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NATIONAL RESERVATIONS FOR THE PROTECTION OF WILD LIFE.

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During the past 40 years numerous reservations have been created which directly or incidentally protect wild life. The largest and best known is the Yellowstone National Park, established by act of Congress on March 1, 1872. Although usually considered the first, it is not as old as several lighthouse reservations which in recent years have become important refuges. Since 1872 other national parks have been set aside, military parks have been established on famous battlefields, national monuments have been created for the protection of objects of scientific interest, and bird reservations have been set aside for the protection of breeding grounds of waterfowl and other birds. Some of these reservations, including the military parks and some of the national monuments, although established primarily for other purposes, afford refuges for birds and game.

These reservations are under the jurisdiction of five departments of the Government, the Smithsonian Institution, and the District of Columbia.¹ Their number, location, area, administration, the authority under which they were created, the purpose for which they are maintained, and the species which receive protection within their boundaries are not generally known. Inasmuch as information on some of these points is not readily available, the present circular has been prepared to bring together for convenient reference the more important facts regarding the various reservations. Obviously it is impracticable to enter into a description of each of the parks and refuges or the species which occur in them. The most that can be done is to give references to other sources where this information may be obtained.

¹ Sixty-six are under the Department of Agriculture, 12 under the Department of the Interior, 9 under the Department of Commerce and Labor, 5 under the War Department, 1 under the Navy Department, 1 under the Smithsonian Institution, and 1 under the District of Columbia.

The number of reservations which may properly be considered refuges for the protection of wild life is somewhat indefinite. The following list includes the larger national parks, five of the 28 national monuments, and the principal military parks. It does not include the national cemeteries or the soldiers' homes, several of which, as those at Washington, D. C., Togus, Me., and Santa Monica, Cal., form important refuges for birds and small game. No attempt has been made to enumerate any of the life-saving stations or more than a few of the more important lighthouse reservations which have colonies of sea birds or rookeries of sea lions. The total number of reservations in the following list is 95, scattered in 26 States and Territories and the District of Columbia. These refuges include: (a) 10 national parks; (b) 5 national military parks; (c) 9¹ national game preserves and other refuges for wild life; (d) 56² national bird reservations; (e) 10 reservations for aquatic species; and (f) 7 national reservations made game preserves in whole or in part by State laws.

Notwithstanding the apparently large number of refuges, their combined area is relatively small. The total area of the 10 national parks and the 5 military parks is less than 5,000,000 acres. The only other large refuges are the Grand Canyon and Wichita Game Preserves, the Colorado, Mount Olympus and Mukuntuweap National Monuments, the Montana National Bison Range, the Superior National Forest, and parts of the Absaroka, Boise, and Teton National Forests which have been made State game preserves; and finally five of the bird reserves, the Hawaiian, Klamath, Malheur, Niobrara, and Yukon Delta. Most of the refuges are on waste, mountain, or marsh land, or on small islands of no agricultural value. When compared with the series of extensive parks and game preserves created in Canada in recent years or the still more extensive game preserves in the British Colonies in Africa, the area devoted in part to the increase of wild life in the United States is still very small.

NATIONAL PARKS.

Of the 16 national parks, 10 may properly be considered game refuges. All parks (except the National Zoological Park) which contains less than 1,000 acres are omitted. The Mesa Verde National Park, Colo. (217,736 acres), and some of the smaller parks, including the Casagrande Ruins, Ariz. (480 acres); Hot Springs, Ark. (912 acres); Platt, Okla. (848 acres); Potomac Park, D. C. (739 acres); and Sullys Hill Park,³ N. Dak. (780 acres), are not especially

¹ One, the Pinnacles National Monument, has been made a State game preserve and also appears under f.

² One, the Pribilof Bird Reserve, was subsequently included in the Pribilof Fur Seal Reservation and is enumerated under c.

³ Sullys Hill Park should perhaps be included. If fenced it would make a small but valuable deer park and game preserve.

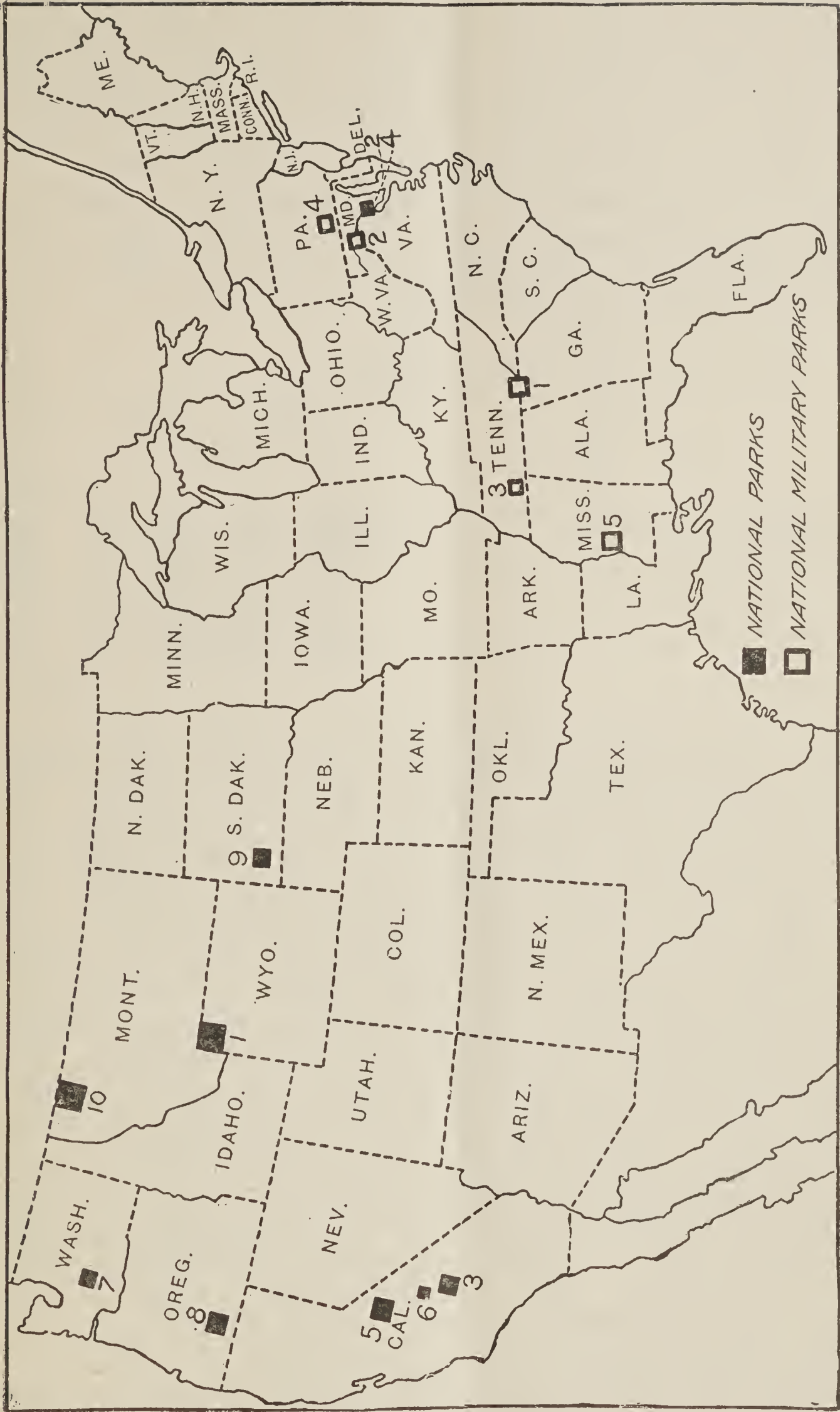


FIG. 1.—Map showing location of national parks and national military parks.

adapted for game refuges and consequently are not included in the following list. Of the 10 game refuge parks 8 are under the jurisdiction of the Department of the Interior, the National Zoological Park is under the Smithsonian Institution, and the Rock Creek Park is in charge of a board of control consisting of the Commissioners of the District of Columbia and the Chief of Engineers of the Army. The mammals and birds in the Yellowstone National Park are protected by a comprehensive law (28 Stat., 73) enacted in 1894, those in the National Zoological Park and the Rock Creek Park by the laws of the District of Columbia, and those in other parks by regulations of the Secretary of the Interior.

List of national parks which serve as game refuges.

Names.	Date established.	Act of Congress.	Area.
			<i>Acres.</i>
1. Yellowstone, Wyo.....	Mar. 1, 1872	17 Stat., 32	2, 142, 720
2. National Zoological Park, D. C.....	Mar. 2, 1889	25 Stat., 808	167
3. Sequoia, Cal.....	Sept. 25, 1890	26 Stat., 478	161, 597
4. Rock Creek Park, D. C.....	Sept. 27, 1890	26 Stat., 492	1, 606
5. Yosemite, Cal.....	Oct. 1, 1890	26 Stat., 650	719, 622
6. General Grant, Cal.....	do.....	26 Stat., 651	2, 536
7. Mount Rainier, Wash.....	Mar. 2, 1899	30 Stat., 993	207, 360
8. Crater Lake, Oreg.....	May 22, 1902	32 Stat., 202	159, 360
9. Wind Cave, S. Dak.....	Jan. 9, 1903	32 Stat., 765	10, 522
10. Glacier, Mont.....	May 11, 1910	36 Stat., 354	915, 000
Total, 10 parks.....			4, 320, 490

Most of these parks have more or less big game and this element of the fauna is probably the one of most general interest. The General Grant, Rock Creek, and Wind Cave Parks have little or no native big game, but a movement is now under way to utilize the Wind Cave Park as a game preserve and stock it with buffalo, elk, and other species. The National Zoological Park contains one of the largest collections of living mammals and birds in the United States, and is especially rich in native species. The Yosemite and Sequoia Parks have little big game beside deer and bears, although the Sequoia has a few mountain sheep (recently described as a new species) on some of the higher peaks and a small herd of dwarf elk in an inclosure on the Kaweah River. Crater Lake and Mount Rainier have deer, bears, and beaver. Mount Rainier has also a number of mountain goats, and Glacier Park, beaver, deer, elk, moose, sheep, and many goats and bears. The Yellowstone Park has by far the greatest herds of big game, including a few hundred antelope and mountain sheep, about 150 buffalo (most of which are under fence), many deer, moose, bears, and beaver, and the largest herds of elk on the continent.

The only efforts at restocking with big game have been the purchase of a herd of buffalo for the Yellowstone Park in 1902, and the transfers of a small herd of dwarf elk to the Sequoia Park in 1905, a herd

of elk from the Yellowstone to the Glacier Park in 1912, and a few beaver from the Yellowstone to other parks. Large numbers of fish have been planted in the waters of the Yellowstone Park and streams which were formerly barren have been successfully stocked so that fishing is now one of the attractions of the park.

Estimates of big game in Yellowstone National Park, 1891-1912.

[From annual reports of the superintendents.]

Years.	Elk.	Moose.	Antelope.	Sheep.	Buffalo (wild).	Buffalo (captive).
1891.....	25,000				400	
1893.....	25,000		400-500		400	
1895.....	25,000		800		200	
1897 ¹	30,000	300	1,000	50-100	20-30	
1899.....	35,000-60,000		700-800		50	
1901.....	25,000				25	
1902.....				56	22	20
1903.....			1,000	100		27
1904.....			1,150	200		39
1905.....			1,500	100		44
1906.....			2,000			57
1907.....	25,000-40,000		2,000	200	25	59
1908.....	40,000-50,000		2,000		32	74
1909.....	30,000-40,000					95
1910.....	30,000-40,000	² 1,550	600	150	34	121
1911.....						147
1912.....	35,000	550	520	210	49	

¹ Ernest Seton Thompson, *Recreation*, VIII, pp. 367-371, 1898.

