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REPORT

ON THE

MIGRATION OF BIRDS.

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FIFTH REPORT, 1883.

LONDON:

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MIGRATION OF BIRDS

IN THE

SPRING AND AUTUMN OF 1883.

BY

MR. J. A. HARVIE BROWN, MR. J. CORDEAUX,
MR. R. M. BARRINGTON, AND MR. A. G. MORE.

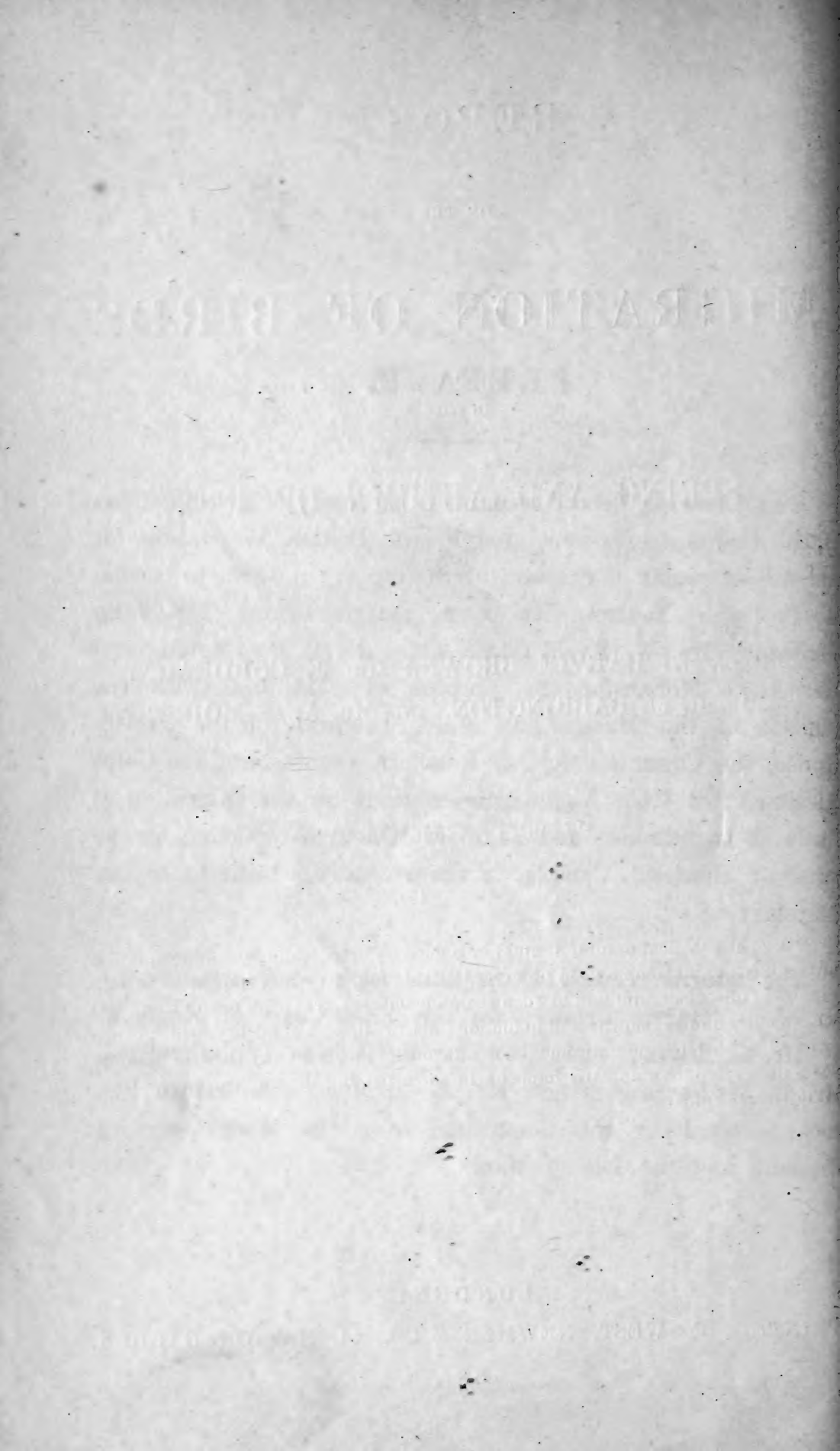
FIFTH REPORT.

“A good practical naturalist must be a good observer ; and how many qualities are required to make up a good observer ! Attention, patience, quickness to seize separate facts, discrimination to keep them unconfused, readiness to combine them, and rapidity and yet slowness of induction ; above all, perfect fidelity, which can be seduced neither by the enticements of a favourite theory nor by the temptation to see a little more than actually happens in some passing drama.”—*Essays, Bishop Wilberforce, Vol. I.*

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PREFACE.

THE following Report contains a summary of investigations of the Committee re-appointed by the British Association for the Advancement of Science, at Southport, in 1883, to consist of Professor Newton, Mr. J. A. Harvie Brown, Mr. John Cordeaux, Mr. W. Eagle Clarke, Mr. R. M. Barrington, and Mr. A. G. More, for the purpose of obtaining (with the consent of the Master and Elder Brethren of the Trinity House, the Commissioners of Northern Lights, and the Commissioners of Irish Lights) observations on the Migration of Birds at Lighthouses and Lightships, and of reporting on the same at Montreal, Canada, in 1884. Mr. Cordeaux to be the Secretary.

The returns relating to Scotland have been arranged by Mr. J. A. Harvie Brown; for the East Coast of England, by Mr. Cordeaux; and those for the Coasts of Ireland, by Mr. R. M. Barrington and Mr. A. G. More. No return has been received by the Committee from the West Coast of England and the Isle of Man.

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FIFTH REPORT
ON
THE MIGRATION OF BIRDS
IN THE
SPRING AND AUTUMN OF 1883.

“We had a succession of black nights going up the river, and it was observable that whenever we landed and suddenly inundated the trees with the intense sunburst of the Electric Light, a certain curious effect was always produced: hundreds of birds flocked instantly out from the masses of shining green foliage, and went careering hither and thither through the white rays, and often a song bird turned up and fell to singing. We judged that they mistook this superb artificial day for the genuine article.”—MARK TWAIN, in ‘*Life on the Mississippi*,’ p. 452.

“Yea, even the fowl—
That through the polar summer months could see
A beauty in Spitzbergen’s naked isles,
Or on the drifted icebergs seek a home—
Even they had fled, on southern wing, in search
Of less inclement shores.”—*The Fowler*.

EAST COAST OF SCOTLAND, &c.

FROM Skykkesholm, in Iceland, comes our first return from that country since the commencement of our work. M. Thorlacius, to whom we are indebted for this return, writes as follows:—
“As this list cannot nearly comprise all the Icelandic birds of passage, of which especially the sea-birds are wanting, I shall complete this by next mail, and send you the continuation along with a complete list of the appearances of birds of passage in the present year (1883). The dates quoted opposite each species

is the day on which they were first observed here. The approximate date of departure will be given later."

The following notes are copied direct from M. Thorlacius' schedule, and are most useful to the Committee, serving as they do as finger-posts on the route of migration, indicating the important dates of arrival at their breeding-quarters of Icelandic summer migrants. When M. Thorlacius sends his autumn departures of migrants and the other good things he so kindly promises us, we will have useful standpoints, the spaces between which can be more easily filled in when these are fixed:—

SKYKKESHOLM, ICELAND, 1882, lat. 65° 4' N.; long. 22 43' W.

- April 7th, *Turdus iliacus*, S., very fresh; rain.
 May 8th, *Saxicola œnanthe*, S.E., light air; clear.
 April 24th, *Motacilla alba*, N.E., stormy; clear.
 May 24th, *Anthus pratensis*, N.E., storm; light showers.
 April 25th, *Scolopax gallinago*, N.E., storm; light showers.
 April 19th, *Totanus calidris*, E., very fresh; dry.
 May 11th, *Numenius phæopus*, N.E., very fresh; light showers.
 April 17th, *Charadrius pluvialis*, N.E., very fresh; clear.
 April 19th, *Tringa alpina*, N.E., very fresh; clear.
 May 3rd, *T. cinerea*, E., blowing hard; clear.
 April 29th, *Streptilas collaris*, N.E., storm; snow showers.
 April 26th, *Tringa hiaticula*, N.E., storm; dry.
 May 23rd, *Phalaropus cinerea*, N.E., blowing hard; clear.
 May 24th, *P. platyrhincha*, N.E., storm; snow showers.
 April 9th, *Falco cæsius*, N.E., very fresh; rain.
 April 9th, *Limosa melanura*, N.E., very fresh; rain.
 April 9th, *Hæmatopus ostralegus*, N.E., very fresh; rain.
 March 30th, *H. ostralegus*.
 April 30th, *Fringilla linaria*, N.E. storm, cloudy; rain.
 April 30th, *Loxia serinus*, N.E. storm, cloudy; rain.
 March 15th, *Uria grylle*, N.E.; clear,
 March 15th, *U. brunnichii*, N.E.; clear.
 March 15th, *U. troile*, N.E.; clear.
 March 15th, *U. alle*, N.E.; clear.
 March 15th, *Alca torda*, N.E.; clear, hard.
 April 25th, *Mormon fratercula*, N.E., very fresh.
 April 30th, *Carbo cormoranus*, N.E., light air.
 April 30th, *C. graculus*, N.E.; light air.
 April 30th, *Puffinus arcticus*, N.E., light air.

FAROE.—From Faroe, thanks again to our friend Herr H. C. Müller, we have the following report, some twelve entries or so between Jan. 1st and Sept. 10th, 1883 :—

On Jan. 1st three Wild Swans, *C. musicus*, seen flying S. at noon. On April 28th one *Gallinula chloropus*, Waterhen, taken alive in Vaay in Bordó. Between May 3rd and 11th several White Wagtails seen during N.N.E., stormy, with snow at different localities in the islands. On May 27th two Red-necked Phalaropes were seen on the sea near Thorshavn during S.W. wind, moderate, with showers of rain.

In August White Wagtails again appeared, when several were seen on the 21st at Thorshavn at noon, fresh W. breeze and clear. Between Aug. 28th and Sept. 10th, Whimbrels (see under Whimbrel, Curlew) were preparing for departure, and disappeared on the last-named date. During this time the winds were from N.W. on Aug. 28th by N. to N.E. on Aug. 30th to Sept. 3rd, and W. on the 10th, the day of departure.

Note.—Herr H. C. Müller informs me that a lighthouse will be shortly erected at Nossoe, in Faroe, eighty feet above the sea. Herr Müller considers that this will prove a good station for observing birds during migration. Suderöe would also be a good observatory. He also told me of the occurrence, for the first time, of *Sciurus noveboracensis* at Nordtalik, Greenland, about May, 1882; and of the occurrence also of a young Sabine's Gull at the same place. I have a young Sabine's Gull, brought home last year (1883) by the whalers to Dundee.

Of the progress of the scheme of accumulation of migrational data in other parts of the world, we may notice here that Dr. Arthur proposes to take up the subject at the lighthouses in New Zealand, and will send the Committee his schedules for arrangement.

Our American friends have made a promising start with similar intentions, but of a much wider scope, as is shown by the circular, which we here reprint, as it will show to our reporters other collateral subjects which offer plenty of opportunity for observation, and which can easily be made as applicable here as in North America, as regards our commoner species. Schedules somewhat more elaborate than ours have been issued also to lighthouses in America :—

“At the first congress of the American Ornithologists' Union,

held in New York City, Sept. 26th—28th, 1883, a Committee on the Migration of Birds was appointed. It is the purpose of this Committee to investigate in all its bearings, and to the fullest extent possible, the subject of the migration of birds in the United States and British North America. The work will not be limited to the accumulation of records of the times of arrival and departure of the different species, but will embrace the collection of all data that may aid in determining the causes which influence the progress of migration from season to season. For example, severe storms, gales of wind, protracted periods of unusually high or low temperature (for the locality and time of year) are among the atmospheric conditions that are known to exert marked effects upon the movements of birds. The opening of the leaves and the flowering of certain plants, with the correlative appearance of a multitude of insects, are also among the factors that have to do with the abundance of many species. Hence the careful registration of certain meteorological phenomena, and of the state of advancing vegetation from day to day, will constitute prominent items in the record books of the observer.

“For convenience in collecting and arranging the enormous mass of material which will be accumulated by the joint labours of this army of field workers, it has been deemed advisable to divide the vast expanse of territory embraced in the United States and British North America into thirteen districts, each of which will be placed under the immediate direction of a competent superintendent.”

Some time ago we received application from China for schedules and letters of instructions, but as yet we have had no further communication from that quarter. We would be glad to hear of the scheme being started there also. Most of the lighthouse-keepers there are Scotch and English.

The ordinary papers were sent to thirty stations on the East Coast of Scotland, Faroe, and Iceland, as in former years. Twelve stations on this coast have sent in forty-two schedules out of the twenty-six E.C. stations of Scotland. All returns are much lighter than in 1882, and this is more readily noticed when we compare the numbers of schedules returned from our principal stations. Thus, from Sumburgh Head we have three; from Pentland Skerries twelve (three more than in 1882); from Bell

Rock two; and from Isle of May only ten, as against nineteen in 1882.

EAST COAST OF SCOTLAND.

'79	'80	'81	'82	'83	
*	*			*	4. N. Unst, Shetland 230 ft. J. Edgar.
	*	*	*		5. Whalsey Skerries, Shet. 143 ,,
			*		6. Bressay, Shetland 105 ,,
*	*	*	*	*	7. Sumburgh Head, Shet. 300 ,, D. M. Scott.

Land Notes.—7B. Fair Isle.

ORKNEY.

*	*	*	*		8. North Ronaldshay 140 ,,
					9. Start Point 80 ,,
*	*	*	*	*	10. Auskerry 110 ,, J. McDonald.
					11. Hoy Sound (Low) 55 ,,
					12. Hoy Sound (High) 115 ,,
					13. Cantick Head 115 ,,
*	*	*	*	*	14. Pentland Skerries 170 ,, {D. McDonald.† J. Gilmour.

MAINLAND.

*	*	*	*		15. Dunnet Head, Caithness 346 ,, D. Laidlaw.
					16. Holborn Head, Caithness 75 ,, D. Laidlaw.
			*		17. Noss Head, Caithness ... 175 ,, A. Greig.
			*		18. Tarbat Ness, East Ross 175 ,, W. Davidson.‡
	*	*	*		19. Cromarty, E. Cromarty 60 ,, R. S. Ritson.
		*	*		20. Chanonry, Point Elgin 40 ,, J. McGill.§
		*			21. Covesea Skerries 160 ,,
					22. Kinnaird Head, Aberdeen 120 ,,||
					23. Buchan Ness, Aberdeen 130 ,,
*					24. Girdleness, Aberdeen ... 185 ,,
					25. Montroseness, Aberdeen 124 ,,¶
*	*	*	*	*	26. Bell Rock, Fife Coast ... 93 ,, J. Jack.
*	*	*	*	*	27. I. of May, Firth of Forth 240 ,, J. Agnew.
	*	*	*	*	28. Inch Keith, F. of Forth 220 ,, R. Grierson.
					29. St. Abbs Head, Berwicks 224 ,,

† Mr. D. McDonald removed from Pentland Skerries to Skervuile (W. C.) about July 26th, up to which time he sent returns from Pentland Skerries. Thereafter Mr. J. Gilmour took in hand the returns at the latter station.

‡ I have to thank Mr. W. Davidson for the first schedule received from Tarbat Ness. Between Aug. 15th and Oct. 30th there are only eleven entries, all light, of ten different dates only. This schedule is valuable for its negative evidence, just as other more favoured localities for migrants give valuable positive evidence. Can I not induce others to return even empty

From Kinnaird Head Lighthouse I have the following reply to my inquiry:—"Birds at this lighthouse are every year getting more scarce, as the town is now extended to the lighthouse, and cooerage works at the very gate make much noise, and sparks of fire fly about whilst making the barrels. At the same time Mr. D. M. Scott, now at Sumburgh Head, tells me he has once caught, in one watch, forty-eight Starlings at the lantern, and some Thrushes.

I have also to thank Mr. Alexander Greig for the first return from Noss Head. The movements of Gannets, as related there, cannot fail to be of use to the Committee. Mr. Greig says, "There has been great scarcity of birds this last year, except those which are generally with us."

schedules at the end of the year, with the simple remark "No Birds" or "Few Birds" attached, if such is the case? Then our Committee would have certainty to go by, not merely hypothesis. Mr. Davidson gives me the further information regarding this station, that he observed no further migration since Oct. 30th, the weather being so mild. It is usually before any changes in the weather that we see any birds passing here besides the birds which frequent the locality. The situation of Tarbat Ness is a very high tower, 175 feet, and is joined to farmhouses. It is not much sheltered, the tower being on the bare point. At some seasons great quantities of birds are seen (*in lit.*, Jan. 20th, 1884).

§ At Chanonry lighthouse the schedule, again kindly returned by Mr. McGill, pretty clearly indicates and illustrates the action of local migrations. Thus he tells us:—"There are plenty of Black Crows, which fly between this and Nairn every day for feeding in the morning, and fly back at night. A great many grey ducks come down on this Firth for the purpose of feeding. It would seem they do not migrate. There are several flocks of birds which seem to fly north the one day and in a few days to fly back to the south; they seem to be the same flocks that have been feeding." From Chanonry Mr. McGill writes:—"Only one bird has struck the lantern since I came here in the summer of 1882, and only two lighted on the lantern. None killed." The returns from this station almost all relate to local movements, but are not on this account less valuable, but rather more so, as giving good opportunity of making comparisons and deductions. Most of the occurrences are attended by highly developed pressures, squalls, strong breezes, &c., but the directions of these are not given.

|| Mr. D. M. Scott, who left this station, removed to Sumburgh Head. He sent the description of a bird from Kinnaird Head in 1882, but no schedule. Scarcity is the true reason of lack of returns from this station. Mr. Scott has sent well-filled schedules since from Sumburgh Head.

¶ "No Birds" at Montroseness, reason given for absence of returns in 1882 (q. v.).

Through Mr. Thomas Southwell's kindness I have received a few items of interest from the log of the whaler 'Eclipse,' Capt. D. Gray. Also a note from Mr. T.H. Nelson, taken on board the 'Camoens,' 150 miles N.N.W. of Orkney; as also a note or two, through the kindness of Mr. Robert Gray, taken on board the 'Marathon' in the Atlantic by Mr. Thomas Anderson. These are now given; and the land notes will be entered after the paragraphs on each species or group.

'ECLIPSE.'—March 28th, 1883, 70° 7' north, 3° 40' west, saw but one Hooded Seal to-day, but plenty of Rotches, Looms, Snow Birds, and Mallemauks. April 19th, 69° 53' north, 5° 30' west, saw a few Bottlenose Whales, and at night a Merlin lighted on the fore-topsail-yard, and there fell asleep, and was afterwards caught. He seemed very tired and weak. I made a box for him, and fed him on small pieces of meat. April 22nd, the Hawk seems to be thriving; he is kept below during the day and on deck when it is fine. April 24th, 68° 29' north, 9° 12' west, let the Hawk away at 10 a.m. He flew straight to S.W. At 2 p.m. spoke the 'Catharine' brig. Whilst speaking the 'Catharine' I was astonished to see my old friend the Hawk sitting on one leg in the lower quarter boat, looking very disconsolate, and, when scared, immediately flew to the 'Catharine.' He had evidently come across that vessel at sea, and had flown on board her. May 2nd, 68° 20' north, 11° 30' west, a great many birds about the ship, a few hundreds of Mallemauks, and numerous Snow Birds, Burgomasters, Snow Buntings, two Eider Ducks, and one Iceland Falcon. May 4th, the vessel was followed by a good many Mallemauks, Burgomasters, Snow Birds, &c. May 18th, 69° 37' north, 9° 9' east, in the morning a Loom alighted on the main-topsail-yard, and Rotches have been numerous, besides the usual number of Mallemauks, Kittiwakes, Snow Birds, and Burgomasters. May 22nd, 69° 59' 3" west, about 65 miles N.N.E. from Jan Mayen, "a few Bottlenose Whales seen during the day, and several Black-headed Gulls and Whimbrels." [This is an interesting note in the distribution of the Whimbrel, which species Capt. Gray knows well, having brought home skins before now, all the way from the coast of S. Greenland, and others have arrived, brought by other whalers, at least two of which are in our collection.—J. A. H. B.] June 10th (70° 32' north, 1° 29' west), a Swallow or Martin seen. May 16th (about 67° 41' north,

14° 34' west), two birds known at home as Wheatears and Water Wagtails ["Watee Wagtails" (*sic*) local in Forfar.—J. A. H. B.] came on board and died. They were experiencing very heavy weather at the time.

'MARATHON.'—October 12th, 1883 (46° 43' north, 35° 39' west), six or seven Snow Buntings flew on board, winter plumage, wind fresh N.W., and only two remained, the others leaving to go to another vessel passed by the 'Marathon.' The other vessel had a deck-load of wood.—R. G.

'CAMOENS.'—Mr. T. H. Nelson writes:—"A friend of mine took a trip to Iceland in the 'Camoens' last October. On Oct. 14th, 150 miles N.N.W. of Orkney, a Starling flew on board. On the journey both there and back, *viz.*, between Oct. 18th and Dec. 3rd, a great many small birds were seen *flying south*, but my friend was not well enough versed in Ornithology to be able to identify them."

Notes are presented upon about seventeen species of water-fowl and fifty-four species of land birds, and about thirteen species of waders or littoral species, by our east coast reporters.

Spring migration having been more considerable this season, I keep separate in this Report.

The movements recorded occupy the whole year, from date of February to June, during spring, and from date of July to January, during autumn.

SEPARATE REPORT UNDER GENERA AND SPECIES.

TURDIDÆ.—In spring a considerable migration noticed at certain stations, *viz.*, Pentland Skerries, Bell Rock, and Isle of May. Began Feb. 2nd, when a rush of Song Thrushes took place at Bell Rock, and terminated May 10th, when, and upon the 9th, there were indications of another rush of Fieldfares and Ring Ouzels. Whilst Song Thrushes, Redwings, and Blackbirds seem usually to travel together, the larger-winged Fieldfares and Ring Ouzels are usually associated in our returns, though not invariably. Although this spring migration was spread over such a very considerable time, none of the returns are very heavy; but indications of rushes are sufficiently distinct. At Bell Rock, as above stated, on Feb. 2nd, strong E.N.E., with haze, Fieldfares and Ring Ouzels; at Isle of May, on March 2nd, light W., clear, Thrushes and Blackbirds—a decided but

not large rush, which stopped abruptly with wind changing to gales from S.E. to E.N.E. and to N.W. [see Third Report, General Remarks, p. 67.—J. A. H. B.). In April, light but fairly continuous entries at Pentland Skerries and Isle of May, but little indication of a general movement, except on April 27th, when a good many Fieldfares and Ring Ouzels were noted at Isle of May, wind fresh S.E. Prevailing winds up to termination of spring migration, easterly along whole coast. On May 2nd, and again on 9th and 10th, there were faint indications of rushes at Isle of May, principally of Fieldfares.

In autumn the migration was pronounced, and confined principally to October and November. Yet the earliest record we have yet received in Scotland in our schedules occurred on Aug. 28th, at Isle of May, of two Song Thrushes, followed by a single record on Sept. 21st; also at Isle of May, "a few Redwings and Ring Ouzels." Again, passing at present over October and November, only one record in December of a solitary Fieldfare on the 5th; and in January, 1884, a flock on the 7th and three birds on the 22nd, during a wild W. gale. The month of October has many entries, and I find the word "rush" opposite the following dates and stations:—At Pentland Skerries and Isle of May, but not at Bell Rock, on 13th—15th, hundreds of Redwings and Ring Ouzels, also Blackbirds and Thrushes, besides many other birds whose names I will give later. Also at N. Unst a few stragglers rested on the 16th, and then flew south, with strong S.E. wind and haze. Again, from about Oct. 28th to Nov. 5th, a great movement, developing into vast rushes, between Oct. 30th and Nov. 3rd, on which latter day a Dipper (*Cinclus*) was seen on the Isle of May; twice fired at for the collection, but escaped. The stations, N. Unst, Sumburgh Head, Pentland Skerries, Tarbat Ness, Bell Rock, and Isle of May participated (maximum at Isle of May), but also large numbers at Pentland Skerries, Bell Rock, and goodly appearance at Sumburgh Head on Nov. 1st. On Oct. 13th—15th wind was S., but shifted to W. at Isle of May. On Oct. 28th and 29th wind was S., light and clear; and on 30th to Nov. 1st still prevailing southerly and westerly. Mr. Agnew states that the rush on 13th—15th was the largest ever witnessed by him at Isle of May with a due S. wind, S.E. being usually the most productive. Having detailed the movements and given dates and circumstances of these rushes, I will now name the

other species which participated in them, and refer back to this paragraph afterwards throughout the Report. During the October rush, 13th—15th, Redwings in hundreds; Ring Ouzels, Bramblings, Larks, Woodcock, Short-eared Owl, Yellow Bunting, Eider Ducks in large flocks; Chaffinches, Crows (Carrion and Hooded), Jackdaws (the largest flock ever seen at Isle of May), Bramblings, Tree Sparrows, Blackbirds, Thrushes, and one Missel Thrush; besides, in smaller numbers, Wagtails, Redstarts, Hawks, &c. During the great October to November rush the following participated: Sandpipers, Snow Buntings, Skylarks, as far as N. Unst; and southwards, Lapwings, Grey Crows, Robins (smaller numbers), Linnets, Chaffinches, Starlings. At Sumburgh Head a large migration of Thrushes, with Starlings, Larks, and Linnets; many killed. At Pentland Skerries rush began on 20th, and also at Isle of May, principally *Turdidæ* and *Emberizidæ*. At Bell Rock, on Oct. 31st—Nov. 1st, rush began at 7 a.m. Mr. Jack writes:—"Immense numbers killed. I have no doubt they were killed in hundreds. What we think were Woodcocks struck with great force. Birds continued flying within the influence of the rays of light till the first streak of day, continually striking hard all night, and falling into the sea. Although we cannot be sure, we think there was a great number of Woodcocks struck and fell into the sea."* Species of *Turdidæ* seven, including *Cinclus*.

SAXICOLINÆ.—In spring considerable arrival of at Pentland Skerries, Bell Rock, and Isle of May. Earliest (a single Stonechat (*vera*) *S. rubicola*) on March 20th, at Isle of May, with light E. wind and haze. [N.B.—In our Third Report, p. 8, the first record was on 29th of Wheatear, but this record in Mr. Agnew's schedule was entered as "Stonechat." Owing to the confusion existing between the Wheatear and "Stonechat" it is usually almost impossible to know to which the name Stonechat is applied. The true Stonechat is very like a Whinchat, and in no respect resembles the Wheatear, except in the sound of its voice.] The next earliest was of three Redstarts (or Fire-tails), on March 29th, also at Isle of May, S.E. fresh, haze.

* What a loss of useful food to the lighthouse-keepers, which might perhaps be saved to them by a few long poles and an old herring-net stretched round and outside the balcony. This fact is surely worthy of the attention of the Commissioners and all Directors of our Lighthouse Stations.

Indications of a rush of Wheatears between April 5th and 13th, at Isle of May; and much lighter indications of single birds at same dates at Pentland Skerries. Redstarts scarce; two on April 27th, one on 26th at Isle of May, and a few at same place. These in every instance with light or fresh S.E. winds in April, and light N.E. in May.

In autumn a considerable migration, commencing on August 20th; first record at Isle of May—"Stonechat" [one earlier record occurs at same place on July 14th, but it is perhaps difficult to say to what this belongs, as Wheatears breed annually on Isle of May]; one killed at lantern. Fresh N.W. wind, and terminating as far as schedules indicate, by Nov. 11th. In this statement are included Wheatears, "Stonechats," [true Stonechats identified], Redstarts; but there are no records at any stations of Wheatears or Stonechats between Sept. 12th and Nov. 1st. October is, curiously enough, entirely blank of any returns of *Saxicolinæ*, and there are only two records in November. The rushes took place end of August, culminating on the night of Sept. 2nd—3rd, when a great rush of Wheatears, Redstarts, and also Chiffchaffs, Robins and Sedge Warblers, Wood Warblers, and Golden and Grey Plovers took place. The absence of any record of Thrushes or *Turdidæ* at this date at any of the stations is noteworthy. Mr. Agnew writes:—"The night of Sept. 2nd was very stormy, wind S.E., shifting to N.E., with heavy rain. The birds were all in large numbers throughout the night, except a Blue-throated Warbler, adult, which was solitary." On the 12th, nearly all Wheatears left the Isle of May. On the 4th, at Pentland Skerries, a rush all day. with strong N. wind and rain. Indications at Bell Rock very faint throughout. In the vast rush of *Turdidæ* and other species (see *Turdidæ* under date) of Nov. 1st, one solitary Wheatear is first recorded, the first notice since Sept. 12th. In all three species of *Saxicolinæ* with certainty.

Note.—The true Wheatear, "white on the rump," is intended in the return from Pentland Skerries.

SILVINEÆ.—In spring, earliest record (Robin) is March 18th, at Pentland Skerries, and with an E.S.E. gale and sleet; and the latest (also Robin) on May 11th, at Sumburgh Head, fresh, S.S.E. A rush of Robins at Isle of May on April 26th, when "large numbers" appeared; fresh, S.E. and haze. Robins disappeared from Cromarty station on March 30th.

In autumn, earliest record at Isle of May on Aug. 16th,—Whitethroat,—when almost a rush might be recorded. On the 23rd again, at same place, large numbers of Whitethroats and Titmice. At Cromarty station Robins reappeared, about a dozen being seen on Sept. 15th, the first since spring. On Sept. 15th, a rush of Robins at Isle of May, and on 22nd. Winds on all these dates easterly, with fog, and on 15th “flying banks of fog.” Records also of Blackcap on 10th, and more Blackcaps on 23rd; that on 10th with light W. wind, the others light E. No records in October except at Chanonry, two on 15th, strong squalls and S.W. Small numbers beginning of November, amongst Thrushes, &c., q. v. stations; Pentland Skerries, light; Dunnet Head, one record; the latest on Dec. 28th; and Jan. 30th, at Chanonry; light squalls and sleet. Bell Rock and Isle of May (maximum). Blue-throated Warbler on night of Sept. 2nd—3rd. In all three species.

PHILLOSCOPINÆ.—In spring a distinct movement of Goldcrests, but nothing to compare with the autumn rush of 1882, though comparing favourably with the spring rush of the same year. Earliest record, April 1st, Isle of May; then singly or in small numbers till 13th, when rather more, along with other species. Latest date of Goldcrests or other Leaf-warblers, April 16th, at Pentland Skerries; one Goldcrest; light N.E., clear. The first Chiffchaff on April 26th; also at Isle of May; wind S.E. and haze; and some again on May 2nd; and Willow Warblers and Chiffchaffs on May 15th.

In autumn a rush at Isle of May, and no previous records; on Sept. 3rd (see *Saxicolinæ*); on the 2nd a S.E. gale, changing light W., very dark. Scattered records running through 10th, 11th, to 15th, when another rush of Willow Warblers and Chiffchaffs, and a solitary Goldcrest on 22nd, with a rush of Robins. Goldcrests did not put in an appearance much before Oct. 10th, when a rush took place that night, with light E. wind and cloudy, again at Isle of May. Mr. D. M. Scott speaks of the “smallest wrens he ever saw,” which were seen at Sumburgh Head, on Oct. 28th, which were probably of this species. Stations recording are Sumburgh Head (one record); Tarbat Ness (one record on Oct. 30th [some years Caithness gets a large share of Goldcrests]); and Isle of May. Three species.

PARIDÆ.—A few scattered notices in April and May at Pent-

land Skerries on April 25th, 27th and 29th, with S. easterly and N.E. wind; rain, haze or clear; and at same place on May 13th. *Note*.—Mr. MacDonald distinguishes between “Titmice” and “Tomtits.” Titmice are probably Cole Tits, and “Tomtits” Blue Tits, *Parus cæruleus*.

In autumn, in September, a few at Isle of May, on 4th, 5th, 18th, 19th; on the 4th and 19th, travelling with “Stonechats”; also at Isle of May; winds westerly and northerly. In October, one record at Inchkeith; wind light S.W., which seems the usually chosen wind at this locality for birds migrating. In November, on the 18th, one bird, which is either a Cole Tit or a Great Tit, at Isle of May.

ACROCEPHALINÆ—ACCENTORINÆ.—A solitary record of one Sedge Warbler, at Isle of May, on May 17th, constitutes the whole spring returns.

In autumn, only two records in all; one at Isle of May on Sept. 12th, of one Sedge Warbler, with light S.E., haze and rain; and the other on Oct. 11th, at same place, of a Hedge Sparrow (“Blue Janet” of Schedule). One species of Marsh Warblers, and one probably *Saxicolinæ*.

TROGLODYTINÆ, Common Wren.—On April 9th, one struck and killed (No. 55, in spirits); light W., clear!

In autumn, on Aug. 18th, at Sumburgh Head, a few remained two days; light W. and haze. Wrens not in large numbers accompanied rush of other migrants on Sept. 22nd and 23rd; fresh E. and very dark, at Isle of May. In October, one record at N. Unst, resting at 10 a.m.; S.W., light and haze (“a rare visitor.”) It would be interesting to know if this was one of the large-footed form found in Farøe (*T. Farøensis*), or our common species.* In November, a few on 7th at Isle of May; and at Tarbat Ness, one on Oct. 27th; in November, three seen at Sumburgh Head, with strong breeze and hailstones.

MOTACILLIDÆ.—In spring, at Pentland Skerries and Isle of May. Earliest, March 2nd, at Isle of May; light W., clear; with a rush of other migrants. Five seen on March 30th—“the most ever seen together in spring,” at Isle of May, “by Mr. Agnew;” a gale from the S. the previous night, but wind

* This I hope to be able to decide next year, should any turn up at this station.

westerly when seen ; these birds flying north. Other records are with E. or S.E. winds, on 19th, 20th and 23rd. In April, two records at Pentland Skerries and Isle of May, on 3rd and 25th.

In autumn, records from Pentland Skerries, Bell Rock and Isle of May. Earliest, July 13th, at the first-named station, and again on 28th, with fresh N. wind and haze or rain. Scattered records in August, mostly at Pentland Skerries, with northerly winds; but two records, one with light S. and clear, and the other, Aug. 18th, with fresh W. and cloudy, when thirteen were counted. In September, a flock at Bell Rock on 1st; a few on 2nd, at Pentland Skerries; a number on 11th, with Robins, at Isle of May. In October, one record at Isle of May, on 10th, light E., haze; and the latest record at Isle of May, one bird on 7th. The Wagtails on Oct. 10th are described as very light-coloured, but from the good description it is easily seen that they are immature birds of probably the Pied Wagtail. But it is desirable to watch for *very light or light-backed birds* at Isle of May and elsewhere, and especially at Bell Rock, *during the spring migration*, as such may prove to be the continental White Wagtail.

ANTHIDÆ.—In spring, the Rock Pipits resident at the Isle of May received considerable additions to their numbers on March 19th, and Meadow Pipits arrived in small numbers on 21st, which is an early date. On April 3rd, both had much increased in numbers. "Moss-cheepers," *i. e.*, Meadow Pipits, are also noted at Bell Rock, on April 27th.

In autumn the movement was never great. Noted at Bell Rock, and, curiously enough, *not* at Isle of May, nor at any other stations. Duration: Aug. 9th—light S. breeze, fog, one resting—to Nov. 1st, when one was noted along with the vast rush of other migrants (see *Saxicolinæ*). Indication of the rush very faint about Sept. 1st, when a flock rested on the Rock; a few more seen on 16th, 19th and 22nd; winds light S.W. on 1st, light N.W. on 22nd, and E.N.E. on 19th; calm on 16th. On Oct. 9th also a flock flying with "Bullfinches." [These latter may, Mr. Jack thinks, be named wrong, and may be either Crossbills or Hawfinches.]

Land Notes.—A Waxwing, *Ampelis garrula*,—a male in full plumage,—was found at North Unst, of which Mr. Garrick writes me that it had been kept too long and could not un-

fortunately be preserved. Two very fine old Waxwings were shot at Kinneil Woods, near Borrowstonness (or Bo'ness), by Mr. D. Nichol, gamekeeper to Mr. Russell, Dundas Castle, on Jan. 18th, 1883.

LANIADÆ.—A male killed at Helensburgh (Dumbartonshire), shot by Major Allan Colquhoun, Feb. 3rd, 1883.

HIRUNDINIDÆ.—In spring, *i. e.*, till end of June, records reach me from Sumburgh Head, Auskerry, Pentland Skerries and Isle of May. (It is often difficult to draw the line in the case of *Hirundinidæ*, between spring migration, local flights, and autumn migration. This year, however, they are tolerably distinct, as I have no records during the whole of July). Earliest spring record is at Sumburgh Head, on April 21st, a single bird, and the next is at Isle of May on April 26th; winds in both cases S.E., and two more on 28th. No more till May 14th, with S.W. wind at Isle of May. Occasional light returns all through May, at Pentland Skerries and Isle of May; winds easterly at former, and westerly at latter. *Note*.—None breed at Isle of May. No rush distinguishable. In June the dates are 5th (at Sumburgh Head and at Pentland Skerries), Sand Martin; 10th, four seen at Sumburgh Head, and 13th, 14th, 17th and 26th, at different stations; winds from all directions between S.W. at Sumburgh Head by N. to E. Swallows arrived at Cromarty on May 13th; first seen.

