat dog, which they value at five hundred dollars or more.

Another destroyer of the Vulture is the trapper, especially the wolf trapper of this country. They are caught on every trap line. Instead of letting them go, the trapper kills them and curses the innocent bird for snapping his traps, when it would be much cheaper to let them go. I am not condemning the wolf trapper, because I am one myself, but I am condemning him for killing the Vulture that accidentally gets in his trap. Anywhere around here you can see a few Vultures flying high or on a fence post, but not long ago they were not a few but were plentiful and always ready to do the people a great favor by destroying all dead and diseased animals that were to be found.

It is just like Mr. Pope said, to save the Vultures, we must act now, because they are going fast. I advise anyone that has Vulture eggs to stick with them because if the killing of Vultures is not stopped, the eggs will be valuable and hard to get. We may be able to impress on some people the benefits of the Vulture, if the other readers will wake up and give their ideas on the best law-abiding birds of the United States.

Book Notes.

John F. Honecker of Spokaue, Wash., has issued a small fourteen page booklet entitled "North American Ornithology Number 1," devoted to the Red-tailed Hawk, which is a review of the life history of this bird nicely gotten out.

The University of California in its Zoological series has issued a paper by

Walter C. Bryan on the Road Runner which is not only instructive but very thorough and is a credit to the author. It maintains the uniform high rank of contributions of that character for which he has been responsible of late.

John G. Tyler publishes in *The Auk* for September, 1916, "Some Birds of the Fresno District, California" (Supplementary notes). This is an exceedingly good paper and shows care and ability in the preparation, and when used in connection with the *Pacific Avifauna* No. 9 will be a valuable addition thereto.

Dr. R. W. Shufeldt contributes to the *Geological Magazine* of August, 1916, the description of a new extinct bird from South Carolina, the specimen being described from the fossil bones of a large bird coming from the Eastern part of South Carolina, and of a larger size than any at present existing in the United States.

American Robin—*Merula migratoria*. A. O. U. No. 761.

I have received some very interesting data on a Robin's nest near Waco, Texas. I did not get a chance to see it and as he only saw the one bird, I thought possibly it was a lonesome bird building a nest, which had been left behind during the migrating season for some reason.

However this same friend reported a similar occurrence to me this year, but on account of my health being bad this summer, I was unable to visit the place he described. From the description I thought that this was possible like the one named before.

I met my friend some weeks ago and he related the following incident. While he was enjoying an after dinner smoke out on his front porch one afternoon, he was disturbed by an awful racket in the yard and upon investigation he discovered a house cat about

to get the "upper hand" of a family of robins, consisting of two old ones and three young ones. The young ones were only a day or so out of the nest. Being a bird lover he chased the cat and the Robin family lived happily ever afterward.

From this you will see that the American Robin is evidently nesting here as this is very reliable information. This is the first record I have ever seen of the American Robin being a summer resident here.

Leverette Fitzpatrick.
Waco, McLennan Co., Texas.

The Water Bound Chickadee.

In Lake Worth many trees are found. In the water most of them are dead, making a paradise for Carolina Chickadees. In my boat I was taking some migration notes for the United States Government so I kept a look out for Chickadees. The lake was on a three foot rise April 3, 1916. I noticed a dead tree swaying back and forth in the swift water. A chickadee's hole was about three feet from the water. I went and examined it; out came Mrs. Chickadee. I looked in and found a set of eight eggs. The nest was down in the hole six inches made of moss and hair. The water was still rising April 6, so I guess by now Mrs. Chickadee's home is washed away.

R. Graham.
Ft. Worth, Texas.

1000 Barracuda Birds Caught in a Fish Net.

Santa Cruz, July 13, Cottardo Steg-nara got a catch of over 1000 barracuda birds last night which he did not bargain for while fishing off Aplos. He was after smelt and had placed his net and was circling with it after the catch when a flock of thousands of these birds swooped down after the fish and in nearly every mesh was the neck of

a struggling, squirming bird. It was with difficulty that they could be hauled in as over a thousand were unable to extricate themselves. They would attempt to fly and would at times lift quite a portion of the net out of the water. The weight was so great that Stegnaro could not take all the bird catch in the boat and a half was given to G. Bregante, who took them to the wharf in this city and the entire night was spent by both Stegnaro and Bregante in extricating the birds, many of which strangled to death in the nets. The birds fought the fishermen with their sharp beaks and caused their hands to be covered with small flesh wounds.—San Jose Mercury and Herald.

W. A. Strong.

San Jose, Cal.

Our Woodpeckers.

The following Woodpeckers I have observed in this locality, the Southeast portion of Columbia County: Northern Downy, resident of a greater portion of the years; I think they range a short ways back and forth. I have found them nesting. Northern Hairy, visitor from the north. Yellow-bellied Sapsucker, I have found them here, but never found a nest. Red-bellied Woodpecker, have seen two or three here in the spring. Red-headed Woodpecker, resident whole year, at least there are always a few to be found here, breed; I have a set of five eggs containing a runt. Northern Flicker, common spring, summer and fall, breed.

George W. H. vosBurgh.

Copy.

This issue of THE OOLOGIST about exhausts the supply of copy on hand and we would appreciate it if those interested in the little journal would get busy forthwith, immediately, and at once and replenish our supply.

A Bachelor Nest of the Barn Swallow.

Where is the collector who does not pause in his search for rarities to flush the brooding Robin from her nest, only to be greeted by the four familiar blue eggs? Curiosity is common to all animals and many interesting and unusual phases of bird life are revealed to the student, which would otherwise escape his observation, if it were not for the desire to peer into every nest which comes under his notice.

It was this same spirit of inquisitiveness rather than a desire to add another set to the already elongated row in my cabinet, that prompted me to retrace my steps to ascertain the contents of a Barn Swallow's nest I had found almost completed two weeks previous.

When I reached the sheep-shed the female flew from the nest and began a nervous flight in and out of the building. The nest was empty. One week later I again visited the nest and found Mrs. Swallow apparently incubating. She left the nest as I entered the shed—uttering faint notes of protest, still the nest contained no eggs although the lining was very warm, which showed that the bird had been covering the nest for some time. By this time I was very much interested and at the expiration of eight days made a special trip of three miles to see if anything new had developed. As usual the female was on the nest and displayed much concern at my approach, but the nest held nothing but an extra large amount of chicken feathers.

As near as I can judge this Barn Swallow had been incubating an empty nest for twenty-four days. Very likely the birds were too old to breed, but were obeying the natural impulse to reproduce species of their own kind.

James B. Carter.

THE OÖLOGIST.

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A MERRY CHRISTMAS

With this issue The Oologist closes the year 1916. It has not been all we had hoped for, but has been better than we feared it might be at times. The Editor desires to express his appreciation for the aid and support extended us during the year just closing.

The Oologist is only what its friends make it. They can make it better or worse as the case may be. The Editor is only the medium through which they work. The Oologist is not a commercial proposition. If it were, it would not now be. It would have ceased long, long ago, before we took it.

The sole object in keeping the Oologist alive is that we may all have a common source to which we may all go. Students, amateurs, ornithologists and oologists alike; for the latest and best in those lines. Sentiment also plays a part. Many of us older

oologists have been tied to the Oologist for many long years. The tie is hard to sever. If it were not for the Oologist where would the oologists of America be? Just think of that for a moment! The year 1916 is the only year since we took over The Oologist that the subscription list has not shown a net gain. The loss this year is small, but it is up to our friends to see to it that it does not continue.

Paper, cuts and everything that makes up The Oologist have gone up in price. The subscription remains the same. All money received by The Oologist for subscription and advertising goes into the magazine expenses. The more we receive the better magazine we can have and the revenue is likewise true.

Mr. Subscriber, think this over,
AND THEN ACT...

R. M. Barnes.



Notes from Goose Island, Michigan

In the northern part of Lake Huron lies a long low strip of land known as Goose Island. In length it does not exceed a mile, while at its widest point it is scarcely over one hundred and twenty-five yards across. The northern end is a rather pretty flower-dotted meadows, fringed with a growth of bushes and small trees. The center is thickly overgrown with young cedars which are practically impenetrable. The lower or southern end is covered with a rank growth of coarse grass interspersed with a few small poplar trees. Around the entire island is a stony beach, of varying width, which makes walking decidedly unpleasant in anything but heavy-soled shoes.

For years past this has been the seldom disturbed home of the Herring Gull, along with a few other species of water birds and a considerable number of song and insectivorous ones.

When visited in 1913, one hundred or more pairs of Gulls were breeding there but this year the number was found to have dropped to approximately seventy-five pairs. This decrease may be due in part to the growing tendency of the summer residents of the town of Hessel and vicinity to make trips to Goose Island in order to secure a few of the young Gulls for pets. Another reason may be that of late years would-be sportsmen have found this (during the months of July and August) an easy hunting ground for fledgling ducks. Of course I do not mean to accuse any of those gentlemen duck slaughterers of shooting Herring Gulls, yet it is very probable that a person who would kill young ducks, unable to fly, would not be above taking a practice shot at anything that flies.

My visit this summer was limited

to three days, the 12th to 14th of July, of which the greater portion of the 12th was spent in making the seven mile row out and in setting up our camp. Likewise the 14th was largely spent in breaking camp and our return trip. (By the way we were careless enough to pitch our tent among a few small shoots of poison ivy. The result was a slight dose on the arms, legs, and face. Moral-- Never pick poison ivy for a bed-fellow.) As soon as we were fairly settled I set out to see what was to be found in the way of breeding birds. As was to be expected at that late date, I was disappointed with the Gulls as most of their eggs had hatched and the young gone. However some few nests contained young which I eagerly photographed. One nest in particular interested me for it held two young ones, of which one was several days old while the other had just come out of the egg. The picture of this couple was really the only one of any value that I secured, of the Gulls. In another nest I found one young one dining on an already half-eaten perch. On once being fed by hand he refused to touch the fish if it was put down. Therefore the only thing left to do was to feed him until he was thoroughly satisfied. Of the other nests we found all but one or two were empty, although a few contained rotten or deserted eggs. The young that had left the nest would take to the water on a signal given by the old birds as soon as anyone was seen approaching. In this way they would be out of sight before you could arrive anywhere near them. From the fact that they set so low in the water it took a field glass to pick them out even though they were not very far off shore. By going out in a boat one could soon catch all he desired. In this manner we ob-



Nest of the Red-breasted Merganser on Goose Island in Lake Michigan
—Photo, 1916, by Albert D. McGrew.

tained five for photographic purposes, but after trying for more than half the day to catch them in natural poses had to give up in despair. The old birds were not very fearless in defense of their young as was shown when we went out in the boat, for the parent birds would merely scream excitedly when we picked their young out of the water. Occasionally they would scoop at us but never did any come close.

While tramping thru the thick grass bordering a small bay on the south end of the island I flushed a duck of some sort from her nest. As the grass was so high I could only follow the course she took by the waving of the grass as she waddled towards the water. Reaching the edge of the bay she plumped in, swam quietly thru the reeds, then pattered along until she gained wing. The view I had was sufficient to let me know that it was a Red-breasted Merganser. During the search for the nest I flushed a family of Mallards which although fully fledged were still able to fly. One was unfortunate enough to try to make an escape by land and as a result was captured. Returning to finish the hunt for the nest I was soon rewarded by discovering a beautifully concealed home containing ten well-incubated eggs. It was in a deep depression in the ground, between the main roots of two small poplar saplings one of which was across the front entrance to the nest. The whole structure was cleverly arched over with dead grasses and the concealment was so perfect that only by flushing the bird would its presence be suspected. By bending back the grass from the front I was able to secure a tolerably good picture of the eggs. All attempts at photographing the old bird failed.