² Estimate of George Shiras 3d.

A brief explanation of these figures is necessary. The first actual census of elk, made in the spring of 1912, showed that the number which wintered near Mammoth Hot Springs was 27,800, and if those which wintered in the National Forests along the northern border of the park are added, the number is increased to 30,100. The number of antelope increased steadily from 1904, the date when the alfalfa field near Gardiner was planted for their benefit, until 1909. In the winter of 1909-10 the herd escaped through the fence along the northern boundary line, and only 600 or 700 were rounded up and returned to the park. The wild buffalo suffered severely from the attacks of poachers during the winter of 1893-94, and for several years after their number was overestimated. In 1902, when they were almost destroyed, Congress made an appropriation for the purchase and maintenance of a herd of captive buffalo. This herd of 20 animals was secured from the Allard and Goodnight herds, and increased steadily until the summer of 1911, when it numbered 147. During the following winter 23 died from *hæmorrhagic septicæmia* before the disease was stamped out.

NATIONAL MILITARY PARKS AND RESERVATIONS.

The national military parks have been created on a few of the battle fields to commemorate some of the more important engagements of the Civil War in Pennsylvania, Maryland, Georgia, Tennessee, and Mississippi. The total area of the five parks is 11,348 acres. They are under the jurisdiction of the War Depart-

ment, and each of those at Gettysburg, Chickamauga, Shiloh, and Vicksburg is administered by a special commission of three members which reports annually to the Secretary of War.

Their importance as refuges is due to the fact that they furnish absolute protection at all seasons to small mammals and birds under a comprehensive law for the protection of wild life, enacted in 1897 (29 Stat., 621). Moreover, their location is such that, taking into consideration other military reservations, as the national cemeteries at Arlington and Fredericksburg, Va., and at other points, they practically form a chain of refuges for migratory land birds almost directly in the line of their northward flight. These reservations are as follows:

National military parks.

Names.	Date established.	Act of Congress.	Area.
			<i>Acres.</i>
1. Chickamauga and Chattanooga, Ga.-Tenn	Aug. 19, 1890	26 Stat., 334	6,195
2. Antietam, Md.	Aug. 20, 1890	26 Stat., 401	43
3. Shiloh, Tenn.	Dec. 24, 1894	28 Stat., 597	3,000
4. Gettysburg, Pa.	Feb. 11, 1895	28 Stat., 651	877
5. Vicksburg, Miss.	Feb. 21, 1890	30 Stat., 841	1,233
Total, 5 parks.			11,348

Some of the national soldiers' homes have extensive grounds which form parks or refuges where birds and small game are protected. Several of these homes, notably those at Togus, Me., Johnson City, Tenn., and Santa Monica, Cal., have birds or deer and elk in captivity. National cemeteries likewise furnish important refuges for migratory or breeding birds, but no effort has been made to include them or the soldiers' homes in this list.

NATIONAL GAME PRESERVES AND OTHER REFUGES FOR WILD LIFE.

Under this heading are included nine reservations, chiefly for big game. They comprise two national game preserves in Arizona and Oklahoma; the National Bison Range in Montana; the Mount Olympus National Monument in Washington; the small Fire Island moose reservation in Cook Inlet, Alaska; and the Muir Woods and Pinnacles National Monuments in California; the Colorado National Monument; and the Mukuntuweap National Monument in Utah. The Department of Agriculture has jurisdiction over the two game preserves and the Mount Olympus National Monument, which are under the immediate charge of the Forest Service, and the bison range and moose reservation, which are in charge of the Biological Survey; and the Department of the Interior has jurisdiction over the other four national monuments. The wild life on the game preserves and the national monuments is protected by the acts under which these reservations were created, and the buffalo on the bison range, the elk on the Mount Olympus National Monument, and the moose

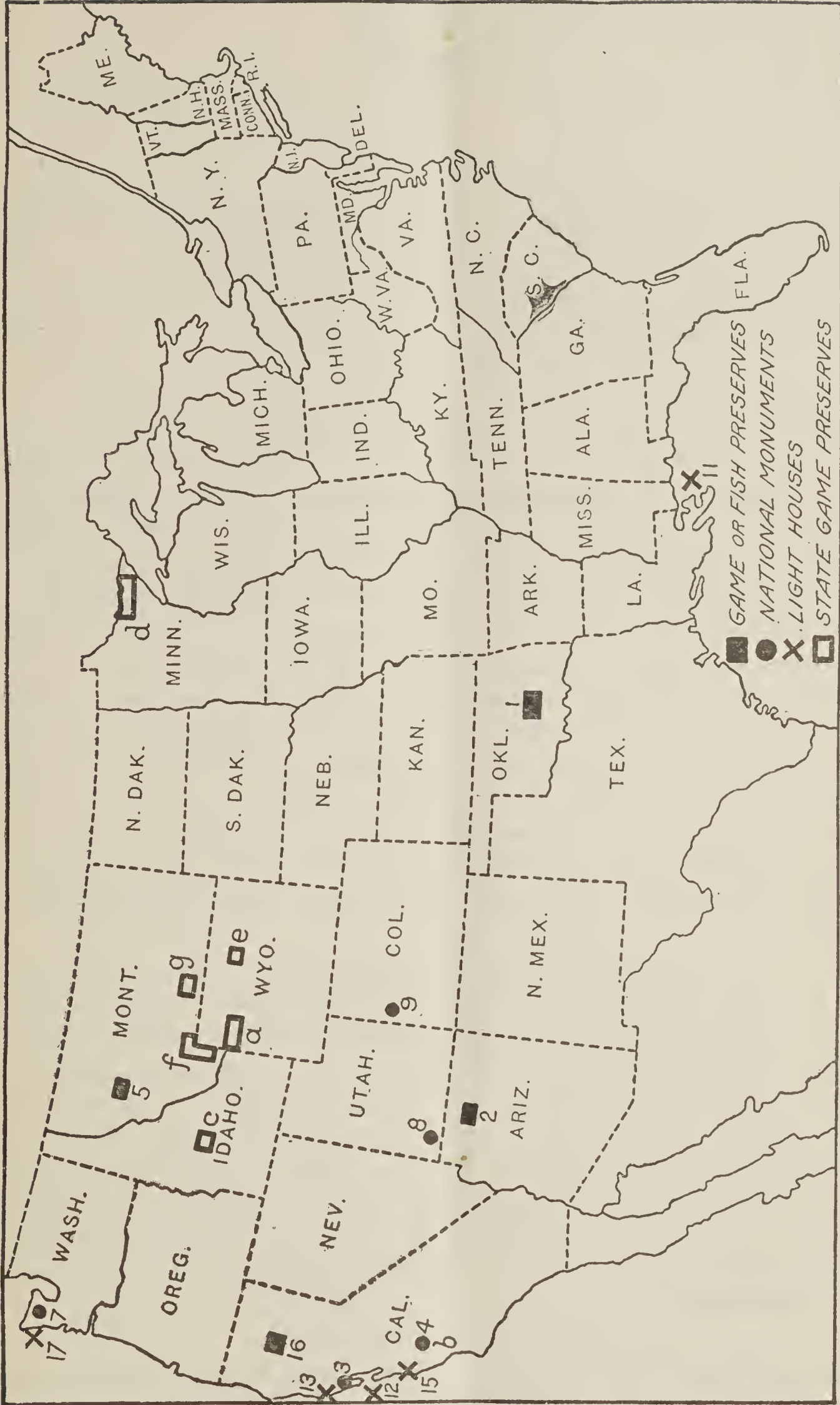


FIG. 2.—Map showing location of national game preserves and other reservations.

on Fire Island are protected throughout the year under the game laws of Montana, Washington, and Alaska.

List of reservations.

Name.	Date established.	Act of Congress.	Area.
			<i>Acres.</i>
1. Wichita Game Preserve, Okla.....	Jan. 24, 1905	33 Stat., 614	57,120
2. Grand Canyon Game Preserve, Ariz.....	June 29, 1906	34 Stat., 607	¹ 1,492,928
3. Muir Woods National Monument, Cal.....	Jan. 9, 1908	.....	295
4. Pinnacles National Monument, Cal. ²	Jan. 16, 1908	.....	2,080
5. National Bison Range, Mont.....	May 23, 1908	35 Stat., 251	18,521
6. Fire Island, Alaska.....	Feb. 27, 1909	.....	.....
7. Mount Olympus National Monument, Wash.....	Mar. 2, 1909	.....	608,640
8. Mukuntuweap National Monument, Utah.....	July 31, 1909	.....	15,840
9. Colorado National Monument, Colo.....	May 24, 1911	.....	13,883

¹ Area under proclamation of June 3, 1909.

² Also a State game preserve (see p. 15.)

The national game reservations and the Bison Range are the only reservations which have been stocked with big game. On the Wichita and on the Bison Range are herds of buffalo donated, respectively, by the New York Zoological Society in 1907 and the American Bison Society in 1909. The Wichita herd on January 1, 1912, numbered 30, and that on the Bison Range 68. On July 1 these herds had increased to 40 and 81, respectively. Both of these preserves were stocked with small herds of elk and antelope in 1910 and a few more elk were added in 1912. The Wichita preserve also has a few deer. The big game on the Grand Canyon preserve is limited to deer, which are now fairly abundant. A small band of sheep ranges along the canyon walls just east of the preserve, but it is doubtful if any of them are within the boundaries of the reservation. A herd of buffalo and catalo belonging to Col. C. J. Jones was placed on the reservation a few years ago, but has now been transferred elsewhere.

The Mount Olympus National Monument is the home of many deer and the summer range of the Roosevelt elk. Recent estimates indicate that these elk on the Olympic National Forest have increased to about 2,000 head. Fire Island, Alaska, is a small island in Cook Inlet, to which the moose resort in spring to drop their calves. The Muir Woods, consisting of a grove of magnificent redwood trees in Marin County, Cal., shelters a few deer and also affords protection to small mammals and birds which here receive protection throughout the year. The Colorado and the Mukuntuweap National Monuments, comprising rugged canyons, give protection to various birds and small mammals.

NATIONAL BIRD RESERVATIONS.

National bird reservations have been established during the last 10 years by Executive order for the purpose of affording protection to important breeding colonies of water birds, or to furnish refuges for migratory species on their northern and southern flights or

during winter. With few exceptions these reservations are either small rocky islands or tracts of marsh land of no agricultural value, or comprise the smallest legal subdivision of land immediately adjoining the reservoirs on reclamation projects in the West. As most of the reservations are unsurveyed, their area is uncertain, and in only a few cases is the exact area known. Among the small reservations may be mentioned Green Bay, Wis., less than 2 acres in extent; Pelican Island, Fla., less than 6; and Stump Lake, 27 and a fraction acres. On the other hand, the Niobrara Reservation, Nebr., includes 10,000 to 12,000 acres; Klamath Lake and Malheur Lake Reservations in Oregon each comprise extensive strips of marsh lands about the lakes of the same name; the Yukon Delta Reservation in Alaska includes the tundra between the mouths of the Yukon and Kuskokwim Rivers; and the Hawaiian Islands Reservation includes the islands in the Mid-Pacific extending over five degrees of longitude.

