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REPORT

ON THE

MIGRATION OF BIRDS.

FOURTH REPORT, 1882.

LONDON:

PRINTED BY WEST, NEWMAN & CO., 54, HATTON GARDEN.

1883.

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MIGRATION OF BIRDS

IN THE

SPRING AND AUTUMN OF 1882.

BY

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

“It is much to be wished that some of the light-keepers of our lighthouses would make notes of their observations concerning seals, whales, birds, fishes, and other animals. Such records would be valuable; and might not some of them occupy their leisure hours in the study of Natural History? . . . Interesting observations would then certainly be made, and new facts added to our stores of knowledge.”—
‘CHAMBERS’ JOURNAL,’ p. 831; Dec. 23, 1876.

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1883.

(*East Coast of Scotland*, p. 1.)

“ Whither, midst falling dew,
While glow the heavens with the last steps of day,
Far, through their rosy depths, dost thou pursue
Thy solitary way?

* * * * *
Seek'st thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
On the chafed ocean's side?

* * * * *
All day thy wings have fanned
At that far height, the cold, thin, atmosphere,
Yet stoop not, weary, to the welcome land,
Though the dark night is near.”

CULLEN BRYANT.

(*East Coast of England*, p. 27.)

. “ Wild birds that change
Their season in the night, and wail their way
From cloud to cloud,”

(*West Coast of Scotland*, p. 55.)

“ Where the Northern Ocean in vast whirls
Boils round the naked, melancholy Isles
Of further Thule,
* * * * *
Who can recount what transmigrations there
Are annually made? What nations come and go?
And how the living clouds arise,
Infinite wings! till all the plume-dark air
And rude resounding shore are one wild cry?”

(*Irish Coast*, p. 73.)

“ Islets, so freshly fair,
That never hath bird come nigh them,
But from his course thro' air
He has been won down by them.”

PREFACE.

THE following Report contains a summary of investigations of a Committee, appointed by the British Association for the Advancement of Science, at Southampton, in 1882, to consist of Professor Newton, Mr. J. A. Harvie Brown, Mr. John Cordeaux, Mr. Philip M. C. Kermode, 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 upon the same at Southport in 1883. Mr. Cordeaux to be the Secretary.

An abstract of the Report was read by Mr. John Cordeaux at the Meeting of the Association, held at Southport, in September, 1883.

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.

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FOURTH REPORT:
ON
THE MIGRATION OF BIRDS
IN THE
SPRING AND AUTUMN OF 1882.

EAST COAST OF SCOTLAND, &c.

FAROE.—From Faroe, thanks to Herr Müller, we have the following Report:—In spring one *Recurvirostra avocetta* was seen on May 30th, and two Arctic Terns on same day; wind W., and sunshine. Of *Anatidæ*, *Ædemia nigra* occurred on May 15th at Strómóe, and two, male and female, on 27th at same place. Two also, male and female, seen at same place in the plumage of the second year at Kalbat, Strómó, on June 2nd. In autumn,—*i. e.*, taking certain occurrences after the middle of June as “autumn manœuvres,”—of *Turdidæ*, six or more Fieldfares were killed or seen at Thorshavn on Dec. 7th, easterly breezes having prevailed. Of *Phylloscopinæ*, a rush of *Regulus cristatus* appears to have taken place on Oct. 21st, as many were seen at Thorshavn and elsewhere, and dead ones brought to Herr Müller. One dead Robin was brought from Kollefjord, and several more had been seen on the same date. One *Caprimulgus eurōpæus* was sent from Gauredal on June 16th. *Loxia curvirostra* appeared round Thorshavn for several days, and are recorded on June 29th, and again on July 9th, on which latter date those killed with stones at Tofle were in good condition. One Common Swift was caught on board a fishing-smack mid-

way between Iceland and Faroe, also on June 29th. One White Wagtail, *Motacilla alba*, appeared with N. wind on July 30th. One female Roller, *Coracias garrula*, was shot at Thorshavn on July 22nd, wind E., and one Pomatorhine Skua was seen on July 25th. One Woodcock was shot in Vaagó, Suderó, during a S.E. storm, in clear weather; and of *Cygnidæ*, in all eleven—4 and 7—Wild Swans flew past high in air from N.W. to S.E. on Nov. 5th. On Nov. 4th was N.E. wind, but on 5th N.W. and W. and showery. The prevailing winds at the Faroe Isles were easterly; in October, from the 7th to the end of the month, steady easterly and S.E.

The ordinary papers, &c., were sent to thirty stations on the East Coast of Scotland, Faroe, and Iceland, as was done in 1881.

Twelve stations on this coast have returned filled-in schedules,—the same number as in 1881,—out of the twenty-six East Scotch stations. As formerly, many returns are light, but those from Isle of May, Pentland Skerries, and Sumburgh Head are fuller than before, again indicating favourite highways of migration. Bell Rock returns are also very full, but not so full as Isle of May nor Pentland Skerries. From Isle of May alone I have no less than nineteen schedules, and I have also to thank Mr. Agnew for a jar of forty-three specimens of birds, besides others sent me in the flesh or carbolised. At another time I intend to write more fully concerning the birds of the Isle of May, which is a locality of special interest to the student of migration.* From the Pentland Skerries I have nine filled-in schedules, and from Sumburgh Head four; from the Bell Rock three closely-filled schedules.

Here follows the usual list of stations issued with each Report on the same plan as before, the dates of years upon which the various stations have sent in Reports being shown by asterisks.

Our thanks are especially due to those observers who have noted, as far as possible, the *directions of flight* of the birds

* I intend to present the collection of birds formed on the Isle of May to that station, to lie there in the skin, and serve both to identify birds in future and to be of interest to visitors who annually visit the Isle of May.

noticed. If this were done at all the stations returning schedules it would in a marked degree assist our generalisations.

EAST COAST OF SCOTLAND.

1879, '80, '81, '82.

*	*		4. North Uist, Shetland	...	230 ft.	
	*	*	5. Whalsey Skerries, Shetland	145 ,,		Nevin Kerr.
		*	6. Bressay, Shetland	...	105 ,,	
*	*	*	7. Sumburgh Head, Shetland	300 ,,		J. Wilson.
			7B. Fair Isle	...	?	

ORKNEY.

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

MAINLAND.

*	*	*	15. Dunnet Head, Caithness	...	346 ,,	D. Laidlaw.
			16. Holborn Head, Caithness		75 ,,	
			17. Noss Head, Caithness	...	175 ,,	
			18. Tarbat Ness, East Ross	...	175 ,,	
	*	*	19. Cromarty, East Cromarty	60 ,,		R. S. Ritson.
	*	*	20. Chanonry Point, Elgin	...	40 ,,	John McGill.
			21. Covesea Skerries, Elgin	...	160 ,,	
	(a)		22. Kinnaird Head, Aberdeen	120 ,,		D. M. Scott.
			23. Buchan Ness, Aberdeen	...	130 ,,	
	*		24. Girdleness, Aberdeen	...	185 ,,	
			25. Montroseness, Aberdeen	...	124 ,,	"No birds."
*	*	*	26. Bell Rock, Fife Coast	...	93 ,,	James Jack.
*	*	*	27. Isle of May, Firth of Forth	240 ,,		J. Agnew.
	*	*	28. Inch Keith, Firth of Forth	220 ,,		R. Grierson.
			29. St. Abbs Head, Berwicks.	224 ,,		

It will be seen from the above that there is a long extent of coast-line whence I have scarcely received any returns since the beginning of the scheme, *viz.*, in Aberdeenshire. Is this *always*

(a) Describes a bird but no schedule.

due to actual scarcity of birds there, or to want of observing and recording? I cannot tell, as I never receive any communications positive or negative from these stations, except from Girdleness, whence last year I had a brief return. At Montroseness scarcity of birds, indeed almost utter absence, is the reason of no returns in most years, and we can hardly ever expect much from it owing to its position—"So near the town and all the paraphernalia of commerce," as Mr. P. E. Reid, the lighthouse-keeper, informs me. He says, "I have never been at a station where fewer birds come near the light; not over half a dozen for the past year, and these were, we suspect, Gulls." At Nosshead, Mr. Alex. Greig, not knowing the names of some of the birds, thought it "better not to send in a report that would be incorrect"; but if he sends me in a report on those he does know the name of; or some dates, and the winds prevailing at the time of great rushes of birds, without the names of the birds, such would be very useful. "Small birds" or "large birds" have a value to me in recording, though the names are not given. That a migration was observable in 1882 at Nosshead is a *fact*, obtained from Mr. Greig's reply to my post-card, and may prove a useful fact in arriving some day at conclusions.

I fear it is not to be expected that we get any returns from the Whaling Captains, the arduous duties they are engaged in making them always too glad of complete rest when obtainable. Our thanks are due to Mr. T. Southwell, however, for speaking to some of them on the subject; our own application, by distributing circulars at Dundee with the assistance of Mr. P. Henderson, naturalist of that town, not having produced any results.

I have received occasional notes from Mr. Anderson's log, through Mr. R. Gray (see GANNET, &c.). Mr. Anderson has again taken duty on an Atlantic Liner, after a temporary engagement in the Mediterranean, so we may hope to hear further of him and his observations.

As before, notes I have received from other sources besides the lighthouses I will enter after the paragraphs on each species or group. These are to be taken simply as corroborative evidence, or otherwise, of the lighthouse reports, or as supplementary to them.

Notes have been kept upon about twenty-two species of Water-

fowl, fifty-three species of land birds, and about eight or ten species of littoral birds or waders, by our reporters on the East Coast.

Spring Migration I have kept distinct in this Report.

I have not given compiled notes on weather in this place this year, as all that requires to be said will be found under the treatment of the species, and a short paragraph under General Remarks.

The whole space of time included by our 1882 returns runs from February in spring onwards, and in autumn from July to January 27th, 1883, the date of the last returned schedules. In the General Remarks I notice briefly the spring migration of 1883—at Isle of May, &c.

I visited this year Buchan Ness Lighthouse, on the Aberdeenshire coast, and Mr. Andrew Gallie showed me a Manx Shearwater which he had found dead on the balcony in the winter of 1879—80. Mr. Geo. Sim, who was with me at the time, told me it was the first he had ever had record of on the N.E. coast of Aberdeenshire.

I visited also Cape Wrath Lighthouse. There, I was told, very few birds are ever seen at the lights, owing to its great height above the sea.

TURDIDÆ.—In spring, at Isle of May, March 2nd, after E. to S.E. gale for twenty-four hours, a few Redwings (accompanied by Lapwings, Reed Buntings, Rooks, and Hooded Crows among land birds, and Eider Duck, Teal, and Black Guillemots amongst water-birds). At same station, on April 8th and 19th, with E. winds, Redwings appeared; and on April 15th and 28th, single specimens of Ring Ouzels, again with strong E. or N.E. winds (see Land Notes *infra*). In autumn, no records till September; then at Whalsey, N. Ronaldshay, Auskerry, Pentland Skerries, Dunnet Head, Bell Rock, Isle of May (max.), from Sept. 20th, records on to Jan. 25th, 1883—the last record at N. Ronaldshay. The earliest, Sept. 20th, was at Isle of May. All the species recorded occurred all throughout the season, viz., Fieldfares, Redwings, Missel Thrushes (min.), Common Thrushes (max.), Blackbirds; but Fieldfares and Redwings also very abundant. Rushes, first at Auskerry and at N. Ronaldshay on Sept. 27th, and indications of the same also at Pentland Skerries and Isle of

May. Numbers of Blackbirds, Thrushes, and Missel Thrushes frequented N. Ronaldshay for three days after this date. At the northern stations, wind strong S.E.; at Isle of May, N.E. gale. A vast rush of many species took place, commencing on Oct. 8th, and continued till about the 18th in force at all the stations sending in returns, except Auskerry. We will speak fully of this movement in this place, and afterwards will refer back to it under other species. Migration general over whole coast-line. Wind during that time was N.E. to S.E. to E., with fog and rain; on the 16th S. at southern stations, and generally S.E. over all the coast. But at Pentland Skerries, mod. S. and S.W. on 10th, 11th, and 13th. The rush here on 12th was, however, with S.S.E. fresh, and fog. At N. Ronaldshay, on 7th—8th, numbers of Thrushes were seen coming from the S.E., and more continued coming till the 16th, all the time with strong S.E. wind. On 16th wind changed to S., and all left. All stations send in heavy returns; but the heaviest is from Isle of May, and hundreds were seen at Bell Rock on the 12th—14th. A desultory migration, with frequent rushes, was kept up all October; also all November, the following dates bulking largest, viz., Nov. 5th, 9th, 12th, 18th, and 27th, the northerly stations of Sumburgh Head and Pentland Skerries having during this month heavier returns on the whole than the more southerly ones. Wind during this time at Sumburgh Head fresh W., when fifty Redwings appeared on 5th. But at same place, light N.N.E. on 9th, when thirty Redwings were seen. On 27th, at same place, twenty-five Redwings were seen flying S.W., with wind fresh W.; and at Isle of May, on 18th, several flocks of Fieldfares and Ring Ouzels—which usually appear here together—appeared with fresh S. breeze. All during the intermediate time between the above dates migration was carried on. In December the same continued, but in diminishing numbers; and an indication of a small rush occurred between the 6th and 12th, but this appeared to be greatly due to N.E. gales accompanied by snow-storms and severe frost on the mainland, causing local migration, as is partly evident from the species accompanying them, such as Larks, &c., and the exhausted and emaciated appearance, especially of the Redwings, even on the Isle of May. Between the 15th and 31st, at Auskerry, a great flock of Buntings was seen daily. In January large flocks were seen from 4th on to date of last entries

in the schedules, and as late as 25th. Fieldfares at Pentland Skerries, where the most were seen on the 13th. At N. Ronaldshay, also, many Blackbirds, Common Thrushes, and Missel Thrushes up to 24th, as already stated. Having detailed the movements, and given dates and circumstances of these rushes, I will now name the species which, along with Thrushes of various kinds, participated in the movement, and this may serve as indicating the general lines of 1882. During the September rush we shall have occasion to refer amongst others to the following species or groups of species:—*Saxicolinæ* (which began to move, however, as early as August), some *Silviinæ* (as Robin, Whitethroat, &c.), Golden-crested Wrens and *Phylloscopinæ* (end of August), *Paridæ*, *Motacillidæ*, Pied Flycatchers, Swallows, *Fringillidæ*, *Emberizidæ*, *Alaudidæ*, as also references throughout to Hawks, Owls, Herons, and sea-birds. During the great October rush, between 8th and 18th or 23rd, at the Isle of May, during thick fog and S.E. to E. winds, Mr. Agnew describes the movement as beyond comparison with any former experience of his. A vast rush of Bramblings, Chaffinches, Golden-crested Wrens without number, *Silviinæ*, Robins, Hedge Accentors, Siskins, Larks, Redwings, Ring Ouzels, Woodcocks, Blackcaps (a few), Sedge Warblers, Jack Snipes; and this movement continued in pulsing throbs and also continuously, covering all October, November, and December, and far into 1883. For night after night hundreds of thousands of small birds circled round the lanterns, flying “against the sun” at Isle of May. From the Isle of May alone, as already stated, I have nineteen schedules filled to overflowing with Mr. Agnew’s careful records. A separate paper on the Isle of May, which I hope to prepare when I have leisure, is the only way to do justice to the locality and its recorder. Curious that, although such vast numbers were seen at Isle of May, the numbers at the more inland station, or rather more landlocked station, of Inch Keith show quite a small numerical return; but of these matters I shall have more to say in my General Remarks. Six species of *Turdidæ* occur recorded in the East Coast returns. *Land Notes*.—Mr. J. T. Garrioch, writing to me under date March 13th, 1883, and remarking upon the vast nature of the general migration between Oct. 8th and 25th, during an E. to S.E. gale, mentions a few Fieldfares and one Thrush on the 9th which seemed much exhausted. In spring of 1882, Fieldfares remained

late into April in Stirlingshire. A flock was seen among the foothills of the Denny range by myself on April 16th.

SAXICOLINÆ.—In spring, Wheatears (“Stonechats must be included here.* Another season Mr. Agnew will be able to distinguish between true Stonechats and Wheatears, and I hope other reporters also). Whinchats, Redstarts: First record (Wheatear) at Isle of May, March 29th, strong W. wind, clear; latest (Redstart) June 29th, light E., fog. But this may belong to autumn; next latest (Redstart) May 24th, at Isle of May. Earliest Wheatear March 29th; latest, and a rush, on May 2nd (along with other birds unknown), N.E., rain and fog, at Bell Rock. A large bird struck heavily, and fell into the sea. Rush of Wheatears, April 5th. Earliest Whinchat, March 29th; latest and rush, on April 15th, at Isle of May. Earliest Redstart, April 2nd, at Isle of May; latest June 29th, and next May 24th. No great rush apparent. Of the above, Whinchats are also named “Blue Janets,” a name usually applied, however, to the Hedgesparrow or Hedge Accentor. The record of June 29th, of a Redstart in light E. wind, seems more of an accidental nature, as it is separated from the one before by a month, and from the true autumn migration by six weeks. Three species of *Saxicolinæ* on East Coast in spring. In autumn, the same species. Records from Whalsey, Sumburgh Head, Pentland Skerries, Bell Rock, Isle of May, and Inch Keith. (*Note.*—These are the same stations that reported last season.) Earliest Stonechat, and earliest record, at Bell Rock on Aug. 9th, light S. breeze and fog; latest Stonechat Sept. 22nd, also at Bell Rock. Indications of a rush at Pentland Skerries on Sept. 3rd. “Blue Janets” participated in the October rush already spoken of (see under TURDIDÆ). Earliest Wheatear, Aug. 17th, at Pentland Skerries; latest Sept. 17th. Earliest Redstart Sept. 15th; latest Oct. 22nd. No additional species of *Saxicolinæ* appeared in autumn.

SILVINÆ.—In spring, Robins at Bell Rock only; one seen on April 10th, struck lantern, but not killed. But “unusual numbers” were seen at Isle of May in April, and in spring generally. In autumn, Robins at Sumburgh Head (where they are very rarely seen), N. Ronaldshay, Pentland Skerries, Dunnet Head, Chanonry, Bell Rock, Isle of May, and Inch Keith. Earliest at

* In so far as the records apply at Isle of May.

Isle of May, Aug. 18th; latest at Chanonry, Dec. 20th, where one rested two days. No quantity till vast rush of October, when Mr. Agnew says he never saw so many Robins before. Greatest numbers seen on 12th. Enormous and uncommon numbers also on 18th at Isle of May, and all gone on 23rd. Large rush on 12th also at Pentland Skerries, when numbers seen all day flying S.W. Indications of the same movement also at N. Ronaldshay, and to a less extent at Sumburgh Head (see under *TURDIDÆ*). Of other *Silviinæ*, in spring, a few Whitethroats (identified from a specimen in spirits) showed at Isle of May on May 6th, and in autumn a rush took place at same place on Aug. 16th (specimen No. 33 in spirits); but I have no other records. A single Black-cap on Oct. 14th participated in the rush at Isle of May. Three species of *Silviinæ* occurred.

PHYLLOSCOPINÆ.—A marvellous migration of Golden-crested *Regulus* both in spring and autumn. In spring, the only station giving returns is Isle of May, where Mr. Agnew says they are very unusual at this season. Earliest on March 9th, when one was seen at lights. Large numbers; a rush on 19th and one bird on 20th. All March records accompanied by N.W. through W. to S.W. winds. The rush took place with light S.W., and rain. Three other records are on April 1st, 4th, and 10th; a rush on the 10th of females; the males preceded the females by some weeks. Migration in spring thus lasted from March 9th to April 10th. In autumn, at Sumburgh Head, Auskerry, Pentland Skerries, Bell Rock, and Isle of May. Earliest on Aug. 27th, at Isle of May; latest at same station on Nov. 12th. Rushes: steady influx all September after the 13th; a solitary bird on Oct. 4th; a rush on 8th, indicated at Sumburgh Head and Pentland Skerries. (*Note*.—This is their first appearance here for five years; it is marked “very rare” at Sumburgh Head, and indeed natives had not seen them before). More decided at Bell Rock, where they accompanied Bullfinches and Pipits on the 12th, and at Isle of May. The body of the rush occupied three days, from the 8th to the 12th; during that time, at Isle of May, Mr. Agnew describes their numbers as “enormous.” Of other *Phylloscopinæ*, Leaf-warblers—the species, however, not always recognisable from descriptions—were fairly abundant. In spring, one record of either a Wood or Willow Warbler (probably the latter) on May 24th at Isle of May. In autumn, the Isle of May

again produces all the records I have, the earliest being considerable numbers of Chiffchaffs (identified) on Aug. 9th, a few on Sept. 13th, 17th, and 27th, at Isle of May; a rush on Oct. 7th, 8th, and 9th, and all gone on 10th; a few on 14th, and all finally gone on 15th. Three (or four?) species of *Phylloscopinæ* recorded on East Coast. *Land Notes*.—On April 24th one Willow Warbler seen at Shirgarton, ten miles W. of Stirling. Mr. Garrioch, writing from Lerwick, says:—"In the evening of Oct. 9th my attention was called to a large flock of birds crossing the harbour from the Island of Bressay, and on coming to a spot on the shore where a large number had taken refuge from the storm I found the flock to consist of Goldcrests, and a few Firecrests amongst them. They continued to increase in numbers for a few days, and several specimens were sent to me for preservation from distant parts of the islands." These were preceded on the 8th by flocks of Willow Wrens, one flock numbering about twenty. "The Goldcrests spread over the entire islands, and were observed in considerable numbers till the middle of November, when they all disappeared." Subsequently, Mr. Garrioch, writing to me in reply to certain queries as to the authenticity of the "Fire-crested Wrens," says:—"Of one flock of Goldcrests, I observed five birds which I thought to be the Firecrest. I obtained one specimen very distinctly marked. It seemed to me that the Firecrests were very much more exhausted by the storm than the Goldcrests." *Note*.—I had in my letter shown the distinction between the male Goldcrest and the true Firecrest, the male Goldcrest having a mark above and below the eye, without the black line *through* the eye, the Firecrest showing three bars.

ACROCEPHALINÆ. — In spring, at Isle of May, Mr. Agnew believes he identifies "Reed Warblers" on April 4th; his description, however, would equally apply perhaps to White-throats or to Sedge Warblers. In autumn, a rush of similar birds took place there on Oct. 9th. Perhaps two species recorded.

ACCENTORINÆ. — In March, "Blue Janets," of Mr. Agnew, which are represented by a Whinchat in spirits, but which name in Scotland is correctly applied only to the Hedgesparrow or Hedge Accentor. In autumn, one "Blue Janet" on Dec. 3rd. Whilst it is the most abundant of migratory species in autumn on

the E. English Coast, next to the Goldcrest, it is curious to find scarcely any records on our E. Scotch Coast.

PARIDÆ.—Titmice: In spring, one record ("the first seen on the lantern for many years") at Cromarty, on March 11th, fresh W. and clear. In autumn, considerable numbers of Titmice at Isle of May on Aug. 9th; occurred at Whalsey, N. Ronaldshay (in Oct., Nov., and Dec.), Pentland Skerries, Isle of May, and Inch Keith. Earliest as above, Aug. 9th, at Isle of May; latest at N. Ronaldshay, between Dec. 6th and 12th, when a few came with Robins in a snow-storm (probably local movement only); they accompanied Robins and Thrushes also at N. Ronaldshay on Nov. 12th; on Oct. 12th about sixteen stayed four days, and left on 16th; this is the only indication of a rush. Number of species of *Paridæ* unknown. *Land Notes*.—On Sept. 6th I heard Marsh Tit in our woods at Dunipace; this is the earliest autumn record I have, but spring records I have at other localities in the county.

TROGLODYTINÆ.—Common Wren: One species. A few records in autumn from Sumburgh Head, Bressay, Pentland Skerries, N. Ronaldshay, and Isle of May; earliest one seen for a moment on island. At Sumburgh Head on Aug. 11th, and three on 12th; latest at Pentland Skerries on Dec. 7th, wind N.E., clear. Rush quite marked on Oct. 10th at Isle of May, still not numerous; also at N. Ronaldshay, on Nov. 12th, a few came with Robins and Thrushes, and a few on same day came also with Robins and Thrushes to Isle of May, wind easterly. *Land Notes*.—Mr. Garrioch obtained one male Creeper on Oct. 12th, caught on Bressay with Great Spotted Woodpeckers, "all seeming much the worse of the storm."

MOTACILLIDÆ.—In spring, at Whalsey, Bell Rock, and Isle of May; in all five records. Earliest Feb. 24th, at Isle of May, light W. wind; latest at Whalsey, May 24th ("Grey Wagtail," marked "very rare here"). At Bell Rock all birds leave at high tide, being drowned off. In autumn, records from Whalsey, Sumburgh Head, and Isle of May. Earliest from 23rd to 26th, a flock of "Grey Wagtails" flying about island, and on 27th seven seen all day on Pentland Skerries; latest on Isle of May, one Pied Wagtail on Nov. 7th. No rush very apparent. On Sept. 20th, Mr. J. Agnew has the record, "at Isle of May, three, N.E. gale, one very white in colour and one very black"; and on Oct. 31st

the further record, "two, one very white, the other dark." We would like specimens of these "very white Wagtails." Possibly records relate to three species, but it will be safer only to include one at present. Titlarks (Rock Pipits?) arrived in large numbers on Isle of May on March 9th, and "supplemented some half dozen that remained all winter." N.B. The ones that remained are probably "Rock Pipits" (*Anthus obscurus*), and the additions are probably "Meadow Pipits" (*A. pratensis*). In autumn, at Sumburgh Head, Pentland Skerries, Bell Rock, and Isle of May; earliest, one at Isle of May ("Mosscheeper," J. Agnew; or Meadow Pipit, J. A. H. B.); latest, Bell Rock, Oct. 9th, "Mosscheeper," Mr. Jack; on this occasion mixed with Bullfinches. Rush on Sept. 4th, at Sumburgh Head, large flocks of "Rock Larks," *auct.* John Wilson; and a constant stream of the same on 15th, along with Larks. Desultory migration during September; only one record, curiously enough, in October. Two species of *Anthinae* (*Motacillidæ*) noticed. *Note.*—See remarks on land migration of the Pied Wagtail at end of the General Remarks.

LANIIDÆ.—One record, on Oct. 16th, at Isle of May; one bird accompanied rush of Oct. 8th and 18th, strong S. after S.E. One species recorded—the Great Grey Shrike. *Notes.*—A male Great Grey Shrike killed at Helensburgh, Dumbartonshire (illustrates line across central districts of Scotland), Feb. 3rd, 1883; about 1st Nov., 1882, three Great Grey Shrikes (two male and one female), and one same date at Redcastle. Rosshire ('Scotsman,' Feb. 17th, 1883); the last great appearance of this species was in 1873—74. A golden Oriole (*Oriolus galbula*) occurred during the October migration at Lerwick, along with two Spotted Woodpeckers, a Tree Creeper, and the Golden-crested Wrens.

MUSCICAPIDÆ. — Pied Flycatcher: three records at Isle of May on Aug. 15th, one female, light S., rain and fog; on Sept. 15th one female struck and killed; on Nov. 7th one male flying S., but obtained, fresh S.W. breeze. One species. *Notes.*—Two Waxwings, a very fine male and a female, killed at Kinneil by Mr. D. Nichol, gamekeeper to Mr. Russell, Dundee Castle, on Jan. 18th, 1883. Kinneil is close to Bo'ness, at the head of the Firth of Forth. This female is one of the very finest birds I ever saw. Out of the hundreds examined in the frozen marts of St. Petersburg and Moscow I only saw one to equal it, the develop-

ment of the wax-like appendages being very great on both wings and tail.

