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REPORT

ON THE

MIGRATION OF BIRDS.

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EIGHTH REPORT, 1886.

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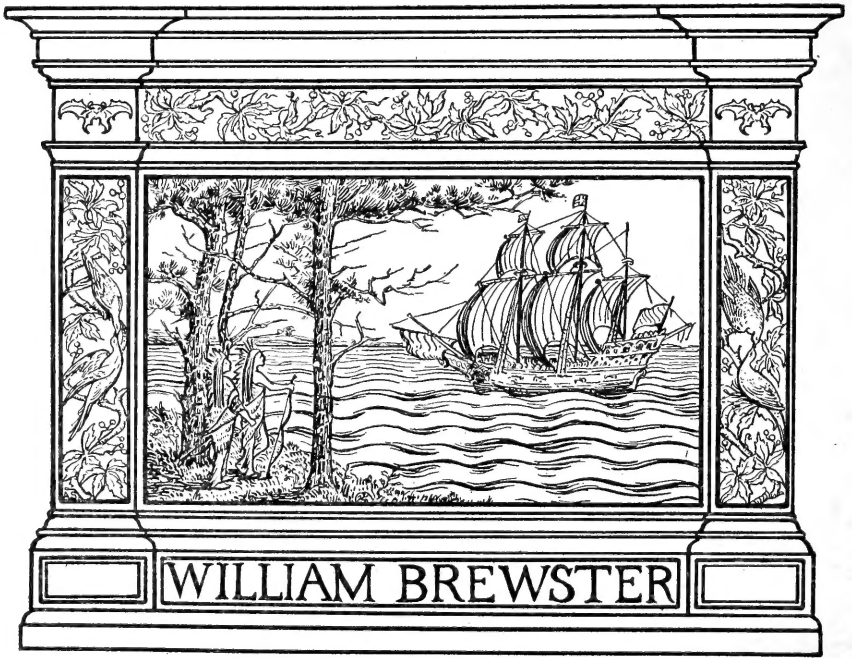
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1887.

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# REPORT

ON THE

# MIGRATION OF BIRDS

IN THE

SPRING AND AUTUMN OF 1886.

BY

MR J. A. HARVIE-BROWN, MR J. CORDEAUX,

MR R. M. BARRINGTON, MR A. G. MORE,

AND

MR W. EAGLE CLARKE.

---

EIGHTH REPORT.

(Vol. II., No. 3.)

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EDINBURGH:

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14 AND 19 ST JAMES SQUARE.

1887.





## P R E F A C E.

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THE following Report contains a summary of the investigations of a Committee reappointed by the British Association for the Advancement of Science, at Birmingham, in 1886, to consist of Professor Newton, Mr J. A. Harvie-Brown, Mr John Cordeaux, Mr W. Eagle Clarke, Mr R. M. Barrington, and Mr A. G. More, for the purpose of obtaining (with the consent of the Master and Elder Brethren of the Trinity House, the Commissioners of Northern Lights, and the Commissioners of Irish Lights) observations on the Migrations of Birds at Lighthouses and Lightships, and of reporting on the same at Manchester in 1887. Mr Cordeaux to be the Secretary.

The returns relating to Scotland have been arranged by Mr J. A. Harvie-Brown; for the East Coast of England, by Mr Cordeaux; for the West Coast of England, by Mr W. Eagle Clarke; and those for the Coasts of Ireland, by Mr R. M. Barrington and Mr A. G. More.

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# LIST OF STATIONS.

1. Iceland.
2. Do.
3. Faroe.
36. Fair Isle.

## Scotland—East Coast.

4. N. Unst.
5. Whalsey Skerries.
6. Bressay Sound.
7. Sumburgh Head.
8. N. Ronaldshay.
9. Start Point.
10. Auskerry.
11. Hoy Sound (Low).
12. Hoy Sound (High).
13. Cantick Head.
14. Pentland Skerries.
15. Dunnet Head.
16. Holborn Head.
17. Noss Head.
18. Tarbet Ness.
19. Cromarty.
20. Chanonry Point.
21. Covesea Skerries.
22. Kinnaird Head.
23. Buchan Ness.
24. Girdleness.
25. Montroseness.
26. Beil Rock.
27. Isle of May.
28. Inchkeith.
- 28b. Fidra (1885).
29. St Abbs Head.

## England—East Coast.

30. Longstone L.H.
31. Inner Farn L.H.
32. Coquet Island L.H.
33. 5 Buoy Tees L.V.
34. Whitby High L.H.
35. Flamborough Head L.H.
36. Spurn Point L.H.
37. Spurn L.V.
38. Inner Dowsing L.V.
39. Dudgeon L.V.
40. Outer Dowsing L.V.
41. Llyn Wells L.V.
42. Hasbro' L.V.
43. Leman and Ower L.V.
44. Hunstanton L.H.
45. Cromer L.H.
46. Hasbro' L.H.
47. Winterton L.H.
48. Newarp L.V.
49. Cockle L.V.
50. Corton L.V.
51. Orfordness L.H.
52. Langard Point L.H.
53. Shipwash L.V.
54. Swin Middle L.V.
55. Nore L.V.
56. Tongue L.V.
57. Kentish Knock L.V.
58. Galloper L.V.
59. North Foreland L.H.
60. North Sand Head L.V.
61. Gull L.V.
62. Eastside L.V.
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64. South Sand Head L.V.
65. Varne L.V.

## Scotland—West Coast.

81. Cape Wrath.
82. Rhu Stoir.
83. Butt of Lewis.
84. Stornoway.
85. Island Ghlais.
86. Monach Isles.
87. Ushenish.
88. Barra Head.
89. Rona.
90. Kyleakin.
91. Isle Ornsay.
92. Ardnamurchan.
93. Skerryvore and Hynish Signal Tower, Tیره.
94. Dhuheartach.
95. Sound of Mull.
96. Corran Ferry.
97. Lismore.
98. Fladda, Easdale.
99. Rhuvaal.
100. M'Arthur's Head.
101. Skervuile.
102. Rhinas of Islay.
103. Lochindaul.
104. Mull of Kintyre.
105. Sanda.
106. Devaar.
107. Pladda, Arran.
108. Lamdash.
109. Turnberry.
- 109b. Ailsa Craig (building, 1885).
110. Corsewall.
111. Loch Ryan.
112. Portpatrick.
113. Mull of Galloway.
114. Little Ross.

## Isle of Man.

115. Point of Ayre.
116. Douglas Head.
117. Langness (1880).
118. Chickens Rock.

## England—West Coast.

119. Bahama Bank L.V.
120. St Bees L.H.
121. Selker L.V.
122. Morecambe Bay L.V.
123. Dee L.V.
124. Air L.H.
125. Menai L.H.
126. Skerries L.H.
127. Holyhead Breakwater L.H.
128. South Stack L.H.
129. Carnarvon Bay L.V.
130. St Tudwalls L.H.
131. Bardsey Island L.H.
132. Cardigan Bay L.V.
133. South Bishop L.H.
134. Smalls L.H.
135. Great Castlehead L.H.
136. Milford L.H.
137. Caldly L.H.
138. Helwick L.V.
139. Scarweather L.V.
140. Nash L.H.
141. Breaksea L.V.
142. Flatholm L.H.

143. English and Welsh Grounds L.V.
144. Usk L.H.
145. Avon L.H.
146. Burnham L.H.
147. Bull Point L.H.
148. Bideford L.H.
149. Lundy L.H.
150. Hartland Point L.H.
151. Trevoise Head L.H.
152. Godrevy L.H.
153. Longships L.H.
154. Sevenstones L.V.
155. Wolf-Rock L.H.
156. Scilly L.H.
157. Bishop's Rock L.H.
158. Lizard L.H.
159. Falmouth Harbour L.H.
160. Eddystone L.H.
161. Plymouth Breakwater L.H.
162. Start L.H.

## Ireland.

1. Fastnet.
2. Galley Head.
3. Old Head, Kinsale.
4. Mine Head.
5. Dungarvan.
- 5\*. Coningbeg Lt.-ship.
6. Barrels Rock Lt.-ship.
7. Tuskar.
8. Arklow S. Lt.-ship.
- 8\*. Arklow N. Lt.-ship.
10. Kish Bank Lt.-ship.
11. Howth Baily.
12. Rockabill.
13. Copeland Island.
14. Maidens.
15. Rathlin.
16. Innishtrahull.
17. Dunree Head.
18. Lough Swilly.
19. Tory Island.
20. Aranmore.
21. Rathlin O'Birne.
22. Killybegs.
23. Oyster Island.
24. Broadhaven.
25. Eagle Island, E.
26. Eagle Island, W.
27. Blackrock, Mayo.
28. Blacksod Point.
29. Clare Island.
30. Slyne Head, N.
31. Slyne Head, S.
32. Arran Island, N.
33. Straw Island.
34. Arran Island, S.
36. Samphire Island.
37. Tearaght.
38. Valentia.
39. Skelligs.
40. Dursey Island.

## Outlying Stations.

- Heligoland.  
 Stevns Fyr, Zealand.  
 Malmo, Sweden.  
 Casquets L.H., Alderney.  
 Hanois L.H., Guernsey.



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ON

## THE MIGRATION OF BIRDS

IN THE

SPRING AND AUTUMN OF 1886.

### EAST COAST OF SCOTLAND.

THE usual schedules were sent to all the stations, except Tay Lightship and Carr Rock. Twelve stations on the East Coast of Scotland have returned thirty-six schedules. Pentland Skerries gives the heaviest returns with nine schedules. Isle of May follows with eight schedules; and N. Unst is next in importance. Then Bell Rock with two, and Fidra with three, run it very close. We would like returns from Carr Rock and Tay Lightship next season, and will forward schedules, &c.

We follow the same plan as in previous reports. The present year's returns are indicated by asterisks.

The *migration values* of the various stations of the Scottish Coasts are explained in the Report for 1884, p. 10, and need not be repeated here.

### EAST OF SCOTLAND.

Returns in 8 years, including 1886.	1886. Actual returns.		Values.	Feet.
SHETLAND.				
6	*	4. N. Unst, .....	IV.	230
		5. Whalsey Skerries, .....	II.	143
		6. Bressay, .....	III.	105
6	*	7. Sumburgh Head, .....	I.	
ORKNEY.				
7	*	8. N. Ronaldshay, .....	IV.	
		9. Start Point, .....	V.	
6		10. Auskerry, .....	I.	
		11. Hoy Sound (Low), .....	V.	
		12. Hoy Sound (High), .....	V.	
		13. Cantick Head, .....	III.	
8		14. Pentland Skerries, .....	I.	

The names of the Reporters are given under  
"Diary from the Stations."





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6	*	4. N. Unst, .....	IV.	230
		5. Whalsey Skerries, .....	II.	143
		6. Bressay, .....	III.	105
6	*	7. Sumburgh Head, .....	I.	
O R K N E Y.				
7	*	8. N. Ronaldshay, .....	IV.	
		9. Start Point, .....	V.	
6		10. Auskerry, .....	I.	
		11. Hoy Sound (Low), .....	V.	
		12. Hoy Sound (High), .....	V.	
		13. Cantick Head, .....	III.	
8		14. Pentland Skerries, .....	I.	

The names of the Reporters are given under  
 "Diary from the Stations."

Returns in 8 years, including 1886.	1886. Actual returns.	MAINLAND.	
		Values.	Feet.
18	* 15.	Dunnet Head, Caithness, ... V.	346
		16. Holborn Head, Caithness, V.	75
1st	* 17.	Noss Head, Caithness, ... .. V.	175
		18. Tarbat Ness, East Ross, ... V.	175
6	* 19.	Cromarty, East Cromarty, V.	60
4		20. Chanonry Point, Elgin,..... V.	40
		21. Covesea Skerries, Elgin, ... V.	160
		22. Kinnaird Head, Aberdeen, V.	120
		23. Buchan Ness, Aberdeen, ... V.	130
1st	* 24.	Girdleness, Aberdeen, ..... V.	185
		25. Montroseness, Forfar, ..... V.	124
8	* 26.	Bell Rock, Fife Coast, ..... I.	93
		26B. Carr Rock Lightship, Fife } Coast, ..... } ?	?
8	* 27.	Isle of May, Firth of Forth, I.	240
7	* 28.	Inchkeith, Firth of Forth, ... IV.	220
2	* 28B.	Fidra, Firth of Forth, in- } stituted 1886, ..... } ?	?
		29. St Abb's Head, Berwickshire, V.	224

The names of the Reporters are given under  
"Diary from the Stations."

### *Diary from the Stations.*

*N. Unst.*—John Nichol (principal) sends in *seven* well-filled schedules. Mr Nichol has the following notes: "March, 25th.—I am told the Black Crows were not seen in former years. Although a severe winter time, birds are much earlier seen, also of various kinds. August.—Stormy Petrels do not breed on this rock, but do so among the rocks on shore. Puffins, Razorbills, Tysties, Kittiwakes, and a few Gulls, also one pair of Seapies breed on the rock. Puffins are fewer in number this year than in former times. September.—Much greater movements in September 1886 than has been in former years. I am told that on an island four miles to the west of us Pictarnies breed in great numbers. None ever come near us." Mr J. N. sends one schedule devoted entirely to Solan Geese, and adds the note: "We do not see greater numbers together than twenty at a time, and down to one. General occupation is fishing; but flocks on 11th, 13th, and 14th October were

supposed to be migrating right away." Mr J. N. then adds : " Since filling up this schedule (to date of 25th October), have been told that on 29th October three large Swans rested on the Loch of Cliff on their way south. November 5th.—One Eagle shot near Holderswick measured across the wings seven feet. A Woodpecker seen at Baltasound. When fish seem plentiful about the rock, Common Gulls are in abundance ; occasionally Herring Gulls and Iceland Gulls, Black-backed Gulls, Common Skua Gull, of which a few breed at Unst. On shore at the Loch of Cliff, throughout the autumn, a Herring Bird, some Plovers, Curlews, Snipes, and Wild Ducks. A few of the latter breed at the Loch of Cliff. At Lerwick, on 10th October, two large flocks of Swans passed over the town, flying in a southerly direction ; and one flew very low while near the town. Up to the date of 30th October 1886, no Wren has been seen ; should I get one, shall not fail to send it on. One seen on 22d November ; could not be caught." At date of December 20th, Mr J. N. writes : " All birds have now deserted us. None seen since the 1st December, except in favourable weather, such as are mentioned in the schedule for December 1885, viz. :—Starlings, Sparrow Hawks, Crows, and Gulls. We had no great rushes of birds in the night time this year like last year ; but a greater number seen in the day time. On November 18th sixty Bottle-nosed Whales, the largest about twenty-two feet long, were captured at Cullivoe, Unst. Five boats (manned) put off and gave chase. Boats having got to seaward, they were turned for the shore, and were getting well in, when they suddenly turned about and put to sea again. Boats, after a hard struggle, again got the off-side of them, and slowly commenced to shorten the distance between them and the shore. Not until 6 P.M., after six hours' chase, were the boats successful in reaching the ' school.' After the monsters were stranded the scene was very animated, as they lashed the water to foam with their tails in their frantic efforts to get away again. It was not till late at night that killing operations were accomplished. On 24th November sixty whales were exposed for sale, and realised a sum of £119. The number of buyers was limited, but the competition was keen." On January 11, 1887, Mr J. N., in a letter, records the occurrence of one Snowy Owl seen on the summit of Hermann's Hill ; and an Eagle, flying high over, came down

and gave the shepherd's dogs chase, but sheered off when it saw the shepherd.

*Sumburgh Head*.—Sends one schedule, but adds: "Birds are very scarce here." Sent me a specimen of a rare bird, which I knew at once to be a specimen of *Phylloscopus superciliosus*, and which has already been recorded [*Proceedings Royal Physical Society, Edinburgh*, vol. for 1885-86, p. 298], and was exhibited at a meeting of that Society. Writing in reply to inquiries of mine, under 16th October, to Mr Youngclause, he writes: "I was after a small bird to-day about the dykes, very similar, but it got away."

*North Ronaldshay*.—John Tulloch. One well-filled schedule, ranging from March 18 to September 15.

*Pentland Skerries*.—John Gilmour (principal) sends nine heavily-filled schedules. In a letter of 1st October, Mr Gilmour speaks of great numbers of Twites on the island. "Of course they breed here; but I think their numbers have been increased of late, as there is a great flock of them." Later he adds: "I may mention that the Rock Pipit is resident here; and also the Lark, Starling, and Rock Dove are scarcely ever absent from the station." A little earlier—viz., 29th September—Mr G. writes: "The autumn migration is not yet quite commenced, although there have been a few birds seen; but should the wind work round to the east we will likely have a rush. I send you the names of all the birds that bred here this season (1886), viz.:—Stormy Petrel, Puffin, Tern [*two species*, —J. A. H.-B.], Black Guillemot, Oyster-Catcher, Eider Duck, Ringed Plover, Dunlin, Lapwing, Corncrake, Rock Dove, Starling, Lark, Twite, Wheatear, and Rock Pipit. The above are the only species which breed regularly here. The Herring Gull and Grey Crow build some seasons, but not this year. I have heard it said the Snipe breeds also, but I have never seen the nest during the last five years—the time I have been at this station.

"I take little notice of Solans in the schedules, as I may say they have been going past all season in all weathers, and I still see some going east yet (29th September)." (See also under Mull of Galloway, West Coast, visited by Mr G. on his holiday, 16th August to 6th September.) A day-to-day return of Gannets or Solan Geese desired, and a separate schedule devoted to the species.

Writing again on 21st October, Mr G. says: "I again beg to send you two schedules. Since the 4th we have had a great rush of migrants. The prevailing wind being from the east, as soon as it shifted round to the west birds began to leave; but were back again as soon as the wind shifted to east. I send you wings and feet for identification, and will be much obliged by an early reply if I have named the species correctly."<sup>1</sup> Later he has the note: "Solans ceased going east about the end of September; only a straggler seen now and again during this month (October)." Besides the above, Mr Gilmour has many interesting notes, which, however, come to be more easily worked from the schedules into the text under species.

*Dunnet Head.*—David Laidlaw (principal) sends one schedule, in which are the following notes: "On the 23d May a swallow entered Dunnet Established Church during the forenoon service (one of the doors being open), and after flying through the church for about half an hour, made its exit by the same door that it entered by. S.E., fresh breeze, clear." Under date of January 15, 1887, he writes: "For the last month I see a good many Song Thrushes about the fields daily. Starlings and Linnets are to be seen here in large flocks all the year round.<sup>2</sup> No birds struck or lighted on the lantern during the year except the Wren mentioned in schedule. As to sea-birds, the Gulls<sup>3</sup> came to breed about the 1st of March, and left about the latter end of September. The other birds arrived about six weeks later, and took their departure about a month earlier than the Gulls. During the latter end of July, and the months of August and September, almost every minute of the day, Solan Geese pass and re-pass in flocks of two or three up to twenty or thereby." [A day-to-day return of numbers in a schedule devoted to the species might prove valuable to our Committee.—J. A. H.-B.]

*Noss Head.*—James Ferrier sends a schedule, with the note: "Sorry I cannot give you as full a return (but I have

<sup>1</sup> Correctly named:—Blackcap and Great Spotted Woodpecker [Recorded *Proc. Roy. Phys. Soc. Edinb.*, vol. for 1885-86, pp. 298, 299.—J. A. H.-B.]. Also immature Pied Flycatcher, 7th October.

<sup>2</sup> These are probably true Rose-Linnets, which abound in the north of Caithness. The Twite is comparatively rare, at least in summer.—J. A. H.-B.

<sup>3</sup> Herring Gulls breed in astonishing numbers all round the coast from Dwarwick Head.—J. A. H.-B. Lesser B. B. Gull is rare.

given you all that we have taken note of) as I could have done from the Little Ross, having been transferred from there in February last. Several species of birds lay in the rocks about this headland, such as the Common Gull [? Herring Gull.—J. A. H.-B.], Cormorant, Tystie, Guillemot, Razorbill. The Gulls are very tame here, often sitting on the tops of the houses throughout the town (Wick), drawn there by the great quantity of fish caught, and hanging about the houses." We are very glad to get our first return from Noss Head, however light, and we hope Mr Ferrier will continue to assist us.—(See last Report, 1885, p. 15.)

*Cromarty Lighthouse.*—Robt. S. Ritson sends one schedule, January 1886 to December 27, mostly referring to local migrations of Ducks, Geese, Gulls, which have always special interest also attaching to them.

*Girdleness.*—C. C. Irvine sends one schedule, the first received from this station. He adds: "Very few birds come this way; but Rooks, Sparrows, and Gulls are to be seen almost every day; but as they are not migratory, I presume they are not worthy of notice, and our time being much occupied during the day, many may pass without our observing them."

*Bell Rock.*—James Jack sends two carefully written schedules as usual, strictly adhering to the headings, which always makes the work of posting the items into the ledger easier for the Committee. Mr Jack, after an illness on shore between 23d October and 11th November, writes, on resuming duty: "As yet, Redwings have been the most prolific in numbers visiting this station this season; in fact, night after night, nothing else. All our usual winter feathered companions are now again thickly around us. Dunters are very abundant this season."

This remarkable immigration of Redwings is scarcely noted at any other stations; at least, with regard to its exclusiveness.

*Isle of May.*—Joseph Agnew sends eight schedules filled with his usual care, and dating February 3 to November 6, 1886, and kept up till his removal by the authorities to the Monach Isles, off the Outer Hebrides, the electric lighting of the Isle of May being completed, and an electric engineer placed in charge. Under date of April 6, 1886, Mr Agnew writes: "I send you the Turtle Dove. It had been very severely shot before it came here by some one. I did not send it to Small, but made

the best of it myself, covering the wounds as well as I could." Under date of October 12, 1886, Mr Agnew writes: "The old carboy is still doing duty yet, and has been emptied two or three times. On one occasion it contained a *cosmic mouse*, but whether it came from Jupiter or Mars, or some other far off world, I do not know." As this carboy was put *in situ* by ourselves in October 1884, in behalf of the Marine Station at Granton, we would be interested to know whether it has yielded any scientific results. Perhaps Mr John Murray will enlighten us. Regarding the electric light, Mr Agnew writes: "It will be ready in a few weeks, perhaps three weeks. I do not know what effect it will have on the birds. The light will be very intense, and the most powerful light in existence. The room in which the trials are now being conducted has the appearance of a place brilliantly lighted up at night, though it is in the day time. The daylight is made to disappear. If the light were a fixed one, same as the old one, I think it might have a *good*<sup>1</sup> effect, but I am afraid its quick revolving character will be against it. The light has been revolving for the last two months with the oil lamp, and though some birds have come to the lantern, I don't think, considering the numbers of birds, so many have struck as heretofore. But as I am leaving this, I very much fear the reports will be very meagre in future, if there be any at all. The man who succeeds me has been here for a month or more, and he seems to have no notion of the matter, and has never interested himself in it; and besides, he will be very little in the light-room; his principal business will be in the engine-house, though he is to be head-keeper. You may perhaps be able to get him interested in it. The two men, however, whose special duty will be in the light-room, may take up the subject, and do something; but I would say—be very thankful for what you have already got from Isle of May." In a later letter (26th October), Mr Agnew says: "I am now almost convinced that few birds will come near the lantern, the revolutions are so quick, viz., eight flashes in the minute. We can see the birds going round with the rays, and though they make a dash at the lantern, before they reach it the light leaves them, and they turn round after it again, and repeat the same. During all last week there was

<sup>1</sup> *i.e.*, effectual in alluring the birds to it.

one Redstart, one Starling, and one Robin at the lantern; not a Woodcock has struck this year; the Goldcrests which used to flock about the lantern never come near it; *though they are very numerous on the island*,<sup>1</sup> I have only seen two at the lantern. A fixed white light is no doubt best for attracting birds; the alternate light and darkness baffles them altogether, and the quicker the revolutions are, the worse baffled they become. There has been almost total absence during the past two years of Redpoles and Siskins." On the 19th November Mr Agnew writes: "James" (his son) "shot a Great Spotted Woodpecker on the 12th of this month. It is the first of its kind I have seen here. It came after the great N.-E. gale reported in my last schedule. The wind continued to blow strong from the N.-E. for days after the gale took off. I have sent it to Small to get stuffed and set up. I want to give it in a present to the young lady to whom my son, Joseph, is going to be married at Dunbar." Mr Agnew then continues: "There has not been much worth reporting since I sent you my last schedule (Nov. 6, 1886); the only birds (not resident) were some Wagtails and Common Wrens. I suspect very much you have got the last schedule from Isle of May. I am sorry for that, as you see from the Woodpecker that strange things are always turning up. I am very sorry at leaving the collection here, and I doubt if it will be so well taken care of when I am away."

We have given Mr Agnew's correspondence very fully, as it is the last we shall get from him at the Isle of May, and it would be very ungracious if we did not take this opportunity of once again expressing our warmest thanks for his able assistance and always interesting correspondence. Comparisons are said to be invidious, but we are quite sure none of his fellow-keepers will grudge him the fullest praise which our Migration Committee can accord. Mr Cordeaux says (16th Oct. 1886): "I am much concerned that Agnew is leaving the Isle of May." We do not undervalue the observations of any of our reporters, many of whom have not the opportunities of observation which others have; but we can point to a good many more of the lighthouse keepers, both at the best stations and at the least frequented, who, according to their opportunities, are not far behind Mr Agnew, if at all; and

<sup>1</sup> Distinctly illustrative of the effect of the quickly revolving light. — J. A. H.-B.



there is ever increasing interest and ability displayed year by year.

*Fidra*.—Mr Wm. Ross has taken up the subject earnestly, and sends us three excellent schedules, carefully adhering to the columnar arrangement, which is so important to the Members of Committee, who have to transcribe into the ledger, and then write its Report. Attention to this is of infinite service and saving of time in getting the Reports printed. We are much obliged to Mr Ross for the care taken in this respect.

Under date of 4th September, Mr W. Ross writes: "I have to acknowledge receipt of your printed circular, concerning envelopes to contain wings of unknown birds, to be forwarded to you for identification, and labels for marking the same." . . . . "After Sunday, my last schedule, I continued making jottings, and the 24th of March, from 9 P.M. to daylight, was really interesting. The flocks of birds about the lantern were immense, and so numerous, that in striking the glass they broke the outside glass protector of our thermometer. There has not been anything unusual since that date." [Fidra promises well to be an important observatory, under certain conditions of wind and weather.—J. A. H.-B.]

Later, under date of 18th September 1886, Mr W. Ross says: "Had I known Moths would have been of any use to you, I believe I could have given you a varied, rare, and enormous parcel. Last month it was Moths everywhere, after darkness set in. I had to sweep them down with a towel, some very large and beautiful. Mr Anderson (of Messrs A. & F., Edinr., Advocates?) seems a keen entomologist, and I was describing some of these to him (on the occasion of a visit he paid to Fidra on the 6th September). One beautiful specimen—not a moth, I think—of a size between a daddy-long-legs and dragon-fly, and much the same shape; enormous bronze wings, beautiful vermilion body, black head, with a red (or yellow?) streak (or spot?), and antennæ more like a young lobster than anything else.

"Eider Ducks, I understand, used to breed on all the islands about here. But this year a man got a dozen small boats, and hired them out at N. Berwick; the consequence is that the Ducks have entirely left the Craig and Lamb Islands owing to their nests having been plundered. We on Fidra consequently have had a greater number of birds breeding, and found many

nests with 6 to 8 eggs; also Terns, and many smaller birds. As we are strictly prohibited from using a gun on this precious island, I can't send you many specimens; but if anything does turn up, I will not fail to send it you."