The birds on these reservations are protected by a special act of Congress (Crim. Code, sec. 84, 35 Stat., 1104), by the State game laws, and in Oregon by a special provision of the State game law prohibiting burning of tules between March 1 and September 1.

List of national bird reservations July 1, 1912.

[Areas unknown, except as follows: Pelican Island 5.50, Stump Lake 27.39, Passage Key 36.37, and Indian Key 90 acres.]

No.	Name.	Date established.	Executive order No.	No.	Name.	Date established.	Executive order No.
1	Pelican Island, Fla...	{ Mar. 14, 1903 Jan. 26, 1909 }	1014	28	East Park, Cal.....	Feb. 25, 1909	1032
2	Breton Island, La....	Oct. 4, 1904	.....	29	Deer Flat, Idaho.....	do.....	1032
3	Stump Lake, N. Dak.	Mar. 9, 1905	.....	30	Willow Creek, Mont..	do.....	1032
4	Huron Islands, Mich.	Oct. 10, 1905	.....	31	Carlsbad, N. Mex....	do.....	1032
5	Siskiwit Islands, Mich.....	do.....	.....	32	Rio Grande, N. Mex..	do.....	1032
6	Passage Key, Fla.....	do.....	.....	33	Cold Springs, Oreg...	do.....	1032
7	Indian Key, Fla.....	Feb. 10, 1906	.....	34	Belle Fourche, S. Dak	do.....	1032
8	Tern Islands, La.....	Aug. 8, 1907	.....	35	Strawberry Valley, Utah.....	do.....	1032
9	Shell Keys, La.....	Aug. 17, 1907	.....	36	Keechelus, Wash.....	do.....	1032
10	Three Arch Rocks, Oreg.....	Oct. 14, 1907	699	37	Kachess, Wash.....	do.....	1032
11	Flattery Rocks, Wash.....	Oct. 23, 1907	703	38	Clealum, Wash.....	do.....	1032
12	Quillayute Needles, Wash.....	do.....	705	39	Bumping Lake, Wash	do.....	1032
13	Copalis Rock, Wash..	do.....	704	40	Conconully, Wash....	do.....	1032
14	East Timbalier, La...	Dec. 7, 1907	718	41	Pathfinder, Wyo.....	do.....	1032
15	Mosquito Inlet, Fla..	{ Feb. 24, 1908 Apr. 2, 1909 }	1057	42	Shoshone, Wyo.....	do.....	1032
16	Tortugas Keys, Fla..	Apr. 6, 1908	779	43	Minidoka, Idaho.....	{ do..... Feb. 21, 1912 }	1486
17	Key West, Fla.....	Aug. 8, 1908	923	44	Bering Sea, Alaska...	Feb. 27, 1909	1037
18	Klamath Lake, Oreg..	do.....	924	45	Tuxedni, Alaska.....	do.....	1039
19	Lake Malheur, Oreg..	Aug. 18, 1908	929	46	St. Lazaria, Alaska...	do.....	1040
20	Chase Lake, N. Dak..	Aug. 28, 1908	932	47	Yukon Delta, Alaska	do.....	1041
21	Pine Island, Fla.....	Sept. 15, 1908	939	48	Culcbra, P. R.....	do.....	1042
22	Palma Sola, Fla.....	Sept. 26, 1908	942	49	Farallon, Cal.....	do.....	1043
23	Matlacha Pass, Fla...	do.....	943	50	Pribilof, Alaska ¹	do.....	1044
24	Island Bay, Fla.....	Oct. 23, 1908	958	51	Bogoslof, Alaska.....	Mar. 2, 1909	1049
25	Loch-Katrine, Wyo..	Oct. 26, 1908	961	52	Clear Lake, Cal.....	{ Apr. 11, 1911 Jan. 13, 1912 }	1332 1464
26	Hawaiian Islands, Hawaii.....	Feb. 3, 1909	1019	53	Forrester Island, Alaska.....	Jan. 11, 1912	1458
27	Salt River, Ariz.....	Feb. 25, 1909	1032	54	Hazy Islands, Alaska	do.....	1459
				55	Niobrara, Nebr.....	do.....	1461
				56	Green Bay, Wis.....	Feb. 21, 1912	1487

¹ Transferred to Bureau of Fisheries by act of Apr. 21, 1910.

For convenient reference these reservations are arranged alphabetically in the following list:

Belle Fourche, S. Dak.....	34	Green Bay, Wis.....	56	Pelican Island, Fla.....	1
Bering Sea, Alaska.....	44	Hawaiian Islands, Hawaii...	26	Pine Island, Fla.....	21
Bogoslof, Alaska.....	51	Hazy Islands, Alaska.....	54	Pribilof, Alaska.....	50
Breton Island, La.....	2	Huron Islands, Mich.....	4	Quillayute Needles, Alaska..	12
Bumping Lake, Wash.....	39	Indian Key, Fla.....	7	Rio Grande, N. Mex.....	32
Carlsbad, N. Mex.....	31	Island Bay, Fla.....	24	St. Lazaria, Alaska.....	46
Chase Lake, N. Dak.....	20	Kachess, Wash.....	37	Salt River, Ariz.....	27
Clealum, Wash.....	38	Keechelus, Wash.....	36	Shell Keys, La.....	9
Clear Lake, Cal.....	52	Key West, Fla.....	17	Shoshone, Wyo.....	42
Cold Springs, Oreg.....	33	Klamath Lake, Oreg.....	18	Siskiwit, Mich.....	5
Conconully, Wash.....	40	Loch-Katrine, Wyo.....	25	Strawberry Valley, Utah....	35
Copalis Rock, Wash.....	13	Malheur Lake, Oreg.....	19	Stump Lake, N. Dak.....	3
Culebra, P. R.....	48	Matlacha Pass, Fla.....	23	Tern Islands, La.....	8
Deer Flat, Idaho.....	29	Minidoka, Idaho.....	43	Three Arch Rocks, Oreg.....	10
East Park, Cal.....	28	Mosquito Inlet, Fla.....	15	Tortugas Keys, Fla.....	16
East Timbalier, La.....	14	Niobrara, Nebr.....	55	Tuxedni, Alaska.....	45
Farallon, Cal.....	49	Palma Sola, Fla.....	22	Willow Creek, Mont.....	30
Flattery Rocks, Wash.....	11	Passage Key, Fla.....	6	Yukon Delta, Alaska.....	47
Forrester Island, Alaska.....	53	Pat'finder, Wyo.....	41		

For purposes of administration the bird reservations are grouped in six districts (see fig. 3): (1) The Gulf district, including 10 reservations in Florida, 4 in Louisiana, and 1 in Porto Rico; (2) the Lake district, including 2 in Michigan, 2 in North Dakota, and 1 in Wisconsin; (3) the Mountain district, including 12 in the Rocky Mountain States, South Dakota, and Nebraska; (4) the Pacific district, including 3 in California, 4 in Oregon, and 8 in Washington; (5) the Alaska district, including 8 reservations; and (6) the Hawaiian district, including 1 reservation. Wardens are stationed on the more important reservations and the National Association of Audubon Societies, which has always taken an active part in securing the establishment of these reserves, cooperates actively with the Department of Agriculture in protecting the birds.

The most important birds protected on the reservations in the Gulf district are brown pelicans, gulls, terns, herons of various kinds, and ducks; at Pelican Island the only species which breeds is the brown pelican and on the Tortugas Reservation the breeding birds are chiefly noddy and sooty terns and a few least terns. At Mosquito Inlet and at Passage Key and other reservations on the west coast of Florida, herons of several species are found; at Passage Key, Breton Island, and East Timbalier, laughing gulls and terns of various species also nest. At several points on the west coast of Florida and on the coast of Louisiana are breeding colonies of brown pelicans, and on the Breton Island Reservation ducks which winter in the delta of the Mississippi River find an important refuge.

The principal birds in the Lake district are gulls, ducks, and white pelicans. The two Michigan reservations contain the largest known breeding colonies of the herring gull on inland waters, and the recently established reservation at the mouth of Green Bay, Wis., also has a breeding colony of these birds. The reservation at Stump Lake, N. Dak., is in the midst of the breeding grounds of several species of ducks and is the only point at which the white-winged

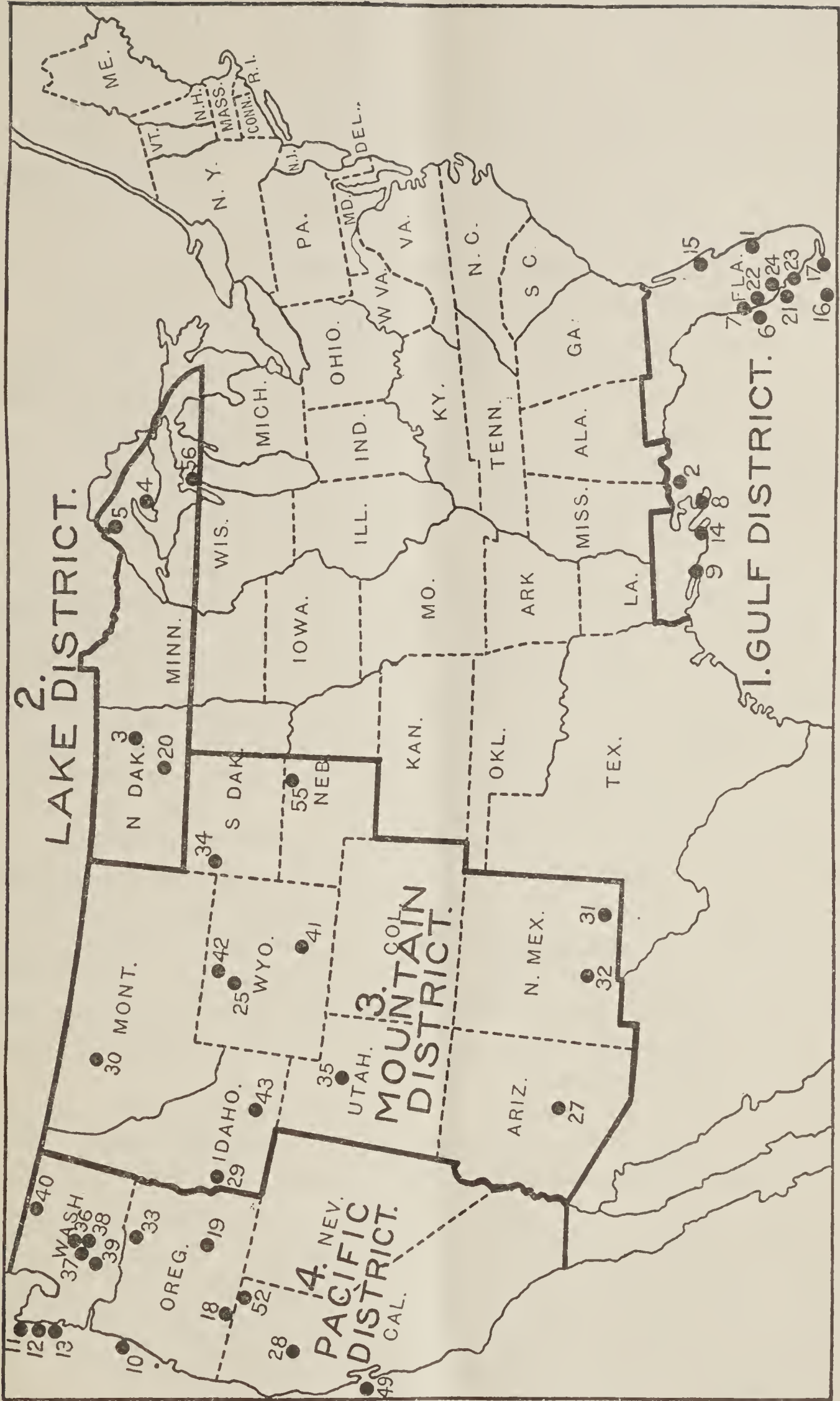


FIG. 3.—Map showing location of national bird reservations and administrative districts.

scoter is known to breed in the United States. At Chase Lake are important colonies of white pelicans and ring-billed gulls.