Towards evening another nest of

the Red-breasted Merganser was found. This one was built beside an old log around which several thick bushes had grown, thus offering a well-concealed nesting-site. The seven eggs were quite fresh as was shown by returning in three weeks to find only two hatched. Whenever the owner of this nest departed for any length of time she would completely cover the eggs with down. This may be clearly seen by the picture.

During my entire stay only two male Mergansers were seen although at least a dozen females were noted. Both Black Ducks and Mallards were breeding on the island but both had young almost grown. At least one pair of Common Terns bred there as the old birds were seen with food, but no young could be located. A pair of Least Sandpipers were there the entire three days of my stay but they were undoubtedly early migrants as Goose Island is too far south to be included in their breeding range. Twenty-five or more pairs of Spotted Sandpipers made the island their home and within an hour after our arrival I accounted for five of their nests containing the usual set of four. All stages of young were found from the newly-hatched to the fully-grown.

The finding of a Song Sparrow's nest with one Cowbird's egg in it interested me as no Cowbirds were seen on the island and the nearest land was four miles away.

Could Goose Island only be made a bird preserve it would no doubt be of great benefit to a large number of water and shore birds of the great lakes region as it affords an admirable breeding ground for Gulls, Terns, Ducks, and Sandpipers.

Albert D. McGrew

Personal.

The readers of The Oologist are



Nest and Eggs of Red-breasted Merganser Beside a Log on Goose Island,
Lake Michigan

—Photo, 1916, by Albert D. McGrew.



Nests and Eggs of Red-breasted Merganser by a Log Covered with Down as
the Bird Left it to Feed; Nest on Goose Island, Lake Michigan

—Photo, 1916, by Albert D. McGrew.

to be congratulated over the fact that P. M. Silloway, one of the best known North American naturalists has "come back" in this issue, and promises us further copy. We hope for the benefit of our readers and subscribers that P. M. will not overlook keeping his promise. He is one of the most interesting of bird writers and owing to his wide field experience, much of it in very unusual places, his contributions will be looked forward to with much interest.

Leo J. Miller of the American Museum of Natural History, New York City, advises us that he has just returned from an over two years trip in South America. We are glad to hear of Mr. Miller's safe return, and trust that he will favor the readers of *The Oologist* with some of his observations in due time.

Northern Ravens in Nova Scotia.

Last Spring I had an experience with a pair of Ravens which I feel might be of interest to the readers of *The Oologist*.

In October, 1914, while ground shooting at Margaretville, a seaport village on the Bay of Fundy, I daily saw one or more Ravens. It was their regular appearance in the vicinity which aroused by special interest—an interest which grew more keen as I listened to the following story: I was visiting with a friend—a young farmer who has always lived in Margaretville, and I quite naturally asked him if he had ever found a Raven's nest. I was delighted to learn that he knew where they had nested for years, high up on a narrow ledge of rock, on the ragged, perpendicular cliff or sea-wall which at this place



Nests and Eggs of Herring Gull on Gravel Beach of Goose Island, Lake Michigan

—Photo, 1916, by Albert D. McGrew.



Two Young Herring Gulls just Hatched in Nest on Goose Island, Lake Michigan

—Photo, 1916, by Albert D. McGrew.



Young Herring Gull Eating its Dinner, Goose Island, Lake Michigan

—Photo, 1916, by Albert D. McGrew.

rises from 90 to 130 feet above the rocky beach of the Bay of Fundy. He said that when he was a small boy—over twenty years ago, his grandfather, a sea-captain of eighty odd years, had taken him along the beach and shown him the nest, and each year as he grew bigger, he and other village boys would amuse themselves by stoning the nest, but on account of its height most of their shots fell far short of the mark. His grandfather recalled having indulged in the same pastime when he was a boy, for the Ravens had nested on this ledge as far back as he could remember, and every spring had been known to kill their young lambs in the field along the bluff. These depredations would account in part for the hostility shown by the farmers in the district to the birds. It was not possible to see the nest from above due to the fact that there was at this place a five-foot overhang of rock. I at once decided that I must have a set of eggs from that ledge.

The following March, despite the protest that I was a month too early for any signs of nesting, I again visited Margaretville, and with my friend set out for a walk along the beach. The cliff covered with hanging cascades of ice formed by the tiny water-falls, many of which in summer would hardly be noticeable, my friend felt certain that no birds could be nesting among such cold and uninviting surroundings, but as we drew near the vicinity of the ledge, I was not surprised to see an old Raven soaring in Majestic circles over the cliff.

As we drew to the place where he first appeared we caught only occasional glimpses of him. He would appear just for a fraction of a second, high up over the brow of the cliff, and the alacrity with which he would flap

his great wings in his efforts to get out of sight, seemed to tell of long years of persecution from rifles and shot guns.

My guide was not sure that he could even find the old nesting site, on account of the ice, but from the way the old Raven was acting, I felt reasonably certain it could not be very far off. A few moments later, I saw another Raven leave the side of the cliff not forty yards ahead of us. Yes, this was the same old nesting place—ice all about—but none on the narrow ledge itself, due as I found later, to the fact that its surface sloped backwards and gave a natural drainage off into the crevice. Probably one reason this site was originally chosen and so long favored was because it was always so dry. We estimated that the nest was about 70 feet and the cliff itself, as we learned later was 110 feet at this point. The next morning we set off with two extra men, one of whom, a husky sailor, had volunteered to reach the ledge by means of a strong rope which we were to make fast to a tree back over the brow of the cliff. He went up from the beach, sailor fashion, hand over hand, seldom stopping to rest, but we soon saw that this plan was a failure, as he was too far out, due to the overhang above, on which in our haste we had not calculated. We decided that a more elaborate scheme would be necessary. That afternoon was spent in preparing our equipment and next morning (March 24th, 1915) we loaded the outfit on a team and drove to the woods on the cliff just above the nest. To one end of a rope cable was fastened a sort of sailor chair and this was lowered to the beach. To prevent the rope from becoming frayed and also from dislodging the loose rocks, it was run over a roller which was fastened to two

parallel beams which protruded out over the edge, thus allowing the rope to run free. When all was ready, two of us started for the beach below—a mere distance of 110 feet, but entailing a three-mile walk by way of the nearest gorge or break in the seawall. Arrived below, climbed into the chair armed with a light two-tined pick. My companion who was to give the signals, when I was ready could scarcely make himself heard to those above on account of the blustering eastwind which was blowing accompanied by occasional snow flurries.

After some little delay I began to ascend in a spinning, dizzying fashion which was most disconcerting and equally unexpected. However, I soon arrived opposite the ledge and the signal was given to hold fast. But though opposite the ledge, I was hanging fully five feet out, but from there I had a good view. The rocky shelf was about four feet deep and was partly covered with dead grasses. A little clump of three dwarfed raspberry bushes, rooted in a crevice as though striving for more light. But these things were secondary. What impressed me most was the array of nests—nests in all stages of dilapidation. I counted five corresponding to that number of years. Older than these were merely confused piles of sticks, matted and decayed. And there on my left was the new nest, whether empty or not I could not tell. Reaching out with the hook, I pulled myself in far enough to look into the nest. It contained only four eggs—a small set—but nevertheless I felt it was complete, since the bird had been sitting on the nest each time we had come. But the nest was fartherest from the edge and was still about four feet beyond my reach. My hold on the ledge was far from secure and I could feel it giving way. In a mom-

ent I was swinging off into space again, as a shower of rocks clattered down below me. I needed two hooks, the second one to take a fresh hold fartherback. Again and again I tried to reach the nest, but the strain was too great—the overhang being only twenty-five feet above me, and the pick would not hold in the loose rocks. Finally I got a fairly good hold and pulled myself in far enough so that with my left hand I was able to seize the frail little raspberry stems close down at the roots. Slender as they were, they held long enough for me to reach out with the hook and get a new hold farther back in a crevice.

Now with my left hand I could just reach the outer edge of the nest I pulled the whole thing toward me and with cold and trembling hands, I removed the four eggs—one at a time, in safety to the collecting box which was suspended about my neck. Swinging off again, the signal was given and I was gently lowered. The whole performance occupied about two hours and during that time the Ravens were rarely seen, and then only at a distance, when they would appear over the woods to the eastward about one half mile away, give a croak or two and disappear. Upon subsequent examination and comparison I found that the eggs showed no signs of incubation and were considerably smaller than I had expected to find them, being but slightly larger than the largest crow's eggs in my collection.

This set is now in the possession of Mr. John E. Thayer of Lancaster, Mass.

Hoping that the birds might attempt to nest again in the same place, I revisited Margaretville on April 20th, but saw no sign of them in the vicinity of their old home. On

May 7th I received word from my friend that he had discovered their new nest on the cliff, about a mile further down the Bay, and next day I set out to investigate. This time the site chosen was on a small shelf of rock and was absolutely inaccessible. Being anxious to get one of these old Ravens for my collection, I decided to lie in wait till they returned for as in the other case both birds left at our approach. After much patient waiting and scheming I surprised the birds as they were returning to the nest and I succeeded in bringing one down. Its bare underparts—which were noted on picking up the bird—instantly told me I had shot the sitting female and I must confess I was sorry, for I feared I had broken up the home. I had hoped to get the male bird. The following day I visited the nest again from the beach and was surprised to see the faithful old male fly from the nest as I approached. With my glasses, I hid behind a rock 300 yards away and waited. In about three quarters of an hour he appeared over the bluff, directly above the nest, but though I had not moved and considered myself well concealed, he saw me and with a frightened “yelp” disappeared again in the direction from which he came. The following Sunday, May 16th, my friend went to the nest and reported to me that there were two Ravens about the nest. The old male had taken himself a new mate. This incident was especially pleasing to me, for I had feared that with this ancient bird—as with that other Raven of renown—it might be a case of “nevermore.”

Some weeks later I learned that the young Ravens had flown and were four in number. When skinning the bird I had shot, I found three old scars from shot wounds on the breast,

and the skull was exceedingly thick and quite filled with bony tissues. Summing up all the evidence, the small size of the eggs and only four in number; the exceedingly wariness of the birds; the scars on the bird I had shot and the fact that ledge had been so long occupied, leads me to the conclusion that the bird I have in my collection had survived the storms and famines of many a bleak Nova Scotia winter. Up to the present time I have no authentic data concerning the longevity of the Raven. Perhaps some reader of *The Oologist* can give me some accurate information on the subject. The general consensus of opinions seems to be that these birds attain great age.

R. W. Tufts,

Wolfville, Nova Scotia.

The New Game Laws.

We have had occasion to examine the “Conservation Laws of the State of Maryland” with reference to the question as to whether or not this law prohibits persons holding a certificate permitting them to collect birds, their nests and eggs for strictly scientific purposes only, have the right to exchange the specimens so collected under such certificate to other persons engaged in the same character of collection, and who will use the specimens for the same purposes.

It is the opinion of the editor, both as a scientist and a lawyer of some thirty years' standing, that this law does not prohibit a person who holds a certificate entitling him to collect birds, their nests and eggs for strictly scientific purposes from exchanging the specimens thus collected under such certificate with other persons engaged in making similar collections, and who will use them for strictly scientific purposes.

Any other construction of this law would tend to hinder scientific collecting and would result ultimately in much surreptitious violation of the law, and would extend it beyond the intent and import of the law at the time of its passage.

One of the grave dangers that the laws relating to conservation generally will meet is an effort on the part of those charged with the enforcement of such laws to arbitrarily and unnecessarily extend the operation of said laws beyond their reasonable interpretation and thereby align against such laws any person who will be thus effected, and likewise to bring the laws and the reasonable enforcement of the same into ridicule and disrepute. Officers charged with the enforcement of these laws will do well to realize that a person who is of the class entitling him to a certificate to collect under such laws is a person to be trusted with the proper disposition of his specimens.