Later, under date of 1st October, in reply to inquiries, Mr W. Ross writes: "It was the latter half of August that these Moths were so numerous; and though in September there were a few, it was nothing in comparison with the multitudes that occurred the previous month. Some guide such as you suggest" [referring to Johns' "Book of Birds"], "to enable observers to recognise species, would be of immense advantage. I am woefully deficient in this respect, and I am persuaded others are equally so. I hope your Committee will succeed in supplying some reliable book to render assistance in this respect."

#### SEPARATE REPORT UNDER GENERA AND SPECIES.

**TURDIDÆ.—*Thrushes.***—In February the only returns are from Bell Rock and Isle of May, between the 3d and 20th; earliest at Isle of May on 3d, *one* Missel Thrush; N.E., light clear. Other species mentioned are Blackbirds, Redwings (along with Larks and Starlings), at Bell Rock, with S.W. fresh breeze. Great many struck and killed. Two female blackbirds at Isle of May on 15th, and possibly remaining to breed. Mavises on 20th at Isle of May, and some Fieldfares; showers of snow.

In March no great movement, and a few records from Pentland Skerries of single or small numbers of Blackbirds, and one Thrush on 10th and 23d. Solitary Redwing on 23d at Isle of May; and numbers of Thrushes at Fidra (XXVIII. B.), flying about all night.

*Spring.*—In April scattered birds only up to end of the month at Isle of May of Fieldfares, one Redwing (23d), one Ring Ouzel (21st); but on 19th, at Pentland Skerries, is entered the record (which seems one of some importance): "Ring Ouzels and Song Thrushes a great rush; strong S.E. and haze." And on 26th: "A flock of Fieldfares (mod. S.E., haze), birds which are seldom seen here in spring." Also on the 19th at North Ronaldshay, a station not usually sending large spring returns: "A great number of Thrushes were on the island. Stopped two days;" wind S.E., haze. In May, at Isle of May, one record

only of a Fieldfare at the light on the 5th. No more till autumn.

*In Autumn.*—*Earliest* record of Blackbird at Pentland Skerries on 9th August. Single records at Isle of May of Common Mavis “migrating” on 19th, and of a Missel Thrush on 30th; W.S.W., clear. *Latest* record, Fieldfares on 20th to 28th November, “a good many;” at Dunnet Head, “seen all day;” and scattered records through November at Pentland Skerries of Thrush and Blackbird. In September also, quite scattered records of single or very small lots of Blackbirds, Ring Ouzels, Fieldfares, and Mavises, from Pentland Skerries, Isle of May, and Fidra. But in October masses and rushes innumerable from the following stations:—Pentland Skerries (Redwings, 4th to 16th). Isle of May (Blackbirds, mostly females, 7th; Fieldfares, “numbers” on 18th, N.E. gale; Blackbirds, all males, on 21st, wind from E. to S.W.; Redwings, rush on 28th, S.E., fresh; also of Fieldfares and Ring Ouzels and Blackbirds). Again, at Pentland Skerries, great numbers of *Turdidæ* on 29th, of all kinds. Greatest rush at Pentland Skerries of Redwings and Song Thrushes (along with Goldcrests and Chaffinches, Robins, a few Ring Ouzels, and Woodcock); strong S.E. gale and rain. At Bell Rock, Redwings (without other species in any numbers), 22d to 26th October every night in numbers; wind from light W. to E. and N.E. All through October indications, more or less pronounced, at the following stations:—N. Unst, Sumburgh Head, Pentland Skerries, Noss Head, Bell Rock, Isle of May, Fidra.

From the above notes the migration of *Turdidæ* appears to have been unusually compressed and sudden.

SAXICOLINÆ.—Chats.—*In Spring.*—In March earliest two Redstarts (“*the first seen here*”) at N. Unst; S.E. and fog. Wheatears at Isle of May on 24th and 26th, but only straggling birds. In April, solitary record on 1st at Pentland Skerries. Two on 27th at Bell Rock, and same date at Isle of May; and Redstarts (“mostly males”) intermittent all April. In May, at Isle of May, Redstarts (“mostly females”) on 3d, and intermittent up to 19th; also Wheatears, Whinchats (numbers on the 8th, and rush or great numbers on the 18th all day); W.S.W., strong. In June a single solitary record of a Stonechat (? Wheatear) from N. Unst.

*In Autumn.*—Few records in August ; but on 31st numbers of Wheatears at 10 P.M. at the lantern. Latest records of *Saxicolinæ*, 24th October at Pentland Skerries ; and next last there also on the 22d, of Redstarts, both females ; and on 26th of a Stonechat at N. Unst (? Wheatear). At Isle of May on 5th, and at Fidra, “ numbers all day ” on the island, of “ Stonechats ” (*vera* at Isle of May ? Wheatears ? at Fidra). A not very great or decided rush in September, principally noticeable at Isle of May and Fidra, of “ Stonechats.”

SILVIINÆ.—Robins, Whitethroats.—*In Spring.*—A great rush of Robins, with fresh S.E. haze, at Pentland Skerries, on 19th April. “ Good numbers ” at Isle of May, on 23d ; also Whitethroats remained all night at Isle of May, on 28th April. A rush took place of the latter at same station on May 3d ; “ swarming ” and culminating on 18th (one Willow Wren—*Phylloscopus*—appearing with others on 19th). No Robins are noted in May anywhere.

*In Autumn.*—A solitary Robin on 24th August at Cromarty (very likely a local resident). A few odd birds in September. One Whitethroat and three Robins, all on different dates, at Isle of May and Fidra ; the Whitethroat on the 1st at Isle of May. Rushes all in October, and returns sent from the following stations, all of Robins :—N. Unst (1 Robin) ; Sumburgh Head, 1 ; Pentland Skerries, Isle of May, and Fidra. Rushes mostly at Isle of May and Fidra about 24th to 29th, and winds prevailing easterly and south-easterly. No records in November. A solitary record in December of two Robins at N. Unst, and one on 7th January 1887 at Dunnet Head. Migration of Robins scarcely discernible in spring ; and short, sharp, and decisive in October. Of Whitethroats large. Local, viz.—at Isle of May ; indicated at N. Unst in spring ; and only one record in September at Isle of May.

PHYLLOSCOPINÆ.—Goldcrest (or Gold-crested Wren), Chiffchaff, Willow Wren, Wood Warbler.—*In Spring.*—At Fidra numbers of Goldcrests flying about on 24th March ; wind S.W., light breeze. The only other spring record of this species is on the 27th March at Pentland Skerries—a single bird ; mod. W., clear. This appears to have been a sudden departure, probably general, but not coming much under notice. Of the same species we have not another spring record.

Of Chiffchaff.—[The difficulty of determining Chiffchaffs and Willow Wrens at any time, but more especially in autumn, even to an expert, must in great measure militate against almost any records of “Chiffchaff” at Isle of May. Yet there can be no doubt that it has occurred there, certainly in October 1884; and on one or two more occasions certain. There are many records of “Chiffchaff” at Isle of May; but it is impossible to say which are correct identifications, and which are really immature Willow Warblers. That the Chiffchaff does occur is undoubted, but to what extent is yet uncertain. Henceforth, until certainty can be arrived at, we will only mention Chiffchaffs in inverted commas.—J. A. H.-B.]

“Chiffchaff”—a single record at Isle of May on 12th April, and Willow Wren very numerous on 19th May. One “Chiffchaff” also noted on 5th May.

*In Autumn.*—Goldcrests numerous on October 24th at Isle of May; and numbers at Pentland Skerries, from 17th to 27th, all day long. Seems to have been pretty general, as it is spoken of at Noss Head, also on 24th; at Inchkeith, in small numbers, 7th, 8th, and 9th (light E. breezes). Numbers all day on Fidra on 8th October, and also at Sumburgh Head on 7th and on 20th, and at Girdleness on the 21st. Numerous at Isle of May up to 30th.

“Chiffchaff”—a solitary record of one at Isle of May on 27th August. A great number (rush) of Willow Warblers at Isle of May on 1st September—light W., fog—along with Sedge Warblers. “Chiffchaff” is also recorded from North Unst by Mr Charles Youngclaus—light N.E., haze—a single bird. Numbers again of “Chiffchaffs” at Isle of May on 19th. Those who have their doubts about the occurrence *in any number* of the Chiffchaff (*vera*) can read the above together with the entries of *Willow Warbler*.

The migration of *Phylloscopinæ* is thus compressed into October, with one rush in September of Willow Warblers, which appears to have been preceded by one example of “Chiffchaff” four days before. In preceding spring very pronounced on 18th and 19th May at same station, Isle of May, of Willow Warblers.

ACCENTORINÆ.—Hedge Sparrows.—*Spring.*—Only two records on 12th April at Isle of May (resident all winter); and at Pentland Skerries on 19th, two—S.E., haze; and on 18th May,

at Isle of May, a brood of young "now flying." *In Autumn*—only record at Pentland Skerries, one seen all day—light S.W.; "seldom seen here."

ACROCEPHALINÆ.—Sedge Warbler.—No spring notice. *In Autumn*—only two in August at Isle of May. Sedge Warbler, one, on 20th—calm, clear; and on 23d, two—light S.E. wind; but large numbers (in company with Willow Warbler rush) at Isle of May on 2d September. The Willow Warbler rush came on the 1st, the Sedge Warblers on the 2d; the former at 2 A.M. of that day—light W., fog; the latter at 11 A.M. of the next day—light W., and clear.

TROGLODYTIDÆ.—Wren.—Nests on Fidra. No spring records.

*In Autumn*.—At Dunnet Head two—strong W. breeze—"young birds," on 31st August. And at Inchkeith, Firth of Forth, one caught on lantern, wind light south. [The above are the only records in August,—what connection appears *again* between N. of Caithness and Firth of Forth?—J. A. H.-B.] No more movements on record till October. "Great numbers" at Isle of May on 21st and 24th. No other records, except at Pentland Skerries—a single bird on the 28th. Latest record, one bird at N. Unst on 22d November.

The above notes tend to accentuate, along with many other parallelisms, what we already consider the chief routes across Scotland (see last Report, p. 23).

MOTACILLIDÆ.—Wagtails.—*In Spring*.—Earliest record is on 24th March of Wagtails at Isle of May, two seen—light to fresh S.E., and haze. A few scattered records in April, on 13th and 19th, at Pentland Skerries. One record at N. Ronaldshay on 6th May, and one on 20th at Pentland Skerries. Nests found on Fidra, 15th June. Whereas in 1885 Report Wagtails were recorded in every month except July, this season we find all the following blank of records:—February, March, April, July, November, and December (see Autumn).

*In Autumn*.—Records bulk largest in September, both in number of records (6) and bulk of numbers (rush of old and young on 3d and again on 15th at Isle of May, and a few from 8th to 11th at Pentland Skerries, and a few from 8th to 9th resting all day at N. Unst). Again in October, a few (5) records of smaller numbers, 3d to 24th, at N. Ronaldshay, Pentland Skerries, and Isle of May.

MOTACILLIDÆ.—*Anthinæ*.—*Pipits*, OR “Mosscheepers,” “Titlarks.”—*In Spring*.—Earliest record at N. Unst, 7th March, of “Mosscheepers,” N.W., fresh, and again one on 21st. On 20th and 23d March, Meadow Pipits, a few at Isle of May, calm, clear, and S.E., fresh haze. A few again at N. Unst on 23d, “Mosscheepers.” No records in May or June. *In July*—young “Mosscheepers” seen for first time on 6th. In August, on the 27th, accessions to the numbers breeding on Isle of May, probably the young hatched off and on wing. In September, accessions of both Rock Pipits and Meadow Pipits by 15th, at Bell Rock, and Rock Pipits numerous on Isle of May on 20th. Numerous to 29th October. No other records.

MUSCICAPIDÆ.—Flycatchers.—*In Spring*.—On 21st and 22d March Spotted Flycatchers, single records at N. Unst. In April, the only record is on 19th at Pentland Skerries, when “a rush” is recorded. Fresh S.E., haze (Pied Flycatchers), and on 21st May one ditto all day there.

*In Autumn*.—Only one record in all of a single Spotted Flycatcher on Fidra, on 7th. Light S.E., fog.

HIRUNDINIDÆ.—Swallows, Martins, Sand Martins.—*In Spring*.—Many records of arrivals in May and June, as follows:—

May	2.	N. Ronaldshay,	Flying W.,	2 Swallows,	Light W.C.
„	3.	Bell Rock,	Resting on rock,	1 do.,	S.S.E., Light.
„	4.	Isle of May,	. . . . .	1 Martin,	S.W., Light.
„	7.	Pentland Skerries,	“First seen,”	Swallows,	N.W., Haze.
„	8.	Isle of May,	“All day,”	1 Martin,	S.E.
„	19.	Do.	A few,	1 do.,	„
„	22.	Dunnet Head,	. . . . .	3 Swallows,	S.S.W.
„	26.	Cromarty,	“Arrived,”	3 do.,	Light W.
June	5.	Sumburgh Head,	. . . . .	. . . . .	Flight W.
„	1.	Isle of May,	First,	Swallow,	S.E., Light.
„	12.	Sumburgh Head,	“All day,”	3 do.,	S.S.E.

*In Autumn*.—From 23d to 31st August a considerable movement (40 seen) at Isle of May on 30th; and on 2d September, “Swallows departed” at Pentland Skerries. 1 Swallow seen at N. Unst on 23d August, and 6 Martins flying about top of cliffs for six days previous to 30th August at Dunnet Head. A rush again at Isle of May on 27th, 28th, and 29th September, especially on latter two dates. Wind S.E. on 29th, shifted from W. Gale and clear day before. No later records.

Thus Autumn migration compressed into 30th August and 2d September, and again, 28th and 29th September.

FRINGILLIDÆ.—Finches, Linnets, Redpoles, Siskins, Sparrows, Chaffinches, "Grey Linnets," Tree Sparrows, Lesser Redpole.—*In Spring*.—1 Chaffinch at Pentland Skerries on 9th February. At Isle of May "considerable numbers of Redpoles." "Lots died." S.E. to W. In March a few single records of Chaffinch at Pentland Skerries and Isle of May, and "numbers flying about all night" at Fidra. In April, Siskins "first seen" at North Unst (a new species to the locality?) on 11th. At Isle of May, Chaffinches and Grey Linnets on 21st, and 2 to a dozen pairs of Sparrows on 30th. At Pentland Skerries, on May 22d and 23d, Grey Linnets and Redpoles (? Twites).

*In Autumn*.—Earliest, 26th August, Linnets, "young birds." Again, Siskin (one) at N. Unst on 10th September. Strong W. wind. Linnets at same place (Twites?), 18th, 20th, and 30th. A flock at Pentland Skerries (Linnets, *vera*?), and Linnets at Fidra, 20th, 25th, and 27th. Tree Sparrows on 15th at Isle of May. Greatest body of *Fringillidæ* in October, but on the whole, unusually light returns anywhere. Tree Sparrows at Isle of May on 29th October. A few records in November only at N. Unst and Pentland Skerries, of Linnets (?) and Chaffinches.

One of the lightest schedules of *Fringillidæ* we have had.

EMBERIZIDÆ.—Buntings, Snow Buntings, Common Buntings, Yellow Hammers.—*In Spring*.—Snow Buntings (2) at N. Unst; snow. In March one ditto, 25th, and as *late* as April 19th one bird. [These are no doubt late stragglers of last year's migration.—J. A. H.-B.] No more records till September.

*In Autumn*.—Large flock of Snow Buntings at Dunnet Head on 23d, and small numbers at N. Unst on 19th, 20th, and 23d. The first seen at Pentland Skerries this season was on the 1st October, fresh S. haze; and four again on the 12th. Not numerous anywhere all this month. Bulked largest in November and December; few at N. Unst; flocks at Pentland Skerries on four dates of 4th to 17th, and a good number at Isle of May on 6th. Flocks at Isle of May in December, and a few at Sumburgh Head and Pentland Skerries. Yellow Hammer only once mentioned at Isle of May on 10th February—a single bird. Common Bunting, single birds, on 8th, 15th, and 27th March, at Pentland Skerries; once in April at same station; once in July ditto; very few records in September, same station; and



in October, same station. None later, nor at any other station.

ALAUDIDÆ.—Larks.—Larks are entered under every month in the year except July and August. They are least abundant in April, May, and June—of these months in which they do occur in Spring,—and in November and December. Numbers and rushes in September and October in Autumn, and in January 1887. (Probably local movements.) Large numbers in Spring 1886, on 15th February.

*In Spring.*—They visited Isle of May, and stayed for some weeks in February. Other slight records occur at Pentland Skerries and Bell Rock same month. Considerable movements also all March at Isle of May and Fidra.

*In Autumn.*—Greatest numbers in September, on 25th to 29th, at Sumburgh Head; and on 27th and 29th at Isle of May. Strong W. and S.W. winds. A very heavy and very general rush is recorded during October from each and all of the following stations:—Pentland Skerries, 16th; Isle of May, 18th to 28th, culminating at latter date, preceded by “great numbers” and “large numbers” on preceding dates; at Inchkeith (9th, “flocks of”) and at Fidra; 5th to 6th, and 14th to 17th, “numbers” and “flocks all day.” [“Wood Larks” are also mentioned by name, but probably Pipits?—J. A. H.-B.] “Great flocks” again at Isle of May on 22d.

STURNINÆ.—Starlings.—*In Spring.*—Absent from N. Unst between 1st and 18th February. Returned to the rock again on 26th. Visit Isle of May for some weeks in February, and remain in still larger numbers till late in March, but decreasing again in April. Preparing to breed at Fidra by 16th April. Breeds also at Isle of May, but cannot quite be looked upon as a resident there. Nests found on Fidra in June. Flocks of young every day at Isle of May in August. Rush did not take place till 5th at Fidra, 28th at Isle of May. Seemed to be collecting for some time previous to great rush on 28th. First autumn movement noticed at N. Unst was not till 10th to 12th November; then seen daily. Last record at Fidra on 25th November.

CORVIDÆ.—Rooks, Ravens, Crows, Hooded Crows, Jackdaws, Choughs (or “Red-legged Crows”).—*In Spring.*—Hooded Crows and Ravens occasionally seen at N. Unst—resident? Also

Raven occasionally seen there in March, April, September, October, and November, always one, two, three, or four, and therefore probably birds breeding, or reared on N. Unst main-land. In the same way Ravens occasionally seen at N. Ronaldshay, Pentland Skerries, etc., can only be looked upon as "on predatory quest intent."

"Black Crows" at N. Unst are probably Rooks, usually "flying south" (if they come from E. turning south no doubt at Unst). We would like to feel sure if these Black Crows are Carrion Crows or Rooks; but "Rooks" by name are never mentioned at N. Unst. Indeed, "Rooks" by name are only mentioned by reporters from Pentland Skerries and Fidra, but "Black Crows" and "Crows" seem to have general application even at Isle of May. We would like Rooks distinguished from Carrion Crows *or* Corbie Crows. The terms "Crows" and "Black Crows" might mean either the Carrion Crow or the Rook. [Those who have Johns' book will easily see the difference.—J. A. H.-B.] Considerable movements all through the year, extending from N. Unst southwards, of Hooded Crows and "Black Crows" and Rooks. Jackdaws visited Isle of May in a fog in April, and stayed all night of the 11th; and two had previously been seen on March 19th. Noticed also occasionally at Fidra. Heaviest appearances of *Corvidæ* in October when migration was almost continuously heavy; lightest, however, at N. Unst; heaviest at Pentland Skerries 5th to 11th October. Continuous but much lighter returns from N. Unst, N. Ronaldshay, Pentland Skerries, and Fidra, in September, and curiously, *none* from Isle of May. Light returns again from N. Unst and Fidra in November, and only two from Pentland Skerries in December.

The uniformity of time in rushes of almost all species is singular this season, October being the favoured month.

CYPSELIDÆ.—Swifts.—["Swallow Swift" of Isle of May returns.]—In spring or summer three "Swallow Swifts" at Isle of May, light, W., clear. No other records, except one on 3d May at same station.

*In Autumn.*—Two Swifts at Pentland Skerries catching insects round the tower; light, S.W.

CUCULIDÆ.—Cuckoo.—Only one notice at Isle of May on 18th May.

PICIDÆ.—Woodpeckers.—The Great Spotted Woodpeckers appeared in considerable numbers this autumn along the eastern counties of Scotland, in one or two cases reaching to the west counties south of the Firth of Clyde. Almost all the specimens examined by us and by Mr Evans of Edinburgh proved to be either old birds or birds with very slight traces of immaturity. The only ones appearing at lighthouses known to us was one sent us from Pentland Skerries, and one obtained at Isle of May. It occurred also, as we are informed by Mr R. Service, in the Solway district. This flight occurred in October, and I find the Pentland Skerries bird bears date of 14th.<sup>1</sup>

STRIGIDÆ.—Owls.—A very slight record, and entirely in October. One "Large Grey Owl" at Pentland Skerries. "The first seen for a long time; sat on the island." Three Short-Eared Owls on 8th, 9th, and 19th respectively, at Isle of May, and one Grey Owl again at Pentland Skerries on 29th. "Flew across island."

FALCONIDÆ.—"Hawks," Falcons, Kestrels, Sparrow Hawk, Merlin, Peregrine, etc.—Records scattered more or less through the year as usual, but March, August, and December contain none. October again has largest number. Species noted are Peregrine ("or Falcon"), "Hawks," Kestrel (daily for a week at N. Unst), Sparrow Hawk, Large Hawks (Bell Rock, 19th October); "flying W.," etc.

Of Cormorants we have spring records in April at N. Unst, daily fishing. Daily records at same place in September between 1st and 9th, about four or five pairs. One pair breeds regularly, and rears young at N. Unst (noted 11th July 1886). Also at Fidra—six birds to twelve—from 6th to 29th (three records).

<sup>1</sup> Another is reported from N. Unst (see Diary from the Stations). Besides these, we have records of the following, obligingly sent us by Mr Geo. Sim of Aberdeen; and we obtained other records from Fife; also one from Dumfries, from Mr Service of Maxwelltown, Dumfries. We had hoped also to have added all the records of specimens examined by Mr Evans; but up to date of going to press, these records have not come to hand. It would have been better to have them all recorded in one place.

One; Monyruy, Parish of Longside, Aberdeen, 29th August 1886.

One; Brucklay Castle, Parish of New Deer, Aberdeen, 30th October 1886.

One; Drumtochty Castle, Kincardineshire, 29th November 1886.

One; Drumtochty Castle, Kincardineshire, 27th February 1887.

We have no notes on the Green Cormorant or Shag or Crested Cormorant from any stations.

PELECANIDÆ.—Solán Goose or Gannet, Cormorant, Shag, Scart, etc.—This year we give a day-by-day return of Solán Geese seen at N. Unst during September and October. We would like to complete a year's observations of the movements of this bird at the following stations:—N. Unst, Bell Rock, Pentland Skerries, Cape Wrath, Butt of Lewis, Monach Isles, Barra Head, and Ailsa Craig, and Turnberry on the coast of Ayrshire. We would also like daily returns made at *Skerryvore* or *Dhuheartach* [all negative evidence being carefully entered, such as "none seen" on such and such a date or succession of dates], and also at Rona, north of Raasay. A separate schedule or more might be devoted to Gannet or Solán Goose alone for every day in the year, noting carefully the direction of flight of flocks or individuals, or how employed. If we had such a series complete, we believe much light might be thrown upon migrations of fish in combination with work going on at Lochbuie in Mull, at the Marine Institute there.

To the  
Reporters.

1886.						
Sept.	6,	6 Solan Geese,	{ 11 A.M., disap- peared 1 P.M.,	{ S.S.E., fresh breezes,	{ Fog,	{ Fishing round Rock.
,,	6,	2 Solan Geese,	6 P.M.,	Do. do.,	Haze,	Do. do.
,,	7,	6 Solan Geese,	All day,	{ S.W., strong breezes,	{ Showers,	{ Flying about and fishing.
,,	8,	3 Solan Geese,	Do.,	S., strong breezes,	Haze,	Do. do.
,,	9,	5 Solan Geese,	Do.,	{ S.W., strong breezes,	{ Clear,	Do. do.
,,	9,	Do. do.,	Afternoon,	S.S.E., gale,	Rain,	Disappeared 5 P.M.
,,	10,	2 Solan Geese,	5 A.M.,	W., gale,	Showers,	{ Seen till midday, again in afternoon.
,,	11,	14 Solan Geese,	All day,	S.W. & S. breezes,	Do.,	Flying about.
,,	13,	3 Solan Geese,	Do.,	N.E. fresh breezes,	Do.,	Do.
,,	14,	2 Solan Geese,	5 P.M.,	N., strong breezes,	Rain,	Flying past Rock.
,,	15,	3 Solan Geese,	10 A.M.,	{ N.W., fresh breezes,	{ Clear,	{ Flying about and fishing.
,,	16,	1 Solan Goose,	Noon,	{ W., strong breezes,	{ Do.,	{ Swimming about Rock.
,,	17,	3 Solan Geese,	11 P.M.,	{ W.N.W., fresh breezes,	{ Haze,	{ Flying about Rock.
,,	18,	{ Numerous Solan Geese,	{ All day,	{ N.E., light breezes,	{ Clear,	Do. do.
,,	19,	6 Solan Geese,	5 P.M.,	W., light airs,	Do.,	Do. do.
,,	20,	20 Solan Geese,	Noon,	N., fresh breezes,	Do.,	Do. do.
,,	23,	3 Solan Geese,	5 P.M.,	N., fresh breezes,	Haze,	Do. do.
,,	24,	16 Solan Geese,	All day,	N.W., light airs,	Clear,	Do. do.
,,	25,	12 Solan Geese,	5 P.M.,	S., light breezes,	Haze,	Do. do.
,,	26,	{ Numerous Solan Geese,	{ All day,	Do. do.,	Do.,	Do. do.

1886.

Oct. 1,	3 Solan Geese,	{ 10 A.M. to 1 P.M.,	{ Variable, strong breezes,	} Rain,	{ Fishing about the Rock.
„ 7,	1 Solan Goose,	{ 8 A.M. to 10 A.M.,	{ S.S.E., light breezes,	} Haze and fog,	{ Flying about.
„ 8,	6 Solan Geese,	{ 10 A.M. to 1 P.M.,	{ Do. do.,	{ Haze and rain,	{ Flying about and fishing.
„ 11,	14 Solan Geese,	8 A.M.,	{ N.W., light breezes,	} Clear,	{ In a flock flying past east.
„ 13 & 14,	{ Flocks of 2 to 12 Solan Geese,	{ Throughout the dates,	{ Variable winds,	{ Clear and showers,	{ Flying past eastward.
„ 19,	5 Solan Geese,	4 P.M.,	E., light breezes,	Clear,	Fishing about.
„ 21,	3 Solan Geese,	All day,	S.S.E., gale,	Rain,	Fishing all day.
„ 24,	1 Solan Goose,	{ 9 A.M. to 11 A.M.,	{ S.W., strong breezes,	} Haze,	{ Flying about.
„ 25,	2 Solan Geese,	8 A.M. to 1 P.M.,	Do. do.,	Do.,	Fishing.

NORTH UNST, BURRAFIORD, LERWICK,  
SHETLAND, 21st *February* 1887.

SIR,—I beg to inform you that since answering your note regarding Solan Geese when on shore two Solan Geese were seen here on the 12th inst.; also one on the 19th flying about. A large flock of Kittiwakes on 12th passed; direction from S.W. going N.E. This is a rare occurrence, for I know not of any person having seen any of these two species so early in the year. Since writing on 27th twenty-four Solan Geese seen very busy fishing for about two hours. We have been thinking herring must be close by us, this causing Solan Geese coming so soon this year. Can't vouch for the truth of this, for we could not make out whether herrings or small fish.—J. N.

Of records of Solan Geese at other times and localities, as usual, movements commenced towards the close of March (we have one early record of three at Pentland Skerries on 5th, flying east).