In autumn, the movement, as far as I can judge, extended through August and September, and lingered into October, the latest record coming from Sumburgh Head on Oct. 6th. A rush is indicated by the returns on Sept. 8th and 15th at Isle of May, when "considerable numbers," "large numbers," and on the 19th, "some," are the data. Wind light W. on 8th, and easterly the other days. The directions of flight of Swallows recorded in August vary considerably. Thus, at Pentland Skerries, one Martin flying E.; strong S.E. and rain, on Aug. 8th; one Swallow, "flying around," on 9th; fresh E., showers, and "flying W."; on 20th light S.E. and haze. At Isle of May, five Swallows flying S., light S.E., haze on 22nd, and flock "flying S." on 30th; light S.E., haze. Swallows left Cromarty on Sept. 8th; last seen.

Land Notes.—Swallows seen by me in some numbers at Kirkmichael House, Dumfries, on evening of April 13th, flying

over the artificial ponds. Also seen at Morningside by A. B. Herbert, on 15th. I have the following notes from Dr. John Grieve, at Bridge of Allan, which locality is famed in spring for the shelter afforded from east winds. Dr. Grieve's notes refer however to autumn notes. In 1880 Swifts left the Bridge of Allan on Aug. 10th. In 1879 Swifts left between 8th and 17th, and in 1882 on the 8th. "Previous to leaving they always chase one another round the houses until two days before leaving; then they appear to keep to higher air." In 1881 two were seen on May 3rd, being the first arrivals. In 1880 about 200 "Martins and a few Swallows collected on two houses in Bridge of Allan on Aug. 22nd, and similar congregations took place in smaller numbers on 27th to 31st, and on Sept. 8th. On Oct. 4th, frost; and in afternoon some twenty-five seen. On Oct. 6th, five to one hundred seen hawking over the wood behind Bridge of Allan. On 8th, six seen. On 8th, hard frost and fog; four seen flying about *in silence*; next morning, hard frost. On 20th, 15° frost; on 21st, 6°; 22nd, 10°; and 23rd, 2°. But on 23rd two Swallows seen. These were the last that year." In 1882 great numbers of Swallows and Martins were seen flying eastward, outside the cliffs of Beachy Head on Oct. 4th, and a good many remained along the undercliff of the Isle of Wight at Ventnor.

The above notes by Dr. Grieve are quite to the point, and if we could continue to receive land notes such as these from all parts of the country they would be sure to prove most useful, even if confined to one or two species of regular migrants.

FRINGILLIDÆ.—Both in spring and autumn, one of the features of the 1883 migration is the number of records of Finches (also of Thrushes, and to a less extent of Buntings), whilst Thrushes—of sorts—and Finches, seem usually to travel together; there seems, if we may so call it, more uniform action in the formers' movements in 1883. The Thrushes' movements are more compressed: those of Finches more extended in time; or, in other words, the spring and autumn migrations of the *Turdidæ* are more strongly defined than those of the Finches. Thrushes (including Blackbirds and all species) are totally absent during June and July (not including residents of course), and almost absent during August and September, and again the same in December and January (1884). But, though the migra-

tions of the Finches are easily defined, still they do spread out more over the whole year, and, with the exception of July, occupy considerable space in the schedule. These remarks are intended to apply only to 1883, not as a general statement.

In spring, records come from five of the stations giving returns, *viz.*, Sumburgh Head, Auskerry, Pentland Skerries, Bell Rock and Isle of May. The earliest, two Green Linnets at Isle of May, on Feb. 17th (the only record of that month). Again, at Isle of May, Tree Sparrows and Chaffinches on March 2nd—single birds. Latest, June 22nd, at Pentland Skerries—four “Linnets.” These are probably Twites or else Grey Linnets. During April, between 1st and 5th, there was a rush of Grey Linnets with light W. wind, clear, along with other species; and during the month there are lighter movements recorded of the following species:—Chaffinch, Sumburgh Head; Common Sparrow, Pentland Skerries; Green Linnets, Isle of May; Bramblings, Tree Sparrows and Bullfinches. Wind at Sumburgh Head light S.E., but elsewhere generally light W. and usually clear. In May a small flock of Sparrows at Auskerry, from the 14th to 31st; one Brambling, one Chaffinch, one Green Linnet, between 10th and 15th, with fresh N.N.E. wind.

In autumn, at North Unst, one flock, Oct. 17th; S.E., light, haze; Sumburgh Head, considerable migration in October—November with other species (see Thrush). Pentland Skerries, small indication as compared with more southerly stations; Chanonry, light; Tarbat Ness, full migration; Bell Rock, rush; and Isle of May, rushes. Earliest, Aug. 5th; numbers of small flocks; wind light W. at Isle of May. Latest, Dec. 26th, at Isle of May. Rushes:—General rush of migrants, Sept. 22nd, at Isle of May, in which Bramblings participated; Oct. 13th, at Tarbat Ness, Bramblings, wind due S.; also rush of same, 15th and 16th, same place; and rush also of Tree Sparrows, Chaffinches, “Green Buntings” (? Green Linnets), and Linnets, at Chanonry; strong breeze and showers; movements all through October of these same species; also Linnets at Pentland Skerries; Siskins (“Sisting” of schedule), one flock, old and young, on 7th, at Tarbat Ness, and again five on Oct. 29th. Light S., haze, on 30th. at Pentland Skerries—date of principal rush,—but westerly gales at Tarbat Ness on 29th. At the time of rush between Oct. 13th and 16th, at Tarbat

Ness, the wind began at due S. ; 14th, strong S., and to noon on 15th; then to W. and west gale at night of 15th. West gales continued to end of month. By Nov. 1st to 3rd a vast rush at Bell Rock and Isle of May, and also at Sumburgh Head. By the 5th, rush all over and almost all left. Pentland Skerries did not appear to participate largely in this rush. The species are chiefly Chaffinches and Bramblings, also Green Linnets, Gray Linnets and Sparrows. Prevailing winds westerly. In December, fewer records at Pentland Skerries and Isle of May. Winds prevailing N.W. and W. At Dunnet Head "Linnets" are reported present all the year round. In January, 1884, one or two light records of Brambling and Greenfinch at Isle of May. Latest, Jan. 12th. *Note*.—Mr. Gilmour, Pentland Skerries, writes he was not sure of the Chaffinches at that station, when he took up the keeping of the records, and that they may prove to be Snow Buntings, which is very likely. Mr. D. M. Scott, at Sumburgh Head, writes under date of Oct. 11th, "a number of small birds killed on balcony: picked up four Green Linnets and two Chaffinches. I discovered to-day what becomes of them after being killed. In a hole of a stone dyke I found a large number of wings and legs of small birds, taken there by Weasels" (i.e., *Mustela erminea*, which was introduced to Shetland. The Common Weasel, *Mustela vulgaris*, is not an inhabitant of Shetland). If Mr. Scott would in future collect all the wings and send them to me by post, they would be useful in identifying species; or, at any time, if a rare bird occurs, the name of which is not known, the wings might be sent (see addition to letter of instructions, issued 1884). Mr. Agnew notes that he had never before witnessed such a large migration at Isle of May, with a due S. wind, as that of Oct. 13th, 14th, and 15th. Chaffinch was heard singing on Feb. 28th at Dunipace.

CORVIDÆ.—I have records every month in the year but June. In January, 1884, one Hooded Crow flying north, W.S.W. gale, clear. In February, 1883, records of Grey Crows, Jackdaws (at Isle of May, "very rare" on 13th and 14th, light S. and S.W., shifting to N). Rooks (at Isle of May, on 19th, a single bird). In March, Rooks (at Pentland Skerries a flock all day, fresh S.E., cloudy), and one Hooded Crow (on 19th at Isle of May, light, S.E.). In April, at Sumburgh Head, Bell Rock, and Isle of May, Rooks and Carrion Crows and one Hooded Crow; prevailing

winds S.E., clear. One Black Crow flying north at Noss Head, with light N.W. and clear. In May two records only at Sumburgh Head on 3rd, and at Pentland Skerries, on 11th, of Rooks (two flying W., fresh W. breeze and clear).

In autumn, in July, all the records are of Rooks, all at one station, *viz.*, Pentland Skerries, and in each case birds remaining on island all day; winds moderate N., cloudy or clear, but strong S. on 27th. In August, Rooks again at Pentland Skerries, on island; single birds. The above are probably merely local predatory excursions from the mainland of Scotland. In Sept. eighteen Ravens seen at Sumburgh Head, flying S., light N.E. and clear. In October many more records. At Sumburgh Head twelve to twenty Hooded Crows continually fighting with four large Hawks, one of which was so exhausted as nearly to allow Mr. D. M. Scott to catch it on the ground. Many single or other light records. The most seen, thirty Jackdaws (the largest flock Mr. Agnew has ever seen on Isle of May), on Oct. 15th, S. to W. winds; also twenty-six Carrion Crows and a few "Hoodies" on 31st at Isle of May. Of these sixteen came from the north at 3 p.m., light S. and haze. In November Carrion and Hooded Crows attended the rush of migrants on 1st, coming from the north. On the 3rd the Isle of May was literally swarming with birds, and on the 9th Jackdaws, two in number, reappeared; light W., clear. In December, at Sumburgh Head, two "large Black Crows" (Carrion Crows?), or, as the natives call them, "Scotch Crows"; strong breeze and hail showers. A very regular local migration of Crows or Rooks takes place day after day past Chanonry from and to Nairn, feeding in the morning and back at night. At Sumburgh Head Grey Crows are seen almost daily. *Land Notes.*—Mr. R. Gray writes me that great numbers of Hooded Crows are at present frequenting Tyne Woods on the estate of the Earl of Haddington in East Lothian. They came some time ago in a body, and have been seen feeding on the mud and sands of the estuary, and betaking themselves to the woods at night to roost. These are evidently migratory flocks, which have crossed Heligoland and landed on our east coast without being actually observed in transit.

STURNINÆ.—In spring, from Feb. 8th at Pentland Skerries to April 23rd at same place. Only four records in that time.

In autumn, great continuous migration at Auskerry, July

30th, of old and young; light W. One flock on August 7th at Pentland Skerries all day; one flock stayed from March 15th to 24th at Sumburgh Head, and many large flocks also seen to the north of that place at the same time. In October two small Starlings, "one with a crest like a Crested Lark; raised and lowered it at will" [Rose-coloured Pastor?—J. A. H. B.] seen on 6th, light N. wind. Rushes took place on Nov. 1st, especially at Sumburgh Head and Isle of May (see also under Thrush). Latest, Dec. 31st, at Isle of May; but the Starling is resident all the year round at many of our stations.

ALAUDIDÆ.—In spring at Sumburgh Head, Pentland Skerries, Bell Rock, and Isle of May. Earliest, Feb. 8th, a single bird at Bell Rock, and several on 9th at Pentland Skerries (see under Thrush at this date). Latest, April 6th, at Sumburgh Head, when they were found increasing, but not observed on arrival. A rush took place at Isle of May on Feb. 11th, 1 a.m. till daylight, light E. and fog, flying south (at least all struck the north side of lantern).* Other movements took place, but none of any magnitude; winds S. and W. in Feb., except the 11th, *ut sup.*; N.W., S.W. to E. on 20th, in March.

In autumn, a few records at N. Unst, Isle of May, and Inchekeith. Earliest, Sept. 21st, at Isle of May, a small flock, fresh E., clear. Latest, Nov. 26th, a single bird at N. Unst rested all night. Rushes, 11th to 20th, W., shifting to N. on 11th; W. gale on 19th and 20th. Also rush on 31st and Nov. 1st, along with other species, principally at Bell Rock and Isle of May. Again a few in January, 1884, up to 17th, light W. winds and haze; and at Chanonry on 24th a flock, with strong squalls and sleet.

EMBERIZIDÆ.—In spring Snow Buntings began to appear on Feb. 9th,—but this may not belong to spring records,—when a large flock flew about all day on Pentland Skerries. They occurred also at Auskerry, Sumburgh Head, Pentland Skerries, and Isle of May. Earliest, *as above*. Latest, April 12th, at Sumburgh Head, when two were killed. No great rushes evident, but largest numbers passed in March, mostly with northerly or westerly winds. If any rush occurred it was between March 9th and 25th, indicated principally at Pentland Skerries

* Do the birds strike in light winds and fog upon the side facing the wind, or on the sheltered side? In heavy gales they strike hard *with the wind*, but touch and strike also on the Shetland side.

and Isle of May. On 23rd, at Isle of May, a flock flying north. Common Bunting seen at Isle of May on Feb. 12th, and again on April 6th. Yellow Buntings at same place on March 5th and April 7th, in both cases females.

In autumn, as usual, we have numerous records, especially of Snow Buntings, at most stations, *viz.*, N. Unst, Sumburgh Head, Pentland Skerries, Tarbat Ness, Dunnet Head, Bell Rock, and Isle of May. Earliest at Isle of May on Sept. 21st. A rush on 22nd and 27th; fresh E. to heavy S.W. gale on 26th and 27th. Latest records to Jan. 18th, 1884. Rushes in September *ut sup.*, a few in October, many all through November, but principally on 13th—15th, 16th, and in lesser degree on 1st and 2nd. Snow Buntings often appear with gales and snow or sleet, but during this month S. and W. winds rather prevailed. They arrived before the great W. gales, which began about the 16th. Of other species we have as follows: Yellow Bunting, "Grey Bunting," "Green Bunting" (? Green Linnet), and Cirl Bunting (one bird sent in spirits was not a Cirl Bunting, but a young male Yellow Bunting). All these are recorded from Isle of May, but no other station, and are distributed almost entirely in October and December; prevailing winds westerly, with stormy weather and gales.

CUCULIDÆ.—One spring record from Cromarty station: Arrived on April 29th; E., fresh breeze, haze.

One autumn record only, and the only record I have received from any station during autumn migration, *viz.*, one young bird at Isle of May on August 23rd, light W., clear. Possibly amongst the many records of "Hawks" at other stations some occurrences of the young brown-coloured Cuckoo may have been included, as they are very like small Hawks in their flight.

Land Notes.—Cuckoo heard at Dunipace, Stirlingshire, on April 9th, 1883, a very early record. Not heard again till May. Cuckoo recorded from Busby, at Lee Farm, near Sheddens, on April 14th. Cuckoo heard on Tinwald Downs, Dumfries, on April 23rd.

STRIGIDÆ.—In spring a Tawny Owl at Isle of May on April 28th, S.E. fresh, haze; and at Auskerry an Owl (which is probably the Short-eared Owl) came on the 14th, with stiff S.E. and showers, and remained a week. "This Owl visits Auskerry annually in May."

In autumn, in September, one Owl on 28th at Pentland

Skerries, strong N.N.E. and showers. In October four single records of Large Owl at Pentland Skerries on 31st and 13th, and of Short-eared Owls at Isle of May on 3rd and 13th. None in December, and one Owl at Pentland Skerries all day on island on 1st; light N.W. showers.

Land Notes. — Short-eared Owls were reported unusually abundant on Flanders Moss, Stirlingshire, in the autumn; and I saw two as late as the 31st January, 1884, on Latham Moss, in the same county, so that some appear to remain all winter.

FALCONIDÆ.—Spring records in March and April only, March 2nd to April 30th. At Pentland Skerries and Isle of May all single or light entries; wind easterly, except on March 2nd, when it was S.W. and clear, and one Kestrel was seen. The Merlin is twice noted. "Light Brown Hawks twice at Isle of May and Pentland Skerries."

In the autumn, at Sumburgh Head, Pentland Skerries, Bell Rock, and Isle of May. All July records, three in number, at Pentland Skerries, of "Sparrowhawk," "Large Brown Hawk," and "Large Hawk." In August five records, three at Isle of May of Sparrowhawk and "Hawks"; one at Pentland Skerries of "Falcon Hawk"; and one at Sumburgh Head of one Large Brown Hawk. The "Falcon Hawk" is described as "hovering," so is more likely a *Kestrel Hawk*. In September ten records; two at Pentland Skerries, two "Hawks" and one "Game Hawk," and at Isle of May one Sparrowhawk caught at gratings, and a "Hawk." Hawks are usually found attending the rush of small migrants. In October only one record, a Game Hawk at Pentland Skerries; four in November, all at Pentland Skerries. None in December, and five in January, 1884. One bird Mr. Agnew "feels almost sure was a Goshawk, and not a Sparrowhawk." The rush, if any, would appear to be in September, but its faintness precludes us from any feeling of certainty. A late schedule from Sumburgh Head contains record of an Eagle ["Silver-crested Eagle"; probably the Sea Eagle] wounded at Fitful Head by Mr. Birnie. At 11.15 a.m. on January 29th, 1884, this bird landed on the high rocks, half a mile north of the Read. Mr. Birnie says it cannot live long, as it was severely wounded. Mr. Birnie is employed by the landed proprietors to kill all the birds of prey in Shetland. He has killed a large number of Black-backed Gulls, Hooded Crows, Ravens, &c.

WATER BIRDS.

PELECANIDÆ.—In entering records of Gannets or Solan Geese I believe the best way is to arrange the data in tabular form. Spring records are only returned from Pentland Skerries; but, considering the central position on the tract through the Pentland Firth, I think all records from there are of use and value, if we desire to arrive at conclusions regarding the movements of this species.

Spring.

- March 26th, Pentland Skerries, three Gannets flying E.; strong N.E., and clear.
- April 6th, Pentland Skerries, one Gannet, 4.45 p.m., flying E.; light W., clear.
- May 7th, Pentland Skerries, continuous flocks of Gannets all day, flying E.; strong N., haze.
- May 16th, Pentland Skerries, continuous flocks of Gannets all day, flying E.; light N.E., clear.
- May 28th, Pentland Skerries, several Gannets all day flying round; strong S., showers.
- April 12th, Noss Head, four Gannets flying N.; light N.W., haze.
- June 28th, Noss Head, six Gannets flying S.E.; light S., fog.

Autumn.

- July 1st to 15th, Auskerry, at 2 o'clock, flying from N. to S.; light W. breeze.
- July 5th, Pentland Skerries, 8.20 p.m., flying E.; mod. E., fog and rain.
- July 6th, Pentland Skerries, all day, several flocks flying E.; light S., haze.
- July 6th, Pentland Skerries, a few fishing all day round L.; light S., haze.
- July 7th, Pentland Skerries, several flocks fishing all day; mod. S.E., haze.
- July 8th, Pentland Skerries, continuous flocks all day flying E.; mod. W., clear.
- July 15th, Pentland Skerries, continuous flocks all day flying E.; mod. W., clear.
- July 16th to 20th to 26th, Pentland Skerries, continuous flocks all day flying E.;* light N.W. to mod. N.
- July 27th, on to Aug., Pentland Skerries, continuous flocks all day flying E.; N. to S.W.; and all this month, all going E., except several flocks on 22nd flying W.

* On 16th a few young observed. All flying E., except six seen on the 20th, flying W.

Sept. 3rd to 15th, Pentland Skerries, fewer, all flying S.W. on 15th; light S.E., wind.

Sept. 5th to 30th, Noss Head, daily, flocks of six to fifty flying N. all day.

Oct. 19th, Noss Head, nineteen at 3 p.m.; strong W., haze and rain.

Nov. 10th, Sumburgh Head, eight flying S., 12 noon; fresh N. breeze, hail.

The annual regularity with which the Solan Geese pass and repass through the Pentland Firth and various other points of observation cannot, we think, fail to develop, by the statistics accumulated, some curious facts in migration. We are thus careful to record these with some minuteness of detail. A late schedule from Sumburgh Head has—"Two on 16th, Sumburgh Head. Eighteen Gannets flying S.W., 12 noon; strong W., showers.

ARDEIDÆ.—We do not think it will be so easy, in regard to Herons, to arrive at laws regulating their flights; but, in case of development, will on this occasion tabulate their records, though we have not done so before.

Spring.

March 29th, Pentland Skerries, one flying N., 3 p.m.: S. gale, rain.

June 13th, Isle of May, one flying S., 5 p.m., in company with Gulls, which is rare.

June 24th, Isle of May, one flying S., 5 p.m.; light W., clear.

Autumn.

Aug. 26th, Isle of May, one flying W.; light W., clear.

Sept. 12th, Pentland Skerries, four flying about island (rare); light S., clear.

Oct. 15th, Pentland Skerries, one rose off rocks, 4.15 p.m.

Oct. 23rd, Isle of May, one; fair W., clear.

Nov. 1st, Pentland Skerries, one flying S., 7.50 a.m.; light N.W., cloudy.

Jan. 29th, Sumburgh Head, six (one shot); fair W., clear.

There was a very large movement of Herons in 1882, principally in October and November (see Report, 1882, p. 18).

ANATIDÆ. — Very few records either in spring or autumn. Spring: none. Autumn: Swans on Aug. 15th, at Tarbat Ness, two from the N., flying S.E. at 1 p.m.; N. strong, and clear. The only other records are in October, a large flock flying E. past Pentland Skerries at 12.20 p.m., with light W. and showers,

“very rarely seen here.” On 19th, Ducks (sp. ?), three flying W. over same station at 10.30 a.m.; strong N.W. wind. On 13th, Eiders at Isle of May in large flocks, both males and females, all day; strong due S.; left at night. At Chanonry, local movements of Grey Geese and Grey Ducks to and fro in stormy weather, or from feeding to nesting ground. At Sumburgh Head, twenty-eight wild Geese flying S.; strong S.W., and snow on 25th; and on 28th sixteen wild Geese, also flying S.; gale from N.W. *Land Notes.*—At Kirkwall, twenty-five wild Swans frequented the Loch of Banks, and are described as being “very tame” (‘Scotsman,’ 27, iii., 83). A very large flock of Pink-footed or Bean Geese, probably the former, seen flying very high towards S.E. and crying, at Kippen on March 23rd. Fully 150 Wild Geese remained on Flanders Moss all spring after this date, and were seen last on April 23rd.

COLUMBIDÆ.—In spring, few records at Pentland Skerries and Bell Rock. On Feb. 19th, at former station, three Rock Doves flying E., 7 a.m.; S.W., fresh, clear. On March 4th, two Rock Doves at same station, seen at 3 p.m.; light variable, and haze. On April 20th, one Wood Pigeon at same station flying S.E.; fair S.S.E., fog. On May 12th, one Woodpecker flying S.W. past Bell Rock, 1.12 p.m.; strong S.W.; and on 28th, a few Rock Doves at Pentland Skerries; strong S., and fog.

In autumn only two records; one at Pentland Skerries, twelve Rock Pigeons, on July 23rd, on island; light N., haze and rain; and on Sept. 16th, one Wood Pigeon at 2 p.m., at Bell Rock, flying S.W.; light S.W. breeze.

Land Notes.—A male *Columba ænas* (Stock Dove) was shot at Garden, in this county (Stirlingshire), on March 15th, 1883. This species has been rapidly extending its range of late years in Scotland. See my paper on the Stock Dove (Ryl. Phyl. Soc. Edinb., 1883, p. 241, Feb. 21st). In 1884 at least four pairs are breeding in the Vale of Menteith.

RALLIDÆ.—Spring records meagre. One heard at Isle of May April 28th, marked “rare here.” One heard at Pentland Skerries on May 6th, 5.50 p.m.; mod. S.S.E., clear. One heard first time at Cromarty station on May 20th; strong E., clear.

No autumn records this season.

CHARADRIADÆ.—Spring records meagre. April 18th, at Pentland Skerries, three Golden Plovers at 5 p.m.; S.S.W. May 15th,

at Auskerry, large flocks of Plovers all day; light E., and showers. May 17th, at Isle of May, one Oystercatcher; W., very fine.

Autumn records almost equally meagre. July 13th, at Pentland Skerries, one Golden Plover; fair N., light showers. Aug. 8th, at Pentland Skerries, one Golden Plover; strong S.E. Aug. 14th, at Pentland Skerries, one Golden Plover; light S.E., showers. Sept. 6th, at Isle of May, six Golden Plovers; strong W., clear. Oct. 26th, at Pentland Skerries, one "Silver Plover" (? Knot) killed at lantern; strong W., showers.

Of Lapwings, records are almost equally scanty. In spring, on Feb. 17th, a flock all day at Pentland Skerries; light S. breeze (see THRUSH). In March, along with the rush of other migrants on 2nd at Isle of May; strong W., clear; and a number on 3rd. Lots of sixteen and twenty on the 10th and 20th of same month; light E. and S.E., fog, rain, and haze.

In autumn five Ringed Plovers stayed for some days on Isle of May on and after Aug. 28th; came with light W., and clear—the only record given of any CHARADRIADÆ in autumn. At Chanonry, numerous records of Lapwings lighting on the point, or passing in stormy weather or in strong breezes, in Sept. to January, 1884. A late schedule from Sumburgh Head has a record of Lapwings on Jan. 24th, with the remark, "I believe they have never been seen here at this season of the year before."

Land Notes. — Lapwings seen in pairs on March 4th at breeding stations in Stirlingshire.

SCOLOPACIDÆ.—Spring. Curlews first heard at Pentland Skerries on March 2nd, when heard at 2.15 p.m.; mod. N.W., fog. Last on June 29th (but probably belongs to autumn) at same place, when a flock flying S.; light S., clear. A rush between April 7th and 15th, a few flying south between these dates at Isle of May,—scarcely an appreciable rush,—and one record in May.

In autumn, not a great many records of Curlews. Earliest July 4th, at Pentland Skerries, and on 15th and 29th at same station; also in August, and at same station a few records, most probably local movements. An apparent slight indication of a rush of Curlews in September at three stations,—Sumburgh Head, Pentland Skerries, and Isle of May,—young and old; and up to 23rd, at Isle of May, numbers daily. Fewer in October, and occasional records up to January, 1884.

Of Snipe, a few scattered records in spring, in March and

April. March 2nd to 9th, at Pentland Skerries and Isle of May; and April 12th and 26th, at same stations, winds mostly westerly; but on March 8th E.N.E., gale and snow.

In autumn, not abundant either, and scarcely require details. Occurred in July, August, October (a large flock at Sumburgh Head on 18th; gale and sleet showers), and December. In July, at Pentland Skerries only; in August, ditto; in September, not at all. In October, at Sumburgh Head and Pentland Skerries (and a Jack Snipe at Isle of May). December, at Sumburgh Head (a large number all day on 3rd); strong breezes, snow-showers; and a Jack Snipe at Pentland Skerries on 24th.

Woodcock.—In spring, one record on April 7th, at Bell Rock, flying about the rock.

In autumn, Oct. 13th and 14th, two single birds at Isle of May and Pentland Skerries; and on Nov. 1st and 13th, at Isle of May, N. Unst, and Shetland. The one on 1st accompanied the rush of other migrants. On Oct. 13th six were shot on Isle of May; wind due S., an unusual wind for migrants to arrive at Isle of May. At Chanonry, many local records of "Whaups" (Curlews)—probably the same flock of forty or fifty—appearing in stormy weather.

Land Notes.—On the night of March 26th, at Dunipace, whilst standing at the front door (night bright and starry, and frost), a large flock of birds crossed overhead, flying south. The cries were difficult to make out, but belonged either to Whimbrels or other species of wader. The subject of the sounds of bird-cries at night would form good matter for explanation by those who have constant opportunities of hearing them. Wind N.E. up to March 27th, when a S.W. gale, shifting to S., with heavy rain. About fifty Curlews were seen at Caldavon, west of this county, on March 11th, and three pairs on 17th (auct. Jas. Lumsden).

SCOLOPACIDÆ (Waders).—Earliest spring migrants were Sandpipers and Redshanks at Pentland Skerries on Feb. 9th (time of migration of Thrushes, *q. v.*); and on 17th, ditto. On April 27th a Purple Sandpiper at Isle of May (No. 57 in spirits).

Autumn. Earliest July 20th, at Pentland Skerries, Redshanks; and a few records of these and Sandpipers to 31st. In August a few records of the same, and one Turnstone (identified) (No. 60 in spirits). In September great flocks of Sandpipers

flew in rays of light at 9 p.m.; light E.N.E., and fog. In end of October and beginning of November Sandpipers and Red-shanks participated in the rush of migrants at that time at Pentland Skerries especially; light S.W. Large numbers on 5th; strong N.W., and showers; and numbers up to 21st, all day; strong N.W. In December, rushes on 12th; N.W. gale, snow; and up to 21st, very likely local movements.

STERNINÆ.—Records of either migration very scanty. First seen in spring was at Pentland Skerries on May 13th, at 3.30 p.m.; light S.W., haze; and again at same place two seen flying north on June 20th. On June 3rd, at Sumburgh Head, two; fresh W., cloudy. Lesser Terns arrived at Cromarty on May 23rd.

In autumn, first record Aug. 7th, at Pentland Skerries, when those breeding there all left, except one or two, with fresh N.W., clear. At Bell Rock, on Sept. 19th, a flock kept flying round the rays of light all night (*i. e.*, 19th—20th); light E.N.E.; and on Sept. 27th one immature bird appeared after a heavy gale from W. the previous night. The above, I think, is the first occurrence I have of Terns flying round and round within the rays of light of a lantern. Lesser Terns disappeared from Cromarty on Aug. 26th; S.W., strong, clear.

LARIDÆ.—In spring, large numbers arrive about March 1st for breeding purposes at Pentland Skerries, and leave about the middle of August. On March 21st, at Isle of May, Kittiwakes arrived in large numbers at 9 a.m.—their first appearance; wind fresh E.S.E., cloudy and cold; and by April 3rd had steadily increased in numbers. At Auskerry, May 18th is given as first appearance of “Sea Maws”; strong N.W., and haze; and a Black-headed Gull was seen, with light N.E. and clear, at Pentland Skerries. At same station, record of two Black-backed Gulls on June 27th; fresh S.E., and haze completes spring records.

In autumn, at Pentland Skerries during July the daily movements of Gulls may be worth reproducing in detail. All the July records I have are from this station, and also all the August ones.

1883, July 12, Pentland Skerries, one “Chaser” flying N.W., 2.15 p.m.; light E., haze.

July 18th, Pentland Skerries, three Black-backed Gulls flying N., 2.30 p.m.; mod. N.W.

July 23rd, Pentland Skerries, one “Chaser” flying W., 10.20 a.m.; light N.

July 25th, Pentland Skerries, continuous and large flocks of Herring Gulls flying round all day; N., clear.

July 28th, Pentland Skerries, three "Chasers" (one flying E. at 3 p.m., and one flying S. at 5 p.m.); mod. S.W., clear.

July 29th, Pentland Skerries, one "Dirty Allan" seen.

Aug. 6th, Pentland Skerries, large flock of young Gulls on rocks all day; light S., clear.

Aug. 7th, Pentland Skerries, large flock of young Gulls on rocks, 3.30 p.m.; fresh N.W.

Aug. 20th, Pentland Skerries, one "Chaser" flying S.E., 12.50 p.m.; strong S.E., haze.

On 15th, at Dunnet Head, Gulls leave breeding-places in cliffs. Our correspondent includes both "Chasers" and a "Dirty Allan," both of which names I held as applicable to the commonest species of Skua; but here they seem to be divided, as applying to two different species, probably Richardson's (common) Skua and the Pomatorhine Skua.

"Dirty Allans" are again recorded from Isle of May, along with a rush of small birds on Sept. 23rd; and in this case I doubt not Mr. Agnew applies the name to Richardson's Skua. This is the only September record. In October only two records at N. Unst; two pairs of Iceland Gulls stayed two days, coming on the 4th with fresh N. and clear; and two pairs more on 21st hovering round at 11 a.m.; fresh N., clear.

In November and December the greatest movements are noticed, which I give in detail:—Nov. 2nd, Pentland Skerries, several Kittiwakes flying S.E., noon; fresh S.W. Nov. 10th, Isle of May, thousands of Gulls (?); W. gale, clear; first seen at 4 a.m., wind shifting to north. Nov. 11th, Isle of May, all the above gone; light N.W., clear. These may have been Glaucous, from description, but this is not clear; and from subsequent records I have preferred to consider them Herring, though Mr. Agnew includes the latter *later by name*. I believe Mr. Agnew knows the Glaucous and Iceland Gulls well. *Land Note*.—There has not been a large migration of Glaucous and Iceland Gulls at Kincardine on Forth for many years.

Nov. 17th, Isle of May, hundreds of Herring Gulls came from S.E. all day; light N.W. "Grey Gulls" mixed with Black-backs, the latter one in twenty.

Nov. 18th, Isle of May, every Gull gone; light N.W.

Nov. 24th, Isle of May, hundreds of Herring Gulls came from S.E. all day; fresh W.; also accompanied by smaller numbers of Black-backs.

Dec. 13th, Pentland Skerries, two Black-backed Gulls on island, 12.30 p.m.; N.W. gale.

Dec. 3rd, Isle of May, thousands of "Gulls," 3 p.m.; W., clear.

1884, Jan. 22nd, Isle of May, large light-coloured Gulls with black tips to wings; gale W. last night.

Note. — There is evidently considerable confusion existing regarding the various species of Sea Gulls; and this is not to be wondered at when the innumerable phases of plumage in even the same species, according to maturity or immaturity, is considered. What is sadly wanted in such a quest as ours is a series of cheap yet fairly well executed plates of birds in all phases of plumage, with measurements to scale; but the almost impossibility of issuing such at a sufficiently low price for general distribution must, we fear, for ever debar our correspondents from obtaining such a means of assistance. M. De La Rue issues marvels of cheapness in Christmas Cards; could he not undertake something in this line? His pictures of birds are admirable, but he would have to keep up the standard, or even improve it, to be of scientific value to us.

PROCELLARIIDÆ. — Records scarce in spring and autumn. At Auskerry, arrived for first time on July 30th, but as early as 6th eggs were laid at Pentland Skerries. Being a bird of nocturnal habits, the arrival cannot, we fancy, be easily fixed at all times. At Auskerry, on 8th, two pairs had two eggs each (some notes on the schedule margin here have been torn off and lost, J. A. H. B.) On Sept. 25th one struck at Dunnet Head; S.S.W., fog; and on 26th six struck and rested from 9 to 11 p.m.; S.E. fresh, and haze. It is seldom so many are recorded at the same time. Are these Pentland Skerries birds? At Noss Head, on Aug. 28th and on 30th, one Stormy Petrel each time struck, but not killed, with W.N.W. fresh on former date, and light S.E. and haze on latter.

ALCIDÆ. — Spring. First visit at Isle of May on March 21st, when "not very many" appeared, with fresh E.S.E. Guillemots and Razorbills. Next visit at Isle of May, large numbers on April 1st with light W., and in clear weather. Increased on 3rd,

and on April 27th arrived again finally, after a few days' absence, with fresh S.E. and haze. These and other rock birds breeding here all left on Aug. 10th, except a few Kittiwakes and Eider Ducks, after a heavy W. gale on 9th (see August, below). Puffins were first observed at Isle of May; however, not before May 4th, when a few showed.

Following this comes what may be considered local flights, in search of food, to and from the fishing grounds:—

May 16th, Pentland Skerries, continuous flocks flying E.; light breeze N.E.

May 21st, Pentland Skerries, continuous flocks flying E.; light W., haze.

June 4th, Pentland Skerries, continuous flocks flying S.E.; light N.E., haze.

June 6th, Pentland Skerries, continuous flocks flying S.E.; light E., haze.

June 17th to 20th, Pentland Skerries, continuous rush flying S.E.; strong N. to light E. and W.

June 21st, Pentland Skerries, several flocks all day flying S.E.; light S.

June 25th, Pentland Skerries, large flocks, 7.15 p.m., flying S.E.; fresh S.E., fog and rain.

June 29th, Pentland Skerries, a few around; light S., clear.

We now come to the autumn movement, if we take the same dates as for many land birds; but this is apt to be mixed up with the later summer movements of old and young birds, and therefore we will keep July by itself. All the records here relate, as before, to Pentland Skerries. An equally exact record from each salient or conspicuous station round our coasts could not fail to give us exact knowledge as regards the movements of sea-fowl, or rather of rock birds. Food-supply is an important factor in the local as well as the other migrations. A knowledge of fishing-grounds would thereby be achieved; and a knowledge of the two subjects, migration of birds and geography of the distribution of fishes, would undoubtedly help each other. With these remarks we continue our records for July, believing that this simple tabular form is most useful in the present case, though cumbrous if carried on in every instance.

July debatable ground.

July 5th, Pentland Skerries, a flock 8.20 p.m. ; mod. E., fog and showers.

July 6th, Pentland Skerries, several flocks all day ; light S., haze.

July 7th, Pentland Skerries, several flocks all day flying E. ; mod. S.E., haze.

July 18th, Pentland Skerries, a few flocks all day ; mod. N.W., clear.

July 25th, Pentland Skerries, continuous flocks all day ; mod. N.E., clear.

July 26th, Pentland Skerries, continuous flocks all day flying E. and S.E. ; fresh N., haze.

The last two entries appear to me to indicate decision in commencing the autumn migration.

Aug. 15th, Dunnet Head, rock birds leave about this time.

Aug. 10th, Isle of May, all rock birds left, except a few Kittiwakes ; heavy westerly gale on 9th.

Oct. 23rd, Pentland Skerries, flocks flying E. ; strong W., showers.

Nov. 2nd, Pentland Skerries, large flocks, noon, flying S.E. from S.W. (?)

Nov. 27th, Isle of May, abundant in sea along with Gulls ; "Garvies," i. e., *Clupea sprattus*, abundant (J. A. H. B.).