The reservations in the Mountain district are, with the exception of Niobrara, Nebr., and Loch Katrine, Wyo., located on Reclamation Service reservoirs and are chiefly valuable as refuges for waterfowl and shorebirds during the spring and autumn migrations. The reservations at Deer Flat and Minidoka, Idaho; Salt River, Ariz.; Carlsbad, N. Mex.; and Belle Fourche, S. Dak., are not only important refuges, but may develop also into valuable breeding grounds. The Niobrara Reservation is important chiefly as a breeding ground for sharp-tailed grouse and prairie chickens.

The reservations in the Pacific district naturally fall into two groups—coast and inland refuges. Those on the coast contain great rookeries of sea birds, including California guillemots, pigeon guillemots, tufted puffins, Cassin's auklets, Brandt's, Baird's, and Farallon cormorants, western gulls, ashy petrels (on the Farallones), and Kaeding's petrels (on the Washington reservations). On some of the islands of the last-named reservations the peculiar rhinoceros auklet also nests in considerable numbers. The most important of the interior reservations are those at Klamath Lake and Malheur Lake. Large numbers of Canada geese breed at Klamath Lake, together with important colonies of gulls, Caspian terns, grebes, and white pelicans. Grebes, terns, gulls, white pelicans, and ducks likewise breed at Malheur Lake. The Cold Springs Reservation is an important refuge for ducks and geese during autumn, and several species may remain to breed.

Among the Alaska reservations special mention should be made of Forrester Island, which includes breeding grounds of the rhinoceros and Cassin's auklets, puffins, and other sea birds; the Pribilof Islands with their great bird rookeries on Walrus Island, where guillemots, cormorants, gulls, petrels, and auks nest in enormous numbers; and the Yukon Delta Reservation, which embraces some of the most important nesting grounds of ducks and geese, including that of the emperor goose.

The principal bird colonies of the Hawaiian Reservation are on Laysan and Laysianski Islands (see fig. 5). On the former island are enormous colonies of Laysan and black-footed albatrosses, petrels of several species, noddy and sooty terns, a few Pacific white terns, and other species, a full list of which will be found in the special papers on this island. Of special interest are the Laysan teal and Laysan rail, both of which are peculiar to the island; the teal is, unfortunately, almost exterminated, but the rail is still abundant and has been successfully introduced on the Midway Islands.

A number of new species have been described from some of the islands now included in the reservations. If the species from South

Farallon Island, Cal., and St. Paul and St. George Islands in the Pribilof Reservation, Alaska, are included, the total number is 16:

Farallon Island:

California murre (*Uria troille californica*), South Farallon.

Ashy petrel (*Oceanodroma homochroa*), South Farallon.

Farallon rail (*Oreociscus coturniculus*), South Farallon.

Farallon cormorant (*Phalacrocorax auritus albociliatus*), South Farallon.

Hawaiian Islands:

Necker Island tern (*Procelsterna saxatilis*), Necker Island.

Laysan albatross (*Diomedea immutabilis*), Laysan Island.

Laysan teal (*Anas laysanensis*), Laysan Island.

Laysan rail (*Porzana palmeri*), Laysan Island.

Laysan finch (*Telespiza cantans*), Laysan Island.

Laysan honey eater (*Himatione fraithii*), Laysan Island.

Miller bird (*Acrocephalus familiaris*), Laysan Island.

Pribilof Islands:

Pacific kittiwake (*Rissa tridactyla pollicaris*), St. George Island.

Pribilof sandpiper (*Arquatella maritima ptilocnemis*), St. George Island.

Pribilof snow bunting (*Plectrophenax nivalis townsendi*), Otter Island.

Alaska longspur (*Calcarius lapponicus alascensis*), St. Paul Island.

Alaska wren (*Nannus alascensis*), St. George Island.

Besides the birds on these reservations occur other forms of wild life. On the Mosquito Inlet Reservation in Florida manatees and porpoises find complete protection, owing to the absence of shooting, and both species have been increasing since the reservation was established. On the Bogoslof Reservation and on Walrus and Otter Islands in the Pribilof Reservation in Alaska are large colonies of sea lions, and in the waters about Laysan Island in the Hawaiian Islands Reservation is a rare seal (*Monachus schauinslandii*) not known elsewhere, but related to the tropical seals of the Gulf of Mexico and the Mediterranean.

The only introduced species on any of the reservations are European rabbits, which have become established on South Farallon Island, Cal., and on Laysan Island, Hawaii. The date of their introduction on South Farallon is unknown, further than that it was before 1885; on Laysan they were introduced about 1903. On both islands they have increased to enormous numbers, and on Laysan have become a serious pest.

FUR-SEAL, FISHERY, LIGHTHOUSE, AND NAVAL RESERVATIONS.

Under this heading are included ten refuges for aquatic mammals and birds and for fish (see figs. 2 and 4). These reservations comprise the fur-seal reservation on the Pribilof Islands, three fishery reservations, and five lighthouse reservations, all under the jurisdiction of the Department of Commerce and Labor and in immediate charge of the Bureau of Fisheries and the Bureau of Lighthouses; and the Midway Islands Naval Reservation, now utilized as a cable

station. On the Pribilof Islands are fur seals and sea lions; on the lighthouse reservations at Ano Nuevo Island, Farallon Island, and Point Reyes, Cal., are rookeries of sea lions; on all the lighthouse reservations are breeding colonies of sea birds, while at Afognak and Yes Bay, Alaska, and at Baird, Cal., are fish-cultural stations established chiefly for propagation of salmon. The lighthouse reservation on South Farallon, in connection with the Farallon Bird Reservation on the North and Middle Farallones, gives protection to all the species which resort to these rocks. The lighthouse reservation at Chandeaur, together with the Breton Island Bird Reservation, protects the birds which nest on the islands on the east side of Chande-



FIG. 4.—Map showing location of reservation in Alaska. Squares indicate fur-seal and fishery reservations; circles indicate bird reservations.

leur Sound. The reservation at Destruction Island in reality forms part of the chain of islands included in the Quillayute Needles Bird Reservation, which afford protection to the birds nesting on the rocks off that part of the Washington coast. Other lighthouse reservations might perhaps be added to this list, but these are the most important on account of their colonies of breeding birds.

The Midway Islands (see fig. 5) form a link in the chain of Leeward Islands, but are not included in the Hawaiian Bird Reservation for the reason that they had already been set aside as a Government reservation before the bird reservation was established. They are the home of several species of sea birds, and recently the canary, the Laysan finch, and the Laysan rail have been successfully introduced. The

colony of albatrosses which formerly nested on the islands was almost destroyed by poachers in 1901 and 1902, but since the reservation has been established the birds have been protected by the Navy Department.

List of reservations.

Name.	Date established.	Act of Congress.	Area.
			<i>Acres.</i>
11. ¹ Chandeleur Island, La.....	Sept. 24, 1847		
12. Farallon Island (South), Cal.....	{ Aug. 8, 1859		
	{ Jan. 4, 1881		
13. Point Reyes, Cal.....	² 1870		
14. Pribilof Islands Reservation, Alaska.....	{ July 1, 1870	16 Stat., 180	
	{ Apr. 21, 1910	36 Stat., 327	
15. Ano Nuevo Island, Cal.....	² 1872		
16. Piscicultural Reserve, Baird, Cal.....	Dec. 9, 1875		280
17. Destruction Island, Wash.....	² 1891		
18. Afognak Forest and Fish Culture Reserve, Alaska.....	Dec. 24, 1892	27 Stat., 1052	³ 800
19. Midway Islands Naval Reservation, H. T.....	Jan. 20, 1903		
20. Yes Bay, Alaska.....	Feb. 1, 1906		35,200

¹ These reservations are numbered 11-20 instead of 1-10 in order not to duplicate the numbers corresponding to other reservations on the map, p. 7.

² Date of construction of lighthouse.

³ Square miles.

NATIONAL RESERVATIONS MADE GAME PRESERVES IN WHOLE OR IN PART BY STATE LAWS.

Several national reservations have become game preserves through subsequent State legislation, which has made them wholly or in part State game preserves (see fig. 2, p. 7). With the exception of the Pinnacles Preserve in California, they are all on national forests, and as hunting is permitted on national forests, they are the only parts of the forests, except the few monuments and bird reserves and two game preserves, which actually form refuges. The largest is the Superior National Forest in Minnesota, which was made a State game preserve soon after the establishment of the national forest. In each case the game is protected primarily by State laws and the reservation patrolled and maintained by cooperation between the State and the General Government.

List of State game preserves on national reservations.

National reservations.	State game preserves.	Acres.
a. Teton National Forest, Wyo. (part).....	Teton Game Preserve (Laws Wyo., 1905, chap. 90).	576,000
b. Pinnacles National Monument, Cal. (Jan. 16, 1908).	Pinnacles Game Preserve (Laws Cal., 1909, c. 428).	2,080
c. Boise National Forest, Idaho.....	Payette River Game Preserve (Laws Idaho, 1909, H. B. 242, Mar. 13, 1909).	230,000
d. Superior National Forest, Minn. (Feb. 13, 1909).	Superior Game Preserve (Laws Minn., 1909, c. 171, 320).	¹ 1,420,000
e. Big Horn National Forest, Wyo. (part)..	Big Horn Game Preserve (Laws Wyo., 1909, c. 161, s. 63).	
f. Absaroka National Forest, Mont. (part).	Yellowstone Game Preserve (Laws Mont., 1911).	
g. Bear Tooth National Forest, Mont. (part).	Pryor Mountain Game Preserve, Mont. (Laws Mont., 1911, c. 100, p. 173).	

¹ The State preserve includes 510,000 acres more than the National Forest, making the total area 1,420,000 acres.

Summary of national reservations by States.