R. M. Barnes.

Some Rare Things.

We have recently received from a collector located on the Northwest Arctic coast of Alaska a number of sets of eggs which are unusual in any collection, and have thought proper to record some of the facts with relation thereto, viz.:

These eggs were taken on or near the Arctic coast about three hundred miles Northeast of Bering Strait, and the nesting dates of the specimens taken as shown by the data accompanying them is as follows, viz.:

June 6, Yellow-billed Loon, Red-throated Loon, Long-tailed Jaeger, Point Barrow Gull, Pacific Eider, Black Brant, all being fresh except Long-tailed Jaeger, the eggs of which were long-advanced in incubation.

June 10, Alaskan Longspur, fresh.

June 12, Point Barrow Gull, Pacific Eider, Pectoral Sandpiper, Bairdi Sandpiper, Pacific Red-backed Sandpiper, Turnstone, all of which were fresh except the Pectoral and Red-backed Sandpiper, in which incubation had begun, and the Least Sandpiper in which incubation was advanced.

June 13th, Turnstone.

June 14, Red Phalarope and Pacific Red-backed Sandpiper, both of which were fresh.

June 15, Alaskan Longspur, fresh.

June 16th, Turnstone, incubation slight.

June 18th, Red-throated Loon, fresh.

June 20th, Pacific Eider, fresh.

June 22, Pintail Duck, Pacific Eider, Black Brant, Little Brown Crane, Northern Phalarope, Buff-breasted Sandpiper, all of which were fresh except that incubation was slight in the Pacific Eider and Buff-breasted, Sandpiper, and far advanced in the Northern Phalarope.

June 23, Pacific Loon, Black Brant, Pacific Golden Plover, all fresh except the latter, in which incubation was slight.

June 24th, Pacific Eider, incubation slight.

June 26th, Old Squaw, King Eider, Snowflake, the former fresh, the latter incubation slight.

July 3, Pallas' Murre and Stone Chat, the later fresh; the former incubation far advanced.

July 5, Pallas' Murre, incubation slight. Stone Chat, fresh.

July 7, Horned Puffin, one fresh. Many sets found badly incubated.

July 5-15, Many sets Pallas' Murre taken between these dates all of which were either fresh or the incubation very slight.

NESTING LOCATIONS.

The nesting locations of these various birds in this far away Northland

THE OOLOGIST

were as follows:

Yellow-billed Loon: Eggs laid on bare tussock or hummock surrounded by water on the tundra.

Pacific Loon: Nest of wet grass on sandy bank near water in a lagoon.

Rer-throated Loon: Nest of wet grass on a small island in marsh and at the edge of lagoon.

Horned Puffin: Nest of dry grass in bottomm of a burrow near the top of a cliff.

Pigeon Guillemot: Nests of dry grass on rocky cliff.

Pallas' Murre: Eggs laid on the bare sand of beach.

Pacific Kittiwake: Nests of dry grass on ledges of cliffs.

Point Barrow Gull: Nest of dry grass, lined with down out on the tundra near lake.

Long-tailed Duck: Nests of down from bird in grass on small island in a lagoon; others out in the open tundra moss, made of down, usually near water.

Pacific Eider: Nests of down from the bird, built on niggerhead rocks near the sea; others of down made in the moss out on the tundra.

King Eider: Nest of down from the bird sunk in the sand of the sea beach.

Black Brant: Nests of down from the birds sunken in moss on small island in a marsh; others of down sunken in the grass and moss near lakes out on the tundra.

Little Brown Crane: Nest of dried leaves out on the tundra.

Red Phalarope: No nests; eggs laid on the bare ridges of the tundra.

Northern Phalarope: Nest of dry leaves of plants on the ground near water on the tundra.

Pectoral Sandpiper: Nest of dry plant leaves out on the open tundra.

Baird's Sandpiper: Nest of dry plant leaves near water on the open tundra.

Pacific Red-backed Sandpiper: Nests mere depressions in the moss and grass of the tundra.

Buff-breasted Sandpiper: Nests of dry grass on side hill of rolling tundra about seventy-five yards from a lake.

Pacific Golden Plover: Nests of moss on slight ridge sunken in the moss of the tundra.

Turnstone: No nests; eggs laid in depressions on mossy ridges of the tundra.

Snowflake: Nest of dry grass lined with fine grasses and feathers on the ground; one nest under a building at the station.

Alaskan Longspur: Nests of dried grasses and plant leaves lined with finer grasses in tufts of dry grass on the ground out on the tundra.

Stone Chat: Nests of dry grasses lined with feathers; one under a building; another under a flour cache.

INDIAN NAMES.

The Indian names of these birds so far as reported by our collector are as follows, viz.:

Yellow-billed Loon	Tu-d-lik
Red-throated Loon	Kak-son
Pigeon Guillemot	Ing-a-ray-uk
Pallas's Murre	Crow-bill
Point Barrow Gull	Now-yuk
Pintail	Ka-ru-gruk
Old Squaw Duck	A-ned-lik
Pacific Eider	A-man-lik
Black Brant	Nig-a-lik
Pectoral Sandpiper	Nov-vrek-yook
Baird's Sandpiper	Noov-yooruk
Pacific Golden Plover	Too-li-gak

Among the freak specimens received with this shipment was an egg, dark green and entirely unmarked, and very smooth, of the Pacific Loon; another was a dwarf egg of Pallas's Murre measuring only 1.50x1.11 inches. And another was a giant egg of Pallas's Murre showing

the extraordinary measurements of 3.37x2.25 inches.

It is needless to say that these additions to our collection were very gladly received.

R. M. Barnes

Nesting Birds, Copan, Washington County, Okla.

Following is a list of such birds as I have a record of: Doubtless there are a number of others.

Great Blue Heron, a few seen all summer.

Green Heron, common along streams.

Yellow Crowned Night Heron, a few nesting each season.

Bartramian Sandpiper, a few seen all summer on prairie.

Killdeer, fairly common.

Mourning Dove, common every where.

Turkey Vulture, quite common.

Mississippi Kite, scarce nesting bird.

Cooper's Hawk, not very many.

Red-tailed Hawk, fairly common.

Red-shouldered Hawk, our commonest Hawk.

Broad-winged Hawk, very few.

Sparrow Hawk, a few nesting.

Barn Owl, scarce.

Barred Owl, common.

Screech Owl, common.

Great Horned Owl, fairly common.

Yellow-billed Cuckoo, common.

Downy Woodpecker, commonest Woodpecker.

Hairy Woodpecker, fairly common.

Redhead, more common this year than other years.

Redbellied Woodpecker, fairly common.

Flicker, a few nesting along upland streams.

Chuck-Will's Widow, not uncommon.

Night Hawk, fairly common.

Chimney Swift, common in towns.
Ruby-throat, a few seen all summer.

Scissor-tailed Flycatcher, fairly common.

Kingbird, fairly common.

Crested Flycatcher, common.

Phoebe, common.

Wood Pewee, fairly common.

Green-crested Flycatcher, quite common.

Prairie Horned Lark, common.

Blue Jay, fairly common.

Crow, very common.

Cowbird, very common.

Red-wing, very common.

Meadowlark, our commonest bird.

Orchard Oriole, common in prairie woods.

Goldfinch, common.

English Sparrow, very common.

Grasshopper Sparrow, very common.

Lark Sparrow, not very common.

Field Sparrow, very common.

Cardinal, very common.

Blue Grosbeak, fairly common.

Indigo Bunting, common.

Painted Bunting, very few.

Dickcissel, very common.

Summer Tanager, quite common.

Purple Martin, very common in towns.

Barn Swallow, a few nesting here, a numerous migrant.

Loggerheaded Shrike, a fairly common resident.

Red-eyed Vireo, very common nesting bird in woods along river.

White-eyed Vireo, very common in woods.

Bell's Vireo, very common.

Prothonotary Warbler, common near water.

Swainson's Warbler, a few found nesting in suitable places in woods.

Parula Warbler, not uncommon along river.

Cerulean Warbler, very common.

Kentucky Warbler, fairly common in woods.

Maryland Yellow-throat, very common.

Yellow-breasted Chat, very common.

American Redstart, very common.

Mockingbird, a few in towns and city.

Catbird, a few in brushy woods.

Brown Thrasher, fairly common.

Carolina Wren, very common.

Bewick's Wren, a few.

White-breasted Nuthatch, very common in woods.

Tufted Titmouse, very common.

Carolina Chickadee, very common.

Blue-gray Gnatcatcher, commonest woods nesting bird.

Wood Thrush, common some years.

American Robin, a few nesting in towns.

Bluebird, common.

Albert J. Kirn

Some Western Birds—Cactus Wren.

One of the most interesting exhibits at the Museum of History, Science and Art of Los Angeles County is a life group of the Cactus Wren (*Heleodytes brunneicapillus couesi*). Attractively arranged in a glass case, the group is intended to represent a section of the desert which the bird inhabits. "Growing" from the sand is a large cholla cactus bearing a typical nest of the Cactus Wren, while on its thorny branches are perched a well-mounted pair of the birds.

Eastern visitors whose acquaintance with the Wren family is confined to the small members of the genus *Troglodytes* are struck at once by the large size of *Heleodytes*. From eight to nearly nine inches in length, the bird has more the appearance of a thrasher than of a wren, and is indeed the connecting link between the two. The

under parts with the exception of the brown belly are white with heavy black spots; the upper parts are brown with black and white streaking down the back; the middle tail feathers are brown, the rest black except that the outer ones are barred with white. The head is brown with a white supercilary stripe over the eye.

The range is confined to the deserts of southern California, Nevada, Utah, Arizona, New Mexico and Texas south to the northern parts of Mexico and Lower California. Farther south is found the Bryants Cactus Wren (*Heleodytes brunneicapillus bryanti*). The birds are usually resident wherever found except that in the northern parts of their range they are more or less migratory. In Los Angeles County they are found in decidedly smaller numbers throughout the winter than in the summer.

The breeding season here is from early April to late June; in southern Arizona they raise two and three broods a season and I have found eggs there late in August.

The nesting-site is usually located in cactus, yucca or mesquite; sometimes in trees such as elder-berry and live oak. The average height from the ground is about four feet. The nests are high types of bird-architecture usually placed horizontally with the entrance but slightly elevated, measuring from twelve to eighteen inches in length and seven to nine inches thick at the greatest diameter. The materials used are sticks, coarse dry grass, weeds, etc. The reddish tendrils of the plant known as fireweed are used extensively whenever obtainable. Cosily lined with feathers, the nests afford ample shelter from sun, rain and wind. A number of dummy nests are built in the neighborhood of the real one; these are kept in repair during the winter and serve as

a protection against inclement weather. The dummies are also occupied sometimes by rats, mice, are various small reptiles. I have very frequently been startled by reaching into a nest with the expectation of taking a set of eggs, and instead pulling out a ten inch lizard.

A full set of eggs is from four to seven, most commonly five. The ground color is creamy white, which is usually hidden by the heavy spots of reddish brown or salmon. The average measurements in inches are .95 x .65.

One nest of the Cactus Wren found by myself this year was the most unique in several respects of any of the hundreds that I have examined. It was situated nearly fifteen feet from the ground at the end of a live oak bough. It was composed of thick sage stems and fresh green grasses, and was placed in a vertical position with the entrance directly at the top, being very shallow and open as compared with the usual type. From the ground below it had all the ear-marks of a Shrike's nest. On reaching in I pulled out a small egg measuring but .50 x .35 inches, and then four very beautiful but normally sized eggs. This is the first and only set with a runt egg of this species that I have ever found, and it is one of the most treasured in my collection.