Dec. 20th, Isle of May, large numbers ; fresh W., haze.

Dec. 27th, Isle of May, large numbers ; S.W., haze.

This completes our data of Guillemots and Razorbills, to which the whole of the above records refer for 1883 ; and I think it shows pretty plainly the life-history of these birds, at least in some important particulars. A wider appreciation can be arrived at if similar tabular returns come in from other *salient* points of observation, such as Isle of May, Bell Rock, and one or two stations on the east coast ; and Cape Wrath, Butt of Lewis, Monach Isles, and Barra Head on the west coast ; and also for summer migrations, especially such stations as Island Ghlais, Skerryvore, and Dhuheartach, and others on the inner line of stations of the west coast.

These data are minutely detailed here this year, because I have felt more at liberty to do so, owing to the light returns of most of our land birds, thus having more space than usual at command.

Further remarks, should such occur to us, will appear in the "General Observations," which I withhold till the close of the West Coast Report.

EAST COAST OF ENGLAND.

PRINTED schedules and letters of instruction were forwarded to thirty-seven lighthouses and light-vessels on the East Coast of England, and two stations in the Channel Islands, and returns have been received from twenty-five, against thirty in 1882.

Independent reports have also been received from Heligoland, and certain land stations along the East Coast, namely, Seaton-Carew, Redcar, Flamborough, Spurn, North-East Lincolnshire, Wells (on the Norfolk coast), Northrepps, Great Yarmouth, and the coast of Essex. Making altogether a total of thirty-five reporting stations, against thirty-seven in 1882.

Our best thanks are due to H. Gätke, T. H. Nelson, C. Donald-Thompson, Matthew Bailey, William Eagle Clarke, J. H. Gurney, jun., M. Vaughan, of Haileybury College, Arthur Patterson, and Colonel Russell, for their hearty co-operation and assistance, as well as to the numerous kind and painstaking observers at the lighthouses and light-vessels, whose names are given in the list of stations. Special thanks are due to Mr. Gurney for having inaugurated along the Norfolk coast a parallel system of enquiry, which for a first trial has worked well. In all doubtful cases of identity, where birds are killed against the lanterns, a wing is cut off, and with a label of the date attached these have been forwarded in batches to Mr. Gurney for identification, and with satisfactory results. We cannot too strongly urge upon our observers the advantages of this system, and advise them to adopt it; nothing is easier than to cut off a wing from each victim on any given night, wrap them in paper, or tie them together, with the dates attached, or numbered on the cover, and send them in one parcel by post either to myself or to Mr. Gurney, for identification. It is intended that instructions for doing this will be given in the next issue of schedules in the spring of this year.

The East Coast stations included in this report are as follows, those making returns being marked with a star (*) :—

*Longstone L.H. †	...	...	...	Thomas O. Hall.
*Inner Farn L.H.	...	...	...	Thomas H. Cutting.
*Tees L.V.	...	...	...	Henry Harbord.
Coquet Island L.H.	...	...	...
*Whitby High L.H.	...	...	...	John Odgers.
*Flamborough Head L.H.	...	...	...	Charles Hood.
*Spurn L.H.	...	...	...	James B. Smith.
Spurn (Newsand) L.V.	...	...	...
*Outer Dowsing L.V.	...	...	...	William Stock & J. N. Utting.
*Inner Dowsing L.V.	...	...	...	William King.
Dudgeon L.V.	...	...	...
*Llyn Wells L.V.	...	...	...	George Rees.
*Hunstanton L.H.	...	...	...	William Westmoreland.
*Cromer L.H.	...	...	...	Richard Comben.
*Leman and Ower L.V.	...	...	...	John Artis.
*Hasbro' L.H.	...	...	By Mr. Gurney from G. H. Dunsford.	
*Hasbro' L.V.	...	...	...	J. Nicholas & B. Darnell.
*Newarp L.V.	...	...	...	C. Campbell & W. Rees.
*Winterton L.H.	...	...	...	John Watson.
*Cockle L.V.	...	...	...	Samuel Pender & C. Prefrement.
Orfordness L.H.	...	...	...
Corton L.V.	...	...	...
*Shipwash L.V.	...	...	...	The Principal.
*Languard Point L.H.	...	...	...	Owen Boyle.
*Galloper L.V.	...	...	The Principal: two batches of wings from Mr. Gurney.	
Kentish Knock L.V.	...	...	...
Swin Middle L.V.	...	...	...
*Tongue L.V.	...	...	...	John Webber.
Nore L.V.	...	...	...
North Foreland L.H.	...	...	...
Goodwin L.V.	...	...	...
*Gull L.V.	...	...	...	Francis Harvey & Joseph Jenkins.
*South Sand Head L.V.	...	...	...	Joseph Ditcham.
*Eastside L.V.	...	...	...	Edward le Gallais.

† For nature of light, position, and distance from the nearest land, see Report for 1880.

South Foreland L.H.	...	...	...
Casquets L.H., Alderney	...	...
*Hanois L.H., Guernsey	...	...	Charles Williams.

SEPARATE REPORT ON EACH SPECIES.*

Turdus viscivorus, Missel Thrush.—Great Yarmouth, Oct. 20th, hundreds arriving; 23rd, one shot from flock coming in from sea. Longstone L.H., 30th, several, and at intervals to Nov. 15th, many being killed between these periods against lantern; on Nov. 4th, great rush, coming all night. Great Cotes, N.E. Lincolnshire, Nov. 13th, very numerous, fresh arrivals.

T. musicus, Song Thrush.—Spring, 1883, Farn L.H., Jan. 20th to Feb. 1st, Thrushes with Blackbirds and Fieldfares on island, also through March and at intervals to May 10th, at which date several of each and one Ring Ouzel were seen. Whitby L.H., March 9th, E.N.E., snow squalls, many with Fieldfares and other birds apparently moving south. Flamborough, April 27th, first Thrush struck, and on May 7th four. In the autumn at Farn, Flamborough and Spurn, Sept. 21st, great flight; and at the majority of the east coast stations from Farn Islands to Hanois L.H., Guernsey, up to Nov. 8th; great rushes, with other *Turdinæ*, Oct. 13th, and all through first week of November. Longstone L.H., Jan. 2nd, 1884, during the snow-storm before daylight, many, with Blackbirds and Redwings, round lantern—perhaps a local migration from north to south.† Heligoland, from Sept. 21st, S.S.E., to Nov. 12th; greatest rushes on Sept. 24th, Oct. 13th, 29th, and first week in November.

T. iliacus, Redwing.—Seaton Carew, Sept. 21st, to Hasbro' L.V., Oct. 30th, great many round lantern, and at several stations between these dates; rushes Sept. 21st, Oct. 29th and 30th. Heligoland, Oct. 3rd to Nov. 6th; greatest flights on Oct. 13th and Nov. 6th.

T. pilaris, Fieldfare.—First at Yarmouth, Sept. 8th, flock of

* The sequence and nomenclature are adopted from the 'List of British Birds,' compiled by a Committee of the British Ornithologists' Union. London: John Van Voorst. 1883.

† At the Farn L.H., on Feb. 20th, 1884, and four following days, numbers of Fieldfares, Thrushes, and Blackbirds were seen on the island; wind S.S.W.

ten to fifteen, 6 a.m., travelling N.E. to S.W., very high,* to Hasbro' L.V., Nov. 8th, many round lantern, and Nov. 16th, at Farn L.H., four to S.W. At several stations in large numbers between these dates, but none south of Yarmouth; rushes occurred on Sept. 21st, Oct. 19th (Yarmouth, along coast to S.), 28th to 31st, and Nov. 6th to 8th. Inner Dowsing L.V., Oct. 31st, seven killed, 7 p.m., N.E., and at Longstone L.H., several on same night. Flamborough L.H., Nov. 9th, 1 a.m. to daylight, great many; direction of migration N.E. to S.W. and E. to W. or S.E. to N.W. Heligoland, from Sept. 24th to Nov. 7th; Oct. 28th, great flight overhead, travelling E. to W.; from night of Oct. 31st to Nov. 4th an immense migration day and night, on 6th also large numbers still passing.

T. varius, White's Thrush.—Heligoland, April 15th, one all day long (Sunday) in the churchyard, and was not obtained.

T. merula, Blackbird.—First at Redcar, Sept. 18th, a few, to Whitby L.H., Nov. 11th, several, and at Tees L.V., Nov. 15th, one overboard; between these dates at a majority of the stations, chiefly those north of the Humber; † the first flights young birds, young cocks being greatly in excess. On Oct. 19th, at Spurn, flight of old cock Blackbirds; rushes occurred on Sept. 21st, Oct. 28th to 31st, and Nov. 2nd to 8th. Heligoland, Oct. 11th, some.

T. torquatus, Ring Ouzel.—Spring, Hunstanton L.H., April 31st, one male. Inner Farn L.H., May 10th, one. Flamborough L.H., May 7th, one very fine old bird struck. Autumn, at several stations between the Farn Islands and Yarmouth, from Oct. 13th at the former to Nov. 1st at the Spurn, flock at noon, wind N.N.E., light, and Nov. 2nd and 4th, Longstone L.H.; the latter dates all night. Cock Ring Ouzels were tolerably plentiful near the Spurn and Kilnsea during the fourth week in October; rushes on Oct. 13th and Nov. 1st to 4th. Heligoland, Sept. 30th to Oct. 22nd; on the 20th two old males.

* In the autumn of 1880 Fieldfares were first seen in Norfolk on Sept. 9th, in 1881 on Sept. 14th, and in 1883 on Sept. 8th. The earliest occurrence in each case for England.

† At Great Cotes, on Nov. 13th, sharp frost on previous night; the hedgerows in the marsh swarmed with Blackbirds, Missel Thrushes, Redwings, and Fieldfares; the former were young cocks with a few old females. There was an average of one Blackbird to each lineal six feet of hedge.

SUMMARY.

Species.	Limit of Migration.	Days.	RUSHES.		
			Sept.	Oct.	Nov.
Fieldfare ...	Sept. 8th to Nov. 13th	67	21st	28th to 31st	6th to 8th
Blackbird ...	„ 18th to Nov. 15th	59	21st	30th to 31st	2nd to 8th
Common Thrush	„ 21st to Nov. 8th	49	21st	13th	2nd to 6th
Redwing ...	„ 21st to Oct. 30th	40	21st	29th to 30th	—
Ring Ouzel...	Oct. 13th to Nov. 4th	23	—	13th	1st to 4th
Missel Thrush	„ 20th to Nov. 15th	27	—	20th	4th

HELIGOLAND.

Fieldfare ...	Sept. 24th to Nov. 7th	45	24th	28th to 31st	to 4th
Blackbird ...	Oct. 11th	—	—	—	—
Common Thrush	Sept. 21st to Nov. 12th	53	24th	13th & 29th	first week.
Redwing ...	Oct. 3rd to Nov. 6th	35	—	13th	6th
Ring Ouzel...	Sept. 30th to Oct. 22nd	23	—	13th, 12th, 15th	—
Missel Thrush	—	—	—	—	—

Lines of migration, E. to W., S.E. to N.W., and exceptionally from N.E. to S.W.

Saxicola oenanthe, Wheatear.—Spring, Farn L.H., April 2nd to 24th; many on 14th. Flamborough, 5th, 1.20 a.m., one struck. Tees L.V., May 10th, twenty going from S.E. to N.W. Autumn, Farn L.H., from July 20th, 2 p.m., N.E., several, to Nov. 7th; Llyn Wells L.V., one struck (wing sent to Mr. Gurney). In considerable numbers in September and October, covering the whole coast line; in the former month associated, as usual, with Redstarts. At the Farn and Longstone lighthouses, Sept. 2nd and 3rd, E., great numbers of both crossing, and on 24th with both Redstarts and Snow Buntings. Heligoland, Aug. 6th to 7th, a few, S.E. wind, and on to 20th numerous, all young; 21st to 24th, in astounding numbers; Sept. 10th, enormous rush, and 11th and 12th, less.

Pratincola rubetra, Whinchat.—Heligoland, Aug. 21st, 22nd, and 24th, great many young birds.

P. rubicola, Stonechat.—Spring, Whitby L.H., Feb. 23rd, one. Autumn, same station, Aug. 8th, many to S. Spurn, Oct. 23rd, many. Stonechats have frequented the sheep-folds on the turnip-fields in Lincolnshire throughout the whole of the late mild winter. Heligoland, Oct. 20th, one young bird; Oct. 11th, S.S.W., *P. rubicola (indica)*? “with coloration just like a young autumn

Whinchat, if not lighter, all the breast buff or isabell, the rump also."

Ruticilla phoenicurus, Redstart.—Spring, Hunstanton L.H., April 13th, 4 a.m., S., one male against lantern. Autumn, same station, Aug. 30th, one male, 1 a.m., against lantern. Numerous between Farn Islands and Yarmouth in September to the 24th, associated frequently with Wheatears. Heligoland, Sept. 9th to Oct. 1st; on Sept. 10th enormous numbers, 14th great many, and 17th to 21st also great many.

Ruticilla titys, Black Redstart.—Spurn, Oct. 23rd, one seen (in 1882 at the Spurn, Oct. 29th). Galloper L.V., Oct. 28th, one, young male or old female (wing to J. H. G.); I have no doubt it occurs regularly as an autumn immigrant on our east coast, and may be expected about four weeks later than the Redstart.* Heligoland, Oct. 27th, eight or ten.

Cyanecula suecica, Red-spotted Bluethroat.—One, coast of Northumberland late in September; one, Redcar, 21st, on Tees breakwater; one about same time at the Spurn, but not obtained; ten, coast of Norfolk, in same month; and about twenty others seen there by a competent authority, Mr. Power. All obtained were birds of the year.† The gizzard of one of these Norfolk birds which I examined was crammed with the broken remains of small beetles having a bright metallic lustre, but the remains were much broken and comminuted.

Erithacus rubecula, Redbreast.—First at the Shipwash L.V., Aug. 13th, large numbers associated with Wrens, to Llyn Wells L.V., Nov. 3rd, one killed; the main migration Sept. 10th to Oct. 14th, covering the entire coast-line; rushes on Sept. 21st and 30th, Oct. 6th and 7th. Heligoland, Sept. 24th to Nov. 23rd; rushes on Sept. 24th, and Oct. 3rd to 7th.‡

* Messrs. Clarke and Roebuck state, in their 'Handbook of Yorkshire Vertebrata,' p. 19, that "Mr. M. Bailey, of Flamborough, has frequently observed these birds in spring on their arrival on the headland, and has known them killed by flying against the light in thick, foggy weather, with the wind E.N.E. He has also seen them on their departure in September, and has noticed several in October and November."

† Mr. Gätke says "the other form, *S. leucocyanea*, Brehm, comes very rarely so far north as Heligoland, and when it turns up it always does so four to six weeks earlier than the *suecica* in the spring."

‡ At the Spurn, in the autumn, I have seen Redbreasts come in directly from the sea, passing overhead inland; on a clear bright day the orange-red of the breast shows very conspicuously.

Sylvia cinerea, Whitethroat.—Hanois L.H. (Guernsey), Nov. 2nd, E., about lantern all night with Blackcaps. Heligoland, Sept. 10th, enormous numbers; 11th and 12th, less; Oct. 1st, last.

S. atricapilla, Blackcap.—Hanois L.H., as above. Heligoland, Oct. 11th, one young bird shot in garden. *S. hortensis*, Garden Warbler.—Sept. 24th, some.

Regulus cristatus, Goldcrest.—Spring, Tees L.V., March 29th, one stayed all night, then to E. Farn L.H., April 2nd, several all day. Hunstanton L.H., 3rd and 4th, S., against lantern. Newarp L.V., 14th, three to E. Autumn, Shipwash L.V., Aug. 13th, large numbers; and at most stations between Sept. 2nd and Nov. 9th; rushes, Sept. 21st, Oct. 28th to 31st. At the Shipwash L.V., on Oct. 15th, flights passed westward from 10 a.m. to 3 p.m., and at 6 p.m. fourteen were killed at lantern; the immigration of Goldcrests has been small compared with the millions which crossed in the autumn of 1882, the period of migration eighty-six days, against ninety-two in the preceding year; line E. to W. Heligoland, Oct. 6th, not many yet; 7th, pretty numerous; 13th and 22nd, some. The Firecrest, *Regulus ignicapillus*.—Oct. 29th, many; Nov. 2nd, many; 8th, some.

Phylloscopus superciliosus, Yellow-barred Warbler. Heligoland, Sept. 17th, N.E., calm and clear, one.

P. rufus, Chiffchaff.—Heligoland, Sept. 24th and 30th, some; October, first seven days; 11th, early, great many and throughout day; 12th and 13th, less.

P. trochilus, Willow Warbler.—Aug. 14th, some; 18th, 19th, 20th, pretty numerous, all young; 21st, 22nd, and 24th, astonishing numbers; Sept. 9th, some; 10th, enormous numbers; 11th and 12th, less; 24th, less; Nov. 1st, final rush, marvellous numbers.

Hypolais pallida.—Heligoland, Sept. 20th, "first specimen got here," shot by Ludwig Gätke.

Accentor modularis, Hedgesparrow.—Languard Point L.H., March 1st, 12.30 p.m., large flock to E. In the autumn of 1882 there was an enormous migration across Heligoland and on the East Coast of England; this last autumn only five or six are recorded from Heligoland, and none on our east coast.

Acredula rosea, British Long-tailed Titmouse.—Yarmouth, Oct. 25th, about this date several seen, flock of eleven on

telegraph wire, and on the 22nd a furze-bush on the "denes" covered with them.

Parus major and *cæruleus*, Great and Blue Titmouse.—Farn L.H., March 8th, two Tits. Flamborough, April 3rd, one struck. Farn L.H., Oct. 7th, two struck. Galloper L.V., 13th, one Great Tit (wing to J.H.G.). Cockle L.V., 14th, both species. Shipwash L.V., 15th, two Great Titmice (wings to J. H. G.). Spurn, 23rd, Blue Titmouse, a great many. Heligoland, Great Titmouse from Oct. 14th to end of November; Oct. 29th to 31st, a great many; Nov. 15th, same; Blue Titmouse from Oct. 14th to Nov. 2nd; rush, Oct. 29th and 31st. *Parus ater*, Continental Coal Titmouse.—Oct. 22nd, one.

Troglodytes parvulus, Wren. — Spring, Flamborough L.H., April 3rd, 9.20 p.m., one struck; May 7th, 11.45 p.m., one. Winterton L.H., May 14th, several, 12.30 a.m., S., three killed; 15th, two. Spurn L.H., 24th, "large flock to south." Autumn, Shipwash L.V., Aug. 13th, 2 to 6.30 p.m., in large numbers. Tees L.V., Sept. 5th, one on board three days. Whitby L.H., Oct. 10th, 8 a.m., Wrens to south. Cockle L.V., Nov. 1st, one. Outer Dowsing L.V., 2nd, great rush with others westward. Heligoland, Oct. 31st, for several weeks past daily in great numbers; Nov. 2nd, many; 7th and 8th, very many.

Motacilla alba, White Wagtail.—Heligoland, Oct. 12th and 13th, some.

M. lugubris, Pied Wagtail. — Spring, Whitby L.H., March 31st, two pairs. Farn L.H., April 2nd, one; 4th to 14th, many. Flamborough, April 11th, a pair. Autumn, Cromer L.H., Aug. 12th, one Pied Wagtail (wing to J. H. G.). Tees L.V., Sept. 17th, in flocks, twelve to fifteen. Whitby L.H., Oct. 10th, last seen. Hanois L.H. (Guernsey), Oct. 29th, and on Nov. 1st, all night.

M. flava, Blue-headed Yellow Wagtail. — Heligoland, Aug. 21st, 22nd, and 24th, astonishing numbers; Sept. 2nd, some; Oct. 13th, some. *M. citriola*, Sept. 16th, calm and fine, one.

Anthus pratensis, Meadow Pipit. — Heligoland, Sept. 24th, great many; Oct. 1st, astounding numbers. *A. cervinus*, Sept. 16th, calm and fine, one.

A. trivialis, Tree Pipit.—Heligoland, Aug. 21st, 22nd, and 24th, astounding numbers; Sept. 2nd, some; 9th and 12th, many; 24th, ceased; again, Oct. 12th and 13th, passing.

A. richardi, Richard's Pipit.—Heligoland, Sept. 16th and 17th; on 18th, two shot, $8\frac{1}{2}$ in. long; 21st, some; 24th, some Oct. 11th, two.

A. obscurus, Rock Pipit.—October, last fortnight, common on Yorkshire, Lincolnshire, and Norfolk coast. At Heligoland, on Oct. 1st, great many (*A. obscurus*, var. *rupestris*.)

Oriolus galbula, Golden Oriole.—Heligoland, May, a male; the first in thirty years.

Lanius excubitor and *major*, Great Grey and Pallas's Great Grey Shrike.—Heligoland, Oct. 5th, six or eight, and in last week in month *major*, some; none on English coast.

L. collurio, Red-backed Shrike.—Languard L.H., March 16th, one. Farn L.H., Sept. 23rd, one shot on island.

Muscicapa grisola, Spotted Flycatcher.—Spring, Whitby L.H., April 7th, great many small Flycatchers against lantern every night in the week † (too soon by four or five weeks for *M. grisola*). Farn L.H., April 28th, several. Hunstanton L.H., May 17th, 2 a.m., S.W., seven killed. Tees L.V., Dec. 27th, one came on board. Heligoland, Sept. 10th, enormous numbers; 11th and 12th, some; 17th, many; 19th and 20th, less.

M. atricapilla, Pied Flycatcher.—Yarmouth, Sept. 15th, one young bird (J. H. G.). Heligoland, Aug. 14th, some, and on to Sept. 20th; on Aug. 21st, 22nd, and 24th, and again on Sept. 10th, in enormous numbers. *M. parva*, Red-breasted Flycatcher.—Sept. 19th, "one with orange throat."

Hirundo rustica, Swallow.—Spring, Hunstanton L.H., April 5th, one to S.W.; 29th, many. Farn L.H., 20th, two. In May, at Whitby, Flamborough, Spurn, and Outer Dowsing L.V. At Tees L.V., on 10th, great many, S.E. to N.W.; and 11th, 12th, and 13th, all through day in same direction. Autumn, Cockle L.V., July 12th, six to S.; and from Sept. 25th to Oct. 13th, at several stations going south. Last observed at the Spurn by myself, Oct. 24th and 25th; three young birds hawking in the sun beneath Kilnsea cliff. Heligoland, Aug. 21st and 22nd, S.E., "astounding numbers" of Swallows, Martins, and Sand

* This, the Scandinavian form of the Rock Pipit, is not infrequent on the Yorkshire and Lincolnshire coast in the autumn.

† Probably this, as well as other entries in the schedules, may refer to various small insect-feeding birds, as the term "Flycatcher" amongst our observers is a very general one.

Martins ; Sept. 3rd, S.S.W. (No. 9), great numbers ; 4th, great flock of Swallows late in afternoon ; Nov. 8th, small flights.

Chelidon urbica, Martin.—Tees L.V., June 27th, 28th, 29th, great many to S.W. ; and at the Outer Dowsing L.V., on 23rd, two travelling S.S.E. to W.N.W. Last observed at Seaton Snook, Tees, Oct. 2nd.

Carduelis elegans, Goldfinch.—Tees L.V., Nov. 22nd, one on board. Heligoland, Nov. 8th, some.

Chrysomitris spinus, Siskin.—Yarmouth, Oct. 21st, small flights ; several taken by the birdcatchers. Heligoland, Oct. 27th, a few.

Ligurinus chloris, Greenfinch.—Spurn, Oct. 23rd and 24th, large flocks near the coast associated with Linnets. Great Cotes, Nov. 16th, small flights.

Coccothraustes vulgaris, Hawfinch.—Inner Dowsing L.V., Nov. 2nd, 9 p.m., one struck lantern ; two at same station in 1882. Heligoland, Oct. 31st, Nov. 1st, many.

Passer domesticus, House Sparrow.—Spring, Outer Dowsing L.V., April 1st, 8 a.m., flock going S.E. by S. to N.W. ; May 15th, six, and 18th three to W.N.W.* Autumn, at several stations from Oct. 11th to Nov. 19th. Shipwash L.V., Nov. 8th and 17th, 8 a.m. to noon and 1 p.m., continuous flights to W.S.W.

P. montanus, Tree Sparrow.—Are recorded at Newarp L.V., Oct. 14th, Yarmouth, 14th, and Shipwash L.V., 15th ; and at the Goodwin stations in October.†

Fringilla cœlebs, Chaffinch.—Spring, Newarp L.V., April 13th, all day to E. Farn L.H., 29th, several. Autumn, between Sept. 21st, at Redcar, to Nov. 29th and 30th, at Longstone L.H., immense flights are recorded at the majority of stations along the east coast ; great rushes occurred Sept. 21st, Oct. 6th to

* All birds, including Crows, Sparrows, Tree Sparrows, Chaffinches, Wrens, Swallows, Martins, Yellowhammers, Larks, Titlarks, and some ducks, passing this station in March, April, May, and June, were steering in westerly directions. The Outer Dowsing L.V. is moored on the edge of the shoal of that name 53 miles E.S.E. of the Spurn.

† As a rule more Common and Tree Sparrows pass the Goodwin stations than any other on the east coast. These light-vessels, as well as those off the mouth of the Thames, are very uniform in their returns, the birds scheduled being the most abundant and commonest of our immigrants, and it is seldom a rare visitor is chronicled.

14th, and Nov. 1st and 2nd; line of flight E. to W.* Heligoland, from Sept. 21st, E. by S., to Nov. 1st, in immense numbers; great rush on Sept. 21st and 22nd, on which latter day they passed in astounding numbers; Oct. 13th, all day passing on; Nov. 7th to 29th, great many.

Fringilla montifringilla, Brambling.—Longstone L.H., Sept. 21st, E., several. Cockle L.V., Oct. 11th, and Hasbro' L.H., 13th, two killed (wings to J. H. G.). Heligoland, Oct. 7th, pretty numerous; 13th, all day with Chaffinches; and numerous first week in November.

Linota cannabina, Linnet. Spring, Newarp L.V., April 13th, all day to E. Autumn, Whitby L.H., Aug. 8th, great many to south.† Heligoland, Sept. 30th to Nov. 11th; rush on Oct. 13th.

L. linaria, Mealy Redpole.—Spurn, a few during the second week in February, 1884, and one on 15th near Yarmouth.

L. rufescens, Lesser Redpole.—Yarmouth, Oct. 15th, several about "denes."

L. flavirostris, Twite.—Numerous flocks on Lincolnshire coast in October. Heligoland, Oct. 22nd, hundreds together, and to Nov. 15th; rush, Oct. 26th to Nov. 7th. *L. exilipes*, Nov. 11th, one.

Pyrhula europæa, Bullfinch.—Newarp L.V., March 5th, one on board. Outer Dowsing L.V., May 9th, one came on board, and ten to W.S.W.

Loxia curvirostra, Crossbill.—Heligoland, during first week in July, repeated flights from twenty to thirty.

Emberiza melanocephala, Black-headed Bunting.—Heligoland, in May, male and female obtained.

E. miliaria, Corn Bunting.—Heligoland, Oct. 13th, many; Nov. 2nd, many; 7th, many; 23rd, some; "never seen here except in very small flights."

* Chaffinches are recorded as dying on board some of the light-vessels, on which they arrive in an exhausted state. Mr. Patterson, of Yarmouth, says, under date Oct. 13th, "Picked up some dead at high-water mark. I have found numbers occasionally dead, drowned thus, every year. They fare worse in this respect than most small immigrants."

† Linnets, Twites, and Redpoles work their way south along the coast; those flocks also which cross the North Sea, after striking land, follow the same route to the south. They often collect in immense quantities in favourite localities, feeding on the seeds of salt-loving plants along the coast.

E. citrinella, Yellowhammer.—May 13th, Whitby L.H., great many for several days. Heligoland, Nov. 2nd, many; 23rd, some. *E. cirrus*, Cirl Bunting.—May, one, “completing with the male obtained many years ago, the only pair.”

E. hortulana, Ortolan Bunting. Great Cotes, May 3rd, N.E., very sharp and cold, one seen, apparently an adult female [see Cordeaux, Zool., vol. 1883, p. 253.] Heligoland, Aug. 21st, 22nd, and 24th, “astounding numbers”; Sept. 9th and 12th, great many; 16th and 17th, first old birds. *E. rustica*, Rustic Bunting, Sept. 24th, one shot by Ludwig Gätke. *E. pusilla*, Little Bunting, Sept. 24th, one shot; 30th, one.

E. schœniclus, Reed Bunting.—Great Cotes, Nov. 16th, considerable flight. Heligoland, Sept. 20th, pretty large numbers; Oct. 11th, great many; 13th, some; and 31st, many.

Calcarius lapponicus, Lapland Bunting.—Heligoland, Sept. 30th, some.

Plectrophanes nivalis, Snow Bunting.—Spring, Farn L.H., March 7th, two. Cockle L.V., 14th, “Snow-birds” to W. Languard L.H., July 8th, a pair on beach, 6.30 p.m., seen by Mr. Owen Boyle; certainly the earliest record for England of this species. Autumn, first at Tees L.V., Sept. 18th and 19th, one flock each day to S.W., and to Jan. 9th, 1884. Redcar, several flights to W.; a few recorded at stations between the Farn Islands and Yarmouth in September, October, and November; and from Dec. 1st to 29th in great numbers. At Great Cotes, on Dec. 4th, thousands upon thousands, the stubbles near the Humber fairly covered with their enormous flocks; young with a sprinkling of old birds, one to forty. Heligoland, Nov. 6th, early, very numerous passage; 12th and 14th, great many.

Sturnus vulgaris, Common Starling.—With few exceptions are recorded at all our east coast stations, and often in immense numbers, the occurrences being far too numerous to chronicle. The bulk crossed in September, October, and November; less in December; the line of flight and rushes corresponding with those of the Lark, with which species they are very frequently associated. Heligoland, from Oct. 1st to Nov. 12th; on Oct. 6th in “astounding flights, thousands upon thousands”; 12th, “considerable numbers of astounding flights, both overhead and in distance”; 13th, “still passing, astounding numbers all day”; 26th, the same, very high; 27th, “night, from 11 p.m.,

myriads"; 28th, "immense," and still great many to Nov. 12th. These extracts from Mr. Gätke's notes show the enormous migration of this species across Heligoland in the autumn, and the corresponding rush on to our east coast.

Pastor roseus, Rose-coloured Pastor.—Heligoland, July 16th, old male shot.

Pyrrhocorax graculus, Chough.—Heligoland, April 15th, seen for a whole week, but not obtained.

Corvus monedula, Jackdaw.—Considerable numbers south of Humber throughout the autumn. Heligoland, Oct. 26th, many; 27th and 29th, great flight.

Corvus corone, Carrion Crow.—Spring, Farn L.H., March 8th, seven to W. Autumn, Yarmouth, Oct. 14th, continuous flocks of Carrion and Grey Crows coming in, and again on 27th. At the Inner Dowsing L.v., from Oct. 25th to Nov. 13th, great many; also at other stations in October and November.

Corvus cornix, Hooded Crow.—Migrates in company with his near cousin, the Carrion Crow, as well as in separate flocks.* Spring, Farn L.H., May 25th, one Grey Crow on island, where it ate three young Larks; on July 27th Mr. Owen Boyle saw five on the beach off Languard. Autumn, first at Great Cotes, Oct. 4th, to Whitby L.H., Dec. 8th, fifty. Enormous numbers crossed in October and November between the Farn Islands and Shipwash L.v., off the coast of Essex, the main body arriving on the flat coast of Lincolnshire and in Norfolk; great rushes occurred on Oct. 9th, night of 12th, 20th, 27th, and 28th, and on to Nov. 2nd, and also Nov. 7th to 15th; under date Nov. 8th, Hasbro' L.v. reports "continuous flocks of Black Crows and Grey Crows, and Crows with *white* backs and bellies"; it would be difficult to say what is intended by the latter. Heligoland, Oct. 1st, flights, thirty to forty, to Nov. 12th.†

* Probably something like one-half of the entries in the schedules record the movements of Crows, Rooks, Daws, Starlings, Larks, and Chaffinches, any detailed notice of which is unnecessary, and could serve no practical purpose.

† Under date Oct. 6th, N.E., clear, fresh, Mr. Gätke remarks:—"Across the sea both sides of island (N. and S.), particularly on north side, countless numbers of *cornix*, *sturnus*, and all kinds of small birds, all from E. to W. This occurrence happens not rarely; during this ponderous migration there were on the island nearly no birds."

Corvus frugilegus, Rook.—Spring, Newarp L.v., during March and April, many flocks of Rooks and Crows are recorded as going both to the *west* and *east*, as if a cross migration was going on to and from the Continent. At the Cockle L.v., March 20th, 24th, and 26th, continuous Rooks and Crows to *west*. Llyn Wells, April 30th, various flocks of Crows to *south-west*, and at the same station, on Aug. 3rd and 4th, large flocks to *north north-east*. Autumn, with scarcely an exception, at all stations between the Spurn and South Foreland, from the last week in September to the end of the third week in November; the rushes correspond with those of the preceding.

Alauda arvensis, Sky Lark.—As in previous years, Larks have crossed in immense numbers to the east coast; it would be quite unnecessary to give each occurrence in detail, almost involving the necessity of writing a separate report. They are recorded at all stations from the Farn Islands to Gull L.v., off the South Foreland, from Sept. 1st to Jan. 3rd, 1884, and often continuously night and day; rushes took place on Sept. 3rd, 4th, and 21st, Oct. 6th and 8th, 10th to 14th, 27th to Nov. 2nd—14th; and Dec. 27th and 30th; and again Jan. 3rd, 1884. Flocks which come in at daybreak will continue to arrive till 12 or 1 p.m., when migration for the time ceases. Numbers are killed during the night migration against the lanterns of the light-houses and light-vessels.* Heligoland, Oct. 5th to Nov. 8th; great rushes, Oct. 12th; 27th, night from 11 p.m., “milliards

* The list of birds killed at the Hasbro' L.v., from Oct. 10th to Jan. 3rd 1884, was 162 Sky Larks, 73 Starlings, 23 Chaffinches, 60 Larks and Chaffinches, 28 Stormy Petrels, 1 Fork-tailed Petrel, 3 Fieldfares, 3 Thrushes, 3 Ringed Plovers, 4 Grey Plovers, 2 Goldcrests, 2 Woodcocks, 1 Whimbrel, 1 Oystercatcher, 1 Kingfisher, 1 Blackbird, 1 Grey Crow, 1 Rook, 1 Lapwing, 1 tame Pigeon, 1 Curlew, 1 Brambling, 1 Redwing (wings sent to Mr. Gurney, but without date). Besides these a large tub and bucket-full various. At Llyn Wells L.v., under date Oct. 17th, Kestrel, Snow Bunting, Chaffinch, 2 Robins, Wren, Goldcrest; on Nov. 4th, 3 Knots, 4 Thrushes, Redwing, 3 Stormy Petrels; Nov. 7th, 8 Chaffinches, 7 Thrushes, Knot, Blackbird, Wheatear, 2 Dunlins, 2 Snow Buntings, Brambling, Jack Snipe, 4 Fieldfares; another date, 2 Chaffinches, 2 Tree Sparrows, Thrush, 3 Stormy Petrels, 2 Snow Buntings, Dunlin; Nov. 2nd, 5 Knots; Dec. 20th, Knot; Jan. 2, Knot; 6th, 2 Knots; 7th, Oystercatcher; also two more Knots and two Dunlins, which had slipped their labels, but which Mr. Gurney thinks belong to Nov. 22nd.

with Starlings; 28th, "immense flight"; 30th and 31st, in all four nights almost continuous flights.

Otocorys alpestris, Shore Lark. — Yarmouth, between Oct. 25th and 28th, six obtained from a small flock. Galloper L.V., October 11th, one, (wing to J. H. G.). At Heligoland the migration of the Shore Lark, commencing on Oct. 1st and ending Dec. 16th, was the most remarkable of the season; Oct. 1st, N.E., small flights; 11th, some flights; 13th, about one hundred; 22nd, flights of hundreds; 26th, flights of thousands, in the forenoon cliff covered; 27th—30th, numerous; Nov. 7th, marvellous numbers; 8th, very numerous; 11th, many flights; 12th, astounding numbers; 14th, numerous; 15th, astonishing, thousands in flights; 16th, few; Dec. 16th, hundreds.

Cypselus apus, Swift. — Hunstanton L.H., May 10th, great many. Whitby L.H., 13th, one. Farn L.H., June 25th, three; the movement southward appears to have commenced on or about this date. Last at Yarmouth, Sept. 8th, several all day. Heligoland, August 21st, 22nd, and 24th, great many.

Jynx torquilla, Wryneck. — Heligoland, Aug. 21st, 22nd, and 24th, immense numbers with Swallows, Martins, Sand Martins, Swifts, Ortolan Buntings, Tree Pipits, Wheatears, Willow Wrens, Pied Flycatchers, and Blue-headed Wagtails; all astounding numbers.

Alcedo ispida, Kingfisher. — Yarmouth, first fortnight in September, twenty-three brought to one birdstuffer. Hasbro' L.V., Oct. 10th, 10.30 p.m., one on deck. Heligoland, Aug. 15th.

Coracias garrula, Roller. — Bradwell, Norfolk, Oct. 9th, one shot. Muckton, Louth, Lincolnshire, Oct. 27th, one also shot.