We do not enter into detail, as we would prefer to give a full schedule from each station as indicated above. We add this note here however: Latest seen at Fidra was on 20th, when the note occurs “disappeared.” On 14th October, “one young bird; not another to be seen;” and on 10th October, “Solans visibly scarcer,” at Fidra.

Of Herons, a few scattered records; not of much service we suspect to our Migration Committee.

ANATIDÆ.—Ducks, Geese, Eider Ducks, Teal, Widgeon, Shiel-drake, Wild Duck, Barnicle Geese, Swans, Brent Geese.—*In Spring* flocks, or large flocks, of Barnicle Geese are frequently noted at Cromarty, presumably the same flocks daily. (Barnicle is here undoubtedly applied wrongly to the Brent Geese, or “Brants,” which are abundant in the Cromarty Firth.) Thus on 19th, 25th, and 26th February, and from 4th to 18th March, a “large flock” is almost daily noted; and thereafter none are again noted till November 24, when a flock again recorded, and two flocks on 25th and 27th December, all at the same place.

*Eider Duck*.—Odd birds noted off N. Unst in February 5th and 18th, and March 23d and 26th—winds different directions; and a flock of nine at Isle of May on 18th April. Odd records in May and June at N. Ronaldshay and at Fidra, probably merely local movements. *In Autumn*.—Recorded as “making their appearance by the 5th September at N. Ronaldshay; and large flocks by the 11th September at Pentland Skerries. Flocks all day on several dates in October at N. Unst, and Fidra, &c.”

*Teal* are noted occasionally at Pentland Skerries in March on 1st and 2d. *Widgeon* rarely noted: once in March at Isle of May, and once in October at Fidra. *Shieldrake* once noted at Noss Head, and once on 15th November on Fidra.

Wild Swans are noted on 12th April, and four on 25th at N. Ronaldshay; and thirty on one occasion at Sumburgh Head.

*Note*.—A most remarkable assemblage of Eider Ducks took place off the west shore of Harris, as seen and reported to me by James Cowan, Esq., M.P. He writes, under date of 18th March 1887: “Last year, owing to the easterly winds, we had not less than 3000 Eiders within four miles of our cottage, on the west coast of Harris; and the year before there was not one.”

COLUMBIDÆ.—Pigeons, Doves.—Rock Dove, Wood Pigeon, Turtle Dove.—A Turtle Dove was obtained at Isle of May on 31st May 1886; wind light S.E., and haze. An addition to the Isle of May list and collection; at present at Dunipace House.

A single record of a Wood Pigeon, “seldom seen here,” at Pentland Skerries on 18th June; and another at same place on 7th October, “flying west; rare”—fresh, variable, and haze.

A single record of Rock Pigeons (a flock) on 20th at Pentland Skerries, and the remark, “seldom seen.” There were twenty in the flock.

RALLIDÆ.—Corncrake, Water Rail, etc.—Heard first time at Pentland Skerries on 19th May, and at Cromarty on 25th. Above are the only records of any of the Rails.

CHARADRIADÆ.—Plover, Golden Plover, Lapwing, Dotterel, Ringed Dotterel *or* Ringed Plover, Oyster-Catcher *or* Sea Pie, Grey Plover, Golden Plover.—*In Spring*.—Movements scarce; in February (one record on 25th at Pentland Skerries); in March (one record at same).

*In Autumn.*—No great movements recorded. First seen at N. Ronaldshay August 25; spoken of as “arrived.” Very few records in September, October, or November. Slight increase in December at Pentland Skerries only. Of Oyster-Catchers or Sea Pies rather more frequent returns, but bulking only in September and October. *In Spring.*—Lapwings noted considerably in March at many stations from N. Unst, Pentland Skerries, Bell Rock, Isle of May, and Fidra.

*In Autumn.*—Slight movements only in September and October. Ringed Dotterel *or* Ringed Plover—one in September at Pentland Skerries, and one at same place all day on 3d December.

SCOLOPACIDÆ.—Woodcock, Snipe, Curlew, Jack Snipe.—Of Woodcock no spring movement observed. No records of Woodcock at all until October. First seen at Pentland Skerries; two all day on 5th October; then one killed at light on 7th, and a rush on 10th. Then also at N. Ronaldshay one bird seen on 6th; and at Girdleness, Aberdeen, and at Isle of May, from 6th on till 28th, varying numbers—eight shot on 18th, four or five on 20th; “numbers” seen on 24th—wind N.E., veering to S.E.; haze at night. Some (two shot) on 28th. Latest record, one Woodcock at Dunnet Head on 14th November, and two at Pentland Skerries on 1st and 12th November. In Stirlingshire thirty-five shot one day in Torwood, and twenty-eight in Touch Woods. Unusually abundant this autumn. The Woodcocks shot at Torwood on the 20th November came into the country almost certainly at the time of the October rush, and remained there and throughout Stirlingshire for several weeks, during which time many were killed. On the West Coast a friend and myself bagged 33½ couples in seven days’ shooting. We had a *blizzard* of snow and wind on Monday, January 17th. We left on 21st; and we heard afterwards that not a Cock was to be seen on and after the 24th January 1887.

*Snipe.*—A few scattered spring records. No mention again till September, and then decidedly very few all over. Decidedly scarce this autumn. In the West of Scotland (Ardnamurchan), where Woodcock were so plentiful, Snipe were unusually scarce. Only four seen one day, where usually seven or eight couple can be shot in an hour or two.

Records of Curlews few and far between; and none of any special interest, being mostly local movements.

For comparison we here give a table similar to that in last report (p. 33).

	1886. July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 1887.
Curlew, .	Entries— 3	5	7	3	0	5	0
Woodcock, .	0	0	0	14	3	0	0
Snipe, .	0	0	1	1	2	2	1
Jacksnipe, .	0	0	1	1	0	0	0

The stations returning in the order of heaviest schedules are—

	1886. July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 1887.	Totals.
Pentland Skerries,	3	2	4	4	4	7	0	24
Isle of May, .	0	0	0	8	0	0	0	8
N. Unst, .	0	2	1	1	0	0	0	4
Girdleness, .	0	0	1	2	0	0	0	3
N. Ronaldshay, .	0	2 (curlew)	0	0	0	0	0	2
Dunnet Head, .	0	0	0	0	0	0	1	1
Fidra, .	0	0	1 (curlew)	0	0	0	0	1
Per Month,	3	6	7	15	4	7	1	43

Thus it will be seen that the comparative strength of the waves are approximately given from each station, Pentland Skerries leading with twenty-four, and Isle of May following with eight, etc. ; also, the totals under each month show the rush to have been distinctly in October with fifteen,<sup>1</sup> September and December each with seven. This same system, carried out for each species of bird, appears to us to suggest a pretty fair way of reducing our light reports to system ; and further tabular comparison is also suggested as to *duration* of migration, and weather notes in last report, p. 34, which need not be repeated here at present.

Of Redshanks, Sandpipers, Dunlins, there are very few returns ; and only one Dunlin at Pentland Skerries, where they breed, on 27th April. Redshanks appeared at N. Ronaldshay on 12th August. Numbers towards end of September at Pentland Skerries ; a few in October, with a number of Purple Sandpipers. A Common Sandpiper at N. Unst on 23d October. Redshanks on 3d December at Pentland Skerries, and number of Purple Sandpipers all day on 19th December.

LARIDÆ.—Gulls, Terns, Skuas, etc., Kittiwake, Lesser Tern, “ Dirty Allen,” Black Backed Gull.—The same remarks hold good under Gulls of sorts. The spring and summer records are

<sup>1</sup> This is borne out almost with all species this season. A concentrated rush in October.



not of special interest; but vast movements took place in September. "Immense flocks" of Gulls; "numerous flocks" of Kittiwakes and Gulls; Skuas and Terns "every day." Thirty-seven large Gulls passed Girdleness flying south on 15th September; but the "largest flock ever seen" at Fidra was on 14th. Curiously enough there are *no records* made of movements at Isle of May; but at Pentland Skerries, and again at Fidra, very full notice is taken. No records in November. Only one in December at Pentland Skerries.

PROCELLARIIDÆ.—Petrels, Stormy Petrel.—The Stormy Petrels often appear at lanterns at night in midsummer, but this is in all probability merely a local movement. Being nocturnal in their habits, and abroad only at night, certain lighthouses lure them to their light more readily than others, owing to proximity to breeding stations or lines of flight to and from their feeding grounds. Their breeding season being very late in the year, the months of August and September bulk largest, but movements commence usually in June; July, however, is often less marked as a month for their movements, except in exceptionally hazy weather for that month.

This season records are not numerous; *but*, what we have not recorded before, a rush of Stormy Petrels took place at N. Unst, from the 23d to 28th August, "nightly"—winds variable and overcast; striking lantern "continuously." When, perhaps, we know all the exact minutiae of the breeding distribution, and area of the wandering of birds generally, and of Petrels in the present case, then we may be able to account for such a *rush* as related above. Meanwhile we think it safest to believe—without theorising—that this unusual appearance was a local movement, caused by unity of circumstances, affecting a large local colony in the neighbourhood of the N. Unst lighthouse.

ALCIDÆ.—Auks, Razorbills, Guillemots, Puffins, "Marrots," "Tysties" (Black Guillemots).—*In Spring*.—On February 19th a flock of Black Guillemots ("Tysties") "first arrived, very early," at N. Unst; and at same place a year afterwards—viz., in January 31, 1887, we find, under "Marrot"—"flocks of, flying past," W. to E.; "*rarely* been seen so soon." (Note in this connection our extremely early and fine spring of 1877, until checked slightly, between March 10th and 17th, by the severe snowfall and keen frosts.)

Returning to 1886:—By March 12th to 22d, numbers of Guillemots and Razorbills rushing by thousands on the latter date at Isle of May, the only station sending returns for March. In April, abundance of Razorbills and Puffins on the rocks by 14th at N. Unst; but the note (1886) is given on date of 7th, “not so early as last year.” Puffins arrived “after; N.W., light breezes. First arrival later than usual.” By the 22d 160 Puffins (estimate) settled down to breed on the rocks as usual at N. Unst.

At Pentland Skerries, Puffins arrived on the 11th April; and Common Guillemots were seen passing east on the 23d—mod. S.E. wind. At Isle of May, a large number on 6th April and on 12th. By the 18th May, Puffins “are now laying” at Isle of May. By 11th June, young were first seen at N. Unst of Puffins and “Tysties.” No records in August.

On September 2d, all Marrots, Razorbills, and Puffins left the rock at N. Unst; but on October 18th, Tysties re-appeared (three in number)—with N.N.E., strong breeze—and stayed six days. No other records.

COLUMBIDÆ.—Divers—Great Northern, Black-throated, and Red-necked Diver.—No account taken.

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## EAST COAST OF ENGLAND.

SCHEDULES were issued to thirty-six stations, lighthouses, and light-vessels on the East Coast of England, and returns have been received from thirty. The total number of schedules sent in is seventy-seven from all sources, and the greatest number from any single station, ten from Mr Thomas H. Cutting, of the Farn Lighthouse.

Wings have been forwarded, of birds killed against the lanterns, from the Leman and Ower L.V., Shipwash L.V., Swin Middle L.V., Nore L.V., Spurn L.V., Spurn L.H., Llyn Wells L.V., Hasbro' L.V., South Sand Head L.V., and Coquet L.H.; altogether thirty-five wings have been forwarded for identification. It is much to be regretted that more have not been sent.

The East Coast stations included in this report are:—

Longstone L.H.	.	.	Thomas O. Hall.
Farn, Inner, L.H.	.	.	Thomas H. Cutting.
Coquet Island L.H.	.	.	William Evans.
Tees, 5 Buoy L.V.	.	.	Henry Harbord.
Tees Breakwater L.H.	.	.	<i>Nil.</i>
Whitby High L.H.	.	.	John Odgers.
Flamborough L.H.	.	.	C. Hood.
Spurn L.H.	.	.	James B. Smith.
Spurn L.V.	.	.	The Principal (no signature).
Outer Dowsing L.V.	.	.	W. Stock and A. Bearling.
Inner Dowsing L.V.	.	.	William King.
Llyn Wells L.V.	.	.	T. Ditcham.
Dudgeon L.V.	.	.	J. F. Warder and J. W. Harrison.
Hasbro' L.V.	.	.	John Nicholas and B. V. Darnell.
Hasbro' L.H.	.	.	<i>Nil.</i>
Hunstanton L.H.	.	.	W. Westmoreland.
Cromer L.H.	.	.	C. B. Comber.
Winterton L.H.	.	.	John Watson.
Leman and Ower L.V.	.	.	John Bowen.
Newarp L.V.	.	.	<i>Nil.</i>
Cockle L.V.	.	.	C. Perfrement and E. Cole.
Orfordness L.H.	.	.	<i>Nil.</i>
Corton L.V.	.	.	<i>Nil.</i>

Languard Point L.H.	.	Owen Boyle.
Shipwash L.V.	.	William Barker and D. Dale.
Galloper L.V.	.	Francis H. Page.
Kentish Knock L.V.	.	W. Dorney and W. R. Carter.
Swin Middle L.V.	.	S. Pender and Thomas Barrett.
Tongue L.V.	.	<i>Nil.</i>
Nore L.V.	.	R. Littlewood.
Goodwin L.V.	.	Thomas Rees.
Gull L.V.	.	Francis Harvey and J. Jenkins.
South Sand Head L.V.	.	F. G. Foreman.
East Side L.V.	.	The Principal (no signature).
Varne L.V.	.	J. Jacobs.
Hanois L.H., Guernsey	.	Chas. Williams and Geo. Freeman.

Schedules, letters of instruction, and linen-lined envelopes, with directions and labels, for bird wings, were sent to six stations on the South East Coast, and only one schedule has been received in return from the Nab L.V.

Dungeness L.H.	.	<i>Nil.</i>
Royal Sovereign Shoals L.V.	.	<i>Nil.</i>
Beachy Head L.H.	.	<i>Nil.</i>
Owers L.V.	.	<i>Nil.</i>
St Katherine's L.H., Isle of Wight,	.	<i>Nil.</i>
Nab L.V.	.	F. Conconi.

Independent assistance has been received from Messrs T. H. Nelson, Redcar; C. Donald Thompson, Seaton-Carew; and E. B. Garbutt; Matthew Bailey, Flamborough; W. Eagle Clarke, H. B. Hewetson, and Philip Lawton, Spurn; Thomas Winson, Spurn Head; G. Smith, Arthur Patterson, and Benjamin Dye, Yarmouth; J. H. Gurney, Jun., North-East Norfolk; O. V. Aplin, Norfolk and Lincolnshire Coast; also from G. H. Caton Haigh, Grainsby Hall; notes from Tetney and N.E. Lincolnshire; and J. B. Whitlock, Nottingham; and on the South Coast from the Rev. H. A. Macpherson.

Notes also bearing on migration have been utilised from the *Zoologist*, *Naturalist*, and *Field* newspapers.

#### SEPARATE NOTES ON EACH SPECIES.

TURDUS VISCIVORUS, Mistletoe Thrush.—Autumn: Farn L.H., September 1st, two; Cockle L.V., October 29th, 8 A.M., one

struck. Cromer L.H., November 2d, sunrise, one killed. Varne L.V., 9th, 11 A.M., sixty from S.E. to N.W. Languard L.H., 12th, some.

T. MUSICUS, Song Thrush.—Spring: Hanois L.H., Guernsey, March 1st, 9 P.M., several striking. Longstone L.H., April 20th, 2 P.M., E., one. Farn L.H., April 1st to 15th, several, also Blackbirds.

Autumn: First at Llyn Wells L.V., August 11th, three. Farn L.H., September 8th, and sparingly at several stations in September. On the 4th, 5th, and 6th of October, an immense rush more or less observed at Farn Islands, Coquet Island, Whitby, Spurn, Outer Dowsing, Llyn Wells, Cromer, Hasbro' L.V., Kentish Knock (October 2d to 8th), Swin Middle, and Nore,—that is, covering the whole coast of eastern England from the Farn Islands to the mouth of the Thames. Conditions of arrival—easterly winds, fogs, and hazy weather. There was a second but smaller arrival from the 19th to 30th October, also scattered notices from various stations to November 27th.

T. ILIACUS, Redwing.—Spring: Longstone L.H., April 25th, S.E. light, some round lantern all the morning; at the same date Trent Lock, Notts, last flock seen flying N. (F. B. W.).

Autumn: Farn L.H., September 8th, three. The main body came with the great rush of Thrushes from the 2d to the 8th of October. Were first observed inland near Harrogate, Yorkshire, on the 10th, and at Trent Lock on the 16th of October. Large numbers of various *Turdidæ*, with Larks, Chaffinches, Linnets, and others, are recorded as observed at various stations, moving hurriedly up the coast on the approach of snow, March 2d and 3d, 1886; also between December 27th, 1886, and January 6th, 1887.

T. PILARIS, Fieldfare.—Spring: Tees L.V., March 13th to 19th, Fieldfares to S.E. Farn L.H., April 28th, E.N.E. (6), eleven. Longstone L.H., same dates, 12 to 1 A.M.; many round lantern; wind flew to N.E., and birds left.

Autumn: Have been generally much scarcer than in the winter of 1885-86. Outer Dowsing L.V., July 8th, one seen flying to N.W. Mr G. Hunt saw a single bird at Somerton, Norfolk, on September 2d. Llyn Wells L.V., September 27th, all night, and Farn L.H. on 30th, one. Coquet L.H., October 4th, rush with Blackbirds and others. They are recorded also at the

same date in the *Newcastle Weekly Chronicle* of October 23d; seen in North-East Lancashire. Scattered notices throughout October. A slight rush is indicated at Spurn on November 1st, and Cromer on the 2d. Coquet Island, November 20th, Fieldfares and Blackbirds; and at Farn L.H. at intervals to January 9th, 1887.

T. MERULA, Blackbird.—Spring: Farn L.H., April 1st to 15th, and onward to the 1st of May.

Autumn: Farn L.H., July 13th, three. 25th, several young hens. Llyn Wells, August 3d, one. Farn L.H., 22d, E.N.E., many; 27th, and September 1st, many. A heavy rush, October 4th to 8th, at the Farn Islands, Coquet Island, Spurn, to mouth of Thames. Nore L.V., October 6th, hen came to side of ship tired out, and, falling in the sea, was drowned. At intervals in October at several stations, chiefly from 18th to 20th. Farn L.H., November 15th, thirteen old cocks; a few Blackbirds also up to February 23d, 1887, at same station.

T. TORQUATUS, Ring-Ousel.—Spring: Farn L.H., April 19th, two; 20th, five.

Autumn: Languard L.H., August 12th, 5.30 A.M., one. A few young males during the first week in October on Lincolnshire coast. Farn L.H., October 4th, two.

SAXICOLA CENANTHE, Wheatear.—Spring: Farn L.H., April 1st to 15th. 26th, rush. Longstone L.H., April 2d, 8.30 P.M., S., large numbers round light. 25th, round light all morning. 28th, many, with Redstarts and Fieldfares round lantern 12 to 1 A.M., wind shifted to N.E., and birds left; are also recorded, Flambro', April 2d; Tees L.V., Outer Dowsing L.V., and Trent Lock, Notts, April 3d; Yarmouth, April 6th; and Hunstanton L.H., and Hanois L.H., Guernsey, 3 A.M., April 20th.

Autumn: Return migration from July 25th. Rushes, August 27th to September 3d, and October, first week. Hanois L.H., September 3d, all night, several dozen killed. Last occurrences, Farn L.H., Trent Lock, and Tetney "fitties," Lincolnshire coast, all on October 16th.

PRATINCOLA RUBETRA, Whinchat.—Longstone L.H., April 25th, one; wing from Leman and Ower L.V., May 13th. *P. rubicola*, Stonechat, was plentiful in the Lincolnshire and Norfolk districts throughout November.

RUTICILLA PHENICURUS, Redstart.—Farn L.H., April 24th,

E.S.E., several. Hunstanton L.H., April 25th, one female. Longstone L.H., Farn Islands, April 27th, one. 28th, flight with Wheatears and Fieldfares round lantern from 12 to 1 A.M. Flambro', April 26th, and on May 13th, 14th, and 15th, great many, with a N.E. wind, along with Pied Flycatchers.

Autumn: Spurn, August 7th, Redstarts and Wheatears returning up coast. Cley, Norfolk, September 13th. Hasbro' L.V., September 19th (wing and tail sent). Cromer, October 5th, 2.45 A.M., one female. Hanois L.H., October 26th, 2 P.M., N.E., a few on rocks. This last entry not improbably has reference to the Black Redstart, *R. titys*.

CYANECULA? Bluethroat.—Spurn, September 14th, 11 A.M., N.E., strong, one young bird. This was seen by Mr Winson, who knows the bird well.

ERITHACUS RUBECULA, Redbreast.—Spring: Longstone L.H., April 20th, 2 P.M., two.

Autumn: First at Whitby L.H., August 16th. Coquet L.H., September 16th, and Swin Middle L.V., 29th, 8 A.M., N.E., one on each occasion. A heavy rush is indicated between the 5th and 7th of October at the Farn Islands, Coquet Island, Teesmouth, Spurn, Outer and Inner Dowsing L.V.'s, and Hasbro' L.V., wind N.E. for days; again on the 16th at Farn L.H., Teesmouth, and Inner Dowsing L.V., 18th and 19th at Spurn, and 19th Inner Dowsing and Hasbro' L.V.'s (twenty on board); also at Farn L.H. on 25th, 26th, and 30th October, great many.

SYLVIA RUFA and S. CURRUCA, Common Whitethroat and Lesser Whitethroat.—Spring: Hunstanton, April 11th, 3 A.M., three Lesser Whitethroats on lantern.

Autumn: Longstone L.H., September 1st, S.W., one killed. 25th, one found dead. Hunstanton L.H., 25th, one Common Whitethroat killed. *S. atricapilla*, Blackcap, Longstone L.H., April 25th, one. Languard, October 11th, 2 to 3 P.M., four to E. at sunset. Spurn, October 19th, one shot.

REGULUS CRISTATUS, Golden-Crested Wren.—Is recorded at sixteen stations. Hanois L.H., Guernsey, September 22d, 11 P.M., some killed, others settling on windows. Between the 5th and 9th of October a general rush, covering the East Coast between the Farn and the Channel Islands, was observed, in greater or less numbers, at the two Farn Island lighthouses, Redcar, Coquet Island, Flamborough, Spurn, Outer

Dowsing, and Hasbro' L.V.'s (on 6th, thirty in day from E.N.E. to W.S.W.), and Hanois L.H. Again a second arrival, Tees, October 16th; Redcar, 19th; Spurn, 16th, 18th, 19th; Cromer, 18th, 2.30, N.E., rain; and Hunstanton, 21st. A third flight between October 26th and 31st at the Farn Islands, Durham Coast, Whitby, Outer Dowsing, Great Cotes (26th, swarming), Hanois L.H., 31st, 12 P.M., Goldcrests, Blackbirds, and Starlings flying round all the evening, and striking top of lantern and glass; wind light, variable, with rain.

PHYLLOSCOPUS TROCHILUS, Willow Wren.—Longstone, April 23d, S. to S.S.E., light, one.

Autumn: Great Cotes, July 24th, on the move. Longstone L.H., August 23d, S.E., two. September 3d, one found dead. Spurn, August 15th to September 6th, great numbers to S. October 19th, final rush; Cromer, November 25th, two seen near lighthouse.

ACROCEPHALUS SCHÆNOBÆNUS, Sedge Warbler.—Leman and Ower L.V., May 24th, wing sent. Spurn L.H., August 5th, 2 A.M., S.W. (3), one killed. Coquet L.H., October 5th, killed, wing sent.

ACCENTOR MODULARIS, Hedge Sparrow.—Dudgeon L.V., March 22d, 1886, some N.W. to S.E., with Larks, Chaffinches, and Starlings. October 6th, forty to N.N.W. Hasbro' L.V., 31st, 3 P.M., flock roosted on board all night.

ACREDULA? Long-tailed Titmouse.—Languard L.H., October 17th, one. *Parus?* Titmouse.—Inner Dowsing L.V., October 17th, 10.30 A.M., one "Tomtit," E. to W. Spurn, November 1st, *P. major* and *cœruleus*, very common. The former has been exceedingly plentiful in North-East Lincolnshire in the winter.

TROGLODYTES PARVULUS, Common Wren.—Spring, 1886: Outer Dowsing L.V., March 24th, one caught on deck. May 19th, three to W. Flamborough L.H., May 17th, 10.30 P.M., S.W., seven killed.

Autumn: Languard L.H., August 22d, four on premises all day. Cromer L.H. and Cockle L.V., 23d, one each. Leman and Ower L.V., 24th, 3 to 4 A.M., fog, one killed. Spurn, October 8th, many; 19th, same. Farn L.H., 28th, Wrens and Robins.

MOTACILLA LUGUBRIS, Pied Wagtail.—Spring, 1886: Hanois L.H., March 14th, 3 A.M., E., several. Great Cotes, 20th,



many. Whitby L.H., 20th, four. Yarmouth, 21st, several pairs. Tees L.V., 30th, great many to N.W.

Autumn: Whitby L.H., September 2d, 3d, and 4th, many, with Titlarks and Stonechats to S. Hanois L.H., October 31st, 8 P.M., several. *M. raii*, Yellow Wagtail.—Yarmouth, April 7th.

ANTHUS PRATENSIS, Meadow Pipit.—Outer Dowsing L.V., March 24th, 1886, one Titlark caught. Whitby L.H., September 2d, 3d, and 4th, Titlarks to S. Cockle L.V., October 4th, one. Dudgeon L.V., January 7th, 1887, Titlarks all night; five caught. *A. obscurus*, Rock Pipit.—Hasbro' L.V., September 3d, 11 P.M. (wing sent). Farn L.H., October 31st, many about island; November 21st, great many, with Pipits, all day.

LANIUS EXCUBITOR, Great Grey Shrike.—Spurn, October 25th, two or three seen about this date. Farn L.H., October 26th, 3 P.M., one seen, with small bird in bill. Spurn, November 1st, one shot, another seen. 27th, a Great Grey Shrike was shot to-day on Butterwick Common, near Brigg, which at the time was eating a Snipe (probably a wounded bird). *L. collurio*, Red-Backed Shrike.—Languard L.H., August 15th, noon, one seen. Hasbro' L.V., August 27th, 11 P.M., one caught on deck (wing sent).

MUSCICAPA ATRICAPILLA, Pied Flycatcher.—Flamborough, April 26th, Pied Flycatcher; May 13th, 14th, and 15th, N.E., great many, with Redstarts.

Autumn: Mr Gurney informs me that Colonel Fielden observed a migration of Pied Flycatchers at Wells, on the Norfolk coast, on September 3d. Donna Nook, Lincolnshire coast, October 12th, one seen (J. C.).

HIRUNDO RUSTICA, Swallow.—First observed, Whitby and Hunstanton L.H.'s, on April 13th; Yarmouth and Hanois L.H., Guernsey, on 14th; in no numbers anywhere till the end of the month. Hanois L.H., April 22d, all day in two's and three's, sometimes six or seven, low on water to N.E. and E. Lemn and Ower L.V., 30th, 9 A.M. to noon, great many to S.W. Tees L.V., April 27th, six to N.W.; May 16th, 17th, 18th, and 21st, great numbers, two and three together to N.W. Farn L.H., 19th and 20th, rush. Hunstanton, May 4th, rush to S.W. all day. Swin Middle L.V., July 11th, 12th, 14th, 15th, and 16th, numbers from E. to W.; on 14th, five flocks of about twenty each between 3 and 4 A.M.