HIRUNDINIDÆ.—In spring Swallows appeared at Whalsey, Sumburgh Head, Aukerry, Pentland Skerries, Cromarty, Isle of May, and Inch Keith. Earliest at Isle of May, April 22nd, and more on 23rd. Latest at same place, on June 26th. Rush perceptible at Isle of May, May 11th to 17th, when a steady migration in small numbers were observed flying N., wind W. to S.E. All Swallows seen have been during the forenoon. Sand Martin on May 9th, at Whalsey Skerries. In autumn, at same stations, continuous records from June, many no doubt relating to local movements, therefore perhaps somewhat difficult to separate spring and autumn records. On July 3rd and 4th, however, at Aukerry, flocks were seen at noon; wind light S. to S.E. Martins are noted from Whalsey, and Aukerry and Pentland Skerries; and Sand Martin from Isle of May on Aug. 24th. All other records apply to Common Swallows. Swallows resident at Cromarty disappeared on Sept. 1st. No great rushes very apparent. Latest on Oct. 6th, at Sumburgh Head; next, on Oct. 2nd, at Isle of May; strong S.W. wind. Three species noticed. *Land Notes.*—In spring, first Swallow seen by M. P. Kermode and myself at Dunipace, on April 23rd; and same day, at Shirgarton, by another party. None seen on 16th, when Bidwell and I were out, and when we took a Dipper's nest and four eggs. On 26th, Mr. R. Gray saw two Martins in Edinburgh. Swallows and Sand Martins were first seen at Kelso, on the Tweed, on April 16th (*auct.* J. J. Armistead, Esq.). See also General Remarks.

FRINGILLIDÆ.—In spring, great movements of many species of Finches, both in spring and autumn, comprising the following species:—Green and Grey Linnets, Chaffinches, Bramblings, Siskins, Redpolls, House Sparrows, Tree Sparrows, Bullfinches, the Green and Grey Linnets predominating, and occurring at the following stations:—Spring, almost entirely monopolised at Isle of May; Siskins also appearing at Inch Keith. From March 3rd on to May 22nd. Only indication of unusual rush perhaps on March 17th and 18th (Green Linnets and Chaffinches). Prevailing wind at Isle of May all April, many birds appearing, S.E., except on April 25th, when there were no birds, the wind shifting round to N.E. suddenly. In autumn, at Isle of May, a solitary

Green Linnet appeared on July 14th. The above species showed at Sumburgh Head, Pentland Skerries, Bell Rock, Isle of May, and Inch Keith. Earliest, Grey Linnets, Aug. 23rd, at Isle of May. Latest, at same spot, on Dec. 8th. Vast rush in October (9th to 23). Green Linnets, earliest somewhat later than the last, but the rush about same time. Chaffinches, no records till Oct. 10th, at Sumburgh Head, where it is only seen on migration. The great rush of Chaffinches, as compared with other species, apparent, but movement distinct in October. Brambling, no records till Oct. 10th, when a rush past was made, and no more seen again till Dec. 3rd, when one was seen. Nine Siskins, a considerable movement; earliest, Aug. 7th, at Isle of May; latest, Oct. 16th. The rush of this species took place on Sept. 27th and 28th, when scores, mostly females, were on Isle of May; and they also showed at Inch Keith. A rush, however, also took place about Oct. 16th. Redpolls appear not quite so abundantly in the records as other species. The records are in September and December. A rush of Tree Sparrows took place at Isle of May, where Mr. Agnew says he does not remember seeing this species before. One was captured on Oct. 15th. A very few House Sparrows were noticed in October. A few Bullfinches showed at Bell Rock, accompanied by Pipits and Golden-crested Wrens, &c., on Oct. 9th to 12th. The records take me up to Dec. 12th for *Fringillidæ*. Nine species of *Fringillidæ* under notice. *Land Notes*.—On Oct. 8th a flock of about fifty Mealy Redpolls, all males, kept flying round about Lerwick, at the same time with a few Willow Wrens, one flock numbering twenty.—(J. T. G.)

EMBERIZIDÆ.—In spring, the February records may apply to last Report as regards Snow Buntings. They were uncommonly numerous at Isle of May in 1881–82. Large flocks seen flying S. there on Feb. 22nd, and also on 13th and 24th. On March 1st large numbers, taking on the summer plumage, or mostly adults, after a gale of twenty-four hours, from E. to S.E. (*Vide* under TURDIDÆ of this date; same remarks apply here.) Same day, one Reed Bunting. Snow Buntings continued to show at intervals all March; two showed on April 15th at Isle of May. None were seen in May. In autumn, the records are numerous of Snow Buntings from most of the stations sending returns; perhaps most so at Pentland Skerries in November. Do not

bulk so largely at Isle of May. Earliest Sept. 19th, at Isle of May (the remark, "too early," appended by Mr. Agnew). No great rush in October along with the other species, but bulking largely in November at Sumburgh Head, where 250 showed in three compact flocks on 6th; also at Pentland Skerries abundant all through the month, but maximum about the 10th, when fully 1000 were all day on the Island; winds N.E. to E. and S.E., with some calm days and variable. About this time departing flocks seen to fly off S.W. and flocks seen to arrive from the N.E. over the sea. Snow Buntings seem to arrive at Dunnet Head more frequently with W. and S.W. winds, and also to a considerable extent with similar wind at Pentland Skerries. This has been remarked before. After sharp frosts and N.E. snow-storms they soon appear. Common Bunting is reported from Isle of May for the first time on Dec. 19th; Yellow Buntings appeared occasionally in reports at Isle of May; and the first recorded occurrence at Pentland Skerries on Dec. 17th and 19th. One remained a week singly—a female—on Isle of May up to Nov. 4th. Four species of Buntings appear.

ALAUDIDÆ.—In spring the Skylark is reported "very rare" at Whalsey; one on March 14th. A few at Isle of May on March 15th; none there on April 3rd: fair S.E. breeze. In autumn full records, but not before Sept. 11th, at Sumburgh Head, accompanied by "Rock Larks." Occurred at Sumburgh Head, Pentland Skerries and Isle of May. Earliest as above, Sept. 11th; latest Dec. 31. Rush from about Sept. 11th to 18th at Sumburgh Head, and also patent at Isle of May; vast rush most observed at Bell Rock and Isle of May in October (see under TURDIDÆ). At Bell Rock most on Oct. 12th, "Bullfinches, Blackbirds, Mavises, Larks, Stonechats, Golden-crested Wrens, Titlarks and Starlings, dead on balcony or fell into sea. Mr. Jack is sure hundreds must have been killed that night." Again, on Dec. 20th, Mr. Jack remarks, "largest numbers of Larks ever seen here; impossible to state numbers seen or killed; striking hard for hours, like a shower of hail." On Oct. 12th and Dec. 20th loss of life must have been very great; great flocks of Larks alone at Bell Rock on 16th and again on 31st. Records do not take me beyond this date. One species.

STURNINÆ.—Records of Common Starling comparatively

scanty. Earliest July 1st at Isle of May, a large flock of young birds and daily flocks seen, mostly young, to July 29th. On Aug. 7th a large flock seen coming from the N.; another on 14th. Numbers on Island fall off in September; by the 23rd but few left. In October only one record at Pentland Skerries, when two struck; none in November, and two records in December, on 17th at Pentland Skerries, and on 25th at Isle of May, when eight were seen. Scarcity of Starlings again (see Report 1881, p. 9) noticeable. One species. The only other British species is a very rare British bird—the Rose-coloured Starling.

CORVIDÆ.—I have records from every month in the year but June. I take them in order. In January one record, a large flock of Jackdaws seen flying S.W. at Cromarty (probably a local migration). At Isle of May one Rook on Feb. 12th, flying W., wind S.W. In March, at Sumburgh Head, two Ravens (“the first seen since the autumn of 1881” here), flying N. with light S. breeze, and another seen on the 16th in a W. gale. At Isle of May two Rooks seen on 29th (“never many seen here together”), light W. breeze. In April, at Bell Rock, four Rooks seen flying E. over the sea, wind S.E., April 4th; at Isle of May, on May 14th, four Carrion Crows and thirty-six Hooded Crows alighted and killed several of Mr. Agnew’s lambs; N.E. gale at the time. At Pentland Skerries two Rooks on Island, wind fair, S.S.E. In autumn, records from most of the stations sending returns, from July 26th, at Pentland Skerries, to Dec. 9th, at same place (Ravens). The only appearance of a rush was when fifteen Hooded Crows appeared at Pentland Skerries, but this may only have been local. This was on Oct. 12th, however, the time of the vast rush of other species. The Pentland Skerries are regularly visited by Ravens and Hooded Crows, and occasionally by Rooks, which latter may come across the North Sea at times, or may simply make local migrations from Tongue in Sutherlandshire. A few appeared at the Isle of May also at the time of the vast rush. Five species of *Corvidæ* noted. *Land Notes.*—Mr. Garrioch writes:—“I obtained a male Jackdaw on Oct. 15th, shot on a peat dyke near Lerwick. Same evening a large flock of Ravens assembled on the shore at Sound (?), attracted by a number of Puffins’ and Guillemots’ bodies driven ashore by the force of the sea, as also fish of different sorts which had shared the same fate. The Ravens

betook themselves to the high cliffs of Bressay. They continued to pass the same spot during November, December and January, going westward over the islands every morning at daybreak and returning at dusk to roost in the same rocks." On Oct. 14th a Crow took refuge on a vessel—the Danish ship 'Otto' (Capt. Mortensen)—about eleven miles from St. Abb's Head, and flew off shoreward on approaching Granton ('Edinburgh Courant,' Oct. 14th).

CYPSELIDÆ.—One record only at Sumburgh Head, on Aug. 23rd; light airs N., clear.

CUCULIDÆ.—We had no entries under this head anywhere on east coast of Scotland in 1881. At Cromarty, Cuckoo first heard, April 4th, light E. breeze, clear; and on June 23rd two Cuckoos were all day on Isle of May, both of which Mr. Agnew secured for the Isle of May collection, and they were old and young. Stated by Mr. Agnew to be very rare on Isle of May. One species. *Land Notes*.—A Cuckoo was shot on Aug. 30th, at Glasslaw, Bruchlay, Aberdeenshire (*vide* W. Horn).

STRIGIDÆ.—Earliest July 4th, at Pentland Skerries, one "Horned Owl" (rare). In Sept., at Auskerry, two Short-eared Owls seen at noon, light variable wind; and in October a pair remained at same place three days after 28th. One seen at Pentland Skerries on 12th. Fresh E.S.E. breeze. On Nov. 18th, at Bell Rock, one Long-eared Owl rested on balcony, fresh S. breeze; and on 9th one Short-eared Owl seen asleep in grass on Isle of May, and afterwards shot for Isle of May collection. On Dec. 19th, at Pentland Skerries, one Grey Owl. Probably only two species, but possibly three.

FALCONIDÆ occur in almost every month of the year, but fewer records in spring than in autumn. Many visits are the result of only local migration in search of food; indeed such are the great majority of instances, although these must also come to be distinguished as far as possible from the birds of actual passage. In spring, frequent in February at several stations, always on predatory excursions, notably at insular stations, as Whalsey and Isle of May. In March only two records at some places, and in April two at the same places, both on the same day—the 23rd. At Whalsey a game Hawk rested, apparently much fatigued, wind E. and haze. In May one record on 25th, at Isle of May. In autumn, at Whalsey, Sumburgh Head, Auskerry,

Bressay, Pentland Skerries, Bell Rock, Isle of May. Records numerous, though not so great as in 1881. Greatest aggregate in any one month in October. Most numerous at Pentland Skerries and Isle of May. Earliest July 29th, at Isle of May, one small Hawk. Latest through December into Jan., 1883. Rush, if any can be said to be appreciable, in October. Thus, such species as game Hawks, large Hawks, large brown Hawks, dark grey Hawks, &c., appear in the records more abundantly in October than at other times, whilst Sparrowhawks, Merlin and Kestrel appear more frequently at other times. The following species are included, but it would be more satisfactory to obtain specimens:—Kestrel, Merlin, Sparrowhawk (max.), and those mentioned above. On Oct. 12th two Hawks were hunting small birds all night, in the the zone of light. Buzzards and Harriers are also probably included.*

WATER-BIRDS.

PELICANIDÆ.—In spring, in May, at Sumburgh Head, ten Gannets were seen, flying S., at 9.30 a.m., with S.S.E. breeze, and on 4th thirty-five, also flying S., with S.E. breeze. In autumn, at Sumburgh Head, Pentland Skerries and Dunnet Head, observations taken; earliest July 5th, three flying S.E., mod. N.W. at Sumburgh. On 17th, flying E. all day, fresh S. showers. Pass and repass Dunnet Head every day till Sept. 15th in threes and dozens. One species. *Other Notes.*—From Mr. T. Anderson, s.s. 'Marathon,' Dec. 27th, 1882.—“This has not been a very good trip for observations on birds, the southerly migration being past; but when off the coast of Portugal, on our way home, I saw from 150 to 200 Solan Geese in company, and occasionally finding a shoal of fish. All their movements were in a northerly direction; when they were done with a shoal of fish, they never proceeded S., but always N.”

ARDEIDÆ.—Common Herons: Stragglers at almost all times; most records in autumn. That local migration is principally indicated is seen by the very various directions of flight noted at some stations, often coming from and returning to the same points of the compass. These are given in detail in sixteen schedules and in the ledger from which this report is written. In spring, April 11th, record at Isle of May, one at Sumburgh

* Difficult to say how many species are intended, but probably at least *six*.

Head, marked "rare," light S.E. airs; and Herons frequented the shore off and on at Isle of May, from the date of May 1st to the first week in September. On 24th three were seen; these flying N. On June 19th one addition was seen there. In July two recorded, one flying N. on 31st. In autumn, Aug. 16th, at Sumburgh Head, one flying W., light E. airs; on 17th three flying N., light S.E. airs; and on 19th one flying W., light E. airs. In Sept., at Whalsey, on 14th, one flying W., marked "very rare so early," wind N., fresh, and at Cromarty "seen daily since first week in May." At Isle of May on 22nd, in calm and haze, one "screaming as if lost." Then in October we find on different dates Herons recorded as flying in all directions: 13th, "came from S. and returned S.;" 23rd, flying W., wind S.W.; flying S.W., gale S.E., all night at Bressay, when many other species struck unseen; 24th, at Isle of May, flying S., and similar records at various stations all through November." N.B. These ledger entries may be useful later. One species.

ANATIDÆ.—Wild Geese: In spring, on March 1st, two were seen, flying very fast, 1000 feet in the air, crying loudly, before an E.S.E. wind, and settled on the land at Sumburgh Head to rest. A Brent Goose seen at Isle of May on March 20th, and a large flock of Geese flying E. accompanied by Curlews at Isle of May, on April 21st. One Brent ("Sly Goose") at Pentland Skerries, in June (marked "rare"), flying E. In autumn, at Chanonry, Sumburgh Head, North Ronaldshay and Isle of May. Earliest noted, but probably local movement after the birds had taken up their quarters on Aug. 26th, at Chanonry, when 100 Grey Geese were seen, fair S.W., clear. Here the general flight is N. or S., being the "lie" of the Firth; on 28th also 100 seen. Latest records into January, 1883. Rushes imperceptible, but very large flocks are mentioned at Isle of May, on December 23rd and 24th, flying from S.W. to N.E. "Sly Geese" (Brent) are noted on Oct. 14th, at Sumburgh Head; at Isle of May, thirteen Wild Geese, flying W. in a single line, on Oct. 2nd, light S. wind, clear. Two species of Wild Goose. Eider Duck arrived at breeding haunts at Whalsey Head on March 29th; wind N. and haze. At Isle of May twenty-three, about equal male and female, first seen on March 1st, after a gale which had lasted for twenty-four hours from E. to S.E., and which brought over Redwings, Lapwings, Rooks, Hoodies, &c. (see TURDIDÆ). First

record at Sumburgh Head is not till April 17th; three seen; fresh E.N.E. wind. In autumn, at Pentland Skerries, continuous flocks flying S.E., mostly females, on Oct. 6th (compare with Report 1881, p. 12). Again, at Sumburgh Head, three (the first seen), on Nov. 5th, fresh W.; and at Pentland Skerries, on 22nd, a flock, mixed male and female, flying S.; and on 28th a large flock, mostly males, about the rocks all day. Of other Ducks scattered records only: a few Teal, seen on March 1st, at Isle of May; at Pentland Skerries, Sept. 3rd; and seven on pools on Island, on Dec. 6th. Grey Ducks (probably Scaup or Pochard) at Chanonry, where some 400 flying W. were noted. The records of ANATIDÆ not so voluminous this season as last; three or four species. On March 23rd fifteen White Swans came from S., rested on the sea at Sumburgh Head, and flew on N.; wind fresh, S.W. breeze. Again at same place, Swans flying N. and crying loudly on April 10th. On May 9th one was shot at same place. It alighted in a vœe three miles from station, and was no doubt a weakly bird so late in the spring; fresh S.S.E. In autumn, records at Sumburgh Head, N. Ronaldshay, Chanonry, and Isle of May. Earliest Sept. 18th, at Chanonry, when six were seen; light S.W. and cloudy. At same place, two on 25th and ten on 26th; haze and rain, variable and light N.E. In November, six flying W. at N. Ronaldshay, strong N.E. and snow. In December four seen at N. Ronaldshay, fresh E., and on 28th two seen at N. end of Isle of May. *Note.*—Look out always for two sizes of Wild Swan—the large Common Wild Swan and the lesser Bewick's Swan. If together the two species are easily distinguishable. *Land Notes.*—Brent Geese unusually abundant on the Tay this year, 1881–82 (P. D. Maloch).

COLUMBIDÆ.—*Note.*—We had no records of Pigeons on E. coast last season, 1881. This year we have them both in spring and autumn. We would like to know if all records of "Wood Pigeon" are strictly correct, and if no veritable Stock Doves passed on migration.* In spring, at Bell Rock, on April 9th, one "Wood Pigeon" struck and was killed at 10.30 p.m., light S.S.E.; and at Isle of May one struck and was killed at 2 a.m.,

* See a paper by me on the "Increase and Extension of Range of the Stock Dove," read before the Royal Physical Society of Edinburgh, Feb., 1883. They are seen in large migratory flocks on the mainland in May—as in the Carse of Gowrie—in some seasons, and I have received specimens this spring and winter from two localities in this county—Stirlingshire.

light S.E. Again, on May 22nd, one seen at Isle of May, S.E. clear; and on 29th one, at 6 p.m., seen flying S., light W., clear; and on June 28th one again, at Isle of May, at 3 p.m., light E., fog. In autumn, on Sept. 26th, at Isle of May, one, light S.E., hail and rain; and Nov. 2nd, at Isle of May, one flew S., after coming to the light; and on 26th another was seen. At Pentland Skerries one rose off the island and flew W., gale from S.E. In December, Wood Pigeons occurred at Isle of May under the following circumstances and dates:—On 3rd, one; on 6th, thirteen flying S., severe snowstorm; on 12th, thirty, light W. wind, thick fog; on 13th, fifty-one in lighthouse garden, eating ravenously; severe snowstorm from the 6th to 9th, and hard frost until 16th; on 14th–15th, hundreds seen. A rush caused by local stress of weather, or they may have come directly across seas. (*Note.*—I have elsewhere noted the arrivals of Wood Pigeons from Norway, as seen by me on the Fifeshire coast, and the S. trend of their flight, as soon as they came over the land; and I have given the above records in detail, as I think they will be useful again.) Besides Wood Pigeons, I have two records of Rock Doves,—one at Pentland Skerries, seen flying N., with light S. wind, at 3 p.m., on Nov. 8th; and one on Dec. 1st, at midnight, at Dunnet Head, fresh S.S.E., thick haze and rain; probably only local movements. Two species recorded. *Land Notes.*—About a dozen “Small Pigeons,” which “may,” Mr. Garrioch thinks, “have been Wood Pigeons,” were seen in the Island of Yell at the end of October, and from other quarters. Mr. Garrioch was informed of flights of “strange birds seen from the off-lying islands flying off in a southerly direction.”

RALLIDÆ.—Records of Corn Crake scarce. In May, first heard at Cromarty on 14th. In September one killed at light at Pentland Skerries on 20th, light N.E. and cloudy, indicating possibly date of departure from the Orkneys. *Land Note.*—I am credibly informed that the Corn Crake was heard in two different localities in N. Uist about March 18th, 1882; Mr. Alex. Carmichael, who is studying the Natural History of the Long Island, himself heard one. Very late occurrences of this species are also on record in previous years, such as at Tyree on Nov. 24th, 1880, evidently wounded or disabled birds (W. Craibe Angus, who exhibited the bird at a late meeting of the Glasg. Nat. Hist. Soc.); and another, dating Dec. 17th, 1882, is recorded from

Ireland in 'The Zoologist,' April, 1883, p. 177. It seems quite probable that some birds detained from migrating may remain all winter in the milder portions of Great Britain, and that early spring records may thus, in many cases, be accounted for.

CHARADRIADÆ.—Golden Plover: in spring, one record at Sumburgh Head; three seen, light S. breeze and cloudy, at 10·30 a.m. In autumn, at Sumburgh Head, Pentland Skerries, Dunnet Head, Isle of May. Smaller movement in 1882 than in 1881. Earliest recorded, Aug. 7th, at Pentland Skerries; a flock. Latest, at same place, on Dec. 13th; a single bird. Rushes scarcely appreciable, except 120 birds on Oct. 15th, at Sumburgh Head; S.S.E. gale and rain; and a large flock (?) at Dunnet Head on Oct. 2nd. At Sumburgh Head also about forty on Nov. 12th. Oystercatcher: in spring "Sea-pyots" arrived here, Whalsey, on March 3rd at night, with strong E.S.E. breeze and clear. Two seen, first time, at Isle of May on April 2nd. In autumn, after remaining on Whalsey, left between Aug. 13th and 18th, during a fog and fresh S.E. breeze; and on 13th, at Isle of May, one large flock of young were seen, light S. and haze. On Sept. 14th a flock flew about Pentland Skerries all day in light N. breeze. Beyond these I have no other records. Of Lapwing, a record or two on Feb. 13th and 24th, after S.W. gale on 13th; and 26th, stragglers? In spring, at Whalsey ("very rare"), Sumburgh Head, Bell Rock, and Isle of May. Earliest in spring, March 2nd, at Isle of May, after a gale from E. to S.E. for twenty-four hours (see under TURDIDÆ of date); 3rd, eight seen; large numbers again on 20th. Latest on June 19th, four, with light S.E. and haze. Two only in May at Isle of May, and these appeared with light N.E. wind. In April a few passed on 3rd, 9th, and 10th, in easterly winds, or rested. In autumn, at Pentland Skerries, Chanonry, and Isle of May. Earliest, Aug. 17th, one seen, light W. wind. Latest, a few in December, at Pentland Skerries, flying W. Rushes inappreciable, unless Sept. 14th, at Chanonry, forty seen; and on 28th, at Isle of May, twenty-seven seen, in light S.S.E. wind. *Land Notes*.—On April 16th Lapwings were still going in flocks in the central counties of Scotland. At the River Pattack, in S. Invernessshire, I saw distinctly a Whimbrel (*Numenius phaeopus*) twice, on May 24th. (Possibly an addition to the birds of Invernessshire.) See under W. coast also.

SCOLOPACIDÆ.—Curlew: in spring, a number of records at Sumburgh Head, Pentland Skerries, Bell Rock, Isle of May. Earliest, at Isle of May (“unusual at this season”), one seen, light W. wind and clear. Latest, at Isle of May, a number seen on June 28th, light E. fog. As early as May 23rd one young one seen on rocks at Isle of May (this properly belongs to autumn migration; result abnormal, perhaps owing to unusually early season, after a mild winter). General movement continuing all July, and difficult to separate spring and autumn manœuvres. As will be seen others of the *Scolopacidæ* make early appearances also this season (Woodcock, Snipe, &c.). In autumn, a large movement of Curlews between Pentland Skerries and Isle of May. To the N. of Pentland Skerries very few observed. Earliest (if we take July), July 10th, at Pentland Skerries, one heard. Latest, also at Pentland Skerries, on Dec. 7th, a flock, strong E. Rushes spasmodical and frequent in July and August. *Note.*—Between Oct. 14th and 19th, strong S. gale, moderate on 20th, at Pentland Skerries. Sept. 22nd, October and December, but almost inappreciable in numbers. Woodcock, a few in spring, but a steady record in autumn. In spring, one record at Isle of May on April 9th; “not remembered to have been seen here before at this season.” In autumn, at Whalsey, Sumburgh Head, N. Ronaldshay, Pentland Skerries, and Isle of May. Earliest, Oct. 8th (N.B., commencement of vast migration before noted), two seen at N. Ronaldshay, S.E. fresh; continued in small numbers through 12th, 13th, 14th, 15th, 19th, 25th (co-existent with rush of other species), at most stations on E. coast sending returns. Latest, on Dec. 4th, at Pentland Skerries. Evident rush on Oct. 13th at Isle of May, when no less than twenty were shot there. On Isle of May a record in November says, “very unusual so late,” when three were seen. Of Snipe, only one record at Isle of May in spring, on April 5th, with the remark, “very unusual at this season.” Autumn, at Sumburgh Head and Whalsey (only two records), and at Pentland Skerries and Isle of May. Earliest, several on Aug. 17th, at Pentland Skerries; and 6th, one at Isle of May, strong W., clear (remark, “very early”). Latest, on Dec. 19th, at Pentland Skerries, six seen, strong S.W. Scarcely a rush appreciable. Jack Snipes are recorded on Sept. 25th and 27th, at Isle of May, with light S. and S.E. breeze.

SCOLOPACIDÆ (Waders).—Earliest, “Plovers Pages” or “Plovers Leaders” (Dunlin, J. A. H. B.), Aug. 10th, at Isle of May; latest, Redshanks, Dec. 7th, at Isle of May. Sandlarks” and “Pipers” appeared at Chanonry, Aug. 30th, when one was seen, and disappeared on Oct. 13th. (Probably the Common Sandpiper, but “Pipers” is a name used generically for many species.) If any rush, apparent on Sept. 19th, 20th, and 26th, at Chanonry. Numbers on these dates: 90, 90, and 290; but this is deceptive, and not to be relied upon as a statistic, Waders movements are so erratic. Returns of “Pipers,” “Waders,” “Redshanks,” and “Sandlarks,” are given from several stations. Probably seven or eight species of Waders. *Land Notes*.—Rare occurrences. Pectoral Sandpiper (*Tringa maculata*, Vieill.) shot at The Ross Priory, mouth of the Endrick River, Loch Lomond, by Sir Geo. Leith Buchanan, Bart., on Nov. 24th, 1882. There seems to be a line of country across this part of Scotland where rare things turn up, witness:—Desert Chat, at Alloa; Blue-throated Warbler, Isle of May; Great Grey Shrikes, commonly; and others. (See General Remarks, *infra*.)

STERNINÆ.—In spring, Terns arrived at breeding haunts at Whalsey on May 19th, on island, all day long; came from S.E., with S.E. wind and clear; seen again on 28th (same date as 1881). At Sumburgh Head on June 2nd, and five on 6th. At Cromarty, Lesser Tern arrived at 2 p.m. on June 11th, strong N. and clear; and more on 15th. In autumn, Whalsey, Sumburgh Head, Pentland Skerries, Cromarty, Isle of May. Earliest, for two minutes or so heard passing over the lights at 10.30, at Sumburgh Head, light E. airs and thin haze. On Aug. 15th all left Whalsey, light S. breeze, haze and fog. “Leave Pentland Skerries about Aug. 30th.” Lesser Tern left Cromarty on Aug. 29th; three seen flying south at Sumburgh Head on Sept. 4th (the only record in that month this year). One more record on Nov. 26th at Pentland Skerries, a flock on island all day. Two species. *Note*.—Look out for the Sandwich Tern,—a large Tern, much larger than the Common Tern; goes up the Fife and Forfar coasts in spring.—J. A. H. B.