Upupa epops, Hoopoe. — Longstone L.H., April 29th, one killed against kitchen window, 2.15 a.m., rain and squalls from S.E.

Cuculus canorus, Cuckoo. — Hunstanton and Whitby lighthouses, May 12th, one at each. Farn L.H., 15th, one. Longstone L.H., July 24th, young Cuckoo on rocks. Heligoland, Aug. 19th and 20th, three young.

Strix flammea, Barn Owl. — One at Cromer, on Oct. 6th., seen by Mr. Gurney, and "a large cream-coloured Owl," at Farn L.H., on May 13th, may have belonged to this species.

Asio otus, Long-eared Owl. — Cromer, Oct. 6th, one. Hasbro' L.V. Nov. 4th, one resting on rigging at 7.30. a.m. for ten

minutes, and perhaps Whitby, Jan. 3rd, 1884, "one very large Horned Owl seen on cliff top." Heligoland, Oct. 31st and Nov. 1st, pretty numerous.

A. brachyotus, Short-eared Owl.—Spring, Farn L.V., April 25th, 7.45, p.m., "one very large Owl to E.N.E.; very high." Autumn, first at Redcar, Sept. 11th to Dec. 20th. At Llyn Wells L.V., two to S.S.W.; throughout October to Nov. 8th, at eleven stations;* rushes Oct. 1st to 4th, 12th to 14th, and first week in November. Heligoland, Oct. 14th and 15th, one each day; 22nd, numerous; 24th, some; 30th, great many; 31st, numerous. Nov. 1st to 4th, "and at night at the lighthouse, many, also our smaller Owl, *tengmalmi*."

FALCONIDÆ.—*Circus*, Harrier, Redcar, Sept. 21st, six on Tees Breakwater. Buzzards or "very large Hawks," Spring, Farn L.H., March 10th, "one large Hawk, feeding on Blackbird"; May 18th, large Hawk; June 18th, very large Hawk, driving the Terns from their nesting-place; also on 19th. Autumn, from Sept. 6th to Jan. 12th, 1884, numerous Buzzards, and "very large Hawks" are recorded at ten stations between the Farn Islands and Yarmouth; the majority between Sept. 6th and Oct. 20th. There appears to have been a rush of the larger *Falconidæ* on Sept. 21st. At the Spurn L.H., on Sept. 21st, two Common Buzzards; 14th, 1 a.m., Honey Buzzard caught against lantern, and another on 17th, shot near Kilnsea. Farn L.H., 23rd, one very large Hawk, "back and wings dark brown, belly greyish white, beak slate-colour." Whitby L.H., Jan. 12th, 8.30. a.m., one very large Hawk, "dark colour, with long, square tail, the largest I have ever seen." *Accipiter nisus*, Sparrowhawk, numerous through September and to Oct. 14th, and after this in less numbers to Nov. 20th; rush, Sept. 21st, with other *Falconidæ*. Heligoland, Rough-legged Buzzard, Oct. 12th and 13th, one each day; Nov. 2nd, some; 19th, four to

* Under date of Nov. 7th, at Happisburgh L.H., an Owl, flying about in the glare of the lamps, was seen to pounce on a Starling and carry it off. Mr. F. Spurr writes, "this latter, a fine Horned Owl, has taken to visit the lighthouse regularly; he takes his post just beneath the strong rays of light, and from thence pounces on the small birds when they are frightened by the glare." He goes on to say that he had seen it perched on the rail of the balcony, when its eyes shone like living coals; just such a light as is visible in the eyes of the night-flying moths when they settle on the pane.

six. Sea Eagle, *Haliaëtus albicilla*, Sept. 21st, some. Sparrowhawks, from Sept. 21st to Nov. 1st.; Oct. 4th, first old birds. As a rule Sparrowhawks pass late in the afternoon. Peregrine Falcon, Oct. 12th, a few. Kestrel and others, Sept. 22nd, "more than ever, with Sparrowhawks and Merlins."

Phalacrocorax carbo, Cormorant.—Tees L.v., March 7th, flock of twenty-five; 24th, fifty.

Sula bassana, Gannet.—Spring, Farn L.v., Feb. 25th, many going N. Longstone L.H., March 22nd to April 15th, daily to N., and from this date every day till May 30th, never more than nine in a flock; great numbers of young also seen off Farn Islands, Redcar and Whitby, first three weeks, in October, generally moving in northerly directions. Redcar, Oct. 26th and 31st and Nov. 2nd and 10th, great numbers to S.E. Hanois L.H. (Guernsey), Nov. 24th, all day passing.

Ardea cinerea, Heron.—Languard L.H., June 25th, a pair very high to S.W., and several seen off Farn L.H. in August.

Botaurus stellaris, Bittern.—Early in January, 1884, a Bittern was shot near Thornton College, North Lincolnshire, and two others are reported as seen.

ANSER, Geese.—Languard L.H., March 11th, sixteen Grey Geese, very high to S.W. Whitby L.H., June 20th, nineteen going N., and on July 8th, 5 p.m., a large flock from N. to S.W. Redcar, Sept. 21st, twelve Grey Geese to E.; and at some stations also in October and November, having probably reference to change of feeding-ground. A large flock of Brent Geese, *Bernicla brenta*, were seen off the Farn Islands on March 23rd, at 6 p.m., and in the autumn a few on Sept. 26th, at the Tees L.v.

CYGNUS, Swans.—At Tees L.v., March 25th, one. Outer Dowsing L.v., 14th, three from N.W. to E.S.E. Spurn, May 13th, three to S.; and on 15th, two in Humber. Llyn Wells L.v., Sept. 16th, three to W.S.W. It is possible all these may have reference to escapes or strays from private waters.

Tadorna cornuta, Common Sheldrake.—Tees L.v., Jan. 13th, flock of three hundred. "Never saw so many together before." Nov. 28th, flock of about one hundred.

Mareca penelope, Wigeon.—Redcar, Aug. 20th, two flocks; Sept. 20th, flock of one hundred Teal at sea. Farn L.H., Dec. 12th, hundreds of Wild Duck, *Anas boschas*, off island.

Harelda glacialis, Long-tailed Duck.—Farn L.H., March 8th,

“flock of fifty to sixty off island.” On Oct. 23rd, at Kilnsea, near the Spurn, I shot a mature female Hareld from a flooded meadow. The stomach contained a mass of small red worms and minute stones.

Somateria mollissima, Eider Duck.—Farn L.H., Nov., “hundreds of Eiders, drakes and ducks, with young birds, flying and swimming about the island every day this month.” In December six were shot on Breydon Water, Norfolk. The King Eider, *Somateria spectabilis*, was again, as in the last two years, seen at the Farn Islands, in company with the Common Eider, in April.

Edemia nigra, Common Scoter.—Gull L.V., Aug. 19th to Sept. 11th, great numbers going S.W.

Columba palumbus, Ring Dove.—Farn L.H., Sept. 24th, one. Stock Dove, *C. aenas*.—On Oct. 25th, at Kilnsea, near the Spurn, I saw one come in direct from the sea and pitch in a field on the cliff top. Heligoland, *C. palumbus*, Sept. 30th, some; Oct. 4th, flights, forty to fifty; 13th and 15th, passing on; 31st, many.

Rallus aquaticus, Water Rail.—Farn L.H., Oct. 30th, S., foggy, three at daylight; Nov. 2nd, one at noon, to land; Galloper, 3rd, one (wing to J. H. G.) Hasbro' L.H., Dec. 9th, S.W., one struck.

Crex pratensis, Corn Crake.—Farn L.H., May 1st, 3 p.m., N.E., one; 23rd, 2 p.m., one. Whitby, 11th, first heard. Winterton L.H., Aug. 10th, midnight, one struck. Spurn L.H., Sept. 15th, one; Hunstanton L.H., Oct. 8th, one struck and caught alive.

Edicnemus scolopax, Stone Curlew.—Heligoland, Aug. 15th.

Charadrius pluvialis, Golden Plover.—Farn L.H., July 27th, five to E., and on Aug. 20th, flock to W.; numerous on island through August and September, moving to and from the mainland. At the Spurn on Aug. 29th, a large flock to N.*; and at Wells, Norfolk, Aug. 27th, in small parties on mud. Heligoland, July. 16th, one young bird shot; Aug. 21st to 24th, young birds; 16th and 17th, great flights, all young; 29th, great flights; night Oct. 31st to

* The occurrence of a large body of Golden Plovers at the Spurn at this date, *passing to the north*, is somewhat remarkable in connection with the large flight of the same species seen there, passing in the same direction, on Aug. 22nd, in 1880, and on Sept. 6th in 1881. (Yarrell's Brit. Birds, ed. iv., vol. iii., p. 274).

Nov. 1st, "whole atmosphere gloomy darkness, Curlew, Lapwing, Tringa, Snipe, Woodcock, but no Golden Plover." Dec. 4th, N.E. (No. 8 or 9), snow-storm, Woodcocks and Golden Plover.

Squatarola helvetica, Grey Plover.—Spurn, June 7th, 11 a.m., N.E., flocks along coast. Hasbro' L.V., Nov. 1st, four killed. Tees L.V., Dec. 13th, large flock.

Vanellus vulgaris, Lapwing.—Spring, Cockle L.V., March 8th, large flocks to S.W. Autumn, Yarmouth, Oct. 6th, large flocks in afternoon from sea; 30th, Hasbro' L.V., great rush; Whitby L.H., Nov. 15th, 16th and 17th, flights each day, south-westerly gale; also at Hunstanton L.H. on 16th, to S.W., from daylight to noon,

Streptilas interpres, Turnstone.—Yarmouth, Aug. 11th, young birds to S. Farn L.H., 14th, large flocks at noon. Redcar, 31st, large flock near Teesmouth, fresh arrivals.

Hæmatopus ostralegus, Oystercatcher. — Llyn Wells L.V., Jan. 7th, 1884, one killed (J. H. G.).

Phalaropus hyperboreus, Red-necked Phalarope.—Yarmouth, Oct. 24th, one shot.

Scolopax rusticula, Woodcock.—Flamborough L.H., April 6th, struck and killed. Two or three occurred at Teesmouth (Redcar), last week in August, and a few in September. At Seaton Snook and Flamborough on Sept. 21st. The "first flight" was on the Yorkshire, Lincolnshire and Norfolk coasts, on the night of Oct. 21st, wind N.E. The "great flight," or rush, on the nights of Oct. 28th and 29th, covering the whole of the E. coast, from the Farn Islands to Yarmouth, the bulk coming probably into the Humber district. A friend wrote me he had shot eighteen on the morning of 29th, and might easily have doubled this number if he had started early enough. From the 2nd to the 10th of November stragglers continued to arrive between the Farn Islands and Yarmouth. Heligoland, Sept. 22nd, first; Oct. 22nd, one hundred caught or shot; 28th, astounding passage of Larks, Starlings, Peewits, Snipes and Woodcocks; Oct. 30th, twenty to thirty shot; 31st, ten to twenty shot; 31st to Nov. 1st, thirteen caught, a few stragglers to December 4th.*

* Mr. Clubley, of Kilnsea, near the Spurn, who during his life has probably shot more Cock than anyone living on the east coast, says that a S.E. wind always brings *large grey* or *light-coloured* Woodcocks, a N. wind

Gallinago major, Great Snipe.—N. E. Lincolnshire, Oct. 2nd, one shot; Yarmouth, same date, one.

G. cælestis, Common Snipe.—Yarmouth, Aug. 11th, several. Great Cotes, Sept. 25th, first considerable flight, wind S.E. night of 24th, with gale and heavy rain. Hasbro' L.H., Nov. 8th, two struck and killed. Heligoland, Oct. 22nd, great flight; 28th, night, immense.

Limnocyptes gallinula, Jack Snipe.—Farn. L.H., Sept. 21st, S.E., noon, two. Galloper L.V., Nov. 3rd, one (J. H. G.) Llyn Wells L.V., 7th, one (J. H. G.)

Tringa alpina, Dunlin.—Languard L.H., March 10th, 7.40 a.m., very large flock, very rapidly to N. *T. minuta*, Little Stint, Bridlington, Aug. 3rd, two seen (W. E. C.), and at Yarmouth, second week in September, three.†

T. subarquata, Curlew Sandpiper.—Essex coast, August 1st, Colonel Russell shot three from a flock of Oxbirds; they were in partial moult; another was seen.

T. striata, Purple Sandpiper.—Farn L.H., May 15th, 6 p.m., S.S.E., very large flock flying over island; and at the same station, on Nov. 28th, very large flocks of Turnstone, Purple Sandpiper and Redshank. Yarmouth, Oct. 5th, five seen.

T. canutus, Knot.—Spurn, June 13th, flock arrived from S. The first Knots in the autumn were seen at Yarmouth and Redcar on Aug. 11th, and by the end of the month were tolerably numerous along the east coast. Llyn Wells L.V., Sept. 22nd, N.N.E., large flocks to S. all day; at this station also, from Oct. 20th to Jan. 6th, 1884, twenty-eight were killed against the lantern.‡

small and red-coloured birds—that is, Scandinavian birds. This rule seems to hold good on other parts of our east coast. See also remarks by Mr. J. Harvie-Brown.

† The first great rush of *Tringa* across Heligoland was Aug. 6th and 7th; 14th also, all sorts; and on 21st and 22nd, same; again on night of Oct. 31st, and morning of Nov. 1st.

‡ The Knot at Blakeney is always called "Knet"; Godwit, a "Pick"; Dunlin, "Stint"; Whimbrel, "Maybird"; Turnstone, "Dotterel"; Ringed Plover, "Oxbird." On the Essex coast the Whimbrel is a "Maybird" or "Titterel," the latter from its cry; Godwits are "Pream;" Knot, "Marl"; Dunlin, "Oxbird"; Ringed Plover, "Stone-runner." At Spurn the Knot is a "Plover-knot," but on the Lincolnshire coast simply a "Knot, Local

Machetes pugnax, Ruff.—Yarmouth, second week in September, five ruffs and one reeve.

Calidris arenaria, Sanderling.—Flamborough, Aug. 3rd, old male in summer plumage (W. E. C.). Yarmouth, 11th, Knots and Sanderlings on beach. Spurn, Oct. 23rd, a few.

Totanus glareola, Wood Sandpiper.—Bridlington, middle of August, a young bird was shot on South Sands (W. E. C.). Spurn, middle of September, three, all immature, taken to Mr. P. Lawton, of Easington.

T. calidris, Redshank.—Outer Dowsing L.V., May 9th, one "Red-legged Sandpiper" on deck, then to W. Wells, Norfolk, Aug. 28th, numerous; one hundred or more in a flock. Tees L.V., Sept. 23rd, large flock. Farn L.V., Nov. 28th, very large flocks with Purple Sandpiper and Turnstone on rocks. *T. fuscus*, Spotted Redshank, Breydon, Oct. 20th, one shot.

T. canescens, Greenshank.—Wells, Norfolk, Aug. 27th, "comparatively numerous." Yarmouth, Aug. 9th, four shot, all immature. Sept. 2nd, two.

Limosa lapponica, Bar-tailed Godwit. — Redcar, July 28th, and forward to Aug. 27th, in some numbers.

Numenius phæopus, Whimbrel. — Redcar, July 18th, N.E. light, first passing over, very high. Yarmouth, Aug. 1st, all day. Redcar, 8th, S.W. strong, two large flocks of fifty; 23rd and 24th, rush, and at intervals to Sept. 10th.

N. arquata, Curlew. — Farn L.H., March 11th, 5 to 6 p.m., four to five hundred to island from mainland in flocks from five to thirty. Whitby L.H., June 20th, great many night and day.

names, common to both sides of the Humber, are, Turnstone, "Dotterel"; Common Dotterel, "Land Dotterel," "Spring Dotterel"; Grey Plover, "Pigeon," or "Buffel-headed Plover"; Dunlin, "Stint," or "Tommy Stint"; Ringed Plover, "Sand-runner"; Whimbrel, "Curlew-jack"; Godwit, "Curlew-whelp." On the Durham coast the Knot is both a "Dunlin" and "Grey Plover"; Dunlin, a "Stint"; Sanderling, "White Stint"; Whimbrel, "Curlew-jack"; Lapwing, a "Tyafit"; Godwit, "Goodwin." The local names of birds vary so in different districts that they frequently become very puzzling to the members of the Committee; it would greatly assist their labours and facilitate enquiry if any fellow-worker would take the trouble to compile a glossary of local names of our British birds. The investigation might be rendered easy by sending printed forms to the best known ornithologists, in their respective districts. The results could not fail to be both useful and interesting.

Winterton L.H., Sept. 10th, 12.30 a.m., one caught beating against lantern, great many during night to W. Farn L.H., Nov. 17th, large flock to E. Hasbro' L.V., Jan. 3rd, 1884, one killed. Heligoland, Oct. 30th and 31st, great many with *Tringa* and *Scolopax*, *Limosa* and *Vanellus*; and night of 31st, great rush.

STERNINÆ, Terns. — Spurn, May 4th, all day to north. At the Farne Islands the Arctic Terns, *Sterna macrura*, returned to their nesting quarters on May 20th, and left again on Aug. 3rd, only a few being seen after that date. Yarmouth, Aug. 7th to 10th, Black, Common, and Arctic Terns along shore, and through the month to 31st; in shore only when wind is westerly, in flocks of ten to fifty, nine-tenths being young; it is the westerly winds which bring in the herring "syle," on which the Terns feed. The Sandwich Tern, *Sterna cantiaca*, arrived at the Farn Islands between April 15th and 23rd, leaving again on Aug. 3rd. At Languard Point, Mr. Owen Boyle saw on June 1st, 4.45 a.m., a pair of Roseate Terns; 7th, four Sandwich Terns; 15th, four Lesser Terns; and on 23rd, four Common Terns. At Redcar, on Sept. 5th, 6th, 7th, and 10th, many flights were heard passing over in dark.

LARINÆ, Gulls. — Whitby L.H., Feb. 15th, Herring Gulls returning to cliffs; July 18th, first young on wing; Aug. 14th, Gulls, old and young, left the cliff. Farn L.H., April 14th, Lesser Black-backed Gulls returning to nesting quarters. Yarmouth, Aug. 10th, Gulls, mostly young, along shore feeding on "syle," five to thirty in flock. Flamborough, Sept. 12th, great many Gulls all day to south. Spurn, Sept. 24th, two hundred Herring Gulls to south. Cockle L.V., Oct. 25th, great many large Gulls, young and old, E. to W.; Nov. 17th to 23rd, 9.30 a.m. to 3 p.m., Great Black-backed Gulls from W. to E. Farn L.H., Nov. 8th to 30th, very large number of Black-headed Gulls fishing round island at flood each day; Dec. 8th, two "Bass" Gulls; 12th, one. "These Gulls are all cream-colour. I am not sure if they are the Glaucous, so have given them the local name." At Heligoland, young Glaucous Gulls, *L. glaucus*, were repeatedly seen about island in December; and during the last week in January, 1884, hundreds of Black-headed Gulls, *L. ridibundus*, frequented the plateau of cliff, which Mr. Gätke says is a "very exceptional" circumstance there. *Xema sabinii*, Sabine's Gull, an immature example was shot on Oct. 28th, the second example

which has been obtained there; and on Nov. 10th a second young bird was seen by Aeuckens, the birdstuffer.

STERCORARIINÆ, Skuas.—Redcar, Aug. 25th, two; Teesmouth, 27th, Richardson's Skua, *S. crepidatus*. Farn L.H., Sept. 17th, several chasing Gulls. Yarmouth, 20th, many. Heligoland, Oct. 27th, *S. pomatorhinus*, one.

PROCELLARIIDÆ, Petrels. — The Stormy Petrel, *P. pelagica*, occurred at Yarmouth, Oct. 2nd, and Spurn on 23rd, shot in each case from beach. Hasbro' L.V., 27th, seven caught on deck, on 31st ten, and between Oct. 27th and Nov. 4th several were taken at various stations at sea off the east coast. One Fork-tailed Petrel, *P. leucorroha*, from Happisburgh (Hasbro') L.V. in October. A Shearwater was seen at Farn L.H. July 20th, 6 a.m., going north; and at Spurn L.H. on Aug. 5th, 2 a.m., a Manx Shearwater, *P. anglorum*, was killed against the lantern. Breydon, Sept. 5th, one shot. In the latter part of the same month two Sooty Shearwaters, *P. griseus*, were obtained in Bridlington Bay, and taken to the shop of Mr. Jones, birdstuffer, where they were seen and identified by Mr. W. E. Clarke.*

COLYMBIDÆ, Divers. — Tees L.V., March 28th, one Great Northern and two Red-throated Divers off the lightship, in company with two Grebes, twelve Sheldrake, and six Brent Geese. Redcar, Sept. 2nd, four or five Red-throated Divers; and on 20th several lots of both. Breydon Water, Oct. 16th, adult Red-throated Diver. At the Farn Islands, last half of October and in November, many Great Northern Divers about islands; Jan. 15th, 1884, several Red-throated Divers about island.

PODICIPIDÆ, Grebes. — Bridlington, latter part of August, Red-necked Grebe, *P. griseigena*, shot, in full summer plumage. Spurn, Nov. 2nd, a few pairs of Little Grebes, *Tachybaptus fluviatilis*, on ponds; and on Jan. 6th, 1884, three Great Crested Grebes, *P. cristatus*, on the sea off point.

ALCIDÆ, Auks. — At Flamborough, in February, 1884, great numbers of Razorbills, *Alca torda*, all returned to their nesting quarters on the cliffs, an unprecedented circumstance there; and large numbers of the Common Guillemot were reported by the fishermen as seen at sea off the headland. At the Farn Islands, March 22nd, 1883, Guillemots had come to

* 'Zoologist,' 1884, p. 180.

their nesting quarters, thousands arriving on April 1st. Puffins on the 15th. On January 10th and 28th, 1884, on each day a Black Guillemot, *Uria grylle*, was shot from the island. The Little Auk, *Mergulus alle*, shot there on Dec. 29th; and on Feb. 4th and 5th, 1884, a great many were seen flying and swimming about the islands, more than had ever been seen before.

The Committee are again indebted to Professor Chr. Fr. Lütken, of the Universitetets Zoologiske Museum, Copenhagen, for a list of the birds killed or taken against the lantern of the lighthouse of Stevns, on the projecting part of Zealand, marking the limit between the Baltic and Oresund, in the spring and autumn of 1883. The list has been drawn up by Mr. Autander, a physician living in the neighbourhood of the lighthouse. In forwarding the list to Professor Lütken he states there has been in this year only a few nights in which any number of birds have been killed, in consequence of the sky being generally clear during the time of the migration.

STEVNS FYR (LIGHTHOUSE OF STEVNS), 1883.

Night to—

April	6th.	<i>Saxicola œnanthe</i>	2, male and female.
"	"	<i>Regulus cristatus</i>	2 males.
"	"	<i>Erithacus rubecula</i>	1 male.
"	12th.	<i>Turdus viscivorus</i>	2.
"	"	<i>T. merula</i>	4.
"	"	<i>T. musicus</i>	10.
"	"	<i>Alauda arvensis</i>	5.
"	"	<i>Regulus cristatus</i>	1.
"	"	<i>Saxicola œnanthe</i>	4.
"	"	<i>Erithacus rubecula</i>	2.
"	13th.	<i>Scolopax rusticula</i>	1 male.
"	"	<i>Columba palumbus</i> ...	1.
"	"	<i>Sturnus vulgaris</i>	1.
"	"	<i>Emberiza citrinella</i> ...	1.
"	"	<i>Fringilla cœlebs</i>	1.
"	"	<i>Saxicola œnanthe</i>	1.
"	"	<i>Troglodytes parvulus</i> ...	2.
"	"	<i>Alauda arvensis</i>	2.
"	"	<i>Motacilla alba</i>	3.
"	"	<i>Turdus musicus</i>	8.
"	"	<i>Erithacus rubecula</i>	15.
Aug.	4th.	<i>Tringa alpina</i>	1 male.
"	26th.	<i>Jynx torquilla</i>	1 male.
Sept.	3rd.	<i>Sylvia trochilus</i>	3.
"	"	<i>Luscinia phœnicurus</i> ...	1 male.
"	"	<i>Muscicapa grisola</i>	1 male.

Night to—

Sept.	3rd.	M. atricapilla	1 female.
"	"	Columba ænas	1 female.
"	"	Lanius collurio	1 young male.
"	5th.	Querquedula cracca ...	1 male.
"	"	Motacilla alba.....	1 young male.
"	"	Luscinia phoenicurus...	6.
"	"	Jynx torquilla.....	1.
"	"	Sterna argentata	1.
"	"	Erithacus suecicus.....	1.
"	"	Sylvia schoenobænus...	1.
"	"	S. cinerea	2.
"	"	S. hortensis.....	5.
"	"	S. trochilus.....	2.
"	"	Motacilla flava	1.
"	"	Saxicola œnanthe	2.
"	"	S. rubetra	1.
"	"	Muscicapa atricapilla...	4.
"	"	†Locustella fluviatilis...	1.
Sept.	6th.	Podiceps minor	1 young male.
Oct.	1st.	Turdus musicus	2.
"	4th.	Sylvia atricapilla	1.
"	11th.	Turdus musicus	8.
"	"	Sturnus vulgaris.....	1.
"	"	Alauda arvensis	2.
"	"	Sylvia rufa	2.
"	"	Fringilla montifringilla	6.
"	"	Emberiza schoeniæus...	11.
"	"	Erithacus rubecula ...	25.
"	20th.	Fringilla montifringilla	1.
"	26th.	Coccothraustes vulgaris	1 male.
Nov.	1st.	Emberiza citrinella ...	1 male.

Since the completion of the Report a schedule has been received from the Leman and Ower L.v. moored forty-eight miles E.N.E. of Cromer, on the coast of Norfolk. From Feb. 11th to May 8th, Skylarks, Black Crows, Rooks, Wild Ducks, Starlings, and Goldcrests, are recorded as going in *westerly* directions; a like anomalous direction was maintained during the same period at the Outer Dowsing, Newarp, Cockle, and Llyn Wells light-vessels by birds passing these stations. On May 8th a great many Goldcrests came from the south at 11 a.m., and then went *west*. Sept. 11th, great numbers of Goldcrests going from S.E. to W.; and on Oct. 28th with Redbreasts and Wrens from S. to N.W. Between Oct. 27th and Nov. 1st two hundred and eight birds

* Determined at the Museum; not before found in Denmark.

were killed or taken on the vessel, including seven Grey Crows, Larks, Redbreasts, Wrens, Goldcrests, Starlings, Sparrows, Chaffinches, and two Woodcocks; these birds were travelling from S., S.E., and E. to N.W., N.N.W., and W.

Wings from Galloper L.V. by Mr. Gurney. Oct. 10th, Tree Sparrow and Chaffinch; 11th, Shore Lark; 13th, Great Tit; 27th, Chaffinch; 28th, Blackstart (young male or old female?), Thrush; 30th, Meadow Pipit; Nov. 3rd, Jack Snipe and Water Rail.

On April 9th, 1884, I received from Mr. Gurney the wing of a Dabchick (Little Grebe), which struck the lantern of the Hasbro' lighthouse at 11 p.m. on the night of March 30th. The force was so great that the bird was split from the neck along the entire length of body; and on April 8th a Hoopoe was killed against the North Hasbro' L.V., and the head, wings, and legs sent to Mr. Gurney by Mr. B. V. Darnell, mate of that vessel. A Hoopoe was also taken alive on April 10th, on board a Grimsby smack when one hundred miles E.N.E. of the Spurn, wind blowing strong from E., and had been for some days.

At Heligoland, on the night from Aug. 6th to 7th, S.E., a considerable flight of the Silver Gamma Moth, *Plusia gamma*, but nothing to be compared with the perfect snow-storms of this moth which passed in the autumn of 1882, all going west. On Oct. 11th, S.S.W., there was a considerable flight of *Hybernia defoliaria*, the Mottled Umber Moth, mixed with *Hybernia aurantiaria*, the scarce Umber; and also during the nights of the last week in October repeated flights of these moths. With reference to the great flight of *Plusia gamma* in 1882, a notice of which appeared in our last Report, 1882, p. 47, Mr. Charles Williams, of the Hanois L.H., Guernsey, sends this note:—"Seeing Mr. Gätke's remarks in your Report about the Gamma Moth, I beg to say that they were here in June or July."

At the Tees L.V., Nov. 18th, "a large Seal came quite close to vessel, largest I've ever seen." As the Common Seal is well known at the mouth of the Tees, this probably may have been the Grey Seal, *Halichoerus gryphus*.

From Flamborough comes the announcement that, on Feb. 18th, that rare fish, the Ribbon or Oar-fish, *Regalecus banksii*, was found alive amongst the rocks on the south side near the Head; it measured thirteen feet-three inches in length, sixteen

inches in depth, and five and a half inches in thickness; it was supposed to have been brought in by the tremendous easterly swell of the last few days. It was purchased by Mr. Whittaker, of Scarborough, for thirty pounds.

GENERAL REMARKS.

The observations taken on the East Coast of England in 1883 have been such as to generally confirm the conclusions arrived at in previous Report, having special reference to directions of flight and lines of migration.

The winter of 1883-84 has been exceptionally mild, and there has been an almost entire absence of severe frosts and lasting snow-storms; the prevailing winds in the autumn W. and S.W.—such as we know are specially favourable for the passage of the North Sea by great flights of birds, and their direct movement inland without alighting to rest or recruit themselves in the east coast districts. Our land stations report a great scarcity both of land and sea-birds; this has not, however, been the case at sea stations—that is, light-vessels situated off the coast at distances varying from five to fifty miles; here the stream of migration, so far from showing any abatement, has flown steadily on in a full tide, and, judging from the well-filled schedules that have been returned, there appears to have been a decided increase in the migrants passing these distant stations—due, perhaps, in some measure to increased interest and improved observations. Mr. Wm. Stock, of the Outer Dowsing L.V., remarks that he had never before seen so many birds past that station. The rush also over Heligoland during the autumn was enormous. Migration is more marked there than on the English coast; there was a great movement of various species passing forward on the 6th and 7th of August, and again on the 14th, and more pronounced still on the 21st and 22nd.

The first great rush of birds on the English coast was on Sept. 21st, and two following days; and a similar great movement or rush is indicated in Mr. Gätke's notes from his island outpost, as well as on our more distant light-ships. The prevailing winds on the North Sea on Sept. 21st were moderate north-easterly and easterly off the coasts of Denmark and Holland, blowing strong easterly on to our northern coasts north of the Humber, with southerly and south-westerly off the south-

east coasts, causing cross-currents over the North sea. Whatever then was the impulse, atmospheric or otherwise, which induced such an immense rush of various birds at this time, it was one which acted alike, and with precisely the same impulse, on the Sea Eagle and tiny Goldcrest.

The second great rush was on the 12th and 13th of October, a similar movement being recorded at Heligoland. Then again from the 27th to the 31st, and somewhat less through the first week in November, the passage across Heligoland, as well as the rush on our east coast, was enormous. Speaking of the nights from the 27th to 31st inclusive, Mr. Gätke says, "This was the first move by the million; for four nights there has been a gigantic feathery tide running." During this time there were variable winds over the North Sea, but generally easterly and south-easterly on the Continent; but strong west winds and squalls prevailing generally on the 5th and 6th of November. With the outburst of some severe weather during the first week in December a considerable local movement is indicated along our coast from north to south, culminating in the enormous rush of Snow Buntings into Lincolnshire about the end of the first week in that month. A careful perusal of the Report will show how generally the rushes across Heligoland correlate with those observed on our east coast, although not always confined to the same species in both localities.

A somewhat remarkable and very anomalous movement of migrants is recorded in the schedules from some of the light-vessels off the Lincolnshire and Norfolk coasts in the spring of 1883. In February, March, April, and May, birds passing the Leman and Ower, Llyn Wells, Outer Dowsing, Newarp, and Cockle light-vessels were as a rule coming from easterly and passing in westerly directions. Had this movement been noticed at one station only we might perhaps have been inclined to doubt the accuracy of the return, but the fact of five light-vessels having no communication with each other reporting the same circumstance proves the correctness of the observations. A summary of the spring quarter at these stations shows:—

Outer Dowsing L.V., March 31st to May 18th, Sparrows, Chaffinches, Wrens, Rocks, Larks, Tree Sparrows, Linnets, Titlarks, Bullfinches, from E., S.E., E. by S., and N.E. to W. N.W., W.N.W., and W.S.W.

Llyn Wells L.v., April 30th, various flocks of Crows to S.W.

Newarp L.v., March 17th to April 15th, Crows on six days to W.

Leman and Ower L.v., Feb. 18th to May 8th, Skylarks, Starlings, Titlarks, Goldcrests, E. and E.S.E. to N.W.

Cockle L.v., Feb. 22nd to March 31st, Black Crows, Ducks, Jackdaws, Starlings, Larks, Lapwings, "Snow-birds" to W. On March 20th, 24th, and 26th, Black Crows or Rooks continuous from 5.50 a.m. to 11 a.m., E. to W.; and on 31st also continuous from morning to night in the same direction.

All these entries show a great immigration to our coast from the east in the spring months, and on precisely the same lines and directions as are travelled by these birds in the autumn.

An interesting feature of the autumn migration is the occurrence of a flight of the Blue-throated Warbler, *Cyanecula suecica*; twelve altogether were obtained, all being birds of the year, and nine of these on the coast of Norfolk, besides about twenty others seen by competent observers.

Very few Goldcrests, compared with the enormous flights of the previous autumn, have crossed, and the same scarcity is observable in the Heligoland return. Curiously enough, the Hedgesparrow, *Accentor modularis*, which migrated in such immense numbers in the same autumn, has been almost entirely absent. About half a dozen are recorded at Heligoland, none on the East Coast of England.

The intermittent migration of some birds, as the Jay, Shore Lark, Goldcrest, Hedge-sparrow, Siskin, and Mealy Redpoll, indicated by their extraordinary abundance in some years, and partial or entire absence in others, is perhaps suggestive of local causes influencing and regulating their movements, such as a succession of favourable breeding seasons, scarcity or failure of food, sudden meteorological changes; these acting separately or in combination, would be sufficient to compel the migration of large bodies of birds from centres or localities, where, under normal conditions, they would either have remained or some part only migrated. In this manner whole districts may become denuded for a time of their feathered inhabitants, and the balance become again rectified by a return movement in the spring, or from the surplus supply bred in other districts.

Of the enormous immigration which crosses our east coast in the autumn, either to winter in these islands or passing across

them, a small proportion only appear to return by the same route. Spring returns from lighthouses and light-vessels show birds then move on the same lines as were followed in the autumn, but in the reverse direction. Yet these return travellers do not represent anything like a tithe of the immigrants which, week by week and month after month in the autumn, pour in one great tide on to the coast.

What is called the "first flight" of the Woodcock arrived on the Yorkshire, Lincolnshire, and Norfolk coasts on the night of Oct. 21st. The "great flight" or rush, which covered the whole of the east coast from the Farn Islands to Yarmouth, was on the nights of the 28th and 29th. These two periods correlate with the great flights of Woodcocks over Heligoland.

We are again indebted to Professor Ch. F. Lütken, of Copenhagen, for a list of the birds killed or taken alive against the lantern of the Stevns lighthouse, at the entrance of the Oresund, in Zealand. The list is specially interesting, as it names so many of the Heligoland birds. The occurrence of *Locustella fluviatilis* on Sept. 5th is the first recorded example for Denmark.

The Roller, *Coracias garrula*, occurred in October in two localities, one in Lincolnshire, the other in Suffolk. Two examples of the Sooty Shearwater, *Puffinus griseus*, were obtained in Bridlington Bay in the end of September. Altogether there has been a very marked absence along our east coast of rare and casual visitants; Heligoland, however, retains its pre-eminence for rare wanderers, and Mr. Gätke's list for 1883 includes *Turdus varius*, *Pratincola rubicola* var. *indicus*, *Phylloscopus superciliosus*, *Hypolais pallida*, *Motacilla citriola*, *Anthus cervinus*, *A. Richardi*, *Oriolus galbula*, *Lanius major*, *Muscicapa parva*, *Linota exilipes*, *Emberiza melanocephala*, *E. cirrus*, *E. rustica*, *E. pusilla*, *Pastor roseus*, and *Xema Sabinii*.

Note.—At page 47, under the head "*Coracias garrula*, Roller," the locality of Bradwell is erroneously given in Norfolk, instead of Suffolk (2½ miles S.W. of Great Yarmouth). Mr. Gurney writes that, on June 6th, 1884, a Roller was shot at Gresham, near Cromer, and that before this Norfolk has not produced one for about thirty years.

WEST COAST OF SCOTLAND.

“And now, their route designed, their leaders chose,
 Their tribes adjusted, clean'd their vigorous wings,
 And many a circle, many a short essay,
 Wheel'd round and round, in congregation full
 The figur'd flight ascends, and riding high
 The aërial billows, mixes with the clouds.”

THOMSON.

SCHEDULES were sent to thirty-four stations, as in previous years. We have received filled schedules from seventeen stations. Generally the returns are very light, still lighter than last year.

We have notes on about thirty-nine species of land birds from this coast; about twenty species of water birds; and about eight species of littoral species, or wading birds.

The spring migration, for sake of uniformity with the East Coast, I have kept separate. Weather notes are included in the General Remarks.

LIST OF STATIONS.