<i>Alaska.</i> —Two fishery reservations, 1 fur seal reservation, 1 moose reservation, 8 bird reservations	12	<i>Montana.</i> —One national park, 1 bird reservation, 2 national forests containing State game preserves	4
<i>Arizona.</i> —One national game preserve, 1 bird reservation.....	2	<i>New Mexico.</i> —Two bird reservations	2
<i>California.</i> —Three national parks, 2 national monuments, 3 bird reservations, 1 fish-cultural station, 3 lighthouse reservations..	12	<i>Nebraska.</i> —1 bird reservation.....	1
<i>Colorado.</i> —One national monument	1	<i>North Dakota.</i> —Two bird reservations	2
<i>District of Columbia.</i> —Two national parks	2	<i>Oklahoma.</i> —One game preserve..	1
<i>Florida.</i> —Ten bird reservations..	10	<i>Oregon.</i> —One national park, 4 bird reservations.....	5
<i>Hawaii.</i> —One naval reservation, 1 bird reservation.....	2	<i>Pennsylvania.</i> —One military national park.....	1
<i>Idaho.</i> —One national forest containing a State game preserve, 2 bird reservations	3	<i>Porto Rico.</i> —One bird reservation..	1
<i>Louisiana.</i> —Four bird reservations, 1 lighthouse reservation..	5	<i>South Dakota.</i> —One national park, 1 bird reservation.....	2
<i>Maryland.</i> —One military national park.....	1	<i>Tennessee.</i> —Two military national parks.....	2
<i>Michigan.</i> —Two bird reservations..	2	<i>Utah.</i> —One national monument, 1 bird reservation.....	2
<i>Minnesota.</i> —One national forest containing a State game preserve	1	<i>Washington.</i> —1 national park, 1 national monument, 8 bird reservations, 1 lighthouse reservation..	11
<i>Mississippi.</i> —One military national park.....	1	<i>Wisconsin.</i> —One bird reservation..	1
		<i>Wyoming.</i> —One national park, 2 national forests containing State game preserves, 3 bird reservations	6
		Total.....	95

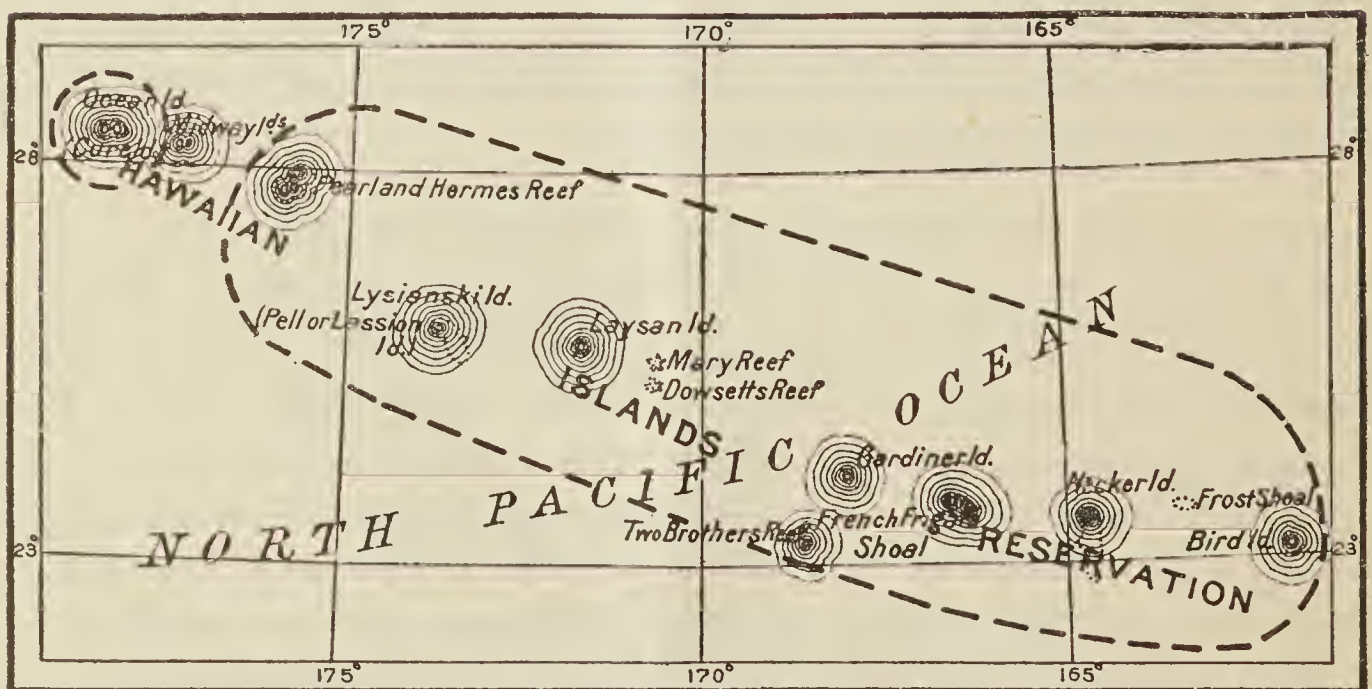


FIG. 5.—Hawaiian Islands Reservation for protection of native birds, Territory of Hawaii, embracing reefs and islets segregated by the broken lines and designated "Hawaiian Islands Reservation."

PUBLICATIONS ON THE FAUNA OF NATIONAL RESERVATIONS.

The following list of publications on national reservations is by no means a complete bibliography of the comprehensive literature which has developed during recent years, but includes merely titles of some of the more important publications with special reference to the fauna or to the administration of the preserves.

In the publications of the Hayden Survey of the Territories and of the U. S. Geological Survey will be found a number of descriptive and geological reports on the parks, and in a pamphlet recently published by the Department of the Interior are given several hundred titles of magazine articles on national parks and monuments, which do not properly fall within the scope of this list. Much information will also be found in official annual reports. These include reports of the superintendents of the national parks, published by the Department of the Interior; reports of the commissions in charge of the military parks, published by the War Department; reports of the Superintendent of the National Zoological Park, published by the Smithsonian Institution; reports of the Alaska Fishery Service, published by the Bureau of Fisheries in the Department of Commerce and Labor; and reports of the Chief of the Biological Survey, published by the Department of Agriculture. The Biological Survey also issues an annual review of "Progress of Game Protection," in which will be found brief summaries of the condition of game on the various reservations. Articles on buffalo on the national reservations are contained in the annual reports of the American Bison Society, and notes on the birds on some of the bird reservations will be found in the annual reports of the National Association of Audubon Societies.

The wild life on some of these reservations has been studied in great detail and has been the subject of a series of special papers. The life history of the fur seal on the Pribilof Island Reservation, which has been under observation for more than 125 years, has been more carefully studied than that of any other native mammal, and "fur seal literature" now fills a number of volumes containing thousands of pages. The great bird rookeries on the Farallon Islands, Cal., on Laysan Island, Hawaii, and Pelican Island, Fla., have been made the subject of careful and repeated studies by a number of ornithologists, who have published their observations on these reservations from time to time. In the case of the Farallones and Peli-

can Island these observations extend over a period of more than half a century. The game in the Yellowstone Park has also formed the subject of a number of special articles which are widely scattered in books, magazines, or in sportsmen's journals. Obviously, it is impossible to refer to all these notes in a brief bibliography. All that can be done is to include the titles of the more important papers, giving special attention to those which contain lists of species, references to other publications on the subject, or which record estimates of the numbers of a species or mention the introduction, destruction, or change in relative abundance of any mammals or birds.

GENERAL.

Department of the Interior, Magazine Articles on National Parks, Reservations, and Monuments [no date].

A comprehensive bibliography of current literature on parks under the jurisdiction of the department.

Proceedings of the National Parks Conference, 1911, pp. 1-209, 1912.

Grinnell, Geo. B., Big Game Refuges. <Am. Big Game in its Haunts (Boone and Crockett Club Ser.), pp. 442-454, 4 pls., 1904.

Hornaday, W. T., A Great Year for Game Preserves, Bull. No. 34, N. Y. Zool. Soc., pp. 497-502, June, 1909.

Palmer, T. S., The Great Game Parks. <Am. Conservation, I, pp. 179-185, June, 1911.

Sampson, Alden, The Creating of Game Refuges. <Am. Big Game in its Haunts (Boone and Crockett Club Ser.), pp. 391-436, 3 pls., 1904.

Schmeckebier, L. F., Our National Parks. <Nat. Geog. Mag., XXIII, pp. 531-579, 42 pls. and figs., June, 1912.

Contains a list of the 28 national monuments and a map showing the location of the various parks and monuments.

NATIONAL PARKS.

General.

Muir, John, Our National Parks, Svo., pp. 1-365, Boston, 1901.

Crater Lake Park, Oregon.

Evermann, Barton W., U. S. Fish Commission Investigations at Crater Lake <Mazama, I, pp. 230-238, 1897.

Merriam, C. Hart, Mammals of Mt. Mazama [Crater Lake National Park, Oregon] <Mazama, I, pp. 204-230, 1897.

Contains notes on 62 species.

Glacier Park, Montana.

Hornaday, W. T., America's Next Great Playground <Recreation, XXXI, pp. 211-216, May, 1910.

Estimates the number of big game in the park as follows: Elk, 200; moose, 2,500; mountain sheep, 700; mountain goats, 10,500.

Rock Creek Park, District of Columbia.

Report of Secretary Board of Control of Rock Creek Park, D. C., 1907.

Sequoia Park, California.

Anon. The California Elk <Forest and Stream, LXV, pp. 345, 352, Oct. 28, 1905.

Notes on transfer of 20 elk from Button Willow Ranch, west of Bakersfield, to the Sequoia National Park.

Sequoia Park, California—Continued.

Daggett, F. S., Summer Observations in the Southern Sierras <Condor, III, pp. 117-119, September, 1901.

Brief notes on birds observed on a trip from Visalia to North Fork of the Kaweah River, Giant Forest, King's River Canyon, Bubb's Creek, and Kearsarge Pass.

Evermann, Barton W., The Golden Trout of the Southern High Sierras <Bull. Bureau of Fisheries, XXV, pp. 1-51, pls. I-XVII, map, May, 1906.

Wind Cave Park, South Dakota.

Loring, J. A., Report on Certain Lands in South Dakota suitable for a Buffalo and Game Reserve <5th Ann. Rept. Am. Bison Soc. (Sep., pp. 1-31), 6 pls., 3 text figs., 2 maps, 1912.

Yellowstone Park, Wyoming.

Anderson, Geo. S., Protection of the Yellowstone National Park <Hunting in Many Lands (Boone and Crockett Club Ser.), pp. 377-402, 2 pls., 1895.

Contains notes on the destruction of the buffalo by poachers in 1893-94.

Anon. The Courtenay Buffalo Case <Forest and Stream, XLVI, pp. 89, 95, Feb. 1, 1896.

Trial and acquittal of James Courtenay, Dec. 26-27, 1895, on a charge of killing buffalo in the park.

Chittenden, H. M., The Yellowstone National Park, 8vo., pp. 1-355, Cincinnati, 1904.

The most complete book of reference on the park.

Comstock, Theo. B., The Yellowstone National Park <Am. Naturalist, VIII, pp. 65-79, 155-166, 1874.

Calls attention to "one of the most important uses to which the park can be put, viz, the preservation from extinction of at least the characteristic mammals and birds of the West" (p. 72); includes a list of 27 mammals and 29 birds (pp. 75-76); and recommends the introduction of the bison (p. 163).

Forest and Stream. A long series of editorial notes and brief articles, 1873-1912.

Hague, Arnold, The Yellowstone Park as a Game Reservation <Am. Big Game Hunting (Boone and Crockett Club Ser.), pp. 240-270, 3 pls., 1893.

Hofer, Elwood, Winter in Wonderland <Forest and Stream, XXVIII, No. 1, 222-223; No. 2, 246-247; No. 3, 270-271; No. 4, 294-295, map; No. 5, 318-319, 1887.

Report of a snowshoe trip through the park made for Forest and Stream in February, 1887.

Hough, E., Forest and Stream's Yellowstone Park Game Exploration <Forest and Stream, XLII, editorial, p. 309; No. 1, pp. 377-378; No. 2, pp. 420-421; No. 3, pp. 442-443; No. 4, pp. 486-487; No. 5, pp. 508-509; No. 6, pp. 552-553; No. 7, XLIII, pp. 2-4; No. 8, pp. 24-26; No. 9, pp. 47-48; No. 10, pp. 91-92; No. 11, pp. 114-115; No. 12, pp. 135-136; No. 13, Conclusions, pp. 157-158, ills., 1894.