LARIDÆ.—In spring, “Chasers” (Skuas), one on May 28th, at Portland Skerries (“rare here”), E.S.E. breeze. (“Picked up limpets thrown at it by the men.”) He speaks of these

as "Chasers," but in autumn of "Skuas or Norwegian Gulls, very rare." Of Skuas there are four species known in Scotland, viz., the Great Skua, or Bonxie of Shetland; the Richardson's Skua, or commonest species; the Long-tailed, or Buffon's Skua, with very long centre tail-feathers; and the Pomatorhine Skua, with curious recurved tail-feathers. Perhaps this note may be of service in future in separating them. The Bonxie and the Pomatorhine are rare. In autumn, Skua, or "Dirty Allan," at Isle of May on Oct. 15th, one seen, and well described; and three seen of "Skua," or "Norwegian Gull," at Pentland Skerries on 19th, and again on 29th. Kittiwakes are recorded, Aug. 5th, at Isle of May; large numbers. *Note.*—Most of birds breeding on Isle of May had left by this time, but a number of Kittiwakes remain still; all left by 25th, however. Great Black-backed Gulls noted passing S. past Isle of May on Aug. 13th. "Large White Gulls" (glaucous?) often wheeling round, Aug. 25th, for two or three days; and a large flight came from N., and flew S. past Isle of May, on Oct. 24th. "Iceland Gulls" at Sumburgh Head, on Dec. 1st and 8th, after gales and rain. Gulls, enormous numbers (and Gannets) passed Isle of May, Sept. 30th. Herring Gulls, a movement S. past Isle of May all day, on 10th. Lesser Black-backed Gulls (called "Lady Ann Gulls") flying S.E., and numbers on the 14th and 18th. Iceland Gulls (with Swans), two seen at Sumburgh Head, Dec. 25th, and one (last record) on Dec. 8th. The Larger Glaucous Gull is not always easily distinguished from the Lesser Iceland Gull; both being very white, however, and are in relationship to one another as the Great Black-backed Gull is to the Lesser Black-backed Gull. *Land Notes.*—At Lerwick a large flock of Common Gulls passed northward in the evening, flying very low, on Oct. 13th.—(J. T. G.)

PROCELLARIIDÆ.—One Stormy Petrel record; two seen at noon at Auskerry on Sept. 29th; light variable breezes.

ALCIDÆ.—In spring, records from Whalsey, Sumburgh Head, and Isle of May. On Feb. 1st, large numbers of Razorbills and Marrots appeared at Isle of May, light S. breeze; and again on March 18th; and a great increase on May 3rd; light S.E. Black Guillemots appeared at Whalsey during the night of March 2nd, with light E.S.E. breeze, and clear (called "Tysties"). At Sumburgh Head, Guillemots (or "Marrots") arrived on

March 18th, a fortnight later than in 1881. In autumn, a general migration of Rock Birds, between Aug. 13th and 18th, during a fog (Why do birds apparently often choose a fog to depart in?), light S.E. (or is it always more to do with direction of the wind at the time?). See back. At Pentland Skerries, continuous streams of Guillemots flying E. through the N. Pentland Firth. Little Auks, one in E. gale on Nov. 16th, close to Isle of May, and more resting on 18th; and a few in a severe snowstorm on Dec. 7th, at same place. Four species of *Alcidæ*.

Of unknown birds I have left out notices this year, though keeping note of them for further use, as they may come to be identified later.

EAST COAST OF ENGLAND.

PRINTED forms of enquiry and letters of instruction were sent to thirty-six lighthouses and light-vessels on the East Coast of England, and two stations on the Channel Islands,—thirty-eight altogether, against thirty-six in 1881,—and returns have been received from thirty, a result which is very encouraging.

Independent reports have also been sent in from Heligoland, Seaton-Carew, and Redcar, Flamborough, Spurn, North-East Lincolnshire, and Northrepps, making a total of thirty-seven reporting stations, against thirty-two in 1881.

I have again to thank H. Gätke, T. H. Nelson, C. Donald Thompson, Matthew Bailey, William Eagle Clarke, H. Bendelack Hewetson, M.D., and J. H. Gurney, jun., for their general kind co-operation and assistance in the enquiry.

Special thanks are also given to all my kind and painstaking observers on the lighthouses and light-vessels whose names are given in the report. While thanks are due to all, it may perhaps be not invidious to mention the very excellent returns received from the Farne Island stations, the Longstone and Inner Farne lighthouses, no less than eleven well-filled schedules having been sent in.

The east coast stations are as follows, those making returns being marked with a star (*) :—

*Longstone L.H. †	...	...	Thomas O. Hall & James W. Parsons.
*Inner Farne L.H.	...	...	Thomas H. Cutting.
*No. 5 Buoy, Teesmouth L.V.	...	...	Henry Harbord.
*Coquet Island L.H.	...	...	William Evans.
*Whitby High L.H.	...	...	John Odgers.
*Flamborough Head L.H.	...	...	Charles Hood.
*Spurn L.H.	...	...	James B. Smith.
*Spurn (Newsand) L.V.	...	...	W. Edwards.
*Outer Dowsing L.V.	...	...	William Stock.

† For nature of light, and position and description of station, see report for 1880.

*Inner Dowsing L.V. ...	...	...	...	William King.
*Dudgeon L.V. ...	...	...	...	Thomas Dale.
*Llyn Wells L.V. ...	...	...	...	The Principal.
*Hunstanton L.H. ...	...	...	...	William Westmoreland.
*Cromer L.H. ...	...	...	...	Richard Comben.
*Hasbro' L.V. ...	...	...	...	John Nicholas & B. Darnell.
Leman & Ower L.V. ...	...	...	...
Hasbro' L.H. ...	...	...	...
*Newarp L.V. ...	...	...	...	Cornelius Campbell & William Rees (mate).
*Winterton L.H. ...	...	...	...	John Watson.
*Cockle L.V. ...	...	...	...	Samuel Pender & Charles Perfrement.
*Corton L.V. ...	...	...	...	William John Cotton.
*Orfordness L.H. ...	...	...	...	Wm. Wilby Woodruff.
*Shipwash L.V. ...	...	...	...	William Bonken.
*Languard Point L.H. ...	...	...	...	Owen Boyle.
*Galloper L.V. ...	...	...	...	William Littlewood.
Kentish Knock ...	...	...	...
*Swin Middle L.V. ...	...	...	...	Thomas Barrett.
*Tongue L.V. ...	...	...	...	John Webber.
Nore L.V. ...	...	...	...
North Foreland L.H. ...	...	...	...
North Sand Head L.V. ...	...	...	...
*Gull L.V. ...	...	...	...	Francis Harvey & Joseph Jenkins.
*South Sand Head L.V. ...	...	...	...	J. C. Leggett & George Woodward.
*East Side L.V. ...	...	...	...	Edward le Gallais & Thomas Rees.
South Foreland L.H. ...	...	...	...
*Hanois L.H. (Guernsey) ...	...	...	...	Charles Williams.
Casquets L.H. (Alderney) ...	...	...	...

SEPARATE REPORT ON EACH SPECIES.

Mistletoe Thrush, *Turdus viscivorus*, Linn.—Longstone L.H., Nov. 10th and 11th, N.W. to N.N.E., several each day, with Ring Ouzels.

Song Thrush, *T. musicus*, Linn.—Spring, 1882: Heligoland, Feb. 21st, Mr. Gätke remarks, "*musicus*: some in my garden, 25th, S.S.W., several. March 2nd, a few. April 12th, S.S.W., a few; 22nd, pretty numerous; on 23rd, S.S.E. and S., with Ring Ouzels, the two in departing mounting up in the atmosphere till lost to sight; 29th, some also with Ring Ouzels." Cromer L.H., May 14th, two killed against lantern at midnight. Autumn: Heligoland, Sept. 13th, first Thrushes, and at intervals,

but sparingly to November;* and the whole of this latter month along with Fieldfares almost every night pouring overhead; during daytime rarely any. On the English coast, from the Inner Farne L.H., Sept. 27th, to the Galloper L.V., Dec. 20th, twenty from 8 to 9 p.m., two struck and killed; and at the former station they continued to pass through December, and from Jan. 3rd to 15th in 1883, along with Fieldfares and Blackbirds. The great rush was on the nights of 12th and 13th October, very great numbers being observed at stations from the Longstone L.H. to Galloper L.V., easterly winds, fog and drizzling rain over North Sea.

Redwing, *T. iliacus*, Linn.—Spring, 1882: Great Cotes, second week in March, returning to coast. Autumn: First, South Sand Head L.V. (Goodwin), Sept. 28th, forty to fifty to N.W. Longstone L.H., Oct. 8th; Spurn, 13th and 25th, adult males; "rush" Oct. 13th. Heligoland, Oct. 18th, S.E., great many; 19th, multitudes passing overhead, and at intervals to Nov. 7th.

Fieldfare, *T. pilaris*, Linn.—Spring, 1882: Heligoland, Jan. 17th and 18th, W., hazy, great many to E.; Feb. 20th and 21st, small flights, twenty to thirty; March 2nd, great flights overhead. Great Cotes, April 10th, flock, 120 to 150. Autumn: Heligoland, Sept. 13th, S.—S.W., thunderstorm with heavy rain, a very great flight; all through November at night with Thrushes. On English coast, Farne Inner L.H., Sept. 27th, one, and subsequently at intervals to end of the year. Whitby L.H., Oct. 12th, all night; 13th, less. Rush from 11th to 14th December between Farne Islands and Teesmouth, and again 13th to 15th January, 1883, but are not recorded anywhere south of Humber.

Blackbird, *T. merula*, Linn.—Spring, 1882: Dudgeon L.V., Feb. 8th, 6 p.m., with Larks. Heligoland, Feb. 21st, N.N.W. to N., "some in garden"; 25th, S.S.W., some; March 13th and 14th, a few. Cromer L.H., March 17th, 11 p.m., one struck. Autumn: Heligoland, last week in October to end of November. English coast, first, Hanois L.H. (Guernsey), Sept. 19th, 10 p.m., to Jan. 15th, at Inner Farne L.H. Great "rush," nights of Oct. 10th and 13th; second "rush" Nov. 11th, Spurn L.V., Hanois L.H., 11th, midnight, and 13th all night; third "rush," Farne Inner L.H., Dec. 13th, 14th and 15th, and at same station

* Mr. Gätke's notes are not continued beyond Nov. 30th.

through December and in less numbers to Jan. 15th, 1883. At Great Cotes during night of Sept. 28th, S.W. to W., rain, great many young cocks came in. Swin Middle L.V., Oct. 6th, from 7 p.m. to 3 a.m., about one hundred came to lantern and twenty were killed, all young cocks. Spurn L.V., Nov. 11th, noon, large flock from S.E. to N.W. Spurn, Oct. 25th, adult males.

Ring Ouzel, *T. torquatus*, Linn.—Spring: Farne Inner L.H., April 23rd and 24th, one each day: Heligoland, April 22nd, many; 23rd, same; and on 29th, some. Autumn: Heligoland, Sept. 17th, E.—N.E., calm, some; and at intervals to Nov. 7th, an unusually late date, which, however, corresponds with arrivals on English coast; Sept. 10th, at Cromer, to Nov. 10th and 11th, at Longstone L.H., several afternoon of each day. Great rush Oct. 12th and 13th from the mouth of the Tees to Spurn, old cock birds. Were very numerous in the neighbourhood of Spurn all through October, all being mature males.

Common Wheatear, *Saxicola œnanthe* (Linn.).—Spring: Farne Inner L.H., March 22nd, 1882, 3 p.m., two. Spurn, 29th, many. Heligoland, April 8th, numerous fine old males; 12th, some at lighthouse. At 5th Buoy Tees L.V., April 10th to 29th, several coming from E.S.E. towards land, wind N.E. to N.W. Autumn: Heligoland, June 29th, pretty numerous, young birds of the year. On the English coast, from Aug. 12th, at the Farne Inner L.H., several, to Spurn, Oct. 7th, E., rain, evening, several round lantern. Passed across Heligoland in large numbers in September; some on Oct. 10th, "great old males."

Eastern Pied Chat, *S. morio*, Ehr.—Heligoland, early in June, a fine adult male shot.

Whinchat, *Pratincola rubetra* (Linn.).—Great Cotes, August, last week, some number of young birds. Spurn, Oct. 15th, all day. Heligoland, from Aug. 6th, young birds, and throughout month.

Stonechat, *P. rubicola*.—Spring: Heligoland, Feb. 27th, 1882, two or three; 28th, several; March 1st, one fine old male. Autumn: Great Cotes, first week in September, many young; October and November, old birds, sparingly.

Redstart, *Ruticilla phœnicurus* (Linn.).—Spring: Inner Farne L.H., April 22nd and 23rd, some with Wheatears. Autumn: Spurn, Sept. 7th, one. Longstone L.H., 14th, N.E., 5 p.m., on rocks. Yarmouth, 22nd, a few; and from Oct. 7th to 13th a few from the Farne Islands southward to Spurn. Have been com-

paratively scarce compared with the large numbers which accompanied the Wheatears on their southward migration up the coast in the autumns of 1880 and 1881. Across Heligoland from Aug. 10th to first week in October; on the 5th, great many, with Wheatears, wind E., fresh.

Blackstart, *R. titys* (Scop.).—Heligoland, March 13th to 14th, one; 17th, eight to ten; and to April 8th, daily, some. Autumn: Spurn, Oct. 29th, one, adult female; stomach contained remains of Coleoptera, entire ants, and two large seeds. Migrates earlier in the spring and later in the autumn than the Redstart.

Red-spotted Bluethroat, *Cyanecula suecica* (Linn.).—Heligoland, Sept. 16th, E.N.E., in great numbers, with Redstarts, Goldcrests, Wheatears, &c.; 20th, S.E., fresh, many; 23rd, very numerous. At Spurn, Sept. 11th, two immature, one obtained. It appears yet to be an open question with ornithologists whether the young of *suecica* are distinguishable from those of *leucocyana* in the plumage of the first year; the Spurn bird therefore may be an example of the Central European form, the White-spotted Bluethroat.

Redbreast, *Erithacus rubecula* (Linn.).—Spring: Heligoland, March 13th and 14th, several; April 8th, 22nd and 23rd, some. Autumn: across island, from Sept. 8th, N., calm, overcast, through October, in large numbers; great rush, Oct. 17th, 18th and 19th; again on 27th and 28th. At Orfordness and Languard Point lighthouses and Shipwash L.V., on Sept. 20th, and from Oct. 6th to 25th between the Longstone L.H. and East Goodwin L.V., in great numbers. Great rush Oct. 8th, and again night of 13th at many stations and in large numbers. At the Galloper L.V., on 6th, with Wrens.

SYLVINÆ.—Whitethroat, *Sylvia cinerea* (Linn.), Hanois L.H., April 16th, 3 a.m., some killed. Heligoland, April 22nd and 23rd, S.S.E. and S., some. Spurn L.H., May 7th, 11 p.m., misty, rain, one killed. Cromer L.H., June 17th, 9.50 p.m., 6 a.m., two and a Wren killed. Autumn: Cromer L.H., July 18th, 3 a.m., S.W., seven stunned. During September and first week in October at several stations during night. Blackcap, *S. atricapilla* (Linn.), Heligoland, April 23rd, some; 28th, many. Lesser Whitethroat, *S. curruca* (Linn.), also some. Heligoland, in the autumn, White-throats on Aug. 6th, and through September in great numbers

to Oct. 7th. Garden Warbler from Aug. 19th to end of September. Blackcap as late as Oct. 27th.

Golden-crested Wren, *Regulus cristatus*, Koch.—Spring, 1882: Heligoland, March 13th and 14th, several, and on to April 12th. Autumn: the autumn of 1882 will be long remembered amongst ornithologists from the extraordinary immigration of Goldcrests on to the east coasts of Scotland and England. On the east coast of England the migration extended over ninety-two days, commencing Aug. 6th. Cromer L.H., midnight, two stunned against lantern, and a week later at Redcar, Aug. 13th, wind S.W., forty to fifty, at 8 a.m., seen on the breakwater, and forward, at many stations and in immense numbers, to Nov. 5th, Cockle L.V., 5 a.m., one caught against glass. They arrived somewhat sparingly in August and through September, and day after day in enormous numbers in October; in this month they are recorded at twenty-one stations between the Farne Islands and the Hanois L.H., off Guernsey. There appear to have been two great rushes, one on the night of Oct. 7th and morning of 8th, and again on night of 12th and morning of 13th, the latter with the Woodcock.* Many also are likewise reported during the month to have alighted on fishing-boats, steam-vessels, &c., in the North Sea. At Heligoland, on Oct. 8th, all the island swarmed with them; they had also been exceedingly numerous there from Sept. 8th, continuing also to arrive and depart throughout October, and on the night from 28th to 29th Mr. Gätke remarks, “a perfect storm of Goldcrests we have had,—poor little souls!—perching on the ledges of the window-panes of the lantern of our lighthouse, preening their feathers in the glare of the lamps; on the 29th all the island swarmed with them, filling the gardens everywhere, and over all the cliff—hundreds of thousands; by 9 a.m. most of them had passed on again.” On English coast, Farne Inner L.H., Oct. 8th, “never remember seeing so many at one time.” Whitby L.H., 8th and 12th, “great rush.” Flamborough, 7th to 14th, “never more seen.” Spurn, 7th to 8th, “in turnip-fields, hedges, and everywhere, never more seen.” Great Cotes, 8th, great many everywhere, and even on the piles of timber on the dock-quays and timber-yards at Grimsby. Dudgeon L.V., 12th, “flock to W.” Cromer L.H., 10th and 12th,

* At this date the stream of Goldcrests extended quite across England, the Irish Channel, and into Ireland.

latter night "large flocks," and at other stations, too numerous to detail, in large numbers. General direction E. to W., and E.S.E. to W.N.W., winds easterly over North Sea nights of 7th and 12th, with fogs and drizzling rain on latter night. These small wanderers reached the land in a very exhausted state, and great numbers are supposed to have perished in mid-passage.

It is curious that the Fire-crested Wren, *R. ignicapillus* (C. L. Brehm), has not been observed at Heligoland during the autumn, although generally it is tolerably numerous.

At the Newarp l.v., in March and April, 1883, an immense migration of various birds was observed almost day by day; amongst those on April 14th three Golden-crested Wrens going eastward.

PHYLLOSCOPINÆ.—Spring: East Yorkshire, Chiffchaff, *Phylloscopus collybita* (Vieill.), March 13th. Willow Wren, *P. trochilus* (Linn.), Heligoland, April 22nd and 23rd, some. Autumn: Spurn and East Lincolnshire, first week in September, many; latest, Spurn, Oct. 25th. Chiffchaff also at Spurn on 29th. Heligoland, Willow Wren, Aug. 15th, some, and forward in great numbers to Oct. 19th. Chiffchaff, Sept. 21st, and a great number at intervals to Oct. 27th. Wood Wren, *P. sibilatrix* (Bechst.), Oct. 27th, one. Yellow-browed Warbler, *P. superciliosus* (Gm.), Oct. 23rd, W., one; 27th, S.W., one seen.

ACROCEPHALINÆ.—Spring: Spurn, May 29th, 11 p.m., misty, two Reed Warblers, *Acrocephalus streperus* (Vieill.), killed against lantern; Spurn, Aug. 20th, midnight, three old males killed; Great Cotes, Sept. 2nd, in bean-fields. On Sept. 12th, 1881, two Grasshopper Warblers, *Locustella nævia* (Bodd.), were killed in the night against the lantern of Spurn lighthouse (omitted in report for 1881). Heligoland, Sept. 19th, one Grasshopper Warbler.

Hedgesparrow, *Accentor modularis* (Linn.).—Spring: Heligoland, March 12th, some; 13th and 14th, some; 20th to April 12th, daily some. Autumn: At Spurn and in East Lincolnshire great numbers were observed during the first fortnight in September. Spurn, Oct. 8th, most abundant, and on the Lincolnshire side, same date, extraordinary numbers; in some localities, as stack-yards and marsh hedgerows, swarming. Heligoland, Sept. 20th, S.E., beginning to arrive; 22nd, great many; on Oct. 6th and 7th, marvellous numbers; also on 8th, and continuing to arrive and pass forward in very great numbers up to the 29th. It will be seen that their extraordinary abundance at Spurn and in

East Lincolnshire on Oct. 8th corresponds with the immense flight at Heligoland at the same period, Oct. 6th, 7th and 8th. At Languard Point, on March 1st, 1883, a large flock was seen at 12.30 p.m., going eastward.

Bearded Reedling, *Panurus biarmicus* (Linn.).—Heligoland, Oct. 9th, S.S.E., later thick and hazy, one, a male.

PARIDÆ.—Autumn: Heligoland, Blue Titmouse, *Parus cæruleus*, Linn., Sept. 20th, beginning; Oct. 23rd, some. Great Titmouse, *P. major*, Linn., Oct. 7th, a sprinkling; 8th, numerous; 14th, great many. Coal Titmouse, *P. ater*, Linn., one on Oct. 15th; *Paridæ* continuing to pass up to 29th. Languard Point L.H., Oct. 29th, one Long-tailed Titmouse. Galloper L.V., Oct. 8th, one Titmouse dead on deck. Farne Inner L.H., Oct. 13th, E.S.E., Great and Blue Titmouse, old males, many. 5 Buoy Tees L.V., 13th, 3 p.m., five on board. Newarp L.V., several on deck, with Goldcrests and Redbreasts. Two "rushes," Oct. 8th and 13th, with Goldcrests.

Common Wren, *Troglodytes parvulus*, Koch.—Spring: Flamborough L.H., March 18th, W., many round lantern, several struck. Hunstanton L.H., 17th, 3 a.m., S.W., one caught against lantern. Corton L.V., April 14th, one, E. to W. Cromer L.H., June 17th, 9.50 p.m., two struck, one killed. Autumn: Heligoland, Oct. 9th, S.S.E., calm, a great many; 14th, many. Flamborough L.H., Sept. 15th, Spurn L.H., 20th, Galloper L.V., 21st, and Shipwash L.V., 26th, a great many, both during day and night. Oct. 7th to 8th and 12th to 13th, great rushes at six stations from Farne Islands to Galloper L.V.; at the latter on night of 12th many round lantern, and night of 13th, 8 p.m. to daybreak of 14th, with many other birds, Larks, Starlings, Thrushes, and two Robins—altogether many thousands of birds; 160 of various species picked up on deck, and it is calculated one thousand struck and went overboard.

MOTACILLIDÆ.—Spring: Heligoland, Feb. 20th, 1882, Pied Wagtail, *Motacilla lugubris*, Temm., one fine old male, "never so early; once I got one on Feb. 28th"; April 23rd, Blue-headed Wagtail, *M. flava*, Linn., some; Yellow Wagtail, *M. raii*, Bp., one; 28th, *flava* pretty numerous. Inner Farne L.H., March 29th, one Pied Wagtail. 5 Buoy Tees L.V., 28th and 29th, 8 a.m. to 3 p.m., great many in flocks of about twenty, flying S.E. to N.W. Whitby L.H., 23rd, many. Autumn: Heligoland, Aug. 14th, White Wagtail, *M.*

alba, Linn., some; Sept. 9th, *M. flava*, many. Great Cotes, Sept. 2nd, Grey Wagtail, *M. melanope*, flocks of twenty to thirty in bean-fields; only one old bird seen. Spurn, 7th, several. Heligoland, April 26th, W.N.W., Richard's Pipit, *Anthus richardii*, Vieill., one, a small male bird; 28th, one male, very pale, but not faded or abraded. Autumn: Heligoland, Sept. 28th, S.W., fresh, *A. richardii*, a few; Oct. 8th, a few shot. Meadow Pipit, *A. pratensis* (Linn.), Sept. 7th, potato-fields crowded with them, and up to Oct. 19th a great many; Oct. 17th, marvellous numbers. Tree Pipit, *A. trivialis* (Linn.), Sept. 19th to Oct. 11th, numerous. Rock Pipit, *A. obscurus* (Lath.), some with *pratensis*. Great Cotes, Sept. 2nd, Meadow and Tree Pipits in small flocks in bean-fields. Inner Dowsing L.V., Sept. 12th, fifty Titlarks during day. Farne Inner L.H., Nov. 20th, 2 p.m., sixty to S.W.

LANIIDÆ. — Spring: Spurn, May 28th. Red-backed Shrike, *Lanius collurio*, Linn., two, male and female, night of 27th or morning of 28th. Autumn: Great Grey Shrike, *L. excubitor*, Linn., Spurn, Sept. 18th, one; 19th, one; and several during the first fortnight in October. Heligoland, Oct. 5th, *L. major*, one, a second during day; 15th, one; 18th, *L. excubitor*, one, an old male.

Waxwing, *Ampelis garrulus*, Linn. — Heligoland, Nov. 21st, one female. Seaton Carew, Jan. 5th, 1883, several seen near Middlesborough and Guisborough, some shot. Cleethorpes, near Grimsby, early morning, 15th, one in a garden close to coast; same time, one near Wragby, Lincolnshire; 17th, large flocks, several scores, near Goole, fourteen obtained. Several also in Norfolk near East Coast early in 1883.

MUSCICAPIDÆ.—Pied Flycatcher, *M. atricapilla*, Linn.—Heligoland, June 27th, pretty numerous, young, and forward to Sept. 20th in large numbers; during the latter time with many Spotted Flycatchers, *M. grisola*. Spurn, Sept. 12th, Pied Flycatchers, a few, very small birds comparatively, measuring one inch less in length than those obtained in 1881. The Common Flycatcher was last observed in North Lincolnshire on Sept. 25th. "Flycatchers" are frequently mentioned as occurring round the lanterns at night; it is, however, impossible to say what birds are intended, as the term is used indiscriminately for many of the small insect-eating birds.

HIRUNDINIDÆ.—Swallow, *H. rustica*, Linn.—Spring: First at

Hunstanton L.H., April 13th, several. Heligoland, April 23rd. Longstone L.H., May 1st. Autumn: Heligoland, August to Oct. 31st, with House Martins at the latter date. Sand Martins crossed the island on Aug. 15th, and large numbers of both *rustica* and *urbica* from Sept. 13th to 19th. On East Coast of England, Great Cotes, Aug. 12th, dusk, starlight, about one hundred N.E. to S.W.; main body passed up the coast in September, and very few seen after first week in October. The last occurrences are North-East Lincolnshire, Nov. 8th, two at Laceby. Flamborough, Nov. 11th, N., cold, two about light-house. Patrington, Yorkshire, on Oct. 27th I saw ten or twelve House Martins hawking in the village street.

Goldfinch, *Carduelis elegans*, Steph. — Spring: Spurn, April 20th, 11 a.m., six from S. remaining all day. Autumn: Spurn and East Lincolnshire, some in October. Heligoland, Oct. 16th, a few.

Siskin, *Chrysomitris spinus* (Linn.).—Seaton Carew, Durham, Oct. 19th, one. Spurn, 25th, a few. Heligoland, Oct. 16th and on to 23rd, some.

Greenfinch, *Ligurinus chloris* (Linn.). — N. E. Lincolnshire, Feb. 5th, 1883, large flocks on stubbles near the coast. Great Cotes, Sept. 7th, large migratory flocks in bean-fields and on stubbles during month, feeding on seeds of *Atriplex angustifolia* and *Polygonum aviculare*, showing a decided preference for the latter. Languard L.H., Oct. 23rd, very large flock came in at noon.

Hawfinch, *Coccothraustes vulgaris*, Pall.—Inner Dowsing L.V., Oct. 20th, S.S.W. [No. 5], two came on board and remained all night, then in the morning left, flying S.E. to N.W. At Heligoland, Mr. Gätke says, "the Hawfinch here is a well-known customer, never in any numbers, but every spring and fall *some*, betraying itself forthwith by its peculiar call-note, so out of all proportion with its colossal beak."

Common Sparrow, *Passer domesticus* (Linn.). — From Sept. 23rd, Shipwash L.V., "flights to N.N.W. to Farne Inner L.V.," Nov. 2nd, eight House Sparrows, "seldom seen here." Altogether observed at twelve stations, with one exception, as above, all south of the Humber. Goodwin L.V., Sept. 27th to Nov. 14th, on ten days large and continuous flights to W., and in large numbers in October at other stations.