'79	'80	'81	'82	'83	
*	*	*			81. Cape Wrath, Sutherland 400 ft.
*	*	*	*		82. Rhu Stoir, ,, 195 ,, Wm. Wither

OUTER HEBRIDES.

*	*	*	*	*	83. Butt of Lewis 170 ,, A. Thompson
	*	*	*		84. Stornoway..... 56 ,, John Grierson
*	*	*			85. Island Glass 130 ,,
*	*	*	*	*	86. Monach Isles..... { 150 ,, } J. Youngclaus
	*	*			{ 62 ,, }
	*	*			87. Ushenish 176 ,,
		*		*	88. Barra Head 683 ,, Wm. Irvine

MAINLAND, SKYE, AND INNER HEBRIDES.

					89. Rona, Skye 222 ,,
*	*	*	*		90. Kyleakin, Rosshire 53 ,, D. M'ulloch

'79	'80	'81	'82	'83		
*	*	*			91. Isle Ornsay, Skye.....	58 ft.
*	*				92. Ardnamurchan Pt. | Argyl.	180 ,,
*	*	*	*	*	{ 93. Hynish Signal Tower, Tyree	} 150 ,, Wm. Crow
					{ 94. Skerryvore, off Tyree ... }	
*	*	*	*	*	95. Dhuheartach, S. of Ross of Mull	145 ,, Jas. Ewing
*	*	*	*	*	96. Sound of Mull	55 ,, W. M'Lellan
					97. Corran Ferry, Loch Eil...	38 ,,
	*	*	*	*	98. Lismore Island, Oban ...	103 ,, Alex. Murray
*	*				99. Fladda, Easdale	42 ,,
*	*	*			100. Rhuvaal, Islay	147 ,,
	*	*	*	*	101. M'Arthur's Head, Islay	128 ,, W. Maill
*	*	*	*	*	102. Skervuile, Jura.....	73 ,, John Ewing
*	*	*	*	*	103. Rhinns of Islay.....	159 ,, Andrew Lyall
*	*				104. Lochindaul	50 ,,
					105. Mull of Kintyre.....	297 ,,
					107. Devaar, Kintyre	120 ,,
					108. Pladda, Arran	130 ,,
		*	*		109. Lamblash, Arran	46 ,, David Waters
	*	*			110. Turnberry, Ayrshire.....	96 ,,
*	*	*			111. Corsewall, Wigtonshire	112 ,, Robt. Laidlaw
*	*	*	*	*	112. Loch Ryan, ,,	46 ,, Ralph Ewing
*	*	*	*	*	113. Portpatrick, ,,	37 ,, James Begg
*	*	*	*		114. Mull of Galloway ,,	325
	*				115. Little Ross, Kircudbright	175
					116.	
					117.	
					118.	
					119 [1880]	
					120	

GENERAL REMARKS BY REPORTERS.

Mr. James Youngclause, Menach lighthouse, says:—"I am sorry to have such a meagre report to send you, but birds have been awfully scarce here for some years back, and I have sent you records of all that I have seen."

I am obliged to Mr. William Irvine for the first report I have received from Barra Head, which, however, is a station which can hardly be expected to give large returns, owing to its position and great height above the sea. A daily record here for a few

seasons of the movements of Gannets and rock-birds might prove of considerable interest, such as daily hours of going to and from their feeding-grounds. Such might be found also interesting to fisherfolk.

Mr. James Ewing, of Dhuheartach, says of the spring migration and the long-continued east winds:—"A few Larks in March, and some Stonechats in the first days of April, are all that we have seen of the spring migration. I am convinced that a change of wind happening during the migratory season tends more to lead the birds astray than strong breezes. It will be interesting to note if there is any increase during this autumn, as our light, which was red towards Mull, has been changed to a white occulting light."

By the autumn schedules migration appears to have quite ceased here by date of Dec. 7th.

Mr. W. M'Lellan speaks of the great scarcity of shore-birds, as compared with other seasons. Where Curlews were seen daily in past years only one was seen this year. Season very open and mild.

Mr. Alex. Murray, Lismore, writes:—"During the last five nights of October we had the largest number of birds that I have seen for a long time, and especially Gold-crested Wrens; but since that time up to date (8th Jan. 1884) there has been little of note."

Mr. Andrew Lyall says, "Very few birds at Rhinns of Islay this season, and not many striking." But the rush at end of October and beginning of November was very marked.

Mr. David Waters has few night records to chronicle, most of his observations being made during the day.

Mr. James Begg, Port Patrick, writes:—"Flocks of migrants very scarce this winter. Great many sea-gulls flying inland and coming back to sea daily. The Gannets commence to go south and return north in flight past this station from March to September in great numbers."

Mr. William Wither sends a light schedule from Storr Head, and speaks of the general scarcity of birds there, but at a locality a little more inland birds are plentiful in summer and autumn, and Mr. M'Ivor, teacher there, has kindly offered to keep land-notes another year.

Although so light at Dhuheartach, a considerable migration observed at Skerryvore both in spring and autumn. On Oct. 30th (the date of the universal rush of Thrushes, &c.) Mr. William Crow saw three Bullfinches on the rock, wind S., fresh, and fog,

and captured one of them with little difficulty. "It appeared quite tame, I approaching it within four feet. We placed a spare cage we had, with some linseed, within six feet of it. The bird went in at once, and is still alive. It drank fresh water to excess after being caught, and was ill all next day. It revived afterwards, and is doing well."

From Turnberry lighthouse there is no return, but Mr. Andrew writes, birds were scarcer than usual. But as this is a station where there is usually some migration discernible he hopes to send returns in future. Like others of our reporters, he naturally complains of his difficulty about the names of the birds; but if he will only enter such as he is sure of, and send me the head and wings of others, or even the wings alone, and by attaching a bit of cardboard and a number to them, and a corresponding number in the schedule instead of a name, I could in most cases be able to identify them.*

From Cape Wrath lighthouse comes the following P.C.:—"There are no land-birds at this station, with the exception of Grouse. The same schedule will apply every year for the sea-birds, as they come and go within a week of the same time. Eight years' experience." I may just once more try to explain that it is exactly this week of difference in time, one year with another, which the Committee desire to collect statistics about as regards sea-fowl and rock-birds.

TURDIDÆ.—The spring migration on the West Coast seems almost to have escaped notice. At Stornoway Thrushes were heard on Feb. 19th and 20th, and heard and seen on the 27th, but these may have been residents.

The autumn migration, however, is almost as marked as on the East Coast, the time and extent agreeing, though numerically, as might be expected, not so great. Extent as follows:—Stornoway in the north (light), Island Glass (indication), Monach (do.), Barra Head (considerable), and on the mainland and Inner Hebrides from Kyleakin (light), Skerryvore (distinct and considerable), Dhuheartach (light), Sound of Mull (indication), M'Arthur's Head (a few), Rhinns of Islay (a few), Skervuile (a few), Lamlash (light), Corsewall (heavy), Loch Ryan (considerable). The above remarks apply principally to Blackbirds and

* A general request to this effect will be found in our latest issue of *Letters of Instruction*.

Song Thrushes, but Fieldfares and "Mountain" Thrushes are once or twice mentioned, and one Water Ouzel was caught at Skervuile on Sept. 13th.

The time occupied was as follows:—Earliest record in autumn, Sept. 23rd, one Thrush on lantern at Lamlash; may have been local. Next, 1st and 7th and 8th, a few scattered records at Barra Head, and between Dhuheartach and Lismore. About Oct. 23rd greater numbers, but nothing very remarkable till Oct. 28th, 29th, 30th, 31st, and Nov. 1st to 3rd or 4th, when the rush took place. Movements continued up to end of November, but not large numerically, and nothing more that could be called a rush. A considerable number were killed at Skerryvore at the height of the rush on 28th, 29th and 30th; eight Thrushes on first date, thirty-six on 29th, and thirteen on 30th. Blackbirds and Thrushes about in equal proportion of records, but Thrushes bulking largest numerically. Species included are Song Thrush (max.), Blackbirds (large numbers), Fieldfares, and one Dipper or Water Ouzel at Skervuile. Thrushes of sorts quite absent during a rush of other species at Kyleakin, and throughout the season. Five species.

SAXICOLINÆ.—Wheatears.—In spring, appearance of a rush at Skerryvore on April 20th and 21st, fifty seen during the day on former date and twelve on latter; and on April 8th a single bird at Dhuheartach. A great many at Skervuile on May 5th, and on 15th four seen at Butt of Lewis.

In autumn, extent, from Stornoway (Oct.), Skerryvore (Aug), Dhuheartach (Sept. and Oct.), Lismore (Aug.). Redstarts.—Skervuile (Sept.), Corsewall (Aug.). Earliest, Aug. 24th, at Skerryvore. Latest, Oct. 29th, at Dhuheartach. Rush of Redstarts all night at Lismore. The above remarks apply in all cases to Wheatears (or so-called "Stonechats"), except where otherwise specified. Numbers at Stornoway with Linnets in Oct. Considered rare here by reporter.

Prevailing winds in spring, E. through S.E. and S.S.E. to S., and variable on April 8th at Dhuheartach. Two species.

SILVIINÆ.—Robin.—No spring records. Autumn, Robin, Kyleakin; Stornoway, isolated examples during December; Lismore, on Nov. 11th, with Wrens and Linnets, and a few single records in September and October; Dhuheartach, few; Lamlash and Corsewall, single records, and Robins accompanying rush

of other species on Aug. 28th and 29th. At Kyleakin, Robins arrived on Nov. 15th and remained all winter. Prevailing winds, W. and northerly, very rarely easterly or S.E. One species.

PHYLLOSCOPINÆ.—Goldcrest.—No spring records. Autumn, slight indications and single records as far north as Dhuheartach; one at midnight on Nov. 7th, light W., haze. Then again at Lismore, Oct. 31st, light S. airs, along with Larks; Skervuile, few, Nov. 1st, light S. wind; Lam-lash, one; Corsewall, great numbers, or rush, on Aug. 30th, heralded by one single bird the day before. Loch Ryan, four on Oct. 30th. One species.

ACCENTOR.—Hedgesparrow.—A number seen in the garden at Lam-lash on Nov. 21st, during stormy weather. One species.

PARIDÆ.—Two Titmice struck at Sound of Mull, in light W. breeze, not killed, on Oct. 30th. One species.

TROGLODYTINÆ.—Spring, at Corsewall six struck, none killed, on 28th, and five rested at same place on 29th; wind light E. and haze both nights.

In autumn a few records at Dhuheartach, Sound of Mull, M'Arthur's Head, Lam-lash, Corsewall, and Loch Ryan. Earliest, Oct. 3rd; latest, Nov. 30th; all single birds, or very light returns. Winds, N.W. or N.N.W., except on Nov. 6th, at Lam-lash, when wind was N.E. and weather fine. One species.

MOTACILLIDÆ.—In spring, at Kyleakin (earliest March 20th, when two seen flying S.! light E., clear), Skerryvore, Dhuheartach, and Skervuile. Latest at Kyleakin on May 17th, when two seen on garden wall. Largest number, four, at Dhuheartach, rested on April 20th, and flew towards Isle of Colonsay. Records relate always to "Wagtails."

In autumn, at stations:—Barra Head (several had been there for a month on Aug. 27th), Skerryvore, Dhuheartach, M'Arthur's Head (only record a flock on Nov. 5th, with N.W. gale and sleet), Rhinns of Islay (first and only record on Nov. 4th, a single bird, with W. gale), Lam-lash (three on Sept. 22nd, and two on Nov. 12th, the latest record, winds westerly). One ? species.

ANTHIDÆ.—Single spring record, one Titlark, at Lam-lash, rested on lantern on May 2nd.

In autumn, one at Skerryvore rested on rocks on Aug. 24th, light W., haze, and a number at Lam-lash on Oct. 6th, and a few on 30th, being all the records. One species.

HIRUNDINIDÆ.—Spring records in April; earliest at Loch Ryan

on 15th, when thirty arrived,—see autumn under September,—May, June; latest June 15th, two flying S. at Kyleakin, or, if we take July, three at Barra Head on 8th; remained all day, wind var. to S.E. by evening). Greatest number of records in May. Stations:—Barra Head (Sand Martins), Kyleakin, Skerryvore, Lismore, Rhinns of Islay, Lamblash, and Corsewall. The following are first arrivals:—Barra Head (Sand Martins), May 1st, two, fresh S.E., clear; Lamblash, May 1st; Corsewall, May 2nd; Loch Ryan, April 15th. All records above apply to Chimney Swallows, save in the two instances of Sand Martins.

In autumn records light also on the whole coast. Dhuheartach, Lismore, and Loch Ryan. Earliest, and rush, Aug. 19th, at Dhuheartach, large flock of old and young flying S., and at Lismore, one seen flying S. On Sept. 23rd twenty Swallows left Loch Ryan, and on 28th the remaining ten (see spring, *supra*); winds westerly and N.W. Three species.

FRINGILLIDÆ. —Spring:—At Butt of Lewis, four Tree Sparrows on April 14th, light S.W. wind; and Sparrows, a large flock flying south, light E., haze. Also Sparrows at M'Arthur's Head, a number on May 12th. Of Linnets, many after gale of April 17th, at M'Arthur's Head, a flock at Lismore on June 21st, and one bird at Skerryvore on June 25th. A single Goldfinch at Lismore, on 21st, with the Linnets.

In autumn:—Earliest July 28th, a very large flock of Sparrows flying S.E., at Butt of Lewis, and none again till Sept. 4th, when a number of Linnets remained about till the 9th. Latest record Oct. 30th, participated in rush of other species, but on Dec. 15th a rush of "small birds" is recorded at several stations. Greatest numbers in October, at Stornoway, Skerryvore (a Bullfinch, see light-keeper's remarks, *antea*), Lismore (good many), M'Arthur's Head, Lamblash. It is difficult to fix dates of rushes, but one great rush took place on Sept. 15th, of Linnets and Sparrows at M'Arthur's Head, and indicated at Lamblash by ten Linnets flying south. These notes are given of Linnets and Grey Linnets, also on Oct. 30th, at Lismore, of Green and Grey Linnets, a number at Priory Farm. Numerous instances of direction of flight are given, usually "flying S." We have received considerably more statistics this year of these important *directions of flight*. We wish our reporters could distinguish between Common Linnets, Green Linnets, and Twites or

Mountain Linnets, always when possible. Linnets have travelled in company with Wheatears at Stornoway, and with Thrushes and Curlews (the latter several times). About seven species.

EMBERIZIDÆ.—Snow Bunting. Very scanty records on W. coast. At Stornoway one, first seen on Oct. 17th, and twenty on 18th. At Lismore twenty on Oct. 22nd. At Rhinns of Islay one on Nov. 5th, and in December no records, and in January a few at Butt of Lewis on 26th, and strong W. and sleet. Prevailing winds W., strong to gales, but mod. N. at Rhinns of Islay on Nov. 5th. One species.

ALAUDIDÆ.—Spring at Skerryvore, earliest Feb. 10th, four struck, two killed, strong S.W.; and in March, at same place, on 10th, nine struck and three were killed, fresh N. and showers.

In autumn, at Dhuheartach, earliest on Sept. 10th, a few, and on 29th three; wind N.N.E., clear. Also, furthest north, records at Butt of Lewis, Stornoway, and so south by Skerryvore, Dhuheartach, Skervuile, and Rhinns of Islay. Latest at Stornoway, small numbers on 24th. Greatest movements in October at Butt of Lewis, on 11th, large numbers flying south; and at Stornoway 19th, 20th, and 23rd; on latter date with Thrushes and one Redbreast. Prevailing winds, northerly and westerly. One species.

STURNINÆ.—Starlings feed all through the month of April at Butt of Lewis.

Autumn records scarce. Regular daily at Rhinns of Islay all August. No records anywhere given in September. [We trust our reporters bear in mind that we desire movements of even our commonest species, and especially directions of flight.] In October a few records from Butt of Lewis, two killed, but Mr. Thompson considers these part of the residents; also at M'Arthur's Head and Lamlash. If any rush it was on Oct. 30th, and also 29th, when it was noticed at Island Ghlais* and at Rhinns of Islay; but the movement appears to have been insignificant. I have a single record in November from Monach Island, and one of a flock in December at Loch Ryan. One species.

CORVIDÆ.—Jackdaws, Crows, Black Crows, Grey Crows, Ravens, and one of Magpie, the latter at Kyleakin, marked "very rare," on Jan. 7th, flying S.E. Stations are Skerryvore, Dhuheartach in spring; and Rhu Stoir, where Crows (are these Rooks

* Ghlais or Glass: both spellings used.

or Carrion Crows?) feed every day till 31st (I suspect these are local Rooks from Cama Loch, but would like to know for certain). Only some ten records in all—February, March, April, May, June; and August, September, October (Ravens at Kyleakin), November (Jackdaws at Sound of Mull, about 200 flying N. very high, mod. breeze, sleet, showers). December 27th, two Ravens, flying W.; light E., clear. Six species.

CYPSELIDÆ.—Three May records, all at Dhuheartach. Single birds on 22nd and 23rd, flying E., with light S.E., clear; and on 24th, one flying E., with W.N.W., and one found dead on rocks. One species.

CUCULLIDÆ.—Cuckoo records in spring, from—
Stornoway, first heard on May 2nd; N.E. breeze.
Skerryvore, first heard at Land Station, Tyree, on June 1st.
M'Arthur's Head, first on May 17th; light wind, clear.
Rhinn of Islay, May 24th; fresh W., haze.
Corsewall, May 6th, and Loch Ryan on May 2nd; light N.E., clear, and rain.

Note.—During the first week in May there appears to have been an indication of a migration of other species.

The only autumn record is of one found dead at Rhinn of Islay on Sept. 1st. One species.

STRIGIDÆ.—Only one record on April 27th at Dhuheartach, where one rested on rock at ten a.m.; light N.W. wind, and haze. One species.

FALCONIDÆ.—A Falcon flying N., at Kyleakin, in February; a Hawk at Dhuheartach, flying round on 19th April, where in autumn they make daily visits, and even in some seasons all the year round. In September one Hawk remained a week here, resting on the balcony at night, and feeding on small birds in the day. A Falcon seen at Butt of Lewis on Sept. 1st, and a Sparrow Hawk at Skerryvore on Sept. 1st, flying E. Two records in October and one in December—a Falcon flying W.; light N.W. airs. About three species.

PELECANIDÆ.—In uniformity with East coast, records of Gannets, chronologically under each station, beginning in the north, so far as records permit. The stations recording in 1883 are Butt of Lewis (82), Rhu Stoir (83), Stornoway (84), Barra Head (88), Kyleakin (90), Dhuheartach (95), Lismore (98), M'Arthur's Head (101), Skervuile (102), and Lamblash (109).

(N.B. The Committee would be obliged for chronological returns, giving always directions of flight, from any other stations, of Gannets and Rock birds):—

82. July 25th, began flying north in some numbers to Aug. 10th; fresh N.
83. March 15th, seen daily in great numbers, noted at 83, up to March 31st, but no directions of flight given, which we would like to have always.
84. In August, reported as unusually scarce this season, but no definite records given nor directions of flight, or if fishing or not.
88. Under date of September 1st, the remark "a few fishing every day."
90. On June 20th flocks all day, flying east. Was this the only day on which Gannets were seen here?
95. Dec. 7th, two seen; only record given; no direction of flight; wind light N.W., clear.
98. May 14th, "Solan Geese; fresh, S. breeze, showery. June 22nd, "Solan Geese" flying south; var. light, clear. Aug. 16th, two, flying south; fresh N.W., clear.
101. April, a few daily seeking food.
102. March 21st, "Gannets seen;" E.S.E., light breeze. May 9th, "Solan Geese" seen; fresh E. July 16th, "Solans;" fresh N.W., clear. July 24th, "Solans;" N.N.W., clear. July 25th, "Solans;" N.N.W., clear.
109. Feb. 5th, the first seen for some months. One species.

ARDEIDÆ.—Only one record of Herons at Monach Island, where five were seen on the outlying rocks on Nov. 25th, strong E. wind; and the remark "seen daily all the year round at Kyleakin." One species.

ANATIDÆ; ANSERINÆ (Geese).—I think we should endeavour to tabulate also the movements of different species of Wild Geese; but as the records are a little confusing, I find we must do so under one, or at most two headings, the occurrences of which are most frequently recorded under these designations.

Some four species (namely Bean, Pink-footed, Greylag—rarest migrant—and White-fronted) may be included in the following, reported as "Wild Grey Geese," "Geese," "Grey Geese," "Wild Geese," by the various reporters.

The stations returning these are:—Rhu Stoir (82), Butt of Lewis (83), Monach (86), Kyleakin (90), Lismore (98), Lamblash (109), and Corsewall (111).

82. "Wild Geese," April 14th, three; light S., haze and rain.
83. "Wild Geese," Sept. 19th, large flock, flying W., past the lighthouse, and then turning S.W.; westerly gale and showers.
86. "Wild Grey Geese," Nov. 10th, twenty, flying round; light S.E.
90. "Geese," Sept. 19th, four, flying S.W.; light E.
98. "Grey Geese," Nov. 1st, five, flying S.; light S., haze.
109. "Grey Geese," April 27th, forty, flying N., light S., haze. April 28th, fifty, flying N. Oct. 7th, three, flying S., N.W., fine. Nov. 1st, twenty, flying E., light E., haze.
111. "Wild Geese," Nov. 13th, twenty, flying E., light E., haze. Nov. 14th, thirty, flying E.

Barnacle Goose seen at following stations:—Barra Head (88), Kyleakin (90).

88. April 25th, 100, "flying over;" light N.E., clear. May 1st, 150, fresh N.E., clear. Sept. 22nd, about thirty arrived, light S.W., haze and rain. Nov. 10th, about fifty seen flying S., var. W., showers.
90. Nov. 30th, seven flying S.W. ("first I have seen here"), light N.W., clear. Five species of Geese.

Eider Ducks, *ut sup.* 82, 95, 103.

82. May 26th, six, passing N., light S.W., clear. June 30th, sixteen, passing N., light E., var.
95. Oct. 12th, one, first seen this season. Oct. 15th, six, fishing round rock. November, forty (twenty males and twenty females), fishing round rock, light N.W., clear.

Wild Duck, only at 83, 88, 90.

83. March 21st, two males and two females, killed at lantern; slight S.E., haze.
88. Sept. 21st, twenty, flying W., light E., haze.
90. Sept. 19th, four, flying S.W., light E.

Eider Ducks at Rhu Stoir, Dhuheartach, and Rhinns of Islay. Three at first named locality on April 14th; light S., haze and rain. Six on May 26th; strong S.W., passing north. Sixteen on June 30th, passing north, with light var., and clear. Then at Dhuheartach, the first seen this season was on Oct. 12th, in autumn migration, and at Rhinns of Islay, three seen during a S.W. gale. At Dhuheartach again, twenty males and twenty females, seen fishing round the rock, during strong W.N.W. wind, and clear on Dec. 7th. Two species.

COLUMBIDÆ.—A large flock of Rock Doves is resident at Butt of Lewis, and is seen daily flying inland to feed. At Kyleakin a Woodpigeon was seen flying S.E. at noon on Dec. 15th, with light W. wind, and clear; at same station, on 23rd, four Rock Doves flying south, wind light W.S.W.; and at same place two more flying south, with E.S.E. and haze, on Jan. 2nd. One species.

RALLINÆ.—Corn Crake.—At Stornoway, first heard on May 2nd. At Barra Head, one seen on July 1st, var., S.E., and fog. At Kyleakin, first heard on May 16th, S., clear. At Rhinns of Islay, one found dead on May 23rd, light W., haze. One species.

CHARADRIADÆ.—Spring. Oystercatchers are resident all the year at Cape Wrath. At Barra Head, three pairs arrived on April 10th. At M'Arthur's Head they were present all April.

In autumn oyster catchers appeared in flocks, along with the rush of land migrants, about Aug. 23rd, at Stornoway, at which place they are generally seen all September.

Golden Plover records quite absent for 1883.

Lapwing.—Spring record at Rhu Stoir, two seen on April 4th. In autumn, at Kyleakin, ninety were counted flying S.E., and crying loudly, with N.W. wind and haze, on Aug. 15th. Eight more on 23rd, flying east, wind S.E., and haze; and at Lamblash, a single bird rested on the Island on Aug. 13th. At Barra Head, seventeen were seen at two p.m., light east wind, and haze (direction of flight not given), on Sept. 21st; one record there also in October. At Loch Ryan, a flock flying S.E., on Nov. 15th, S.E. wind; and at Dhuheartach, where migration appeared to cease on Dec. 29th, the last migrant seen was a Lapwing, resting on the Lantern on that date. At Kyleakin seven were seen flying S.W. on Jan. 4th, 1884. Two species.

SCOLOPACIDÆ.—Woodcock, Snipe, Curlew, Whimbrel. No records of Woodcock till October. Then a few at Monach Island, Dhuheartach, Lismore, and Loch Ryan; and in November, at Kyleakin and Lismore. Single entries on 16th at Kyleakin, and 5th at Lismore. Two killed at Monach on Oct. 29th, one killed at Dhuheartach on 31st, and three on 29th, at Lismore; and one on 31st, at Loch Ryan, showing a general movement at these dates.

Snipe were even scarcer; earliest Oct. 22nd, at Monach, and occurring on the same dates as Woodcock, or nearly.

Curlew.—Numerous records at most of the stations, dating from Feb. 5th, at Rhuvaal, on to November. An appearance of

a rush northwards on May between 14th and 16th, when flocks seen flying north at Rhinns of Islay; also on 16th, at Lismore, during the day. Records also at Loch Ryan, Skerryvore, &c.

In autumn, at Stornoway, Monach, Barra Head, and most stations indeed; earliest, July 25th, at Skerryvore, when five Curlews seen flying N.E., on to Nov. 16th, at Sound of Mull. Between Sept. 16th and 30th, at Stornoway, seen every day on the shore, and large numbers on the 30th.

There is only one record of Whimbrel under the name "The Small Curlew," when two were seen at Skerryvore flying about the rocks. I wish we could more exactly trace the lines of migration of the Whimbrel, or "May fowl" of the Hebrides, in both spring and autumn (see remarks of Mr. D. Gray in the Atlantic, *antea*). No records of Redshanks or Sandpipers. Four species.

LARIDÆ; STERNINÆ.—Arrivals in spring recorded as follows:—At Rhu Stoir, three Terns on May 10th; light N. breeze. At Stornoway, Terns "arrived as usual about this time," and left in August. At Skervuile, arrived on 14th, and more seen on 16th. The first came with a fresh S. breeze and rain. At Corsewall first observed was on May 11th.

In autumn, Terns, as already stated, left Stornoway in August, but "about ten days later than usual." The last seen at Skervuile was on Sept. 6th. At Sound of Mull, on Sept. 30th, a flock rested for two hours, and then flew away S.E., composed of old and young together. Moderate wind.

An utter absence of records of any Gulls, Skuas, "Boatswains," or any other Laridæ. One or two species?

PROCELLARIIDÆ.—One record of Storm Petrel at Lismore, where it is accounted very rare, on Oct. 3rd, when one was killed; strong N.W. wind, and haze. One species.

ALCIDÆ.—At various stations taken notice of as follows:—At Barra Head, a few seen on Feb. 4th; fresh S.W., banks of fog. No records in April. "Marrots" and "Razorbills." At Barra Head, numbers seen of same, and Puffins, on April 27th; light S.E. wind. A few Puffins seen on May 1st; and fresh N.E. A great many more on May 2nd; fresh N.E. At Butt of Lewis, first Razorbills seen on April 25th.

In autumn, Marrots leave Barra Head Aug. 12th, along with the bulk of Razorbills, but Puffins not till Aug. 25th. Marrots

and Razorbills left with fresh E. wind. Puffins left in fresh S. wind.

Cormorants arrived about same time as Razorbills and Alcidae, but remain about six weeks later at Butt of Lewis; and at Kyleakin there is record of a flock of twenty-eight flying W. on 13th, with S.W. breeze. Four species.

COLYMBIDÆ.—On June 10th one great N. Diver seen swimming near Lighthouse, at Kyleakin, moving N. (but this movement may be due to set of the tide only, hour not given, J. A. H. B.). In autumn, at Sound of Mull, a G. N. D., passing S., var., light breezes. At Lismore, one flying south; stormy W., rain, on Oct. 17th. At Sound of Mull, two passing south, at noon; light airs. If the movement is only local and due to tides, this should be mentioned in schedules, and the words "drifting with tide," or "swimming with tide," used instead of "passing." They are not likely to swim against the tide, but if this phenomenon is observed it should be recorded. One species.

WEATHER NOTES FOR GENERAL REMARKS ON SPRING MIGRATION, 1883.

Fearful snow-storm over the north of Shetland on March 17th, and N.E. gales and snow prevailed from March 5th to 24th; E. and N.E. and N. winds prevailed all over Scotland with gales, notably on March 6th and 17th; from 6th to 24th slight changes to S.E., but of short duration; on 25th (Sunday) wind S.W. strong to gale and rain, the first rain since February, but only lasted half a day; wind backed again to N.E. In Orkney the sea rose suddenly very high on the E. coast on March 21st; very cold and fine on 22nd, wind light S.W. "Large quantities of Cormorants, Razorbills, and Shags, &c., are coming ashore along the E. coast of Orkney. Deaths supposed to be from scarcity of food, *viz.*, coal-fish; and great damage done to rabbits by Hawks, in some cases nearly exterminating them" (daily papers of March 23rd, 1883). At Dunipace 12° of frost on night of March 27th. Fearful gale at 9 a.m. on March 30th, bar. at 28' 9"; gale all night from S.W., bar. rising all day; again till 9 p.m. to 29' 6", wind S.W. at 10 p.m.; again at 30' 2". S. gale at Isle of May on March 29th and 30th.

As already mentioned in our General Remarks on 1882

Report (Fourth Report, 1882, p. 67) the effects of these gales and N.E. winds in spring of 1883 was almost to stop migration at Isle of May, which migration had "set in pretty briskly on March 2nd, and almost ceased on the 5th. From the latter date only a few "stragglers of the strongest wings" up to the 19th; while a great concourse of Wagtails was observed inland in Edinburgh (see report as above quoted); few were seen at Isle of May till the 30th, when five came with S. gale (*op. cit.*, p. 68).

The general migration was much weaker in numbers this season in spring, and this is doubtless owing to the prevalence of *strong* S.E. gales and winds at the time of migration, *moderate* S.E. or easterly winds being preferred. Still there were considerable rushes at the more favourable localities for observation especially of Thrushes and other *Turdidæ*.

The anomalous migration recorded by Mr. Cordeaux on to part of the English coast between Feb. 18th and May 18th,* with strong E. and S.E. winds, changing occasionally by N.E. to W. and N.W., is somewhat difficult of explanation, unless we could correlate data from the opposite coasts at the same dates in spring of 1883; but the fact stated by me that migration began briskly at Isle of May on March 2nd and almost ceased by the 5th may indicate that the migration thus retarded by adverse winds, or altered in direction thereby, passed N. by more inland routes, avoiding the Scottish coast-line, and hugging every sheltering hollow of land. Blown across the North Sea at the more southerly stations, they then crept northwards silently and more inland. Being all adult birds, and having crossed the North Sea not at the widest part if they came with a S.E. wind, less exhaustion would occur, and thus, passing inland, they would escape notice near the coast.

Before we can speak with much certainty as to the progress of spring migrations into the further districts influenced by them, we require more full and continuous data from Faroe and Iceland. Still, the earliest appearance noted in Iceland of the Redwing, *Turdus iliacus*, on April 7th, 1882, should be noted as a possible means of comparison in that year with the returns from our own coasts. Data from our West Coast of Scotland help us little in 1883 in spring, and even less so in 1882, as regards *Turdidæ*. Wheatears again, in 1882, are noted not before April 24th, and

* See p. 60 of this Report.

on West Coast of Scotland the migration, though but scantily observed, began on March 9th and terminated as late as May 17th (see 1882 Report, p. 57).

The autumn migration of 1883 was pronounced, and confined principally to end of October and November, of *Turdidæ*, *Cinclidæ* (one of which, seen at Isle of May, was afterwards described to me as having no brown between the black and white of the breast); also of Snow Buntings, Sky Larks, Robins (small numbers), Linnets, Chaffinches, Starlings, culminating in a grand rush past of the bulk between Oct. 28th or 30th and Nov. 3rd. The heaviest rush, observed at the time of a south wind, as compared with other years, at Isle of May, was on Oct. 13th and 14th, a S.E. wind, according to Mr. Agnew, being usually more favourable at that point. This October to November rush is undoubtedly the principal feature of our returns over the whole country. Of the expansion of the fan or wave our returns from both E. and W. coasts give a very fair indication. It seems likely that, although most land-stations have not returned very heavily-laden schedules,—not to compare, for instance, with 1882,—yet, as noticed by Mr. Cordeaux, quite as many, if not more, birds were observed at the lightships; that the reason for this may be found in the normal and favourable direction of the winds prevailing in the North Sea at the time of autumn migration, resulting in greater numbers of birds passing inland without resting, and being thus less liable to come under observation, except at specially suitable stations. And, if we compare the schedules of 1883 and those of 1882 on the West Coast of Scotland we find that, while larger numbers are recorded at the more northerly stations in 1883 than in 1882, there is a lighter return at more southerly stations in the autumn of 1883 than there was in the autumn of 1882. Thus to no inconsiderable degree the order of the statistics of two years is reversed. It would almost appear in this way that when a “spread fan” reaches our E. coast with S.E. winds—reaching, as it did in 1882, from Faroe S. to the English Channel—the birds, being tired and worn out, promptly seek shelter, and then, when rested, pursue their migration on more southerly lines, and do not reach so far west, except such as fail to catch up the land, and are driven forward helplessly. This would cause comparative desertion of the more northerly stations of the W. coast and

Outer Hebrides, as in 1882. But on the other hand, when a "closed fan" reaches our E. coast with prevailing westerly and north-westerly winds, and, having much less expansion to the northward, as in 1883, as regards the E. coast, it seems that birds arriving, less exhausted with the winds best suited for their successful passage, pass on inland, the same lines of flight being persevered in, and thus reach further north upon the West Coast of Scotland.

Thus the Goldcrest, in 1883, reached as far north as Dhu-heartach and Lismore in some numbers; but in 1882, when they came in such vast hordes to our east coast, we had no records north of Rhinns of Islay, and none others until we found them in "great numbers" at stations south of the Firth of Clyde.

Rushes took place on August 16th at Isle of May, and again on 22nd, with easterly wind and fog, principally of Wheatears, culminating on night of Sept. 2nd—3rd, and being accompanied by Redstarts, Chiffchaffs, Robins, Sedge Warblers, Wood Warblers, and Golden and Grey Plovers; Thrushes apparently totally absent. A single adult Blue-throated Warbler, with bright blue breast, was observed at Isle of May. The rush was on Sept. 4th, at Pentland Skerries, with strong N. wind. Another rush, about Sept. 15th, of Willow Warblers and Chiffchaffs; and, on 22nd, of Robins, accompanied by a single recorded Goldcrest. A rush of the latter took place on Oct. 10th at Isle of May. Common Wrens, not in large numbers, also migrated on Sept. 22nd and 23rd.

Another feature of the 1883 Report is the abundance of Finches, which usually travel with the Thrushes, but whose migration appears to be extended over a longer period of time than that of the Thrushes in 1883.

It will be gathered from the Report that the dates of rushes on our E. Scottish coasts were slightly later than those on the E. English coast, averaging from twenty-four to thirty hours by the schedules, and that the migration past the more northerly stations of Scotland were in proportion later than in the south. And also that the dates of the heaviest rushes on the E. coast agree fairly well with the dates of the W. coast.

While closing our 1883 Report it is perhaps desirable to call attention to the very great spring migration of Woodcocks, which

appears to have crossed Scotland between Clyde and Forth on March 9th, 10th, 11th, and 12th, 1884. On the 10th our covers here (Dunipace) were full of Woodcock. Torwood also held large numbers on 9th, 10th, 11th, and 12th; at Glenbervie, close to this, also unusual numbers were observed. From the Ayrshire coast they are reported numerous, but not more so than usual at this season, indicating that the Ayrshire coast, or properties along the coast, are usually visited in the spring migration. At Fassaroe, Bray, Co. Wicklow, Mr. Barrington made enquiries, but no extraordinary numbers have been noted there. At Islay Mr. Ballingall reports unusual numbers about the time mentioned.

At Ross Priory, east side of Loch Lomond, a good many were observed, there being snow on the ground at the time; but at Arden, on the west side, and almost immediately opposite, no additions were observed. At Aberfoyle and neighbourhood very large numbers were observed. In East Kilbride Parish, to the south of Forth and Clyde isthmus, two were seen at a locality where none were ever seen before. At Callander no unusual number was noticed, a good many appearing here at this season, which is usually called "The Return of the Woodcocks." Mr. Robert Ferguson, on the 11th, flushed eight within a mile-radius, "a most unusual circumstance here,"—at Whitehill, Rosewell, Midlothian,—and large numbers were observed near Innerleithen in Holylee Woods and vicinity. To the east of this county no numbers of any consequence were noted at Tulliallan or West Grange, in Fife.* All the birds seen by myself were small red Scandinavian birds, which I consider are quite unmistakable and distinct from

* Subsequently I received a note from Mr. Seton Thomson, of Kinnaird House, Stirlingshire, to the effect that the gamekeeper, on March 1st, on taking a bee-line to Airth, two and a half miles over moss-land (Airth is on the Stirlingshire side of the Firth of Forth, where about three hundred yards of water separate it from Tulliallan) put up half a dozen Woodcocks in a place where Woodcocks are very rarely seen. Many also were seen about the garden at Kinnaird House; these were observed not to be the usual Woodcocks, but a much redder-looking bird. There appears to have been a great flight of Woodcocks at Aberfoyle about March 15th. Mr. R. Ker's keeper flushed five in about two square yards, and kept putting them up all over. Two were seen also at Crutherland, by East Kilbride, on the 12th, where a Woodcock was never seen before.

home-bred birds. One with an injured muscle under the wing was brought into the house,—also a red bird,—which was found alive in a ditch close to.