The smaller relatives of *Heleodytes* far outshine him in vocal ability. His only note seems to be a low hoarse "chuck-chuck-chuck," seldom uttered.

Grubs, worms and small insects make up the Cactus Wren's diet, with such few vegetable substances as may be found in the dry regions where he makes his home.

Los Angeles, Cal. D. I. Shepardson.

◆◆◆◆◆

A Soldier Ornithologist

In answer to your letter of the 19th.

will say that I will be glad to give the Oologist all the notes that I can from this location, but my notes from this part of the state only go back to about May 10, 1916, when the militia was called out, our state is largest in the Union and one can be well acquainted with the birds from one portion of the state and unacquainted with them from another part.

Arriving in Hot Wells, Tex., which was our first place of duty after leaving San Antonio, Texas we hit a country that was of cactus, sage and sand, and no trees, the birds that I found to be the most common were the White necked Raven, Scaled, Partridge Texas Night Hawk, Curved-billed Thrasher, Desert Spr, Oven Bird, Road Runners, Hooded Oriole, and Cow Bird, the Oven Bird proved to be the most common, its nest and eggs could be found in nearly every Soto cactus on the desert. I have found from 3 to 8 nests of this bird in one cactus, the Road Runner was also quite common and several nests were observed in the vicinity of our camps, the Raven was quite plentiful and several nests of this bird was found before I was aware of the fact that they were Ravens and not Crows, after finding out my mistake I went for a hunt and succeeded in collecting two sets but not having any way to prepare them I packed them up in oat meal and they went through all right.

On or about June 28th we were sent to Bouquillas, Texas, some 250 miles from Hot Wells, about 110 miles from a railroad, and right on the banks of the "Silvery Rio Grande" and here the birds changed again, the banks of the river are lined with rocky cliffs and cannon sand, here I found Cliff Swallows, Hawks, Owls and 2 pairs of Eagles nesting, but unluckily for me the Eagles picked the Mexican side to nest in and a man

is taking chances enough when he walks the American side of the Rio Grande with a uniform on so I decided I had all the little old common Eagle eggs I wanted (although my friends know that I haven't a single set).

Bouquillas boasts of the only two cotton wood trees for hundreds of miles, with a spring right at the bottom of them which is a watering hole and shade for the birds for miles around, I found a nest of the Vermilion Flycatcher, Texas Cardinal, deserted hawk's nest and several other nests that I didn't examine in the cotton woods. The Verdin was a new friend of mine on arriving in Bouquillas and a good many of its nests were observed but no eggs, the Texas Night Hawk were quite thick but were not found to be nesting.

On July 17th we left Bouquillas for Terlingua, Tex., which is up the river about 65 or 75 miles air line over the mountain but our motor trucks had to go some 200 miles to get there, and on the trip I observed a good many birds that I was not acquainted with, on arriving there we saw a town of adobe huts and rocks, tin cans, sticks, cactus or just anything that was close to them when they were building their home. The town is about 14 miles from the river and right in there the desert and mountains, there were not many smaller birds but quite a few larger ones. The Chisos mountains are about 15 miles from there and I could see most any evening one or two pairs of Eagle coming or going to them and was told by one of the civilian scouts that they nested there, and could show me their nest the first chance I got to make a patrol over that way, but I never got the chance for here I am at La Jitas again on the banks of the Rio Grande, but several hundred miles from the last place I struck it,

here is found about the same birds except there are a few more of the Verdin and Mexican Ground Doves.

If this note finds a place in your magazine I will try again for some more notes as I think we will move again pretty soon.

G. E. Maxan.

1st Sergeant Co. A 4th Texas
Infantry, La Jitas, Texas.

Inca Dove—*Scardafella inca*,
A.O.U. No. 321

This dove which is one of our smallest and most interesting species, seems to have now made Waco and its vicinity part of its range. Each year they have become more and more numerous until now they are a common sight. One meets with two or three on most every hike to the country. I also have noticed that they are as numerous in the outskirts of town as they are in the country. I really have observed more inside of the city limits of Waco, than any where else. I often watch them feed in my garden and I am some six or seven blocks from the limits, in a thickly settled part of the city.

If you will refer to your records you will note that this Dove has not always been a resident of this part of the state. The following paragraph was taken from John K. Streckers "Birds of Texas," published in 1912.

As you may see it gives the former range limit and its initial appearance in this county.

Inca Dove. *Scardafella inca*.
Southern portion of the state. Some years ago Attwater recorded a single specimen from San Antonio, but in late years this Dove is a regular visitor there. In the winter of 1904 large numbers of these birds made their appearance at Waco, remaining until the following April. In Novem-

ber, 1905, they again appeared but in smaller numbers, this time remaining until the latter part of May, and as I am informed by reliable parties, nesting in North Waco. They are said to breed near San Antonio at the present time. Schutze (The Condor VI 172) records the Inca Dove as now common in Travis and Comal Counties and in the vicinity of Bryan, breeding.

I first noticed the Inca Dove in the vicinity of Waco in the summer of 1914, and it has continued to remain here in increasing numbers each year, being visible both summer and winter. This summer and spring (1916) I have observed this bird quite often in pairs, but never had the good fortune to run across a nest.

I observed the Inca Dove in Comal County in 1914, in large numbers, mostly feeding in droves and it only stands to reason that they were nesting there as my trip was in May and June. However I did not have the pleasure of seeing a nest. This may have been due to the fact that I was only making notes on birds, spending most of my time collecting mussel shells and reptiles, therefore did not spend much time looking for one.

Leverette Fitzpatrick.

Waco, Texas.

Ralph Massengale of Fort Worth, Texas, reports an unusual incident in the killing of an Osprey by throwing a rock at it.

Notes on the Blue-Gray Gnatcatcher.

During the spring migration of 1916 I observed the Blue-Gray Gnatcatcher on several occasions in low bushes and in the under-growth of big timber. As it is seldom found in such places, a few notes on this bird of the tree-tops might be of interest.

The first bird of this species noted

this spring was seen on April 2nd and was about six feet from the ground in a bush at the edge of a road. The next time I observed this bird was on the afternoon of April 16th, when at least twenty and perhaps more were seen, all of which were singing freely. Although more were seen very near the ground several were noted about ten feet up.

On April 23rd the most noticeable bird observed on a two mile hike was the Blue-Gray Gnatcatcher. While some were seen high up in the trees they were numerous fairly low down, or at about ten to fifteen feet from the ground. It was on this occasion that they were so noticeable in the under-growth.

A fine male bird was seen among the branches of a small cedar bush not more than five feet tall. Several were seen very near the ground in buck brush bushes which seldom grow more than three feet high.

After the 30th of April the Gnatcatcher was found singly or in pairs and seldom seen except in the tree tops.

Ben J. Blincoe.

Bardstown, Ky.

Please

During 1917 whenever you write to The Oologist on business, try and enclose a short bird note, no matter how short if only a line or two referring to some interesting thing you have noticed in Birdom, it will help make a better Oologist.

The Turkey Buzzard

The grand old Turkey Buzzards are quite numerous in Chester County, Pennsylvania, and though they are not protected by law, nobody even shoots them. If the winter is not too cold, they stay with us the entire year.

Their getting ready to roost at night

is quite an interesting sight. Possibly twenty to fifty birds will gather around a single tall tree, in the woods or in the open pasture and will go around and around it in gradually narrowing circles until at last one after another drops to nest. Then they draw the long bare head down between the shoulders until it is entirely covered by feathers and out of sight. There they stay hunched up until morning. They will come back to the same tree night after night. When going away on a winter morning, the ice which has collected on their broad backs in a sheet will fall noisily to the ground. About the time when the first rays of the morning sun appears, one bird after another takes flight. It starts out in a circle and with only an occasional flap of the wings they mount higher and higher, followed at intervals by its companions. The whole lot of them may be in circles not over two hundred feet in diameter. When the first one gets up a mile or even more, it will start off on its days flight to be followed by the others as they reach the same altitude.

Egg laying time comes about the first of May around here. No nest is built, but a hole is scooped out under an overhanging rock or possibly in a hollow tree that has fallen. The birds will go back to the same spot time after time when they are ready to nest. Very many of them do not lay every year and the older ones sometimes leaves several years go by without a nest. The two eggs are spotted and the markings of different pairs of eggs are very distinct, so that the different pairs of birds can be readily identified by these marks.

Last Spring I wanted the eggs that were unusually heavily marked from a certain pair of birds. A friend went over to the hole and found but a single

egg. He waited but three or four days but as no second egg appeared he gathered the one egg and sent it to me. About a month later I went over and visited the quarry and found another single egg there. It was unquestionably from the same bird for I never saw such heavy marking, but it was much larger than the first egg. The two measured as follows: 3x2 inches and 2½x2 inches. The second egg had not been incubated. Probably the great difference in size is accounted for by the bird abandoning the nesting place when it was first disturbed and not paying again until she was compelled to do so. Then she deserted the nest.

Not very far from town stands a hollow maple tree and in it is a cavity twenty feet above the ground that has for years at intervals harbored a pair of these birds and quits a number of young have been raised there. If the eggs are taken the birds do not lay a second set that year though they do not desert the place.

The young when hatched are pure white. Incubation of eggs seems to be four weeks. When six weeks old, the pure black pin feathers begin to appear among the white down covering the young birds. The nest is a dirty ill-smelling place, and if the young birds are disturbed, they will vomit the carrion flesh with which their craws are filled. This vomiting is probably the result of fright. I never knew a case of the old bird vomiting when disturbed. They go off quietly from the nesting place watching the intruder from a distance.

I never heard an old bird make any vocal noise except occasionally as a bunch of them get to quarreling around a carcass, when they will at times make a hoarse grunting sound while picking savagely at each other. The young birds when disturbed be-

fore they have learned to fly will run at an intruder and endeavor to strike him with the beak. They will drive a dog away in a hurry if he should get to be too familiar. They do not usually learn to fly until early in September.

R. P. Sharples.

West Chester, Pa.

Medina, N. Y., Nov. 25th, 1916.

Some Orleans County, N. Y., Notes.

During the spring of 1915, in company with Mr. Roy Hill, a collector of earlier days, the Writer paid a visit to the old Heronry, in the Tonawanda Swamp, near West Barre. Leaving the road, on foot we had very little difficulty in making our way along the banks of the ditch, which drained the swamp and several Gt. Blue's were noted flying to and from the rookery and soon we were among the nesting trees. The greater number of nests were above thirty feet up and four nests was as many as I counted in any one tree. The trees containing nests were all old and mostly rotten and dangerous climbing. I examined two nests, they contained three eggs each, both sets fresh and warm; I also heard young birds from the ground in other trees. Mr. Hill said there was about seventy pair in the rookery which would give it an increase of twenty pair since 1908, according to Mr. Eaton's notes (in *Birds of New York*) which said it contained about fifty pair then. Formerly, before the Farming Co. cut in the ditch the water was waist deep at this season but now is as dry as tinder.

Later on I saw a Tree Swallow leave a hole in a dead stub on bank of ditch. On close examination, I found cavity was fresh cut by Woodpeckers and was surprised to find a set of eight fresh eggs, the yolks

plainly showing through, on a nest of chips and a few grass stems and feathers. I think this set of eight was a little out of the ordinary.

In the marshes further south I flushed a Least Bittern from rushes and found set of four fresh eggs on neat platform about one foot above water.

Sora and Virginia Rails formerly nested here in large colonies, but the only results from a close search was an abandoned nest of Sora Rail with three punctured shells probably the work of Purple Grackles.

On the higher knolls we found four completed nests of No. Yellowthroat and one of Mourning Warbler but was a little early for eggs. La. Waterthrushes and one pair or Crested Flycatchers were seen, also Red Wings and Swamp Sparrows, which were quite common.