Tree Sparrow, *P. montanus* (Linn.). — Spring: Heligoland,

March 20th, a score; April 24th, daily; and 15th to 20th, some; 29th, "eating off buds of gooseberries in garden." Corton L.V., June 8th, one on board. Autumn: Shipwash L.V., Sept. 22nd, 2 to 6 p.m., large numbers to S.W., to Spurn, Oct. 25th; altogether at seven stations south of the Humber in very considerable numbers in October.

Chaffinch, *Fringilla cœlebs*, Linn. — Corton L.V., from Sept. 28th, "several flocks during forenoon to W.," to Galloper L.V., Oct. 14th, 9 p.m. to 4 a.m., "many with Larks." Seven stations report Chaffinches, all in October, between the Tees and South Sand Head L.V., Goodwins. Heligoland, Oct. 6th and 7th, enormous numbers crossed—hundreds of thousands.

Brambling, *F. montifringilla*, Linn.—Heligoland, March 13th and 14th, 1882, one each day; April 8th a few, and on to 28th. Autumn: Longstone L.H., Sept. 21st, 10 a.m., N.E., fresh and stormy, several. Spurn, Oct. 9th, some; 18th, an immense flock of males, extending two hundred yards in length, and flying as closely as a flock of Knots. Teesmouth, 12th and 13th, some. Heligoland, Sept. 4th, E. by N., some; Oct. 19th, great many.

Linnet, *Linota cannabina* (Linn.). — Scarcely any reported.* Lesser Redpoll, *L. rufescens* (Vieill.), a few in N. E. Lincolnshire, first week in September. Spurn, October, several. Heligoland, Oct. 24th, storm S.W., No. 11, one, "first capture of species on island"; Nov. 7th, S.E., windy and heavy rain, one shot in garden, second specimen. Twite, *L. flavirostris* (Linn.), Heligoland, scarcely any during autumn. Spurn, Oct. 25th, some small flocks, examples obtained had very pink rumps.

Common Bullfinch, *Pyrrhula europæa*, Vieill.—Hasbro' L.V., Oct. 12th, 4 p.m., two S.E. to N.W.

Common Crossbill, *Loxia curvirostra*, Linn. — Farne Inner L.H., July 15th, one found near lighthouse, had been dead some days.

EMBERIZINÆ. — Yellow Bunting, *E. citrinella*, Linn., Hunstanton L.H., Oct. 23rd, 10.30 a.m., great many round lighthouse. Ortolan Bunting, *E. hortulana*, Linn., Heligoland, April 28th and 29th, some. Meadow Bunting, *E. cia*, Linn., Heligoland, March 8th, S.S.W., clear, warm and fine, a fine old male, the first after forty years. Reed Bunting, *E. schœniclus*, Linn.,

* East Coast of Scotland, vast rush in October (9th to 23rd). See J. A. H. B., p. 14 of Report.

Great Cotes, first week in September, many in bean-fields. Autumn: Heligoland, Aug. 14th, Ortolan Bunting, some; 28th, numerous; first fortnight in October, *E. schoeniclus*, great many daily; 17th, great many, and to end of month.

Snow Bunting, *Plectrophanes nivalis* (Linn.). — Spring: Heligoland, Feb. 28th, 1882, great many; March 28th, many. 5 Buoy Tees L.v., Spurn, and Inner Farne, in March; large flocks at Spurn on 4th. Autumn: A few old birds in September; 7th and 8th, one each day at Skitter Haven, within the Humber. Young birds first at Great Cotes, Sept. 28th; occurred at stations north of Humber in October, November, and December, to January 2nd. Teesmouth, Dec. 1st, large flocks preceding the heavy snow-storm on 5th. Heligoland, Oct. 24th, S.S.E., strong and increasing, thick, "with thousands of others during forenoon racing past overhead"; night, storm S.W. [No. 11]; 29th, "in great masses in the fields"; and at intervals great numbers to Nov. 21st.

Sky Lark, *Alauda arvensis*, Linn.—Spring: Heligoland, Jan. 18th, 1882, N.N.W., all night great many, all day thousands upon thousands over island, all to E.; miles out at sea the same; Feb. 8th and 9th, great numbers across island; 10th and 11th, the same with Starlings, all to W.; 15th, S.W., rain, from early morning and all day, thousands from the east, Starlings same, all very high; 25th, S.S.W., early, calm and fine, "flights on flights" to E. by N.; 28th, Woodlark, *A. arborea*, Linn., "a small party, the first"; March 2nd, a flight. Spurn, March 27th, flocks of Sky Larks all day passing. Autumn: First at Galloper L.v., Sept. 20th, midnight to 4 p.m., "shoals," to Jan. 10th, 1883, at 5 Buoy Tees L.v.; altogether at twenty-nine stations, crossing the whole east coast of England, and in immense numbers both by night and day, direction E. to W., or S.E. to N.W.; Oct. 7th and 8th, great "rushes," again 10th and 13th, and again on 20th; Nov. 12th, and on Dec. 13th to 15th inclusive, in the latter case up the coast from N. to S., as well as directly inland from sea. Larks appear to have been tolerably equally distributed over the whole coast-line, and as usual to have crossed the North Sea in enormous numbers, far outnumbering any other species. At Heligoland, in the autumn, they appear, from Mr. Gätke's notes, to have passed on Oct. 11th, "great many passing above fog," call-notes heard; and subsequently in large numbers to Nov. 21st.

Shore Lark, *Otocorys alpestris* (Linn.)—Spring: Heligoland, March 20th, eight to ten; April 8th, E. by N., great many flights of twenty or over; 9th, same; 11th, very numerous; 14th, flights of thirty to forty; and to 24th, some daily. Autumn: Oct. 4th, great many; 6th, “some” (that means with us here, say a hundred); and subsequently at intervals to 28th, when they passed by thousands; Nov. 27th, many still passing over. Spurn, Oct. 26th, flock of seven; November and December, tolerably abundant; about eighty shot near Yarmouth in October, the greater portion being male birds.

Starling, *Sturnus vulgaris*, Linn. — Spring: April 4th, flocks to N. Autumn: First at Whitby, Aug. 3rd, 4th, and 5th, great many near lighthouse to Dec. 15th, at Spurn; altogether at nineteen stations covering the east coast of England, the bulk crossing in October; great rush from 10th to 13th inclusive, from E. to W. and to W.S.W. Heligoland, Oct. 10th, flights of sixty to seventy; 22nd, S. by E., flights of “hundreds of thousands,” and great many to Nov. 13th. Rose-coloured Starling, *Pastor roseus* (Linn.), Sept. 24th, S.E., calm, one young bird.

Common Jay, *Garrulus glandarius* (Linn.)—Heligoland, Oct. 6th, strong, clear, later stormy, “flights of hundreds”; Oct. 7th, S.E., clear, not warm, blowing nearly a gale, “without interruption thousands on thousands passing overhead like Crows”; 8th, S.E., fresh, clear, “actually still more than yesterday, over the sea north and south of the island, multitudes like a continual stream—never seen such masses”; 15th, eight to ten. Mem.: “Jays requiring *strong*, dry, clear east wind; Tits and *pratensis* the same; Chaffinches want east wind strong, but overcast, and cloudy sky.” The great abundance of the Jay in our English woodlands has been remarked upon from many districts during the winter of 1882–83; more especially, however, south of a line drawn from Flamborough Head to Portland Bill, Dorset.

Magpie, *Pica rustica* (Scop.). — Spurn L.H., March 24th, remained in neighbourhood three days. Weybourne, Norfolk, Oct. 16th, arrival of Magpies noticed.—J. H. G.

Daw, *Corvus monedula*, Linn.—At several stations with Rooks in October and November. Heligoland, Oct. 6th, about one hundred; 24th, towards evening, flights of about five hundred; 27th, one shot from a flock with light grey neck; on this day all birds in great haste, flying as a rule *very* high; enormous flocks

of Jackdaws seen but as the finest dust; of many birds only heard call-notes without being able to see them; wind S., S.E., and E. by S.

Carrion Crow, *C. corone*, Linn. — First at Orfordness L.H., Sept. 23rd, seven to N.E.; and at several stations from Farne Inner L.H. to Goodwin L.V., in October, November, and December; sometimes with Hooded Crows, occasionally in separate flocks. On Oct. 9th, at Spurn, Mr. Hewetson shot a Crow from a flock passing inland, which had a few white feathers under the chin and some of the claws white. Heligoland, Oct. 27th, a small flight.

Hooded Crow, *C. cornix*, Linn.—Spring: Spurn L.H., March 11th, to S., many all day. Corton L.V., from March 21st to April 14th, large numbers of Rooks and Hooded Crows going from W. to E. Heligoland, March 2nd, flights high over head to E.; March 4th, same; 12th, N.W., clear, great flights to E.; 13th and 14th, same; and to 17th, pretty numerous daily; April 8th, very many high overhead; 9th, same; 11th, great many. Longstone L.H., April 31st, eleven came on island, appeared much fatigued, and then left for land, mod. gale N.N.W. Inner Farne L.H., 16th and 17th, many to W.S.W.; a great many Crows (Rooks?) same time. Autumn: Orfordness L.H., Sept. 19th, first seen, one. In large numbers through October and November at stations from Farne Islands to Goodwin light-vessels; great rush Oct. 11th and 13th. Nothing special to note of migration across Heligoland in the autumn, which as usual was in immense numbers in October and November. As a rule, few Hooded Crows cross south of Languard Point, and few Carrion Crows north of Spurn. Rooks and Jackdaws sparingly north of Spurn, and gradually increase southward; and most plentiful at southern stations.

Rook, *C. frugilegus*, Linn. — Spring: Heligoland. Feb. 22nd, N.W., a very great flight; 28th, several flights going due E.; March 4th, same; 13th and 14th, less. Autumn: Sparingly north of the Humber, and in large numbers at the southern stations throughout October and November, and on to the middle of December. Immense numbers remain in North Lincolnshire during the winter, feeding in the lowlands on both sides of the Humber, and moving in the afternoon to the high wolds, where at dusk they retire to the great woods to roost.

Raven, *C. corax*, Linn.—Whitby L.H., May 20th, one, "comes each year about this time."

Common Swift, *Cypselus apus* (Linn.). — Hunstanton L.H., May 22nd, several. Autumn: Spurn L.H., June 17th, 18th, and 20th, great many to S., sometimes a flock remaining on gallery of lantern at night. Corton L.V., Aug. 1st, many to W. Heligoland, Aug. 14th, S., some.

At the Inner Farne L.H., Aug. 19th, "a very large Swift, supposed to be a foreigner, flying about island." About the end of July an Alpine Swift, *C. melba*, Linn., was shot by Mr. Wm. Rogerson, of Newcastle, at Alnmouth, Northumberland, and recorded at the time in the 'Newcastle Journal,' Aug. 2nd, 1882, as $9\frac{1}{4}$ inches in length, and 21 inches between the tips of the wings; and that it was identified by Mr. John Hancock.

Common Nightjar, *Caprimulgus europæus*, Linn. — Spurn, Sept. 11th, one.

Wryneck, *Jynx torquilla*, Linn. — Heligoland, April 23rd, several.

Kingfisher, *Alcedo ispida*, Linn. — Great Cotes, Sept. 1st, several in marshes. Hasbro' L.V., 23rd, 10 p.m., one struck lantern and killed, was flying S.E. to N.W.

Hoopoe, *Upupa epops*, Linn. — Heligoland, April 23rd, one. Spurn, Aug. 18th, one shot on Kilnsea Warren. Inner Farne, Aug. 29th, one shot on mainland; one also near Yarmouth in October.

Cuckoo, *Cuculus canorus*, Linn. — Spurn, May 1st. Whitby, 8th. Inner Farne, 11th. One on each occasion.

STRIGES, Owls.—Long-eared Owl, *Asio otus* (Linn.), Languard L.H., Oct. 26th, 4.30 p.m., one. Short-eared Owl, *A. accipitrinus*, Heligoland, scarcely any. On English coast also remarkably scarce; a few during the first fortnight in October at stations from Redcar to Languard Point; appears to have come over at the same time as the Woodcocks, from Oct. 11th to 13th. Hasbro' L.V., Nov. 16th, one "Grey Owl" at sunrise to W.

FALCONIDÆ. — Heligoland, March 4th, 1882, S.E. to S.W. Greenland Falcon, *Falco candicans*, Gmel., a very fine white bird. Sparrowhawk, *Accipiter nisus* (Linn.), Sept. 15th, great many over the sea north of the island, none on Heligoland; 19th, following flights of Chaffinches; Oct. 5th, many with Kestrels also, and on to 12th. Sea Eagle, *Haliaëtus albicilla* (Linn.), Sept. 16th, Nov. 13th, 14th, and 20th, one each day. Peregrine Falcon, *Falco peregrinus*, Tunstall, Sept. 20th, some,

and many young Merlins. Merlin, *F. æsalon.*, Nov. 12th, a very red-breasted old male obtained. Hen Harrier, *Circus cyaneus* (Linn.), Nov. 20th, one. On English coast, Kestrels, a few in September and October. Sparrowhawks from Aug. 3rd to September, and through October; also Jan. 9th, 1883, Goodwin L.V., one; not unfrequently alight in the evening on the rigging of the light-vessels, leaving again at daybreak. One, caught on the Corton L.V., Aug. 3rd, had a piece of copper wire round one leg. An Osprey was seen near Lowestoft on Oct. 7th; a Honey Buzzard shot at Welwick, near Spurn, on Sept. 15th; and another, Dereham, Norfolk, on Oct. 3rd; a few Buzzards were seen about Spurn in October. Altogether the larger birds of prey have been extremely scarce during the autumn.

Gannet, *Sula bassana* (Linn.).—Longstone L.H., March 15th, flocks to north from 10 a.m. to 4 p.m., and to end of month between the same hours; also first week in April between same hours; Oct. 20th to 24th, flocks flying north, old and young, but mostly old birds. Dudgeon L.V., Oct. 8th, eight off lightship all day. Orfordness, Dec. 6th to 7th, "flocks to W. along shore."

ARDEIDÆ.—Common Heron, *Ardea cinerea*, Linn., Aug. 6th, 7 p.m., five to N. Hanois L.H., Sept. 17th, two to W., twenty to S.W. Bittern, *Botaurus stellaris* (Linn.), Hornsea, Dec. 22nd.

ANATIDÆ, Geese.—Farne Inner L.H., Feb. 9th, twenty-one Brent Geese to E.S.E. Kilnsea, Spurn, June 5th, eight large Grey Geese to S., flying very low. Longstone L.H., Oct. 15th, nine Wild Geese; one, wounded against lantern and subsequently shot, was a Barnacle Goose, *Bernicla leucopsis*. Farne Inner, Nov. 13th, three Canada Geese shot from flock of eleven on one of the outlying islands; large flocks of Grey Geese going south along coast early in December.

Swans.—5 Buoy Tees L.V., Aug. 5th, six young Swans in Tees. Newarp L.V., Oct. 26th, three Swans to W. Spurn L.H., Nov. 28th, 9 a.m., ten passed close to lantern. Dudgeon L.V., 24th, fifty all white close past ship to W. Teemouth, 24th, 9 a.m., six.

Ducks.—5 Buoy Tees L.V., April 25th, twenty-five Sheldrake, *Tadorna cornuta* (Gmel.), seen in Tees. Inner Farne L.H., May 2nd, one solitary King Eider, *S. spectabilis* (Linn.), first time seen this season. Longstone L.H., Sept. 4th, Scaup Duck flying N. Large flights of various Ducks seen on east coast at many stations in October to end of the year; direction of flight,

however, not sufficiently persistent to permit any deductions; many doubtless were flocks changing their feeding-grounds.

COLUMBIDÆ. — Spurn, May 24th, two Turtle Doves, *Turtur communis*, Selby. Gull L.V., July 9th, 7.30 p.m., twenty Wood Pigeons, *C. palumbus*, Linn., to N.W. Spurn, Sept. 7th, Turtle Dove, young. Farne Inner L.H., Dec. 20th, 10 a.m., two Wood Pigeons to E.N.E.

RALLIDÆ. — Inner Farne L.H., Sept. 12th, Landrail, *Crex pratensis*, Bechst., killed against lantern during night. Spurn, 18th, one shot.

Crane, *Grus communis*, Bechst.—Heligoland, April 12th, one, not captured.

Little Bustard, *Otis tetrax*, Linn.—Heligoland, one shot, first occasion.

CHARADRIIDÆ. — Spurn, May 30th, Turnstone, *Streptilas interpres* (Linn.), small flock in full summer plumage. Spurn, first week in June, Dotterel, *E. morinellus*, four seen. The Golden Plover, *C. pluvialis*, Linn., was first seen at Farne Inner L.H., Aug. 17th; small flocks on island; on the same day also, in Great Cotes marshes, in summer plumage. Yarmouth, Sept. 10th, four, partially in summer dress. Grey Plover, *S. helvetica* (Linn.), first at Teesmouth, Aug. 10th, two. Spurn, Sept. 7th, first seen; on 16th, three large flocks, many members of each in full summer plumage. 5 Buoy Tees L.V., Oct. 15th and 16th, Grey Plover with Curlew, two to three hundred in flock. Whitby L.H., Nov. 14th, one hundred or more. Immense flocks of Lapwings, *Vanellus vulgaris*, Bechst., at Farne Islands, Sept. 25th and 26th, and subsequently at many other stations during the winter. Kentish Plover, *Æ. cantiana* (Lath.), was obtained near Blakeney about Sept. 26th. Heligoland, young Golden Plover commenced passing, Aug. 9th; during July and up to the end of the month, every night, great numbers of *Numenius*, *Totanus*, *Tringa*, and *C. hiaticula*, &c., crossed; on Aug. 25th, great numbers of Golden Plovers; on the 22nd, S.W., great many Dotterel, *C. morinellus* (Linn.); again Sept. 4th, great many Dotterel, 11 p.m., passing overhead E. to W., one flight taking ten minutes to pass.

SCOLOPACIDÆ.—Red-necked Phalarope, *Phalaropus hyperboreus* (Linn.), Breydon, Norfolk, Sept. 4th, one shot, two seen. Common Snipe, *Gallinago caelestis* (Frenzel), end of second week

in March, 1882, N. E. Lincolnshire, returning in some numbers. Heligoland, March 2nd, one; April 12th, S.S.W., a few. Autumn: Farne Inner L.H., Sept. 14th, Snipe to W. Orfordness, Oct. 13th, 8 p.m., one killed. Flamborough L.H., Nov. 16th, two struck and killed, strong S.E. gale. Gull L.V., Nov. 3rd, about one hundred to W. Jack Snipe, *G. gallinula* (Linn.), Longstone L.H., Sept. 21st, E.N.E. to N.E., one killed against S.E. side lantern. Farne Inner L.H., Oct. 12th, two. Woodcock, *Scolopax rusticula*, Linn., Spurn, Sept. 18th, first Woodcock; the great flight took place on the night of Oct. 12th, wind E., strong, fog and drizzling rain; on the morning of 13th at Farne Inner, 5 Buoy Tees L.V.,* Teesmouth, Coquet, Whitby, Flamborough, Spurn, Yarmouth, and Orfordness, in some numbers; specially so at Farne Inner, Teesmouth, Flamborough, and Spurn. Second flight, Teesmouth, Nov. 13th; and at Whitby, 11th; Farne, Dec. 14th; and Coquet, 14th. Woodcocks occurred at Heligoland on Oct. 26th, a few; 29th, twenty to thirty shot; Nov. 11th, some; and 21st and 30th, some. Dunlin, *Tringa alpina*, Linn., Great Cotes, Aug. 16th, night warm, close, thunder-storm, very dark, heavy rain from S.E., flocks of waders passing over, Dunlin and Ringed Plover. Curlew Sandpiper, *T. subarquata* (Güld.), Spurn, Sept. 14th, a few. Ruff, *Machetes pugnax*, Linn., Seaton Carew, Nov. 2nd, two Ruffs and a Reeve. Knot, *T. canutus*, Linn., Teesmouth, Aug. 11th, one; 15th, three. Great Cotes, 27th, flock of about two hundred. Spurn, Sept. 6th, several; plentiful by middle of month. Spurn L.H., Nov. 15th, 3 a.m., many round lantern. Hasbro' L.V., 16th, 11 a.m., large flocks very high E. to W.S.W. Sanderling, *Calidris arenaria* (Linn.), Spurn, May 31st, flocks, some in summer and others in transition plumage. Lincolnshire coast, Aug. 10th, flocks, thirty to forty, old and young together, near Somercotes. Green Sandpiper, *Totanus ochropus* (Linn.), Breydon, Aug. 15th, plentiful. Common Redshank, *T. calidris* (Linn.), scarce. Spotted Redshank, *T. fuscus* (Linn.), Breydon, Aug. 15th, one, immature, shot. Greenshank, *T. canescens* (Gmel.), Breydon, Aug. 15th, plentiful. Red-breasted Snipe, *Macrorhamphus griseus* (Gmel.), Aug. 15th, one shot at Cleethorpes, near Grimsby, a mature bird in moult

* At this light-vessel a single bird passed, going west, at daybreak.

from the knot-like plumage of summer to the grey of winter. Bar-tailed Godwit, *Limosa lapponica* (Linn.), Teesmouth, Aug. 13th, 4.30 a.m., five. Black-tailed Godwit, *L. ægocephala* (Linn.), Aug. 24th, four seen at Breydon, two in summer plumage. Whimbrel, *Numenius phæopus* (Linn.), 5 Buoy, Tees L.V., April 23rd, one N.W. to S.E. Great Cotes, July 27th, Whimbrel passing, first of the season. Teesmouth, Aug. 1st to 7th, two or three small flocks about; and large flocks to E. early on morning of 16th. Common Curlew, *N. arquata* (Linn.), Heligoland, April 12th, from 10 p.m. to daylight, hundreds of thousands of *Tringa*, *Numenius*, *Hæmatopus*, and the like flying over. Lincolnshire coast, Aug. 10th, flocks of eight to ten young, on shore near Somercotes. South Sand Head L.V., Sept. 17th, twelve, the first seen, to N.W. 5 Buoy Tees L.V., Oct. 15th and 16th, flocks of two to three hundred passing. Whitby L.H., Oct. 15th, large flock round lantern for several hours, thick and dark. Cromer L.H., Oct. 13th, large flock round lantern. Spurn L.H., Nov. 15th, 3 a.m., many round lantern with Knots. Flamboro' L.H., 16th, many round lantern; and on Dec. 13th, all night with Larks.

STERNINÆ, Terns.—Inner Farne L.H., April 20th, Sandwich Tern, *Sterna cantiaca*, Gmel., heard calling for first time. Longstone L.H., May 3rd, first Sandwich Tern seen on island. Inner Farne L.H., May 2nd, Arctic Tern, *Sterna macrura*, Naum., seen first time; 4th, both together, flying round their breeding-stations. Inner Farne, Aug. 28th, most of Arctic and Sandwich Terns left their breeding-quarters. Longstone and Inner Farne, Sept. 6th and 7th, both species finally left island.

LARINÆ, Gulls.—Heligoland, Jan. 17th, Greater Black-backed Gull, *Larus marinus*, Linn., hundreds, all old birds; and on 31st, the same, nearly without exception old birds; Kittiwake, *Rissa tridactyla* (Linn.), same. Whitby, Feb. 12th, Herring Gulls came to the cliffs to breed, in 1881; it was on the 14th. Longstone, March 15th, Gulls coming to nesting-quarters. Whitby, July 16th, young first seen on wing; Sept. 7th, old and young left. Great Cotes, Sept. 28th, Humber-flats covered with various Gulls. Whitby, Oct. 14th, large numbers seen at sea, going S. Spurn, in December, Iceland Gull, *L. leucopterus*, Faber, mature and immature, obtained.

STERCORARIINÆ, Skuas.—Farne Inner, Sept. 26th, Skuas seen in attendance on Black-headed Gulls. Teesmouth (Redcar),

Oct. 20th, five Skuas to E. Nov. 1st, Longstone, one. Have been remarkably scarce on the coast.

PROCELLARIIDÆ, Petrels.—Coquet L.H., Oct. 14th, 7 p.m., one Stormy Petrel caught against glass and set at liberty again. Languard, 11th, one, 6.15 p.m. Spurn, 29th, one at edge of water.

ALCIDÆ, Auks. — Common Guillemot, *Lomvia troile*, (Linn.), Longstone L.H., Jan. 3rd, 1883, Guillemots flying in from sea to island; March 15th, 1882, assembling for breeding on islands; May 15th, Puffins assembling on islands; Aug. 25th, Guillemots and Puffins have left their nesting-quarters on rocks; Oct. 22nd, Little Auk, *Mergulus alba*, Linn., one seen; Nov. 1st, two young Puffins seen. Inner Farne, April 1st, multitudes of Guillemots flying up to their nesting-quarters; Nov. 18th, several Puffins and Guillemots off islands. Flamborough, Guillemots great many last week in January, towards headland; Feb. 5th, great numbers going N. all morning; Dec. 27th, first seen off coast, are passing and re-passing daily in great numbers.

COLYMBIDÆ, Divers.—Inner Farne, Sept. 6th, Great Northern Diver, *C. glacialis*, Linn., three to N.; Dec., first week, Red-throated Diver, *C. septentrionalis*, Linn., Black-throated Diver, *C. arcticus*, Linn., and Great Northern Diver, all three about the islands this week; on 5th, fourteen Great Northern Divers to W. Longstone, Nov. 14th, two young Great Northern Divers off island fishing. Teesmouth, Oct. 31st, flock of Great Northern Divers passed at noon.

PODICIPITIDÆ, Grebes.—October, Slavonian Grebe, *Podiceps auritus*, Linn., adult in winter plumage shot in a timber pond at Hull; Red-necked Grebe, *P. griseigena* (Bodd.), and Slavonian Grebe, on Humber in October and November.

The Committee are indebted to Professor Chr. Fr. Lütken, of the Universitetets Zoologiske Museum, Copenhagen, for a list of the birds killed against the lantern of the lighthouse of Stevns, on the projecting part of Zealand, marking the limit between the Baltic and the Grönsund Belt, in the autumn of 1882. Professor Lütken, in forwarding the list, remarked that his late lamented predecessor, Professor Reinhardt, made arrangements with a physician, Mr. Antander, residing at the small town of Storeheddinge, seven Danish miles south of Copenhagen, in the neighbourhood of Stevns Klint and the lighthouse of Stevns, for forwarding any birds found killed to the museum, with the following result:—

STEVNS FYR, ZEALAND, DENMARK, 1882.

April	14th.	<i>Turdus musicus</i>	2.
„	„	<i>Saxicola cenanthe</i>	2 males.
„	15th.	<i>Sylvia rubecula</i>	1 male.
„	„	<i>Emberiza miliaria</i> ...	1.
„	19th.	<i>Numenius arquatus</i> ...	1.*
„	„	<i>Turdus musicus</i>	1.
„	„	<i>Saxicola cenanthe</i>	3 males and 3 females.
„	„	<i>Turdus iliacus</i>	1.
„	24th.	<i>Emberiza passerina</i> ...	1 caught alive.
„	29th.	<i>Turdus musicus</i>	1.
May	9th.	<i>Sylvia schanobænus</i> ...	1.
„	11th.	<i>Luscinia philomela</i> ...	1 alive.†
„	„	<i>Emberiza hortulana</i> ...	1 „ †
„	12th.	<i>Muscicapa atricapilla</i>	1.
„	18th.	<i>Sylvia cinerea</i>	2.
„	„	<i>S. phragmitis</i>	1.
„	„	<i>S. rufa</i>	1.
„	„	<i>S. trochilus</i>	1.
Sept.	21st.	<i>Turdus torquatus</i>	1.
„	„	<i>Sylvia rubecula</i>	5.
„	„	<i>S. curruca</i>	1.
„	„	<i>Ruticilla phœnicurus</i> ...	2.
Oct.	10th.	<i>Sylvia rubecula</i>	1.
„	21st.	<i>Turdus iliacus</i>	2.
„	„	<i>Alauda arvensis</i>	4.
„	„	<i>Regulus cristatus</i>	2.
„	„	<i>Emberiza schœniclus</i> ...	1.