Autumn: Hanois L.H., September 15th, 16th, and 17th, rush to S. about mid-day, and on 20th at sunset; and 21st during morning, to S.W. and S., as many as twenty-five together. Swin Middle L.V., October 2d and 3d, 7.30 to noon, at intervals to S.E.; and at Hunstanton on October 1st, 3d, and 4th. Nab L.V. (Channel), October 1st, at intervals daylight till dusk, twenty together, to S., wind S. to S.E. (4). Languard L.H., October 3d.—Mr Owen Boyle writes: "Thousands of Swallows congregated here at 6.45 A.M., pitched on the lantern top and gallery rails; every available spot was covered with them. Thousands also were on the wing all round the lighthouse. The birds pitched were all quite silent. At 8.10 A.M. they all rose in a mass, and went to the S.W.; not one was to be seen at noon." Trent Lock, October 3d, hundreds congregating on telegraph wires. Kentish Knock L.V., October 1st, several to S. Hanois L.H., October 6th, great many; last seen, Spurn, November 1st, one. Lewes, Sussex, 8th, some to W. From September 30th to October 7th pressure system cyclonic; type first south-westerly and afterwards south-easterly.

CHELIDON URBICA, Martin.—Cromer L.H., May 15th, first. Autumn: South Sand Head L.V., September 24th, twenty to thirty Martins; 29th, twenty Martins to N.W. Farn L.H., October 5th, one flying round tower. Great Cotes, November 15th, last seen, one. *Cotile riparia*, Sand Martin.—On the 8th of August I saw between six and seven hundred perched together on the telegraph wires by the turnpike side near Tamworth.

LIGURINUS CHLORIS, Greenfinch.—Swin Middle L.V., October 18th, during day, with others at intervals to the W. Farn L.H., January 3d to 8th, seven. *Carduelis elegans*, Goldfinch.—Hanois L.H., September 24th, N.E., 9 A.M., large flock to S.E.

PASSER DOMESTICUS, Common Sparrow.—Is recorded at eleven stations, but at none north of Spurn. Leman and Ower L.V., August 30th, great many on board. There was a great rush between the 3d and 7th of October observed at Spurn L.V.; 6th and 7th, forty to fifty on deck—remained about one and a half hours. Inner Dowsing L.V., 6th, one hundred on board, ten killed; flew at 5 P.M. to N.W.; 8th, fifty, E.S.E. to W.N.W. Hasbro' L.V., 6th, forty; some died on board. Large numbers also between the same dates at the Goodwin, Gull, and

South Sand Head L.V.'s. Many at the East Side and Varne L.V.'s on the 9th. A second large immigration was observed between the 16th and 23d at Spurn, Outer Dowsing L.V., Kentish Knock, the Goodwin L.V.'s, and Varne L.V.

PASSER MONTANUS, Tree Sparrow.—Spring: Outer Dowsing L.V., April 2d and 3d, several from E.S.E. to W. and S.W. Autumn: A considerable immigration between the 3d and 8th of October, chiefly observed at the Outer Dowsing and South Sand Head L.V.'s; and again, between the 15th and 23d, at some of the southern lightships off the East Coast. On November 13th I saw a flock, evidently recent arrivals, of about 2000 in Great Cotes Parish, within two miles of the East Coast. The observers on the light-vessels now readily distinguish and discriminate the two species.

FRINGILLA CŒLEBS, Chaffinch.—Much the largest immigration of this species hitherto recorded; were observed at twenty-one stations covering the whole of the East Coast between the Farn and Channel Islands. The main body came in between the 3d and 6th of October at eleven stations in large numbers; and there was a second large arrival from October 15th to 23d at nine stations. The first was seen on the night of August 15th at Llyn Wells L.V., with Thrushes and Larks round the lantern. The last entry is from Hanois L.V., October 24th, Starlings and Chaffinches, 9 P.M. till morning, E. (4); and Kentish Knock L.V., 25th, seven or eight, at 9.30 A.M., to S.W. In the Spring of 1886, Chaffinches were observed at the Dudgeon L.V., with Larks, Hedge Sparrows, and Starlings on March 22d, going from S.E. to N.W.; Longstone L.H., April 20th, two to E.; and Outer Dowsing L.V., March 24th, several to W. and W.N.W.; May 29th, four to W.

FRINGILLA MONTIFRINGILLA, Brambling.—Compared with the immense immigration of 1885-86, Bramblings have been very scarce. Longstone L.H., October 6th, five; Alnwick Northumberland, same date; Cockle L.V., October 4th and 6th; Hunstanton L.H., 14th, sunrise, several flocks to S.W. Tees L.V., 16th, one; Kentish Knock L.V., 27th, one; are also reported very scarce or absent at inland stations. On April 20th, 1886, a single Brambling flew on board the Tees L.V.

LINOTA CANNABINA Linnet.—Cockle L.V., April 15th, eight to W.; Dudgeon L.V., 28th, fifty, N.W. to S.E. *L. rufescens*?

—Outer Dowsing L.V., April 2d, three Redpoles flying about vessel.

PYRRHULA EUROPEA, Common Bullfinch.—Tees L.V., October 15th, S.E., rain, one came on board.

LOXIA CURVIROSTRA, Common Crossbill.—Great Cotes, July 28th, 3 P.M., one, quite a young bird, in the striated plumage, clinging to sash of the dining-room window. Yarmouth, December 22d, one caught at sea and brought in alive.

EMBERIZA MILIARIA, Common Bunting.—Languard L.H., November 19th, W.N.W., noon, large flock to N.E.

PLECTROPHANES LAPPONICUS, Lapland Bunting.—Dover, end of November, adult male taken alive [H. A. M.].

P. NIVALIS, Snow Bunting.—Spring: Tees L.V., March 13th, one to N. Hunstanton L.H., April 2d, flock. Autumn: Spurn, September 20th, five. Longstone L.H., 25th, one at 3 P.M. and three at 5 P.M.; October 3, 11.30 A.M., S.S.E., three; 6th, three. Farn L.H., 16th, small flock. Yarmouth, 30th, few. Tees L.V., November 8th and 13th, December 2d, 10th, and 27th, flocks to S. Cockle L.V., November 27th, 5.30 A.M., one killed. Altogether the smallest immigration recorded for many years.

ALAUDA ARVENSIS, Skylark.—Spring, 1886: Spurn, March 2d, great rush to S. with others (overcast, squally, snow). Outer Dowsing L.V., January 21st, 23d, and 24th, February 10th, 11th, and 13th, very large migration; on 11th and 13th February, E.S.E. to W.N.W.; March 18th and 19th, flight to S.W. and W., and some to end of April in same direction. Dudgeon L.V., March 20th and 23d, Larks N.W. to S.E. Leman and Ower L.V., February 12th and 13th, 3 A.M., and 12 P.M. to daylight, to W. (seventy-two Larks and fifteen Starlings killed). Cockle L.V., March 8th, 7 A.M., large flock to E.; 10 A.M., large flock to W., very swift. Kentish Knock L.V., January 22d and 23d, 6 P.M. to 4 A.M., thousands; February 30th, 4.30 A.M., thousands—like clouds. Cockle L.V., January 19th to 29th, 1887, continuous flocks to W.

Autumn: An enormous migration, commencing at Llyn Wells L.V., July 24th, 25th, and 26th, all night, and on August 15th. Cromer L.H., September 20th, all night. There was an immense rush in October, the bulk arriving in two almost continuous rushes during the first and third weeks, observed at twenty-eight stations, seventeen of which are light-vessels, and covering the

whole East Coast of England. Again at seven stations, but in considerable less numbers, to November 11th. After this a few at intervals to the end of the year; general direction of flight from E. to W., and S.E. to N.W.

OTOCORYS ALPESTRIS, Shore Lark.—Longstone, March 1886, first week, three caught alive near North Sunderland. Spurn, several in November and December. Redcar, December early, flight, many shot; all examined were young birds [T. H. N.]. Yarmouth, October 30th, several killed above high water line; November 2d, two shot. Cley, Norfolk coast, November 23d, twenty to thirty seen; 26th, fifty to sixty (O. V. A.).

STURNUS VULGARIS, Common Starling.—Spring: Outer Dowsing L.V., March 3d, 86, to April 20th, a few E.S.E. to W.N.W. Dudgeon L.V., March 20th, thirty at noon, N.W. to S.E.; 22d, a few in the same direction. Leman and Ower L.V., May 19th, some at 3 P.M.; two killed.

Autumn: Spurn, June, young Starlings daily. Cromer L.V., September 24th to 30th, flocks of young both by day and night. The main immigration was in three great rushes in October, more or less observed at sixteen stations between the Farn and Channel Islands from the 1st to 8th, 15th to 23d, and 28th to 30th; a few to November 11th. Last at Hanois L.H., 26th November, E.N.E., 3 A.M. till daylight, with Blackbirds, Thrushes, and Lapwings.

GARRULUS GLANDARIUS, Common Jay.—Grainsby, north-east Lincolnshire, October 25th, wind E., strong. A considerable immigration of Jays [G. H. C. H.].

CORVUS MONEDULA, Daw.—At several stations in October and November, usually associated with Rooks and Crows; rush first week in October. Dudgeon L.V., October 6th, seven Daws on board; left for N.N.W.

C. CORONE, Carrion Crow.—Outer Dowsing L.V., October 6th, twenty from S.E. to N.W. Spurn, October 30th, S.S.W., and November 1st, many, with other *Corvidæ* to S. (J. B. H.).

C. CORNIX, Hooded Crow, Grey Crow, "Crows" generally.—Cockle L.V., 1886, March 10th to 21st, large flocks of Crows daily at early morning to S.E. and E.; on the 18th, 19th, and 20th, with Larks and Daws continuous for four and five hours, from 5.30 to 10 and 11 A.M.; on 21st, from 7.30 to noon, but in less numbers; easterly winds. March 25th and 26th, flocks of

Crows throughout the day to *W.*; and April 1st to 6th, at intervals to *S.W.*, south-westerly winds; February 24th, 1887, 7 A.M., two flocks Jackdaws and Crows to *E.* Outer Dowsing L.V., March 19th, many Crows during day to eastward. Longstone L.H., April 7th, Hooded Crows, two flocks, to *W.* at 9.30 A.M. Hunstanton L.H., 12th, Grey Crows last seen. Leman and Ower L.V., May 19th, sixty to seventy Grey Crows at noon to *W.*; one killed. Autumn: Leman and Ower L.V., October 4th, at dusk to *N.W.*, rush; and Spurn, Outer Dowsing, and Cromer on 6th; Longstone L.H., 7th, 9.30 A.M., *W.*, two flocks to *W.* From Whitby to the South Foreland at several stations throughout October, and in less numbers to November 16th.

*C. FRUGILEGUS*, Rook.—Spring: Longstone, April 25th, *S.E.*, light, several to *E.*; on April 13th, 7.30 A.M., small flock of nine to *W.* Dudgeon L.V., March 20th, at 6 and 9 A.M., two large flocks from *N.W.* to *S.E.* Hanois L.H., April 13th, three to *N.W.* Autumn: Spurn, October 6th, 7 to 10 P.M., moonlight, large flocks to *S.* Outer Dowsing L.V., 6th, rush of all sorts *Corvidæ* to *W.*; at several stations in October, and in large numbers between Spurn and the South Foreland; migration continued up to November 16th.

*C. CORAX*, Raven.—Languard L.H., December 17th, 9 A.M., two passed to Essex shore, and remained about till noon. A pair were seen at the same station on June 22d, 1884, at 6.30 A.M.

*CYPSELUS APUS*, Common Swift.—Yarmouth, May 15th, first seen. Tees L.V., June 20th, *N.*, fresh, rain, great many; July 6th and 22d, great many to *S.W.* and *S.* Longstone L.H., August 16th, *W.*, fine, one caught on lantern. Shipwash L.V., 16th, three.

*PICUS MAJOR*, Great Spotted Woodpecker.—Has been very common in the coast and marsh districts of north-east Lincolnshire in the autumn and winter. One bird stuffer told me he had about fifteen or sixteen sent in. There must have been a large immigration.

*ALCEDO ISPIDA*, Kingfisher.—Languard L.H., September 17th, 6.40 A.M., one.

*CUCULUS CANORUS*, Cuckoo.—Farn L.H., May 18th, *W.S.W.*, 3 P.M., first heard. Spurn, on 20th. Cromer L.H., July 29th, one struck at midnight, not killed. Coquet L.H., August 3d,

11 A.M., one; Farn L.H., August 13th, 6 P.M., one on rocks. Whitby L.H., September 21st, N.E. (6), one young.

STRIGES.—*Asio otus*, Long-eared Owl.—Longstone L.H., April 15th, N.E., light, one. *A. accipitrinus*, Short-eared Owl.—Languard L.H., September 16th, noon, E., one. Tetney “fitties,” October 6th, two. Farn L.H., 7th, 1 A.M., one; and another at 6 A.M. Coquet L.H., 9th, one. Redcar, 16th, one; Spurn, 19th and 22d, several. Coquet, 24th, two. Seaton Snook, Durham, 27th, one shot coming in from sea. Farn L.H., 29th, one. Tees L.V., November 6th, 9 A.M., E., one. *Owls generally*.—Llyn Wells L.V., September 24th, “Owl” on mast-head, came from E., going S.W. Cromer L.H., October 28th, “Common Owl,” at 3 A.M., flying around lantern. *Nyctea scandiaca*, Snowy Owl.—Mr Owen Boyle, of the Languard L.H., under date of February 9th, wind E., reports this species as shot by a visitor near the lighthouse. Subsequently, Mr Boyle writes, in reply to my letter, that he is sure the bird was a Snowy Owl. [Further information from the person who shot it, or the present possessor, would be very desirable.]

FALCONIDÆ.—Longstone L.H., August 23d, S.E., one Sparrow Hawk (*Accipiter nisus*). Redcar, September 10th, immature Peregrine shot at Saltburn; early in November a second. Llyn Wells L.V., 21st, “large Hawk” on mast, and then to S.W. Tees L.V., 28th, “large Hawk.” Norfolk coast, Goshawk (*Astur palumbarius*), caught at sea, and brought in alive to Yarmouth; date uncertain. Swin Middle L.V., October 7th, two young Hawks caught on deck. Donna Nook, Lincolnshire coast, October 9th, 10th, and 11th, two Kites (*Milvus iclinus*) seen over and about the rabbit warrens and sea banks. Cromer L.H., October 25th, very many Hawks seen about during the day. Spurn, 30th, Rough-legged Buzzard (*Archibutro lagopus*), to S.; also several Merlin (*Falco aesalon*).

PHALACROCORAX CARBO, Cormorant.—Dudgeon L.V., April 28th, thirty, N.W. to S.E. Tees L.V., May 16th, one hundred Cormorants passed; largest number ever seen here.—[H. H.]

SULA BASSANA, Gannet.—Longstone L.H., March 21st to 31st, S. and W. winds, many daily to N., and to April 20th in less numbers. 21st, ceased altogether. Migration occupied a month, and was very persistent and continuous. Outer Dowsing L.V., October 2d, large numbers about, fishing for several days.

ARDEA CINEREA, Common Heron.—Coquet Island, August 6th, one, and several up to November 4th. Tetney, Lincolnshire, August 27th, seventeen together on coast. Hanois L.H., September 14th, three, and then twelve Herons to S.W.; 15th, one to S.W. October 6th, four to S. A Purple Heron (*A. purpurea*) was shot on October 20th at Oulton Broad, near Lowestoft. Spoonbill (*Platalea leucorodia*), June 6th, near Yarmouth.

ANSER.—*Anser cinereus*, “Grey-lag” Geese.—Longstone L.H., October 6th, thirty seen. North-East Lincolnshire, fifteen Grey Geese over Grainsby Park on August 22d. “Wild Geese have been very abundant this year, except during the late frosts; flocks have gone over the Park almost every day.”—[G. H. C. H.] Farn L.H., September 10th, Grey Goose to W. November 22d, sunrise, very large flock to S. 23d, several small flocks to N. Great Cotes, November 22d, 4 P.M., flock of Bean Geese N. to S. Brent Goose (*Bernicla brenta*), Tees L.V., February 27th; March 22d, 1886, large flocks off Tees; also Ducks and Widgeon. Coquet L.H., middle to end of August, many to north.

CYGNUS, Swan.—Redcar, July 29th, 6 A.M., four seen at sea, going N.W. August 1st, eight (Mute Swans) all shot. Whitby L.H., August 1st, sixteen White Swans seen going north. Seaton Carew, Durham, July 25th, two to S. August 5th, three different flocks of Swans; shot at seven, wounded one, but lost it. 6th, four seen going inland.—[E. B. G.] I have no doubt the whole of these occurrences have reference to escapes from private waters and parks. I am told the Swans from the New Park at Grimsby were flying about in the Humber in August.

DUCKS, Sheldrake (*Tadorna cornuta*).—Farn L.H., June 13th, old bird and nine young. Tees L.V., February 27th to March 22d, 1886, twenty-five in flock. November 5th, fifty-five. Common Teal (*Querquedula crecca*), Tetney, August 12th, large arrival. Cley, Norfolk, September 15th, first; Tees L.V., 16th, same. Widgeon (*Mareca penelope*), Tees L.V., April 7th, 1886, last seen, large flock. Yarmouth, March 1st, 1886, continuous flocks along coast. Cley, Norfolk, September 15th, Widgeon, with Teal. Tees L.V., 16th, flock. Tetney, October 6th, four shot. Languard L.H., October 29th, flock of eleven. Pochard (*Fuligula*



*ferina*), very common on the Humber during the winter; many shot, including several old males. Scaup (*F. marila*), Great Cotes, March 8th, 1886, flock, all males, off sluice; 26th, flock at same place, males and females, in pairs. February 8th, 1887, same locality, flock of thirty-eight adult males and females in equal proportions. Cockle L.V., January 23d, fifty, both males and females. Harlequin Duck (*Cosmonetta histrionica*), Farn L.H., December 2d, three, two shot (went to well-known collectors). Long-tailed Duck (*Harelda glacialis*), Redcar, October 21st, three shot, young birds. Farn L.H., November 8th, 11 A.M., eleven flying N. Coquet L.H., 17th, one shot. Eider Duck (*Somateria mollissima*), Farn L.H., June 20th, Eider and five young, first brood. Coquet, October 8th, many, both male and female, off island. Velvet Scoter (*Ædemia fusca*), Redcar, October 13th, three; 18th, seven, two shot young. Common Scoter (*Æ. nigra*), Whitby L.H., April 30th, midnight, one killed. Leman and Ower L.V., May 9th, great numbers of Black Ducks at midnight to E., some killed. Large number of Scoters reported from various parts of the coast, on the move to and from their feeding grounds. Goosander (*Mergus merganser*), more than usually numerous in the Humber during the winter; in one case five were killed, at a shot, from a flock of twelve near Tetney Haven. Red-breasted Merganser (*M. serrator*), Farn L.H., December 24th, one, a drake, off island.

COLUMBA PALUMBUS, Ringdove.—Outer Dowsing L.V., May 19th, one to W. Tetney, October 17th, flocks of migratory Wood Pigeons. Grainsby, November 17th and 19th, morning, large flocks to S.W. Spurn L.H., November 26th, from 7 to 10 P.M., [3] N.W., numbers of Wood Pigeons, several on gallery of lantern. January 18th, 4 P.M., flock to S. February 1st, 10 A.M., two to S. Cromer L.H., December 9th and 18th, great many. Languard L.H., February 5th, 3 to 4 P.M., large flock inland, towards Orwell Park. Longstone L.H., July 19th, Rock Pigeon (*C. livia*).

TURTUR COMMUNIS, Turtle Dove.—Flamborough L.H., May 11th, one. Longstone L.H., 20th, 6.30 P.M., variable, N.E. to S.E. to S. by W., two seen; 28th, 9 A.M., S., rain, one. Cromer L.H., June 4th, 1.30 A.M., one killed. Redcar, September 7th, small flock of seven, one killed. Leman and Ower L.V.,

May 6th, 3 A.M., two "Doves" from S.E., and twenty to thirty small birds with them.<sup>1</sup>

COTURNIX COMMUNIS, Quail.—Shipwash L.V., October 22d, 1 A.M., one killed (wing sent).

RALLUS AQUATICUS, Water-Rail.—Spurn L.V., November 1st, 6 A.M., S.W., one caught on deck. Llyn Wells L.V., November 1st, 3 A.M., two killed striking the lantern. Coquet L.V., November 4th, one killed.

CREX PRATENSIS, Land-Rail.—Whitby L.V., May 7th, 2 A.M., first heard. Farn L.H., 17th, 4 A.M., W., Land-Rail. Common Coot (*Fulica atra*), Languard L.H., September 8th, 2.45 A.M., one struck and killed.

CHARADRIIDÆ. — *Charadrius pluvialis*, Golden Plover.—Farn L.H., September 12th, thirteen to W. Tetney, October 18th, E. to N.E., first flights. Languard L.H., October 31st, large flock to W. at 3 P.M. *Squatarola helvetica*, Grey Plover.—Yarmouth, May, first and second weeks, several in summer dress September 22d, first autumn arrivals. Great Cotes, May 18th, 1886, about 200 along the foreshore, the majority in full summer dress. March 10th, 1887, some young of the previous year seen on the muds to-day had not lost the golden-drop plumage of the autumn. *Ægialitis cantiana*, Kentish Plover.—Yarmouth. April 29th, two seen in a flock of Dunlin and Ringed Plover; June 10th, one seen. Languard L.H., November 27th, 7.50 A.M., two pitched on beach; left at noon. *Ægialitis hiaticula*, Ringed Plover.—Great Cotes, May 18th, 1886, great numbers on flats. Languard L.H., November 16th, thousands of Dotterel and Oxbirds together pitched on beach at high water. Swin Middle L.V., November 13th, 2.50 P.M., W., thousands of "Stone Runners" first seen to E., then to W. (see p. 48); 18th, the same, a very large flight in sight from 3.55 to 4.20 going S.E. to S.W.; also on December 28th and January 13th. Great Cotes, August 19th, early night, sultry and dull, several Ringed Plover passing over. Trent Lock, Notts, August 19th, same at

<sup>1</sup> Mr G. H. Caton Haigh writes that the Turtle Dove has been very common during the summer in the neighbourhood of Grainsby, North-East Lincolnshire. About the middle of June one of the keepers saw a flock of twenty or thirty at Cadeby. The same man also saw eight in Grainsby Healing during the third week in August. Another keeper had seen a pair or two about Beasby Wood, and a pair in an orchard in the village of Grainsby all through the summer.

9 P.M. [F. B. W.]. *Eudromias morinellus*, Dotterel.—Great Cotes, May 4th and 5th, trip of eight. Robin Hood's Bay, Yorkshire, September, first week, six shot; Whitby, 6th, four; Seaton-Carew, 10th, one shot. *Vanellus vulgaris*, Lapwing.—Outer Dowsing L.V., October 6th, great rush with others; Leman and Ower L.V., 8th, many during night to W.; Inner Dowsing L.V., 17th, one. Languard L.H., November 8th, hundreds at 2 P.M.; 26th, 3 A.M. till daylight, with many others. Great Cotes, December 13th, about 12,000 in one field twenty-four hours before the frost commencing on the 14th; Whitby, 24th, all morning in small flocks, twenty to forty, coming in from sea. Redcar, January 21st, 1887, S.W., strong; and 22d, W.N.W., many with larks coming in from sea and going W. *Streptilas interpres*, Turnstone.—Yarmouth, May 14th, some; Great Cotes, 18th, a dozen in various plumage. Yarmouth, September 8th, some. *Hæmatopus ostralegus*, Oystercatcher.—Redcar, August 5th to end of month and to September 7th, many. Leman and Ower L.V., June 18th, one killed.

SCOLOPACIDÆ, *Recurvirostra avocetta*, Avocet.—Redcar, August 5th, 12.10 P.M., one (I am sure of species.—T. H. N.). *Phalaropus fulicarius*, Grey Phalarope.—October 14th, one picked up at Bassingham, near Lincoln. *Scolopax rusticola*, Woodcock.—Spring: Longstone L.H., April 3d, 1.30 P.M., S. by E., one Woodcock to E. Autumn: Farn L.H., October 4th, one; Flambro', 5th, some. "First flight" at Coquet Island, Whitby, Spurn, and Norfolk coast on 6th. At Whitby L.H., one struck at 1.30 A.M., probably marking the time of arrival of the flight on the East Coast; wind south-easterly, overcast, misty. The second or "great flight," from October 16th to 25th, from the Farn Islands to the Norfolk coast, birds dropping here and there in a desultory fashion, and nowhere plentiful, wind E. and E.S.E.; on October 15th to 16th a gale from E.S.E. A few on October 28th, 29th, and 30th, and scattered occurrences up to November 15th. The last recorded as coming in from the sea was at Tees L.V., December 18th, going W.; wind W.S.W. *Gallinago cælestis*, Common Snipe.—Longstone L.H., August 8th, one; 23d, one. Tetney, August 12th, flight. Whitby L.H., October 4th, 4 A.M., one killed. Longstone L.H., October 4th, 1 A.M., one heard in flight. Yarmouth, October 30th, flight; Coquet, November 18th, 8 A.M., S.S.E., four. *G. gallinula*, Jack-

snipe.—Longstone L.H., April 25th, 10.30 A.M., one.<sup>1</sup> Autumn : At the Farn Island stations and Lincolnshire coast from October 2d to 6th, wind generally south-easterly. *Tringa alpina*, Dunlin. — Spring, 1886 : Yarmouth, April 29th, enormous numbers on north beach, some Ringed Plover amongst them. Trent Lock, May 9th, 11 A.M., twenty to thirty Black-breasted Dunlin ; Great Cotes, 18th, great numbers in summer plumage. *T. subarquata*, Pigmy Curlew. — Yarmouth, July 31st, one in full summer plumage. *T. striata*, Purple Sandpiper.—Farn L.H., September 22d, some on rocks ; October 31st, flock of twenty. Yarmouth, November 17th, two shot. *T. canutus*, Knot.—Spring, 1886 : Yarmouth, April 13th, Knot and Dunlin on Breydon in semi-summer dress. Longstone L.H., July 16th, S.E., fine, one. Redcar, August 19th to end of month, a few seen at sea. Tetney, February 24th, 1887, out of six shot to-day, one had the lower parts mottled with faded brick red, the summer plumage of the previous year having not been altogether cast off. *Calidris arenaria*, Sanderling.—Yarmouth, May 14th, considerable arrival with others ; some seen on the 9th. *Totanus ochropus*, Green Sandpiper.—Longstone L.H., July 29th, one seen (very rare here). Grainsby, Lincolnshire (Waithe-beck), July 27th, first ; August 23d, large arrival ; end of March, all have left. *T. glareola*, Wood Sandpiper.—Cley, Norfolk, August 13th. *T. calidris*, Redshank.—Longstone L.H., July 29th. Farn L.H., September 4th and 9th, many. Tees L.V., October 30th, twenty ; always common on the Lincolnshire coast and at Spurn in the autumn. *T. fuscus*, Spotted Redshank.—Breydon, Norfolk, August 15th, one. *T. canescens*, Greenshank.—Yarmouth, April 28th, 1886, two ; May 14th, some ; and on return, November 27th. *Limosa lapponica*, Bar-tailed Godwit.—Yarmouth, April 12th, 1886, first ; 14th, some ; May 14th, great arrival. Autumn : September 22d, first. Redcar, July 19th, 12.30 P.M., seven or eight to E. *L. cægocephala*, Black-tailed Godwit.—September 12th, one at Breydon, Norfolk. *Numenius phæopus*, Whimbrel. — Spring : April 26th, Breydon, Yarmouth, in small number. May 14th, large arrival

<sup>1</sup> Mr Thomas O. Hall, of the Longstone L.H., speaks of the great scarcity of birds this season, and thinks they must have crossed further south, the prevailing winds having been E.N.E. and N.E., crushing down the migration, and giving it a southerly direction.

with others. Autumn: Redcar, June 19th, first heard passing over; last on September 7th. Great Cotes, July 26th, first heard. Tees L.V., August 30th, twenty; October 30th, very large flock of Curlew, Whimbrel, some Oystercatchers and Redshanks; January 4th, 1887, large flocks both of Whimbrel and Curlew. *N. arquata*, Curlew.—Leman and Ower L.V., May 10th, 1886, 3 A.M., five, one killed. Great Cotes, August 19th, first young Curlew in marsh; 20th, hundreds of Curlew in the marsh for a few hours. I was told by one observer he had seen thousands. Redcar, September 6th, at sea flock to W. Yarmouth, September, early, very numerous; Redcar, 19th, flight, with others, overhead, 10 to 11 P.M., foggy and dark. Tees L.V., October 30th, very large flight; Hasbro' L.V., 30th, 7 P.M. to midnight, many round light, none struck. Winterton, October 27th, 8.30 P.M., flight to W. Tees L.V., January 4th, 1887, large flocks.