No. 1 contains an account of the capture of the poacher Howell, who destroyed the buffalo; No. 12 describes the "Game in the Segregation Strip"; and No. 13 gives an estimate of the number of elk as 25,000 and buffalo as 150 to 200.

Jordan, David Starr, The Fishes of the Yellowstone Park <Zoe, I, pp. 38-40, April, 1890.

Contains a list of 10 species.

Yellowstone Park, Wyoming—Continued.

Jordan, David Starr, A Reconnaissance of the Streams and Lakes of the Yellowstone National Park, Wyoming, etc. <Bull. U. S. Fish Comm., IX, pp. 41-63, map, pls. VII-XXII, 1890.

Linton, Edwin. A Contribution to the Life History of *Dibothrium cordiceps*, a Parasite infecting the Trout of Yellowstone Lake <Bull. U. S. Fish Comm., IX, pp. 337-358, 3 pls., 1891.

Mearns, Edgar A., Feathers Beside the Styx <Condor, V, pp. 36-38, March, 1903.

Contains a list of 16 species of birds found dead in the Stygian Cave near Mammoth Hot Springs, April-December, 1902.

[Oldys, Henry], Poaching in the Yellowstone Park <Forest and Stream, LXX, pp. 255, 1 fig., Feb. 15, 1908.

Notes on the prosecution and conviction of 11 poachers in 1907.

Palmer, T. S., Notes on Summer Birds of the Yellowstone National Park <Ann. Rept. Supt. Yellowstone National Park, pp. 15-23, 1907.

Observations on about 75 species made during a three weeks' visit in August and September, 1907.

Roosevelt, Theodore, Wilderness Reserves <Am. Big Game in its Haunts (Boone and Crockett Club Ser.), pp. 23-51, 16 pls., 1904.

Account of the big game observed during a trip to the park in April, 1903.

Shiras, George 3d, Silver-Tip Surprises during a Hunting Trip for Big Game with the Camera on the Upper Yellowstone River <Forest and Stream, LXXIII, pp. 48-50 and 88-91, 2 figs., July 10-17, 1909.

Account of the birds and big game observed in the summer of 1908.

Shiras, George 3d, Moose of the Upper Yellowstone Valley <Forest and Stream, LXXV, pp. 130-131, 171-172, July, 1910.

Thompson, Ernest Seton, Mammals of the Yellowstone National Park <Recreation, VIII, pp. 365-371, 4 maps of beaver ponds, March, 1898.

Contains notes on 41 species supplemented by observations of Capt. George S. Anderson. Estimates the number of elk at 30,000, antelope at 1,000, sheep at 50 to 100, buffalo at 20 to 30, and moose doubtfully at 300.

Yosemite National Park, California.

Behr, H. H., Yosemite Lepidoptera <Zoe, I, pp. 177-179, August, 1890.

Emerson, W. Otto, Random Bird-Notes from Merced Big Trees and Yosemite Valley <Zoe, IV, pp. 176-182, July, 1893.

Grinnell, J., Early Summer Birds in the Yosemite Valley <Sierra Club Bull., VIII, pp. 118-124, June, 1911.

Notes on 55 species observed from May 22 to June 1, 1911.

Keeler, Charles A., Bird Life of the Yosemite Park <Sierra Club Bull., VI, pp. 245-248, January, 1908.

Muir, John, Among the Animals of the Yosemite <Atlantic Monthly, vol. 82, pp. 617-631, November, 1898.

Muir, John, Among the Birds of the Yosemite <Atlantic Monthly, vol. 82, pp. 751-760, December, 1898.

Ray, M. S., A Summer Trip to Yosemite <Osprey, III, p. 5, December, 1898.

Torrey, B., The Western Winter Wren in the Yosemite <Condor, XII, p. 79, March, 1910.

Van Dyke, Edwin C., Notes on Some of the Butterflies of the Yosemite Valley and Adjacent Region <Zoe, III, pp. 237-241, October, 1892.

Widmann, O., Yosemite Valley Birds <Auk, XXI, pp. 66-73, January, 1904.

Notes on 9 species observed in the Mariposa Grove and 26 at Wawona on May 20, and 57 species found in the valley May 21-25, 1903.

Zoological Park, District of Columbia.

Henshaw, H. W., Ornithology of the Zoological Park <Rept. Sec. Smithsonian Inst., 1890, pp. 66-68.

Contains a list of 61 species of birds which breed in the park.

Seton, Ernest Thompson, The National Zoo at Washington; A Study of its Animals in Relation to their Natural Environment <Smithsonian Rept., 1901, pp. 697-716, pls. I-XIII, 1902 (reprint from Century Magazine, XXXVII, XXXVIII, Mar. and May, 1900).

Valuable Animals in the National Zoological Park <Sci. American, LIV, Sup., p. 22213, July 26, 1902.

NATIONAL GAME PRESERVES AND OTHER REFUGES.

General.

Bond, Frank, The Administration of National Monuments <Proc. National Park Conference, 1911, pp. 80-101, 1912.

Grand Canyon Game Preserve, Arizona.

Grey, Zane, Roping Lions in the Grand Canyon <Field and Stream, XIII, pp. 739-749, Jan., 1909; XIV, pp. 336-342, August, 1909.

Mount Olympus National Monument, Washington.

Anon. New Olympic National Park <Colliers, XLIII, p. 12, April, 1909.

Figgins, J. D., The New Olympic National Park <Recreation, XXX, pp. 172-175, 193, October, 1909.

Morgenroth, Chris., Game in Western Forest Reserves [Mt. Olympus National Forest, Wash.] <Sportsmen's Review, XXXVIII, p. 619, Dec. 24, 1910.

Contains a table showing approximate number of elk on the various watersheds.

Muir Woods, California.

Parsons, E. T., William Kent's Gift <Sierra Club Bull., VI, pp. 285-289, June, 1908.

National Bison Range, Montana.

Elrod, Morton J., A Proposed Sanctuary <Recreation, XXIII, pp. 179-180, August, 1905.

Elrod, Morton J., The Flathead Buffalo Range <1st Ann. Rept. Am. Bison Soc., pp. 15-49, map, Pls. II-XVI, 1908.

Hornaday, W. F., Report of the President on the Founding of the Montana National Bison Herd <2d Ann. Rept. Am. Bison Soc., pp. 1-42, 5 pls., 1909.

Hornaday, W. T., Report of the President on the Founding of the Montana National Bison Herd [1910] <3d Ann. Rept. Am. Bison Soc., pp. 1-20, 7 pls., 2 text figs., and map, 1910.

Wichita Game Preserve, Oklahoma.

Hornaday, W. T., The Founding of the Wichita National Bison Herd <2d Ann. Rept. Am. Bison Soc., pp. 55-69, 5 pls., 1908.

Loring, J. Alden. The Wichita Buffalo Range <10th Ann. Rept. N. Y. Zool. Soc., pp. 181-200, 1905.

[Shields, G. O.] The Genesis of the Wichita Game Preserve <Shields' Mag., VII, p. 257, Dec., 1908. (See also Recreation, XVIII, p. 303, 1903).

Copy of the resolution introduced by Chas. Payne at the meeting of the League of American Sportsmen, at St. Paul, Minn., February 11, 1903, urging Congress to set aside the reservation.

NATIONAL BIRD RESERVATIONS.

General.

[Executive orders establishing 26 of the reservations (1-19, 26, 44-47, 50-51) have been reprinted as follows: Reservation No. 1, *Auk*, XXI, p. 122, 1904; No. 2, *Bird-Lore*, VII, p. 72, Feb., 1905; Nos. 3-6, *Ibid.*, VII, p. 299, Dec., 1905; No. 7, *Ibid.*, VIII, p. 145, July, 1906; Nos. 8-13, *Ibid.*, IX, pp. 230-232, 291-294, 1907; Nos. 14-19, *Ibid.*, X, pp. 57, 96, 144, 233-236, 1908; No. 26, *Yearbook Dept. Agriculture*, 1911, pp. 155-156; Nos. 44-47, 50-51, *Biol. Survey, Cir. 71.*]

Nos. 1-7 are without maps.

Biological Survey, National Bird and Mammal Reservations in Alaska in charge of the U. S. Dept. of Agriculture, *Cir. 71*, pp. 1-15, 8 maps, Apr. 11, 1910.

Reprint of Executive orders creating reservations in Alaska.

Bond, Frank, *Bird Reservations* <*Forest and Stream*, LXV, p. 330, October 21, 1905.

Bowdish, B. S., *Ornithological Miscellany from Audubon Wardens* <*Auk*, XXVI, pp. 116-128, April, 1909.

Brief notes from Pelican Island, Passage Key, Breton, East Timbalier, Tern Islands, Huron Island, Siskiwit Island, and Stump Lake Reservations, chiefly for years 1906-1908.

Dutcher, William [Letter] <*Outlook*, p. 127, Sept. 18, 1909.

Finley, William L., *How Birds Fish* <*Pacific Monthly*, XIX, pp. 563-571, 14 figs., May, 1908.

Notes on Farallon cormorants, Caspian terns and grebes at Klamath Lake, and Brandt's cormorants, gulls, and murre on Three Arch Rocks, Oreg.

Pearson, T. Gilbert, *Federal Bird Reservations and Wardens* <*Ann. Rept. Secy. Nat. Assn. Audubon Societies, Bird-Lore*, XI, pp. 291-294, December, 1909.

List of 53 national reservations.

Warner, Gilbert S. [Letter] <*Outlook*, p. 905, August 14, 1909.

Breton Island, Louisiana.

Job, H. K., *Curiosities of the Louisiana Sea Islands* <*Outing*, LIV, pp. 418-425, 6 figs., July, 1909.

Job, Herbert K., *Triumphs of Bird Protection* <*Harpers' Mag.*, CXIX, pp. 290-299, 8 figs., July, 1909.

Popular account of an inspection trip to Breton Island, Battledore, Southwest Key, and islands of the Audubon Reservation on the coast of Louisiana.

Job, Herbert K., *A Feathered Humorist* <*Independent*, LXIX, pp. 117-121, 5 figs., July 21, 1910.

Notes on the habits of the laughing gull on the Breton Island Reservation and at other points on the Gulf and Atlantic coasts.

East Timbalier.

Kopman, H. H., *Report of Exploration of Seabird Colonies* [on the coast of Louisiana, May 15-June 21, 1907] <*Bird-Lore*, IX, pp. 233-240, 3 figs., October, 1907.

States that the area of the island is about 50 acres and estimates the number of birds as follows: 4,500 laughing gulls, 5,500 black skimmers, 1,750 Louisiana herons, a few snowy and black-crowned night herons, 200 royal terns, and 500 brown pelicans (p. 236).

Farallon Island, California.

[The National Bird Reservation includes North and Middle Farallon Islands, which are inaccessible. The Lighthouse Reservation includes South Farallon Island, to which all publications on these islands refer. See Farallon Island, under Lighthouse Reservations.]

Flattery Rocks, Washington.

[Visited by W. L. Dawson in July, 1905, June, 1907, and June, 1910: by Morton E. Peck in July, 1911; and by John F. Bovard in June, 1912. (See also Quillayute Needles.)]

Dawson, W. L., The New Reserves on the Washington Coast <Condor, X, pp. 45-48, 3 figs., January, 1908.