Mr. Gätke sends the following notes of an extraordinary migration of the Silver Gamma Moth, *Plusia gamma*, across Heligoland in August, 1882:—

On Aug. 13th, at 1 a.m. till 4, thousands on thousands passed the Heligoland lighthouse, travelling E. to W. From 11 p.m. on the 15th, till 3 a.m. on 16th, millions, like a snow-storm, all belonging to the same species, passed forward in the same direction. Again, on the 18th, from 11 p.m. till 3 a.m. on the 19th, thousands on thousands were observed under the same circumstances. Some scores caught for identification were all in most perfect plumage; no fading or abrasion.

* Is often seen swarming around the lighthouse at the time of its migration—six or seven on this night flew against the panes without being killed, and two others were caught alive. About forty Redbreasts and Wheatears were caught on the same night, but set at liberty again in the morning. On clear moonlight nights nothing at all is caught or found.

† According to Mr. Antander were not sent to museum.

GENERAL REMARKS.

The observations taken along the E. coast of England in the spring and autumn of 1882 have been such as to confirm the conclusions arrived at in previous reports.

As in 1880 and 1881, the line of autumn migration has been a broad stream from E. to W., or from points S. of E. to N. of W., covering the whole of the E. coast. In 1880 a considerable proportion of the immigrants crossed at the more southern stations; in 1881 they covered the whole of the E. coast in tolerably equal proportions; but in 1882 the stations N. of the Humber show a marked preponderance of arrivals.

Although migration has extended over an unusually long period, commencing in July and continued with but slight intermission throughout the autumn and into the following year to the end of January, yet the great mass of immigrants arrived on our E. coast in October, and a large proportion of these during the first fortnight in the month. From Oct. 6th to 8th, inclusive, and again from the 12th to the 15th there was, night and day, an enormous rush, under circumstances of wind and weather, which observation has shown are most opposed to a favourable passage. During these periods birds arrived in an exhausted condition, and we have reasons for supposing, from the number reported as alighting on fishing-boats and vessels in the North Sea, that the loss must have been very considerable; large flights also are recorded as having appeared round the lanterns of lighthouses and light-vessels during the night migration. From the 6th to the 9th, inclusive, strong E. winds blew over the North Sea, with fog and drizzling rain, and from the night of the 12 to 17th very similar weather prevailed. Mr. W. Littlewood, of the Galloper L.v., moored on the bank of that name forty miles S.E. of Orfordness, reports that on the night of Oct. 6th, Larks, Starlings, Mountain Sparrows, Titmice, Common Wrens, Redbreasts, Chaffinches and Plover were picked up on the deck, and that it is calculated five to six hundred struck the rigging and fell overboard; a large proportion of these were Larks. Thousands of birds were flying round the lantern from 11.30 p.m. to 4.45 a.m., their white breasts, as they dashed to

and fro in the circle of light, having the appearance of a heavy fall of snow. This was repeated on the 8th and 12th, and on the night of the 13th 160 were picked up on deck, including Larks, Starlings, Thrushes and two Redbreasts; it was thought one thousand struck and went overboard into the sea. It is only on dark rainy nights, snow or fog, that these casualties occur; when the nights are light, or any stars visible, the birds appear to give the lanterns a wide berth.

Unquestionably the principal feature of the autumn migrations has been the enormous arrival of the little Gold-crested Wren. The migrations appear to have covered not only the E. coast of England, but to have extended southward to the Channel Islands and northward to the Faroes (see Report East Coast of Scotland, Harvie Brown). On the E. coast of England they are recorded at no less than twenty-one stations, from the Farne Islands to the Hanois L.H., Guernsey. The earliest notice is Aug. 6th, the latest Nov. 5th, or ninety-two days; during the same period enormous numbers crossed Heligoland, more especially in October, and quite up to the end of the month. On the night from the 28th to 29th Mr. Gätke remarks, "We have had a perfect storm of Goldcrests, poor little souls, perching on the ledges of the window-panes of the lighthouse, preening their feathers in the glare of the lamps. On the 29th all the island swarmed with them, filling the gardens and over all the cliff,—hundreds of thousands; by 9 a.m. most of them had passed on again."

Not less remarkable was the great flight of the Common Jay past and over that island early in October, on the 6th, 7th, and 8th; thousands on thousands without interruption passing on overhead like Crows, N. and S. of the island too, multitudes like a continual stream, all going E. to W. in a strong southeasterly gale. It would have been an interesting fact if we had been able to correlate this migration of Jays with any visible arrival on our English coast, but in none of our returns is any mention made of the Jay. Mr. Matthew Bailey, of Flamborough, told me that on one evening early in October (the exact date he was not able to give) he had observed at dusk large flights of birds, about the size of Jackdaws, coming to land, and was struck with the good headway they seemed to make against a strong wind. It was too dark, however, to make out what they were. Subsequently I have received numerous notices speaking

of the extraordinary number of Jays seen during the winter in our English woodlands. This seems especially to have been the case south of a line drawn from Flamborough Head to Portland Bill, in Dorset.*

Extraordinary numbers of the Common Hedge Sparrow (*Accentor modularis*)—"the dunnock" of the English schoolboy, the "blue Janet" of Scotland—passed over Heligoland in October, more especially on the 6th, 7th, and 8th; and it is curious that on the 8th of the same month they swarmed in astonishing numbers, both at Spurn and in N.E. Lincolnshire.

The Woodcock arrived on the east coast on the night of Oct. 12th, or early morning of the 13th; wind E., strong, fog, and drizzling rain. On the morning of the 13th they are recorded from nine stations, covering 250 miles of coast-line, from the Farne Islands to Orfordness.† It is fair to suppose that this, the "great flight" of the season, did not start from the same locality, but from various parts of the opposite coast of Europe,—places widely apart. Both previous and subsequent to their passage the weather had been much of the same character over the North Sea. Why they should start simultaneously on this special evening, and how they managed to "keep touch," to use a military term, during a passage of several hundred miles across a stormy sea, in fog and drizzling rain, so as to arrive about the same time at their Tel-el-Kebir on our English sand-hills, is one of those points in the phenomena of migration which will probably take some time and more extended observations, especially on the opposite coast-line, to clear up.

An interesting entry in one of the returned schedules, that from the Inner Dowsing L.V., placed seventeen miles E. of Sutton, on the Lincolnshire coast, is that of two Hawfinches, which came on board on the evening of Oct. 20th, a strong S.S.W. wind blowing, and remaining all night, left again at daybreak, their course being from S.E. to N.W., the course followed by a large proportion of our immigrants. As far as we are aware this is the first notice of Hawfinches having been seen

* Common Jay. Additions and unusual numbers observed at Arden, on Loch Lomond side, subsequently reported by James Lumsden, Esq., is the only report of Jays I have got in Scotland.—J. A. H. B.

† Also "great flight" same time, Isle of May. East coast of Scotland report.

at sea. At Heligoland, Mr. Gätke says the species is a well-known customer, never in any numbers, but every spring and fall some, betraying itself forthwith by its peculiar call-note, so out of all proportion with its colossal beak.

There are some birds occurring on our east coast year by year with tolerable regularity, which, during the autumn of 1882, have been remarkable for their scarcity. This has been the case with all the large raptorial birds, and especially with the Short-eared Owl, and Common Linnet and Twite. Their absence on migration has also been remarked upon in Heligoland. The Short-eared Owl also appears to have been specially scarce on the east coast of Scotland. (See East Coast of Scotland Report.)

Our returns show very clearly that the spring lines of migration, followed by birds leaving our shores, are identically the same as those followed in the autumn, but of course in the reverse direction from W. and N.W. to E. and S.E.

As this is the fourth report issued by the Committee, we may, perhaps, with the mass of facts at our disposal, be expected to draw deductions, which, if they do not explain, will serve at least to throw some light on the causes influencing the migration of birds. We might reasonably reply that the work undertaken by us was not to theorise, or attempt explanations, but simply to collect facts and tabulate them. This we have endeavoured to do in the shortest and simplest manner consistent with accuracy of detail. There is, however, one circumstance which can scarcely fail to present itself to those who have gone carefully into the reports issued by the Committee, namely, the marvellous persistency with which, year by year, birds follow the same lines of migration when approaching or leaving our shores: the constancy of these periodical phenomena is suggestive of some settled principle or law governing the movement. It is clearly evident, from the facts already at our disposal, that there are two distinct migrations going forward at the same time; one, the ordinary flow in the spring and ebb in the autumn, across the whole of the western Palæarctic regions, which of course includes the British Isles, of a great migratory wave moving to and from the nesting-quarters of the birds in the coldest part of their range, N.E. in the spring and S.W. in the autumn. Quite independent of this there is a continual stream

of immigrants, week by week and month by month, to the eastern shores of these islands, coming directly across Europe from E. to W., or more commonly from points S. of E. to others N. of W., and the reverse in the spring. These are mainly composed of those common and well-known species which annually make these islands their winter resort, and take the place of our summer birds: they come in one broad stream, cutting the line of ordinary migration at nearly right angles; one flank brushes the Orkneys and Shetlands, pouring through the Pentland Firth, even touching the distant Faroes; the southern wing crosses the Channel Islands, shaping its course in a north-westerly direction to the English coast. In our explanation of the causes which first induced, and perhaps still influences, this E. to W. migration, we must probably go back a long way in the history of the world, when the distribution of the land and water of continental Europe was very different to what it now is; when there was no North Sea, and the western coast-line of Europe was represented by what is now known as the hundred-fathom line off the West of Ireland, a coast which on the one side touched Scandinavia, and on the other was linked with the Spanish peninsula. Great as is now the contrast between the winters of Central Russia and those of these islands, the difference would then be much more marked,—arctic cold on one hand, and semi-tropical warmth on the other.* It requires then no stretch of imagination to believe that great flights of birds would on the approach of winter be driven before the intense cold of Eastern and Central Europe to seek refuge and find food in the warm regions of the west, regions which then would feel the full effects of the warm equatorial currents, and enjoy an almost perpetual summer. This movement once begun would, by the very necessities of existence, and in time by an hereditary instinct, be continued.

* There are ninety species of plants, all told, common alike to South-western England and Ireland, and to the Pyrenean and Italian region. They represent an old flora no longer adapted to the country,—a flora of warmth and sunshine,—and now dying out under the advance of hardier, more vigorous and congenial species. They may be regarded as the last floral relics of the submerged land, that semitropical western land whose plants and flowers are not of Scandinavian origin, but derived from Southern Europe.

Gradually the land now occupied by the North Sea has been withdrawn from beneath the migrating flocks; year after year the middle passage became wider and more difficult; yet the habit once formed would be continued, and hereditary instinct, or whatever other name we choose to give it, supply the rest.

Mr. Wallace has told us how, in the Eastern Archipelago, comparatively narrow, and probably very ancient, straits of water divide and wholly separate distinct races of birds; and we have instances of this in Europe, where species, common on the opposite coast of the Continent, rarely or never occur in the British Islands.

Small birds, like the Goldcrest, do not cross great breadths of water from choice; they doubtless would prefer a migration over land, from field to field, or hedge to hedge; or at the most closely following some old established coast-line. Why, except on some such hypothesis as stated, should they attempt the North Sea, not alone at the narrowest part, the straits of Dover, or from Ostend to the coast of Kent, but in the very widest parts also, from the Elbe to the Humber, or Danish coast to the Pentland Firth and Scotch islands? What impels our autumn visitants, the young weeks in advance of their parents, to launch westward across what, for anything they can possibly know to the contrary, may prove an Atlantic, an ocean without a further shore?

There are doubtless several causes, working separately or together, which influence migration, and we must not look for an explanation of the phenomena attending these great periodical movements to one cause only, for by doing this we lose sight perhaps of other equally powerful incentives. I have spoken in previous reports of the probability of birds following ancient coast-lines once linking now distant lands, impelled by what we call, for want of a better term, hereditary instinct, that is, an instinct derived through ancestors. It is, perhaps, an open question whether the young, which undoubtedly arrive in the autumn weeks in advance of the great mass of old birds, depend entirely on this, or whether they are in any way dependent on guidance and direction. It is a curious fact, which we have frequently remarked, that the very earliest of their kind are frequently a few old birds,—flocks of young, too, often contain a

sprinkling of old female birds,—such as may be supposed have made the journey before; but it must be also borne in mind that on dark or even starlight nights, when these movements mostly take place, any guidance, even that of call-note, would be futile at any but a very limited range.

WEST COAST OF SCOTLAND.

SCHEDULES, &c., were sent to forty stations, the same number as in previous years. We have received filled-in schedules from thirteen stations.*

Generally the returns are light, lighter than last year.

We have notes upon thirty-two species of land birds from this coast, and about fourteen species of water-birds, whilst the species of Waders or Littoral species may be placed at eight.

The Spring Migration I have kept distinct in this report. Weather notes included in General Remarks.

Here follows the usual list of stations, with asterisks which point out the annual returns from the beginning of the scheme, from each station.

WEST COAST OF SCOTLAND.

MAINLAND.

1879, '80, '81, '82.

- | | | | | |
|---|---|---|-------------------------------|---------|
| * | * | * | 81. Cape Wrath, Sutherland | 400 ft. |
| * | * | * | 82. Rhu Stoir, W. Cromarty... | 195 ,, |

OUTER HEBRIDES.

- | | | | | | | |
|---|---|---|---|-------------------------|---------------------|-----------------|
| * | * | * | * | 83. Butt of Lewis | 170 ,, | Alex. Thompson |
| | * | * | | 84. Stornoway | 56 ,, | |
| * | * | * | | 85. Island Glass | 130 ,, | |
| * | * | * | * | 86. Monach Island | { 150 ,,
62 ,, } | J. Youngclause. |
| | * | * | | 87. Ushenish | 176 ,, | |
| | | | | 88. Barra Head | 683 ,, | |

MAINLAND, SKYE, AND INNER HEBRIDES.

- | | | | | | | |
|---|---|---|--|------------------------------|--------|---------------|
| | | | | 89. Rona, Sye..... | 222 ,, | |
| * | * | * | | 90. Kyleakin, Rosshire | 53 ,, | D. McCulloch. |

* But the Isle of Man stations—five in number—have been taken over by Mr. P. Kermodé, as he is on the spot, and as they really lie more into his district,

1879, '80, '81, '82.

	*	*		91. Isle Ornsay, Skye	58 ft.	
*	*			92. Ardnamurchan, Pt. Argyle	180 ,,	
*	*	*	*	{ 93. Hynish Signal Tower, Tyree	{ 150 ,,	Alx. McEachern.
				{ 94. Skerryvore, off Tyree		
*	*	*	*	95. Dhuheartach, S. of Ross of Mull	145 ,,	John Ewing.
*	*	*	*	96. Sound of Mull.....	55 ,,	W. McLellan.
				97. Corran Ferry, Loch Eil ...	38 ,,	
	*	*	*	98. Lismore Island, Oban.....	103 ,,	A. Murray.
*	*			99. Fladda, Easdale	42 ,,	
*	*	*		100. Rhuvaal, Islay.....	147 ,,	
	*	*	*	101. Mac Arthur's Head.....	128 ,,	W. Maill.
*	*	*	*	102. Skervuile, Jura	73 ,,	John Ewing.
*	*	*	*	103. Rhinns of Islay	159 ,,	Andrew Lyall.
*	*			104. Lochindaul	50 ,,	
				105. Mull of Kintyre	297 ,,	
				106. Sanda, Kintyre Sound ...	165 ,,	
				107. Devaar, Kintyre	120 ,,	
				108. Pladda, Annan	130 ,,	
		*		109. Lamdash, Arran	46 ,,	
	*	*		110. Turnberry, Ayrshire	96 ,,	
*	*	*		111. Corsewall, Wigtown	112 ,,	
*	*	*	*	112. Loch Ryan, Wigtown.....	46 ,,	Ralph Ewing.
*	*	*	*	113. Portpatrick, Wigtown.....	37 ,,	Jas. Beggs,
*	*	*	*	114. Mull of Galloway, Wigtown	325 ,,	H. Morrison.
		*		115. Little Ross, Kirkeudbright	175 ,,	
				116. Point of Ayr	} Isle of Man.	
				117. Douglas Head		
				118. Chickens Rock		
				119.-1880. Bahama Rock L.V.		
				120. Longness L.V.		

The last five stations are now placed at the head of the W. of England stations under Mr. P. Kermodé. We are sorry to find a falling off in the returns this year and would have liked to know if any reason can be assigned for the same.

We have to thank Mr. McCulloch, at Kyleakin, for the careful records of directions of flight of the species observed. These are important, and a great assistance at arriving at conclusions.

At Skervuile, owing to an accident to his hand, no notes were kept by Mr. Ewing for some time between July and September, but fewer birds were seen than for many years back.

TURDIDÆ.—In autumn, at Monach, Kyleakin, Skerryvore, Dhuheartach, Rhinns of Islay, Corsewall, Loch Ryan, Mull of Galloway. No records at any stations till Oct. 11th, when three Fieldfares were killed at Monach. An indication of a rush was apparent all through October after that date of *Turdidæ* and other species, more especially at Rhinns of Islay. Latest records on Nov. 22nd, prior to which date many Blackbirds and Thrushes frequented Corsewall for a week during a covering of snow; therefore probably only a local movement. At Kyleakin Song Thrushes and Blackbirds resided all winter up to January, 1883. In October no great rush observable, but indications of the same migration observable on the E. coast were noticed at Corsewall on the 14th, and at Dhuheartach and Rhinns of Islay on 17th; and a few Blackbirds and Thrushes showed at Skerryvore on 13th. Eight Song Thrushes were killed one night also at MacArthur's Head, and a single male Blackbird was seen in the garden at Monach on Nov. 1st. A rush of "small birds" took place during October, but in no large masses, at MacArthur's Head and Rhinns of Islay, and at Corsewall and southward. Three species of *Turdidæ* noticed.

SAXICOLINÆ.—Spring records, as usual, are scanty; some five records at five stations, *viz.*, Butt of Lewis, Skerryvore, Rhuvaal, MacArthur's Head and Mull of Galloway. Earliest, March 9th at Butt of Lewis; latest, on May 17th at MacArthur's Head, mostly of single Wheatears. In autumn, a few records of Wheatears from Skerryvore, Dhuheartach, Rhuvaal, and Rhinns of Islay: the earliest, Aug. 17th at Dhuheartach; latest, Oct. 16th; and an evident rush on Aug. 23rd at Rhinns of Islay, and again on Sept. 10th at Skerryvore, where over 100 were seen on the rocks.

SILVIINÆ.—Of Robins one spring record at Skerryvore on April 9th, a single bird resting; fair S.S.E. and haze. In autumn, at Kyleakin, Skerryvore, Lismore, Skervuile and Little Ross. Earliest, a single bird on Aug. 17th, at Skervuile; latest, two at Kyleakin (where, however, Robins arrived on Nov. 15th, and remained all winter up to close of schedule on Jan. 27th, 1883). An evident rush took place at Butt of Lewis between Sept. 14th and 30th, with Wrens on the 26th, and with Wagtails on the 28th, 29th, and 30th; in November, a few Robins, accompanied by Wrens and Linnets, at Lismore on 11th; and in October one

Robin and one Wheatear, together, on 9th at Skerryvore. All the records in August, September, and October accompanied by easterly winds, the rush in September with N.E.

PHYLLOSCOPINÆ.—Of Golden-crested Wrens one spring record at Mull of Galloway, on March 8th and 9th, when “great numbers” were round the lantern at midnight; wind S.W., light, clear. In autumn, earliest, Sept. 21st, at Corsewall, and 22nd and 25th at Loch Ryan; latest, and rush at Corsewall and Mull of Galloway, on 15th and 16th, when “great numbers” round lantern; strong E. and haze; straggling birds also, 8th and 9th, at same places. A significant record is on Oct. 10th, at Rhinns of Islay, north of which station we have no records. On that date eight Golden-crested Wrens struck and one was killed; wind light S.E., haze. The similarity of dates of occurrence at Mull of Galloway on W. coast and Isle of May on E. coast this year worthy of notice (see General Remarks).

PARIDÆ.—Of Titmice only two spring records, both at Mull of Galloway; five killed at midnight, March 18th, and great numbers flying round lantern on May 22nd; wind light E. Note approximation of dates on W. and E. coasts (see General Remarks.)

TROGLODYTINÆ.—Of Wrens one spring record at Skerryvore; two flying about rock on May 24th; wind light N.W., clear. In autumn one on Sept. 22nd, at Lismore. Latest, Nov. 11th, a few at Lismore, and a partial rush on Oct. 8th, 9th and 11th, at Corsewall, and on Oct. 11th and 26th at Lismore, the two latter accompanied by Starlings and Robins.

MOTACILLIDÆ.—In autumn three Wagtails at Skerryvore, on Aug. 28th, two—male and female—in a garden at Kyleakin, and a few on each day at Lismore, on Oct. 28th, 29th, and 30th, with light N.E. winds. Of Pipits, four struck and two were killed at Butt of Lewis, in strong W. breeze, on March 17th; they were accompanied by Tree Sparrows. In autumn, hundreds round the Little Ross on Sept. 6th, after 8 p.m., for two hours; one killed at 12 noon, in light N. breeze, clear, at Dhuheartach, on Oct. 28th. It is not often they are recorded as killed in the daytime in clear weather. *Land Notes*.—An unusual number of Pied Wagtails—fifty or more in one flock—on Sept. 25th, in Kirkeudbright (J. J. Armistead, Esq.); also two *Motacilla flava* seen on Sept. 11th,—a very rare occurrence at Douglas Hall.

HIRUNDINIDÆ. — Swallows: Spring records at Kyleakin,

Skerryvore, Dhuheartach, Lismore, Corsewall, and Loch Ryan. Seen first on April 12th at Corsewall, and April 15th at Loch Ryan, where fifteen Swallows arrived with light N. wind and sleet. Latest records on June 15th at Lismore, and 9th at Skerryvore; not seen at Dhuheartach till May 14th. Other records at Lismore on 10th, a flock, and 13th, another flock. In autumn, one Swallow rested on window of lighthouse at Dhuheartach, on Aug. 11th, and a final movement was observed in September about the 14th and 15th, at Loch Ryan and Mull of Galloway, besides a few other records at earlier dates. *Land Notes.*—Swallow first seen at Douglas Hall, Dumfriesshire on 7th. Mr. Howard Saunders, residing at St. Jean de Luz, in the Basses Pyrénées, saw the first Swallow on March 25th, along with many Wheatears and Redstarts. Woodcocks had passed but in small numbers, and only two were seen in the market.

FRINGILLIDÆ.—Tree Sparrows seen at Butt of Lewis on Feb. 20th, when four struck and two were killed; strong E. wind and haze. Again six were seen at same place and two killed on March 20th; and again six at the same place and one killed, on April 8th. House Sparrows are recorded on May 27th, at Skerryvore, flying about; and at MacArthur's Head—a number all day—on May 8th. House Sparrows were also seen at Butt of Lewis on Feb. 25th, with strong S.W. breeze, haze, and rain. In autumn, House Sparrows, a large flock at Lismore on Oct. 24th; "Finches" on Oct. 10th, at Sound of Mull; Linnets, a rush about 7th and 11th at Lismore, with a few earlier records; and on Dec. 29th, at Monach, where all left on the 20th. Some of these records probably apply to Grey Linnets, and the Monach one likely to Twites or "Mountain Linnets." Four, possibly five, species. *Land Notes.*—Four Siskins seen on sandhills on Solway Firth, on a patch of thistles; gone next morning, Oct. 17th (J. J. Armistead.) Mr. Scot Skriving, of Edinburgh, mentions, *in lit.*, that the Chaffinch, was the most common of small birds in Islay prior to the terrible winter of 1878, but after that very rare indeed, until on Oct 22nd, 1880, a flock of some thousands appeared, and since then they have again been fairly abundant.

EMBERIZIDÆ.—Two Snow Buntings were seen at Butt of Lewis on March 21st. Autumn records: Snow Bunting Oct. 15th at Kyleakin, to Dec. 12th at Butt of Lewis. No rush apparent and records scanty; three or four in all in October and November.

One Yellow Bunting on Oct. 15th, at Kyleakin. Two or three records at Dhuheartach also in October, November and December.

ALAUDIDÆ.—In end of migration of 1881--82, under date Jan. 12th, 16th, 1882, and 18th, large parties of Larks are recorded at Lismore; wind light S. No more records till autumn, 1882. On Sept. 27th, at Corsewall, one on lantern. Latest date, Dec. 27th, at Skerryvore, two found dead; light S.S.W. and clear. Records of direction of flight usually S.E., but these records are, as are too often the case, too meagre to assist us. Direction of flight is earnestly asked for. A rush distinguishable at Rhinns of Islay on Oct. 8th and 12th. Two Larks remained all night on lantern at Dhuheartach, on Jan. 2nd, 1883.

STURNIDÆ.—Starling: in spring a large flock on March 11th at Butt of Lewis, but they are resident here, and rarely come to the light; two were killed here, however, on June 7th. A record at MacArthur's Head; great scarcity of records of Starlings. A few autumn records only; numbers feeding for days at Rhinns of Islay, end of August. A rush apparently took place at MacArthur's Head, along with many "small birds," between first week of October and 31st. Records scattered through November, December, and January (1883).

CORVIDÆ.—"Black Crows" (probably Rooks?) which are seldom seen at Skerryvore, showed in March, when three were seen one day, and one rested on May 29th, and a "Grey Crow" on 16th. In autumn, "Black Crows," a large flock during snow, seen flying E. at Portpatrick on Dec. 14th. One Hooded Crow on 26th at Monach, flying S.W. One Raven at Kyleakin on 5th, flying S., light N.E. wind; and one Magpie ("very rare" at Kyleakin) on Jan. 7th, 1883, flying S.E. One Jackdaw rested on the rock on Feb. 11th (1883), and on the 19th two "Black Crows" were seen flying in an easterly direction; wind S.W., fresh and clear.

CUCULIDÆ.—Records of arrivals of Cuckoos in spring are as follows:—

Mull of Galloway	April 30th.	Variable, light airs.
Loch Ryan	May 5th.	Strong N.W.
Corsewall	„ 5th.	Strong N.W.
Skervuile	„ 19th.	Light E., clear.
MacArthur's Head	„ 15th.	Light E. airs.
Lismore	„ 15th.	Light E. airs.
Kyleakin	„ 3rd.	? - ?

equal proportions; eighteen and twenty-four Eiders at Dhuheartach on Dec. 3rd and 10th, males and females. A few "Pintail Ducks" (?) at Monach on Nov. 13th, and one female shot. Swan: four at Corsewall, flying N.E., on Sept 27th, fresh S.E. *Land Notes*.—Black Scoters abundantly, Velvet Scoters sparingly, but Scaup Ducks rarely seen on Solway Firth during June and July. Common Scoter abundant in August; several Velvet Scoters seen. Sept. 23rd, about fifty Wild Geese, finally flew away over sea to S.S.E.; Oct. 1st, five Geese flew over Douglas Hall; 2nd, more seen; twenty-four Geese seen on Oct. 14th (J. J. Armistead).

RALLIDÆ.—Corncrake at Rhinns of Islay, first seen on May 19th; at Dhuheartach one seen on the rock on May 8th (never seen before here by Mr. Ewing); and at Kyleakin one heard on May 31st. Directions of wind not given.

CHARADRIADÆ.—At Rhuvaal, three to four dozen young and old Golden Plovers on Oct. 6th, and a few seen at Monach on Nov. 13th, and a good many scattered over the islands at Monach on Dec. 14th. Lapwings are also mentioned once or twice.

SCOLOPACIDÆ, Woodcock. — The rush barely indicated at Monach (odd bird) Oct. 11th; Lismore (two killed), Oct. 8th; and one bird at Sound of Mull, Nov. 5th. Snipe also very slight movement, principally at Rhinns of Islay. Of Curlew, many records from Aug. 12th to Dec. 16th. Rush appears, if any took place, to have been in September. Whimbrels are reported "very scarce," only two records on July 21st, and on Aug. 15th, at Skerryvore. There are also a few spring records of Curlews, from February to June. *Land Notes*. — Aug. 8th, saw two Greenshanks on Solway (J. J. Armistead, Esq.) It appears possible that this bird breeds not far from the Solway, from other information I have gained.—J. A. H. B. Four Turnstones seen Aug. 31st, Solway (*auct. cit.*); also two hundred Bar-tailed Godwits and thirty or forty Golden Plovers. No Knots yet.