The migration of waders was observed inland by their nocturnal cries. Great Cotes, August, night of 19th, Ringed Plover. Trent Lock, Notts, by Mr F. B. Whitlock, August 19th, Ringed Plover; 21st, Sandpipers and others; 24th, Curlew. At Grainsby, by Mr Haigh, August 29th, waders; and by Professor Newton, of Cambridge, July 21st to 22d and 26th to 27th, about midnight.

STERNINÆ.—*Sterna macrura*, Arctic Tern.—Farn L.H., May 4th, 1886, 5 A.M., first appearance; September 2d, left breeding haunts. Yarmouth, May 14th, some along coast. *S. fluviatilis*, Common Tern.—Trent Lock, Notts, May 11th, one; 13th, three. Tees L.V., July 25th, August 10th and 14th, great numbers of Terns at sea. Redcar, August 19th to end, great many at sea. *S. minuta*, Little Tern.—Spurn, April 5th, first seen at breeding place. Yarmouth, April 28th, two seen with Black Tern; May 12th, two. Rye, Sussex, May 4th and 5th, first Lesser Tern. *S. cantiaca*, Sandwich Tern.—Farn L.H., April 28th, 5 A.M., nine seen—left nesting quarters on September 2d. *Hydrochelidon nigra*, Black Tern.—Yarmouth, April 26th, 1886, flight from S.W. to N.E., wind E.; 27th and 28th, some to N.E.; May 14th, some. Another observer, April 28th, twenty in flock to N.E. Cley, Norfolk, September 1st, young Black Tern to S.

LARINÆ, *Larus minutus*, Lesser Gull.—Redcar, June 14th, W., squally, four seen off pier; November, one. *L. argentatus*,

Herring Gull.—Whitby L.H., February 15th, many at daybreak to breeding haunts; July 6th, first young on wing; August 27th, all left cliffs for sea. Leman and Ower L.V., October 2d, great numbers in ship channel, to S. at night and back in morning. Swin L.V., December 23d and 25th, hundreds and thousands near vessel, fishing for sprats. *L. glaucus*, Glaucous Gull.—Farn L.H., December 28th, one to N. *Rissa tridactyla*, Kittiwake.—Farn L.H., November 13th and 24th, hundreds of Gulls and Kittiwakes fishing round island. Grimsby, January 7th, 1887, saw nine, young and old, brought in by fishing smack, shot at sea. *Gulls generally*.—Flambro' L.H., February 25th and March 4th, 1886, in great numbers off headland; June 1st, Gulls and Guillemots all day fishing off head in large numbers. Llyn Wells L.V., August 9th, several flocks came in from E.; wind W. Leman and Ower L.V., August 22d, immense numbers about ship, two came on board. Languard L.H., November 5th, December 26th, and January 23d, 1887, large flocks came in with a southerly gale. Yarmouth, October 15th, gale from S., great numbers to south. Cromer, October 17th, great many to N.; wind N.N.E. The Mediterranean Black-headed Gull, *Larus melanocephalus*, was shot on Breydon Water, Yarmouth, on December 26th, 1886.

STERCORARIINÆ.—*S. catarrhactes*, Common Skua.—Redcar, October 14th, shot at sea. *S. pomatorhinus* and *crepidatus*, Tees L.V., July 25th, two Skua. Longstone L.H., September 3d, several Richardson's and "Common" Skua seen. Redcar, October 8th, Richardson's Skua shot at sea, Pomatorhine seen at the same time; 14th, three Richardson's Skua (one adult, two immature) shot at sea, one Pomatorhine seen, and several others of both reported out at sea by fishermen; 15th, several of both going N.W., wind S.E., strong. Flamborough, Mr Bailey, writing under date of October 13th (*Naturalist*, 1886, p. 340), says: "Since October 2d, more sea birds have frequented our coast than I ever remember. Manx Shearwaters, Cinereous Shearwaters, and hundreds of Skuas and Gannets, also Guillemots and Razorbills in their winter plumage. Little Gulls, Terns, one Black Guillemot (immature), and thousands of Kittiwakes feeding in the early morning, several I saw having herrings' tails hanging out of their bills. The birds covered a large area north and south of the headland."

PROCELLARIIDÆ—*Procellaria pelagica*.—Coquet L.H., September 28th, 11 P.M., S.W. (6), one on lantern. Dudgeon L.V., October 28th, one killed; 30th, same. Hasbro' L.V., 30th, 7 P.M. to midnight, many; six killed on deck. Cockle L.V., 31st, five about vessel during night. Llyn Wells L.V., November 7th, 7 P.M. to midnight, about light. *Puffinus*?—Redcar, August 18th, 6 A.M., ten Shearwaters to N. Many, both Manx and Great Shearwater, off Flambro', early in October.

ALCIDÆ, *Lomvia troile*, Common Guillemot.—Longstone L.H., March 4th, first to breeding haunts, left again on 16th, returned for good first week in April. Flambro', February 25th, both Guillemot and Gulls in large numbers on cliffs. *U. grylle*, Black Guillemot.—Farn L.H., May 11th, one; also one, an immature bird, shot off Flambro' early in October. Spurn L.H., October 26th, E.N.E., a Common Guillemot was killed against the lantern. *Fratercula arctica*, Puffin.—Longstone L.H., March 15th, first, the bulk returning on April 11th and 12th.

COLYMBIDÆ.—Very many Great Northern and Red-throated Divers reported from various parts of the East Coast between September 1st and the end of the year; only one Black-throated Diver, recognised as such, Cromer, November 20th, seen off pier at early morning.

PODICIPITIDÆ.—Cley, Norfolk, Red-necked Grebe (*P. griseigena*), on August 10th; Little Grebe (*P. fluviatilis*). Spurn L.H., October 7th, 2 A.M., S.S.E., struck and killed. Lemn and Ower L.V., December 29th, N.E., one killed at midnight. A considerable immigration into North-East Lincolnshire about the middle of November.

#### MISCELLANEOUS NOTES.

TEES 5 BUOY L.V., April 30th, 1886.—Wind E., light. A great many bumble-bees and a few wasps during day, flying to N.W.; several remained on board. January 15th, 1887.—One seal.

HARTLEPOOL, November.—A fine specimen of the Opah (*Lampris luna*) brought in.

COQUET ISLAND L.H., September 12th, W. (5).—Hundreds of small Flies all night in lantern.

OUTER DOWSING L.V., October 6th.—11 A.M. to 2 P.M., calm and fog. Mr W. Stock writes: "A very large quantity of birds flew over, and a great many flying about the vessel—Starlings, Redwings,

Larks, Mountain Sparrows, Golden-Crested Wrens, six Robins, four Redpoles, Chaffinches, and Pewits, about 300 mixed Crows and Rooks—altogether about 600 or more. Birds leaving the vessel appear to go about W. and W.S.W. When the fog cleared and the sun broke through, the Crows were seen passing to W. in three flights from 11 till 11.45 A.M. At noon they came back to the vessel in a body, and remained till 1 P.M. Caught one Redwing Thrush that was struck by a Crow and fell on deck bleeding. Several small birds struck by Crows and fell in water. Two Red-winged Thrushes and one Chaffinch caught on board.”

COCKLE L.V., September 14th.—11 A.M., calm. Great quantities of small bluish-coloured Flies ; left at 1 P.M.

LANGUARD L.V., September.—“The Musquitoes,” Mr Owen Boyle writes, “have been very numerous throughout the months of July, August, and September. They have been very troublesome ; many people had swelled hands, puffed faces, and even black eyes, from their stings.” October 4th.—Lady-birds in large numbers on the breakwater at noon, and up to sunset. At 3 P.M. they were to be seen in thousands.

SWIN MIDDLE L.V.—Mr S. Pender, with reference to the migration of the Ringed Plover, writes under date of October 30th : “Concerning the birds which, I think, must be the ‘stone-runners,’ and their manœuvres, it was very amusing to watch them. The birds were first seen in an eastward direction, and I should think thousands, for when in close contact they had the appearance of a small black cloud ; at other times in a long line and half circle, and so on. After they had finished their exercise they separated into two parties, one passing to the westward at no great distance from the vessel, and the other disappeared in the direction where first seen. Sometimes they would rise so high in the air, that they could not be seen without a telescope, at other times apparently touching the water.

HANOIS L.H., October 31st, 8 P.M.—A quantity of Silver Gamma Moths ; also a few brown ones, but smaller than the Gamma.

Mr Philip W. Munn, writing from Nieder Kaufungen, near Cassel, Germany, under date of March 30th, 1886, says :

“The weather began to break up on Saturday week, and all the snow had disappeared by the following Monday morning.



No sooner did the weather begin to break, and even before, than the birds began to rush northwards to their breeding quarters.

“On the 25th of February, quantities of Skylarks flew overhead in small parties in a northerly direction, the wind being S.E. This species stopped here on the 5th of March, and have now taken the place of the Crested Larks, most of which have left.

“On March 12th, I saw a Grey Wagtail; and a Hawfinch arrived and stayed here for a few days, and then departed.

“On the 16th, a large flock of Carrion Crows, Jackdaws, and Rooks (the Rooks have been very rare during the winter) flew over towards the N.E.; the passing over lasted ten minutes. On many other days later have I also seen small parties of ‘*Corvidæ*’ hurrying N.E.

“On March 18th, I saw a Black-Headed Bunting; on the 19th, White and Pied Wagtails arrived. Now the Pied have left, and quantities of the White remain and have begun to build.

“On the 23d, an extraordinary migration of Cranes began, and is going on at intervals now; they are usually flying in a N. or N.E. direction, but yesterday I saw three flying S.E., which has much confused me. On the 23d, a flock settled in the fields near here for a short time. Soon after this flock had gone, no less than nine flights, of from forty to one hundred birds in each flock, flew over at intervals.

“Curiously enough Robins and Thrushes are only summer migrants here; they arrived on the 24th.

“I heard the Chiffchaff on March 25th; and on the same day was another great migration of Cranes.

“On October 15th was the great rush of migratory birds, parties of various sorts continually passing the whole day to the S.W.”

LIST OF WINGS SENT IN FROM LIGHTHOUSES AND LIGHT-VESSELS,  
EAST COAST OF ENGLAND.

Station.	Date.	Species.
	1886.	
Leman and Ower L.v. . . . .	Jan. 23.	Snow Bunting.
“ “ . . . . .	April 25.	Wheatear.
“ “ . . . . .	May 13.	Whinchat.
“ “ . . . . .	“ 23.	Wheatear.

Station.	Date.	Species.
	1886.	
Leman and Ower L.V. . . . .	May 24.	Sedge Warbler.
„ „ . . . . .	„ 23.	Turtle Dove.
„ „ . . . . .	June 1.	Wheatear.
„ „ . . . . .	„ 18.	Oystercatcher.
Shipwash L.V. . . . .	May 18.	Two Grey Plover.
„ . . . . .	„ 18.	Yellow Hammer.
„ . . . . .	„ 18.	Wheatear.
Swin Middle L.V. . . . .	Sept. 26.	Cuckoo, young.
Nore L.V. . . . .	Oct. 4.	Redwing.
Spurn L.H. . . . .	„ 8.	Little Grebe, bird sent.
„ . . . . .	„ 26.	Guillemot.
Shipwash L.V. . . . .	„ 22.	Quail.
„ . . . . .	„ 22.	Goldcrest.
Llyn Wells L.V. . . . .	Nov. 1.	Two Water Rails.
Coquet L.H. . . . .	„ 17.	Long-tailed Duck.
„ . . . . .	„ 4.	Water Rail.
„ . . . . .	Oct. 5.	Sedge Warbler.
Hasbro' L.V. . . . .	Aug. 27.	Red-backed Shrike.
„ . . . . .	Sept. 3.	Rock Pipit.
„ . . . . .	„ 19.	Redstart.
„ . . . . .	Oct. 31.	Stormy Petrel.
„ . . . . .	Nov. 12.	Fieldfare.
Spurn L.V. . . . .	„ 1.	Water Rail.
South Sand Head L.V. . . . .	Oct. 5, 6.	Chaffinch.
Leman and Ower L.V. . . . .	Dec. 29.	Little Grebe.
	1887.	
„ „ . . . . .	Jan. 18.	Tree Sparrow.
„ „ . . . . .	„ 24.	Rock Pipit.
„ „ . . . . .	„ 25.	Robin.
Shipwash L.V. . . . .	Feb. 13.	Knot.
„ . . . . .	April 12.	Woodcock.

### GENERAL REMARKS.

As in 1885, the main body of immigrants crossed in two great rushes, corresponding with the first and third weeks in October. This was considerably earlier than the chief general movements of the preceding year. The meteorological conditions of the first period were easterly and south-easterly winds, pressure system cyclonic, accompanied by much fog and thick weather. During the second period the pressure system again mainly cyclonic, but with very variable winds.

As usual Rooks, Daws, Hooded Crows, Starlings, and Larks, occupy a considerable portion of the schedules. Chaffinches also have crossed in extraordinary numbers. They are always

numerous, but this autumn their migration has been in considerable excess of previous years. With these exceptions, however, there has been a singular and very marked falling off in some species whose breeding range lies chiefly in the north of Europe. This is specially noticeable in the small arrivals recorded of Fieldfares, Redwings, Ring Ousels, Bramblings, Snow Buntings, Short-eared Owls, and Woodcocks. Taken altogether, the migratory record for 1886 is a very poor one.

No wild Swans are recorded, the few entries in the schedules having undoubtedly reference to escapes from parks and private waters. Geese and Ducks have appeared quite as numerous as in previous years.

The arrivals of rare and occasional visitants have been few, those of chief interest being three Harlequin Ducks (*Cosmonetta histrionica*) at the Farn Islands; the Mediterranean Black-headed Gull (*Larus melanocephalus*), shot on Breydon Water, near Yarmouth; a Purple Heron (*Ardea purpurea*), shot on Oulton Broad, near Lowestoft; and the reputed occurrences of the Snowy Owl (*Nyctea scandiaca*) close to the Languard L.H., Suffolk. Of much interest also is the arrival of Shorelarks (*Otocorys alpestris*) on the coast between the Farn Islands and Yarmouth.

The continued yearly observations show that on the East Coast of England the principal points of arrival for migrants are the mouths of the chief rivers, also those parts of the coast which present either a flat and open shore, or cliffs of low altitude. Considerable stretches of coast, which, as a rule, have a high cliff line, make poor returns, or in some cases no schedules are sent in, indicating a great scarcity of birds.

It is well known that migrants under certain meteorological conditions travel at a great height, when it may fairly be presumed that the physical features of the earth's surface, the trend of mountain chains, or the course of great river systems, have little to do in determining their line, which is from point to point, and without deviation; yet in the vast majority of cases, where migration is visible, birds travel at a comparatively low altitude, so that when passing mountain chains, and even hills of no great altitude, they invariably choose the lines of the valleys, following depressions which, more or less, correspond to the general direction of their course. In the Cheviots I

have observed, for two years in succession, that the streams of small migrants from Scotland follow those main valleys which run nearest north and south, sticking closely to the lowest levels, where the brushwood and bracken beds offer greater privacy and security than the bare fell sides. Birds also, when migrating, follow from choice low-lying tracks of land and river courses in preference to elevated plateau and the summit line of mountain ranges.

Bearing these facts in mind, we find that there is a very well-marked line, both of entry and return, at the Farn Islands, on the coast of Northumberland. Scarcely second to this is the mouth of the Tees, both in spring and autumn. The North Yorkshire coast, from south of Redcar to Flamborough, including the north side of the headland, is comparatively barren, few birds appearing to come in between these points. Bridlington Bay and Holderness to Spurn and Lincolnshire, as far as Gibraltar Point, give perhaps the best returns of any on the East Coast. The north of Norfolk is poor, but there are indications in the heavy returns annually sent from the Llyn Wells, Dudgeon, Lemn and Ower, and Happisburgh light-vessels, that a closely focussed stream pours along the coast from E. to W., to pass inland by the estuary of the Wash and the river systems of the Nene and Welland into the centre of England, and thence probably following the line of the Avon, the north coast of the Severn, and Bristol Channel, and eventually striking across the Irish Sea, to enter Ireland near the Tuskar Rock, off the Wexford coast. This route is undoubtedly the great and main thoroughfare for birds in transit across England to Ireland in the autumn. Large numbers of migrants also which pass inland from the coasts of Holderness and Lincolnshire may eventually join in with the great western highway by the line of the Trent, avoiding altogether the mountainous districts of Wales. These remarks will refer chiefly to the Passerine birds, the *Accipitres*, *Limicolæ*, and *Gaviæ*, also Geese and Ducks, when *crossing land*, travelling as a rule very high.

To return once more to the East Coast, the Norfolk seaboard between Cromer and Yarmouth and the corresponding light-vessels show a large annual immigration, but the returns are less pronounced between Yarmouth and Orfordness. The coast of Essex, with the northern side of the Thames estuary, is fairly

good; but the opposite coast of Kent, from the North to the South Forelands, including the four Goodwin and the Varne light-vessels, is a barren and pre-eminently uninteresting district for arrivals, both as regards numbers and species, the chief migrants seen being such as are following the coast to the south.

Those migrants, which in the autumn follow the East Coast from north to south, pass directly from the Spurn to the Lincolnshire coast without entering the Humber; and there are no indications that they follow the shores of the Wash in and out, but shape their course from about Gibraltar Point to the Norfolk coast. To judge from the well-filled schedules sent in year by year from the Shipwash, Swin Middle, Kentish Knock, and Galloper light-vessels, a closely packed stream passes somewhere from the coast of Suffolk across the North Sea in the line of these stations, both in the spring and autumn, to and from the Continent. Autumn migrants approaching the Humber from the sea do not follow the course of that river into the interior—that is from S.E. to N.W.—the line they take invariably crosses the river diagonally, and is from E.S.E. to W.N.W. This course is so persistently followed, that I have observed year by year, on a migratory day, birds cross our fields at the same angle. Supposing this course to be continued they would strike the Trent at or near Gainsborough.

Except in one instance no returns have been obtained from any stations on the south-east coast between the South Foreland and St Catherine's Point, Isle of Wight. This is much to be regretted, as it is known that a strong migratory highway runs along the South Coast as well as on the French side of the Channel.

WEST COAST OF SCOTLAND.

SCHEDULES, etc., were sent to thirty-five stations, not including the Isle of Man (five more), the schedules for which are under Mr Eagle Clarke's charge. Of the thirty-five we have received returns from fifteen stations. From these fifteen stations we have thirty-eight filled schedules. We have again received two schedules from Monach Islands; but, as in 1885, they are again written straight across the schedule, irrespective of columns. To enter all these notes in their right places and sequence in our Report would cause great additional labour and loss of time to the working members of the Committee, as already fully explained in last Report (p. 92), *q.v.*

**We would be much obliged by our Reporters adhering to the columnar arrangement.**

LIST OF STATIONS.

Returns in 8 years, including 1887.	In 1887.	LIST OF STATIONS.	Values.	Feet.
SUTHERLAND.				
4		81. Cape Wrath, .....	III.	400
4		82. Rhu Stoir, .....	II.	195
OUTER HEBRIDES.				
7	*	83. Butt of Lewis, .....	I.	170
3		84. Stornoway (2 Lights), .....	II. I.	} 56
3		85. Island Ghlais, .....	I.	130
7	*	86. Monach Islands, .....	I. II.	} 150 62
2		87. Ushenish, N. Uist, .....	VI.	176
4		88. Barra Head, .....	II.	683
4	*	89. Rona, Skye, .....	IV.	222
7	*	90. Kyleakin, W. Ross, .....	IV.	53

The names of the Reporters are given under "Diary from the Stations."

Returns  
in 8 years,  
including  
1887.

In  
1887.

OUTER HEBRIDES—*continued.*

		Values.	Feet.
2	91. Isle Oronsay,.....	I.	58
2	92. Ardnamurchan.....	I.	
8	* 93. Skerryvore and Hynish Signal Tower, Tiree,.....	II.	150
8	* 94. Dhuheartach,.....	I.	146
5	95. Sound of Mull,.....	V.	55
0	96. Corran Ferry,.....	IV.	38
4	97. Lismore, Oban,.....	I.	103
2	98. Fladda, Easdale,.....	VI.	42
4	99. Rhuvaal,.....	IV.	147
7	100. M'Arthur's Head,.....	IV.	128
8	*101. Skervuile,.....	II.	73
8	*102. Rhinns of Islay,.....	IV.	159
3	*103. Lochindaul,.....	IV.	50
0	104. Mull of Cantyre,.....	VI.	297
0	105. Sanda,.....		
0	106. Devaar,.....	II.	120
0	107. Pladda, Arran,.....	II.	130
5	*108. Lamlash, Arran,.....	IV.	46
4	*109. Turnberry, Ayrshire,.....	IV.	96
0	109B. Ailsa Craig, 1885,.....		
7	*110. Corsewall,.....	IV.	112
0	111. Loch Ryan,.....	I.	46
7	*112. Portpatrick,.....	I.	37
7	*113. Mull of Galloway,.....	II.	325
4	*114. Little Ross,.....	IV.	176

The names of the Reporters are given under  
"Diary from the Stations."

*Diary from the Stations.*

*Butt of Lewis.*—Robert Agnew (replacing Mr Edgar, who is now at Lochindaul, *q.v.*). Mr R. Agnew is a son of Mr Joseph Agnew, late keeper at Isle of May (East Coast), now stationed at Monach Isles, *q.v.* Mr R. Agnew sends, in all, two excellently well-filled schedules from the Butt of Lewis. Under date of November 9th, 1886, he writes: "I send you a schedule. I hope you will find it of use. I would have sent it sooner, but wrote to my father for the loan of a book to help me, and waited till I heard from him." [Schedules sent date from August 23d to February 7, 1887.] Mr Agnew continues: "I

am surprised to see that most of the strange birds that I have seen here are *single*. It must just be occasional stragglers that we get from the flocks that are passing. It is also strange that there are so few birds coming to the lantern, but the tower is very high—120 feet—and perhaps that is the reason.” [Mr R. Agnew is right in believing that stragglers are all that can be expected to appear at Butt of Lewis, though possibly in exceptional seasons unusual numbers may appear. Birds “catch up” at Cape Wrath and W. C. of Scotland. Remnants “catch up” again at Butt of Lewis. But in easterly gales the “catch up” of the land is often lost, and hundreds or thousands are carried clear away to the Atlantic. See previous Reports.—J. A. H.-B.] Mr Agnew continues: “I have marked a Hen Harrier, and by the description in the book” [he having received the loan of the book from his father—Mudie’s “Birds”], “I think I am right. He remained here for some time, and the poor Rock Pigeons led a poor time of it. I also found a young Gull he had killed and eaten. I was surprised to see it, because I did not think that he would have attacked so large a bird. I measured the wings, and found them to be 4 feet 2 inches from tip to tip.” [Mr R. A. sent me the wings, but they did not reach me, and must have miscarried, but no doubt it was one of the common species of Gulls; from the measurements, probably a Herring Gull; or possibly—*i.e.*, if the measurements are correctly taken across the back and wings—an Iceland Gull. (See Mac-Gillivray’s “Manual,” under the said species, vol. ii., p. 247.)—J. A. H.-B.] Mr R. A. says: “I only came here last summer, and did not begin to keep records till near the end of August, but another year I hope to be able to do better.” [Meanwhile, we can only thank Mr R. A. for his excellent commencement of the work, which is well done.—J. A. H.-B.]

Later, in the second schedule, Mr R. A. writes: “There has been nothing to record since the 25th of November.” [Last date of schedule.—J. A. H.-B.] “The Snow Buntings have remained with us all winter. All summer we had large flocks of Solan Geese, till the first of October; after that there were a few till the 1st of November; but since then (till February 7, 1887) *I have not seen one.*” [These Solan Geese notes are always interesting. Perhaps Mr Agnew will devote a separate schedule to the day-to-day movements of Solan Geese another season.—



J. A. H.-B.] He continues: "On the 24th October I observed very large flocks of sea-birds, fishing close to the lighthouse. There were all sorts of them; I could not say how many, but there must have been many hundreds. We saw them from 9 A.M. till 11 A.M. After that there was not one to be seen (where did they come from and where did they go?)." [We believe they simply followed a vast body of fish—young or adult—or *entomostracæ*, which "showed" on the surface, indicating one of the strange, or little understood, migrations of fish, or *entomostracæ*. One or two of the birds shot, and contents of their stomachs examined, might have explained a great deal. Possibly Mr Agnew may still be able to supply a note as to the nature of their food at the time.—J. A. H.-B.]

*Monach Isles.*—D. Georgeson sends two closely written schedules, but, as before stated, straight across the columns. We will give them here *in extenso* as the simplest way of writing them in.

Under date of December 1st, 1886, Mr Georgeson writes to us thus: "I send you my two last schedules, filled up to date of end of October. I received intimation of my removal from this station to Sound of Mull, Tobermory. I expect the 'Signal' daily to take me to my new home. I do not know what sort of a place it is as regards birds, but if you send me schedules I hope to be able to give you a report, however short."

[*Note.*—In January 1887 Mr Harvie-Brown had an opportunity of interviewing Mr Georgeson, and having a pleasant chat, at Sound of Mull Lighthouse. No schedules have come from it, but the site is not good, and is much hidden by high land to the westward. It gave us much pleasure, however, to make Mr G.'s acquaintance, and thank him for his hearty co-operation hitherto at Monach Isles.

We have pleasure here in fully quoting Mr Georgeson's last schedules from Isles of Monach, where he is succeeded by Mr Joseph Agnew, late of the Isle of May, who we are sure will find Mr Georgeson's notes of interest and value.—J. A. H.-B.]

Mr Georgeson writes as follows: "Since my last report to you ending December 1885, I have had little to add in the way of forwarding your useful work regarding migration, and of the numbers and varieties of sea birds passing or frequenting this

station. I notice a visible decrease annually in the numbers of both land and sea birds, a decrease attributed to the island not being so quiet as it was some years ago, before the lighthouse was built, when the birds had the island all to themselves, and there was no one residing on it, but was only used by the natives for grazing purposes. Now the keepers and their families going round the island, the small birds are disturbed at the period of incubation.

“In January and February a few Terns, Snow Buntings, Twites, and Rock Pipits struck the lantern, the wind being south. Of sea birds during those months I observed a few Solan Geese, Scarts, Kittiwakes, Eider Ducks, Teal Ducks, etc.; but as the breeding season came on they left.

“In March a pair of Shielducks visited the island, and after remaining a few days, left, returning again in April (presumably the same pair), and after nesting and having two young ones, the four left in August. No Teal nor Eiders bred here this season.

“In June a large flock of Pictarnies, a few Stonechicks, Ringnecks (?), Sand Larks, and Twites came to the island (but not in such large numbers as in former seasons). Wind from south to west. They left with their young in August, the few I saw leaving flying in a north-easterly direction.” [This is somewhat contrary to experiences, and no doubt is due to local peculiarities of the configuration of the Outer Hebrides and land communications with the mainland, but our data appear too scanty to explain this. In this case “the few Mr Georgeson saw flying in a N.E. direction,” was with a wind from south to west. Possibly they do this to catch up the Skye coast, or sooner reach the shelter of the east coast of the Outer Hebrides.—J. A. H.-B.] “In June also a pair of Tysties,” continues Mr Georgeson, “came to the island, and left with the young in August.