I have been told boys here collected Rails eggs by the bucket full and one lad found eight sets of Am. Bittern in one patch of swale.

There is certainly a lot of bird life destroyed by Grackles in these parts and I think they ought to be thinned out a few.—It's too bad.

I have added a set of Wilson's Snipe, four eggs and patch of nest to my collection. Set was collected near West Barre, N. Y.

Harold Meyers.

Medina, N. Y.

What Has Become of the Purple Finch?

This hardy, social and beautiful bird has always been a favorite of mine and in this section at least is becoming quite rare. I have only seen one spring male during the past ten years. At my boyhood home in Deep River, Conn., during the early 70's they were abundant. In lower end of our garden grew a large crab-apple tree and

in spring this tree was a bower of beauty with luxuriant bloom.

It was the resort of numbers of this bird and the contrast of their beautiful rosy pink dress with the snow white flowers furnished a sight well worth seeing. Our garden was infested with "chick-weed" of which the Purple Finch seemed especially fond and I once caught five of them alive at one haul by setting an ash sifter supported by a clothes pin over a bunch of it with string leading to the house and pulling out the pin at the proper time. In our front door yard grew two large ornamental fir trees over forty feet tall and almost in the very top of each a Purple Finch nested for a number of years in succession and the only set of eggs of the species I have ever taken in forty years of collecting was here, and I have it yet. To my mind the Purple Finch is one of the very finest songsters of our N. E. birds and their decreasing numbers seems especially deplorable. Who sees them now and where?

H. W. Flint.

New Haven, Conn.

Small Holes.

A few years ago I was working in Cleveland, Ohio and while there I did some collecting. While blowing some eggs one evening one of the boarders in the house picked up one of my drills and said, "Why we make these in our shop." He was an employee of the Cleveland Dental Manufacturing Company. I asked him to show me the different shapes of drills they made and he had some small cone shaped drills which I liked so I bought some to try them. I have used them for a number of years and find that they will cut the linings of eggs much cleaner than it can be done with the old bud shapes. This makes it pos-

sible to blow an egg with a smaller hole in the same time. Now I know that cone pointed drills were used years before the bud points for drilling eggs, but they were all heavy long handled drills and of a size too large to use in this way on small eggs.

The point which I wish to make is that these drills can be obtained in much smaller sizes than I have seen listed by dealers in oological supplies. The smallest of these drills measures a little more than 1-64 of an inch in diameter. The third size is 1-32 of an inch. I was unable to obtain the two smallest sizes in the cone points but he assured me that they were made in those sizes. The sizes are by numbers. The largest I have measures 7-64 of an inch; the smallest cone is 22 1-2; 1-32 of an inch and two sizes smaller to 1-64. I have not the number of this size.

Frank R. Flower.

Accompanying the above communication the writer sends to us two sets of eggs, one set of 5 Meadowlark and one set of 7 White-bellied Nuthatch, prepared with the drills described above, and we can truly say in our forty years experience in birds egg matters, we have never seen as beautifully prepared specimens no matter where they came from or who did the work. The preparation is absolutely perfect.

Heretofore we had given such men as O. W. Howard, Virgil W. Owen, E. J. Court, Edward S. Coombs, Fred M. Dille, F. C. Willard and A. O. Treganza the credit of having reached the highest possible stage of perfection in the preparation of specimens of this character, but they have all got to take off their hats to Mr. Flower.

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXIII. No. 1. ALBION, N. Y., JAN. 15, 1916. WHOLE No. 342

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

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BIRDS

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BIRDS

We are anxious at all times to secure rare bird skins and eggs. Send us a list of your list of material and of your wants. We can offer at present specimens as the Ivory-billed Woodpecker, Passenger Pigeon, Scarlet Ibis, Blue-headed Quail Dove, White and Gray Gyrfalcons, Black-capped Vireo, Golden-cheeked Warbler and soon. Write us today. **WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.**

Brant, Snow or Blue Geese, Eagles, Ducks, Prairie Chicken, Mountain Quail, Bob and Ring Tail Cats, Fisher, Wolverine, Gray Fox, Mountain Lion, Beaver, Snakes, Ling, Gar, and other fish. Fresh skins, in meat or alive, wanted for Public Museum, offer minerals, fossils, shells, curios, relic. Publication on cash. **DEAN'S NAT. SCIENCE ESTABLISHMENT, Alliance, O.**

WANTED.—Excellent prepared skins of Lewis Ariz., White headed, Gila and three toed Woodpeckers, Olive, Graces, Lucys and Virginias Warblers; (male only) Massena Quail, Surf Bird, Chestnut Collared and McCowans and Longspurs; Spruce Grouse, Scotts Oriole, Hepatic Tanager and Ani. I would buy such as can be legally sold or I will exchange sets of Eastern Black Rail, Woodcock, Upland Plover, Wilson's Snipe, Long bill Curlew, Turnstone and Mountain Plover. **GERARD ALAN ABBOTT, 1543 E. 61st St., Chicago, Ill.**

EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

I am always wanting lists of entire collections of North American Birds' Eggs which the owners desire to dispose of. None are too large and none are too small if they contain any material that I need. **R. M. BARNES, Lacon, Ill.**

Nice data blanks, 100 pages, book form with stubs, 30c. Samples all kinds printing, Arts & Crafts Exchange. **J. J. WIRZ, 1422-1429 Gwinnett St., Augusta, Ga.**

Steel Specimen Cases, absolutely dust and insect proof. Designed for bird or mammal skins, or birds' eggs. For specifications and prices write **W. HUBER, Gwynedd Valley, Pa.**

FOR EXCHANGE.—A pair of Eastern Model climbers and a few sets each of 289, 412, 498, 506, 511, 593, 601, 622 and 631 for birds eggs. **R. C. MARTIN, Jr. Albemarle, La.**

A 1 sets for exchange:—53 1-3, 191 2-4, 201 2-4, 208 1-12, 221 1-9, 336 2-3, 412 1-6; 412a 1-6, 456 1-5, 461 2-3, 477 2-4, 488 2-5, 494 2-5, 563 1-4, 584 3-4, 613 1-5, 705 1-5, 725 2-5, 529 2-5, 619 2-5 4-4 eggs with small holes wanted. **WALTER A. GOELITZ, 504 John St., Champaign, Ill.**

WANTED.—All sets of my taking except Nos. 316, 326, 373b, 443, 452, 506, 511b, 552, 593, 601, 663, 703, 719c. **ELTON PERRY, 610 Baylor St., Austin, Texas.**

EGGS

EXCHANGE.—Who has any sets of birds of prey to exchange and what do you want? I want Nos. 575-578. **S. V. WHARRAM, Austinsburg, O.**

Will exchange mounted birds for eggs in sets with original data. Also have fine sets to exchange. **MEARL B. WHEELER, East Randolph, N. Y.**

FOR EXCHANGE.—Eggs of Nova Scotia birds' eggs in sets, for high grade hammerless shot gun, rifle or revolver. Send full particulars of same and get my list. **R. W. TUFTS, Wolfville, Nova Scotia.**

FOR EXCHANGE.—The following A 1 sets: 3 1-3, 149 1-2, 184 1-4, 187 1-4, 273 1-4, 305 1-4, 319 1-2, 333 1-4, 337 2-3, 339 1-2, 360 1-5, 360 1-5, 364 1-2, 375 1-3, 474b 1-4, 624 1-4. Want eggs of shore birds and raptors only. **ERNEST S. NORMAN, Kalevala, Manitoba, Canada.**

EXCHANGE NOTICE.—Having undertaken to assist in the completion of the oological collection of a public museum I am in position to use many sets besides those needed in my own collection and solicit exchange lists from all reliable collectors. Am not a dealer and no sets for sale but offer good exchange or cash for strictly A 1 sets. **A. E. PRICE, Grant Park, Ill.**

FOR EXCHANGE.—273 2-4, 325 2-2, 337b 2-3 1-4, 339b 1-3, 373c 1-4, 385 1-3, 583 1-3, 588d 2-4, 751a 2-4 and many others with small holes, for A-1 sets with small holes, **M. C. BADGER, Santa Paula, Calif.**

Natural History Cabinet for sale or exchange. Suitable for bird skins, eggs, botany, minerals or shells. Want back numbers of magazines. **ALBERT LANO, Fayetteville, Arkansas.**

FOR EXCHANGE.—European and Asiatic bird eggs in sets with data for eggs of North American species needed for my collection. **C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.**

FOR EXCHANGE.—Alligator eggs, also Limpkin and lather back turtle eggs. **NAT. P. FRY, Eureka, Marion Co., Florida. (1-p)**

FOR EXCHANGE.—5 x 7 photographs of nests with eggs of 26 species of this locality with full sets of eggs of all common species on basis of 40 cents each. These are extra good photos. **ELTON PERRY, 610 Baylor St., Austin, Texas.**

Bird Skins, animal skins and cleaned skulls eggs in sets and named Coleoptera to exchange for stamps not in my collection. **W. E. SNYDER, 309 DeClark St., Beaver, Dam Wis.**

BOOKS.

Frank L. Burns' Bibliography of scarce or out of print North American Amateur and Trade Publications in existence. Price 25c. **R. M. BARNES, Lacon, Ill.**

WANTED.—"The Auk." Vols. I and VI (inclusive) odd volumes or odd numbers. **W. LEF. CHAMBERS, Eagle Rock, Los Angeles County, California.**

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

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Brant, Snow or Blue Geese, Eagles, Ducks, Prairie Chicken, Mountain Quail, Bob and Ring Tail Cats, Fisher, Wolverine, Gray Fox, Mountain Lion, Beaver, Snakes, Ling, Gar, and other fish. Fresh skins, in meat or alive, wanted for Public Museum, offer minerals, fossils, shells, curios, relic. Publication on cash. **DEAN'S NAT. SCIENCE ESTABLISHMENT, Alliance, O.**

WANTED.—Excellent prepared skins of Lewis Ariz., White headed, Gila and three toed Woodpeckers, Olive, Graces, Lucys and Virginias Warbler's; (male only) Massena Quail, Surf Bird, Chestnut Collared and McCowans and Longspurs; Spruce Grouse, Scotts Oriole, Hepatic Tanager and Ani. I would buy such as can be legally sold or I will exchange sets of Eastern Black Rail, Woodcock, Upland Plover, Wilson's Snipe, Long bill Curlew, Turnstone and Mountain Plover. **GERARD ALAN ABBOTT, 1543 E. 61st St., Chicago, Ill.**

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FOR EXCHANGE.—Alligator eggs, also Limpkin and lather back turtle eggs. **NAT. P. FRY, Eureka, Marion Co., Florida. (1-p)**

FOR EXCHANGE.—5 x 7 photographs of nests with eggs of 26 species of this locality with full sets of eggs of all common species on basis of 40 cents each. These are extra good photos. **ELTON PERRY, 610 Baylor St., Austin, Texas.**

Bird Skins, animal skins and cleaned skulls eggs in sets and named Coleoptera to exchange for stamps not in my collection. **W. E. SNYDER, 309 DeClark St., Beaver, Dam Wis.**

BOOKS.

Frank L. Burns' Bibliography of scarce or out of print North American Amateur and Trade Publications in existence. Price 25c. **R. M. BARNES, Lacon, Ill.**

WANTED.—"The Auk." Vols. I and VI (inclusive) odd volumes or odd numbers. **W. LEE CHAMBERS, Eagle Rock, Los Angeles County, California.**

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXIII. No. 3. ALBION, N. Y., MARCH 15, 1916. WHOLE NO. 344

BRIEF SPECIAL ANNOUNCEMENTS

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Would like to exchange Pheasant Eggs suitable for hatching, for Prairie Chicken or Ruff Grouse eggs, fresh and handles so they will hatch. Would like to correspond with parties that can furnish these eggs. W. E. SURFACE, Decatur, Ill.