LARIDÆ. Terns arrived at Rhinns of Islay on May 16th; at Dhuheartach on May 12th; on Monach-Islands, May 15th. They were last seen at Skervuile on Sept. 6th. They leave Butt of Lewis about Aug. 12th. They passed Lismore at night, striking lantern, on Aug. 13th, and on 14th more, accompanied by Larks. Of Gulls, "Boatswain Birds" were seen on June 21st, at MacArthur's Head, and there are records of them at

Skervuile, along with Kittiwakes and Black-headed Gulls, from May 1st to 9th. Two "Dirty Allans" amongst a large flock of Gulls, at Butt of Lewis on July 10th; Iceland Gull, flying south, on Oct. 11th at Kyleakin; and great numbers of Kittiwakes at Skervuile, on Oct. 3rd and 22nd. *Land Notes*.—Common Terns at nesting haunts in Kirkcudbrightshire, but no eggs laid by May 17th (*auct.* J. J. Armistead, Esq.) By Aug. 12th Terns had left their nesting-ground (*auct. cit.*)

COLYMBIDÆ.—Great Northern Diver seen at Kyleakin, near the lighthouse, on May 10th, light E. wind; again on June 19th, light W. wind. In autumn, at Monach, four seen, light S.E. wind, rain, and fog; two flying S. at Corsewall on Nov. 21st, and two, resting, on 22nd; two flying "towards N. Uist" (*i.e.* N.E.), at Monach, on Dec. 15th, and one flying east at Corsewall on Dec. 16th.

GENERAL REMARKS.

A vast migration took place this year upon our E. coast, the heaviest waves breaking upon the entrance to the Firth of Forth, at the Isle of May station, and again at Pentland Skerries. Bell Rock came in also for a share, though apparently, from the schedules, a much smaller one than at the Isle of May. The easterly winds prevailed all along our E. coast, generally strong to gales, and the successions of south-easterly and easterly gales in October, between the 8th and 23rd, occurring as they did, just at the usual time of the principal migration, brought vast numbers of land-birds to our shores. From Farøe in the north to the extreme south of England this is found to have been the case, but the usual blank on our Scottish coast occurs, over a large extent of shore-line, from Dunnet Head, in Caithness, all the way to Bell Rock. From all this great stretch of coast, embracing no less than ten lighthouse stations, I have only two schedules returned. These two schedules respectively are from Cromarty, a closely landlocked station, and the other from Chanonry, a still more completely landlocked station,—both absolutely sheltered, as it were, from the track of the great S.E. and easterly gales; I may therefore say that I have not a single statistic of direct value, between Dunnet Head and Bell Rock, as regards the general migration. My thanks

are none the less due, however, to Mr. Ritson, of Cromarty, and to Mr. McGill, of Chanonry, as their notes will, without doubt, prove of value if continued, and will assist us in arriving at conclusions regarding more local movements of birds, dependent upon food and shelter, which may prove none the less interesting because of their connection with landlocked positions. The absence of returns from this great stretch of coast-line is much to be deplored, and at present I am perfectly unable to state whether it is due entirely to absence of birds at all these stations every season, which, however, I can hardly think is the case, or if it is lack of interest at some of these stations. If the latter, we can only say we regret that we have failed to arouse sufficient interest in our subject. I cannot pass over this without the one further remark, that if the lighthouse-keepers at these stations would only return the schedules, with even a *negative statement, every year*, it would facilitate our work. *The absolute knowledge, that year after year no birds are seen at these stations, would be as valuable to us as positive data.* By a chance visit to Buchan Ness—one of these stations—on the Aberdeenshire coast, I learned that a Manx Shearwater was once captured at the lights, and saw the specimen, and thus it was added to the Aberdeenshire fauna, besides being an extremely rare visitant to any portion of the E. coast. Had this been returned in a schedule, I would have been doubly grateful for dates and circumstances of the occurrence at the time. While I am on the subject of addressing our reporters *let me once more earnestly request them, in every case where possible, to state the directions in which migratory flocks of birds are seen flying. This would greatly facilitate our deductions from year to year; and especially would I ask attention to this at all the more northerly stations, and all the west coast stations.*

Perhaps not the least remarkable migration was that of *Regulus cristatus* (the Golden-crested Wren), extending in one broad wave from Faroe southward along the whole coast, coming with S. to S.E. to E. winds, reaching the Scottish stations by Aug. 27th, and continuing to November 12th, but apparently not reaching Faroe till Oct. 21st, when a great rush took place. It is worthy of remark also that they were unusually abundant at Isle of May in spring, a rush taking place in March, and of females on March 10th. The stream in autumn, on the

Scotch coasts, lasted from 8th to 23rd, but did not begin in Faroe till 20th or 21st. A vast general rush of many other species reached our coasts also between Oct. 8th and 23rd. The great waves of *Turdidæ* scarcely seem to have reached Faroe, as we have only a few records of them thence in December, and the same remark may be held to apply to many other species mentioned.

It is also important to note, that while so abundant at the outlying station of Isle of May and Bell Rock on the E. coast, there should have been an almost complete absence of any of these species at the next station, a little higher up the Firth of Forth, *viz.*, at Inchkeith; and to record that it appears to be always with westerly winds that birds occur there. While there were hundreds of records at Isle of May, there were none with the same winds at Inchkeith, and only about ten records in all. Its somewhat landlocked position accounts for this, and its being sheltered from the S.E. winds places it on a similar footing with Chanonry and Cromarty, in the Moray Firth. *Weather.*—Upon our E. coasts, easterly and south-easterly winds prevailed throughout the greater part of the migratory seasons, both in spring and autumn, and reached forces of from fresh to gales. On the W. coast the wind was for the most part westerly and north westerly, rarely S. during spring, at the greater part of the stations, and was easterly and south-easterly in autumn, seldom reaching fresh or strong, or gales, as on the E. coast, usually light, or from light E. or S.E. to variable. The above facts will be considered, whilst we state next the distribution of the migratory waves on the W. coast, in relation to those on the E. coast. As in 1881, records on the W. coast begin to bulk more largely towards the southern stations. All north of Rhinns of Islay and MacArthur's Head the records of land-birds are very scanty, and the lighthouse keepers remark upon the scarcity. At usually (normally) crowded stations, such as Skervuile, they are reported as yielding "fewer birds than for many years back." Even at Rhinns of Islay the records are not large, but they begin to show an increase at this point. Unfortunately I have no autumn returns between Rhinns of Islay and Corsewall, which latter is south of the Firth of Clyde.

Now, if anything additional to the general bulk of the records is required to show the line of migration of 1882, it is the

significant record of the Golden-crested Wren at Rhinns of Islay on Oct. 10th, and at Corsewall and stations to the south, but nowhere to the north of the former station. Now, it seems that the strong easterly to S.E. gales on our E. coast, which brought over such streams (rather than rushes) of birds,—such countless thousands,—did *not* carry them forward across the breadth of Scotland to any appreciable extent, but that the birds, tired and storm-tossed, rapidly sought rest and shelter on arrival; and that we have only on the W. coast *indications* that such a great stream broke upon the E. coast. These indications, however, are strong enough to enable us to mark out, with some degree of certainty, the lines and turning-points of the stream.

If we do this, by comparing the records of the various schedules, we find that, south of the Firth of Clyde, the records bulk most largely; and we also find that the dates agree with those of the E. coast.

MacArthur's Head and Rhinns of Islay appear to me, from the bulking of records, similarity of dates, continuance of light E. winds, and species occurring, to represent the turning-point of the autumn migration from E. to W. Rhinns of Islay is a salient angle, catching glimpses of passing birds from N.W. to S.E. Otherwise, if the strong gales did not cause *all* birds to drop for shelter on Scotland, it must have carried many far out over the Atlantic, as in 1880. Isle of May sends in 19 schedules, and Pentland Skerries 8. Bell Rock sends 2—thickly filled—and North Ronaldshay 3, but bulking less than Bell Rock. What has become of the many birds passing through the Pentland Firth? We find little indication of them at the nine northerly W. coast stations. Have many overshot the land and passed out over the Atlantic?

Another point worth noting, is the occurrence of many birds in spring at the same stations frequented by the species in autumn. Thus, at Mull of Galloway on March 8th and 9th, with westerly winds, Gold-crests were abundant, and at the same station on Oct. 15th and 16th, an autumn-rush took place, with easterly and N.E. wind and haze. The same double records occur at Bell Rock and Isle of May as regards many species, and especially *Turdidæ* and *Regulus cristatus*. This "returning" upon old lines has already been remarked upon by my colleague, Mr. J. Cordeaux, in our Third Report (p. 38). Since these last

sentences were written, I have received the first of the 1883 schedules from the Isle of May, and may here state what the effects of the succession of N.E. gales in March have been on the spring migration, leaving however the details of Mr. Agnew's schedules to be worked into our next—1883—Report. I give this in Mr. Agnew's own words, as I entirely coincide with the opinions expressed. Mr. Agnew writes on the back of the schedule as follows:—"With reference to your note on the schedules sent, as to the effect of the N.E. gale of March 6th, 7th, and 8th, 1883, you will see from the entries inside that the effect of that gale was almost to stop migration at the Isle of May. Migration that had set in pretty briskly on the 2nd almost ceased on the 5th, and from that date we had only a few stragglers of the strongest wings, up to the 19th. I believe the effect of that gale was to drive the birds that should have come this way, away to the southward. Had the gale been from the S.E. it would have been different here."

In fact, a N.E. wind reaching such strengths as those of March 1883 did, acts very much in the same way upon spring migrants, pressing them more to the southward, as north-westerly strong winds and gales act upon the autumn migrants, whose normal course is from E. to W., or S. of E. to N. of W. It will be interesting to trace this further from the schedules returned from other stations, when they come in for 1883. Another point to note in spring migration of 1883, will be the greater westering of the return migrants, if we may use the expression, partly consequent upon the greater westering of the autumn migrants, caused by the long-continued and strong south-easterly winds of the preceding autumn, and partly upon the north-easterly winds of March pressing them down and deflecting their course to more inland and sheltered lines.

In this connection I would speak here of the great assembly of the Pied Wagtails on the narrow stone horizontal moulding above the upper windows of the General Post Office, Edinburgh, where, upon March 17th, 1883, A. B. H., who recorded the facts in the 'Scotsman' of that date, counted more than sixty; and he adds, in a subsequent letter to me, "there was at least one in every niche of the carved capitols of the columns. I think I am quite within the mark when I say there were 150 birds altogether." This flock roosted there on March 17th and 18th,

but disappeared on the 19th, owing, Mr. H. thinks, to a rise of temperature and the wind going round from N.E. to S.E. Mr. H. was informed that numbers, probably the same birds, were seen feeding at Duddingstone Loch on the 18th. Now, several years ago, a similar assemblage was noted at the same locality, by a well-known Edinburgh ornithologist, but it occurred, not in spring but in autumn, and a general movement was at that time also noted by Mr. H., and recorded in the Proc. Ryl. Phyl. Soc. of Edinburgh, on Jan. 15th, 1879, from which last noted records of autumnal migration it would appear that he saw about seventy Pied Wagtails on the roof a house in Edinburgh, in the middle of September, 1878, and Mr. Scot Skirving, of Edinburgh, on a previous occasion, saw some 300 at the General Post Office, but the exact date of this latter record has unfortunately been lost or mislaid, as we are unable, of course, to find out definitely the meteorological phenomena accompanying the record.

Further, my friend Mr. Eagle Clarke, notes the arrival of the same species in the neighbourhood of the Ure River, near Masham, Yorkshire, as early as Feb. 5th, 1883. Though resident in the lowlands about Leeds, it is migratory to and from the higher lands. Mr. Eagle Clarke has often seen as many as 200 in a flock, on a large lawn near Leeds.

Mr. Agnew informs me, that with a S. wind there is little migration past the Isle of May, and that S.E. is the best wind in spring to permit of observations being made. Five Wagtails were seen at Isle of May on the 29th and 30th, however, during a gale from the S.

The Spring Migration of 1883 seems to me to indicate the direct effects of the N.E. gale, causing these Wagtails to keep inland by a more sheltered route, which Wagtails in ordinary weather would probably have passed up the coast-line and crossed the entrance of the Firth of Forth, showing themselves at Isle of May and Bell Rock stations. Mr. Robert Gray has, I believe, frequently observed the spring arrivals of this species on the west coast—in Ayrshire; and it will be interesting to see if we can trace the movement up the west coast, *on the returning lines*, when schedules are returned for 1883, from Mull of Galloway and other west coast stations.

I have dwelt upon these facts because I believe that our appreciation of the general lines and of the laws regulating the

great annual migrations can be very greatly assisted by the study of individual species on their migration, and good opportunities are in this report afforded us of doing so by the records of several species. One more remark:—It seems also worthy of note that very possibly these Wagtails were finding their way *across* Scotland from the Solway or the Clyde, and, resting on the General Post Office buildings, repaired *south* for daily food—as I have noticed birds do during the spring migration on the Petchora, at Ust Zylma, and Habarika, in N. E. Russia; and on the advent of a more favourable temperature and change of wind, pursued their course northward. If these are correctly recorded as Pied Wagtails,—as there is no reason to suppose is not so,—then their destination would be the North of Scotland; but if they were the White Wagtail or continental form, then, as far as general records of migration guide us, they would probably *shoot off* again at Isle of May or Bell Rock—towards the Continent. Mr. Agnew's note of "very white Wagtails" at Isle of May should be borne in mind in this connection (*antea*, p. 12).

That a line of migration does occur across Scotland both in spring and autumn between Forth and Clyde, I think, needs little demonstration beyond what we have already stated in previous reports; both from data and by referring to General Remarks this seems perfectly obvious. The evidences of the sea having at one time advanced inland a long distance past the very spot in which I now live can scarcely be gainsaid; and Forth and Clyde—by two separate branches—must at one time have approached one another very much more closely than they now do, and a comparatively narrow isthmus have been formed by at least one of these two branches. As already remarked, it is curious to find rare American and rare eastern species occurring so frequently at localities on that line; witness as the latest record of importance that of the Pectoral Sandpiper, *Tringa maculata*, Vieillot, at Loch Lomond, after continuous and scarcely failing easterly winds, on Nov. 24th, 1882.

Sir Geo. Leith Buchanan informs me that he believes that the wind was north-west at the time he shot the Pectoral Sandpiper, but this was local, as prevailing winds were easterly at that time. Sir George also tells me of the other birds of rare occurrence which he has met with at the same locality, but no notes at the time were taken of wind. These are as follows:—

“Buonapartian Gull, in April 1851 or 1852. Black-tailed Godwit, April, about same date. Shoveller found breeding, and two since shot by keeper. Two Wood Sandpipers, one in August and the other on Oct. 4th. One Little Stint in October, seen in company with two others. The Spotted Crake must breed, as every autumn I meet with them when Snipe-shooting. The Shrike I obtained once in December, 1866, and I saw another two or three winters since.” I think if we thus endeavour to group together rare occurrences, and collect lists from various localities, we cannot fail to arrive at some conclusions regarding the highways of migration. We are thus working from data up to facts, without an undue amount of theorising.

It is well known to naturalists that Swallows cross the Alps by certain passes, as is also done by other species, regularly year after year. People have often marvelled at the punctuality of appearance of the Swallow and other species at certain favourite resorts. There is nothing marvellous in it. When the great general movement takes place, and the flights of birds pass over old frequented and well-known spots, these are recognised and promptly occupied by the hereditary occupants, or, if found unoccupied by later migrants, they are then filled up. This remark applies both in spring and autumn. In a former Report I have instanced the arrivals of Wood Pigeons on the Fife coast, and I have also instanced breeding-sites of birds occupied for many years, unoccupied for two or more years, and then reoccupied again. I am informed by Mr. A. B. Herbert that some of the favourite alpine passes for the annual migration of birds are the Albula and Bermina Passes into the Adda Valley and Lake Como, returning the same way in spring. If this regularity occurs during the passage of the bulk of migratory birds, I think there are good reasons for believing that a similar regularity appears in the distribution along certain lines of rare visitants, even if travelled all the way from America or the Asiatic steppes and tundras. No doubt they get into the groove—so to speak—and carry on in company with the main flocks of other species, joining issue with them along the great highways of migration, which I think have been well pointed out in many cases by Palmén and Herr Weissmann. Though the article by the latter has been abundantly criticised and even pooh-poohed, I venture to record

my firm belief that there is more in it than appeared on the surface, and that the more we know of migration the more fully will his theory be borne out.

It is known to naturalists that some species which are known to breed in the highest northern latitudes travel on migration to the furthest southern localities. Let us instance the Knot (*Tringa canuta*). Temperature has to do with this directly. What a vast breeding-ground of this species, as yet undiscovered, must there be somewhere in the far north if we witness the great streams on their annual migration along our coasts. In spring they travel on and on towards the north until they find a temperature *cool* enough for the successful hatching and rearing of their young, reaching their far off summer quarters even before insect-life has begun to show itself, after the long Arctic winter; and, with the strength and vigour of a far northern-bred species, they adapt themselves to the only food existing—the fronds of lichen laid bare by the first melting of the snow. The hardiness of the race, bred thus on the shores of the Arctic seas, induces the vigour and “fitness” which enables them to travel so far again to the southward in autumn and winter; and it is the annual overflow of their vast numbers, pressing behind those in the van, which—as it were—adds impulse to the ability, and carries them forward. They press forward in autumn to fresh feeding-grounds as those behind are taken up by others succeeding them.

The Report for the WEST COAST OF ENGLAND, although frequently applied for by the Secretary, has up to this date not been received.

August 26th, 1883.

IRISH COAST.

IN the spring of 1882 forty schedules were forwarded to the light-keepers, and in the autumn forty-one. Thirty-one stations returned answers in the spring, and thirty-two in the autumn.

The same stations were selected as in the autumn of 1881, with the exception of Dursey Island, which was substituted for the Calf Rock; and Dungarvan, which was added in the autumn of 1882.

Some improvement in filling the schedules is apparent. A few errors in the identification of species probably have been made, but no blame is attached to the light-keepers, who gratuitously observe for us to the best of their ability.

In accordance with a desire expressed by the other members of the Committee, and for the sake of uniformity, the observations have been arranged under each species instead of under the day of the month, and the light-stations are arranged geographically, beginning at the Fastnet, in Cork, and going round by the east and north to the west coast. The entries in the spring schedules are placed first under each species.

The severe frost which visited these islands for about ten days, beginning on December 6th, caused a local migration of many land-birds to the sea-coast, and several entries occur in the schedules at this time.

The weather observations taken by the light-keepers, when of an ordinary character, have been sometimes omitted; but with scarcely an exception every entry in the schedules, which refers to the occurrence of a particular species on a given date, is recorded.

The name given by the light-keepers to the birds is always adopted, and generally without comment; but occasionally inverted commas are used when it appears advantageous to insert them.

Looking through the records, and comparing them with reports from the English coast and elsewhere, it is evident that

Ireland lies comparatively out of the track of migrants, and its western stations are especially poor.

The Tuskar Rock, on the Wexford coast, is certainly the best station. Large numbers of migrants strike the lantern there, and many are killed. Being the nearest land to the Welsh coast, and the extreme south-eastern point of Ireland, the Tuskar is well situated for observation.

A Snowy Owl was shot on the Island of Innishtrahull, off the coast of Donegal, and forwarded by the light-keeper there to the Museum of Science and Art, Keldare Street, Dublin.

Observations on Gulls and Gannets are numerous, and it is difficult to estimate their value, as some light-keepers have given them much attention, while others have scarcely noticed these species owing to their frequent occurrence.

The presence of the Gannet all round the coast during the breeding season would seem to show that a large proportion do not breed. The little Skellig Rock, off the Kerry coast, is the only Irish breeding-place of the Gannet; and when visited in 1880, by Mr. Barrington, there were scarcely thirty pairs breeding.

In the returns many entries occur which probably do not refer to migrating birds, but it has been thought prudent not to omit any from the printed report.

It is remarked by some light-keepers that more birds strike fixed than revolving or flash lights.

Attention is called to the great scarcity of Starlings in 1882 in several schedules.

Conclusions are premature for a year or two, and it is as well to let the observations of the light-keepers speak for themselves.

Great results are not anticipated from this enquiry, but few satisfactory ones will be forthcoming unless it be continued; it is therefore essential that the light-keepers should assist us for some years longer, and we trust they will do so.

To Captain Boxer, R.N., Inspector of Irish Lights, we are again indebted for friendly aid; as well as to the Commissioners of Irish Lights, who were good enough to take forty copies of last year's report, and distribute them to the various observers.

ALEXANDER G. MORE.

RICHARD M. BARRINGTON.

LIST OF LIGHT-STATIONS.

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

o = No reply.

x = Shedule returned partly or wholly filled.

GENERAL REMARKS OF LIGHT-KEEPERS.

Galley Head.—"Spring: There is a total absence of land-birds at this station. Autumn: Sea-birds passing are, I may say, the only birds to be seen. The Curlew and 'Small Black Crow' are here all the year round."—John Whelan.

Old Head, Kinsale.—"Spring: No migration of birds observed this spring."—George Dunleavy.

Dungarvan.—"Autumn: With very rare exceptions no birds strike this lantern."—William Higginbotham.

Coningbeg Light-ship.—"Autumn: Very few birds killed against lantern since the light was changed from steady to flash light."—Patrick Cullen.

Barrels Rock Light-ship.—"Autumn: This is a very quick red light, flashing 30"; no birds ever struck the lantern. I believe the quick revolution frightens them away, as in fog and thick weather no birds ever stay about the light like the ships that have the bright light."—Michael Doyle.

Tuskar Rock.—"Spring: Not many birds this spring: a good deal more last year. Autumn: The 'Black Diver' leaves about May 1st, and returns in October."—Richard Hamilton.

Kish Bank Light-ship.—"Autumn: Very few birds pass this station. Birds seldom strike our lantern, as it is a revolving light. September and October are the chief months for the migration of birds from the Welsh coast."—William Daly.

Howth Baily.—"Autumn: Sea Gulls and Cormorants all through the winter. Puffins disappeared about middle of December."—William Dunne.

Copeland Island.—"Autumn: Large numbers of birds resort to this island and Mew Island during the winter months, and generally leave early in March. The species seen daily are as follows:—Oystercatchers, about 50; Wild Duck, 10 to 40; Sandpipers, 20; Cormorants, 8 to 10; Starlings, 20 to 40; Blackbirds, 4 to 6; 'Grey' Plover, 2 to 20; Curlew, 10 to 100 in each flock."—John Walsh.

South Maidens.—"I saw no birds strike the lantern since I came to this station."—Patrick Keenan.

Rathlin.—"Spring: The Ducks are breeding on every little pond and moss on the island; the 'Shell Duck' breeds here.

Any amount of sea-birds. Jan. 14th, 1883, the species of birds remaining on the island at this date are:—‘Large Gulls, Sparrows, Linnets, Stonechats, Black Crows, White-backed Crows, Golden Plover, Green Plover, Bald Coot, Curlew, Wild Duck, Snipe, Redshank or Sandpiper, Starling (they have been scarce), Blackbirds, Thrushes, Cormorants, Water Wagtails, one Snow Bunting (very few this season).’—John A. Murray.

Dunree Head.—“Autumn: Cormorants are here all the year round; they build their nest under the lighthouse. They go up the Lough every morning, and return in the evening. No birds strike this light. Land-birds are very scarce.”—John Stapleton.

Lough Swilly.—“Autumn: Birds seldom strike this lantern. Barnacle Duck and Widgeon frequent the head of Lough Swilly from about Oct. 1st to end of March.”—Henry Redmond.

Arranmore.—“Spring: The birds that breed on this island are ‘Stonechats,’ ‘Gulls,’ ‘Puffins,’ ‘Ravens,’ ‘Goldfinches,’ ‘Hawks,’ and ‘Red-legged Jackdaws’ (Choughs). Autumn: This station seems out of the line of passing birds.”—Henry Williams.

Killybegs.—“Autumn: The number of birds striking the lantern has been very few since 1879; only the two named in the schedule (Woodcock) have struck up to the present. The frost and snow of 1879 made great havoc among Thrushes, Blackbirds, Starlings, and Fieldfares. I saw no Starlings since 1881, which is very unusual. In the spring of 1882 I saw two very fine specimens of the Northern Diver; they remained until late in summer. Puffins arrive in large numbers early in July, and usually leave *en masse* towards the middle of August. Cormorants muster pretty strongly in the autumn months. Several Grey Gulls and four or five Black-headed remained here during the present winter. I observed one Gull a few days ago of a dirty white or creamy colour, no feathers of any other colour being visible. The Sea Swallow, or ‘Pirr Gull,’ used to visit us in thousands formerly; but since the autumn of 1878 not one has been seen here. When stationed at the mouth of the Boyne, in 1876, a few of these birds used to breed there, laying their eggs on the top of little sandy hillocks.”—Daniel Hawkins.

Oyster Island, North.—“Scarcely any land-birds visit this island.”—John Young.

Broadhaven.—“Autumn: The Gannet does not breed on the Stags, but is to be seen after herring.”—Michael Duffy.

Eagle Island, East.—"Spring: did not observe any birds of a migratory kind pass this island."—Robert W. Redmond.

Eagle Island, West.—"Autumn: I have carefully watched the movements of birds, and have not found anything worth reporting. Sea-fowl occasionally after herring in large groups; but they come and go no particular way."—Matthew Healy.

Clare Island.—"Autumn: Very few migratory birds at this station in 1882, with the exception of Gulls, Guillemots, Puffins, and Razorbills, of which large numbers arrived in the latter part of March, and left on Aug. 18th. Cormorants and Kittiwakes all the year round. Large numbers of Grouse from August to January. Snipe and Woodcock, November to March. Two large Eagles have their eyrie on the cliffs of a mountain close to the lighthouse: they kill several lambs, Geese, Ducks, and Hens, and carry them to the mountain with the greatest ease."—George H. Brownell.

Slyne Head, North.—"Autumn: Very few land-birds visit this station."—Robert Tyrell.

Slyne Head, South.—"Spring: The Tern used to arrive for breeding perhaps about May 4th or 6th; this year they did not come until June 4th, and not one bird hatched on the island this year. Sea-hawks arrive the first week in April, and leave about the end of October. I have not seen a Crow for two years, nor a Starling this year."—William Callaghan.

Arran Island, North.—"Autumn: No birds struck the lantern in 1882. I have not observed any Blackbirds, Thrushes, or Starlings, during the past year."—John Kelly.

Straw Island.—"Autumn: All descriptions of birds were fewer this year than usual."—Charles Boyle.

Arran Island, South.—"Autumn: Only a few 'Stares' struck the lantern this winter."—John O'Donnell.

Samphire Island.—"Spring: Not a single bird struck last winter, the chief cause being that we have a red light all round east and south, which birds never strike. Almost all birds strike with S.E. winds, and generally on the east side of the lantern."—Michael O'Donnell.

Tearaght Rock.—"Spring: The Sea-parrots are so plentiful here (April 25th) that on some occasions the whole island is completely covered with them: they are just now beginning to find their way into their holes. There is some solitary bird here,

so it seems, makes a noise so loud, or crows so loud, in the cliffs, that one can hear it distinctly in the dwellings. It sounds something as follows: 'kuck, kuck, ko, kuck, kuck, ko.' This is repeated a few times, and then there is an interval of some minutes. So far I can neither see nor hear it in the daytime. It is called in this place the 'Night-bird.' (See 'Zoologist,' January, 1883). The Sea-parrot does not lay more than one egg unless it is taken away, when another is laid at the end of a week, and if this is taken away another egg is laid; then no more are laid that year. The young remain in their holes until they are fully feathered. They leave them in July, and are well guarded in the sea by the old birds. It is my opinion they do not ascend on the island any more after they have left their holes. The only way the young birds are distinguished from the old ones the following spring is that their feet are still a little black. The Razorbill begins to lay its egg about May 18th. The parent birds relieve each other while hatching. I actually saw one Razorbill come up to another which was on the egg, peck it, when off it went, and the new comer at once took its place. The Stormy Petrels breed here, but in small quantity. Autumn: Referring to the cry of the 'Night-bird' (Manx Shearwater), the letter 'a' should be added to the 'ko,' and it would then read, 'kuck, kuck, ko-a.' The cry is as distinct as that of the Cuckoo, and would be heard about the same distance. I never remember to have seen a Crested Cormorant until I came here. Starlings and Thrushes come off with easterly winds when there is frost or snow on the mainland. About a dozen Grey Linnets remained here during December; also a few Snow Buntings. There are a couple of hundred Titlarks summer and winter; they do not migrate. The same might be said of the Common Wren; about a dozen."—Edward McCarron.