“On the 2d September, wind N.E., all the Pictarnies left the island, flying in a northerly direction.” [This again almost seems to indicate a movement towards the north first, before returning south or in a south-easterly direction. Future careful reports on directions of flight here and of winds at the time can scarcely fail to prove of interest.—J. A. H.-B.] “On the 4th of September four Ravens—a male and female with their two

young—I observed resting on the island, but, after remaining a short time, they flew in an easterly direction towards the mainland. On the 9th September we had a severe gale—wind variable—and the island is quite deserted by land birds, the only ones remaining being a few Twites. I caught several during the gale dying from exposure. The only sea birds I can see are a few Gannets fishing for food; but they too leave in the evening in the direction of Barra. A few pairs of Curlews and a few Herring Gulls returned with their young. On the 17th September I observed a solitary Heron feeding around the shore; and I witnessed a strange incident in connection with it. On the 22d of the same month, while walking round the island, I heard strange cries coming nearer and nearer from a southerly direction, when the Heron got up a few yards from me, and flew in the direction of the cries, it being hazy at the time, and after the lapse of a few minutes I noticed three coming out of the mist evidently overjoyed at seeing one another. They flew round and round for some time, and then flew off in a north-easterly direction—the wind E.N.E., fresh.

“On the night of the 4th and 5th October a great number of birds struck the lantern, strange to say the greater number of them being Snipe; but there were also Mavises, Blackbirds, ‘Marsh’ (*i.e.*, Meadow) Pipits and Rock Pipits, and a few Pictarnies, all seemingly young birds of the year; but I was surprised to see the Pictarnies, as they had all left, and none had been seen about the island for some time; and these have evidently been migrating. The island appears to be quite deserted by land birds in the day time. On the night mentioned the wind was variable—from S.E. to S.W., with drizzling rain. On the 7th October I observed a large flock of Shielducks coming from N.E., and after resting a short time, they got up and flew off south, the wind being at the time S.W.” [Report ending 31st October 1886. Here ends Mr Georgeson’s notes on Monach.]

[Now Mr Joseph Agnew takes up the tale, and we make no excuse for quoting his letters: “We had to leave the May a day after the time I expected when I last wrote you, and therefore had not time to visit you at Dunipace, when passing Larbert on our way to Oban.” On arriving at Monach Mr Agnew expresses surprise at the universal and populous distribution of the Rock Pipit at all stations, S., E., N., and W., where

he has been. He then describes the Tystie (or Toistie of Monach), *i.e.*, the Black Guillemot, both in winter and summer plumage. Mr Agnew sends a schedule dating December 3d to 30th, contents of which will be found under species further on, and where Monach is mentioned, any remarks under species may be read as continuous with Mr Georgeson's Diary.—  
J. A. H.-B.]

*Rona* (*i.e.*, *South Rona*).—Messrs Dunnet and M'Gaw send two fairly well-filled schedules, strictly adhering to columnar arrangement.

*Kyleakin*.—D. MacCulloch and John Clyne send one well-filled schedule, but light, dating February 1st, 1886, to January 1st, 1887.

*Skerryvore*.—Thomas Dawson and William Charleson send three well-filled schedules, dating January 27th to December 9th, 1886. Mr D. writes: "Birds scarce here all summer. Not one seen between 7th May and 13th September. On September 6th a Scart was seen by us fishing about the rock. Sometimes it came ashore for a short rest, then into the water again. Did not appear to be a bit frightened. We amused ourselves casting stones at it for a time, still it did not go away far from us. It is the first we have seen of the season; not one single Scart seen here during the breeding season. We left it after a time. At night, after lighting time, a strange noise was heard on the top dome. One of the keepers—Mr Charleson—went aloft and found the Scart sitting very comfortably on the cage for cleaning the chimney, with his head under his wing, asleep. He never saw Charleson coming to it; but the latter made a grab at it, but missing his mark, the bird got clear off. Several Eiders are seen now, mostly males (October 1st, 1886); one flock of thirteen yesterday, and only one female among them. Numbers of Solan Geese seen every day here fishing." [We would be glad of a schedule or two devoted entirely to Solan Geese and their daily movements.—  
J. A. H.-B.]

*October*.—"On the 6th a great 'rush' of small birds here last night. Never saw anything like it nor so many different kinds. They commenced to strike the lantern at 8.30 P.M. on the 5th; and continued all morning of 6th. I cannot give you any idea of numbers, but no doubt hundreds were flying round the light.

Most in number were Skylarks and Thrushes; Wheatears next; and a great number of Snipes were seen. I have noted in the schedule the actual number of the different kinds we saw on the lantern and the time they struck, but no doubt many more of the same species hovered round the light all night. I saw several Sand Larks, but only one struck. Wind S.E. to S., rain and haze. They nearly all struck on the north side of the lantern. I was standing on the balcony when the Woodcock struck, and it fell stunned at my feet, and I caught it before it had time to recover. This is the only one I have ever seen here. I may mention the names of the species seen so far as recognised: Mountain Thrushes, Common Thrushes, Skylarks, Titlarks, Wheatears, Blackbirds, Woodcock (first seen here by me), Robins, Wrens, Redstarts, Ring Ouzels (Mountain Thrushes are therefore either Fieldfares or Redwings), 'OXEYES' (and another small bird a stranger to me)." [The Oxeye—so-called—is really a Gold-crested Wren, as described; and the other small bird, from description, is probably a Willow-Warbler (or Willow Wren).—J. A. H.-B.] In the same letter Mr Dawson encloses an insect [the Silver Gamma Moth.—J. A. H.-B.], and says: "I enclose an insect. I got it this morning stuck to the side of the kitchen window. We don't know what it is. It has likely wandered off here with the rush of birds the two previous nights. It appeared to be quite dormant when I found it (date of 7th October).

"Great numbers of birds again last night, but not nearly so many as the previous night, and fewer species. Wind N., and heavy rain all night and morning. After this Mr Charleson is to take note of the birds along with myself, so will get on better. The second schedule will be soon filled up."

Under date of December 19th, Messrs Dawson and Charleson say: "The Gannets have all left us some weeks back. The scarcity of fish is no doubt the cause."

*Dhuheartach*.—William Davidson and Jas. M'Guffie send us four well-filled bulky schedules, as *Dhuheartach* has, along with Skerryvore, participated in the rush of 5th and 6th October, which appears to have been so universal all over the East Coast also. By the schedules the species appear to have been much the same as at Skerryvore—Larks, Mavis (many young), Goldcrests, Snipe, Fieldfare, Wheatear, Robins, Fire-

tails (Redstarts), Starlings, Blackbirds, young Swallows, and several Lapwings—the Larks predominating by hundreds, and the Mavis by tens over the others, so far as observed.

*Skervuile*.—John Ewing sends two well-filled schedules from 7th February to 26th December 1886. Under 25th March he says: “There has been an abundance of Gulls and Boatswains’ birds up to *October*. On April 15th Solans are noted as seen night and morning during July, August, and September. Rush is also distinctly participated in on 3d, 4th, 5th, 6th. (See under species for details.)

*Rhinns of Islay*.—Peter Anderson and Mr Ducat.—Besides sending five regular schedules, fully filled up, Mr Anderson has also, in a very neat and efficient way, kept a still more minute day-to-day record on his own plan. We now have these for the month of February. When we have a schedule of this description for every month in the year, we think it may prove desirable to publish the series *seriatim et literatim*. The statistics could not fail to be serviceable. Thousands of Larks seen passing south for days during the October rush. They write: “We think if you had been here on the night of 5th and morning of the 6th October, you would have seen migration to your heart’s content. I have *never* seen anything like it before. About 7 P.M. they commenced, and increased until 10, when it was something grand to see, and continued up to 2 A.M. of the 6th, making a perfect concert of sounds—even the drums were not wanting—as the small birds striking the lantern and dome answered for the small drum, and the larger ones at odd times for the big drum. I will here mention a list of as many of the birds as I could distinguish, but I will make no attempt at numbers, as they were simply innumerable:—Redwings, Lapwings, Larks (these three the most numerous), Thrush, Missel-Thrush, Moorhen, Robins, Goldcrests, one Blackbird, one Teal Duck (both latter caught), Blackbirds, Water-rail, Terns, Starlings, and numerous other kinds I did not know. Weather thick, with haze and rain; wind S.E. to E. The birds seemed all to be flying against the wind. One Woodcock seen. Last night, 7th October, we had scarcely a bird, although it was a night of rain; *but* the wind was from the north.” [This account of the great rush is most interesting and valuable.—J. A. H.-B.] “The rush continued till 2 A.M. of the 6th, but then eased a

good deal, but numbers kept flying on till daylight. There were numerous Moths about the lantern on the nights of the 5th, 6th, and 7th." [Schedules give more interesting items.—J. A. H.-B.] Mr Anderson adds the note: "I forgot to mention that the weather has for the past few days been very close and warm. On the morning of the 5th, at 2 A.M., the glass stood outside at  $62\frac{1}{2}^{\circ}$ , and has been about  $60^{\circ}$  for several days, with very heavy rain." On the 18th December occurs the following note: "On the 18th I was inland for a mile or so, and saw two flocks of Larks (about 1000 each), and a flock of Starlings of from 1200 to 1400. I never saw so many Snipe on this island before. By the 22d thaw had set in, and they were all gone." [Note.—When we were shooting in Ardnamurchan in January 1887, though Woodcock were fairly plentiful, we never saw Snipe so scarce in Mingary Park. The suddenness of the rush, short space of time occupied, and complete departure south in December at once accounts for this.—J. A. H.-B.]

*Lochindaul*.—James Edgar sends three well-filled schedules, and observes that no schedules appear from our Report to have been sent for some years back. We are very glad again to receive schedules from Lochindaul, which appears to be a favourable situation for observations. Mr Edgar's last station was N. Unst, whence he sent us schedules. Mr Edgar says of Lochindaul: "Very few birds are attracted to this light, owing to part of the light being red, and the land side of the lantern being dark, although there are plenty of birds in the vicinity of the station. Most of the observations I have made are during the day time, and I only entered each species the first and last time seen, and any unusual flocks seen during the season. I gave up taking notes at end of October, owing to illness, and I was invalided from then till recently" (dated 17th January 1887), "which accounts for the lateness of sending in the schedules."

*Lamlash*.—David M. Scott and Robert Brown send a light schedule, except on the 6th October, when they appear fully to have participated in that extraordinary *rush*. "We could make out Curlews, Lapwings, Thrushes, Goldcrests, Linnets, Black-birds, Wrens—the LARGEST NUMBER EVER SEEN IN ONE NIGHT AT THIS STATION;" further proving the magnitude and wide-spread

character of the 1886 autumn migration, as well as its singularly compressed nature.

*Turnberry.*—Andrew Nisbet and William Begg send three well-filled day-to-day schedules. Curiously enough, the “rush” of October—which is quite the feature of our 1886 Report—is only comparatively emphasised here; but while the emphasis is moderate, it is also quite equally pronounced when compared with records at the same station. Thus, whilst only 1, 2, or 3 birds struck, or were seen at the lantern all through the season, a spring movement was more observable about the 10th February; and the autumn migration rush was emphasised by 13 birds at the lantern on the famous 5th and 6th October, and 5 the following night. Thus, comparatively speaking, the rush was also apparent on that date as elsewhere. All returns at other dates are light.

*Corsewall.*—An *unsigned schedule*, well filled and neatly executed, to hand, dating February 4th to October 29th, shows an early spring migration, also in February, of Starlings, Thrushes, and Larks; and “a great rush” of Blackbirds, Thrushes, and Larks (both male and female), and Goldcrests, began to strike at 9 P.M., and continued till daylight. A great many killed of all kinds. Upwards of 100 got in the morning. S.E. fresh breeze, fog and rain. Short, sharp, sudden, and vast, as we do not find another entry till 23d.

*Portpatrick.*—Mr James Beggs has the remark [which we perfectly agree with, and the reasons for which will shortly appear more decidedly, we believe, when Mr Service treats of the migration of birds in the Solway district, in his intended “Fauna of Solway.”—J. A. H.-B.] to the effect that: “The migration of birds again very slight this season. As I remarked to you in my schedule last year, I think it is our prevailing winds from the west which keep the birds inland. You will see in my above notes where the winds are easterly.” The easterly winds referred to occur throughout all the dates where any occurrences are recorded, viz., on the 4th and 15th September, October 4th, 5th, to 9th, and January 7th, 1887, at which latter date a “great rush” of Larks, coming from the N.W. and going S.E., is recorded. Again, the October 4th, 5th, and 6th rush is distinctly recorded. *Not a single record is entered under a westerly wind.* They naturally pick up (catch up) the trend of



the coast south of Clyde in *any* winds, but *normal westerly winds* may—and do—confine them to *normal routes more than easterly winds do*. Thus, if we had had no easterly winds at this station at all, the probability is that *no migration* would have been observed; but the *more normal route more inland* would have been followed. Locally, Mr R. Service is working at these routes with good effect.

*Mull of Galloway*.—Alex. Murray and John M'Quarrie send three excellent returns. Considerable movements of birds are noted, but again October 4th and 5th have pre-eminence and accentuation.

*Little Ross*.—Neil M'Donald and Robert M'Intosh send three well-filled schedules—every line filled. Under date of 6th December, N. M'D. writes: "I beg to send you two schedules, which are all we have. We are marking the birds as we see them on long sheets of paper lined off like the schedules, but when copying them off, I find I have more than will fill another schedule during October and up to date. Please forward two more. Trusting our schedules will meet your approval, etc." [Yes, they are excellent, and we have three fully filled, showing the same results and rush marked off in October as elsewhere. Birds seem well known; yet I think a copy of Johns' Birds should be sent here and to several more stations.—J. A. H.-B.]

#### SEPARATE REPORT UNDER GENERA AND SPECIES.

TURDIDÆ.—Thrushes, Dipper, Blackbirds, Fieldfare, Ouzels, Redwings, "Mavisés."—We find records principally of "Thrushes" between 4th and 22d February at Skervuile (one only on 9th), and at Turnberry and Corsewall (both south of Clyde), on seven dates, but all light. [Thus most of the February early migrants presumably turned across from Clyde to Forth.—J. A. H.-B.] Prevailing wind, S.W. and S.

*In March*.—Light records at Turnberry on 8th of Thrushes; and north of Clyde single birds at Rona, Skye, and at Skerryvore on 12th, 22d, and 24th. Light records at Skervuile of Fieldfares and Blackbirds on 21st and 25th, and single record of Blackbird at Turnberry (S. of Clyde) on 25th. [Thus while as usual most of the prominent stations report, the returns both N. and S. of Clyde are light, and almost too general to utilise as

indications of routes.—J. A. H.-B.] Prevailing wind in March, strong or light, S. and S. easterly. In May—3d, 4th, and 5th—we have a number of Thrushes and Starlings reported from Mull of Galloway in fog and mist, along with Starlings—twenty-two killed on 3d, and eleven on 4th. Wind, strong south breeze.

*In Autumn.*—First movements noted are 26th and 27th of August at Rona, Skye, of “Mountain Thrushes” (probably Ring Ouzels). [This name is applied to both the Redwing, Fieldfare, and Ring Ouzel, in different parts of Scotland, but most correctly to the latter. The date also is more in favour of the record of Ring Ouzels, as about the dates mentioned they begin to frequent gardens and orchards for berries, etc.—J. A. H.-B.] And at Mull of Galloway and Little Ross, of Blackbirds and Ring Ouzels. Wind, S. and S.E., fresh to strong. [These are also probably migrants from the vicinity of the stations.—J. A. H.-B.] In September a flight of Thrushes on the 4th at Portpatrick. Indication at Kyleakin (N. of Clyde), on 24th, of same species; also on 13th, at Mull of Galloway, of Blackbirds, and larger numbers in flocks at latter station on 22d and 24th. Redwings are noted as early as 20th at Rhinns of Islay only. But in October the numbers of records are very great, too numerous to give in detail. Thus we find the following stations participate:—Skerryvore, ten dates between 5th and 19th. Rush distinct on the 5th, 9 P.M., till 4.30 A.M. on 6th, of “Mountain” and Common Thrushes. Wind, light S.E., and heavy rain. One Blackbird on 6th. At Dhuheartach on 1st, 5th, 6th, 7th, and 8th. Records of Mavis, 100 all night of 5th, 6th, S.S.E.; Fieldfare, one on 6th; one male Blackbird on 8th; wind N.W. Single Thrush on 8th. [Shows the compressed nature of the rush and preponderance, as elsewhere, of Common Thrush.—J. A. H.-B.] At Skervuile, rush also on 5th and 6th of Thrushes, Fieldfares (the latter in minority). Rush also, however, of Blackbirds noted; entries extend from 2d to 31st, but only on five dates, and all light except on 5th and 6th. [Emphasises above remarks.—J. A. H.-B.] At Rhinns of Islay records on ten dates between 4th and 28th, of Redwings. [Query, were these not Thrushes, or in some of the returns have not Redwings and Thrushes equally done service? *N.B.*—The Redwing is *red* beneath the wing, and the Thrush or Mavis *yellow*. No “Thrushes” so named appear in the Rhinns of Islay schedules,

so perhaps "Redwings" do duty?—J. A. H.-B.] Blackbirds—quite a number appear under dates of 22d, 25th, 27th, and 28th. At Lochindaul also, while Thrushes seem to have been little observed at the time of the rush, there are a few records, 19th, 27th, and 28th, and one of Blackbirds on 27th. [The position of Lochindaul (Station CIII.) may sufficiently account for this; nor, however, does the rush appear quite so heavy at Rhinns of Islay (CII.) as it does at Skerryvore (XCIII.), nor at Dhuheartach (XCIV.), whilst Dhuheartach is lighter than Skerryvore. This may or may not indicate that the great body of the migrants have passed to the westward of Rhinns of Islay and even of Dhuheartach, making for the Irish coast. It will be interesting to note what our Irish Committee report upon this.—J. A. H.-B.]

At Turnberry (S. of Clyde) records date 2d, 3d, 5th, 6th, and 18th, but all are quite light, and no rush whatever is apparent on 5th and 6th October, only records of one, two, three, or four Thrushes, Blackbirds, and Ring Ouzels being entered.

At Corsewall (S. of Clyde), 2d and 3d of Thrushes (only three or four each time), but "great rush" of Blackbirds on 5th, and of the latter single records on 23d and 29th. Winds as generally—easterly. [Note.—Thus routes of Blackbirds and Thrushes appear to have been rather different in 1886. Compare with reports from other stations.—J. A. H.-B.]

At Mull of Galloway.—Rush indicated pretty distinctly, and striking all night of 5th, mingled with a few Blackbirds, some of which were killed at light. Large flocks seen all day of 6th. Dropping in up to 28th.

At Little Ross, on 3d October, four Thrushes—S.E., fresh—three killed; haze.

So much for the October rush at all stations yielding returns; and we have enlarged upon items here as illustrative of the whole general character of the autumn migration of 1886.

In November, migration of Thrushes (*vera*) almost *nil*. Solitary returns on 24th from Skerryvore, and from Turnberry and Little Ross. But a few more records of Redwing, Fieldfare, and Blackbird at same station. In December one single Thrush on 8th at noon at Dhuheartach; and a few Blackbirds and Redwings on 17th, 18th, and 20th at Rhinns of Islay. *No returns of*

*Turdidæ S. of Clyde.* No returns of *Turdidæ* anywhere in January 1887.

SAXICOLINÆ.—Wheatears (often called “Stonechats;” a name more correctly applied to another species of the group), Stonechat (a small bird having the head black in the male and dark-brown in the female), Whinchat, Redstart, etc.

*In Spring,* Stonechats (?) arrived at Rona, Skye—[no doubt *these* are Wheatears; but it is hard to say in all cases which are intended.—J. A. H.-B.]—on the 24th March, and on same date at Skervuile—S.S.E. breeze, hazy; also on the same date at Turnberry. On 4th of April, one pair arrived to breed at Rhinns of Islay, followed by several pairs on the 5th and 6th, which remain to breed. On 30th April, and one or two other dates, straggling birds seen at Dhuheartach, and again at Turnberry.

*In Autumn.*—Wheatears are recorded by name (correct name) at Butt of Lewis and at Little Ross; and what are also all probably Wheatears, but called (erroneously) Stonechats (see also last Migration Report, p. 100), at Rona, Skye, Dhuheartach, Turnberry, and Mull of Galloway, all on dates between 18th and 31st August. Rushing on 21st and 22d South of Clyde, continuing all through September, with a *rush* at Skerryvore; but only two at Dhuheartach on 13th. Migration continued up to, but not beyond, the 7th October, and participated in the rush of 5th and 6th at Skerryvore, *and also* at Skervuile, thus apparently taking a different route from that chosen by the Thrushes (see *antea*, *Turdidæ*). The only other species mentioned are a few Whinchats; a Redstart at Dhuheartach on 23d May, three ditto at Mull of Galloway on 27th August, two ditto at Little Ross on 13th September, and one ditto at Skerryvore on 6th October.

SILVINÆ.—Robins, Blackcap, Blue Throated Warbler, White-throat, “Redbreast.”—*In Spring*, two records only, at Rona, Skye, and Skervuile on 24th and 25th March. [All through this Report there seems to be a similarity of dates of occurrences at these two stations, even in single records. Why they should apparently be so much *in touch* with one another is not easily understood at present; unless it is simply similarity of positions affecting local migrations in a similar way.—J. A. H.-B.]

*In Autumn.*—August 19th and 27th, singles. September.—

Robins from Rhinns of Islay, Lochindaul to Lamblash (N. of Clyde), and Turnberry and Little Ross (S. of Clyde) all light. In October no great rush apparent anywhere, ranging in small numbers at all stations through the month.

One record in November at Little Ross ; and four dates, 17th to 20th December, at Skerryvore and Rhinns of Islay, at which dates there appears to have been some slight movement.

PHYLLOSCOPINÆ.—Golderest, "Gold-Crested Wren," Willow Warbler, "Willow Wren."—*In Spring*, two solitary Willow Wrens killed at Rhinns of Islay. "Great numbers of different kinds of Wrens on 11th May at Corsewall" [Please send wings. We have only one *true* Wren in Britain. The Goldcrest and Willow "Wrens" (*sic*) belong to the Warbler group.—J. A. H.-B.]

No records again till September, from 5th to 22d. Goldcrests are given on nine dates ; but very few at Rhinns of Islay, Turnberry, Corsewall, and Little Ross.

Many entries in October. A "great flock" of Goldcrests at Little Ross ; many struck and killed. Eight also appeared on 4th, 15th, and 8th at same place.

ACCENTORINÆ.—Hedge Sparrow, or Blue Janet.—One on 25th March at Skerryvore, and one at Butt of Lewis (N., fresh breeze, cloudy) on 23d September.

ACROCEPHALINÆ.—Reed Warbler, Sedge Warbler.—At Dhuheartach one Sedge Warbler. On September 3d, one ditto at Little Ross, and one same place on 7th October ; wind in each case light S.E.

PARIDÆ.—Titmice.—In April one Titmouse (?) seen on 27th and 28th at Turnberry ; and at same place, one on 10th May.

In August a number at Mull of Galloway 22d, and all night of 30th. Occurrences between 22d and 30th, and on 27th at Turnberry. On September 1st and 3d a few at Turnberry, and two or three on 21st and 24th, same place. In October one bird on 6th at same place.

TROGLODYTIDÆ.—Common Wren, "Kitty Wren."—Two dates in April at Turnberry ; one on 6th May at Skerryvore.

*In Autumn*.—Two at Corsewall on 21st, and five on 22d ; and three on 20th at Little Ross, and one on 22d of September. In October, single records at Rona, Skye, 15th ; Skerryvore, 6th ; Rhinns of Islay, 2d ; Lochindaul, 8th ; and two, same

place, on 22d. Latest two on 13th November at Little Ross, and a few other scattered records.

MOTACILLIDÆ.—Wagtails.—In March, a pair on 21st at Lochindaul; in May, one Wagtail at Dhuheartach, on the 8th—strong S.W., clear; and one Yellow Wagtail, same place, on 23d—light E. airs.

In August two “Grey Wagtails” [are these grey, or have they any yellow about them?] at Dhuheartach on 27th; and *eighty-nine Wagtails on 28th—a rush*. A number of entries in schedule for September, ranging from 1st to 24th, at Dhuheartach, Rhinns of Islay, Lochindaul, Mull of Galloway, and Little Ross,—bulking in largest numbers south of Clyde, twenty to thirty, on 1st September,—*a rush co-existing with that at Rhinns of Islay* above on 28th August. A flock at Little Ross on 27th September—winds S. and E. In October a number on 9th at Lochindaul; and a few entries for Lochindaul, Skerryvore, and Little Ross. Two on 19th December at Rhinns of Islay.

MOTACILLIDÆ.—Pipits, Meadow Pipits, Rock Pipits, Titlarks, “Mosscheeper,” “Tang Sparrow” (*i.e.*, Rock Pipit), “Marsh Pipits” (*i.e.*, Meadow Pipits).—One record at Skervuile in February; one in March (20th), same place.

*In Autumn.*—All day “Mosscheepers” at Butt of Lewis [are these Meadow or Rock Pipits?], and scattered birds on four dates of Titlarks at Dhuheartach. In October a rush of Titlarks, 5th and 6th, at Skerryvore; but only single or light returns from Dhuheartach at same time; also two only at Skervuile all the month. Two on 19th December at Dhuheartach.

MUSCICAPIDÆ.—Flycatchers.—The only records are in August, on 27th, 29th, and 30th, at Mull of Galloway. S.E., fresh, or fog.

HIRUNDINIDÆ.—Swallows, Martins, Sand Martins.—In April 24th—“Swallows first seen” at Corsewall; four at noon at Rhinns of Islay, one with a speckled head, the first seen, on 27th. In May, a rush appears on 7th, and again on 6th to 8th, at Rhinns of Islay and at Lochindaul. A few single records at Dhuheartach, Lamblash, and Little Ross; one at Kyleakin on 26th June—all of Common Swallow.

Autumn movements all September recorded from Rhinns of Islay; “flocks” at Mull of Galloway on 3d; and at Little Ross,

“large flock” on 14th. Flocks all day on 4th September at Mull of Galloway, and other notices.

FRINGILLIDÆ.—Finches, Linnets, Redpoles, Siskins, Sparrows, Tree Sparrows, Brambling or Mountain Finches, Chaffinches, Bullfinches.—In February one Bullfinch at Kyleakin; snow on island. One Cock Sparrow at Dhuheartach on 27th May; light E., clear; on rocks. One Linnet, same place, June 26th.

In August flocks flying about all day on 22d at Lochindaul, and small flock at Little Ross on 19th. Linnets and Grey Linnets, 2d, 6th, and 13th September, at Butt of Lewis (probably Twites or Mountain Linnets), Rona, Skye, and Little Ross. In October slight rushes between 7th, 8th, 9th, of Linnets. One male Chaffinch at Rhinns of Islay. One *Siskin* at Butt of Lewis on 29th. Hundreds again in November at Kyleakin, and forty to fifty on 14th and 21st at same place; sixty on 19th December; Grey Linnets at Lochindaul. Occurrences date in October from 4th to 28th in numbers ranging from one to ten (on 5th, 6th, and 8th at Dhuheartach, and on 20th at Turnberry), twenty (on 8th at Rhinns of Islay), and eleven to forty (on 28th at Turnberry). Direction of winds, S. and E. and S.E. throughout. No more records except one bird at Little Ross on 19th November.