Exchange desired with collectors of Bird Skins who will give bird skins in exchange for mounting birds for them. D. V. HEMBREE, Roswell, Ga.

Brant, Snow or Blue Geese, Eagles, Ducks, Prairie Chicken, Mountain Quail, Bob and Ring Tail Cats, Fisher, Wolverine, Gray Fox, Mountain Lion, Beaver, Snakes, Ling, Gar, and other fish. Fresh skins, in meat or alive, wanted for Public Museum, offer minerals, fossils, shells, curios, relic. Publication on cash. DEAN'S NAT. SCIENCE ESTABLISHMENT, Alliance, O.

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THE OOLOGIST,

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I have a lot of fine duck skins with heads folded over the back which I will exchange for skins of common small land birds. A. C. BENT, Taunton, Mass.

Brant, Snow or Blue Geese, Eagles, Ducks, Prairie Chicken, Mountain Quail, Bob and Ring Tail Cats, Fisher, Wolverine, Gray Fox, Mountain Lion, Beaver, Snakes, Ling, Gar, and other fish. Fresh skins, in meat or alive, wanted for Public Museum, offer minerals, fossils, shells, curios, relic. Publication on cash. DEAN'S NAT. SCIENCE ESTABLISHMENT, Alliance, O.

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WANTED.—To correspond with collectors who take sets of the following species, A. O. U. 134, 140, 153, 192, 277, 299, 308 (or its species), 309, 314, 317, 318, 344, 352a and many others. I have a list of over seventy five species to offer in exchange, most of them personally collected. F. C. WILLARD, Tombstone, Ariz.

FOR EXCHANGE.—As I wish to increase my collection to 900 A. O. U. species will offer for new species in A 1 sets only, choice sets from my private series including Loons, Albatross, Anseres, Limicolas, Rapteres, including Kites, Eagles, Gryfalcons, Falcons, Owls, Goatsuckers, Warblers Kinglets. Also a few others if you prefer. All answered. A. E. PRICE, Grant Park, Ill.

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BOOKS.

WANTED.—No. 7 of Volume 29 of The Oologist. For this we will give one year's subscription or pay 25c in cash. R. M. BARNES, Lacon, Ill.

FOR SALE.—Bird Lore, No. 1 Vol. 4 to No. 6 Vol. 17. Clean, complete and all indexes. \$21.00 cash. ALFRED L. MARSHALL, Weeping Water, Nebr.

WANTED.—Ornithologist and Oologist Vol. 1-5, Osprey Vol. 1 No. 2 and 4. Address write price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR SALE.—Bendire's "Life Histories of North American Birds" two volumes, newly bound half morocco; perfect condition, price \$16.00. A. F. SMITHSON, Warrensburg, Mo.

WANTED.—Hornaday, Two Years in the Jungle. Sport in the Crimes and Caucasus, Savage Svanetia, both by C. Phillips, Wooley. Address with price. WM. J. HACKMEIER, 645 Golden Gate Ave., San Francisco, Cal.

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WANTED.—"The Auk," Vols. I and VI (inclusive) odd volumes or odd numbers. W. LEE CHAMBERS, Eagle Rock, Los Angeles County, California.

BOOKS—Continued

WANTED.—Bulletin of the Cooper Ornithologic Club, Vol. I, odd numbers W. LEE CHAMBERS, Eagle Rock, Los Angeles County, Calif.

FOR SALE—Out of print Ornithological books by Bendire, Cones, Ridgway, Goss, Baird and Dawson. All bird magazines, W. J. ERICKSON, 208 West 40th St., Savannah, Ga.

FOR EXCHANGE.—Back volumes of the Auk in original cover; also American and foreign bird skins for A. I. skins of Western and foreign birds. HENRY K. COALE, Highland Park, Ill.

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals [mostly Ornithological] to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. [2-p]

EXCHANGE.—A small collection of Indian relics; a few books on natural history, birds, biological survey publications and magazines for eggs in sets only. RALPH W. JACKSON, Cambridge, Maryland, R. I.

WANTED.—For cash "The Oologist" (this magazine) Volume 3 No. 4 and Volume 4 No. 1 to complete my personal file. CHARLES A. HEWLETT, Woodmere, N. Y.

WANTED.—Back numbers of Condor, Bird Lore and others. Exchange in other numbers a reasonable cash price. E. A. DOOLITTLE, Box 44, Painesville, O.

FOR SALE BIRD LORE.—Lot A, Vols. I to XII inclusive without volume indexes; Lot B, Vol. II No. 1 to Vol. XII No. 2, inclusive without volume indexes and Vol. II No. 2 missing. Will not break lots. State best cash offer. THOMAS L. MCCONNELL, 1813 Huey St., McKeesport, Pa.

WANTED.—A copy of Loomis' "California Water Birds, No. IV," for which I will pay any reasonable price. W. E. CLYDE TOOD, Carnegie Museum, Pittsburgh, Pa.

WANTED.—In good condition: Nidologist Vol. 1, No. 6; Osprey of Washington, Vol. IV No. 3 and index; Vol. I New Series 1902 No. 4-5-7; Bird Lore Vol. 1 No. 2-3-4-6 and index; Vol. II No. 1-2-5; Vol. III No. 1-2-3-6; Vol. IX No. 6 and index. How many back numbers Oologist, Osprey, Bird Lore, Museum and some others to exchange for any of above. Will pay a reasonable cash price, and will sell any of my duplicates, cheap. JOHN WILLIAMS, Iowa City, Ia., R. No. 9.

FOR EXCHANGE.—American Naturalist 1868, 1889, 1884, 1887, six volumes half leather. Wanted Smithsonian Annual Reports for 1900, 1901, 1903, 1904, 1905, 1906. JOHN THOMPSON, Clinton, N. Y.

FOR SALE.—Auk, Vol. 16 to 32 inclusive. Also several volumes of Condor, and Osprey. No reasonable offer refused. E. J. WHEELER, 177 Pequot Ave., New London, Conn.

EXCHANGE.—Birds and all nature, March April, May, June and November 1899 for best offer. JOHN THOMPSON, Clinton, N. Y.

MISCELLANEOUS.

Cuts of North American Birds wanted. Half tones preferred. Send proofs of those you have and state lowest cash price. ERNEST S. NORMAN, Kalevala, Manitoba.

WANTED.—A collecting gun; also 5x7 long bellows camera and 8 x 10 lens; also 3½ x 4½ long focus, plate, hand camera with Dagor lens. A. D. DUBOIS, Dutton, Montana.

FOR SALE.—One 4 x 5 long focus reversible back Promé; one 5 x 7 Crown Anastigmat F4.5 lens in Ilex Acme shutter; one 4 x 5 plate tank, and other photographic accessories. A. D. DUBOIS, Dutton, Montana.

Coati-Mundi (Nasua narica). These animals are related to our Northern Racoons, but inhabit the tropic and sub-tropic regions. I have a specimen nicely mounted on a polished stand. Can probably furnish a photo. For full description, price, etc. address MILTON J. HOFMANN, 1818 Bleeker St., Brooklyn, N. Y.

FOR SALE AND EXCHANGE.—Live Snakes, Lizards, Baby Turtles, also general line of Florida insects. NAT. P. FRY, Eureka, Marion County, Florida. (1-p)

FOR SALE.—5 x 7 photographs of the nests and eggs of 26 species of birds of this locality. Mr. I. E. Hess says they are as good as he has seen. Send 40c in stamps for one. E. PERRY, 610 Baylor St., Austin, Texas.

WANTED.—A good Stereopticon Lantern for which I will give good exchange in sets of bird magazines, books and mounted birds. Anyone having such please communicate with ARTHUR W. BROCKWAY, Hadlyme, Conn.

FOR SALE.—Cocoons of the Promethea, Cocropia, Polyphemus Io, Luna and Cynthia Moths, in lots as desired. Prices upon application. Will also exchange for species of the far west. Have lot of Devonian fossils in Oriskany sandstone also to offer in exchange for others. LOUIS S. KOHLER, Bloomfield, N. J.

Harrington & Richardson 44 Caliber Taxidermist shot gun. Also one in .16 gauge. Snapping Turtle 1-33, 1-41, 1-46. Want A. I. sets with data. JAMES O. JOHNSON, 310 North Main, Southington, Conn.

WANTED.—I wish to purchase a second hand 22 caliber collecting gun, suitable for shot cartridges. R. P. SHARPLES, West Chester, Pa.

FOR SALE—Revolving Back Cycle Graphic Camera and complete outfit for developing and finishing, almost new and in perfect condition. Lens and shutter equipment consist of Bausch and Lomb Zies Tessor No. 16 series, I, C, F 4.5 and No. 2 Telephoto in Optimo shutter with speed up to 1-300 of a second. Bausch and Lomb Zies Protor series VII Nos. 3, 4 and 5 in No. 3 Compound shutter and Bausch and Lomb Zies Protor series IV No. 4 and series V No. 2 in No. 1 Volute shutter. Will sell the entire outfit or split it up for just ½ catalogue price. If you want something of the best in this line write for particulars and sample photo. ELTON PERRY 106 Baylor St., Austin, Texas.

STATEMENT OF OWNERSHIP, MANAGEMENT, ETC.

Of the Oologist, published monthly at Albion, N. Y., required by the Act of August 24, 1912.

Editor, R. M. Barnes, Lacon, Ill.; Managing Editor, R. M. Barnes, Lacon, Ill.; Business Manager, R. M. Barnes, Lacon, Ill.; Publisher, R. M. Barnes, Lacon, Ill. Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities, None.

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Sworn to and subscribed before me this 1st day of April, A. D. 1916.

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THE CONDOR

A Magazine of Western
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CONDOR Ornithological Club of California

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BOOKS—Continued

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WANTED.—"The Auk," Vols. I and VI (inclusive) odd volumes or odd numbers. W. LEE CHAMBERS, Eagle Rock, Los Angeles County, California.

WANTED.—Bulletin of the Cooper Ornithological Club, Vol. I, odd numbers. W. LEE CHAMBERS, Eagle Rock, Los Angeles County, Calif.

FOR SALE—Out of print Ornithological books by Bendire, Cones, Ridgway, Goss, Baird and Dawson. All bird magazines. W. J. ERICKSON, 208 West 40th St., Savannah, Ga.

FOR EXCHANGE.—Back volumes of the Auk in original cover; also American and foreign bird skins for A. I. skins of Western and foreign birds. HENRY K. COALE, Highland Park, Ill.

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals [mostly Ornithological] to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. [2-p]

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WANTED.—For cash "The Oologist" (this magazine) Volume 3 No. 4 and Volume 4 No. 1 to complete my personal file. CHARLES A. HEWLETT, Woodmere, N. Y.

WANTED.—In good condition: Nidologist Vol. 1, No. 6; Osprey of Washington, Vol. IV No. 3 and index; Vol. I New Series 1902 No. 4-5-7; Bird Lore Vol. 1 No. 2-3-4-6 and index; Vol. II No. 1, 1-2-5; Vol. III No. 1-2-3-6; Vol. IX No. 6 and index. How many back numbers Oologist, Osprey, Bird Lore, Museum and some others to exchange for any of above. Will pay a reasonable cash price, and will sell any of my duplicates, cheap. JOHN WILLIAMS, Iowa City, Ia., R. No. 9.

MISCELLANEOUS.

WANTED.—To buy an egg cabinet from some one in the vicinity of Boston. EDWARD S. COOMBS, Boston, Mass.