I would like further to have ascertained the boundaries within which this migration was observed; how far to the north and how far to the south of the catchment Basin of Forth it extended. Here I can do little more than direct attention to the facts, so far as known to me. But it seems evident that, though so abundantly observed at Airth and Kinnaird, scarcely any increase was noticeable just across the Forth at Tullyallan or West Grange, or in Fife; and though numerous at Ross Priory and Loch Lomond on the east side, no increase was observed at Arden and the west side of the loch. When the birds “lifted” from Kinnaird and Airth, their next probable resting place would be Norway or the continental coast, possibly Heligoland, as no notice is taken of them in the 1884 spring returns from Isle of May or Bell Rock. Nor does there appear to have been any corresponding movement through the Pentland Firth.

I should like in this place to record the occurrence of the Black Redstart in the following form. It is previously recorded by me in the Proc. Royal Physical Society, Edinb. of April 23rd, 1884:—

Date.	Locality.	SPECIES.	Age—Adult or Young.	Sex.	Alone, or	with others,	of its own,	or other Species.*	Direction of Wind,	and Strength.	Prevailing Wind for past Few Days.	Weather.
1884. Mar. 31.	Pentland Skerries.	<i>Ruticilla titys</i> (Scop.).	Ad.	♂	..	×	..	×	S.E.	Strong.	S. & S.E.	Clear on 28th. Fog on 31st.

REMARKS.

* If with other species, name them here:—1 Robin, Sandpipers, 1 Yellow Bunting, 1 Chaffinch, “Stonechats” (*i.e.*, Wheatears), 1 G. C. Wren, 1 Common Thrush.

IRISH COAST.

IN the spring of 1883 schedules were forwarded to forty-two stations, Arklow North Lightship having been added to those of the previous year. Twenty-five replied.

In the autumn only thirty-five schedules were sent out, seven having been omitted, *i.e.*, Mine Head, Wicklow Head, Lough Swilly, Eagle Island East, Slyne Head South, Loop Head, and Samphire Island. Thirty-four were returned, one station sending no answer.

A decided improvement in filling the schedules occurred in the autumn, the observations of some light-keepers extending over three or even four schedules. The labour of arranging the materials for this report and placing the entries under the head of each species has consequently been much increased.

In addition to the schedules the light-keepers at Coningbeg light-ship, Tuskar Rock, Rathlin Island, Killybegs, Tearaght, and Skelligs have forwarded lists of all the birds they have observed, whether migrating or otherwise. There is an evident disposition on the part of all to help us as far as possible in this enquiry. The light stations are arranged geographically—beginning at the Fastnet, in Cork, and going round by the east to the west coast.

The number of migrants passing in the autumn seems to have been greater than usual. A great rush of Thrushes (including probably Redwings), Blackbirds, and Starlings, took place at our south eastern and southern stations between Oct. 25th and Nov. 2nd—notably at the Tuskar, on the Wexford coast, which is the best Irish station. Smaller rushes of these and other birds are also recorded, but it is premature at present to analyse the movements of each species or the dates on which they occurred. After a few years conclusions will be far more satisfactory.

The great majority of birds are killed striking on foggy, misty, or dark nights, and it is perhaps not impossible for a great migration to take place, and pass almost unrecorded if the night

be fine and bright. Whenever a bird has been killed striking, it is so stated, and not left to be understood.

The bulk of the migrants appear to arrive on our south eastern coast, except such birds as the Barnacle Goose and Snow Bunting, which are mainly recorded from the north western stations, being rarely entered in the schedules from the east or south coasts.

An interesting feature this year is the occurrence of several examples of the Greenland Falcon on the west coast.

The winter of 1883-4 was exceptionally mild, and the entries due to local migration from frost and hard weather are probably few.

Many entries no doubt refer to birds not migrating at all, but none have been omitted, as it is difficult to know where to draw the line. It is desirable, however, that the light-keepers should state whether the bird is believed to be migrating or merely moving about the district from local causes.

In the schedules for next year a special column for the direction of flight has been added. This we think quite as important as the direction of the wind. Birds seem rarely to fly directly with the wind. Attention is drawn to this point in order to have it confirmed or otherwise.

In order to diminish the errors in the identification of species the light-keepers have been instructed to forward, when possible, a leg and wing of every bird about which they are doubtful, and we trust they will do so.

Some entries seem very improbable, and others are isolated and apparently valueless. When records accumulate, both may prove useful.

In addition to the little Skellig Rock—off the coast of Kerry—the Gannet also breeds on the Bull Rock fifteen miles further south, and a few are also reported as breeding in the Cow Rock quite close to it.

No matter what results are arrived at from this enquiry, it is satisfactory to be in correspondence with a number of observers on isolated points all around the coast.

The information supplied, if corroborated during several years by different light-keepers, cannot but be valuable, and we wish to impress on them the necessity of continuing to assist in this investigation.

To all the light-keepers who have given their time and attention to the subject we return our sincere thanks, especially as their assistance is voluntary, and given solely for the advancement of knowledge.

Mr. Armstrong, Secretary to the Irish Lights Board, and Captain Boxer, R.N., Inspector of Irish Lights, have helped us in many ways by their advice and co-operation. The Commissioners of Irish Lights have given us every facility, and also material support by subscribing for forty copies of the report and distributing them among the light-keepers.

ALEXANDER G. MORE.

RICHARD M. BARRINGTON.

LIST OF LIGHT-STATIONS.

	Spring.	Autumn.	Miles from shore.	Names of Observers.
1. Fastnet, Co. Cork.....	o	x	8	James Walsh.
2. Galley Head, Cork	x	x	-	{ John Whelan and John Kelly.
3. Old Head, Kinsale, Cork.....	x	x	-	Martin Kennedy.
4. Mine Head, Waterford.....	o	*	-	
5. Dungarvan, Waterford	o	x	-	Wm. Higginbotham.
5.*Coningbeg Lt.-ship, Wexford	x	x	10	Patrick Cullen.
6. Barrels Rock Lt.-ship, do. ...	x	x	4	Michael Doyle.
7. Tuskar Rock Lt.-ship, do. ...	x	x	7	Richard Hamilton.
8. Arklow Sth. Lt.-ship, Wicklow	x	x	7	Patrick Clancy.
8.*Arklow North Lt.-ship, do....	x	x	8	William Daly.
10. Kish Bank Lt.-ship, Dublin	x	x	7	{ Michael Cunniam and John Pinston.
11. Howth Baily, Dublin	o	o	-	
12. Rockabill, Dublin.....	x	x	5	Joseph Hammond.
13. Copeland Island, Down	x	x	3	John Walsh.
14. Maidens, Antrim	x	x	5	{ Patrick Keenan and Michael Barry.
15. Rathlin, Antrim	x	x	6	John A. Murray.
16. Innishtrahull, Donegal	x	x	6	W. H. James.
17. Dunree Head, Donegal	o	x	-	John Stapleton.
18. Lough Swilly, Donegal	x	*	-	Henry Redmond.
19. Tory Island, Donegal	o	x	9	Thomas Sweeny.
20. Arranmore, Donegal	x	x	5	Henry Williams.
21. Rathlin O'Birne, Donegal ...	x	x	2	{ Joseph Hill and John Scallan.
22. Killybegs, Donegal	x	x	-	Daniel Hawkins.
23. Oyster Island, N. Sligo	x	x	1	{ John Young and Joseph Hill.
24. Broadhaven, Mayo	o	x	-	Patrick Keenan.
25. Eagle Island, E., Mayo	x	*	2	Henry Stocker.
26. Eagle Island, W., Mayo	o	x	2	Matthew Healy.
27. Blackrock, Mayo	o	x	9	{ John Redmond and John Young.
28. Blacksod Point, Mayo.....	o	x	-	Robt. W. Redmond.
29. Clare Island, Mayo	x	x	4	G. H. Brownell.
30. Slyne Head, N., Galway.....	x	x	3	Robert Tyrrell.
31. Slyne Head, S., Galway.....	o	*	3	
32. Arran Island, N., Galway ...	o	x	9	Thomas Fortune.
33. Straw Island, Galway.....	x	x	9	Charles Boyle.
34. Arran Island, S., Galway ...	x	x	6	John O'Donnell.
36. Samphire Island, Kerry	o	*	$\frac{1}{2}$	
37. Tearaght, Kerry	x	x	9	Edward McCarron.
38. Valentia, Kerry.....	o	x	-	Joseph Williams.
39. Skelligs, Kerry.....	o	x	9	Thomas Kerley.
40. Dursey Island, Cork	x	x	$\frac{1}{2}$	James Keenan.

o = No reply.

x = Schedule returned partly or wholly filled.

* = No schedule sent to this station.

GENERAL REMARKS OF LIGHT-KEEPERS.

Fastnet.—"Autumn: On the night of Nov. 2nd, the weather being hazy, there was a quantity of all species of birds came from the N.E., and several of them were killed by striking the lantern; but what was most remarkable was the quantity of large Moths, which I could compare to nothing but a heavy fall of snow, they were so numerous. In bad weather a few Seals frequent the rock, and a quantity of Gulls and Sea Parrots—the latter I have frequently seen killed and eaten by the Royal Gull. The Gannet is here all the year. No birds breed. On Nov. 2nd, from one a.m. to seven a.m., there were killed by striking the lantern twenty-two Thrushes, eleven Blackbirds, four Woodcocks, seventeen Starlings, eight Linnets, five Larks, and seven Robins. Wind S.E., light, hazy."—James Walsh.

Galley Head.—"Spring: The flight of the Gannet and Puffin is always to the west here. I have many times thought they must pass east by some other route. The Grey-backed Crow and Common Crow are seen all the year round. The Wagtail, Stonechat, and other small birds have almost disappeared this year. The Cuckoo I have not seen or heard this year. I have never been at a station with less birds about than this one. I am four years here, and there has not been one case of a bird striking the lantern."—John Whelan.

"Autumn: I arrived at this station Nov. 6th, and from that date to the present from ninety to one hundred Sea Gulls are to be seen daily flying about the cliffs near the Lighthouse. No birds of any other species have been seen passing."—John Kelly. Feb., 1884.

Old Head, Kinsale.—"Autumn: I have only seen some small birds, such as Larks and Chaffinches, from Dec. 17th to Jan. 1st, 1884. There are Sea Gulls, Rooks, and Grey Crows seen here all the year round, also two Falcon Hawks. Starlings commenced to leave here the last week of November. Larks, Wrens, Titmice, and Twite Linnets are seen all the year round, and on the lake, three miles distant, large Duck, Widgeon, Coot, and Waterhens. On Dec. 15th I saw a large flight of birds going to the south at a great height, and suspect they were Golden Plover. The Curlew never leaves the marsh three miles from here. I

never saw less birds than there is this winter.”—Martin Kennedy.

Coringbeg Light-ship.—“Autumn: A great quantity of birds passed this station last month. I have not seen so many birds killed since I came to this station three years ago.”—Patrick Cullen. Nov., 1883.

Barrels Rock Light-ship.—“Spring: I have observed very few land birds passing this year, and none about the ship in foggy weather, like other stations I have been at.”

Tuskar Rock.—“Spring: A great absence of sea fowl this year. I consider it owing to the scarcity of fish.”

Arklow North Light-ship.—“Autumn: As a rule all birds give the ship a wide berth when passing, and it is very hard to tell what they are. During thick foggy nights a large quantity of small land birds are killed striking our lantern.”—William Daly.

Copeland Island.—“Autumn: A number of sea birds of different species resort to this locality in the autumn and winter months for feeding purposes, and are seen in greater or lesser numbers each day as the weather suits and feeding is plentiful. They are Gannets, Cormorants, Puffins, Grey and Royal Gulls, Sea-pies, ‘Cranes,’ Ducks, Teal, Curlew, and Sandpipers. None of these breed in the vicinity. On Oct. 10th a rush of Larks, Starlings, Linnets, Titmice, Thrushes, Blackbirds, ‘Grey’ Plover, and Snipe. Eighteen Starlings, six Blackbirds, twenty Larks, twelve Linnets, eight Titmice, four Thrushes, three Plover, and two Snipe killed striking lantern, and several injured but not killed.”—John Walsh.

South Maidens.—“Spring: No birds strike the lantern in April and May. They do not strike until October. Twelve Gannets, twenty-four Ducks, six Sea-pies, and twelve Wild Geese are all the birds I have seen for three months.”—Patrick Keenan.—“Autumn: I arrived here Sept. 25th, 1883, and saw no birds up to Oct. 15th, save Puffins, Sea Gulls, and Cormorants, and Sand Larks occasionally. Thrushes, Blackbirds, and Larks are rarely seen. Wild Duck do not strike the lantern glass.”—Michael Barry.

Rathlin Island.—“April 12th: Blackbirds, Thrushes, Skylarks, Wild Ducks, Redshanks, Pigeons, and ‘Sea Coot’ seem to remain for the season. Autumn: I have never at any time

during the migratory season for Ducks, Widgeon, Wild Geese, Barnacles, and Swan heard them passing at night as at other stations.”—John A. Murray.

Innishtrahull.—“April 30th. A small bird with an orange tail, name unknown, struck, not killed.” Wind S.W.; a gale. “Very little birds visited this island in May, June, and July, except a flock of Curlew.” Autumn: “There has been a great absence of birds this winter, and no Snipe or Woodcock visited this place. Snow Buntings remained here all the past winter.”

Dunree Head.—“Autumn: No birds resort to this station only Cormorants, which remain all the year and breed. I have been at several stations on the coast, but never was at a station so scarce of birds as this.”—John Stapleton.

Tory Island.—“Autumn: Very few birds past this station. I suppose owing to its being so far out to sea. I am informed that birds pass more frequently the east side of the island. On the islands between this and the mainland large flocks of Barnacle stop during the winter months. I have not seen a Snow Bunting, Snipe, or Starling this season. During heavy frost, snow-birds frequent the island from the mainland, but return as soon as the thaw commences.”—Thomas H. Sweeny.

Arranmore.—“Spring: Gulls and Puffins have laid great quantities of their eggs this year on the rock. A great many have been destroyed by the Grey Crow.”—Henry Williams.

Killybegs.—“Autumn: The birds which breed around here are the Wild Duck, Wild Pigeon, Lapwing, Lark, Linnet, Swallow, Snipe, Common Wren, Thrush, Robin, Blackbird, Sparrow, Stonechat, Sand Lark, and Grey Crow.”—Daniel Hawkins.

Broadhaven.—“Autumn: No birds strike this light.”—Patrick Keenan.

Eagle Island, East.—“Since I joined this station in Sept., 1882, up to present date, Sept., 1883, nothing worth noting.”—H. Stocker.

Eagle Island, West.—“There was absolutely nothing of interest to enter in schedule last autumn. The sea has been crossing this island, I may say daily, for the last five months, and with the exception of a few Sea Gulls, which seem never to leave the locality, there were no birds visited.” March, 1884.—Matthew Healy.

Blacksod.—"I have carefully looked out for birds, and seen none worth entering. I have seen several seals."—Robert W. Redmond.

Clare Island.—"In February very few birds are seen at this station. No birds strike this lantern. A great number of seals frequent this place in caves round the cliffs."—George H. Brownell.

Slyne Head, North.—"Spring: I beg to remark that at all times sea birds are to be seen on this coast, their numbers being chiefly regulated by the feeding for them."—Robert Tyrrell.

Arran Island, North.—"During the months of January and February no birds are seen except a few Sea-pies and Sand-larks. It must be in consequence of the very wild and stormy weather."—Thomas Fortune.

Straw Island.—"Spring: The different species of sea fowl are very scarce this season. I believe from the want of small fry. None breed on this island, it being low and flat. Autumn: Birds scarcely ever strike the lantern in consequence of the light appearing in a different direction to the general flight of birds, being also a red light. It is 26 feet above high water, and ten miles from land. I have remarked a greater number of Blackbirds and Starlings this winter than since the great frost of 1880. On Oct. 28th a flock of Wild Duck alighted, apparently much exhausted, and remained a few hours, and went S.E., towards land."—Charles Boyle.

Tearaght.—July 30th. "The following birds are still on the island, *viz.*, Guillemots, Sea Parrots, Kittiwakes, Grey Crows, Sea-pies, Razorbills, Manx Shearwater, Stonechats, and, I think, Choughs and Falcons (Blue Hawks). All these breed on the island. Dec. 18th, birds remaining: Grey Linnets, Rock Pigeon, Thrushes, Mackerel Cock (on water), Blackbirds. Residents, Titlarks and Common Wren. The 'Mackerel Cock' is about the size of a Razorbill, but it is not the Razorbill. Thousands of them are round the rock now. Feb. 2nd, 1884." (See under Manx Shearwater).

Dursey Island.—"The Gannet breed on the Bull Rock, several hundred. On the Cow Rock, distant three-quarters of a mile from the Bull, a few also breed. I believe the Gannet did not breed on the Bull until after the Skellig light was erected." [This was in 1826. R. M. B.]—Michael Shea. "Very few birds

breed on this island, except the Wild Pigeon, Jackdaw, and a few Sea Gulls. On the Bull Rock, four miles N.W. of Dursey Head, the Gannet and Puffin breed in great numbers, coming about March 1st and leaving Oct. 1st.”—James Keenan.

EAGLE.

Clare Island.—“The Eagles still inhabit the cliffs, and have been as usual destructive to young lambs and fowls belonging to the inhabitants. In December they make very bold, and not having sea birds to feed on, are often observed near the villages, principally when the wind is east.”

GREENLAND FALCON.

Blackrock Mayo.—Nov. 9th. “Two grey speckled Hawks at three p.m., wind strong W., showery. One shot; it measured four feet from tip to tip of wings, and had down under its feathers like a sea bird.”

Slyne Head, North.—Dec. 2nd, one White Hawk, at two p.m.; wind N., clear. First seen here, and very tame.

Tearaght.—Dec. 12th, Mr. P. Sheehy, assistant-keeper, saw a White Hawk; wind N.W., strong breeze, and gloomy. March 23rd, 1884, one white spotted Falcon shot. April 2nd, another much smaller and whiter shot.

[This has been an extraordinary year for the occurrence of the Greenland Falcon, no less than eight having been obtained at various points along the west coast of Ireland from Donegal to Cork, and one Iceland Falcon at West Port.—R. M. B.]

HAWKS.

Fastnet.—Sept. 14th, one flying east.

Dungarvan.—Dec. 17th, two Falcons passing S.W.

Tuskar Rock.—Feb. 25th and 27th, March 3rd and 10th, one Hawk seen at daylight; 26th, two Sparrow Hawks; Oct. 13th and 15th, one seen.

Arklow North Light-ship.—May 4th, one Sparrow Hawk, 7.20 a.m., on lantern; Feb. 22nd, 1884, one hovering about ship nine a.m.

Kish Bank Light-ship.—Oct. 30th, three Hawks hovering about ship; flew to N.W.

Rockabill.—Aug. 31st, one caught on balcony.

Rathlin Island.—June 25th, one Sparrow Hawk at noon; Aug. 28th, one Sparrow Hawk and one Falcon Hawk; Dec. 8th and 20th, two Falcon Hawks at noon.

Innishtrahull.—March 23rd, one Hawk, 11.50 a.m.; wind strong W. April 15th, one, two p.m.; wind N., fresh. May 15th, a Grey Hawk, at two a.m.; wind N.W., misty. During August several "Brown Hawks," which remained most of the month; Dec. 8th, one Brown Hawk.

Lough Swilly.—April 3rd, one Hawk, four p.m.; May 14th, one Sparrow Hawk; June 22nd, two Hawks.

Arranmore.—April 12th, Peregrine Hawks breed on island; 15th, one Sparrow Hawk; May 6th, four Hawks; June 28th, one; Sept. 4th, one.

Killybegs.—Aug. 14th, one hovering about.

Blackrock Mayo.—Dec. 10th, two Falcons flying N.E., high; wind S.W., gale. Dec. 19th, one Falcon, one p.m.; wind W., fresh, gloomy. Dec. 24th, two Sparrow Hawks, flying S.E.; wind S., gale.

Clare Island.—Two Kestrel Hawks build their nest, as usual, in the vicinity of the Lighthouse.

Arran Island, South.—April 8th, four "Holland Hawks," six a.m.; wind S.S.E. They remain here.

Tearaght.—Jan. 30th, one Falcon? one p.m.; wind N.W., clear. March 2nd, two Sparrow Hawks, also on March 3rd. They come and go occasionally the year round. Oct. 29th, one Hawk, colour grey, portions white and black, beak white, and white spot on crown of head. A pair of Falcons and "Sparrow Hawks" breed on the island.

Valentia.—Sept. 1st, two small Hawks; wind strong S.E. Also on Oct. 14th and Nov. 8th.

OWL.

Innishtrahull.—Feb. 15th, one "Brown Owl," two p.m.; wind N.E., gale, squally. Nov. 8th, "I have been told another snowy Owl was seen on the island about the 14th of last month, but not so large" as the specimen shot on Nov. 19th, 1882. "It was not observed by me." (See last year's Report).

Killybegs.—April 10th, one "Screech Owl," shot at six p.m. Rose out of a swamp in vicinity, an unusual visitor.

THRUSHES.

Fastnet.—Oct. 22nd, ten Thrushes; Nov. 2nd, twenty-two killed striking.

Old Head, Kinsale.—Feb. 3rd, large numbers from sunrise to sunset, coming from the north. Dec. 16th, some hundreds; wind N., frosty.

Coningbeg Light-ship.—Oct. 26th, one alighted on ship; 28th, flocks about the ship from 9 p.m. until midnight; fifteen killed striking; wind light, S., gloomy. 29th, a great number about ship during night, many killed and fell overboard; gloomy. They made for the land. 30th, three struck at 3 a.m., killed. 31st, two about light 10 p.m.

Dungarvan.—Oct. 2nd, a great number of song Thrushes in vicinity all day. Oct. 26th, plentiful in fields about station. 28th, one "Redwing Thrush" struck 11.20 p.m.

Tuskar Rock.—Feb. 24th and 25th, Thrushes during day and night, some struck; fog and mist. Oct. 9th and 10th, Thrushes all night; a great number killed and disabled. Oct. 27th to Nov. 2nd, great numbers of Thrushes passed, many killed; weather foggy, with mist. On Oct. 29th, at 7 a.m., I found two large mountain Thrushes, with grey breasts and dark wings (Fieldfares?). Most of the Thrushes that are killed are small mountain Thrushes, never seen here except in winter, mostly in frosty weather. They have no regular round spots on breast—a sort of striped head and a great deal of yellow under the wings (Redwings?). Only twenty of the native Thrushes killed.

Arklow South Light-ship.—March 2nd, five on deck. April 22nd, three. Oct. 10th, one killed; weather hazy. Oct. 28th and 29th, six killed, striking; wind S., cloudy.

Arklow North Light-ship.—Sept. 16th, a large flock hovering about ship during the day. 19th, Thrushes killed striking about midnight. Oct. 29th and 30th, large numbers striking lantern; calm, overcast, hazy.

Kish Bank Light-ship.—Oct. 8th, one alighted at 10 a.m. 28th, one killed striking 10.30 p.m.; weather gloomy.

Rockabill.—Jan. 13th, Thrushes in night, some struck; weather misty. Feb. 17th, some Thrushes from sunset to midnight. Oct. 26th and 27th, large quantity killed in night;

weather hazy, with light rain. Nov. 15th, Thrushes during night, some struck. Nov. 29th, five killed, overcast and cloudy. Dec. 28th, several struck at 8 p.m., mist and fog. Dec. 31st, two killed.

Copeland Island.—Oct. 10th, four killed striking, others injured; wind N., light, drizzling rain.

South Maidens.—Oct. 15th, twenty-four at midnight, sixteen of them killed against lantern; weather hazy, wind W., fresh.

Innishtrahull.—Nov. 1st, three at lantern; wind fresh, S. 2nd, three at lantern, 11.30 p.m., misty. Nov. 5th, three at lantern.

Tory Island.—Oct. 17th, four struck lantern, 10 p.m.; wind W., gale.

Killybegs.—April 1st, five Thrushes about all day. Oct. 24th, three killed striking; wind S.W., fresh, drizzling rain. Nov. 30th, two killed, drizzling rain. Dec. 19th, three killed, thick drizzle.

Oyster Island, North.—Jan. 10th, 1884, two "Missel Thrushes" in garden; flew S.

Blackrock Mayo.—Dec. 23rd, four Thrushes flying N., high; wind S., fresh.

Slyne Head, North.—Nov. 9th, eight; wind S.E. 30th, six; wind N.E.

Arran Island, North.—Nov. 4th, two Thrushes killed in morning. Dec. 10th, two Thrushes 10 a.m.; wind W.S.W., gale.

Tearaght.—Oct. 27th, one Thrush killed striking, 11 p.m.; wind fresh, S.E., foggy. Nov. 22nd, two or three, 2 p.m.; wind N.W., strong, hail showers.

Skelligs.—Oct. 20th, one at 1 p.m.; wind N., fresh, misty. Oct. 21st, three, remained during month. A couple about rock in December.

Dursey Island.—Oct. 10th, ten going east, 8 a.m.; wind W.

FIELDFARE.

Fastnet.—Sept. 18th, four flying N.E.; gloomy. Oct. 22nd, five; 31st, six. Nov. 1st, four. Dec. 16th, three.

Dungarvan.—Oct. 14th, small flocks in fields; 18th and 26th, several.

Rathlin Island.—Nov. 29th, one, going S.; wind S.W.

BLACKBIRD.

Fastnet.—Oct. 22nd, thirteen. Nov. 2nd, eleven killed striking.

Old Head, Kinsale.—Feb. 3rd, large numbers. Nov. 15th, from 100 to 150 seen this day. It is remarkable to see so many of these birds; wind S., strong.

Coningbeg Light-ship.—May 7th, three alighted on ship, 9.30 p.m.; wind E.N.E., rain. Oct. 10th, one caught on deck at 2 a.m. 28th, flocks, 9 p.m., until midnight, about the ship in great numbers; gloomy, wind light S., twenty killed. 29th, a great number about light, 8 p.m., until midnight; many struck and fell overboard. 31st, four at 10 p.m., hovering about light. Nov. 1st, two struck at 9 p.m., killed.

Barrels Rock Light-ship.—Oct. 29th, one male killed against lantern, 2.15 a.m.

Tuskar Rock.—Feb. 24th, Blackbirds during day and night, fog and mist; some struck lantern. 25th, 27th, and 28th, ditto. March 2nd, four males and seven females. Oct. 9th and 10th, constantly striking all night; a great number killed. Oct. 27th to Nov. 2nd, great numbers passed at intervals during day and night; weather misty. Numbers killed, 100 on Oct. 28th and 80 on 29th, besides hundreds disabled. Most of the Blackbirds are female; they are of a dull brown colour. Nov. 7th, two killed; 10th, one seen.

Arklow South Light-ship.—April 28th, one; wind light, S.E. Oct. 29th, twenty-six killed striking; wind S., light, cloudy.

Arklow North Light-ship.—April 30th, Blackbird, 11 p.m. to 11.50 p.m., flying round lantern; did not strike; weather hazy. Sept. 16th, large flock about ship. 19th, Blackbirds striking at midnight; weather hazy, with rain. Oct. 29th and 30th, large numbers killed striking, calm, overcast, hazy. Nov. 30th, two killed at midnight; weather hazy, with rain.

Kish Bank Light-ship.—Oct. 28th, two Blackbirds. Nov. 7th, two; 13th, several, from 6 p.m. until midnight, flying about lantern; clear.

Rockabill.—Jan. 13th, Blackbirds during night, some struck, weather misty. Feb. 17th, Blackbirds, sunset to midnight; rain and mist, some struck. Oct. 26th and 27th, large quantity struck lantern in night; weather hazy, with light rain. Nov.

15th, a dozen killed ; 28th, six killed. Dec. 28th, four ; 31st three. In all cases weather overcast or misty.

Copeland Island.—Blackbirds breed here, two pairs. Oct. 10th, six killed striking, others injured ; wind light N., drizzling rain.

South Maidens.—Oct. 16th, four struck, 2 a.m., not killed ; weather hazy.

Rathlin Island.—Oct. 31st, one killed striking.

Innishtrahull.—Nov. 1st, two at lantern ; wind fresh S., gloomy, misty. 2nd, one at lantern 11.30 p.m. ; wind S. 5th, two at lantern, 8 p.m. ; wind light N.E.

Tory Island.—Oct. 18th, two struck, one killed, 9 p.m. ; wind W.N.W., gale.

Killybegs.—April 1st, three about all day. Nov. 30th, one killed striking, drizzling rain. Dec. 18th, one killed ; 19th, another, weather thick.

Black Rock, Mayo.—Oct. 22nd, four at 8 a.m. ; wind S.W., fresh, misty, flying S., high.

Slyne Head, North.—Nov. 9th, six ; wind S.E.

Arran Island, South.—May 15th, thirty "Blackbirds," 6 p.m. ; wind N.W. They remain here. Dec. 13th, two struck, not killed, 11 p.m. ; wind W.N.W.

Tearaght.—Nov. 20th, one Blackbird at 3 p.m. ; wind W., fresh.

Skelligs.—Oct. 20th, two at 1 p.m. ; wind N., fresh, misty. Remained during month. A couple about rock in December.

RING OUZEL.

Rathlin Island.—April 18th, "one Blackbird," at 4 p.m. ; wind strong S.E. This bird had a white throat. It was shot.

ROBIN.

Fastnet.—Oct. 27th, eight. Nov. 2nd, seven killed striking.

Barrels Rock Light-ship.—Aug. 29th, one "Robin Redbreast," rested on ship.

Rathlin Island.—Nov. 1st, two about all day. Nov. 13th, one seen.

Straw Island.—April 11th, two "Redbreasts," 9 a.m., calm. Passed island for shore.

Arran Island, South.—July 1st, eighteen Robin Redbreasts, 9 p.m. ; wind S.S.E., four killed.

"BLACKCAP."

Arklow South Light-ship.—April 4th, three "Blackcaps" dead on deck, 7 a.m.; wind fresh S.W., rain.

"SALLYPICKERS" (Willow Wren or Chiffchaff).

Arklow North Light-ship.—April 29th, eight "Sallypickers" flying round ship. May 1st, three ditto.

"STONECHAT" (Wheatear).

Galley Head.—April 4th, saw "Stonechicks," the first this year.

Fastnet.—Sept. 14th, five young ones. Oct. 1st, twelve; 9th, twenty. Dec. 4th, seven; 16th, two.

Tuskar Rock.—Aug. 9th, three killed striking. Oct. 5th, "Stonechatters."

Arklow North Light-ship.—April 21st, one "Stonechatter" on deck 6 a.m.

Rathlin Island.—April 28th, flocks of Stonechats, picked up five; wind fresh S.E., misty, rain. May 2nd, six at 7 a.m.; 20th, seven; 21st, ten all day about the station. Foggy and gloomy. June 3rd and 19th, three to six seen.

Innishtrahull.—April 28th and 29th, "Stonechickers," 2 a.m.; wind N. one day and S. the other. 30th, three, one struck lantern, killed; a gale from S.W. May 3rd, two; 5th, one. Sept. 20th, two struck lantern, not killed. Nov. 5th, two at lantern at midnight; gloomy, misty.

Arranmore.—April 3rd, four "Stonechatters arrived to build."

Rathlin O' Birne.—March 31st, April 1st and 6th, one to six Stonechats.

Killybegs.—I noticed during April and May some "Stonechatters."

Clare Island.—March 1st, some "Stonechatters" flying S., 11.30 a.m.

Slyne Head, North.—April 1st, Stonechats arrive and increase in number from this date. Aug. 2nd, Stonechats disappear; have not seen in what direction they come or go.

Straw Island.—April 5th, two Stonechats; wind N.W., very light, clear. Remained on island.

Arran Island, South.—May 18th, twenty Stonechatters. They remain here.

Tearaght.—May 26th, about half a dozen Stonechats arrived about this date. Sept. 20th, Stonechats left about this date.

REDSTART.

Dungarvan.—Nov. 13th, one about garden, being the only one seen in vicinity for seven years.

Tearaght.—Oct. 27th, two Redstarts, male and female. May have been on island some time previous. Remained about a month.

Skelligs.—Oct. 13th, four birds of a slatish colour, red on back near tail, about the size of a Titlark; wind S.W., fresh. Fog and drizzle. Stayed all the month.

GOLDENCRESTED WREN.

Old Head, Kinsale.—Nov. 12th, five Goldencrested Wrens, one killed striking; wind strong, N.

Coningbeg Light-ship.—April 27th, one alighted on ship, 8 a.m.; 29th, another ditto.

Dungarvan.—Oct. 1st, two struck lantern; and on 2nd, 9th, and 10th one or two, but none killed.

Tuskar Rock.—Oct. 9th, one; 25th, one; 26th, two; 29th, two killed. Nov. 2nd, two seen.

Copeland Island.—April 7th, six killed striking; weather clear, wind S.E.

Arran Island, South.—June 20th, sixty "Goldencrested Wrens," 7 a.m.; calm, blue sky.

WREN.

Fastnet.—Oct. 9th, Wrens.

Old Head, Kinsale.—Jan. 20th, five "Common Wrens," going S.W.

Coningbeg Light-ship.—May 10th, two Wrens killed, 10 p.m.; wind moderate, N.N.E., clear.

Barrels Rock Light-ship.—April 26th, one alighted on ship. May 8th, one ditto. Oct. 8th, one alighted on ship.

Tuskar Rock.—April 4th, "Wrens of all sorts," constantly striking all night; several killed. June 24th, Wrens, 8 a.m. to 10 a.m. Aug. 3rd, six "Common Wrens," flying about rock,

fog. Sept. 15th, three, one killed, fog. Oct. 22nd and 26th, one seen. Oct. 29th, "a small grey bird not much larger than a Wren with a black head," killed.

Rockabill.—Feb. 8th, Wrens during night, some struck; weather misty, wind S.E. Oct. 26th and 27th, Wrens about lantern in night; weather misty. Nov. 15th, some killed striking; wind S., rain. Dec. 31st, four killed.

Rathlin Island.—April 28th, flocks of Wrens, picked up twelve; wind fresh S.E., misty, rain. Aug. 14th, one killed striking, 11 p.m.; wind light S.E., misty.

Innishtrahull.—Nov. 22nd, two Wrens at lantern, gloomy; wind N.W., gale.

Killybegs.—Nov. 15th, three Wrens, with other small birds.

Blackrock Mayo.—Nov. 3rd, four Wrens, 11 a.m.; wind W.N.W., light, one killed.

Tearaght.—The Wren is resident.

Valentia.—Dec. 12th, four "Common Wrens"; wind light W.

Skelligs.—Sept. 20th, several "Common Wrens" seen occasionally during winter. They breed here.

TITS.

Tuskar Rock.—March 29th, 9 p.m. to 4 a.m., Tits striking, twelve killed; wind strong south, rain, and fog. May 8th, "Titmice" constantly striking, eight killed, from 11 p.m. to 4 a.m.; wind N.W., and fog. 13th, constantly striking during night, twelve killed, fog, and mist. 15th, five killed, fog and mist. 19th, one seen. Sept. 16th, two killed.

Copeland Island.—April 25th, one "Titmouse," killed striking. Oct. 10th, eight killed striking; wind N., light, drizzling rain.

WAGTAIL.

Dungarvan.—Jan. 14th, one "Golden Wagtail," on rocks.

Barrels Rock Light-ship.—Sept. 18th, one rested on ship, and flew N.

Rathlin Island.—One "Water Wagtail," seen on Aug. 12th, Oct. 10th, and Dec. 27th.

Innishtrahull.—May 5th, one Wagtail seen. Nov. 3rd, two.

Arranmore.—May 3rd, one Grey Wagtail.

Tearaght.—March 3rd, one Wagtail, 9 a.m.; wind light S.E.;

remained only a few minutes. May 24th, another. None observed previous to this year.

Skelligs.—One seen in July; very rare.

LARKS.

Fastnet.—Oct. 9th, sixteen, flying west; 22nd, seven; 31st, eight. Nov. 1st, seven. Nov. 2nd, five killed striking.

Old Head, Kinsale.—March 10th, large numbers from sunrise to sunset, with Linnets and other small birds.

Coningbeg Light-ship.—April 26th, two Larks killed, 9 p.m.; wind light, rain. Oct. 9th, three caught on deck, 5 a.m.; 10th, two caught on deck, 2 a.m.; 28th, flocks from 9 p.m. to midnight, about the ship. Light S. wind, gloomy; 29th, numbers about the light, 8 p.m. until midnight, many struck and fell overboard. Nov. 2nd, three struck lantern, killed.

Dungarvan.—Oct. 22nd, small straggling flocks all day.

Barrels Rock Light-ship.—Sept. 16th, flock of three or four dozen rested on ship, flying N. Oct. 19th, one seen.