EMBERIZIDÆ.—Buntings, Snow Buntings.—Almost all the returns relate to Snow Buntings. On the 15th and 17th May a single bird was found on the island at Rhinns of Islay, and one reporter adds the remark, “very late to be seen here.” Wind variable, strong.

*In Autumn* there was a “rush” of Snow Buntings past Skerryvore at or about midnight of the 27th September; wind strong W., haze and rain. No notice of this rush is taken at Dhuheartach or elsewhere. In October only two single records, on 14th at Dhuheartach, and 18th at Rhinns of Islay; and in November light records only at Butt of Lewis, Dhuheartach, between the 15th and 25th (twenty on the latter date). In December, thirty Snow Buntings on 14th at Rhinns of Islay “all day.” Not one return from any station south of Clyde. Of Common Bunting or Corn Bunting we have one record in April at Lochindaul, one on 4th October at Skerryvore, and one at Lochindaul on the 1st. The Corn Bunting is not looked upon by us as more than very locally migratory.

ALAUDIDÆ.—Larks.—Of Larks there has been an enormous movement. *Absent entirely* in April, June, July, and August; scarcely any in May (only two entries on 4th and 9th at Turnberry, with light or strong N.E. breeze).

In September the returns are still very light, indeed almost absent; but in October during the whole month innumerable records. Larks appeared at all the following stations sending returns:—Rona, Skerryvore, Dhuheartach, Skervuile, Rhinns of Islay, Lochindaul, Turnberry, Corsewall, Mull of Galloway, and Little Ross; but all notice of them is omitted in schedules from the other stations sending returns, viz.:—Butt of Lewis, Monach Isles? *q.v.*, Barra Head, Kyleakin, Rhuvaal, and Lamlash. [We are thus able to locate the stream with some exactitude.] They appeared to be most abundant at Skerryvore, and at Dhuheartach, “rushes” and “hundreds;” Skervuile, “rush;” Rhinns of Islay (on 2d October), “thousands,” and on 5th, “numerous.” Then S. of Clyde, “a great rush” at Corsewall; “rush” at Portpatrick (4th October). All these large movements, except where specified, were on the nights of 5th and 6th October.

In November only a few slight movements, 24th, 26th, to 29th at *Kyleakin* and at *Turnberry*.

In December light again at Dhuheartach, 18th to 27th; but heavy on 18th and 19th at Rhinns of Islay, 1000 and 100; but these may and probably were due only to local migration, influenced by severe weather on mainland.

In January movements also of local importance and not numerous, January being milder and more open on the West Coast than December; but at Portpatrick a great rush is described as going from N.W. to S.E., 11 A.M. to 12, during a snowstorm. This may also, however, be only a local movement; still it is interesting as showing the *recognised line of flight* spoken of by Mr R. Service. In Ardnamurchan small flocks appeared at Kilchoan at once on the advent of a severe snowstorm and S.E. gale of wind—a local movement, of course.

In February many light movements are entered, but none of more than local interest. These occur at Skerryvore, Rona, Skervuile, Turnberry, and Corsewall.

STURNINÆ.—Starlings.—A considerable movement. In February a number at Turnberry on 9th, and light returns



from Skerryvore, Skervuile, and Turnberry on other dates, and at Corsewall. A few returns in March, none in April, two in May, none in June and July. "Rushes" of old and young in August at Rhinns of Islay on 18th, 19th, and 26th: wind S.W., fresh, or W., light. Rush also indicated on 22d at Lochindaul; odd birds only at Skerryvore; 130 at Lochindaul on the 30th. A few movements in September. South of Clyde—"Great numbers" on 15th at Portpatrick. North of Clyde—Light movements; eleven, twelve, sixteen birds at Kyleakin. In October rushes recorded, especially at Skervuile, Lochindaul, Turnberry, Mull of Galloway, at or about the date of the general great rush of the year, viz., 4th, 5th, 6th, and 8th October. Light returns in November, and a few in December.

CORVIDÆ.—Rooks, Ravens, Crows, Carrion Crows, Hooded Crows, Jackdaws, Grey Crows.—The *Corvidæ* generally show movements during January (1887), February (1886), April (Ravens), May (casual Carrion and Grey Crows or Hoodies), June 26th, 27th, 28th, and 29th, "great numbers of Crows" all day at Mull of Galloway. August 18th to 27th, of Rooks, Ravens, Grey Crows, Crows. Great flocks of Rooks on 21st at Lochindaul, as also on 24th September no very heavy entries at any stations, but "dense flock" on 21st October at Lochindaul, and sixty on the 20th same place. Only one Crow seen all November, and that at Butt of Lewis, the only return in all that month. 500 Crows at Rhinns of Islay on 18th December—no doubt a local migration. In January (1887), from 100 up to 500 at same place, 9th, 10th, and 17th—also local, no doubt.

CYPSELIDÆ.—Swift, "Cran," "Black Swallow."—Only one solitary record of one Swift on 27th August at Butt of Lewis. Wind S.W., fresh.

CUCULIDÆ.—Cuckoo.—Records: At Lochindaul, arrived 6th May. Wind light S., clear, "flying S.W."

Also at Lochindaul, one rested on the rocks at 7 P.M. on the 6th July. Light W., clear.

STRIGIDÆ.—Very few records of any Owls—At Dhuheartach, on 4th May, an Owl rested on the rock. Fresh S. and fog.

At Mull of Galloway a Grey Owl seen on 5th September, and again at same place on 21st October one Grey Owl came to the light in pursuit of some small birds.

FALCONIDÆ.—Eagle, Hawks, Kestrel Hawks, Sparrow Hawks, Buzzards, Game Hawk or Falcon.—[Merlins are not once named, but no doubt some of the “Sparrow-Hawk” entries really apply to the Merlin.—J. A. H.-B.]

In May.—A Kestrel on 5th at Dhuheartach, and a Buzzard on 23d, both flying east, with E. wind. A Sparrow Hawk at Rhinns of Islay.

*In Autumn*, a few records of Hawks, Game Hawk (Rona, Skye), etc., at four or five stations in August, and single birds in September, including Buzzard and Falcon at Rhinns of Islay on 20th. Also single birds at Skerryvore and Dhuheartach, including a “Black Hawk” on 10th October at the former. One record at Butt of Lewis of a Sparrow Hawk on 19th November. There are fewer records of Hawks than usual. One Eagle seen at Rona 2d January 1886.

PELECANIDÆ.—Solon Geese.—First seen at Skervuile on 15th April. Light N. wind; next at Rhinns of Islay, 100 in flocks, from 4 to 11 A.M. on the 11th May, and great numbers on 27th, flying N. in the forenoon, and again on 31st. E.N.E. wind. In June six seen at Lochindaul, and a few at Little Ross. The migration of Gannets appears to have been quite intermittent and uncertain here and on the N.W. coast.

By August 8th, at Rhinns of Islay, several young seen; and by 15th to 18th in hundreds all day. Intermittent in numbers, 16th (some) to 30th (numbers), and 31st (all day) at Lochindaul. None entered again till 9th and 11th October at Lochindaul.

ARDEIDÆ.—Heron.—One record in February at Skerryvore, sitting on rock on 13th. Wind fresh W., and rain. One record in July at Rhinns of Islay, flying S.W.; W., clear on 16th. One record in August at Little Ross on 19th. Singles or pairs at four stations, viz., Butt of Lewis, Skerryvore, Rhinns of Islay, and Little Ross, on four different dates. Two in October at Rhinns of Islay, and two in December at same place. None of these appear to us at present to have any special significance.

ANATIDÆ.—Ducks, Geese, Swans.—*In Spring* two Eider Ducks at Lochindaul, swimming near the shore on 29th March. [It seems worth while to record the appearances of Eiders, owing to their wonderful and yearly increase in the Outer Hebrides within our recollection since 1870, and earlier.—J. A. H.-B.]

*In Autumn*, at Skerryvore, four seen on 14th, and at Dhuheartach one Drake on 16th, and at Lochindaul one Duck on 30th. On 1st October two at Skerryvore, S.W., strong breeze; and a pair on the 20th at same place. In November two males and three females at Rhinns of Islay on the 4th, and two females and one young male at Skerryvore on 15th.

*Stock Duck or Shieldrake*.—One on 8th March at Rhinns of Islay, S.E. breeze. Very occasional entries of Ducks (Wild Duck) in April at Rhinns of Islay, from three to ten at a time.

Grey Geese [probably White-fronted.—J. A. H.-B.] on 12th and 25th at Rhinns of Islay. Wind northerly and westerly. One Widgeon at Lochindaul on 16th September. A few scattered notices of Geese, or Grey Geese, in October at Rona, Skye, (six) on 12th, at Rhinns of Islay (Large Goose), and at Kyleakin. In November 40 Geese at Rona, and flocks, 46 to 50, flying S. on 4th at Rhinns of Islay; 100 on 5th, flying S.; wind S.E., fresh. All other lighter records, flying east, with S.W. strong breeze. Barnacle Geese, five on 1st November at Rhinns of Islay rested on island, and one seen on 3d at Butt of Lewis, and five on 18th December at Rhinns of Islay, with "first snow." Also records of Teal (all in October), 40 Brent Geese at Rhinns of Islay on 6th, and 33 and 30 "Wild Geese" at same place on 20th and 21st January 1887.

COLUMBIDÆ.—Rock Doves, Turtle Doves, Wood Pigeon, &c.—Two records of seven and fifteen respectively at Rhinns of Islay on 4th and 5th September. One Turtle Dove shot on 25th at (?)

RALLIDÆ.—Corncrake or "Land Rail," Water Rail.—At Rhinns of Islay, first heard 26th May. At Lochindaul, first heard 20th May. At Kyleakin, first heard 25th May. At Lochindaul, last heard or seen 7th August. At Rhinns of Islay, one on island 29th September. At Rhinns of Islay, one Water Rail killed on 5th. Fresh E.

CHARADRIADÆ.—Oyster Catchers, Plovers, Golden Plovers, Grey Plover, &c.—Oyster Catchers on 15th February at Lochindaul, "first seen this year." Light, clear, and N.E. One Plover at Rona 24th March, and "Sea Pies" at Dhuheartach on 23d May, the only entries in Spring.

In August, flock of Golden Plover at Butt of Lewis on 30th. Stray records at Rhinns of Islay and Lochindaul, and one record of Grey Plover at former on 20th. S.W., fresh and rain.

Slight movement on 2d and 5th September at Rhinns of Islay of Golden Plover, and "large number" on 12th at Turnberry, and a number at Little Ross on 28th. No very heavy records at any time. Flocks in October, but no records of important movements. Three records in December 17th, 18th, and 19th, at Rhinns of Islay. Few records of Oyster Catchers.

Lapwing, Ring Plover, Dotterel.—Very few light movements in February, March, and April of Lapwings. Do. in July (one), flocks on 19th August, and 30 on 30th, 100 at Rhinns of Islay on 14th September, 40 on 24th, "great numbers" at Turnberry on 14th September, 100 on 21st October at Rhinns of Islay, and numbers on 9th at Lochindaul all day, and on 11th and 23d. No records of other species, or of Lapwings, at later dates.

SCOLOPACIDÆ. — Woodcock, Snipe, Curlew, Whimbrel.—Whimbrels, or Little Curlew, or "May Fowl," in small numbers rested for four days on the rock at Dhuheartach on 11th to 14th May. No other notice, spring or autumn.

Curlews—February, March, May, single records. In June thirty to forty alighted on hill near Mull of Galloway, and stayed three weeks and left. August—Flocks on 19th at Lochindaul; thirty on 19th at Mull of Galloway; and a flock at Little Ross on 3d. In September many light records; heaviest, fifty at Rhinns of Islay, and a large flock and a small flock on 1st at Little Ross, and a large flock of young Curlews same place on 28th. In October a fair number of records; fifty on 21st at Rhinns of Islay, and a number on 11th at Lochindaul; twenty at Mull of Galloway on 20th.

Woodcock—At Lamlash, on 15th March, two birds at 11 A.M.; E., strong; and on February 1st, one at Kyleakin, 11.30 A.M.; S., with snow on the island.

No more entries till October, when only three in all at Rona (on 8th), S.E., fresh, "first seen;" one at Rhinns of Islay (22d), N.E.; and one at Corsewall (25th), N.E., fresh, "struck and killed." In November, one bird at Mull of Galloway on 19th; and one, on 20th and 21st December, at Rhinns of Islay.

Considering that this was a most remarkable year for Woodcock in Central Scotland, and in the West, in Ardnamurchan, Mull, and many other places, it is remarkable how few have been seen at lighthouses. Here in Stirlingshire thirty-five and

twenty-eight were killed on Torwood and Touch in two days. The birds had been quite three weeks in the country. In January 1887, 33½ couple were shot in seven days, and we heard of total bags for the season of 160 to one gun in Ardnamurchan, 400 in Ross of Mull, 260 in north of Mull on one property, etc., etc.

*Snipe*.—A distinct “rush” apparent on the great migration night of 5th October, but all other returns light except “numbers all day” at Rhinns of Islay on 18th December. The largest “rush” is recorded at Skerryvore on 5th October, 9.30 P.M. till 3.30 A.M. on the 6th; light S. wind; eight killed on lantern. All other records quite light; and Jack Snipe, only three entries, viz., on 8th October at Butt of Lewis, S., fresh; at Skervuile on 6th, light E. and S.; and one killed at midnight of 22d October at Rhinns of Islay. Of Sandpipers, Redshanks, Dunlins, etc., there are only eight records in all in March, May, August (2), September (2), October, and December.

LARIDÆ.—Of Gulls we only will mention the more important entries.

Cream-coloured Gulls (Iceland) [or Glaucous Gulls.—J. A. H.-B.] “seldom seen here,” at Rhinns of Islay on January 18th, 1887. February 1886—“Iceland Gull at same place, flying E., noted as “rare,” on 3d; light N. breeze. In May a Richardson’s Skua at Lochindaal on 28th, and all day there again on 30th July. Thousands of Black Backed Gulls and other Gulls on 14th September at Rhinns of Islay. “Dirty Allens” at Dhuheartach on 31st October, and all November numbers of Gulls at Skervuile. Iceland Gulls at Dhuheartach on 12th December, and again at Rhinns of Islay on 7th.

Terns arrived on 20th May at Barra Head, and a flock stayed a week at Little Ross and then left, after the 14th June. There are only a few scattered records in autumn. The curious unsettled behaviour of Terns, whether Arctic or Common, is a subject worthy of remark during their breeding season. They often occupy and then abandon their nesting places, apparently without any reason, for it is not always that they leave on account of persecution, though they are much more easily affected by persecution than almost any other sea birds.

PROCELLARIIDÆ.—Petrels.—In September several all day at Dhuheartach, and have been seen “flying south for a week

past." [This is an interesting note as pointing directly to a periodical migration of the Petrels. Of course how much such may have been simply caused by increase or diminution of food supply is at present difficult to determine.—J. A. H.-B.]

In October only two records, but both on 5th and 6th at 11 P.M. and 2 A.M., struck, but were not killed. [They are evidently thus included in the impulse and great migration of this date. It is noteworthy that we have all through our past reports seldom received definitive record of actual migration of the Petrel till now.—J. A. H.-B.]

COLYMBIDÆ. — Divers, Northern Divers, Grebes, etc. — In February, one G. N. Diver on 7th at Skervuile.

In March, one do. on 24th at same place. In April, no records. In May, two at Lochindaul on 7th, and on 10th at Kyleakin. No more records of G. N. Divers till 23d October, when one was seen at Rona, Skye, "swimming round the island." Then, 16th November, at Skervuile, and December 26th at same place.

By collecting careful notes on the appearance, residence on our coasts, and departure from different stations, much might be learned of the reason why some northern species remain to breed some seasons more than others, or remain longer resident into the summer months.

ALCIDÆ.—Puffins, Guillemots, "Tysties," "Rock Birds," etc., Razorbills.—In April, a flock of 100 Puffins fishing around Rhinns of Islay on 3d, and twelve Tysties or Black Guillemots on 10th, "floating in the sound." In May, Tysties at Lochindaul on the 20th, and Puffins—twenty—flying west on 2d, at Kyleakin. In June, great numbers all day of Razorbills fishing around Lochindaul. In August a few all day on 28th at same place. In September, one young Tystie on 15th at Dhuheartach, "eating fish on the rocks." In October on 19th and 21st *continuous flocks*, 6 to 10 A.M., N., light, clear, flying south. This "rush" of sea birds is almost as sudden and remarkable as that of our land birds this year. A few still found in December at Skervuile. No notices South of Clyde.

## WEST COAST OF ENGLAND AND WALES, AND THE ISLE OF MAN.

SCHEDULES and letters of instruction, with stamped envelopes for wings, were sent to the fifty-three under-mentioned lighthouses and light-vessels on the West and South-West Coasts of England, the Coasts of Wales, and the Isle of Man, and returns have been received from the thirty-nine stations marked with an asterisk.

The following is an enumeration of the stations included in this section of the Report:—

	No. on Map.			
Isle of Man.	115.	L.H.	Point of Ayre.	
	116.	L.H.	Douglas Head.	
	*117.	L.H.	Langness, .....	Robert Clyne.
	*118.	L.H.	Chickens Rock, .....	James Black.
	*119.	L.V.	Bahama Bank, .....	Charles Johns.
N.-W. England.	*120.	L.H.	St Bees, .....	Henry Nott.
	*121.	L.V.	Selker, .....	Daniel Kneale and George Cumming.
	*122.	L.V.	Morecambe Bay, .....	Henry Clavell.
	*123.	L.V.	River Dee, .....	S. Work and J. Clague.
North Wales.	124.	L.H.	Air.	
	*125.	L.H.	Menai, .....	Joseph Steer.
	*126.	L.H.	Skerries Rock, .....	Wm. Jno. Rees.
	*127.	L.H.	Holyhead Breakwater,	Messrs Prichard, Roberts, and Hughes.
	*128.	L.H.	South Stack, .....	W. R. Burgess.
	*129.	L.V.	Carnarvon Bay, .....	Messrs Thomas and Hughes.
	130.	L.H.	St Tudwal's.	
	*131.	L.H.	Bardsey Island, .....	Thomas Bowen.
*132.	L.V.	Cardigan Bay, .....	Messrs Rees and Comben.	

	No. on Map.			
South Wales.	*133.	L.H.	South Bishop,.....	Alfred Frost.
	*134.	L.H.	Smalls,.....	George Baker.
	*135.	L.H.	Great Castle Head,....	W. L. Davis.
	*136.	L.H.	Milford (St Ann's),...	Jas. F. Spicer.
	*137.	L.H.	Caldy,.....	Wm. Ebben,
	*138.	L.V.	Helwick,.....	Messrs Webber and Howells.
Bristol Channel.	*139.	L.V.	Scarweather,.....	Messrs Havells and Wynen.
	*140.	L.H.	Nash (E.),.....	Henry Nicholas.
	*141.	L.V.	Breaksea,.....	Messrs Walters and Johnson.
	*142.	L.H.	Flatholm,.....	W. Dale.
	143.	L.V.	English and Welsh Grounds.	
	*144.	L.H.	Usk,.....	Amos Russell.
	145.	L.H.	Avon.	
*146.	L.H.	Burnham,.....	William Lewis.	
South-Western England.	*147.	L.H.	Bull Point,.....	George Knott.
	*148.	L.H.	Bideford Bar,.....	Thomas Gilpin.
	149.	L.H.	Lundy Island.	
	150.	L.H.	Hartland Point.	
	151.	L.H.	Trevoise Head.	
	*152.	L.H.	Godrevy,.....	Richard Trahair.
	*153.	L.H.	Longships,.....	Jno. W. Watson.
	*154.	L.V.	Sevenstones,.....	Daniel Norton.
	*155.	L.H.	Wolf Rock,.....	J. J. Chavner.
	156.	L.H.	Scilly.	
	*157.	L.H.	Bishop's Rock,.....	Jno. W. Troth.
	158.	L.H.	Lizard Point.	
	159.	L.H.	Falmouth Harbour.	
	*160.	L.H.	Eddystone,.....	William Ainger.
	*161.	L.H.	Plymouth Breakwater,	Arthur Ebgar.
	*162.	L.H.	Start Point,.....	William Jones.
	*163.	L.H.	Portland Bill,.....	William Frost.
*164.	L.V.	Shambles,.....	William Clark.	
165.	L.H.	Anvil Point.		
*166.	L.H.	Hurst Castle,.....	G. G. Appleton.	
167.	L.H.	The Needles.		

It is satisfactory to note that not only has the number of



stations making returns been largely augmented, but also that the schedules have considerably increased in number from most stations.<sup>1</sup> It is pleasing, too, to observe the pains and evident interest taken by most of the recorders. Our best thanks are due to the observers above named for their invaluable co-operation, and for the faithful manner in which they have filled in their schedules. To Messrs Ainger (Eddystone), Baker (Smalls), Clyne (Langness), Johnson (Longships), Jones (Start), Knott (Bull Point), Lewis (Burnham), Nicholas (Nash), Rees (Skerries), Walters and Johnson (Breaksea), Webber and Howells (Helwick), and Work and Clague (Dee), additional and especial thanks are due for sending the wings of the species unknown to them killed or captured at their respective stations. The result of the first efforts in this direction has been highly satisfactory; a very considerable number of wings have been received, representing the following species:—*Turdus viscivorus*, *T. musicus*, *T. merula*, *T. torquatus*, *Saxicola œnanthe*, *Pratincola rubetra*, *P. rubicola*, *Sylvia cinerea*, *S. atricapilla*, *Phylloscopus collybita*, *P. trochilus*, *Acrocephalus phragmitis*, *Locustella nævia*, *Regulus cristatus*, *Troglodytes parvulus*, *Motacilla rayi*, *Anthus pratensis*, *A. trivialis*, *A. obscurus*, *Muscicapa grisola*, *Emberiza miliaria*, *Alauda arvensis*, *Caprimulgus europæus*, *Cuculus canorus*, *Gallinula chloropus*, *Tringa alpina*, *T. canutus*, and *Procellaria leucorrhœa*.

#### DIARY OF THE MIGRATORY MOVEMENTS AS OBSERVED AT THE VARIOUS STATIONS.

The sequence of the stations is from north to south. The meteorological conditions prevailing during the more important movements are extracted from "The Daily Weather Reports"<sup>2</sup> issued by the Meteorological Office. The wind and weather, as observed at the stations, are given in parenthesis: for the weather, the symbols of the Beaufort scale have been adopted;<sup>3</sup> while the force of the wind ranges from 0 to 12.

<sup>1</sup> No less than 84 schedules were returned.

<sup>2</sup> These Reports cover not only the British Islands, but also Western Europe, from Bodo and Haparanda to Corunna and Toulon, and are based upon numerous returns from the area indicated.

<sup>3</sup> *Beaufort scale*:—B. blue sky; C. detached clouds; D. drizzling rain; F. fog; G. dark, gloomy; H. hail; L. lightning; M. misty; O. overcast; P. passing showers; Q. squally; R. rain; S. snow; T. thunder; U. ugly, threatening; V. visibility, unusual transparency; W. dew.

The diction of the recorders has been adhered to as closely as possible. The identification of the species marked \* has been verified from wings sent to the Committee.

## SPRING.

### WEATHER DURING THE WEEK MARCH 21ST TO 27TH.

Weather—mild and damp throughout, with southerly (S.E. to S.W.) winds, generally moderate, but occasionally strong, especially in the W. Barometric pressure has been continuously highest over the Continent, and lowest to the westward and north-westward of our Islands, the gradients being, as a rule, moderate, and the distribution cyclonic. On the 24th, however, the continental anti-cyclone extended to the westward, over our islands, for a short time, and the winds backed to eastward at the southern and south-western stations, with a fall of temperature; but this change was very temporary. Temperature above its normal height—maximum varying from 60° to 65° in many places.—(From Weekly Summary in "Daily Weather Report," March 29, 1886.)

### MARCH 24TH.

*Langness* L.H.—One Willow Warbler on lantern at 2 A.M. (Light E.; haze.)

*Chickens Rock* L.H.—Great numbers of Thrushes, Starlings, Wheatears, and Larks flying round lantern at 8 P.M. (S., light breeze; haze.)

*Selker* L.V.—A great many Thrushes, Blackbirds, and Larks about the light from 12 P.M. to 4 A.M., some striking and going over the side.

*River Dee* L.V.—One Woodcock killed at 7.45 P.M.

*South Stack* L.H.—Several Siskins and Wheatears from 12 P.M. to 4 A.M. A few struck and killed. (S.E., 4; C. M. R.)

*Eddystone* L.H.—Thrushes, Redwings, Starlings, and Wheatears from 8 P.M. to 10.30 P.M. A great quantity struck; 20 birds killed. (S. by W., and S.S.W.; C. V.)

### MARCH 25TH.

*Langness* L.H.—One Blackbird (female) found dead.

*Chickens Rock* L.H.—Immense numbers of Starlings, mixed with Thrushes and Fieldfares, throughout the night. Large numbers killed. (S.S.W. fresh. Breeze increasing towards morning to a gale; haze and fog.)

*Bahama Bank* L.V.—Several Larks, Thrushes, and Starlings at 11.30 P.M.; four "Grey Birds" killed.

*Selker* L.V.—A great many Larks, Starlings, and a few Thrushes flying about the light from 9 to 12 P.M. (Misty.)

## MARCH 26TH.

*Langness* L.H.—One female Blackbird killed, and two Redwings killed on lantern at 4 A.M.

*Chickens Rock* L.H.—Mr Black says: "The same kind of birds were to be seen on this date as on the 25th, but very few struck, as the night was clear."

*St Bees* L.H.—Several Wheatears on the 26th and 27th.

*Carnarvon Bay* L.V.—Hundreds of Thrushes and Larks all night, 40 killed and 20 caught; they left at daylight, flying towards the east. (S.W., 5; G. M.)

*Nash (E.)* L.H.—A Swallow rested on the lantern from 6.30 A.M. till 7 A.M., and then left and flew N.E.

## MARCH 27TH.

*Langness* L.H.—Several Starlings, a Lark, and a Chaffinch on the lantern from 2 to 4 A.M.

*St Bees* L.H.—19 or 20 Grey Geese at 6 P.M.

*Selker* L.V.—Starlings and Blackbirds flying about the light at 3 A.M.

*Carnarvon Bay* L.V.—10 Lapwings at 11 A.M. flying N.E. (N.W., 6; B. C. V.)

*Eddystone* L.H.—Blackbirds, Redwings, and Starlings in great numbers from 9 P.M. to 3 A.M. (28th); 20 struck and lost over, four caught. (S. by W., 4; C. R. M.)

*Plymouth Breakwater* L.H.—One Thrush killed at 3 A.M.

## MARCH 29TH.

*Langness* L.H.—One Song Thrush and one Redwing struck between 10 and 12 P.M.

*Selker* L.V.—A great many Thrushes, Blackbirds, Starlings, and Larks from 12 P.M. to 2 A.M. One Woodcock struck, and was caught. "There were also a great many other birds." (S.W., 3; rain, thick mist.)

## APRIL 5TH.

*Eddystone* L.H.—Two Red Linnets caught at 9 P.M., and two Ring Ouzels caught at midnight. (S.W. by W., 5; O. D. M.)

## WEATHER FOR WEEK, APRIL 18TH TO 24TH.

Generally fair, but until the close of the week temperature was low for the time of the year, and frosts were experienced in the north of Scotland. Barometric depressions prevailed southward and south-westward of our Islands until the 23d, when a large and well-defined low-pressure system approached us from the southward, and passed in a north-westerly direction out into the Atlantic. As its centre skirted our south-west coasts, moderate gales from the E. or S.E. prevailed in the south of Ireland and south-west of England.—(From Weekly Summary, "Daily Weather Report," April 26, 1886.)