Valentia.—"Spring: No bird struck this lantern for five years. This point is too far west, and is out of the track of migrating birds."—Thomas McKenna.

EAGLE.

Skelligs.—April 4th, two Eagles flying about the island.

HAWK.

Rathlin Island.—April 1st, five Hawks, stopping in vicinity. June 22nd, four seen.

Innishtrahull.—March 5th, small Hawks.

Slyne Head, South.—May 26th, two Hawks, noon to 4 p.m.
 “There are many Sea Hawks about this island. They arrive the first week in April, and leave about the end of October.”

Howth Baily.—Dec. 13th, two Hawks. Jan. 2nd, one.

Rathlin Island.—Nov. 10th, “two Game Hawks coursing a Pigeon;” 16th, one Sparrow Hawk.

Innishtrahull.—Dec. 16th, one Hawk; 19th, ditto.

Arranmore.—Nov. 18th, one.

Killybegs.—Nov. 26th, two remained about a week.

Clare Island.—Nov. 23rd, two Kestrels.

Tearaght.—Dec. 9th, “one Falcon.” Jan. 8th, 1883, two Sparrow Hawks.

Dungarvan.—Nov. 14th, one Sparrow Hawk; 16th, one “Falcon Hawk;” 25th, two Sparrow Hawks. Jan. 4th, 1883, one.

SNOWY OWL.

Innishtrahull.—Nov. 19th, one shot (now in Museum of Science and Art, Kildare Street, Dublin).

THRUSH.

Slyne Head, North.—April 17th., one Thrush killed, 2 a.m., striking lantern; 29th, flocks of Thrushes pitched on this island. July 8th, five Thrushes struck lantern, one killed.

Skelligs.—Jan. 3rd, 1882, eight Thrushes perched on island.

Galley Head.—Dec. 13th, Thrushes going south.

Old Head, Kinsale.—Dec. 6th, hundreds of “Mountain Thrush;” 8th, some hundreds of Thrushes.

Tuskar Rock.—Oct. 13th, Thrushes continually striking, ten killed, and one “Mountain Thrush.”

Kish Bank Light-ship.—Oct. 12th, 13th and 14th, Thrushes about lantern.

Howth Baily.—Oct. 14th, two killed. Dec. 9th, one seen; 11th, one; 12th to 18th, several about station, frost. Jan. 13th, 1883, Thrushes about light.

Rockabill.—Oct. 4th, Thrushes. Dec. 12th, ditto.

Copeland Island.—Nov. 9th, two Thrushes killed. Dec. 18th, four ditto.

Innishtrahull.—Oct. 15th, Thrushes about lantern, one killed. Nov. 7th, Thrushes. Jan. 5th, 1883, ditto.

Lough Swilly.—Dec. 14th, one.

Tory Island.—Oct. 19th, one struck, not killed. Dec. 10th, one seen.

Arranmore.—Oct. 22nd, one. Nov. 18th, one.

Rathlin O' Birne.—Dec. 13th, one Thrush.

Killybegs.—Dec. 10th, about twenty came when the frost began.

Clare Island.—Dec. 9th, several.

Tearaght.—Dec. 14th, half a dozen Thrushes; 24th, a dozen.

Valentia.—Oct. 8th, one killed against lantern.

Skelligs.—Nov. 3rd, ten. During December a few were observed daily on island; also on Jan. 8th, 1883.

Dursey Island.—Oct. 21st, four Thrushes going E.

FIELDFARE.

Valentia.—Nov. 29th, two Fieldfares.

Dungarvan.—Nov. 11th, twelve.

BLACKBIRD.

Slyne Head, North.—March 20th, one Blackbird killed against lantern, 3 a.m.

Skelligs.—Jan. 25th, four Blackbirds on island. April 3rd, three ditto.

Old Head, Kinsale.—Dec. 8th, several Blackbirds.

Barrels Rock Light-ship.—Dec. 7th, four flying north.

Tuskar Rock.—Oct. 7th, one; 13th, thirty struck, all killed. Nov. 14th, three ditto.

Kish Bank Light-ship.—Oct. 14th, Blackbirds about lantern. Nov. 15th, hen Blackbird killed, "being the first bird I have seen killed by our lantern for the last two years." Dec. 10th, two blackbirds.

Howth Baily.—Dec. 6th, fourteen in fields; 12th, one. Jan. 13th, 1883, five about light.

Rockabill.—Oct. 4th and 12th, Blackbirds striking lantern. Dec. 12th, Blackbirds seen.

Copeland Island.—Sept. 21st, three Blackbirds killed. Oct. 8th, one ditto. Dec. 18th, one killed.

Innishtrahull.—Oct. 10th to 15th, Blackbirds about lantern; 18th, three struck, killed. Nov. 7th, Blackbirds, 10 a.m. to 4 p.m. Jan. 5th, 1883, three or four.

Tory Island.—Oct. 19th, one female struck, not killed.

Arranmore.—Oct. 21st, one. Nov. 13th, one.

Rathlin O'Birne.—Oct. 19th, one struck, killed, 2 a.m.
Nov. 13th, one. Dec. 1st, one.

Killybegs.—Dec. 10th, about twenty came on the appearance of frost.

Clare Island.—Dec. 9th, several.

Slyne Head, North.—Sept. 9th, two. Oct. 11th, two. Dec. 15th, two.

Straw Island.—Nov. 13th, a flock of Blackbirds, 2 a.m., a few struck, but none killed; fog and rain.

Valentia.—Oct. 2nd, one killed against lantern.

Skelligs.—Nov. 15th and 22nd, and at intervals during December, a few were seen on island.

ROBIN.

Eagle Island, West.—March 2nd, caught a Robin in an out-house, wind N., moderate.

Howth Baily.—Dec. 20th, four about station.

Innishtrahull.—Oct. 29th, one, 8 a.m., wind S.S.E.

Lough Swilly.—Dec. 1st, one; 2nd, one; 6th, one.

STONECHAT.

Arranmore.—April 7th, eight "Stonechats" arrived.

Rathlin O'Birne.—March 23rd, four "Stonechats;" seen also April 4th and 8th. May 8th, they rested on the island.

Eagle Island, West.—April, "Stonechats" arrived, about eighteen.

Galley Head.—Oct. 30th, the "Stonechick" has left.

Eagle Island, West.—Nov., saw a few "Stonechats."

[Some of the above entries may refer to the Wheatear.]

GOLDEN-CRESTED WREN.

Slyne Head, North.—May 11th, one Golden-crested Wren killed.

Tuskar Rock.—July 27th, two Golden Wrens; also on Aug. 6th and 9th. Oct. 12th, twelve, one killed; 13th, continually striking all night.

Howth Baily.—Oct. 9th, five Golden Wrens struck lantern; 12th, two ditto. Dec. 17th, six.

Rathlin Island.—Aug. 26th, one. Oct. 9th, two (one killed); 13th, five struck (two killed). Nov. 30th, four seen.

Innishtrahull.—Oct. 15th, Golden Wrens about lantern.

Arran Island, South.—Oct. 14th, fourteen struck lantern; none killed.

WREN.

Arklow Bank, South.—April 15th, six Wrens going N.W.. wind light N.E., cloudy; 18th, one Wren on deck, 5 a.m.

Skelligs.—Feb. 22nd, two Wrens on island. April 9th, two Wrens on island.

Tuskar Rock.—July 27th, four "Common Wrens." Seen also Aug. 5th, 9th, and 31st; and Oct. 8th and 9th.

Howth Baily.—Dec. 10th, six flying south; 16th, three.

Innishtrahull.—Oct. 15th, "Brown Wrens" about lantern. Nov. 7th, ditto seen.

Tory Island.—Oct. 6th, two Wrens caught on lantern.

Arranmore.—Oct. 22nd, one seen.

Rathlin O' Birne.—Oct. 28th, one seen.

Eagle Island, West.—Nov., saw two pairs of Wrens.

Slyne Head, North.—Sept. 9th, two Wrens seen.

Arran Island, North.—Aug. 7th, "three Common Wrens" going S.E. Dec. 9th, two.

Skelligs.—Oct. 19th, two. Dec. 5th, four; 13th, two; Jan. 5th, 1883, two. All alighted on island.

TITS.

Tuskar Rock.—March 18th, 10 p.m. to 5 a.m., continually striking, seventeen killed; wind fresh S.W., fog. April 21st, 10.30 p.m. to 4 a.m., constantly striking, twelve killed; wind fresh S.E., fog. July 27th, Titmice continually striking, wind fresh S.; also on 6th, 9th, and 31st Aug.

Copeland Island.—Sept. 10th, six Titmice killed; 21st, two ditto. Oct. 8th, four ditto.

Innishtrahull.—Oct. 14th, Titmice at lantern; 15th, one killed.

WAGTAIL.

Galley Head.—Oct. 30th, the Wagtail has left.

Rathlin Island.—Aug. 26th, three remained on island. Nov. 9th, one seen.

Innishtrahull.—Dec. 19th, one.

Lough Swilly.—Dec. 14th, two.

Samphire Island.—Oct. 27th, five Wagtails on rock.

LARKS.

Arklow Bank, South.—Noticed on April 5th, 7th, and 15th.

Rathlin O' Birne.—March 8th, 10th, 11th, and 12th, Sky Larks seen, one to five in number; they rested on the island. Observed earlier this year than last year. March 22nd, Titlarks mating; they rested on the island.

Eagle Island, West.—April, about eighteen Titlarks arrived.

Slyne Head, North.—April 29th, flocks of Larks pitched on island. July 13th, one Lark killed against lantern.

Straw Island.—From April 3rd to May 20th, continuous flocks of Common Field Larks passing towards the mainland, generally about 3 p.m.

Valentia.—April 3rd, small flocks of Larks and frequently to end of month. May 3rd and 16th, a few Larks.

Galley Head.—Dec. 13th, Larks going south.

Old Head, Kinsale.—Dec. 8th, Larks.

Coningbeg Light-ship.—Dec. 13th, one killed against lantern.

Barrels Rock Light-ship.—Dec. 7th, one rested on ship.

Tuskar Rock.—Oct 9th, Larks and Titlarks; also on Oct. 14th.

Kish Bank Light-ship.—Nov. 30th, large flocks of Sky Larks.

Howth Baily.—Nov. 20th, about two hundred Larks. Dec. 7th, twenty; 11th, ten; 12th to 18th, several, frost. Jan. 15th, 1883, Titlarks about.

Copeland Island.—Sept. 10th, ten Larks killed; 21st, four ditto. Oct. 8th, seven ditto. Nov. 9th, eight ditto. Dec. 18th, two ditto.

Innishtrahull.—Oct. 14th, Titlarks at lantern; 15th, Larks, one killed. Nov. 19th, Titlarks. Dec. 15th, flock of fifty.

Tory Island.—Oct. 14th, one "female" Lark killed.

Eagle Island, West.—Sept., Sky Larks and Titlarks seem to be departing.

Clare Island.—Jan. 1st, 1883, twenty Titlarks.

Arran Island, North.—Nov. 12th, eleven. Dec. 9th, six. Jan. 4th, 1883, two.

Dungarvan.—Nov. 14th, small flocks of Sky Larks; 15th, one struck, not killed, Dec. 5th and 15th, large flocks.

SNOW BUNTING.

Arranmore.—April 5th, four Snow Buntings left island.

Galley Head.—Nov. 30th, two "Snow Birds" passed north.

Rathlin Island.—Nov. 5th, seven Snow Buntings arrived and will remain some time; 31st, thirty.

Innishtrahull.—Nov. 7th, Snow Buntings; 19th to end of month, frequented island. Dec. 23rd and 24th, fifty to one hundred in a flock; wind, strong N.W. Jan. 3rd, 1883, Snow Buntings daily to 18th on island.

Tory Island.—Nov. 9th, one flock. Jan. 6th and 7th, 1883, Snow Buntings.

Arranmore.—Oct. 4th, one seen. Nov. 4th, 18th; Dec. 4th, 5th, 12th; Jan. 4th and 6th, 1883;—on all these dates some seen.

CHAFFINCH.

Kish Bank Light-ship.—Oct. 25th, flock of Chaffinches going W.; 30th, four Chaffinches.

Arranmore.—Oct. 26th, four Chaffinches. Jan. 4th, 1883, one.

SPARROW.

Rathlin Island.—June 9th, fifteen or sixteen Sparrows; remained two or three days. Dec. 16th, Sparrows.

"GOLDFINCH."

Arranmore.—May 4th, six Goldfinches "come to build."

Valentia.—Oct. 6th, four Goldfinches. Nov. 8th, five. Dec. 18th, eighteen.

[The Goldfinch is now rare and local in Ireland; hence inverted commas.]

LINNET.

Galley Head.—March 4th, one hundred or more going N. May 21st, flocks of small birds, "taken to be Linnets," going N.

Coningbeg Light-ship.—March 9th, two Linnets flying westward.

Tuskar Rock.—March 18th, 10 p.m. to 5 a.m., continually striking, seven killed; wind fresh S.W., fog. April 21st, 10.30 p.m. to 4 a.m., continually striking, five killed; wind fresh S.E., fog.

Clare Island.—Flocks of "Grey Linnets" noticed on March 5th, 10th, 28th; April 11th, 27th; May 3rd, 30th; and June

20th. The flocks were continuous on March 28th and April 11th.

Slyne Head, North.—April 29th, flocks of Linnets pitched on island.

Galley Head.—Dec. 13th, Linnets going south.

Old Head, Kinsale.—Dec. 8th, Linnets and Finches.

Coningbeg Light-ship.—Nov. 8th, six Linnets flying N.W.; 15th, seven Linnets. Dec. 7th, three Linnets alighted on ship; 19th, one ditto.

Tuskar Rock.—July 27th, Green Linnets striking; also on Aug. 6th and 9th; Oct. 9th and 13th.

Kish Bank Light-ship.—Oct. 21st, about “thirty Chaffinches or Linnets.”

Howth Baily.—Dec. 6th, about sixty; 7th, eight; 12th to 18th, several; frost.

Rockabill.—Oct. 12th, Linnets. Dec. 20th, Green Linnets all day.

Rathlin Island.—Aug. 7th, flocks; 19th, ditto. Sept. 12th, twenty-eight Green Linnets. Oct. 1st, thirty Grey Linnets; 18th, Grey Linnets. Seen also on Nov. 1st and 3rd; and on 14th several flocks arrived and apparently remained on island some time. During December several flocks seen at intervals. Jan. 3rd, 1883, one flock.

Innishtrahull.—Oct. 10th to 13th, flocks of Grey Linnets all day; six or eight struck lantern, none killed; 15th, flocks. Dec. 31st, Green and Grey Linnets; flocks of 100 to 150.

Lough Swilly.—Oct. 12th, Linnets. Dec. 24th, flocks of Linnets.

Arranmore.—Oct. 24th, forty Grey Linnets.

Rathlin O’Birne.—Oct. 28th, ten Grey Linnets.

Killybegs.—Oct. 26th, twenty-five to thirty Grey Linnets; left same day, going south. “They were accompanied by several small birds of different species.”

Broadhaven.—Dec. 2nd, twenty-five Linnets. Jan. 7th, 1883, seven.

Slyne Head, North.—Sept. 28th, twelve Linnets. Oct. 27th, three.

Arran Island, North.—Aug. 5th, large flock. Nov. 12th, thirty to forty.

Straw Island.—Sept. 13th, thirty Linnets. Remained ten days on island.

Valentia.—Oct. 6th, ten. Nov. 4th, two; 20th, ten. Dec. 6th to 20th, eight to twenty at intervals.

Skelligs.—Oct. 12th, twelve "Buntings" perched on island.

"BULLFINCH."

Rathlin O' Birne.—March 9th, one Bullfinch; 10th, three Bullfinches; wind strong S.W.

Tuskar Rock.—July 27th, Aug. 5th, 9th, and 31st, Sept. 6th, Oct. 13th, Bullfinches constantly striking. "This is a bird like the Green Linnet, but more white on the outside of the wing." (Chaffinch?).

STARLING.

South Maidens Light.—May 11th, two dozen Starlings, 11 am., misty fog.

Rathlin Island.—April 15th, seven remained all day; 27th, they are building here. June 10th, Starlings left.

Galley Head.—Sept. 18th, forty to fifty Starlings going N. Oct. 9th, continuous flocks passing N.; 20th, flocks of 100 to 300, remaining in locality. Dec. 13th, Starlings going S.

Old Head, Kinsale.—Nov. 2nd, 300 Starlings; 4th, 400 or 500. Dec. 8th, hundreds.

Coningbeg Light-ship.—Nov. 12th, fifty flying N.; 15th, eight flying N.E. Dec. 9th, flocks going N.; 12th, one caught on board.

Tuskar Rock.—Aug. 31st, Starlings striking. Oct. 8th and 13th, Nov. 14th, ditto.

Kish Bank Light-ship.—Oct. 12th, 13th, 14th, 15th, Starlings about lantern; 27th, two. Nov. 6th and 11th, flocks going W. Dec. 11th, two.

Howth Baily.—Nov. 7th, large flock; 14th, ditto. Dec. 4th, fifty; 12th to 18th, several; frost.

Rockabill.—Dec. 12th, Starlings.

Rathlin Island.—Nov. 6th, three. Dec. 16th, flocks.

Innishtrahull.—Nov. 7th, a flock of eight or nine.

Oyster Island, North.—Dec. 4th, large flock passing S.W.

Clare Island.—Dec. 6th, two flocks.

Slyne Head, North.—Aug. 30th, two Starlings. Dec. 24th, three; 27th, forty.

Straw Island.—Nov. 10th, 120. Dec. 7th, forty. Jan. 11th, 1883, forty.

Arran Island, South.—Oct. 18th, thirty “Stares.”

Tearaght.—Dec. 15th, about 150 Starlings; 21st, 100.

Skelligs.—Dec. 5th, twenty came to island; 12th, forty.

Dursey Island.—Oct. 16th, forty; 20th, large flock going S.E. Nov. 14th, twenty going E. Dec. 10th and 13th, large flocks going S.E.

Dungarvan.—Nov. 11th, small flocks; 17th, 21st, some seen; 25th, one killed against lantern.

CHOUGH.

Rathlin Island.—June 5th, Red-legged Crows. “They make their home here.”

Blacksod.—April 27th, about eight Choughs. Seldom seen at this station. June 17th, four to six Choughs going S.

RAVEN.

Black Rock, Mayo.—May 23rd, thirty-six “Ravens,” 7 a.m.; wind light W. “It is remarkable to see so many of these birds together, as there is seldom more than three or four.”

Slyne Head, South.—June 22nd, two Ravens.

Arran Island, North.—Aug. 5th, two Ravens.

HOODED CROW.

Rathlin Island.—April 13th, six White-backed Crows. “They never leave.”

Rathlin O’Birne.—March 23rd, four “Saddle-backed Crows.” Two of these Crows remained and nested in cliff.

Broadhaven.—April 20th, two “Scar Crows” going S.W.

Clare Island.—April 20th, flocks of Grey Crow. May 5th, ditto, going S.

Slyne Head, North.—March 3rd, seven Grey Crows; 6th, eleven ditto.

Dursey Island.—April 9th, six Grey Crows going S.E. June 4th, 12th, Grey Crows going N.E.

Gally Head.—Dec. 30th, the Grey-backed Crow has disappeared.

Howth Baily.—Jan. 6th, 1883, flock of forty flying E.

Rathlin Island.—Sept. 16th, “five Grey-backed Crows or Choughs” (Jackdaws?). They breed on the island. Dec. 12th, two “White-backed.”

Innishtrahull.—Dec. 6th, ten Grey Crows at all hours. They breed on island.

Lough Swilly.—Dec. 5th, one Grey-backed Crow; 24th, two.

Arran Island, North.—Aug. 5th, four.

Straw Island.—Nov. 30th, four. Dec. 15th, five.

Valentia.—Nov. 12th, four. Dec. 8th, twenty.

Dursey Island.—Aug. 22nd and 25th, eight; one or two seen also on Oct. 9th, Nov. 11th, and Dec. 24th.

Dungarvan.—Dec. 5th, two.

ROOKS.

Tuskar Rock.—April 6th, one flock, 7 a.m., going W., wind light E.N.E.; 21st, one flock going W.

Arklow Bank, South.—April 11th, one "Crow" going N.W.

Rathlin Island.—April 14th, thirty "Black Crows," coming from Scotland, wind strong N.E.; 23rd, forty Black Crows, coming from Scotland, wind light N.W., foggy. May 5th, fifteen Black Crows. June 23rd and 30th, several.

Lough Swilly.—June 4th, flights of Rooks. July 1st and 15th, great numbers of Rooks; 31st, a few.

Blacksod.—April 13th, large flock of Crows (Rooks) all day constantly passing. May 22nd, Rooks.

Clare Island.—March 20th, two large flocks of Black Crows going N.

Slyne Head, North.—April 26th, flock of Rooks coming from the N.E. June 12th, one flock of Crows (Rooks?). July 21st, flocks of Rooks flying in different directions.

Straw Island.—May 11th, 100 Crows (Rooks?).

Valentia.—April 21st, a few Crows; also on May 21st.

Kish Bank Light-ship.—April 17th, one Crow going N.W.; 24th, one alighted on ship.

Howth Baily.—Dec. 14th, three; 15th, six; 24th, sixty flying W.

Rockabill.—Dec. 12th, Black Crows alighted on the rocks.

Rathlin Island.—Aug. 13th, thirty. Sept. 10th, ditto. Oct. 6th, forty; 19th, forty. Nov. 13th, thirteen. In all these cases going S. A few seen on Dec. 11th, 12th, and 22nd.

Innishtrahull.—Oct. 7th, eight "Black Crows." Dec. 10th, one.

Tory Island.—Nov. 29th, eight Crows.

Oyster Island, North.—Oct. 12th, twenty Rooks going inland.

Clare Island.—Jan. 4th, 1883, six.

Slyne Head, North.—Oct. 27th, four. Dec. 27th, ten.

Samphire Island.—Oct. 4th, about forty; Oct. 12th, a very large flock passing to opposite shore. They return about sunset.

Valentia.—Oct. 8th, four; 24th, five.

Skelligs.—Dec. 13th, twenty going E.

JACKDAW.

Tearaght.—Dec. 10th, two; 17th, one.

MAGPIE.

Lough Swilly.—Oct. 5th, one Magpie, 11 a.m.

Arran Island, North.—Aug. 10th, two.

SWALLOW.

Galley Head.—May 12th, from thirty to fifty Swallows going N.W.

Mine Head.—April 21st, twelve Swallows, noon, wind S.S.E., strong, cloudy; the first arrivals.

Tuskar Rock.—April 24th, one, 8.20 a.m., going W.

Arklow Bank, South.—April 5th, two going N.W.

Kish Bank Light-ship.—April 18th, two going S.E.

Dunree Head.—June 15th, flock of Swallows.

Lough Swilly.—May 4th, a few; the first this season.

Arranmore.—May 6th, four came to build.

Rathlin O'Birne.—May 4th, twelve Swallows "of the Martin species"; 16th, six or seven Swallows.

Blacksod.—June 10th, ten to twenty Swallows; the first seen.

Slyne Head, North.—May 17th, nine.

Slyne Head, South.—June 7th, four.

Skelligs.—June 2nd, two flying about island.

Tuskar Rock.—Oct. 4th, two flying about; also on Oct. 14th.

Innishtrahull.—Aug. 12th, one "Black Swallow" (Swift?), last seen for season.

MARTIN.

Mine Head.—July 4th, six Martins.

Oyster Island, North.—May 3rd, about fifteen Martins. They breed in the neighbourhood.

CUCKOO.

Mine Head.—May 1st, Cuckoo first heard.

Rathlin Island.—May 10th, five Cuckoos.

Arranmore.—May 3rd, two Cuckoos arrived.

Oyster Island, North.—May 8th, heard first Cuckoo.

“KINGFISHER.”

Black Rock, Mayo.—April 20th to May 1st, one or two “Kingfishers” at sunrise. “When started they make in the direction of the Bangor River between Belmullet and Ballina.”

PIGEONS.

Rathlin Island.—June 10th, seven Rock Pigeons.

Lough Swilly.—April 6th, some Pigeons.

Blacksod.—April 8th, sixteen. May 19th, Pigeons 8 a.m. till sunset.

Clare Island.—April 7th, four small flocks going S.E.; 11th, continuous flocks going S.; 20th, ditto. May 10th, three small flocks going N.W.; 20th, two flocks going W. June 6th and 17th, three flocks.

Dursey Island.—April 14th, fourteen Wild Pigeons going N.E. May 15th, twenty Wild Pigeons going N.E.

Howth Baily.—Dec. 14th, nine flying S.

Rockabill.—Dec. 13th, nine flying S.

Rathlin Island.—Dec. 13th, flocks of Pigeons.

Innishtrahull.—Dec. 10th, flock of eight Pigeons. They breed on island.

Lough Swilly.—Oct. 5th, Pigeons in flocks; 9th, 12th, 28th, ditto.

Clare Island.—Nov. 5th, large flock. Dec. 22nd, ditto.

Arran Island, North.—Aug. 3rd, four going S.

Arran Island, South.—Nov. 17th, four. Dec. 6th, thirty.

Dungarvan.—Dec. 29th, ten “Woodguests” flying about.

Jan. 15th, 1883, six flying inland.

QUAIL.

Innishtrahull.—Sept. 11th, one caught.

GOLDEN AND “GREY” PLOVER.

Copeland Island.—April 20th to 26th, some flocks seen on island; twelve killed against lantern.

South Maidens.—April 10th, three dozen "Plover," 4.30 p.m.

Innishtrahull.—Seen all the month of February during several days, and on May 8th.

Black Rock, Mayo.—From March 1st to May 20th, Golden Plover. These birds never rest here, except when migrating.

Slyne Head, North.—April 14th, three Plover (? Golden); one struck the lantern, 2 a.m.

Galley Head.—Dec. 10th, continuous flocks of "Grey and Golden" Plover, from 50 to 100 in a flock, passing to the south; frost.

Old Head, Kinsale.—Dec. 7th, some hundreds of Golden Plover; 8th, hundreds of Plover; 11th, 12th, 13th, 14th, and 16th, ditto, going south.

Barrels Rock Light-ship.—Dec. 10th, about sixty Plover flying S.

Kish Bank Light-ship.—Dec. 11th, two flocks going S.W.

Copeland Island.—Nov. 9th, some flocks of Grey Plover on island off and on during the month.

South Maidens.—Aug. 11th, a flock of Plover.

Rathlin Island.—Oct. 22nd, sixteen "Grey" Plover remain here. Nov. 7th, twenty; 19th, forty coming from N. Dec. 13th and 16th, flocks of Golden Plover.

Tory Island.—Dec. 10th, "Grey" Plover; 11th, four Golden Plover; 15th, nine "Grey" Plover.

Rathlin O'Birne.—Oct. 4th, forty Golden Plover. Dec. 14th, thirty.

Killybegs.—Sept. 23rd, about forty "Grey Plover" remained several days. Oct. 8th, fourteen. Dec. 10th, about 100. These remained while the frost continued, when they flew inland.

Broadhaven.—Dec. 2nd, twelve Plover.

Valentia.—Dec. 8th, fifty Golden Plover; 19th, twenty remained.