Tuskar Rock.—Feb. 27th and 28th, and March 1st and 2nd, many Larks, some caught; weather foggy and overcast, with mist. Sept. 9th, a flock at 8 a.m.; 25th, another flock. Oct. 8th, three killed striking; 9th and 10th, constantly striking all night, many killed, mist and fog. At 8 a.m. on 10th, a large flock went west; 13th, a flock; 26th, thirty-five Larks killed striking, fog. Oct. 30th to Nov. 3rd, constantly striking at night, some killed; in day time about rock, and flying to N.W., weather misty.

Arklow South Light-ship.—March 2nd, six flying round ship. Flocks noted on Oct. 7th, 10th, 11th, 15th, and Nov. 7th and 8th; and on Oct. 20th, 21st, 27th; and 29th, a few passed. Seven killed on Oct. 10th and 11th, weather foggy. Oct. 29th four killed.

Arklow North Light-ship.—Nov. 26th, a large flock going N.W.; wind light N.W., clear.

Kish Bank Light-ship.—Oct. 26th, five passing N.W. Nov. 13th, several about lantern from 6 p.m. until midnight. Dec. 23rd, three flying west; 27th, one killed striking lantern, weather clear; 31st, two killed striking, weather gloomy.

Rockabill.—Oct. 26th and 27th, Larks about lantern in night; weather misty.

Copeland Island.—Oct. 10th, twenty killed striking, others injured; wind north, light; drizzling rain.

South Maidens.—Oct. 16th, eight "common Larks" killed striking; wind W.N.W., strong, weather thick.

Rathlin Island.—Oct. 29th, two killed striking; 30th, five killed, overcast, misty.

Innishtrahull.—March 13th, eight struck, not killed, at 4 a.m.; wind S.W., fresh, fog and mist. May 5th, one seen. Nov. 1st, two, 10.30 p.m., at lantern, gloomy, misty. Nov. 3rd, one; 5th, one at lantern at midnight. Dec. 8th, three Skylarks at 8 a.m.; wind S.W., fresh.

Rathlin O'Birne.—Skylarks noted on Feb. 2nd, which is earlier than on previous years. On March 30th and 31st, April 1st, 3rd, and 6th, from four to eight.

Killybegs.—April 22nd, several Skylarks observed about this time.

Oyster Island, North.—Dec. 26th, four Skylarks in a field; flew south.

Clare Island.—March 31st, about a dozen Larks. Oct. 31st, a flock of Larks flying about station; wind S.S.W., light. During November, small flocks at intervals.

Slyne Head, North.—Nov. 11th, eight Larks; wind E.S.E.

Straw Island.—March 22nd, eight "Field Larks" at noon; wind S., strong. Remained on island.

TITLARK.

Fastnet.—Nov. 1st, fifteen.

Tuskar Rock.—Aug. 13th, Titlarks flying on rock. Oct. 21st, five, remained some time.

Arklow South Light-ship.—April 5th, one going east. Sept. 18th, two flying round ship; 21st, two flying east; 25th, five flying N.W. Nov. 3rd, a flock flying N.W.

Arklow North Light-ship.—April 21st, two on deck, 6 a.m. Sept. 20th, some Titlarks killed striking, hazy, with rain.

Kish Bank Light-ship.—May 11th, three. June 20th, two. Oct. 8th, four alighted on deck, 10 a.m.

Copeland Island.—April 12th, two Titlarks killed striking. They nest on island.

South Maidens.—Oct. 17th, six Titlarks, 10 p.m.; weather foggy.

Rathlin Island.—Aug. 23rd, three, at 8 a.m.

Innishtrahull.—Nov. 3rd, five Titlarks; 5th, one; 22nd, three.

Lough Swilly.—May 2nd, two, 4 p.m.; wind N., strong.

Arran Island, South.—Nov. 2nd, one Titlark striking at 4 a.m.; caught by keeper.

Tearaght.—The Titlark is resident.

Skelligs.—Titlarks common all the year; they breed.

YELLOWHAMMER.

Rathlin O'Birne.—Nov. 16th, Yellow Buntings around walls of station; 22nd, large flocks of Buntings all day.

SNOW BUNTING.

Rathlin Island.—May 16th, "shot a bird very like a Snow Bunting." Oct. 14th, thirty; wind N.W., squally. Some seen also on 15th, 17th, 18th; Nov. 7th, and one on 29th.

Innishtrahull.—Jan. 24th, continuous flocks of Snow Buntings for the rest of the month. Dec. 4th, flock at 11 a.m., apparently just come to island, and are on it ever since; wind N., gale. Seen on 7th, 8th, 9th, and on 25th, Snow Buntings all day; wind S.W., fresh.

Arranmore.—Jan. 23rd, Snow Buntings all day. Feb. 18th, eight. They leave in spring. April 27th, one shot. Aug. 18th, one Snow Bunting at 4 p.m.; wind S., fresh. Sept. 1st, eight. Dec. 8th and 11th, a few.

Killybegs.—An occasional Snow Bunting visits us, but I have seen none this winter nor during the winter of 1882-3.

Blackrock Mayo.—Oct. 30th, about thirty alighted on rock; wind S.S.E., fresh, misty. Nov. 30th, about forty, 9.30 a.m.; wind N., light. Dec. 4th, twenty. Jan. 10th, 1884, forty on rock; wind strong S.W., misty.

Arran Island, South.—Nov. 5th, six arrived on island at 2 p.m.; wind S., misty.

Tearaght.—Feb. 10th, Snow Buntings mentioned in last report, still on island; left about March 1st. Sept. 30th, about six, but may have been on the island some time previously. Remained about a fortnight.

N.B. *Arranmore*.—"Two Lapland Buntings shot, one on May 1st, the other on 4th, very rare, and the oldest person has never

seen the same species before." [These were perhaps some stage of plumage of the Snow Bunting.—A. G. M. and R. M. B.]

CHAFFINCH.

Fastnet.—Oct. 29th, ten. Nov. 1st, nine. Jan. 5th, 1884, seven about the rock.

Old Head, Kinsale.—Dec. 16th, some hundreds; wind N., frosty.

Coningbeg Light-ship.—Oct. 27th, six about ship, one caught on deck; 28th, one alighted on ship; 29th, a great number about light, many killed, and fell overboard; gloomy. Nov. 13th, one rested on ship.

Tuskar Rock.—Oct. 5th, Chaffinches; 13th, 19th, and 26th a few. Oct. 30th to Nov. 3rd, several during the night. Nov. 13th, four died on rock.

Arklow South Light-ship.—Sept. 21st, two. Oct. 29th, a flock; 31st, two.

Arklow North Light-ship.—Sept. 13th, six hovering about ship. Nov. 12th, five.

Kish Bank Light-ship.—July 14th, three at 4.30 p.m., stayed on ship until sunset, and then left. Oct. 8th, three alighted on deck, 10 a.m. Oct. 26th, one alighted. Nov. 7th, four alighted.

Slyne Head, North.—Nov. 11th, three "Finches," wind E.S.E.

Tearaght.—Oct. 26th, about a dozen "Finches, several kinds," but cannot give the names. Remained about a fortnight.

SPARROW.

Tuskar Rock.—March 1st, one Sparrow caught.

Rathlin Island.—June 5th, 13th, and 28th, a few Sparrows noted (perhaps breeding).

Killybegs.—May 10th, observed about thirty Sparrows. They build in old ruins in the neighbourhood. Aug. 11th, about sixty perched on stays of signal mast. Sept. 18th, 19th, and 20th, Sparrows flying towards S.W.; wind E. to E.S.E.

Straw Island.—March 30th, two house Sparrows, 10 a.m.; calm, wind S.

Arran Island, South.—July 26th, forty Sparrows, 8 a.m.; wind W.N.W., clear.

GOLDFINCH.

Arran Island, South.—April 3rd, six Goldfinches, 3 p.m.; wind W.S.W. They remain. July 28th, Goldfinches at 10 a.m. Nov. 12th, ten, at 9 a.m.; wind W.S.W., hovering about.

Valentia.—Oct. 4th, 10th, and Dec. 15th, two or three Goldfinches. They breed on the island.

Skelligs.—Seen in October. Breed on mainland near.

LINNETS.

Fastnet.—Oct. 9th, Linnets flying west. Nov. 2nd, eight killed striking. Jan. 5th, 1884, five, all day.

Old Head, Kinsale.—March 10th, large numbers, sunrise to sunset. Dec. 5th, two hundred to three hundred.

Coningbeg Light-ship.—Oct. 9th, four killed on deck at 5 a.m.; 14th, two going N.E.; 22nd, one alighted on ship.

Dungarvan.—Oct. 1st, flocks of Grey Linnets coming from S.E. Nov. 29th, flocks of Grey Linnets all day about station.

Barrels Rock Light-ship.—March 21st, six flying north, and a few at end of March. May 8th, one. Sept. 27th, six. Oct. 8th, one; 19th, seven; 22nd, large flocks. Nov. 12th, five. Dec. 6th, one alighted on ship. Jan. 14th, 1884, one.

Tuskar Rock.—May 13th, Grey Linnets, 10 p.m. to 2 a.m., striking; mist and fog.

Arklow South Light-ship.—Oct. 26th, one Green Linnet flying about.

Arklow North Light-ship.—Sept. 17th, some Grey Linnets at 8 a.m., hovering about; weather hazy. Sept. 20th, some Linnets killed striking; hazy, with rain. Nov. 13th, Linnets about ship; wind S.E., light, clear.

Rockabill.—Feb. 8th, Linnets during night, some struck; misty, wind S.E.

Copeland Island.—Oct. 10th, twelve killed striking, others injured; wind N., light, drizzling rain.

Rathlin Island.—May 9th, twenty Linnets seen; 16th, four flocks. June 4th, twenty Grey Linnets; 14th, thirty; 23rd, seven. Entries occur Oct. 20th, 22nd, 23rd, 24th, 29th; Nov. 3rd, 18th, 20th, 24th, 27th, and frequently during December. Numbers vary up to 150, and direction of flight when entered was south or west, and seemed independent of direction of wind.

Innishtrahull.—Jan. 24th, continuous flocks of Green Linnets for the rest of month. Nov. 7th, fifty at one p.m., wind S.W., light; 22nd, four at lantern, wind N.W., gale, gloomy.

Dunree Head.—Nov. 16th, great flocks of Grey Linnets flying about all day.

Arranmore.—Feb. 23rd, six Grey Linnets. They come daily. Dec. 19th, a flock of Grey Linnets.

Rathlin O' Birne.—Sept. 21st, ten Grey Linnets alighted, and flew to N.E.

Killybegs.—I noticed during April and May nine or ten Grey Linnets. Aug. 11th, Linnets perched on stays of signal mast, 6 a.m. Sept. 18th, 19th, and 20th, continuous flocks flying S.W. all day, arriving and departing after resting; wind E. to E.S.E.

Oyster Island, North.—Nov. 13th, fifty passing N.; wind S.

Clare Island.—April 15th, Linnets during the day.

Slyne Head, North.—July 9th, twenty Linnets appeared 10 a.m., flying high. Nov. 11th, nine Linnets; wind E.S.E.

Straw Island.—Aug. 23rd, a large number of Grey Linnets going south; flying low, calm.

Arran Island, South.—April 1st, fifty Linnets; wind E., drizzling rain. Oct. 6th, forty Linnets hovering about, 4 p.m.

Tearaght.—Jan. 30th, twelve Grey Linnets, mentioned in last report, left about this date. Sept. 22nd, about twelve Grey Linnets, 8 a.m.; wind light E. Oct. 29th, five Grey Linnets, one killed striking, four taken alive; foggy.

“SMALL BIRDS.”

Fastnet.—Sept. 21st, twenty; 28th, ditto. Oct. 3rd, a flock passing high to N.E. Oct. 7th, “mixed birds” striking glass; fog and mist.

Kish Bank Light-ship.—June 29th, two small birds flying W.; rain and fog. July 7th, flock of “small land birds” going S.E. to N.W.; weather hazy. Nov. 26th, flock of small birds, name unknown, flying low to N.W., at 11 a.m.

Rockabill.—Feb. 8th, several small birds during night.

Killybegs.—Sept. 18th, 19th, and 20th, small birds, Sparrows, Linnets, and others unknown to me, flying in a S.W. direction all day; wind E. to E.S.E., cloudy, and misty. Constantly arriving, and departing after resting. Nov. 15th, about thirty small birds remained nearly all day, left at dusk.

Clare Island.—April 15th, Linnets and “other small yellow birds” during the day.

Valentia.—Sept. 24th, four Grey Linnets.

BULLFINCH.

Fastnet.—Oct. 31st, nine.

Killybegs.—“I noticed during April and May several piping Bullfinches.”

Slyne Head, North.—Dec. 7th, three “Bullfinches,” wind E.S.E.

STARLING.

Fastnet.—Oct. 27th, eleven; 29th, five striking. Nov. 1st, five. Nov. 2nd, seventeen killed striking.

Old Head, Kinsale.—Feb. 3rd, large flock coming from N. Oct. 30th, some hundreds of Starlings all going inland.

Coningbeg Light-ship.—May 9th, flocks of Starlings, 6 a.m., flying N.E. Oct. 28th and 29th, flocks about ship, nights gloomy, seven killed, but many struck and fell overboard; 30th, seven rested on ship, 8 a.m. Nov. 2nd, two killed, 9 p.m.

Dungarvan.—Oct. 5th, small flocks; 17th and 22nd, ditto; 29th, one struck lantern. They are late this year.

Barrels Rock Light-ship.—Oct. 28th, one rested on ship; 29th, another. Nov. 1st, a few.

Tuskar Rock.—Feb. 24th, 25th, 27th, 28th, and March 3rd, Starlings, a considerable number struck lantern, several killed; weather foggy and overcast, with mist. Oct. 9th, five killed, misty; 10th, passing all night. Oct. 28th to Nov. 2nd, Starlings passed, with Blackbirds, Thrushes, Larks, and Chaffinches, some killed; weather foggy with mist. Nov. 13th, one.

Arklow South Light-ship.—Oct. 16th, a flock of “Stares;” 26th, a flock; 29th, four killed striking; 31st, one seen.

Arklow North Light-ship.—April 30th, Starlings around lantern, 11 p.m. to 11.50 p.m., did not strike; weather hazy. Sept. 19th, “Stares” striking at midnight; wind light S.E., hazy. Oct. 30th, “Stares” striking, overcast, calm. Nov. 13th, “Stares” about ship, 3 p.m. Nov. 30th, some Starlings striking, one killed; hazy, rain. Dec. 5th, a large flock going W., 7.45 a.m.; wind N.

Kish Bank Light-ship.—May 14th, five, at 10.15 p.m., about lantern; weather foggy. Oct. 7th, seven struck, killed, and a

great number fell overboard; weather foggy, wind light N.W. Oct. 27th, numbers of Starlings, four killed striking, 9 p.m. Some fell overboard; clear, wind fresh N.N.W. Nov. 7th, four, at 11 a.m., left ship 2 p.m.

Rockabill.—Oct. 31st, four killed striking; weather gloomy, wind light S.E.

Copeland Island.—Starlings appear the first week in April to breed here. Oct. 10th, eighteen killed striking, others injured; wind light N., drizzling rain.

Rathlin Island.—April 3rd, seventy, going N., 3 p.m.; 14th, four, breeding here. Entries of two to one hundred and fifty occur from Oct. 24th to Dec. 25th; most seen on Oct. 26th and Dec. 1st. Directions of flight when entered generally S. or W.

Innishtrahull.—March 14th, four, at 11 a.m.; a gale from S.W. Oct. 30th, three struck, not killed; wind S.E., light, cloudy. Dec. 20th, four; wind N.W., strong.

Rathlin O' Birne.—Nov. 12th, about two hundred came from mainland, and returned again after some time.

Killybegs.—The Starling, which was commonly seen here in winter, is now very rare. I have seen none at all this winter.

Oyster Island, North.—Nov. 13th, fifty passing W.; wind S.

Blackrock, Mayo.—Oct. 3rd, about twenty alighted on rock, 9 a.m.; wind N., fresh, clear. Oct. 4th, one killed striking, at 1 a.m.

Clare Island.—During November a few occasionally in vicinity of lighthouse.

Slyne Head, North.—Nov. 28th, eight Starlings, four killed, 10 p.m.; wind N.E., rain. Dec. 10th, nine; wind N.

Straw Island.—Aug. 31st, four Starlings, 1 p.m., going S.W., low; wind fresh W. Also on Sept. 15th, and Oct. 13th, sixteen to twenty, going south, low.

Arran Island, South.—April 2nd, thirty Starlings, going N., twenty struck, none killed; wind S. Oct. 30th, thirty "Stares," 11 a.m.; wind S., blue sky, five struck, two killed. "Stares" remained here. Dec. 13th, six "Stares," 10 p.m., four killed striking; wind W.S.W., drizzling rain.

Tearaght.—Jan. 30th, twelve, and again on Feb. 18th. Did not leave until about March 1st.

Valentia.—Dec. 4th, fifteen; wind light N.

Skelligs.—Oct. 20th, six Starlings, 11 a.m., wind N., fresh, fog; 21st, two. Did not see them after this date. Rare here.

Dursey Island.—Oct. 2nd, twenty going north; 22nd, large flock at 2 p.m., going N.W.; wind N.W.

CHOUGH.

Tearaght.—Jan. 30th, three Choughs. In my last report I called these “daws.” Choughs come and go occasionally all the year. They breed here.

Skelligs.—They breed here; May to August.

RAVEN.

Dungarvan.—Nov. 7th, two coming from N.E.; rarely seen here.

Copeland Island.—Aug. 20th, six alighted on island at 9 a.m.

Arranmore.—Feb. 7th, two, at 10 a.m. Remain all the year. May 8th, two. Sept. 11th, two. Oct. 18th, one.

Arran Island, South.—Dec. 26th, three Ravens. They remain about here.

Skelligs.—Sept. 20th, two Ravens about rock during month, also during October, November, and December.

HOODED CROW.

Old Head, Kinsale.—Oct. 26th, ten Grey Crows.

Dungarvan.—Oct. 10th, seven. Jan. 4th, two in fields.

Rathlin Island.—April 4th, twenty, to be seen every day. They remain all the year. Aug. 15th, one.

Lough Swilly.—April 10th, two Grey Crows.

Arranmore.—April 26th, one passing.

Killybegs.—Oct. 10th, four perched on cliffs.

Straw Island.—Feb. 22nd, forty Grey Crows at noon; calm. Oct. 21st, four going west; wind N., strong.

Tearaght.—Feb. 13th, one Grey Crow found dead, partly devoured. They come and go occasionally all the year.

Skelligs.—Sept. 20th, four during month; also during October, November, and December.

Dursey Island.—Flocks of two to fifteen Grey Crows on April 2nd, May 20th, and July 11th; flight E. or N.E. Sept. 8th, four going east.

ROOK.

Old Head, Kinsale.—Feb. 27th, one hundred to one hundred and fifty; came from east.

Coningbeg Light-ship.—April 28th, two flying N.E.

Tuskar Rock.—March 18th, one "Crow" flying west; 25th, six seen. April 6th, a large flock of Rooks going west.

Arklow South Light-ship.—March 18th, two "Crows" going N.W.

Kish Bank Light-ship.—Dec. 1st, eight "Crows" flying low to N.W., 11.30 a.m.

Copeland Island.—April 25th, a large flock of some hundred "Crows" came from Scotch coast and left for mainland half an hour afterward. Aug. 13th, about a thousand, at 11 a.m., flying high to south.

Rathlin Island.—April 1st, forty at noon; 6th and 7th, a flock going north; 16th, three. May 8th, three; 24th, Black Crows going north. June 6th, flocks seen. Entries occur in August, October, November, and December, of flocks of Rooks at intervals of a week or fortnight; largest on November 11th and 12th. Direction of flight in nearly all cases south.

Innishtrahull.—April 1st, one "Black Crow" at 4 a.m.; foggy. May 26th, one.

Lough Swilly.—June 23rd, 25th, and 30th, flocks all day.

Rathlin O'Birne.—July 8th, fifteen Rooks.

Killybegs.—In April and May, "Crows" to the number of about one hundred visited daily. Probably belonged to rookery ten miles distant.

Oyster Island, North.—April 27th, thirty at 4 p.m., passing S.E.

Clare Island.—Feb. 20th, a few Crows flying N.W.; wind S.W., light, foggy. Oct. 25th, Black Crows flying north; low.

Arran Island, South.—April 6th, sixty common Crows. They remain. Oct. 3rd, twenty Rooks going south; wind W.N.W.

Valentia.—Sept. 2nd, four Black Crows. Nov. 12th, four.

JACKDAW.

Valentia.—Oct. 12th, two. Nov. 26th, five.

MAGPIE.

Arran Island, South.—Oct. 20th, five Magpies at noon. They remain about here.

Valentia.—Dec. 5th, two Magpies.

SWALLOW.

Fastnet.—Nov. 6th, two, all day about rock.

Coningbeg Light-ship.—May 13th, flock flying N.W.; 14th, continuous flocks flying N.W. Three killed at 10 p.m.; wind S.W., clear. Four alighted on ship. Sept. 22nd, 23rd, and 30th, a great number passed, going E. and N.E. Oct. 8th, 9th, and 10th, a few passed, four caught on deck, at 2 a.m., two alighted on ship.

Dungarvan.—Oct. 20th, flocks of House Swallows, going E.S.E.; wind N.W., light.

Barrels Rock Light-ship.—May 8th, one alighted on ship; 17th and 18th, occasional Swallows, flying north. June 3rd and 5th, two or three alighted on ship. Sept. 19th and 20th, odd Swallows, flying north, all day. Oct. 8th, 20th, and 26th, a few passed.

Tuskar Rock.—April 11th, first seen, then occasionally to 21st and 22nd, when they passed at intervals of fifteen minutes, all going west. On May 8th and 13th, one or two passed; 14th, constantly passing, going W. and N.W., two killed; 15th, 16th, and 17th, Swallows all day, remaining on rock some hours, then flying W. A few passing daily to end of month, especially on 22nd. During August and September one or two at intervals about rock. Aug. 24th, a great number. From Oct. 5th to 11th, many passed to east.

Arklow South Light-ship.—April 15th, several flocks; wind W.N.W., clear. May 13th, a flock; 14th, 15th, and 30th, Swallows. On Sept. 19th, 23rd, and 28th, one to six passed.

Arklow North Light-ship.—April 22nd, 28th, and May 18th, Swallows noted going N.W.

Kish Bank Light-ship.—June 25th, four passing north; wind light S.

Rockabill.—April 16th, one, the first arrival, wind W., fresh; 18th, several.

Copeland Island.—Sept. 12th, several large flocks at noon; wind W., moderate, clear. They waited a few hours and went S.

Rathlin Island.—April 30th, four at noon.

Lough Swilly.—May 15th, a few Swallows, first seen.

Arranmore.—April 21st, one at 7.30 a.m., passing over island. May 9th, one. June 16th, two.

Rathlin O' Birne.—April 20th, one, wind N. ; 23rd and 29th, May 4th and 15th, one to three.

Killybegs.—May 10th, 11th, and 12th, two to six. They build in vicinity, and generally leave about the middle of June. Aug. 24th, about thirty hovering round.

Straw Island.—Sept. 12th, fifty going S.W., high ; wind N., fresh.

MARTIN.

Oyster Island, North.—May 8th, one Martin, the first seen ; 12th, several. They remain and build about station. Aug. 12th, Martins last seen.

CUCKOO.

Tuskar Rock.—Nov. 2nd, one Cuckoo killed striking.

Rathlin Island.—May 3rd, three or four ; heard for first time.

Arranmore.—May 4th, one Cuckoo. May 12th, one.

Oyster Island, North.—May 15th, Cuckoo first heard ; wind N., light.

Arran Island, South.—April 11th, "three Cuckoos," 4 p.m. ; wind E.S.E., cloudy.

PIGEON.

Fastnet.—Oct. 31st, one.

Rockabill.—Sept. 15th, ten going N. Oct. 30th, ten hovering about. Dec. 3rd, two shot ; 31st, Pigeons all day, one shot.

Rathlin Island.—Aug. 28th, forty Pigeons ; they are always on the island. Nov. 16th, eighteen going N. ; 25th, five, going S.

Innishtrahull.—Dec. 8th, four Pigeons ; wind S.W., light.

Dunree Head.—Sept. 22nd, great flocks of Pigeons flying about all day.

Lough Swilly.—April 10th, flocks of Pigeons all day.

Killybegs.—April 22nd, four Wild Pigeons build on cliffs near Lighthouse. Aug. 26th, eight Wild Pigeons, 5 a.m.

Clare Island.—Feb. 10th, some Wild Pigeons, flying E., in forenoon. Oct. 15th, about four dozen flying generally over the island, also during November and December about the fields on the island.

Arran Island, South.—May 14th, fifty Wild Pigeons. Dec. 3rd, six ; 10th, twenty ; 28th, ten. They remain on island.

Tearaght.—Oct. 21st, one Rock Pigeon ; 27th, about a dozen. Jan. 15th, 1884, eighteen. Nov. 18th, five Rock Pigeons ; 24th, about a dozen, which still remain on island.

Dursey Island.—June 7th, eight Wild Pigeons going E. ; 17th, two. Entries also on Aug. 24th, Sept. 10th, and Nov. 22nd.

PARTRIDGE.

Rockabill.—Oct. 28th, six seen on rock in the morning ; wind light S.E., gloomy.

Tearaght.—May 18th, one Partridge, at 4 p.m.

GROUSE.

Innishtrahull.—Nov. 1st, one Grouse, 4 p.m. ; wind light S.W., moderate.

Clare Island.—Grouse are not plentiful this year.

GOLDEN PLOVER.

Fastnet.—Oct. 9th, four "Grey" Plover, midnight ; fog & mist.

Old Head, Kinsale. — Jan. 28th, large flocks ; wind N.E. Feb. 15th, large flock of "Plover" coming from N. ; wind N.E. Dec. 17th, large flocks all day ; blue sky, frosty.

Arklow North Light-ship. — June 16th, five "Plover" going N.E. Sept. 17th, some Plovers about ship at 8 a.m. ; hazy.

Copeland Island. — Oct. 10th, three "Grey" Plover killed striking ; wind N., light, drizzling rain.

Innisntrahull.—Sept. 3rd, six ; wind N., fresh. 18th, a pair shot.

Tory Island.—Jan. 6th, 1884, seven resting on island.

Arranmore. — Sept. 3rd, seventeen "Grey Plovers" ; 18th, twenty.

Killybegs. — April 16th, fifteen Golden Plovers, which only remained a few days. A large flock of "Grey Plovers," which remained till the end of April. Oct. 4th, about eighty Golden Plovers ; remained up to this date. Dec. 2nd, Golden and Grey Plover begin to come about the middle of September, and are reinforced by flocks up to the end of November ; they usually leave about end of December.

Arran Island South. — October 10th, twenty "Grey" Plover ; wind W., going S.

Dursey Island.—Nov. 12th, eight going W., 11 a.m.

GREEN PLOVER.

Coningbeg Light-ship. — March 2nd, two Lapwings around ship ; 22nd, thirty, flying N.W. May 7th, one killed, 9.30 p.m. ; wind E.N.E., rain.

Dungarvan.—Oct. 9th, large flocks all day about shore; and on Oct. 21st and Jan. 11th, large flocks.

Barrels Rock Light-ship.—March 21st, eight, flying N.W.

Rockabill. — March 5th, one Green Plover struck, killed, 4 a.m., cloudy; wind fresh N.; 27th, Green Plover going N.; wind N., snow showers; 28th, large flocks of Plover going N.; wind S.E., snow showers.

Copeland Island.—April 4th, thirty, at 10 a.m.; 7th, a large flock from mainland, going towards Scotch coast; 25th, continuous flocks flying towards Scotch coast, all day; wind E., clear. Sept. 29th, twenty alighted and remained on island; 30th, large flocks, some hundreds in each, going N.E. and very high; wind strong, N., gloomy.

Rathlin Island. — April 6th, six Green Plover, 4 p.m.; Oct. 30th, two seen; Nov. 24th, one.

Innishtrahull.—April 2nd, four at 5 p.m.; wind E.S.E., fresh, misty. Sept. 20th, about twenty "Lapwing Plover"; wind E.S.E., strong; stayed two days and then left, going S.

Tory Island.—Sept. 15th, seven at noon, rested on island.

Rathlin O' Birne. — Sept. 21st, twelve alighted, then flew to N.E.

Killybegs. — April 7th and 8th, four to eight; they hatch in vicinity.

Slyne Head, North.—Dec. 14th, four Lapwings; wind N.E.

Tearaght. — March 24th, one Lapwing, 8 a.m.; wind N.E., light; seemed tired, and remained a few hours.

TURNSTONE.

Tory Island.—Jan. 10th, 1884, flock of Turnstone, going S., 1 p.m.; wind N.W., gale.

"SAND LARKS."

Old Head, Kinsale. — Dec. 11th, five Sand Larks; these were strange birds. I have not seen them before on the coast.

Coningbeg Light-ship. — Dec. 9th, one, the first seen for two years.

Barrels Rock Light-ship. — Jan. 19th, 19th, seven Sand Larks.

Arklow South Light-ship. — April 15th, two flocks of Sand-birds.

Rockabill. — Sand Larks noted in August and December. It is remarked they remain "all the year."

Innishtrahull.—Feb. 2nd, flock of "small sea-birds," 11 a.m. Sept. 11th, 12th, and 13th, "Sand Larks and some other small sea birds, name unknown."

Arran Island, North. — A few Sand Larks remain during the winter.

Arran Island, South. — July 27th, eighty Sand Larks. Nov. 18th, a flock on strand.

Tearaght.—Dec. 13th, one Sand Lark; 15th, three; wind W., very stormy. All a greyish colour, beaks about one inch long, and a little red on the top towards feathers. Remained about a week.

SEA PIE.

South Maidens.—May 10th, six Sea Pies; misty, rain.

Rathlin Island.—Aug. 27th, three at noon.

Arranmore.—May 18th, one Oystercatcher.

Killybegs. — "Sepoys" to the number of thirty or forty from August to end of September.

Oyster Island, North.—Jan. 6th, 1884, six Oystercatchers on shore.

Slyne Head, North.—The Sea Pie remains all the year.

Arran Island, North.—A few "Sepoys" remain during the winter.

Arran Island, South. — April 5th, thirty "Seapoys"; wind E., going S.

Tearaght. — Two Sea Pies remained round island until about September.

Skelligs.—Sept. 4th, four Sea Pies until 15th.

REDSHANK.

Tuskar Rock.—May 16th, one seen.

Skelligs.—One seen after a storm in November, very rare.

GREENSHANK.

Dungarvan.—Oct. 29th, about one dozen. Jan. 6th, a large flock from sea into bay.

HERON.

Dungarvan. — Nov. 22nd, four flying high, and apparently fighting.

Rathlin Island.—Oct. 6th, one at noon ; wind light N.E.

Innishtrahull.—Dec. 8th, one "Crane" ; wind S.S.W., light.

Tory Island.—Jan. 2nd, 1884, one Heron, at noon, at lake.

Arranmore.—Aug. 16th, one "Crane" at 9 a.m.

Killybegs. — Dec. 19th, two "Cranes" to be seen daily, in a swamp.

Arran Island, South. — Oct. 25th, four "Cranes," 2 p.m. ; wind W.N.W., going W.

Tearaght. — Aug. 23rd, one Heron passing E. ; wind N.W., light.

Skelligs. — Sept. 2nd, two "Cranes," 9 a.m. ; wind N., gale ; stayed about the rock for a fortnight.

BITTERN.

Old Head, Kinsale. — Feb. 15th, one Bittern, 11 a.m. ; wind N. This bird I shot ; it was the second ever seen here.

WHIMBREL AND CURLEW.

Galley Head. — May 15th, thirteen "May-birds or young Curlew" rested a little while on headland and passed northwards. May 30th, fourteen Curlew, going S.E.

Coningbeg Light-ship. — May 7th, one caught on ship ; wind E.N.E., 9.30 p.m. ; 8th, flock of Curlew, 11 p.m., around ship ; wind strong N., overcast. Oct. 28th, flock flying N.E., 10 p.m.

Tuskar Rock.—March 23rd, one Curlew shot.

Arklow North Light-ship. — May 18th, a flock of Curlew going N.E.

Kish Bank Light-ship. — May 17th, one Curlew heard, 9.30 p.m. July 30th, several Curlew around ship, 6.30 a.m. ; weather foggy.

Copeland Island.—May 15th, large flocks of Curlew appeared, and have remained in vicinity to date of sending schedule in July.

Rathlin Island. — April 5th, four Curlew going S., 7 a.m. ; wind N.W. May 10th, thirty Curlew, 3 p.m. ; wind N. June 10th, flocks of Curlew, 6 a.m. ; 20th, five seen ; 24th, three. One or two dozen entered at intervals during the winter months. They are here all the year.

Innishtrahull. — Curlew in flocks of twenty to thirty during June and July.

Lough Swilly.—March 30th, thirteen Curlew; wind W., gale. May 15th, a flock of "Whimbrel Curlew," 8 a.m.; wind W., light. 26th, twenty "Whimbrel Curlew," 9 a.m.; wind N.W., gale.

Tory Island.—"Curlews remain here during the year."

Rathlin O' Birne.—March 31st and April 1st, one; July 6th, fifteen.

Killybegs.—April 1st, twenty-one Curlew, "May-birds"; 12th, a flock of "May-birds"; 21st, a flock. These birds are unusually numerous, and some shot were in very good condition. Aug. 31st, about one hundred Curlew. Curlew (old birds) arrive about the beginning of August, and remain up to the middle of December. Young Curlew, called "May-birds" (Whimbrel), begin to arrive about the end of April in small flocks, until they form one large flock, when they generally leave about the beginning of June.

Oyster Island, North.—May 3rd, several May-birds or young Curlew arrived, and remained most part of the month.

Blacksod.—Curlew are very numerous all the year round.

Clare Island.—Feb. 1st, about two dozen Curlew flying S. at noon. May 5th, flocks of "young Curlew" flying E.; wind E. to N. Oct. 10th, a large flock flying low, and alighting. Curlew during November and December, generally flying low through the fields.

Arran Island, North.—Nov. 4th, twenty Curlew; wind N.E., moderate, clear.

Straw Island.—April 19th, sixty "young Curlew," 1 p.m.; wind N.W., fresh; remained a short time, and went towards shore.

Arran Island, South.—April 4th, twenty Curlew, 6 a.m. May 13th, thirty Curlew, 8 p.m.; wind W.S.W., hazy; three killed. July 29th, fifty. Oct. 16th, thirty at "3 p.m.," three striking, one killed; wind S.W., drizzling rain. Nov. 15th, four at 3 a.m.; wind S., two killed striking, overcast and rainy.

Tearaght.—Feb. 11th, one Curlew; wind S., strong; remained a few days. Dec. 18th, one; wind N.E., clear. On several occasions afterwards. Remained about a month.

Valentia.—Oct. 30th, fifty; Nov. 6th, twenty.

Dursey Island.—Two to ten Curlew at intervals from April 30th to May 23rd. Flight in various directions. Aug. 8th, large flock flying N., and a few at intervals to end of month.

WOODCOCK.

Fastnet. — Oct. 29th, one. Nov. 1st, one; 2nd, four killed striking.

Old Head, Kinsale.—Dec. 17th, three.

Coningbeg Light-ship. — Oct. 30th, one caught on deck, 2.30 a.m., the first seen at this station. Nov. 2nd, one killed striking at 2 a.m.

Rockabill. — Nov. 28th, one killed striking; wind S., fresh, cloudy and overcast. 29th, another killed.

South Maidens. — Oct. 15th, one killed, 11 p.m., drizzling rain; wind light W.S.W.

Arranmore.—Dec. 3rd, one Woodcock.

Killybegs. — Sept. 21st, one Woodcock killed striking, 11.30 p.m.; wind E.S.E., cloudy and misty. 22nd, another killed, 8 p.m.; wind E.

Clare Island. — During November, a few Woodcock in mountainous parts of island.

Skelligs.—Nov. 4th, Woodcock seen.

Dursey Island.—Nov. 4th, one Woodcock going N.; wind N.E.

SNIPE.

Old Head, Kinsale.—Nov. 8th, twenty Snipe, six shot. Dec. 17th, five Snipe.

Tuskar Rock.—Oct. 29th, one Snipe killed striking; light mist.

Copeland Island. — Snipe breed here. Oct. 10th, two killed striking; wind N., light drizzling rain.

South Maidens. — Oct. 19th, one Snipe killed striking; wind fresh S.S.W., clear.

Rathlin Island. — Aug. 9th, one Jack Snipe killed striking; wind light S.E., cloudy.

Arranmore.—Nov. 20th, one Snipe; 30th, one.

Rathlin O'Birne.—Oct. 18th, two Snipe on the shore.

Blackrock Mayo. — Oct. 14th, one Jack Snipe, 1 p.m.; wind W., light.

Clare Island.—Feb. 28th, a few Snipe flying W.; wind S.W. Oct. 20th, Snipe on marshy land, flying in different directions.

Tearaght. — Feb. 18th, one Snipe, 10 a.m.; wind light S.W., fine; previously stormy. Nov. 20th, one; 23rd, three; left about a fortnight afterwards.

Skelligs.—Jan. 12th, 1884, Snipe seen.

CORN CRAKE.

Tuskar Rock.—April 27th, came on rock in night. May 8th, another; 16th, one much exhausted; 29th, one.