Proposes the name Olympiades for the Copalis Rock, Flattery Rocks, and Quillayute Needles Reservations, because of their proximity, considered as a whole, to the Olympic Mountains (p. 46). Notes on 12 species of birds. Estimates the number of birds other than petrels in 1907 at 60,000 and the number of Kaeding petrels at 100,000.

Forrester Island, Alaska.

Cantwell, Geo. G., On isolated Alaskan islands <Osprey, II, pp. 63-65, 4 figs., January, 1898.

Brief notes on birds observed during a collecting trip to Egg Island (=Forrester Island) in June, 1897.

Hawaiian Islands, H. T.

[The birds on this reservation were first made known by the observations of Isenbeck, who visited Gardner, Moller [or Laysan], and Lysianski Islands in March, 1828. In recent years ornithologists have visited French Frigate Shoals, Laysan, Lysianski, Midway, and Necker Islands. Published accounts of the bird colonies on Laysan, one of the most remarkable bird islands in the world, have appeared at frequent intervals during the last 20 years based on observations made by Palmer and Walker in 1891, Schauinsland in 1896, Fisher in 1902, Bryan in 1903 and 1911, and Dill in 1911. Three of the islands have suffered from attacks of poachers in the last decade—Midway in 1901-2, Lysianski in 1904, and Laysan in 1910. See also Midway Islands, p. 31.]

Dill, Homer R., and Bryan, Wm. A., Report of an Expedition to Laysan Island <Bull. 42, Biol. Surv., pp. 1-30, 9 pls., 1 map, 1912.

Dutcher, William [Correspondence relative to destruction of birds by 77 poachers on Lysianski, January-June, 1904, and the necessity for protecting the bird colonies on this and neighboring islands] <Bird-Lore, VII, pp. 68-71, February, 1905.

Dutcher, William [Correspondence relative to a proposed concession for killing birds for plumage on Laysan, etc.] <Bird-Lore, VII, pp. 301-306, December, 1905.

Fisher, Walter K., A New *Procelsterna* from the Leeward Islands, Hawaiian Group <Proc. U. S. Nat. Mus., XXVI, No. 1322, pp. 559-563, Jan. 29, 1903.

Original description of the Necker Island tern (*Procelsterna saxatilis*).

Fisher, Walter K., Birds of Laysan and the Leeward Islands, Hawaiian Group <Bull. U. S. Fish Commission, XXXI (sep., pp. 1-39), pls. 1-10, 4 text figs., 1903.

Full account of birds observed on Laysan May 16-23, French Frigate Shoals May 29, and Necker Island May 31, 1902.

Fisher, Walter K., Notes on Birds peculiar to Laysan Island, Hawaiian Group <Auk, XX, pp. 384-397, pls. XII-XVI, Oct., 1903.

Notes on the Laysan finch, honeyeater, miller bird, rail, and teal, with photographs of nests of four of the species.

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Bendire, Charles, Notes on Some of the Birds found in Southeastern Oregon, particularly in the Vicinity of Camp Harney, from November 1874, to January 1877 <Proc. Boston Soc. Nat. Hist., XIX, pp. 109-149, November, 1877.

Brewer, T. M., Notes on Seventy-nine Species of Birds Observed in the Neighborhood of Camp Harney, Oregon, compiled from the Correspondence of Captain Charles Bendire, 1st Cavalry, U. S. A. <Proc. Boston Soc. Nat. Hist., XVIII, pp. 153-168, November, 1875.

Finley, William L., Report of Wm. L. Finley [on a trip to Malheur Lake in May, 1908] <Bird-Lore, X, pp. 291-295, 3 figs., December, 1908.

Estimated number of white-faced glossy ibis at 500, western grebe 2,000, and reported "thousands of white pelicans, ring-billed and California gulls nesting near together." Found small colonies of eared grebes, Caspian, Forster's, and black terns, Farallon cormorants, and great blue herons. Pied-billed grebes and coots were common.

Mosquito Inlet, Florida.

Taylor, G. C., Five Weeks on the Peninsula of Florida during the Spring of 1861, with Notes on the Birds Observed there <Ibis, IV, pp. 127-142 and 197-207, 1862.

Notes on birds in the vicinity of New Smyrna, pp. 134-142 and 197-199.

Niobrara, Nebraska.

Dutcher, William, The Niobrara Reservation <Bird-Lore, X, pp. 142-144, June, 1908.

Correspondence relating to order prohibiting shooting on the military reservation.

Passage Key, Florida.

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Pelican Island, Florida.

[The first authentic description of this breeding colony is that of Dr. Henry Bryant, who visited the island in 1858. Since that date it has been repeatedly visited by other ornithologists, whose published notes make it

Pelican Island, Florida—Continued.

possible to compare the conditions at frequent intervals. See Gunn, 1880; Lawrence, 1882; Sirrom, 1891; Brownall, 1894; Chapman, 1898 and 1900; Job, 1905; Chapman, 1908; Nelson, 1911. Since 1902 the island has been in continuous charge of a warden, who has made regular observations on the birds.]

Baker, F. C., Contents of the Stomachs of Certain Birds [including 8 brown pelicans] collected in Brevard County, Fla., between June 5 and April 15, 1889 <Orn. & Ool., XIV, p. 139, September, 1889.

Brownall, L. W., A Visit to Pelican Island, on Indian River, Fla. <Osprey, III, pp. 70-71, June, 1899.

Visited island April 17, 1894; collected about 125 sets of eggs. ▲

Bryant, Henry, On Some of the Birds in East Florida, South of St. Augustine <Proc. Boston Soc. Nat. Hist., VII, pp. 5-21, 1859-1861.

Chapman, Frank M., Life on Pelican Island <Bird Studies with a Camera, pp. 191-214, 1900.

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Gibbs, Morris, Brown Pelican on Indian River <Osprey, I, pp. 75-77, 1 fig., February, 1897.

Gunn, Chas. W., A Collector in Florida <Orn. & Ool., VII, pp. 103-104, March, 1882.

Visited the island April 1, 1880, and counted more than 300 nests.

Job, H. K., Cities of the Brown Pelicans <Wild Wings, chap. I, pp. 1-18, 1905.

Lawrence, Robert H., A Breeding Place of *Pelicanus fuscus* <Auk, VIII, pp. 231-232, April, 1891.

Visit to island in March, 1882.

Nelson, George, Notes on Pelican Island <Auk, XXVIII, pp. 393-397, p's. IV-VII, October, 1911.

Notes on the nesting seasons of 1909, 1910, and 1911, and observations made during a visit to the island March 10, 1911.

Sirrom, G., Nesting of the Brown Pelican <Orn. & Ool., XVIII, pp. 74-75, May, 1893.

Visit to island February 17, 1891; number of birds estimated at 5,000; shooting of birds by tourists noted.

Pribilof, Alaska.

[The following article refers to the principal island in the Pribilof Bird Reservation. Most of the papers on Pribilof birds refer chiefly to other islands in the larger reservation, of which this was made a part by act of Apr. 21, 1910.]

See Fur-Seal Reservation, Pribilof Islands.

Lucas, F. A., Walrus Island, a Bird Metropolis of Bering Sea <Bird-Lore, III, pp. 45-49, 2 pls., 2 figs., April, 1901.

Quillayute Needles, Washington.

[Visited by W. L. Dawson in July, 1905, June, 1907, and June, 1910; by Morton S. Peck in July, 1911; and by John F. Bovard in June, 1912. See also Flattery Rocks.]

Dawson, Wm. Leon, Kaeding's Petrel <Birds of Washington, II, pp. 872-876, 1 fig., 1909.

Dawson, Wm. Leon, A Neglected Coast <Pacific Monthly, XVII, pp. 129-138, 16 figs., February, 1907.

Popular account of a trip from Moclips to Cape Flattery, Wash., in July, 1905, with illustrations of some of the more important rocks. For account of the birds see the following article.

Dawson, Wm. Leon, A-Birding on the Olympiades <Pacific Monthly, XVII, pp. 378-390, 19 figs., April, 1907.

Proposes the term Olympiades as a collective name for the fringe of islets off the coast of the Olympic Peninsula subsequently set apart as the Flattery Rocks, Quillayute Needles, and Copalis Rock Reservations (p. 378); explains the name of the island Dhuoyuatzachtahl as the Quillayute word meaning "place where we catch petrels" (p. 389).

Dawson, Wm. Leon, Gulls <Pacific Monthly, XIX, pp. 121-132, 14 figs., February, 1908.

Notes on the 11 species of gulls which occur on the coast of Washington, based largely on observations made on the Olympiades.

Dawson, Wm. Leon, The Bird Colonies of the Olympiades <Auk, XXV, pp. 153-166, April, 1908.

Details regarding the location and character of the islands and the species of birds on each of the more important rocks; based on observations made during trips in July, 1905, and June, 1907. Estimates that 55,000-100,000 Kaeding's petrels and 46,000 other seabirds breed on the reservations.

Dawson, Wm. Leon, An Ornithologist's Paradise <Pacific Monthly, XX, pp. 25-36, 14 figs., July, 1908.

Account of a visit to Carroll, James, and other islands in the reservation, with notes on the birds.

Dawson, Wm. Leon, The Night Shift <Pacific Monthly, XXI, pp. 601-610, 13 figs., June, 1909.

Popular account of visit to Destruction, Alexander, Carroll, and other islands in the reservation, with description of the habits of the rhinoceros auklet, Cassin's auklet, Kaeding's petrel, and other species.

Jones, Lynds, June with the Birds of the Washington Coast [Carroll Island] <Wilson Bull., XX, pp. 19-26, 5 figs., March, 1908; XXI, pp. 1-15, pl. and 10 figs., March, 1909.

St. Lazaria Island, Alaska.

Grinnell, Joseph, Petrels of Sitka, Alaska <Ornithologist, IV, pp. 76-78, March, 1897.

Brief description of the island and mention of the 7 species which breed. Most of the article is devoted to the two species of petrels, Leach's and the fork-tailed, and is based on observations made in June and July.

Grinnell, Joseph, Summer Birds of Sitka, Alaska <Auk, XV, pp. 122-131, April, 1898.

Brief notes on tufted puffins, horned puffins, fork-tailed petrels, Leach's petrels, and violet-green cormorants breeding on St. Lazaria Island.

Shell Keys.

Kopman, H. H., Report of Exploration of Seabird Colonies [on the coast of Louisiana, May 15-June 21, 1907] <Bird-Lore, IX, pp. 233-240, 3 figs., October, 1907.

Reports about 300 brown pelicans, 500 man-o'-war birds, and 900 royal terns on the keys. The pelicans and terns had begun to nest May 16 (p. 235).

Stump Lake, North Dakota.

Bent, A. C., Nesting Habits of the Anatidæ in North Dakota <Auk, XIX, pp. 1-12 and 165-174, January, 1902.

Tern Islands.

Kopman, H. H., Report of Exploration of Seabird Colonies [on the coast of Louisiana, May 15-June 21, 1907] <Bird-Lore, IX, pp. 233-240, 3 figs., October, 1907.

Reports brown pelicans, laughing gulls, royal, Forster's, and Caspian terns nesting on the various mud lumps in the reservation June 13-15 (pp. 236-238).

Three Arch Rocks, Oregon.

Finley, Wm. L., Among the Sea Birds of the Oregon Coast <Condor, IV, pp. 53-57, 4 figs., May, 1902; Ibid., VII, pp. 119-127, 161-169, 14 figs., 1905.