Cuts of North American Birds wanted. Half tones preferred. Send proofs of those you have and state lowest cash price. ERNEST S. NORMAN, Kalevala, Manitoba.

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FOR SALE.—5 x 7 photographs of the nests and eggs of 26 species of birds of this locality. Mr. J. E. Hess says they are as good as he has seen. Send 40c in stamps for one. E. PERRY, 610 Baylor St., Austin, Texas.

WANTED.—A good Stereopticon Lantern for which I will give good exchange in sets of bird magazines, books and mounted birds. Anyone having such please communicate with ARTHUR W. BROCKWAY, Hadlyme, Conn.

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For these I will allow twice Lattin's 1905 exchange rates, and I have a very unusual exchange list to select from.

R. M. BARNES, Lacon, Ill.

To the Editor of THE OOLOGIST:

I wish to express, through the columns of your most popular little publication, the vast assistance I received through the insertion of my last two exchange notices.

An Oologist, who has always been extremely particular in assembling a collection of birds eggs, will be disappointed when he notes the condition of many so-called "First class birds skins." I found it necessary to decline many skins that were far from perfect, yet these same correspondents knew what a perfect clutch of eggs consisted of. At this writing I am only lacking six first class male Warblers to complete a collection of skins to become identified with my now complete collection of Warbler eggs. These varieties are the Hermit, Olive, Grace's, Lucy's, Virginia's, and Painted Redstart. No doubt, these will be forthcoming soon, as I have located the men in the field who can get them for me.

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WANTED.—A good Graflex Camera, either 4 x 5 or 5 x 7. Will give good exchange in sets, mounted birds, back volumes to Auk, Oologist, Condor and books on birds. ARTHUR W. BROCKWAY, Hadlyme, Conn.

FOR SALE.—Fishers Hawks and Owls; Birds of America, Audubon, Vol. 2 (tw. plates and binding injured) Vol. 4 good; Geological Survey West of 100 Mer., 8 Vols.; Geol. Zoology, Botany, Archaeology, etc. complete sets; cash. GEO. W. H. VOS BURGH, Columbus, Wis.

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FOR SALE.—Cocoons of the Promethea, Cocropia, Polyphemus Io, Luna and Cynthia Moths, in lots as desired. Prices upon application. Will also exchange for species of the far west. Have lot of Devonian fossils in Oriskany sandstone also to offer in exchange for others. LOUIS S. KOHLER, Bloomfield, N. J.

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MR. READER, these words are meant for you because we believe you are interested in THE OOLOGIST and its future. To the usefulness of this future you can add your mite if you will. It is easy enough for each one of you to add at least one new subscriber to the subscription list for 1916.

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EDITOR

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EDITOR

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXIII. No. 5. ALBION, N. Y., MAY 15, 1916. WHOLE No. 346

BRIEF SPECIAL ANNOUNCEMENTS

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Entered as second-class matter December 21, 1903, at the post office at Albion, N. Y., under the Act of Congress of March 3, 1879.

In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpeter Swan. R. M. Barnes, Lacon, Ill.

Would like to exchange Pheasant Eggs suitable for hatching, for Prairie Chicken or Ruff Grouse eggs, fresh and handles so they will hatch. Would like to correspond with parties that can furnish these eggs. W. E. SURFACE, Decatur, Ill.

I have a lot of fine duck skins with heads folded over the back which I will exchange for skins of common small land birds. A. C. BENT, Taunton, Mass.

Brant, Snow or Blue Geese, Eagles, Ducks, Prairie Chicken, Mountain Quail, Bob and Ring Tail Cats, Fisher, Wolverine, Gray Fox, Mountain Lion, Beaver, Snakes, Ling, Gar, and other fish. Fresh skins, in meat or alive, wanted for Public Museum, offer minerals, fossils, shells, curios, relic. Publication on cash. DEAN'S NAT. SCIENCE ESTABLISHMENT, Alliance, O.

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In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

WANTED—Sets of 6, 77, 224, 261, 273, 420, 388, 619 and many others for all kinds of Sea Birds' eggs. W. RAIN, 50 Waverly Road, Toronto, Canada.

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FOR SALE.—Bird Lore, No. 1 Vol. 4 to No. 6 Vol. 17. Clean, complete and all indexes. \$21.00 cash. ALFRED L. MARSHALL, Weeping Water, Nebr.

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

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FOR EXCHANGE.—Mounted birds, No. 51, 137, 139, 230, 339, 360, for eggs. RAMON GRAHAM, 401 W. Leuda St., Fort Worth, Texas. (1-p)

EGGS.

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FOR SALE.—One 4 x 5 long focus reversible back Premo; one 5 x 7 Crown Anastigmat F4.5 lens in flex Acme shutter; one 4 x 5 plate tank, and other photographic accessories. A. D. DUBOIS, Dutton, Montana.

Coati-Mundi (*Nasua narica*). These animals are related to our Northern Racoons, but inhabit the tropic and sub-tropic regions. I have a specimen nicely mounted on a polished stand. Can probably furnish a photo. For full description, price, etc. address MILTON J. HOFMANN, 1818 Bleecker St., Brooklyn, N. Y.

Wanted rare American Indian or ancient Egyptian relics. Can offer thousands of cut and polished precious and semi-precious stones suitable for mounting on the cabinet, also high grade cameras. L. V. CASE, Tarrytown, N. Y. (p-1)

WANTED. Correspondence with collectors of butterflies. DR. T. W. RICHARDS, U. S. Navy, care of Navy Department, Washington, D. C. (1-p)

STATEMENT OF OWNERSHIP, MANAGEMENT, ETC.

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R. M. BARNES.

Sworn to and subscribed before me this 1st day of April, A. D. 1916.

ERNA THIEDOHR,
 Notary Public.

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 All the News for All the Boys

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THE CONDOR

A Magazine of Western
 Ornithology

Published Bi-monthly by the

CoopER Ornithological Club of California

Edited by J. Grinnell and Harry S. Swarth

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 Eagle Rock, Los Angeles, Cal.

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R. M. BARNES, Lacon, Ill.

BOOKS—Continued

WANTED.—Ornithologist and Oologist Vol. I-5, Osprey Vol. I No. 2 and 4. Address write price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR SALE.—Bendire's "Life Histories of North American Birds" two volumes, newly bound half morocco; perfect condition, price \$16.00. A. F. SMITHSON, Warrensburg, Mo.

WANTED.—Sport in Crimes and Caucasus, Savage Svanetia, both by C. Phillips, Wooley. Address with price. WM. J. HACKMEIER, 645 Golden Gate Ave., San Francisco, Cal.

Frank L. Burns' Bibliography of scarce or out of print North American Amateur and Trade Publications in existence. Price 25c. R. M. BARNES, Lacon, Ill.

Who has any odd numbers of the 1913-1914 OOLOGIST to exchange? I have some odd numbers of the OOLOGIST and CONDOR. D. J. SHEPARDSON, 209 E. 37th St., Los Angeles, Cal.

WANTED.—"The Auk," Vols. I and VI (inclusive) odd volumes or odd numbers. W. LEE CHAMBERS, Eagle Rock, Los Angeles County, California.

WANTED.—Bulletin of the Cooper Ornithologic Club, Vol. I, odd numbers. W. LEE CHAMBERS, Eagle Rock, Los Angeles County, Calif.

FOR SALE.—Out of print Ornithological books by Bendire, Cones, Ridgway, Goss, Baird and Dawson. All bird magazines, W. J. ERICKSON, 208 West 40th St., Savannah, Ga.

FOR EXCHANGE.—Back volumes of the Auk in original cover; also American and foreign bird skins for A. 1, skins of Western and foreign birds. HENRY K. COALE, Highland Park, Ill.

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals [mostly Ornithological] to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. 12-p]

EXCHANGE.—A small collection of Indian relics; a few books on natural history, birds, biological survey publications and magazines for eggs in sets only. RALPH W. JACKSON, Cambridge, Maryland, R. I.

FOR EXCHANGE.—American Naturalist 1868, 1889, 1884, 1887, six volumes half leather. Wanted Smithsonian Annual Reports for 1900, 1901, 1903, 1904, 1905, 1906. JOHN THOMPSON, Clinton, N. Y.

FOR SALE BIRD LORE.—Lot A, Vols. I to XII inclusive without volume indexes; Lot B, Vol. II No. 1 to Vol. XII No. 2, inclusive without volume indexes and Vol. II No. 2 missing. Will not break lots. State best cash offer. THOMAS L. MCCONNELL, 183 Huey St., McKeesport, Pa.

WANTED.—A copy of Loomis' "California Water Birds, No. IV," for which I will pay any reasonable price. W. E. CLYDE TOOD, Carnegie Museum, Pittsburgh, Pa.

FOR SALE.—Auk, Vol. 16 to 32 inclusive. Also several volumes of Condor, and Osprey. No reasonable offer refused. E. J. WHEELER, 177 Pequot Ave., New London, Conn.

EXCHANGE—Birds and all nature, March, April, May, June and November 1899 for best offer. JOHN THOMPSON, Clinton, N. Y.

WANTED.—Back numbers of Condor, Bird Lore and others. Exchange in other numbers a reasonable cash price. E. A. DOOLITTLE, Box 444, Painesville, O.

WANTED.—For cash "The Oologist" (this magazine) Volume 3 No. 4 and Volume 4 No. 1 to complete my personal file. CHARLES A. HEWLETT, Woodmere, N. Y.

WANTED.—In good condition: Nidologist Vol. I, No. 6; Osprey of Washington, Vol. IV No. 3 and index; Vol. I New Series 1902 No. 4-5-7; Bird Lore Vol. 1 No. 2-3-4-6 and index; Vol. II No. 1-2-5; Vol. III No. 1-2-3-6; Vol. IX No. 6 and index. How many back numbers Oologist, Osprey, Bird Lore, Museum and some others to exchange for any of above. Will pay a reasonable cash price, and will sell any of my duplicates, cheap. JOHN WILLIAMS, Iowa City, Ia., R. No. 9.

MISCELLANEOUS.

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WANTED.—Fresh skins. Avocet, Curlew, Hisee, Sage Hens, Ringtail, Cat, Civit Prairie Dog, Possum. Give Wood Duck, Snow, Great Grey Hawk Owls, Foreign Skins, White Tail Deer, Scapls and Horns. Want Cocoons of Moths, Tarantulas, Centipedes. Mounted Wild Passenger Pigeon for sale. A. TRAF-FORD, Taxidermist, St. Eugene, Ont. Canada

FOR SALE.—5 x 7 photographs of the nests and eggs of 26 species of birds of this locality. Mr. I. E. Hess says they are as good as he has seen. Send 40c in stamps for one. E. PERRY, 610 Baylor St., Austin, Texas.

WANTED.—A good Stereopticon Lantern for which I will give good exchange in sets of bird magazines, books and mounted birds. Anyone having such please communicate with ARTHUR W. BROCKWAY, Hadlyme, Conn.

Harrington & Richardson 44 Caliber Taxidermist shot gun. Also one in 16 gauge. Snapping Turtle 1-33, 1-11, 1-16. Want A. 1. sets with data. JAMES O. JOHNSON, 310 North Main, Southington, Conn.

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THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXIII. No. 9. ALBION, N. Y., SEPT. 15, 1916. WHOLE No. 350

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

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SUBSCRIPTION, 50 CENTS PER YEAR

Examine the number on the wrapper of your Oologist. It denotes the time your subscription expires. Remember we must be notified if you wish it discontinued and all arrearages must be paid. 350 your subscription expires with this issue. 341 your subscription expired with December issue 1915. Other expirations can be computed by intermediate numbers at the rate of one number per month.