Kish Bank Light-ship.—May 16th, one struck lantern, 11.10 p.m., killed; wind light, clear.

Rockabill.—July 30th, one caught on rock.

Rathlin Island.—May 13th, heard for first time.

Oyster Island, North.—May 17th, Landrail first heard.

Skelligs.—May 5th, one seen, very rare

WATERHEN.

Old Head, Kinsale.—Nov. 8th, five Waterhen.

Coningbeg Light-ship.—Oct. 8th, one alighted on ship, 6 a.m.; calm, thick fog.

COOT.

Old Head, Kinsale.—Nov. 8th, twenty Coot (a marsh near).

GEESE.

Old Head, Kinsale.—Feb. 10th, three Wild Geese, came from S. Oct. 15th, three going N.

Dungarvan.—Nov. 20th, eleven flying N. and very high.

Rockabill.—Oct. 28th, six going E. in the morning; weather gloomy.

Copeland Island.—April 12th, eight going from mainland towards Scotch coast. Dec. 10th, eight Wild Geese rested on island, came from N.; wind S.W., fresh, rain.

South Maidens.—June 12th, twelve Wild Geese.

Rathlin Island.—Oct. 23rd, two Wild Geese, 7 a.m.; wind strong N.W.

Innishtrahull.—Jan. 24th, flock of thirty Barnacle; wind S.W., strong. March 12th, fifteen going N.; wind S.W., strong. 14th, twenty-four Wild Geese; wind S.W., gale. 15th, six Barnacle; wind strong W., squally. Oct. 13th, one Wild Goose; wind S., fresh. 23rd, nine Barnacle; 24th to 28th, nine to twenty Barnacle. Dec. 14th, three Wild Geese; 17th, seventeen Barnacle.

Dunree Head.—Aug. 1st, one hundred Barnacle flying very high to the N. Sept. 12th, about two hundred Wild Geese flying low to the N. Oct. 14th, several flocks of Barnacle going S.; wind N.W., strong. 24th, twenty Wild Geese going S.

Tory Island. — Oct. 7th, 8th, and 12th, flocks of Wild Geese, 4 to 6 a.m.; wind W. and S.W., going W. and S.

Arranmore. — January, thirty-six Barnacle; these birds have remained all the winter; have not done so for years before. Feb. 4th, twenty-two. March 2nd, two flocks passing. Sept. 30th, one Barnacle; wind N., fresh. Oct. 20th, one; 31st, a flock, and flying all night for many nights, in great quantities, in the direction of Sligo. For the last two winters numerous flocks of Barnacle have remained on island. On Nov. 7th, 24th, 29th, and Dec. 25th, flocks are entered.

Rathlin O' Birne. — Oct. 24th, thirty-six. Nov. 4th, twenty came from N., and passed over island to S.E.: 12th, six; 16th, small flocks coming from N., and passing S. all day. Dec. 7th, eleven on island grazing. 11th, six ditto; two were shot.

Killybegs. — Aug. 17th, two Wild Geese, rested and flew N. Sept. 2nd, about forty at a great height, flying N.; 27th, thirteen seen. Oct. 30th, eight Wild Geese generally take a S. to S.W. course, beginning about the end of September and continuing up to the end of December, and usually travel high; but they sometimes stop to feed and rest.

Oyster Island, North. — "During the winter months a considerable number of Barnacle arrive, some of which remain, and others pass further south, the time of their arrival and departure apparently depending on the severity of the season or otherwise." Entries of small flocks occur from Sept. 9th to Oct. 5th. Larger and more frequent flocks on Oct. 8th, 13th, 15th, Nov. 22nd, 29th, 30th, and on Dec. 5th; in almost every case the direction of flight is S. or S.E. On Dec. 6th, 15th, and 17th, large flocks passed in the opposite direction. On Dec. 22nd continuous flocks again passed S.E., and on Jan. 5th, 1884, a small flock. The direction of flight was apparently independent of the direction of the wind or state of the weather.

Broadhaven. — Dec. 20th and 26th, Barnacle and Wild Geese. They frequent the place in winter.

Blackrock Mayo. — Nov. 21st, twenty Barnacle flying S.E.

Clare Island. — Oct. 6th, about two dozen Wild Geese flying high to S.W.; wind W., light.

Slyne Head, North. — Nov. 12th, five to twelve Barnacle at intervals; wind N.W., one shot. Are very common; arrive Nov. 1st and remain to March 1st.

Straw Island.—March 16th, twenty Wild Geese, passing N.; wind light S.W. Oct. 29th, twenty-two, 5 p.m., going N., high, calm.

SWANS.

Rathlin Island.—Nov. 23rd, "A Black Swan shot by the rector on one of the lakes on the island."

WILD DUCK.

Fastnet.—Nov. 3rd, flock flying to E. Jan. 3rd, flock flying E.

Old Head, Kinsale.—Nov. 8th, ten Wild Duck; two shot.

Dungarvan.—Oct. 28th, large flock. Nov. 3rd, fifty. Dec. 23rd, four "Shelldrakes."

Barrels Rock Light-ship.—Sept. 10th, 12th, and 15th, a few Wild Duck flying high to S. Nov. 16th, a large flock flying N.E. Dec. 7th, 14th, and 19th, two to seven at intervals.

Tuskar Rock.—Nov. 14th, seven Wild Duck came from N.W. and flew round rock.

Arklow North Light-ship.—Dec. 1st, a large flock going N. Feb. 6th, 1884, flock going N.E.

Kish Bank Light-ship.—May 13th, a flock passing E. to W., 7.30 a.m. Oct. 6th, twelve at 10.45 p.m., flying high to N.W.; weather hazy. Nov. 29th, thirteen flying N.W.

Copeland Island.—April 12th, thirty left Mew Island after remaining all the winter; wind light E., clear. Oct. 16th, several flocks of Teal and Duck on Mew Island; wind S.W., strong.

South Maidens.—April 14th, twenty-four Ducks; hazy, with rain. Oct. 20th, twelve, 10 a.m., went towards Scotland; wind W.S.W., strong.

Rathlin Island.—Nov. 6th, five at 8 a.m.; wind S. Dec. 6th, two going E.; wind N.E.

Innishtrahull.—Nov. 6th, one "Shelldrake," 2 p.m.; wind N., fresh.

Dunree Head.—Nov. 7th, about one hundred Wild Duck flying high to S. Dec. 22nd, about fifty swimming opposite lighthouse all day.

Tory Island.—Nov. 23rd, Dec. 1st, 2nd, and Jan. 1st, one to three going S. or W.

Arranmore.—April 5th, two arrived to breed. June 18th, three

seen. On Nov. 3rd, 10th, 28th, and Dec. 13th, Wild Duck seen. One "Shell Drake" on Nov. 18th and 26th.

Killybegs.—"I saw, in December, 1882, some Teal, but none since."

Oyster Island, North.—"During the winter months a considerable number of Widgeon arrive; some remain, and others pass further south." Dec. 24th, continuous flocks going S.E.

Clare Island.—December. A few Wild Duck on a lake during this month.

Straw Island.—Feb. 13th, thirty, 10 a.m., remained on rock a short time, and went S. Oct. 28th, thirty going S.E.; wind light S.

Arran Island, South.—Dec. 6th, twenty Wild Duck went S.; wind E. 30th, twenty went S., wind E.

MERGANSER.

Dungarvan.—Dec. 5th, four coming from S.E.

GREAT NORTHERN DIVER.

Old Head, Kinsale.—Jan. 20th, six passing S.W.

Dungarvan.—Jan. 9th, two feeding near station.

Tory Island.—Sept. 22nd, two "Speckled Diver," 8 a.m., going S.E.

Arranmore.—April 7th, a Great Northern Diver shot on rock.

Killybegs.—The Northern Diver visits us in the autumn and leaves early. I have never seen more than three together.

Clare Island.—During December a few of the Great Northern Diver.

GUILLEMOT.

Rathlin O' Birne.—March 31st, ten, and April 1st, thirty alighted on rock at shore.

Clare Island.—A large number this year.

Tearaght.—Jan. 20th, Guillemot first observed round island on the water. Feb. 19th, about fifty came on rock for first time; left about Aug. 1st.

Skelligs.—Nov. 20th and Dec. 11th, a few Guillemots fishing in shelter of rock; wind N.W. to W., strong gale.

Barrels Rock Light-ship.—June 15th and 19th, "Murs" in flocks, flying in different directions. Dec. 10th, large flocks of "Murs"; also on 23rd and 26th; flocks also on 29th, 30th, Jan. 8th and 15th.

PUFFIN.

Galley Head.—Feb. 12th, twenty going W. ; 16th, nine ditto. April 29th, continuous flocks, from seventy to one hundred in each, going W. From May 6th to 13th, 18th to 27th, and June 16th to 25th, continuous flocks, and occasional flocks to July 16th ; all going W.

Old Head, Kinsale. — Jan. 23rd, continuous flocks, 9 a.m. to 3 p.m. ; wind fresh S. Large numbers going S. on Feb. 7th, 20th, 22nd, and March 17th ; continuous flocks on March 5th. From Oct. 7th to 10th, some hundreds going S.

Coningbeg Light-ship. — April 21st, continuous flocks flying S.W. ; 26th, flocks. Nov. 16th, flocks, 9 to 11 a.m. ; 21st, 23rd, Dec. 9th and 14th, flocks ; passing continuously on Nov. 29th and Dec. 19th ; wind W. to S.W.

Dungarvon.—Nov. 6th, a great number.

Tuskar Rock.—From June 13th to 18th, “Puffins and Sea-parrots” alighted in large flocks. Aug. 20th to 22nd, Puffins in hundreds on rock.

Rathlin Island.—April 12th, “Parrots, Bridle Nebs,” &c., begin to arrive ; 22nd, arrived in full force and took possession of the cliffs. The Sea-parrots hatching on the cliffs are not at all as numerous as last year.

Innishtrahull. — Dec. 8th, “three Sea-parrots and twenty Puffins.” January, 1884, a few “Puffins and Sea-parrots through the month.”

Lough Swilly.—April 19th, several flocks of Puffins. June 1st, Puffins passing and re-passing.

Arranmore.—March 12th, Puffins passing.

Rathlin O’Birne.—May 14th, Puffins passing S. In June, about the island.

Killybegs. — April 22nd, Puffins arriving in large numbers about this date, coming early each morning and leaving in the evening, flying W. Aug. 14th, Puffins leaving, going W. They arrive about the month of July, and are to be seen in thousands until October.

Oyster Island, North.—April 19th, several during day. May 29th, small flocks.

Black Rock, Mayo.—Sept. 9th, Puffins on water round the rock ; a few nearly every day during September and October.

Clare Island.—March 15th, about fifty; wind N.N.E. Generally arrive latter part of March, and leave towards the end of August. A large number this year.

Straw Island.—March 17th, forty Puffins remained two days; wind S., hazy fog. April 9th, twenty "Sea-parrots," wind S.W., strong. Aug. 20th, forty-four going S. They arrive early in spring and generally leave in September, and breed on the middle island of Arran.

Tearaght.—"April 1st, the Sea-parrots arrived; not so plentiful as in previous years. Aug. 20th, only about half a dozen Sea-parrots on the island; left about this date. When they arrive on April 1st they remain perhaps a week on the water before they come on the island; then they mostly rise in one body, and hover some time before they rest. They all go down to the water again when getting dark, except when breeding; those hatching remain. As a rule there is a rush to the island every day about 4 p.m. Sometimes there are two rushes in the day. Their fighting propensities are often put into practice, and when so engaged they can readily be captured; their fight only ends when they have reached the sea, after having tumbled sometimes all the way from the highest pinnacle of the island."

Skelligs.—Nov. 20th, a few Puffins fishing in shelter of rock; wind N.W., gale.

RAZORBILL.

Clare Island.—April 30th, two to four dozen Razorbills at 9 a.m.

Tearaght.—March 19th, great numbers of Razorbills first observed; 20th, first rested on rock. Left about Aug. 10th.

Skelligs.—Sept. 16th, large flocks flying S.S.W.; wind S.E. Nov. 20th, flocks fishing in shelter of rock, mostly young birds; wind N.W., strong gale. Dec. 11th, Razorbills fishing in shelter; wind W., strong gale.

CORMORANT.

Tuskar Rock.—April 27th, the Cormorants have totally deserted the rock.

Rockabill.—Oct. 30th, Cormorants all day; they leave the rock in April, and are back this month.

Rathlin Island.—June 22nd, five seen. Aug. 17th, three. Dec. 4th, 5th, and 9th, one to six.

Tory Island.—Dec. 11th, six on rock at 9 a.m.

Killybegs.—May 2nd, Cormorants to the number of about forty observed. Aug. 26th, about seventeen. The greater number leave about the end of December, but some remain all the winter.

Blackrock, Mayo.—Sept. 30th, five flying S.E. A few nearly every day during September and October.

Clare Island.—Cormorants are seen all the year round.

Slyne Head, North.—The Cormorant leaves to breed elsewhere.

Straw Island.—Feb. 22nd, Cormorants at all hours. Remain during the year, generally fishing singly. Sept. 24th, ten.

Arran Island, South.—Nov. 11th, eleven Cormorants seen at intervals along the shore.

Valentia.—Sept. 20th, four. Nov. 16th, two; 22nd, five. Dec. 5th, eight; also on 21st and 24th.

Skelligs.—One or two entered on Sept. 20th, Oct. 12th, and during December.

Dursey Island.—A few noted on April 11th and July 13th, and one to four seen at intervals from Sept. 27th to Dec. 18th.

GANNET.

Galley Head.—Five to twelve going W. on Jan. 29th, Feb. 7th, April 11th, May 14th, 18th to 27th; continuous flocks of Gannets going W. on March 19th, 20th, 27th, 28th, June 16th to 25th; and in less numbers to date of sending schedule, July 16th. No entry of Gannets going E. at this station except on April 20th. One or two grey or young Gannets seen on May 14th and June 16th.

Old Head, Kinsale.—Jan. 20th to 23rd, continuous flocks passing S.W. Large flocks on Feb. 7th, 22nd, and March 17th. On Oct. 5th and 6th, some hundreds going S. Nov. 5th, forty-five going E.; 20th, Gannets.

Coningbeg Light-ship.—April 29th, four flying W. June 6th, two Gannets, and at intervals to end of month. Oct. 15th, four flying E.; and from 31st to Dec. 1st, one to five passing at intervals.

Barrels Rock Light-ship.—April 27th, May 18th, 20th, and 26th, occasional Gannets flying W. June 27th, Gannets in twos and threes. Oct. 23rd, occasional Gannets, and a few at intervals until January.

Arklow South Light-ship.—March 10th, a flock; 26th, seven. During April flocks at intervals, especially towards end of month. In May two to seven passing at intervals in various directions. During June, July, August and September a few Gannets seen frequently. In October less common.

Arklow North Light-ship.—Gannets noted at intervals during April, May, and June; May 1st and 12th, flocks continuous. Flight generally N.E. September, flocks at intervals.

Kish Bank Light-ship.—Three entries of Gannets in May, one in June, and one in July; direction of flight different in each case. Oct. 3rd, six flying S.W. Nov. 23rd, flocks from 10 a.m. to 4 p.m. going to S.W.

Copeland Island.—Gannets remain about the island all the year. In August this year large numbers fishing in vicinity.

South Maidens.—Two entries of Gannets in April. Oct. 20th, two seen.

Rathlin Island.—Fourteen entries occur in schedule between March 28th and June 17th; in eleven the direction of flight was entered, and in all it was towards the west, and seemed independent of the weather. On April 13th, 19th, 21st, May 4th, 7th, 12th, 13th, 23rd, and June 2nd the flocks were passing all day. During August four entries occur, but direction of flight is not given. One entry in October.

Innishtrahull.—Jan. 8th, four Gannets; wind strong S.W.

Lough Swilly.—May 1st, 20th, and July 30th, a few noted.

Tory Island.—Nov. 13th, two going E.; noon.

Arranmore.—March 9th and 26th, four to six passing all day. Oct. 14th, twelve.

Rathlin O' Birne.—April 6th and 18th, a few. May 14th and 18th, continuous flock all day going S. In June Gannets around island at intervals. Sept. 9th, 19th, a few. Oct. 5th and 6th, hundreds; most left about Oct. 17th.

Killybegs.—April 9th, two; 12th, about thirty, usually in pairs. Aug. 14th, Gannets leaving. Gannets begin to arrive in June, sometimes earlier, and mostly leave in September; their movements are very uncertain.

Oyster Island, North.—Gannets noted at intervals from April 5th to 18th.

Blackrock, Mayo.—To be seen nearly every day during September and October.

Slyne Head, North.—Aug. 1st, numbers of young Gannets are to be seen. Gannets entered on Aug. 10th, 17th, very common, and flocks at intervals on Nov. 17th; and thirty on Nov. 25th.

Straw Island.—Feb. 10th, fifteen Gannets seen at 2 p.m., strong breeze, W., going S. Gannets entered on Aug. 8th, Sept. 3rd, and Oct. 11th, generally hovering about. It generally makes its appearance with various kinds of fish, mackerel, pilchards, &c.

Arran Island, South.—Nov. 29th, two at noon; remained three days.

Skelligs.—Sept. 20th, several fishing. Nov. 20th, saw no Gannets since Oct. 29th.

Dursey Island.—Seven to thirty noted at intervals during April and on May 11th and 29th; flight generally W. or N.W. A few noted Aug. 11th; Sept. 6th, large flocks all day going S.; and a few on Sept. 28th.

TERN.

Copeland Island.—The Terns appear on Mew Island to breed on May 15th and 16th. They come in the night, at first in small numbers, increasing each night for ten or twelve nights, when many hundreds are to be seen. Sept. 19th, some hundreds of Terns left Mew Island on this date; wind S.E., light misty rain. Heard leaving during night.

Rathlin O' Birne.—Terns arrived at usual time; they breed on island outside lighthouse.

Oyster Island, North.—April 8th, five Terns passing S.; 12th, several during day.

Slyne Head, North.—May 20th, the Tern arrives for breeding, and continues until about Aug. 2nd.

GULLS.

Galley Head.—June 1st to 15th, large flocks of Gulls after fry.

Old Head, Kinsale.—Oct. 7th to 10th, some hundreds going S. Nov. 20th, Grey Gulls.

Coningbeg Light-ship.—April 22nd, flocks of Grey Gulls; 26th, ditto. June 13th, ditto. Nov. 21st, flocks of small Gulls.

Dungarvan.—Nov. 6th, a great number.

Barrels Rock Light-ship.—July 3rd and 9th, Sea Gulls in flocks, flying E. after fry. During November and part of December large flocks apparently after small fish, working east and west with the tides.

Tuskar Rock.—From June 13th to 18th, Gulls alighted in large flocks.

Arklow North Light-ship.—April 1st, continuous flocks of Grey Gulls going N.E.

Kish Bank Light-ship.—Flocks of Grey Gulls noted on May 8th, 25th, and June 15th. Oct. 16th, flock of Grey Gulls hovering about all day. Nov. 27th, a flock all day after fry.

Rockabill.—Gulls come in April and leave at the end of September.

Copeland Island.—Herring Gulls remain about the island all the year. In August a large number of Grey and Royal Gulls fishing in vicinity.

Rathlin Island.—Flocks of Gulls on March 29th, May 1st, 18th, 22nd, June 8th, 20th, and 27th; direction of flight not given. Flocks during August of twenty to thirty Royal Gulls at intervals. Two or three thousand Kittiwakes on 11th and 30th. Entries of Gulls occur twice in November, and large flocks going S. on Dec. 17th, 21st, and 30th.

Innishtrahull.—Dec. 25th, two Royal Gulls.

Lough Swilly.—April 1st, a few; 6th, several; 19th, in great numbers. May 1st, ditto. May 20th and June 1st, Gulls. July 27th, very numerous all day.

Tory Island.—Sept. 5th, a flock of "Common Gulls" flying W. Nov. 15th, three Black-backed Gulls at 8 a.m., going E.; 28th, a flock of Gulls.

Arranmore.—March 12th, Gulls passing.

Rathlin O'Birne.—Flocks of fifty to one hundred on April 10th, 12th, 28th, and May 8th. In June, Gulls about island. Flocks of Gulls from one hundred to thousands on Aug. 31st, Sept. 19th, 20th, 30th, Oct. 5th, and 6th. The greater number left on Oct. 17th. On Nov. 4th, 22nd, and Dec. 7th, eighty to one hundred all day.

Killybegs.—Gulls of the grey species to the number of about two hundred remained here during spring, coming in the morning and departing in the evening to the cliffs around Slieve League. Thousands of Kittiwakes arrived about beginning of

May, and still (August) remain. Aug. 14th, several hundreds leaving. Kittiwakes and Grey Gulls usually arrive in large numbers about June or July, and leave towards the end of September; but a few, notably the large grey kind, remain all the month.

Oyster Island, North.—Gulls noted on April 12th, 18th, 22nd, May 24th, and 29th.

Broadhaven.—Oct. 10th, three dozen Kittiwakes; 24th, four dozen Black-headed Gulls.

Blackrock, Mayo.—Sept. 9th, flocks of small Gulls on water. Sept. 22nd and Jan. 5th, 1884, two Royal Gulls. Large and small Gulls nearly every day during September and October.

Clare Island.—March 15th, about a dozen small Sea Gulls during day. A large number of Gulls of different species in the cliffs near lighthouses this year. Kittiwakes are here all the year.

Slyne Head, North.—Gulls noted on Aug. 20th and Nov. 17th.

Arran Island, North.—Nov. 14th, ten; wind fresh W.S.W.

Straw Island.—Feb. 13th, the Grey and the Royal Gull continually in vicinity of lighthouse. The Grey Gulls remain during year. Gulls entered Aug. 13th, Sept. 1st, and Oct. 5th (Royal). Flight generally S.W.

Arran Island, South.—July 25th, fifty Sea Gulls. Nov. 27th, Sea Gulls about shore to be seen at all times.

Tearaght.—Feb. 6th, Kittiwakes first came on rock about this time; left about Sept. 1st. "They commence to build about May 1st. On May 24th only two eggs were found among hundreds of nests. The nest-building is carried on by some after hatching has commenced with others. A difficult business this nest-making seems to be, as the mud or clay which makes up the foundation has to be carried from some soft bank. Hundreds of them are employed about six weeks at this operation, some going with the very small portion of mud they are able to take in their beaks, others coming for more, the bank covered over with more in the act of digging out. The whole is a continuous busy scene."

Valentia.—Royal Gulls, one to four, Sept. 10th, 30th, Oct. 28th, and Nov. 10th.

Skelligs.—Sept. 16th, observed large flocks of Kittiwakes flying S.S.W.; wind S.E. Grey Gulls noticed from September

to January, and two to four Black-backed Gulls occasionally. Kittiwakes fishing in shelter of rock, Nov. 20th and Dec. 11th; wind strong gale, N.W. and W.

Dursey Island. — Large flock of Gulls noted on April 7th, 25th, 27th, and May 5th. A few on May 27th, and at intervals to July. Large flocks on Aug. 25th and Sept. 18th, going W. Four Royal Gulls on Dec. 22nd.

SKUA GULL.

Galley Head. — Jan. 20th, flocks of five to seven Skua Gulls going W.

Coningbeg Light-ship.—Oct. 28th, two Skuas chasing Gulls.

Tuskar Rock. — June 7th, flocks alighted on rock four mornings in succession at same hour. Aug. 20th to 22nd, Skua Gulls in hundreds.

Lough Swilly.—June 22nd, one “Boatswain Skua Gull.”

Valentia.—Nov. 22nd, four Skua Gulls.

MANX SHEARWATER.

Barrels Rock Light-ship.—July 6th, “Mackerel Cocks” flying in different directions.

Rathlin Island. — April 12th, Shearwater began to arrive; 22nd, more arrived.

Tearaght. — Jan. 30th, “Mackerel Cock” in great numbers diving round rock; observed a fortnight previous to this date. Feb. 25th, “Mackerel Cock” (believed to be) left, always diving, and did not come on rock. April 5th, note of the Shearwater first heard. Nov. 21st, “Mackerel Cock” diving about the rock pretty plentifully. Not certain about this bird. The Manx Shearwater left about Aug. 1st. It was heard frequently during the summer, and always on very dark calm nights. The sounds, being frequent and distinct, were very impressive. When the moon would rise, or it would clear, a single note was not to be heard.

STORMY PETREL.

Coningbeg Light-ship. — Oct. 9th, five Mother Carey's Chickens caught on deck, 5 a.m.; wind light, hazy. Oct. 15th, two Stormy Petrels about ship; 28th, two caught on deck, 10.30 p.m.

Arklow South Light-ship.—April 24th, one; wind light E.

Tearaght.—Stormy Petrel very plentiful this year. They are not much observed until July, from which time they continue breeding until September. They make a noise which is a continuous chain of articulations, and might be heard on a calm night a distance of 300 feet; this noise is kept up by those in the holes as well as those on the wing.

Skelligs.—Sept. 4th, two struck, 10.30 p.m., not killed; did not notice any after this date. They breed here.

BIRDS NOT IDENTIFIED.

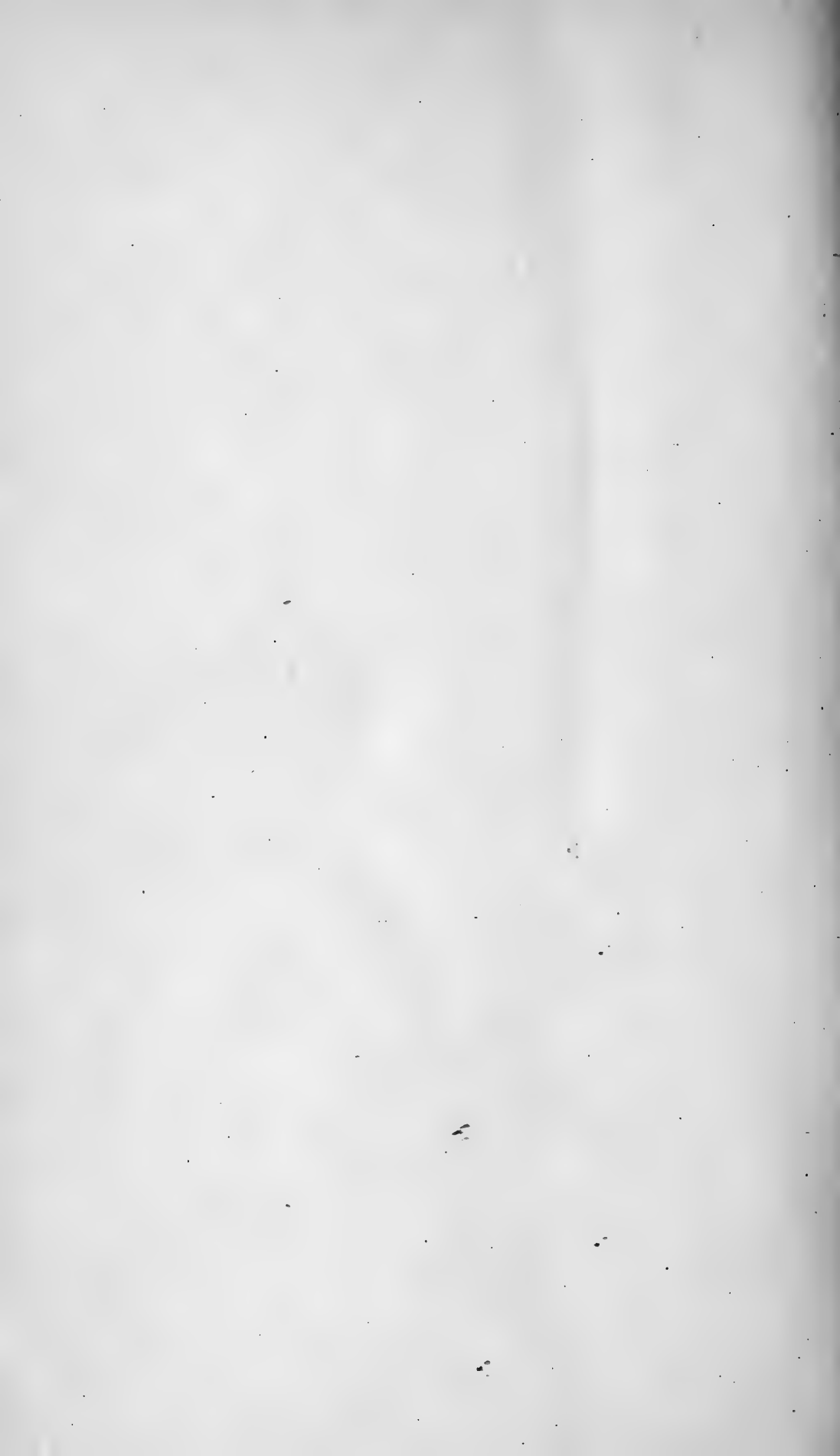
Rockabill.—“March 6th, large bird, name unknown, killed striking, at 3 a.m.; wind N., fresh, cloudy. Had long bill, and long black legs.”

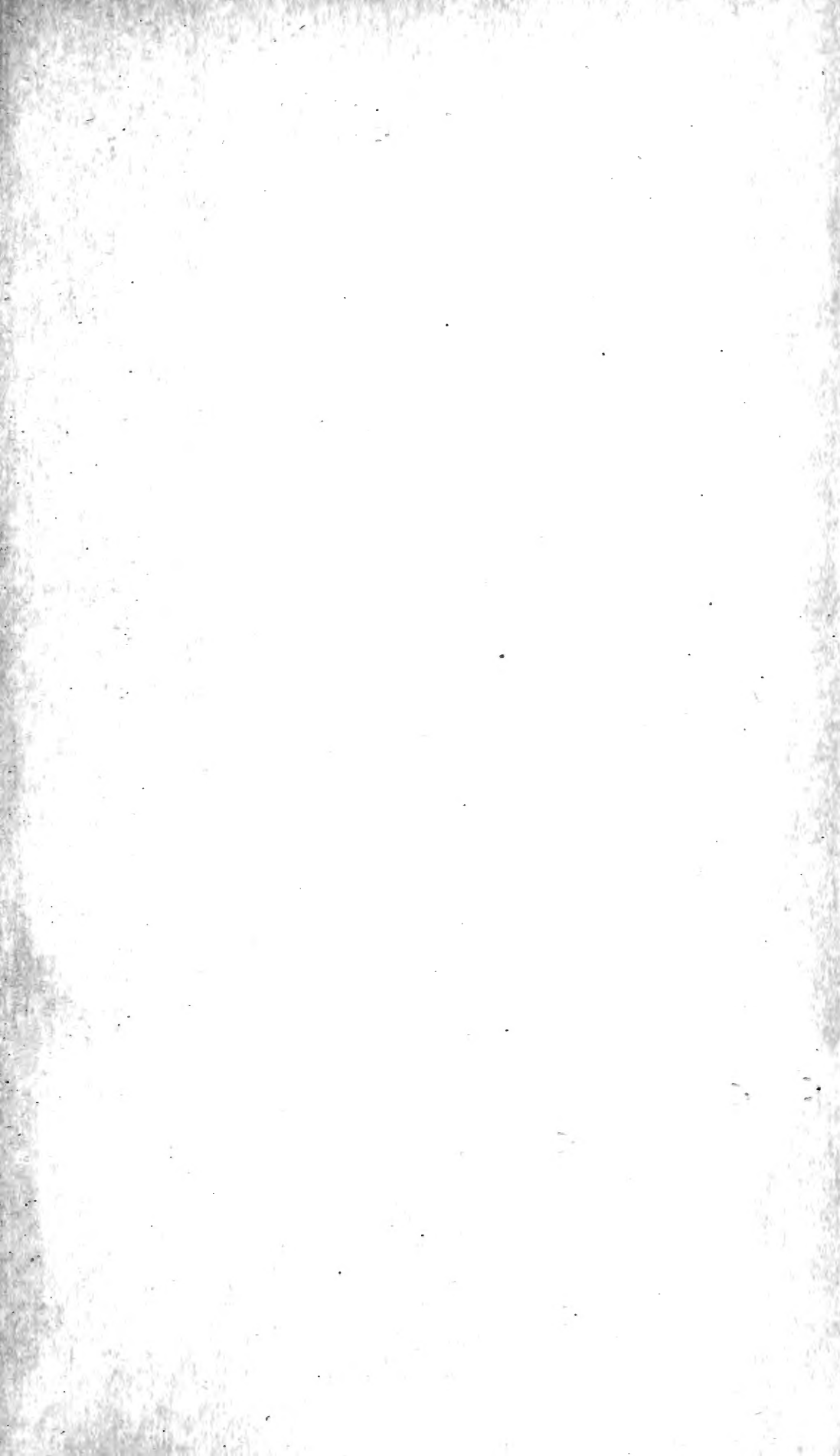
Killybegs.—April 8th, “three strange birds, name unknown. White fan-shaped tail, tipped with black; wings white, tipped with black; white ring round neck; size of Sparrow; came from seaward, and remained several days.”

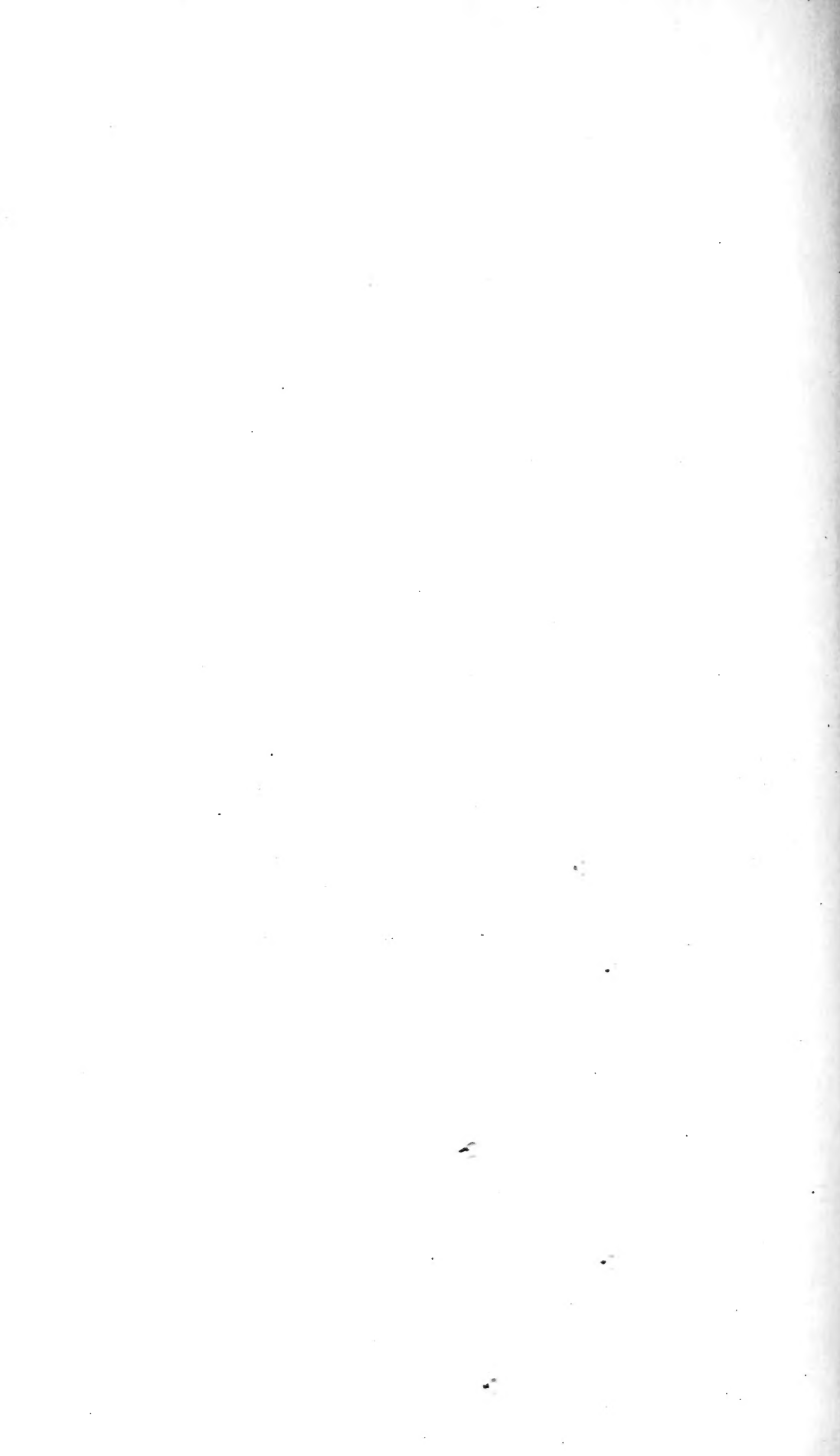
Tearaght.—May 20th, “one bird, not known, about the size of a Lapwing; colour of a Grey Plover, land-bred, fan-tail, tips of feathers of tail white, chased by Crows.”

Tearaght.—Oct. 28th, “small bird, size of a Linnet; shoulders red or copper-colour; breast and belly grey, also round neck; head tufted. It remained about a week.”

Tearaght.—Nov. 18th, “a bird about the size of a Linnet came on island; above eyes a white curved streak; eyes and round eyes black; under head, round breast, a white ring, thence down belly, wings, and back of a reddish or copper-colour; some white feathers in wing; top of head black, and tail appears narrow and black. Two of these, one readily distinguished from the other.”









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Date Due