Notes on a visit made to the islands in June, 1901.

Finley, William Lovell, An Adventure in Modern Photography <Pacific Monthly, XIII, pp. 16-23, 13 text figs., January, 1905.

Account of a trip to the Three Arch Rocks in June, 1903. "One who has not visited a bird metropolis by the sea and climbed the rocky ledges of the cliff can have no conception of the thousands and thousands of feathered inhabitants. When we first approached the rock it looked like a gigantic beehive that had been disturbed, for the feathered swarms crowded the sky in every direction. It was the sight of a lifetime." (p. 19.)

Finley, Wm. L., and Bohlman, H. T. [Report on Three Arch Rocks] in Report of National Committee for 1904 <Bird-Lore, VII, pp. 104-105, 2 figs., February, 1905.

Report of visits to islands in 1901 and 1903, with notes on 9 species. Estimated number of birds as follows: California murre, 75,000; cormorants, 1,200 to 1,500; western gulls, 3,000 to 5,000; pigeon guillemots, 30 to 40.

Tortugas, Florida.

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Job, H. K., On Lonely Bird Key <Wild Wings, chap. V, pp. 83-99, 1905.

Scott, W. E. D., On Birds Observed at the Dry Tortugas, Florida, during parts of March and April, 1890 <Auk, VII, pp. 301-314, map, October, 1890.

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Thompson, Joseph, The Tortugas Tern Colony <Bird-Lore, V, pp. 77-84, 2 pls., 5 figs., June, 1903.

Watson, John B., Condition of the Noddy and Sooty Tern Colony on Bird Key, Tortugas, Florida <Bird-Lore, IX, pp. 307-316, 10 figs., December, 1907.

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Tortugas Florida—Continued.

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Experiments seem to establish the fact that the noddy can spend a night on the water without injury, but the sooty must perish unless it can find floating driftwood or other objects on which to rest.

Yukon Delta, Alaska.

Bales, L. L., *The Roosevelt Bird Reserve* <Outdoor Life, pp. 47-48, July, 1911.

FUR-SEAL, FISHERY, LIGHTHOUSE, AND NAVAL RESERVATIONS.**FUR-SEAL RESERVATION.****Pribilof Islands, Alaska.**

Alaska Seal Fisheries, Compilation of documents and other printed matter relating thereto, assembled by the Department of Commerce and Labor, Vol. X, 1896-97.

Contains reports for 1896 and 1897 of James M. Macoun on Pribilof rookeries and D'Arcy Thompson on his mission to Bering Sea.

Coues, Elliott, *Ornithology of the Pribilof Islands* <Elliott's Rept. Affairs Alaska, chap. IX, pp. 168-212, 1875.

Detailed account of 40 species of birds based on Elliott's specimens and notes.

Crowley, J. B., Murray, J., Townsend, C. H., True, F. W., *Repts. of Condition of Seal Life on the Rookeries of the Pribilof Islands in 1893-95*. 2 vols., 8vo, maps and ills., 1896 (54th Cong., 1st sess., Senate Doc. 137).

Elliott, Henry W., *A Report upon the Condition of Affairs in the Territory of Alaska*, 8vo, pp. 1-277, 1875.

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A Monograph of the Seal Islands of Alaska <Special Bull. 176, U. S. Fish Comm. (reprint from Rept. Fishery Ind. 10th Census), 4°, pp. 1-176, 2 maps, 29 pls., text figs., 1882.

Fur-Seal Arbitration, 15 vols., 8vo, maps, etc., 1892.

Heath, Harold, *Special Investigation of the Alaska Fur-Seal Rookeries, 1910*, <Bureau of Fisheries Doc. No. 748, pp. 1-22, 1911.

Investigation of Fur-Seal Industry of Alaska <62d Cong., Hearings before House Comm. Expend. Dept. Comm. and Labor on House Res. 73, pp. 1-896, 1911-12.

Part 10 contains a summary by Dr. Barton W. Evermann of the laws, regulations, and instructions governing the islands, 1870-1911 (pp. 461-487).

Appendix A. [Correspondence relating to Fur-Seal Islands], pp. 1-1232, 1911.

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Jordan, David Starr, et al., <Rept. Fur-Seal Investigations 1896-97, 5 vols., 4°, maps and ills., 1898-99 (Treas. Dept. Doc. 2017).

Judge, James, *The Blue Foxes of the Pribilof Islands* <Ann. Rept. Am. Breeders' Assn., V, pp. 325-340, 5 figs., 1909.

Modern methods of fox farming with statistics of number of foxes trapped from 1897-1908.

Pribilof Islands, Alaska—Continued.

Palmer, Wm., The Avifauna of the Pribilof Islands <Rept. Fur-Seal Investigations, III, pp. 355-431, pls. xxxviii-xli, 1899.

Contains detailed notes on 69 species and a bibliography.

True, F. W., Mammals of the Pribilof Islands <Rept. Fur-Seal Investigations, III, pp. 345-354, 1899.

LIGHHOUSE RESERVATIONS

Chandeleur Reservation, Louisiana.

[Correspondence relating to posting of reservation and protection of birds and eggs] <Bird-Lore, VII, pp. 72-73, 1905.

Destruction Island, Washington.

Dawson, W. L., Rhinoceros Auklet. <Birds of Washington, II, pp. 908-912, 4 figs., 1909.

Jones, Lynds, June with the Birds of Washington [Destruction Island]. <Wilson Bull., XX, pp. 57-62, 3 figs., June, 1908.

Estimates that 12,000 rhinoceros auklets are found on the island.

Farallon Island, California.

[Published observations on this great bird rookery extend over a period of more than half a century. The conditions at different times may be ascertained by comparing the observations made in the following years: Hutchings, 1856; Emerson, 1885, 1887; Schneider, 1891; Barlow and Keeler, 1892; Loomis, 1896; Chapman, Emerson, and Kaeding, 1903; Ray, 1904; Dawson, 1911. For new species described from the island see p. 13.]

Barlow, C., An Ornithological Paradise. <The Museum, I, pp. 37-44, 4 figs., Albion, N. Y., 1894.

Barlow, C., and Taylor, H. R., The Story of the Farallones, 16mo, 36 pp., 28 figs., 1897.

Bryant, Henry, Monograph of the Genus *Catarractes*, Moehring <Proc. Boston Soc. Nat. Hist., VIII, pp. 134-143, July, 1861.

Original description of the California murre from South Farallon (pp. 142-143).

Bryant, W. E., Birds and Eggs from the Farallon Islands. <Proc. Calif. Acad. Sci., 2d Ser., I, pp. 25-50, Jan., 1888.

Annotated list of 81 species based on notes and observations of W. O. Emerson, June 14-July 2, 1885, and May 2-June 2, 1887.

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Coues, Elliott, A Critical Review of the Family Procellariidæ, Part I <Proc. Acad. Nat. Sci. Philadelphia, 1864, pp. 72-91.

Original description of the Ashy Petrel from South Farallon (pp. 77).

Dawson, W. L., Another Fortnight on the Farallones. <Condor, XIII, pp. 171-183, figs. 49-54, November, 1911.

Visit to South Farallon Island, May 20 to June 3, 1911.

Dutcher, Wm., Report of Committee on Bird Protection. <Auk, XIV, pp. 26-28, January, 1897; XV, pp. 109-110, January, 1898.

Correspondence leading to the prohibition of the egg traffic on the islands under date of Dec. 7, 1896. This traffic existed 47 years—1850-1896, inclusive.

Emerson, W. O., The Farallone Islands Revisited, 1887-1903 [June 2-5, 1903] <Condor, VI, pp. 61-68, 9 figs., May, 1904.

[Hutchings, J. M.], The Farallone Islands. <Hutchings's Calif. Mag., pp. 49-57, figs., August, 1856.

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Kaeding, H. B., Bird Life on the Farallone Islands [June 2-5, 1903] <Condor, V, pp. 121-127, 6 figs., September, 1903.

Keeler, Charles A., On the Natural History of the Farallone Islands—Birds. <Zoe, III, pp. 154-165, pls. xviii-xxi, July, 1892.

A Trip to the Farallones [in July, 1892] <Bird Notes Afield, 2d ed., pp. 35-48, 1907.

Loomis, L. M., California Water Birds, No. III—South Farallone Island in July [8-16, 1896] <Proc. Calif. Acad. Sci., 2d Ser., VI, pp. 353-366, August, 1896.

Includes a bibliography of 13 articles on the ornithology of the Farallones.

Ray, M. S., A Fortnight on the Farallones [May 27-June 11, 1904] <Auk, XXI, pp. 425-442, pls. xxiii-xxviii, October, 1904.

Ridgway, Robert, Notes upon American Water Birds <Am. Naturalist, VIII, pp. 108-111, February, 1874.

Original description of the Farallon Rail (*Porzana jamaicensis coturniculus*), p. 111.

Ridgway, Robert, Description of some New North American Birds <Proc. Biol. Soc. Wash., II, pp. 89-95, April 10, 1884.

Original description of the lesser white-crested cormorant (*Phalacrocorax dilophus albociliatus*), now known as the Farallon cormorant (pp. 94-95).

Schneider, F. A., Collecting on the Farallone Islands. <Oologist, IX, pp. 42-44, Feb., 1892.

Mentions introduction of rabbits "some years ago."

Taylor, H. R., The Farallons in 1856. <Nidologist, II, pp. 59, 60-62, 2 figs., January, 1895.

Quotations from article of J. M. Hutchings, including statement that the Farallone Egg Co. brought to San Francisco from 1850 to 1856 between three and four millions of eggs.

NAVAL RESERVATION.

Midway Islands.

[The islands have been visited by Henry Palmer in 1891, Wm. A. Bryan in 1902, R. A. Campbell and M. C. Baker in 1906-1907, and Paul Bartsch in 1907, whose notes will be found in the following papers or in the list of publications on the Hawaiian reservation.]

Bryan, Wm. A., The Introduction and Acclimatization of the Yellow Canary on Midway Island <Auk, XXIX, pp. 339-342, July, 1912.

Account by D. Morrison, superintendent of Midway Islands, of the increase of a pair of canaries obtained in Honolulu in March, 1909, and two males obtained in July, 1910. The birds, then numbering 13, were liberated and in December, 1911, were estimated to have increased to 60. The date of the first introduction of the Laysan finch (*Telespiza cantans*) is given as May, 1905; in January and May, 1910, two other lots of finches and rails were imported from Laysan.

Mearns, E. A., A List of Birds collected by Paul Bartsch in the Philippine Islands, Borneo, Guam, and Midway Island, with Descriptions of three new Forms <Proc. U. S. Nat. Mus., XXXVI, No. 1683, pp. 463-478, May 27, 1909.

List of 10 species collected in the vicinity of Midway Islands in November, 1907 (pp. 477-478).

Midway Islands—Continued.

Richards, T. W., Nesting of *Diomedea nigripes* and *D. immutabilis* on Midway Islands <Condor, XI, pp. 122-123, July, 1909.

Based on notes of Surgeons R. A. Campbell and M. C. Baker, U. S. Navy, in 1906 and 1907.

NATIONAL RESERVATIONS MADE GAME PRESERVES BY STATE LAWS.

Avery, Carlos, Minnesota's Great Game Preserve. <Recreation, XXX, pp. 271-275, 18 figs., December, 1909.

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Approved.

JAMES WILSON,
Secretary of Agriculture.

WASHINGTON, D. C., *June 1, 1912.*

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