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Brant, Snow or Blue Geese, Eagles, Ducks, Prairie Chicken, Mountain Quail, Bob and Ring Tail Cats, Fisher, Wolverine, Gray Fox, Mountain Lion, Beaver, Snakes, Ling, Gar, and other fish. Fresh skins, in meat or alive, wanted for Public Museum, offer minerals, fossils, shells, curios, relics. Publication on cash. DEAN'S NAT. SCIENCE ESTABLISHMENT, Alliance, O.

WILL EXCHANGE.—Several fine skins of Phasianias torquatus Ring-necked Pheasant) and a few ducks for smaller species. STANLEY G. JEWETT, 582 Bidwell Ave., Portland, Oregon.

We are anxious at all times to secure rare bird skins and eggs. Send us a list of your list of material and of your wants. We can offer at present specimens as the Ivory-billed Woodpecker, Passenger Pigeon, Scarlet Ibis, Blue-headed Quail Dove, White and Gray Gyrfalcons, Black-capped Vireo, Golden-cheeked Warbler and soon. Write us today. WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.

FOR EXCHANGE—Mounted bird skins and eggs, want bird skins American and foreign, send lists. JESSE T. CRAVEN, 811 Roosevelt Ave., Detroit, Mich.

Who wants three Golden Eagles and two Bald Eagles, hand raised, 3 and 4 years old? E. F. POPE, Colmesneil, Texas.

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FOR EXCHANGE.—Mounted birds, No. 51, 137, 139, 230, 339, 390, for eggs. RAMON GRAHAM, 401 W. Leuda St., Fort Worth, Texas. (1-p)

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FOR EXCHANGE.—Mounted Birds and finely prepared sets for Entomology supplies and books. Send list to GUY LOVE, Oberlin, Kansas, R. R. No. 5.

FOR EXCHANGE.—Eggs of Coots, Florida Gallinules, Night Heron, T. B. Grebes, Least Bitterns, Black Terns, Killdeers, etc. DELOS HAICH, Oakfield, Wis.

Steel Specimen Cases, absolutely dust and insect proof. Designed for bird or mammal skins, or birds' eggs. For specifications and prices write W. HUBER, Gwynedd Valley, Pa.

FOR EXCHANGE.—Nests and sets of 316, 339, 360, 373, 443, 488, 498, 505, 513, 552, 593, 604, 633, 703, 704, 735. RAMON GRAHAM, "Taxidermist," 401 W. Ieuda St., Fort Worth, Tex. (1)

FOR EXCHANGE.—Full sets of 1, 3, 11, 16, 30, 32, 37, 49, 53, 65, 71, 77, 80, 108, 117, 120c, 121, 122, 126, 141, 155, 188, 191, 197, 201, 203, 208, 212, 214, 219, 225, 226, 227, 228, 230, 243, 261, 263, 264, 269, 275, 280, 293, 294, 329, 331, 333, 335, 337, 337b, 339, 339b, 341, 343, 348, 355, 359, 360, 360a, 362, 364, 365, 366, 367, 373, 375, 375d, 378, 385, 387, 388, 390, 406, 409, 414, 413, 416, 420, 423, 431, 444, 452, 456, 461, 466a, 467, 474b, 475, 477, 477a, 488, 494, 498, 501, 506, 513, 529, 540, 566, 584, 595, 598, 608, 611, 612, 613, 622, 627, 628, 631, 652, 656, 658, 659, 667, 674, 577, 679, 681, 683, 687, 704, 705, 713, 725, 735, 756, 761 and 766. OTOMAR REINECKE, 400 Elm St., Buffalo, N. Y. (1-p)

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NOVA SCOTIA BIRDS EGGS.—A few personally collected sets of eggs from this region, in beautiful sets of Nos. 228, 334, 459, 517, 567, 648a, 655, 657, 667, 740a, 748 and others. Write for my list. R. W. TUFTS, Wolfville, Nova Scotia.

EGGS

Will exchange mounted birds for eggs in sets with original data. Also have fine sets to exchange. MEARL B. WHEELER, East Randolph, N. Y.

FOR EXCHANGE.—European and Asiatic bird eggs in sets with data for eggs of North American species needed for my collection. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR EXCHANGE.—5 x 7 photographs of nests with eggs of 26 species in this locality with full sets of eggs of all common species on basis of 40 cents each. These are extra good photos. ELTON PERRY, 610 Baylor St., Austin, Texas.

FOR EXCHANGE.—191 1-4, 299b, 1-11, 291 1-11, 293a 1-12, 293 1-11, 310c 1-12, 326 1-2, 333 1-4, 337a 1-3, 335 1-3, 340 1-2, 341 1-3, 345 1-3, 368b 1-2, 373b 1-4, 416 1-2, 421 1-2, 420c 1-2, 453 1-5, 487 1-5, 501a 1-5, 593c 1-3 1-4, 594 1-4, 630 n-4, 703 1-5, 717a 1-5, 718b 1-5, 732 1-6, 736a n-6, and others. The above all A1 material, personally collected. E. F. POPE, Colmesneil, Texas.

Small collection Japanese eggs. 25 species, 42 sets 160 specimens, all carefully prepared, correctly named and with date, many very beautiful. Free by parcel post for \$15 or would exchange for handsome sets A. O. U. 364 List sent. Address "Collector," 15 Beaufort, West Balti, England. (9-3)

First-class eggs in sets from this locality to exchange for Ornithological papers, N. A. Fauna's, Biological Survey Bulletins, etc. CHAS. W. TINDALL, Independence, Mo. (1-p)

Want southern and Western sets, some quite common. Have to exchange northern seabird sets, 4 x 5 camera etc. Climbers, and stamps. Write F. M. CARRYL, 19 Burnett St., Maplewood, N. J. (1-p)

Wanted to exchange a few first-class sets of the American Osprey. R. B. OVERINGTON, 120 W. Lancaster Ave., Wayne, Pa. (1-p)

WANTED.—349 1-2 well marked for which I offer the following sets 352 1-2, 663 n-4, 4161-2. T. D. PERRY, Savannah, Ga.

Will exchange for first class eggs only, singles or sets, including most Raptors, Warblers, Sparrows, sea-birds and water-birds, the following articles, 1 Stewart bangle-urine, 1 guitar, 1 mandolin, a kodak, a good 4 Volume Universal Dictionary and many school and college text books and cabinet work. Best offer accepted. H. L. MOODY, Lake Wilson, Minn.

Exchange desired with those having eggs in sets, bird and mammal skins and first class photos of birds and nests in situ. Offer sets, skins of water fowl taken in open season, many duplicate books and separates on birds; or cash. Small but complete collections of your local bird skins desired for museum. THE BAILEY MUSEUM OF NATURAL HISTORY, 54th St., Newport News, Virginia. (1-p)

BOOKS.

Will exchange telescope, French glass about 16 diameters, 1 1/2 inch diameter objective, brass mounting, slightly used—for Dawson's Birds of Ohio, Eaton's Birds of New York or similar work. T. L. MCCONNELL, 1813 Huey St., McKeesport, Pa.

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXIII. No. 12.

ALBION, N. Y., DEC. 15, 1916.

WHOLE No. 353

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EXCHANGE.—I want a pair each of strictly first-class skins of a number of eastern warblers and sparrows, including many common kinds, for which I can offer some western Oregon land birds. If interested, please send list. Who can use good skins of Mountain Beaver (*Aplodontia pacifica*) for cash? ALEX WALKER, Hemlock, Oregon. (1-p)

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Collection of 120 sets for Parker 16 Gauge guns. Dr. A. H. GRUBB, West Chester, Penn.

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WANTED.—All sets of my taking except Nos. 316, 326, 373b, 443, 452, 506, 511b, 552, 593, 601, 663, 703, 719c. ELTON PERRY 610 Baylor St., Austin, Texas.

Will exchange mounted birds for eggs in sets with original data. Also have fine sets to exchange. MEARL B. WHEELER, East Randolph, N. Y.

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Edited by J. Grinnell and Harry S. Swarth

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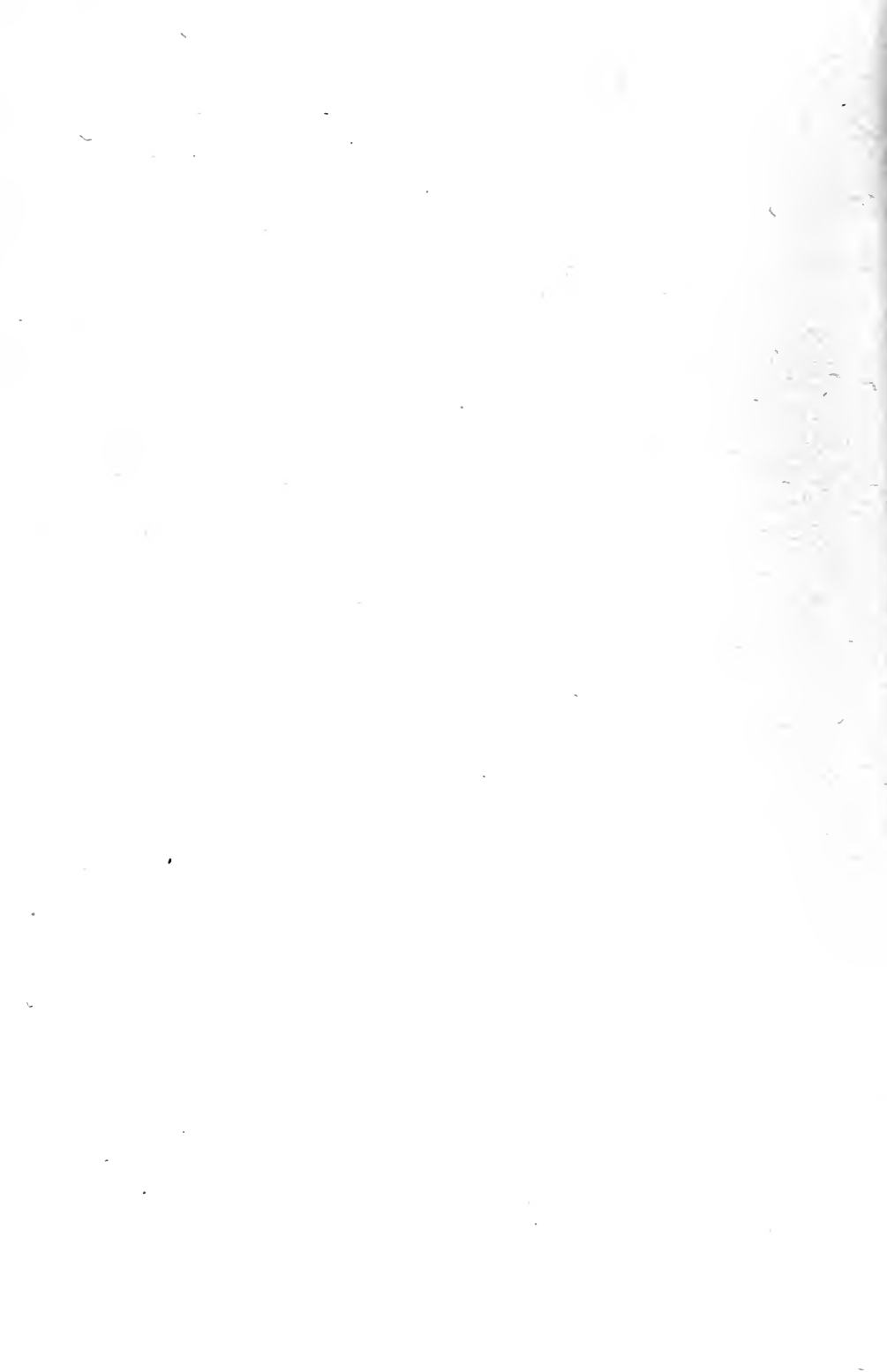
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