Dursey Island.—Dec. 8th, forty going S.W.; 9th, large flocks of Grey and Golden Plover all day going S.W.; 12th, ten.

Dungarvan.—Dec. 15th, some "Grey Plovers."

GREEN PLOVER.

Rathlin Island.—April 16th, eight remained in vicinity two days; 26th, seven, remained all day.

Innishtrahull.—March 5th, Lapwing Plover. May 10th, ditto.

Old Head, Kinsale.—Dec. 7th, hundreds of Green Plover ; 14th, ditto.

Howth Baily.—Dec. 10th, two ; 11th, forty flying S.W. ; 12th to 18th, several ; frost.

Rockabill.—Dec. 16th, Green Plover going S.

Copeland Island.—Nov. 9th, some flocks of Lapwings on island during this month.

Rathlin Island.—Nov. 28th, six. Dec. 2nd, seven ; 10th, 11th, 13th, and 16th, flocks.

Innishtrahull.—Dec. 12th, twelve Lapwings ; first seen this season.

Tory Island.—Oct. 5th, three ; 20th, one. Nov. 5th, one.

Killybegs.—Oct. 3rd, eight Lapwings. These were in neighbourhood all the summer.

Oyster Island, North.—Dec. 1st, twenty-five Lapwings ; 12th, ten.

Slyne Head, North.—Nov. 10th, two.

Dungarvan.—Nov. 11th, small flocks ; 15th, large flocks ; 17th, some ; 30th, very large flocks. Dec. 15th, several.

TURNSTONE.

Dungarvan.—Nov. 11th, eight.

“ SEA LARKS.”

Blacksod.—July 12th, twelve Sea Larks.

Howth Baily.—Jan. 6th, 1883, seven “ Sand Larks ” on strand.

Rockabill.—Nov. 3rd, “ Sand Larks.”

Innishtrahull.—Aug. 12th, six or eight “ Sand Larks,” and daily during winter.

Arranmore.—Oct. 20th, one “ Sandpiper.” Nov. 4th, one.

SEAPIE.

Rathlin O’ Birne.—March 13th, four “ Sepoys,” 4.30 p.m., wind strong S.W. ; 26th, six “ Sepoys.” June 2nd and 10th, several “ Sepoys.”

Howth Baily.—Jan 6th, 1883, flock of eighty to one hundred “ Sepoys ” flying about cliffs.

Innishtrahull.—Dec. 6th, flock of twelve “ Sepoys.”

Oyster Island, North.—Oct. 9th, seven remained some time. Dec. 31st, several.

HERON.

Blacksod.—June 7th, three to five “Cranes.” Seldom seen here.

Howth Baily.—Dec. 10th, one; 12th, one.

Tory Island.—Oct. 8th, one at lake. Dec. 5th, one “Crane.”

Samphire Island.—Oct. 27th, two. Seldom seen here.

Skelligs.—Dec. 11th, one going. E.

Dungarvan.—Jan. 16th, 1883, one flying seaward.

CURLEW AND WHIMBREL.

Galley Head.—May 8th, flocks of from ten to twenty “May-birds,” or Curlew, going N.

Mine Head.—May 3rd, nine “May-birds.”

Coningbeg Light-ship.—May 6th and 8th, eight to ten “May-birds” flying N.W.

Rathlin Island.—May 2nd, 5 a.m., ten Curlews; 8th, eight Curlews; 12th, ten May-birds or Curlews. Seen also on June 3rd, 21st, and 29th going S.

Innishtrahull.—March 5th, seen. April, in flocks. May, some seen. In June and July, the only birds which visit the island, except sea-birds.

Lough Swilly.—May 16th and 17th, flocks of “Whimbrel Curlew.”

Rathlin O’Birne.—March 13th, one Curlew. A few seen on March 25th, and from June 2nd to 8th.

Oyster Island, North.—May 3rd to 7th, fifteen to twenty “young Curlews, commonly called May-birds.”

Blacksod.—April 5th, about twenty Curlews going N.W.; April 9th, twelve birds seen; 18th, several flocks. May 13th to 22nd, continuous flocks passing inland. A few on July 5th and 20th.

Slyne Head, North.—April 11th, flock of Curlews. May 3rd, one flock known by the name of “May-birds” in this locality. “They resemble the Curlew in form and colour, but not so large; they remain in this locality for two or three months each year, and are rarely seen before May.” They departed early in July this year; 10th, one flock of Curlews going S. July 21st, flocks of Curlews.

Slyne Head, South.—May 17th, nine “May-fowls” flew to N.E.; 30th, five ditto.

Valentia.—During April frequently, and May 13th, 16th, 25th. On May 13th the entry is “young Curlew” (perhaps Whimbrel).

Skelligs.—Jan. 8th, ten Curlews going S.

Dursey Island.—May 2nd to 7th, Curlews at intervals going N.W.

Old Head, Kinsale.—Dec. 13th, flocks of 200 to 300 Curlews, first arrived on this day.

Howth Baily.—Dec. 6th, fifteen Curlews; 10th, thirty; 12th to 18th, several; frost. Jan. 15th, 1883, large flock.

Copeland Island.—Sept. 21st, large flocks of Curlews.

Rathlin Island.—Aug. 3rd, seven Curlews; 12th, five; 21st, three. Sept. 2nd, seven; 20th, twelve. Oct. 25th, six. Dec. 7th, eight; and at intervals to end of month.

Innishtrahull.—Aug. 12th, flocks of ten or twelve, and daily during winter.

Dunree Head.—Dec. 11th, great flock of Curlews passed.

Lough Swilly.—Oct. 5th, Curlews in flocks; Oct. 9th, 12th, Nov. 1st, 30th, Dec. 6th and 14th, ditto.

Killibegs.—Sept. 5th, about seventy Curlews; they remained until middle of October, some during winter months.

Oyster Island, North.—Nov. 11th, about fifty; remained on island. Seen also on Dec. 12th, 31st; and Jan. 9th to 13th, 1883.

Clare Island.—Nov. 3rd, thirty going N. Dec. 22nd, large flocks. Jan. 10th, 1883, large flocks.

Arran Island, North.—Dec. 9th, four; 16th, seven.

Straw Island.—Sept. 30th, twenty-five “young Curlews.” Nov. 27th, twenty.

Arran Island, South.—Curlews always on island.

Samphire Island.—Oct. 11th, three passing inland.

Valentia.—“Curlews at all times here.”

Skelligs.—Oct. 3rd, six going N. Dec. 19th, eight.

Dursey Island.—Entries occur in September at frequent intervals. Oct. 3rd, 26th, and Dec. 14th and 17th.

Dungarvan.—Nov. 21st, large flocks.

WOODCOCK.

Slyne Head, South.—May 7th, two Woodcocks, 11 a.m. None struck lantern for last six months.

Skelligs.—Jan. 19th, two Woodcocks perched on island.

Old Head, Kinsale.—Nov. 20th, three Woodcocks. Dec. 5th, five; 6th, twenty; 7th, eighteen; 8th, ten; 9th, twenty.

Howth Baily.—Dec. 6th, one; 12th, one; 14th, one.

Rathlin Island.—Dec. 13th, Woodcocks.

Arranmore.—Nov. 12th, one. Dec. 10th, four.

Rathlin O' Birne.—Dec. 17th, one.

Killybegs.—Nov. 5th, two killed. Dec. 10th, three (shot two).

Arran Island, South.—Oct. 26th, three. Nov. 20th, two.

Skelligs.—Dec. 14th, two.

Dursey Island.—Dec. 11th, two going S.E.

Dungarvan.—Dec. 11th, two.

SNIPE.

Slyne Head, North.—March 12th, 4 a.m., one Snipe killed against lantern.

Slyne Head, South.—May 16th, three Snipe, 7 a.m.

Old Head, Kinsale.—Nov. 4th, ten Snipe. Dec. 6th, thirty; 9th, sixty Snipe; 15th, sixty to one hundred.

Howth Baily.—Dec. 12th, two.

Innishtrahull.—Oct. 6th, one. Nov. 7th, two; 19th to end of month, some frequented island.

Lough Swilly.—Dec. 14th, two.

Tory Island.—Oct. 5th, one. Dec. 11th, five.

Arranmore.—Dec. 10th, 11th, and 16th, a few.

Rathlin O' Birne.—Dec. 16th, two; 17th, six.

Skelligs.—Dec. 15th, four. Jan. 5th, 1883, one; 8th, two.

CORN CRAKE.

Mine Head.—May 1st, first heard in the night.

Tuskar Rock.—Aug. 22nd, one Corn.Crake going N.W. The third seen here for the last two and a half years.

WATERHEN.

Old Head, Kinsale.—Dec. 15th, Waterhen seen; plentiful on a lake near.

Rockabill.—Dec. 12th, Waterhen.

Innishtrahull.—Dec. 16th, one "Moorhen."

COOT.

Old Head, Kinsale.—Dec. 15th, Coot seen; plentiful on a lake near.

GEESE.

Innishtrahull.—Feb. 13th, Barnacles in flocks of from twelve to twenty, from 8 a.m. to 5 p.m. "These birds passed more or less during this month, but particularly on the 13th."

Rathlin O'Birne.—March 21st, eight Barnacles. Have not seen Barnacles at this time of year before. They left next morning.

Oyster Island, North.—Feb. 21st to 26th, large flocks of Barnacles, seen between 8 and 10 p.m. Noticed passing against the rays of light. They all left the neighbourhood.

Broadhaven.—April 5th and 16th, Barnacles seen going N.; 9th and 15th, Geese going N.

Howth Baily.—Jan. 9th, 1883, thirteen Barnacles or Wild Geese flying E.

Copeland Island.—Dec. 18th, three flocks of Wild Geese passed over island, going inland.

Rathlin Island.—Dec. 18th and 26th, two Wild Geese.

Innishtrahull.—Nov. 5th, three Barnacles flying S.E.

Dunree Head.—Oct. 10th, flock of Barnacles passed up lough; 20th, great flock of Wild Geese passed. Nov. 7th, Barnacles. Dec. 21st, flock of Wild Geese.

Lough Swilly.—Nov. 2nd, two flocks of Wild Geese going S.

Tory Island.—Oct. 17th, one Wild Goose.

Arranmore.—Nov. 12th, one Barnacle. Dec. 8th, one; 9th, thirty-two; 18th, several.

Rathlin O'Birne.—Nov. 8th, seven Barnacles; 14th, four. Dec. 10th and 26th, several.

Killybegs.—Nov. 13th, nineteen flying S., very high; 16th, two flocks flying S. Dec. 4th, seventeen going S.

Oyster Island, North.—Sept. 21st, twelve Barnacles going S.; 26th, thirty going S. Oct. 5th and 8th, several flocks going S.; 17th, 20th, 25th, ditto. Nov. 5th, 20th, Dec. 25th, flocks passing into harbour.

Broadhaven.—Dec. 2nd, thirteen Wild Geese.

Clare Island.—Oct. 20th, a large flock of Wild Geese going S. *Slyne Head, North*.—Nov. 10th, seven Barnacles. Dec. 7th, fifteen.

Samphire Island.—Oct. 7th, Barnacles in large numbers in the bay, and continued plentiful up to date of sending schedule, Jan. 15th, 1883.

Dungarvan.—Nov. 15th, five Wild Geese; 16th, four going E. Dec. 11th, seven.

SWANS.

Lough Swilly.—"June 1st to 3rd, some Wild Swans on lake in neighbourhood; unusual at this season."

Rathlin Island.—Nov. 22nd, seven White Swans. "Remained on island some hours till two were shot."

Killybegs.—Dec. 14th, six Swans flying south at a great height.

DUCKS.

Copeland Island.—March 14th to 28th, Teal and Widgeon seen at intervals in small flocks of four to ten, passing over station from mainland, going N.E. or towards Scotch coast.

Broadhaven.—April 5th, five Wild Ducks going N. May 13th, two Wild Ducks going N.W.

Blacksod.—April 8th, eleven.

Clare Island.—March 3rd, large flock. April 2nd, four large flocks; 14th, two flocks. In these three cases birds going S. or S.W. On June 26th, Wild Ducks going N.

Galley Head.—Nov. 18th, some Ducks coming to the bogs.

Old Head, Kinsale.—Dec. 13th, twenty-six Teal Ducks, six "Black Ducks," one shot. "These Ducks, I know, are not native of this country."

Barrels Rock Light-ship.—Dec. 7th, twenty Wild Ducks flying S.; 10th, flock of thirty Widgeon ditto.

Tuskar Rock.—Nov. 14th, seven Shelldrakes killed striking.

Kish Bank Light-ship.—Oct. 7th, a flock of Widgeon (supposed); 19th, flock of Ducks. Nov. 12th, ditto. Dec. 29th, four Ducks.

Howth Baily.—Oct. 29th, eight Wild Ducks. Dec. 12th, three. Jan. 14th, 1883, six Widgeon.

Copeland Island.—Oct. 8th, continuous flocks of Ducks passing over island and going inland, three to twelve in each flock.

South Maidens.—Sept. 10th, a flock of Sheldrakes.

Rathlin Island.—Sept. 25th, two Teals.

Innishtrahull.—Sept. 8th, one shot; 9th, two seen. Oct. 6th, Teal, two. Nov. 7th, Wild Duck shot. Dec. 10th, two to four; 21st, one.

Dunree Head.—Nov. 7th, Wild Duck; 16th, flock of Widgeon.

Tory Island.—Nov. 7th, Sheldrake shot, wind S., stormy. Dec. 9th, one Wild Duck.

Killybegs.—Sept. 19th, thirteen Wild Ducks; remained about until sending in schedule in January.

Oyster Island, North.—Oct. 17th, flocks of Widgeon; 25th, large flocks. Dec. 18th, large flock.

Broadhaven.—Nov. 25th, six Wild Ducks.

Straw Island.—Nov. 25th, forty Ducks. Dec. 5th, twenty-five. Jan. 9th, 1883, thirteen.

Arran Island, South.—Nov. 17th, twenty Wild Ducks.

Samphire Island.—Oct. 7th, Duck; 18th, twenty.

Dungarvan.—Nov. 13th, five; 18th, fifty. Dec. 11th, Ducks and Teal, several; 24th, several flocks of Teal. Jan. 3rd, 1883, thirty Wild Ducks.

MERGANSER.

Dungarvan.—Nov. 18th, three flying into bay; 28th, ten swimming towards land. Dec. 26th, two.

NORTHERN DIVER.

Skelligs.—June 1st, one Northern Diver in the water.

Tuskar Rock.—Jan. 11th, 1883, one Northern Diver. The "Black Divers" leave here about May 1st, and begin to return in October.

Howth Baily.—Dec. 5th, one Northern Diver swimming about; 14th, ditto.

Clare Island.—Dec. 27th, three Northern Divers.

GUILLEMOT.

Tearaght.—First seen on Feb. 21st. Commence to lay about May 20th.

Skelligs.—Feb. 12th, forty Guillemots going N. March 27th, flocks going N. Numbers about island during April, May, and June.

Tearaght.—Jan. 8th and 9th, 1883, about a dozen.

Skelligs.—Aug. 1st, flock departing. Oct. 31st, flock seen going S. Nov. 10th, flock fishing.

PUFFIN.

Galley Head.—Continuous flocks on Feb. 27th, March 18th and 21st, and from April 10th to 30th, also during May; in all cases going W.

Rathlin O'Birne.—May 14th, continuous flocks; also on 16th and 20th, going N.; after May 20th to end of month going S.

Oyster Island, North.—March 13th, several flocks of Puffins in the bay. May 18th to 24th, several flocks.

Broadhaven.—June 18th to 20th, flocks of Puffins. A few on June 30th and July 12th.

Eagle Island, West.—June, large numbers of Puffins.

Black Rock, Mayo.—From April 20th to Aug. 15th, large numbers of Puffins at intervals.

Blacksod.—April 18th, thirty Puffins. June 16th, eleven Puffins going S.E.

Clare Island.—March 22nd, continuous flocks of Puffins going S.W. April 4th, ditto, going S.

Slyne Head, North.—April 10th, continuous flocks of Puffins arrived during day. June 17th, large and continuous flocks of Puffins have arrived in vicinity.

Straw Island.—April 14th, 150 Puffins or Sea Parrot, 5.10 a.m.

Tearaght.—April 1st, the Puffin arrived, a few only; 5th, they completely covered the island this day.

Skelligs.—March 23rd, flocks of Puffins about island. Numbers around island to end of June (date of sending schedule).

Coningbeg Light-ship.—Nov. 15th, flocks flying S.

Barrels Rock Light-ship.—Dec. 13th to 16th, continuous flocks flying E. and S.

Howth Baily.—Puffins disappeared about middle of December.

Dunree Head.—Aug. 17th, flocks,

Killybegs.—Oct. 30th, 100 to 150 Puffins; they were here during the summer and up to this date.

Slyne Head, North.—A few Puffins at intervals to Nov. 7th.

Arran Island, North.—Nov. 8th, twenty Puffins.

Straw Island.—Oct. 23rd, thirty.

Skelligs.—Aug. 5th, flocks departing.

RAZORBILL.

Skelligs.—March 28th, flock of Razorbills; continued about the island during April, May, and June. Aug. 1st, flock departing. Jan. 3rd, 1883, flock going S. A few on Jan. 9th and 11th fishing.

CORMORANT.

Black Rock, Mayo.—April 20th to Aug. 15th, two to six Cormorants; they breed on coast.

Blacksod.—April 27th, Cormorants seen all day.

Dursey Island.—A few Cormorants seen on April 11th, 27th, May 20th, June 22nd.

Coningbeg Light-ship.—Nov. 9th, two Cormorants remained around ship.

Innishtrahull.—Nov. 5th, Cormorants to be seen frequently; they breed on a rock near the mainland called the Stark.

Tory Island.—Dec. 10th, four Cormorants.

Arran Island, North.—A few seen at intervals; last entry, Oct. 2nd.

Straw Island.—Dec. 22nd, eleven.

Samphire Island.—Oct. 19th, four.

Valentia.—At intervals during October and November resting on rock.

GANNET.

Galley Head.—Continuous flocks are noted on the following dates:—Feb. 27th, March 5th to 13th, 21st, April 10th to 30th, and in June. In every instance where the direction of flight is entered, they were going W.

Arklow Bank, South.—Small flocks, two to twelve birds in each, are noted as frequently passing from April 1st to June 7th, going in various directions, generally N.E.

Kish Light-ship.—May 5th, one seen; 14th, two seen.

Copeland Island.—Flocks between April 1st and 16th, two to twenty birds in each, pass daily, all going N.

Rathlin Island.—Flocks at intervals between April 6th and June 28th; most numerous in the end of May and June. Direction of flight either E. or W.

Lough Swilly.—Flocks at intervals between April 29th and July 18th; most in July.

Arranmore.—Passing in June and July.

Rathlin O'Birne.—At intervals from March 17th to July; generally in small flocks of six to eight birds.

Oyster Island, North.—A few Gannets seen on March 6th, and between May 18th and 24th a large number of “both white and dark-coloured” (old and young) were seen in bay.

Broadhaven.—At intervals between April 9th and end of July, generally ten to twelve in a flock. Most frequently in June and July. Direction of flight variable.

Eagle Island, West.—In March five or six flocks of Gannets coming from S. In May, June, and July, numbers in the vicinity.

Eagle Island, East.—Here the only birds seen were Gannets, which passed daily during April and May every quarter or half-hour.

Black Rock, Mayo.—Flocks from April 1st to June 1st.

Blacksod.—April 17th, five Gannets. Seldom seen at this station.

Clare Island.—Flocks noted on March 1st, and on June 11th.

Slyne Head, North.—Seen on May 8th and June 3rd; large flocks, also on April 4th and 9th.

Slyne Head, South.—July 10th, continuous flocks of Gannets.

Arran Island, North.—May 6th to 13th, flocks of Gannets appeared going S.

Straw Island.—April 28th, five Gannets.

Valentia.—Seen April 1st, May 27th, and at intervals in June.

Skelligs.—Constantly seen in the neighbourhood, the Lesser Skellig being the only Irish breeding-station.

Dursey Head.—At intervals during April, a few birds. Large flocks on May 8th. Several birds on May 18th and July 10th.

Old Head, Kinsale.—Sept. 20th, twenty Gannets. On Jan. 11th, 1883, “Gannets continue to pass South.”

Coningbeg Light-ship.—Four or five at intervals between Nov. 21st and Dec. 12th.

Barrels Rock Light-ship.—During the month of November great numbers of Gannets feeding about the ship. Flocks noted on Dec. 3rd, 4th, and 5th, and five seen on 20th.

Tuskar Rock.—“At any time of the year that fish are about the rock Gannets are here.”

Kish Bank Light-ship.—A few on Oct. 18th and 23rd, going S.

Copeland Island.—Gannets each day in vicinity during September, after fish.

Rathlin Island.—Flocks of Gannets frequently during August, September, and October.

Innishtrahull.—Gannets generally in summer months.

Dunr e Head.—Sept. 4th, great numbers passed into Lough Swilly; 18th, passed out of Lough.

Lough Swilly.—Oct. 2nd and 4th, a number of Gannets in vicinity; 16th, ditto, old and young birds.

Tory Island.—Oct. 12th, continuous flocks from E. to W. A few birds seen on Oct. 21st and Nov. 9th.

Rathlin O'Birne.—Oct. 20th, continuous flocks going S.: 22nd, hovering about all day.

Killybegs.—Oct. 16th to 18th, rush of Gannets and Gulls: they remained until middle of November, when they departed, taking a south-westerly course.

Eagle Island, West.—October, large numbers of Gannets flying to the south. November, very few Gannets. December, Gannets have all disappeared.

Slyne Head, North.—At intervals during August, September, October, November, and December.

Arran Island, North.—From August to Nov. 20th, a few birds occasionally.

Straw Island.—Noted on Sept. 8th and Oct. 20th. Gannets remained in vicinity of lighthouse longer than is usual.

Tearaght.—To be seen daily in vicinity.

Skelligs.—Observed almost daily during September and October; continuous flocks from 25th to 31st of latter month. A few in November, December, and January.

Dursey Island.—A few during September and October.

TERN.

Copeland Island.—May 18th, the "Sea Tern or Perr" arrived in large flocks on this date to breed, and continued arriving up to June 1st. There are some thousands of these birds on Mew Island, which is only forty yards from Copeland; the hen bird sits three weeks on four eggs; the eggs are sometimes laid on the bare rock.

Rathlin O'Birne.—June 2nd, seven or eight Terns; they bred on an island near this.

Oyster Island, North.—April 9th to 12th, several Terns or Sea Swallows to be seen in bay.

Blacksod.—May 9th, five Sea Swallows going S.; 22nd, twenty Sea Swallows.—June 22nd, six.

Slyne Head, South.—June 4th, flocks of “small Sea Gulls with forked tails” arrived; they did not breed this year as usual.

Copeland Island.—Sept. 10th, large flock of Terns numbering some 400 left Mew Island, going N.

GULLS.

Galley Head.—March 1st, coming to breed; 21st, continuous flocks of small Gulls; also during April and May.

Mine Head.—July 25th, fifty “Marsh Gulls” remained all day.

Rathlin Island.—Large flocks of Gulls noticed frequently, during May and June especially.

Lough Swilly.—April 1st to 10th, Gulls in great numbers. May 11th and 14th, three or four “Boatswain Gulls.” June 20th, Gulls in great numbers.

Rathlin O’Birne.—Large flocks of Gulls during months of April, May, and June, at intervals; they build on an island near this.

Oyster Island, North.—April 10th to 12th, large flocks of Gulls. May 18th to 24th, several flocks.

Broadhaven.—April 15th, 26th; May 8th, 13th to 19th; June 5th and 17th; Skua Gulls observed; and at frequent intervals to date of sending schedules.

Eagle Island, West.—January and February, a few Sea Gulls. May and June, large numbers.

Blackrock, Mayo.—March 1st to May 1st, two to four “Royal Gulls” at intervals; small flocks of Kittiwakes and large flocks of “Small Gulls or Wheelons” also at intervals. During April and May one or two “North American or Cream-coloured Gulls.” I never see more than one or two of these birds.

Blacksod.—May 3rd, flock of large Grey Gulls all day; 7th, six Royal Gulls going N.E. April 1st to June 1st, flocks of small white Sea Gulls seen.

Slyne Head, North.—March 28th, large and continuous flocks of Sea Gulls going in a southerly direction.

Slyne Head, South.—July 10th, continuous flocks of Skua Gulls and some Royal Gulls after fish.

Arran Island, North.—Gulls frequent during May and June, generally going towards the large Island of Arran, where they

breed. I am informed they arrive in April and leave early in August.

Valentia. — April 18th to end of May, at intervals; on many days no bird is seen. From June 1st to 23rd, on rare occasions.

Skelligs.—Feb. 2nd, twenty Common Gulls going N. March 22nd, flocks of Kittiwakes; 31st, ditto. During April and May flocks of Kittiwakes constantly about island. June, ditto.

Dursey Island.—Large flocks of Gulls seen frequently during April, May, and June.

Galley Head. — Nov. 1st, the Large White and also the Grey-backed Gulls that hatched here have left.

Old Head, Kinsale.—Sea Gulls to be seen here all the year round.

Coningbeg Light-ship. — Nov. 12th, large flocks of Grey Gulls remained around ship. Nov. 29th and Dec. 12th, flocks.

Barrels Rock Light-ship. — During November, great numbers of Gulls.

Rathlin Island.—Sept. 4th, “I may pass no remark on Gulls or Gannets; they are here lying on the water or after fry I may say every day.” Nov. 24th and 26th, thousands of Skua Gulls on the sea.

Dunree Head.—Aug. 10th to 17th, flocks of Gulls.

Lough Swilly.—Oct. 16th, several flocks of Gulls; 21st, great numbers. Nov. 1st, Gulls in great numbers. Dec. 7th, a number.

Tory Island.—Nov. 9th, continuously in pairs. Dec. 11th, frequently.

Rathlin O’Birne.—Oct. 10th, continuous flocks. Oct. 28th, Nov. 2nd, and to end of month, large flocks at intervals.

Killybegs. — Oct. 16th to 18th, rush of Herring Gulls, and several Black-headed and “Grey Gulls” after fry; remained until middle of November, when all departed going S.W., except the Black-headed and Grey Gulls, which remained.

Broadhaven.—The Sea Gull is to be seen every day at this station.

Slyne Head, North.—Gulls to be seen at all times.

Arran Island, North.—Gulls at frequent intervals in August, September, and October. Fewer entries in November and December.

Straw Island. — Gulls noted in September and October. Jan. 3rd, 1883, twenty-two Black-headed Gulls.

Skelligs.—Aug. 26th, flocks of Kittiwakes departing. During September and October almost daily, fishing up to Dec. 6th. No entry of Kittiwakes afterwards, but a few "Gulls" entered at intervals.

Dursey Island.—Aug. 28th, large flocks. A few in September and October.

Dungarvan.—Nov. 22nd, "immense number of Gulls." Jan. 9th, 1883, "great number of small Gulls"; 12th, one Gull of "a uniform drab colour, very seldom seen in this locality."

MANX SHEARWATER.

Skelligs.—April 5th, 10 p.m., wind N.E., clear, flocks of Manx Shearwaters; these birds only appear at night; remained about island during May and June. Nov. 6th, about twenty fishing.

Barrels Rock Light-ship.—Dec. 3rd, continuous flocks of "Mackerel Cocks" flying W. [Manx Shearwaters?]; also on 4th and 5th; from 19th to 24th, several, generally going E.

STORMY PETREL.

Skelligs.—June 2nd, flock flying about light, 11 p.m.

Coningbeg Light-ship.—Nov. 8th, three Stormy Petrels remained near ship all day.

Kish Bank Light-ship.—June 5th, 1882, two Stormy Petrels about the ship all day.

Tory Island.—Oct. 19th, one Petrel killed against lantern.

Valentia.—Oct. 1st, two struck lantern, not killed; caught on balcony after striking, wind strong S.W. Dec. 4th, one taken on balcony, wind very strong.

Skelligs.—Oct. 8th, caught two outside lantern.