## APRIL 19TH.

*Langness L.H.*—A Cuckoo seen at 10 A.M.

## APRIL 22D.

*Langness L.H.*—One Common Wren at 4 P.M.

*River Dee L.V.*—Flocks of Titlarks and Wagtails passing to the east during the whole of the day. (E.N.E. to N.N.W., 2; c. v.)

*Carnarvon Bay L.V.*—Six Black Crows flying east at 8 A.M.

*Nash (E.) L.H.*—Seven \*Wrens at 10.30 P.M., three killed; the others remained till daylight. (E., 3; B. M.)

## APRIL 23D.

*Chickens Rock L.H.*—A Swallow at 9.30 A.M., flying N.E., and an Oystercatcher and a Carrion Crow sitting on the rock.

*River Dee L.V.*—Flocks of Titlarks and Wagtails, and small flocks of Swallows passing the whole of the day, flying east. Two Wrens and one Stonechat killed at midnight. (S.E., 3; c. u.)

*Nash (E.) L.H.*—Between sixty and seventy \*Whitethroats at 10 P.M.; twelve killed, the others remaining till daylight. (E., 2; B. M.)

*Eddystone L.H.*—Hundreds of Wheatears, and many Warblers and "Flycatcher species" from 9 P.M. to 12 P.M. "Scores against the glazing; none caught." (S.E., 1; c. M.)

## APRIL 29TH.

*Nash (E.) L.H.*—Four Cuckoos passed west from 8.30 to 9 A.M. (S.S.W., 2; B. C. v.)

*Eddystone L.H.*—A large number of Wheatears from 2 A.M. to 4 A.M.; none caught; a great many killed and lost over. (E.N.E., 8; c. P. M.)

## MAY 10TH.

*Langness* L.H.—Mr Clyne, in a letter, stated that on the 10th there were great numbers of \*Whitethroats, \*Sedge Warblers, and \*Willow Wrens on the lantern.

## MAY 11TH.

*Langness* L.H.—Two Warblers found dead on lantern; killed between 12 P.M. and daylight. Large flock of Swifts flying north at 8.30 A.M. (Light E.; haze and showers.)

## MAY 16TH.

*Langness* L.H.—Several Whimbrels at 10 A.M. (Fresh N.E.; clear.)

## AUTUMN.

## WEATHER FOR WEEK, AUGUST 1ST TO 7TH.

Weather—changeable; the pressure distribution being cyclonic and complex at first (causing north-westerly and south-westerly winds), then anticyclonic, and afterwards cyclonic, but of a simple type (causing southerly to westerly breezes). A small but well-formed anticyclone advanced over us from the westward during the 3d and 4th, but owing to a fall in the barometer in the west it moved southwards.—(From Weekly Summary in “Daily Weather Report” for August 9th, 1886.)

## AUGUST 1ST.

*Nash* (E.) L.H.—Two Cuckoos at 11.20 P.M.; one killed and one caught alive. Four Swifts killed between 11 and 12 P.M. Eight Willow Warblers from 11 to 12 P.M.; three killed. (N.W., 3; B. C.)

## AUGUST 3D.

*Flatholm* L.H.—Six Chiff-Chaffs at midnight; one killed. (S.S.W., 3; B. C. M.)

*Eddystone* L.H.—Large numbers of small birds flying about the lantern between 10 P.M. and 3 A.M. One Sand-Martin and one Warbler caught. (N.E., 1; B. C. V.)

*Start Point* L.H.—\*One Ring Ouzel and four small birds—\*Willow Wren, \*Whitethroat, \*Wheatear, and \*Tree Pipit—caught at 3 A.M. One Wren and a quantity of moths against the light at 11.15 P.M. Mr Jones says: “The small birds and moths

against the light in still weather, is most times a sign of thick, misty weather to follow." One Ring Ouzel and three small birds caught at 11.30 P.M. (N., 2; o. v.)

## AUGUST 4TH.

*Langness* L.H.—Large number of Dunlin at 5 A.M. (N.W., light.) Several Swallows at 3 P.M. (S.W., light; clear.)

*Flatholm* L.H.—Small flock of Swifts at sunset. (W., 3; B. C.)

*Start Point* L.H.—A flock of about four dozen small birds at 3 A.M.; eleven captured, including \*Yellow Wagtail (young), \*Wheatear, and \*Tree Pipit. (N., 4; o. c.)

## AUGUST 9TH.

*Flatholm* L.H.—Large flock of Swifts at sunset. (W., 2; c.)

*Eddystone* L.H.—Several small birds, Wheatears, and Warblers, between midnight and 3 A.M. One "Rock Plover" killed at 2 A.M. Large number of small birds, Wheatears, and Warblers, from 11 P.M. till 3 A.M.; two Sand Martins and one Rock Plover caught. (S. by W., 2; o. M. R.)

## AUGUST 10TH.

*Langness* L.H.—Two Whimbrels at 8 A.M.

*Skerries Rock* L.H.—A few Flycatchers from 8 P.M. to 11 P.M.; two killed.

*Carnarvon Bay* L.V.—Flock of Swallows going S.E. at 1 P.M.

*Cardigan Bay* L.V.—Fourteen Swifts passing to the S.S.W. at 8 P.M.

## AUGUST 22D.

*Nash (E.)* L.H.—About ninety \*Sedge Warblers round the light at 10.30 P.M.; fourteen killed. (E., 1; B. C. M.) About two hundred \*Whitethroats and fifty \*Wheatears from 9 to 10.30 P.M.; eleven Whitethroats and four Wheatears killed.

*Burnham* L.H.—One \*Sedge Warbler killed at 3 A.M.

*Eddystone* L.H.—Two Curlews seen at 1 P.M. flying E. (S., 1; B. C. M.) Mr Ainger says that these birds are seldom seen at Eddystone.

## AUGUST 23D.

*Nash (E.)* L.H.—Twenty to thirty Wheatears at 11 P.M.; three killed. (S.E., 1; C. M.)

*Eddystone* L.H.—Several Wheatears and Warblers from 9 P.M. to 10.30 P.M.; five caught. (S.W., 1; C. M.)

## AUGUST 27TH.

*Selker* L.V.—Blackbirds, Starlings, and Titlarks flying round lantern all night; disappeared at daybreak. (S.S.W., 3; O. M. B.)

*Carnarvon Bay* L.V.—Three Stonechats killed at 5 A.M. (S.W., 4; fog.)

*Eddystone* L.H.—Flocks of Oyster-Catchers all night; nine caught. Several Wheatears and Warblers all night striking lantern; three Warblers killed. (S.E. by S., 1; B. C. M.)

*Start Point* L.H.—One Blackbird and one \*Spotted Flycatcher caught at 11 P.M. (W.S.W., 2; C. G.)

## WEATHER FOR THE WEEK, AUGUST 29TH TO SEPTEMBER 4TH.

The weather during the week was of two very distinct types. In the first of these a large anticyclone lay over Germany, France, and the southern half of England; and while in all these countries bright, dry, and very warm weather was being experienced, some of the maxima in England being as high as 87°, that over the western and northern parts of the kingdom and west of Norway was cyclonic, showery, and cool, with strong southerly and south-westerly winds. Very little change occurred until September 1st, when the anticyclone in the south began to spread west to Ireland, causing the wind to veer and lull, and making the air somewhat cooler and drier. On the evening of this day, however, a separate anticyclone was formed in the west, so that the wind veered to the northwards over England and the Bay of Biscay, while it was southerly and easterly in many other places. The conflict of air-currents brought about by these conditions soon produced thunderstorms and heavy rains over France. The change of temperature in England, owing to the northerly winds, rain, and heavy clouds, was very large—London being 26° colder at 2 P.M. on the 2d than on the previous day at the same hour. The shallow continental disturbances now moved northwards to our Islands, and the week closed with thunderstorms of great severity, prevailing in nearly all parts of France and the British Islands.—(From Weekly Summary, "Daily Weather Report," September 5th, 1886.)

## SEPTEMBER 1ST.

*South Bishop* L.H.—Several Wheatears killed, by striking lantern, at 1 A.M. (W.N.W., 1; O. M.)

*Burnham* L.H.—One Sedge Warbler struck at 3 A.M. (E.S.E., 1; fog.)

*Longships* L.H.—A great many birds from midnight to daylight; three struck, one killed. (S. to N., 3; drizzle and fog.)

*Wolf Rock* L.H.—Several Wheatears striking lantern at 11 P.M. (N.E. by N., 3; C. R. V.)

*Bishop Rock* L.H.—About fifty Wheatears, one Starling, and a Blackbird from 12 P.M. to 3 A.M.; four or five came to glass, but none killed. (N.N.E., 4; overcast.)

#### SEPTEMBER 2D.

*Langness* L.H.—One Wheatear and one Willow Warbler on lantern at 2 A.M. (Light S.W.; clear.) Five Wagtails at 9.30 A.M.

*Skerries Rock* L.H.—Flycatchers and Wheatears flying round lantern at midnight. (N.E., 2; fine, clear.)

*Eddystone* L.H.—Hundreds of Wheatears from 9 P.M. to 4 A.M. (3d); none caught. (N.E. by E., 3; B. C. V.)

*Plymouth Breakwater* L.H.—Two Flycatchers struck and killed at 9.30 P.M. (N.W., 5; O. R. M.)

#### SEPTEMBER 3D.<sup>1</sup>

*Langness* L.H.—A few Warblers on lantern from 1 to 4 A.M. A few House Martins at 9.30 A.M. A great many Wheatears all day. (Light N.E.; haze.)

*Chickens Rock* L.H.—Number of Stonechats (?Wheatears) flying round light all night.

*River Dee* L.V.—Scores of birds about the light from midnight till 4 A.M. One young "Sand-Lark," one \*Whitethroat, and one \*Moorhen killed; one Gull caught alive. (E.S.E., 2; fog.)

*Smalls* L.H.—Quail in the morning; Kestrel seen on rock in the evening. (E.N.E., 1; O. M.)

*Nash (E.)* L.H.—Four \*Nightjars at 2.10 A.M., one killed; fifteen to twenty \*Common Buntings from 2.15 to 3 A.M., eight killed; fifty to sixty \*Common Whitethroats from 2.15 to 3 A.M., twenty-four killed; twenty to thirty \*Willow Wrens from 2.20 to 3.20 A.M., seventeen killed; six young \*Cuckoos at 3 A.M., two killed; fourteen House Sparrows and one Robin killed at 3 A.M.; thirty to forty Wheatears at 3.10 A.M., two killed; three Blackbirds from 3 to 3.15 A.M., one killed. Mr H. Nicholas says that on the 3d "there was an enormous arrival of small birds, the greatest number ever seen here at any one time."

*Longships* L.H.—Several birds from 9.30 P.M. to midnight; three struck; one Lark killed. (S.E., 3; misty and rain.)

*Bishop Rock* L.H.—About one hundred Wheatears, two Ringed

<sup>1</sup> For meteorological conditions, see p. 87.



Dotterels, six or seven Curlews, and one Manx Shearwater from 11 P.M. to daylight; about twenty struck glass. Three Wheatears and one Manx Shearwater killed. (E.N.E., 2; overcast, misty.)

*Eddystone* L.H.—Hundreds of Wheatears and Larks from 10 P.M. till 3.30 A.M.; none caught. One Blackbird and one Ring Ouzel seen.

#### SEPTEMBER 4TH.<sup>1</sup>

*Chickens Rock* L.H.—Numbers of Stonechats and a few Curlews flying round the light all night.

*River Dee* L.V.—About three dozen \*Wheatears round the light all the night of the 3d and morning of 4th; several killed, also one young Sandpiper killed.

*Skerries Rock* L.H.—About two dozen Lapwings and Curlews and a few Larks flying round lantern from 9 P.M. to 10.30 P.M. (S., 3; thunder and lightning.)

*South Bishop* L.H.—A great many Wheatears and several Wrens striking lantern windows from 12 P.M. to 3 A.M.; several killed, and a great many with broken wings. Several Blackbirds and Larks at 3 A.M. A company of Swallows at 11 A.M., flying E. Mr Frost states, "the first we have seen for some time." About half a dozen Stormy Petrels at midnight. (E., 4; C. R. M.)

*Smalls* L.H.—Numbers of Blackbirds, Starlings, Wheatears, and Swifts from 3 A.M. till daylight; many striking, several killed. (S.S.E., 2; O. R. M.)

*Longships* L.H.—Several Larks and other birds unknown from 11 P.M. to 2 A.M.; two struck; a \*Rock Pipit killed. (S.E., 3; rain.)

*Wolf Rock* L.H.—Six Wheatears striking lantern at 11 P.M. (S., 3; C. R. V.)

*Eddystone* L.H.—Hundreds of Wheatears all night; thirty killed. (E.S.E., 3; C. P. V.)

*Plymouth Breakwater* L.H.—One Plover caught at 2.25 A.M. (E.S.E., 3; O. D. M.)

*Start Point* L.H.—A flock of about fifty small birds from 9 P.M. to midnight; two captured, a Wheatear and a "White-Breast." (E.S.E., 2; C. G. P.)

<sup>1</sup> For meteorological conditions, see p. 87.

## SEPTEMBER 5TH.

*Langness* L.H.—Two or three Goldcrests, several Swallows, and a large number of Pipits at 9 A.M. (Light E.; haze.)

*Selker* L.V.—Larks all night; one struck and killed. (S.S.E., 4; C. M. P.)

*Burnham* L.H.—One Sedge Warbler killed at 3 A.M. (S.W., 2; misty.)

## WEATHER FOR WEEK, 19TH TO 25TH SEPTEMBER.

During the 21st the existing depression filled up over Brittany, and with its dispersal the high-pressure system in the north spread down our west coasts, while the wind moderated and backed to N. and N.W. generally. The shift of winds was accompanied by a decided fall of temperature, and on the 23d and 24th the maximum readings over our Islands were below 60° in almost all places. On the morning of the 25th the anticyclonic system had reached the west of France; the winds over our Islands now backed to S.W. and S., the temperature rising.—(From Weekly Summary, "Daily Weather Report," September 27th, 1886.)

## SEPTEMBER 20TH.

*Eddystone* L.H.—Hundreds of Wheatears all night; nine caught. (E., 5; B. V.)

## SEPTEMBER 21ST.

*Langness* L.H.—Large numbers of Swallows and a flock of Grey Linnets at 9 A.M.

*Cardigan Bay* L.V.—Twenty-four Swallows at 9 A.M. passing S. by W.

*Helwick* L.V.—About a dozen Swallows at 11 A.M. flying E.

*Sevenstones* L.V.—Three Swallows at 10 A.M. flying round the ship.

*Eddystone* L.H.—One Woodcock killed at 7.30 P.M., but lost over. (E.N.E., 9; O. Q. R.)

## SEPTEMBER 23D.

*Langness* L.H.—A few Wheatears at 5 P.M. (Light E.; clear.)

*Cardigan Bay* L.V.—About twenty small birds, "Flycatcher species," passed to west at 8 A.M. (E.N.E., 2; B. C. V.)

*Smalls* L.H.—A great many striking during the night; several killed, including \*Stonechat, \*Whitethroat, \*Willow Wren, \*Chiff-Chaff, and \*Sedge Warbler. Two female Blackbirds also killed. (N.E., 4; C. V.)

*Helwick* L.V.—“Some dozens of Willow Wrens and White-throats were flying around the light all night, some falling dead on deck, and dozens overboard.”

*Flatholm* L.H.—Large flocks of Swifts and Starlings during the day. (W., 3; C. M.)

*Eddystone* L.H.—A great many small birds, Larks, Wheatears, and Warblers, from 9 P.M. to 4 A.M. One male Ring Ouzel caught. (E.N.E., 4; C. M.)

#### SEPTEMBER 24TH.

*Chickens Rock* L.H.—Four Goldcrests and two Thrushes struck at 10.30 P.M. (Light breeze, S.W.; haze.)

*South Stack* L.H.—One Robin caught on lantern at 11.45 P.M. (W.S.W., 3; C. V.)

*Flatholm* L.H.—Large flocks of Swallows, Wagtails, and other small birds all day, passing S.W.

*Bull Point* L.H.—A number of small birds, “of two species” [\*Whitethroat and \*Willow Wren], flying about the light at 4 A.M.; four killed. (S., 3; O. M.)

*Bishop Rock* L.H.—Several Wheatears and “Furze-chats” came to glass at 1 A.M. (N.E., 3; misty.)

*Eddystone* L.H.—Great many Wheatears and Warblers, and one Sand Martin, from 8 P.M. to 4 A.M. Two Ring Ouzels, females, caught. (E. by S., 2; C. G. V.)

*Start Point* L.H.—One small bird, and one “Whitebreast,” fluttering about the light at 9.30 P.M. (Calm; C. G. V.)

#### WEATHER FOR THE WEEK, 3D TO 9TH OCTOBER.

Up to the night of the 2d the conditions had been cyclonic and unsettled. At the beginning of the week an anticyclone lay over the North Sea, while depressions of considerable size, but of no great depth, moved northwards along our extreme western coasts. South-easterly or southerly winds, therefore, prevailed generally; in the west they were strong in force, and the weather cloudy; but in the east and south-east light breezes and fine weather were reported. On the 4th the thermometer exceeded 75° in many parts of England. By the 5th the anticyclone had moved northwards to Scandinavia, and as it did so a second high pressure system appeared over Spain. These conditions were accompanied, as usual, by the formation of shallow depressions in the intervening regions, one of which lay over the east of England on the morning of the 6th, subsequently moving northwards to Scotland; and a second, which advanced over our south-west coasts on the 7th, and ultimately filled up over the north-east of France. On the 9th a larger and much deeper depression had appeared in the west, and

in the course of the day it moved northwards, occasioning south-easterly or southerly gales at many of our western and some of our northern stations.—(From Weekly Summary, “Daily Weather Report,” October 11, 1886.)

## OCTOBER 3D.

*Langness* L.H.—A few Thrushes and Blackbirds on lantern at 2 A.M. (Fresh E.; haze.)

*Chickens Rock* L.H.—Large flocks of Thrushes and Blackbirds, a few Larks, and one Ring Ouzel, from 9 P.M. till daylight; large numbers killed. (S.E., fresh breeze; haze.)

*Selker* L.V.—A few Thrushes, Blackbirds, and Larks flying about the lights throughout the night; six killed.

*Menai* L.H.—A Thrush caught alive at 2 A.M. A number of Linnets caught at 10 A.M.; old birds.

*South Stack* L.H.—A Blackbird caught on lantern at 11.50 P.M.

*Wolf Rock* L.H.—One “Turtle Dove” at 11 A.M. (S., 5; B. C. V.)

*Eddystone* L.H.—Several small birds (Wheatears and Warblers), a Blackbird, and a Ring Ouzel, from 7 P.M. till 3 A.M.; several killed. (E. by N., 4; C. M.)

## OCTOBER 4TH.

*Langness* L.H.—A few Common Thrushes striking lantern from 9 to 10 P.M.

*Chickens Rock* L.H.—Flocks of Thrushes, mixed with Blackbirds, Larks, Starlings, and other small birds, from 9 P.M. till daylight; a few killed, but principally flying in the rays of the light. (S.E. strong breeze; haze.)

*River Dee* L.V.—A few small birds about the lantern during the night, species not known; one “Flycatcher” found dead on deck. (S.S.E., 2; O. M.)

*Skerries Rock* L.H.—Blackbirds, Thrushes, and Larks flying round lantern from 12 (midnight) to 4 A.M. (S.E., 4; cloudy, misty.)

*South Stack* L.H.—A few Thrushes, a Goldcrest, a Lark, and a Starling caught at lantern between 12 P.M. and 4 A.M. (E.S.E., 4; C. M.)

*Cardigan Bay* L.V.—Large flock of Meadow Pipits flying S.W. at 7 P.M. (E.S.E., 4; G. M.)

*Helwick* L.V.—“Some dozens” of Wheatears around the light at 2 A.M.; many killed and falling overboard.

*Flatholm* L.H.—Small flocks of House Martins all day, going south.

*Wolf Rock* L.H.—Three Sea Swallows at 3 P.M. (S.E., 5; B. C. V.)

*Eddystone* L.H.—Two Larks, one Thrush, and one Starling caught from 9 till 12 P.M. (S.E., 7; C. G. L. V.)

## OCTOBER 5TH.

*Langness* L.H.—Large flock of Grey Linnets, a few Sky Larks, and about twenty Swallows at 9.30 A.M. A great many Thrushes flying about lantern from 7 to 8 P.M. One Missel Thrush caught. (E., fresh; haze.)

*Chickens Rock* L.H.—A few Thrushes, Starlings, Blackbirds, Stonechats, and Larks flying round the light all night. Three Goldfinches sitting on lantern at 4 A.M. (Variable light breeze; haze.)

*Bahama Bank* L.V.—Several Thrushes, Blackbirds, and a great many Larks flying round the light at 10 P.M. Four Thrushes killed, and three caught alive; six Larks killed. (S.S.E.; misty, rain.)

*Selker* L.V.—A great many Blackbirds, Thrushes, and Larks flying round the light. Four Thrushes killed from 8 to 12 P.M. (S., 4; M.)

*St Ann's High* L.H.—Large number of small “Flycatchers” flying against the lantern during the night; fifteen killed.

*Bull Point* L.H.—A Lark struck glass at 3 A.M., but not killed. (S.S.E., 3; B. C. M.)

*Wolf Rock* L.H.—A Kestrel Hawk remained from 9 A.M. to sunset, and then flew N.E.

*Eddystone* L.H.—Two Quails (male and female) caught at 2 A.M. (S., 3; C. R. M.)

*Portland Low* L.H.—Three or four Linnets flying about from 1 to 3 A.M. (S.E., 2; C. V.)

## OCTOBER 7TH.

*Langness* L.H.—A good many Swallows at 9 A.M.

*Skerries* L.H.—Blackbirds, Thrushes, Larks, and “Flycatchers” at 3 A.M.; two or three dozen struck lantern. (S.E., 2; misty.)

*South Stack* L.H.—Blackbirds, Thrushes, Larks, and Wrens at 4 P.M.; several struck lantern; a few killed. (S.E., 2; C.M.R.)

*Cardigan Bay* L.V.—A flock of Martins at 9 A.M., passing S.S.W.

*Helwick* L.V.—A large number of "Pinks" (*Fringilla cælebs*) passing to south at 7 A.M.

*Wolf Rock* L.H.—Four Sea Swallows (*Sterna*) appeared at 2 P.M., and left for east at sunset.

#### OCTOBER 8TH.

*Langness* L.H.—A Hedge Accentor and a Wheatear at 4 P.M.

*Selker* L.V.—A great many Thrushes from 2 to 5 A.M.; two killed. (S.S.E., 3; misty.)

*Skerries* L.H.—Thrushes, Blackbirds, Wheatears, and Flycatchers at 4 A.M.; some killed. (Calm, misty.)

*Cardigan Bay* L.V.—Sixteen Skylarks and two Chaffinches at 10 A.M.

*Portland Low* L.H.—Twenty Swallows at 10 A.M.

#### WEATHER FOR WEEK, 18TH TO 23D OCTOBER.

The weather during this period has been much quieter than last week, but conditions have been by no means settled, and several depressions—mostly shallow—have appeared in the neighbourhood of the British Isles. On the 17th the deep disturbance which had crossed our Islands reached Holland, and was apparently filling up. In the course of the day, however, a subsidiary disturbance, more southwards, down our W. coasts. During the 18th and 19th the depression over Holland and the subsidiary disturbance (which had then reached the Bay of Biscay) dispersed gradually, and moderating north-easterly winds were reported over the greater part of the United Kingdom. A depression was found in the English Channel on the morning of the 20th; this, in the course of the ensuing 24 hours, moved northwards to the North Sea, where it eventually dispersed. Its progress was attended by very heavy thunderstorms over the midland and eastern counties of England; and on the 21st the phenomena were reproduced over the northern districts. At the close of the week the weather over our islands was under the influence partly of a well-marked depression over the Bay of Biscay and partly of an anticyclone extending over Scandinavia. Easterly winds, therefore, prevailed generally; in the N. they were light in force and the weather fair, but in the extreme S. they blew freshly with occasional rain.

#### OCTOBER 19TH.

*Langness* L.H.—One Redwing at 9 P.M. A large flock of Wild Duck at 5.30 P.M. (N.E.; fresh, showers.)

*Selker* L.V.—A dozen Crows going S.E. at 10 A.M.

*Skerries* L.H.—Blackbirds and Thrushes around the lantern at 9 P.M.

*South Stack* L.H.—Blackbirds, Thrushes, Larks, and one Goldcrest from 9 to 10 P.M.; a few caught. (E.N.E., 7; C. M. R.)

*Scarweather* L.V.—Four Chaffinches at 7.30 A.M.

*Breaksea* L.V.—Blackbirds, Thrushes, Redwings, and Fieldfares around the lantern from 8 P.M. to midnight. One Wren killed. (E.N.E., 3; O. M. L.)

*Godrevy* L.V.—Several Redwings at 7 P.M.; a few killed.

*Wolf Rock* L.H.—Four Terns at 4 P.M.

*Eddystone* L.H.—Redwings and Starlings from 7 to 10 P.M.; many caught and more lost over. (N.E., 2; C. M. and C. M. D.)

*Start Point* L.H.—Many Thrushes, also Ring Ouzels and Spotted Flycatchers; fifty Thrushes, two Ring Ouzels, and two Flycatchers captured.

#### OCTOBER 20TH.

*Langness* L.H.—Twelve Missel Thrushes flying W. at 7.30 A.M. A large flock of Lapwings appeared at 3 P.M. A Goldcrest on lantern from 9 P.M. to 3 A.M.

*Chickens Rock* L.H.—Large numbers of birds were observed flying round the lantern, and a Lark and a Goldfinch perched.

*Selker* L.V.—Blackbirds, Thrushes, and Larks in numbers at lantern all night and on early morning of 21st; many struck and lost over.

*Morecambe Bay* L.V.—One Linnet, three Starlings, and three Larks on deck at 10.40 A.M.

*Dee* L.V.—Flocks of Titlarks all forenoon; one Wren on deck at 8.15 A.M.

*Menai* L.H.—Flocks of Linnets, Starlings, and Crows on the shore at 7 A.M.

*Skerries* L.H.—Three dozen Starlings and Larks killed at 10 P.M.

*Holyhead Breakwater* L.H.—A Starling and Goldcrest captured at 9 P.M.

*South Stack* L.H.—A great number of Blackbirds, Thrushes, Starlings, and Larks; also one Goldcrest, one Robin, and one Chaffinch flying around the lantern from 8 P.M. to midnight.

*Carnarvon Bay* L.V.—Starlings, Finches, and Larks at sunrise; many caught on deck. (N.E., 3; C. M.)

*Bardsey* L.H.—“ Eighty Blackbirds and about fifty Thrushes killed at lantern.”

*Cardigan Bay* L.V.—One Rook and two Chaffinches at 11.30 A.M.

*Smalls* L.H.—One Corncrake killed at lantern.

*Scarweather* L.V.—Six Larks, three dozen Sparrows, and three dozen Linnets passed N.E. between 8.30 and 10.30 A.M.

*Nash* L.H.—Two Skylarks killed at 10 P.M., and eleven Starlings killed between 10 and 10.30 P.M.

#### OCTOBER 21ST.

*Langness* L.H.—A Woodlark at 1 A.M. on lantern. Five Swallows at 9.30 A.M. flying S.W.

*Selker* L.V.—Blackbirds, Thrushes, Larks, and other birds, unknown, around the lantern until daylight this morning; many killed.

*Morecambe Bay* L.V.—Six Blackbirds, eleven “ Titlarks,” and five Skylarks flying S. during the forenoon.

*Carnarvon Bay* L.V.—Blackbirds, Thrushes, Starlings, and Snipe. One Blackbird, six Thrushes, and one Snipe found dead at 5 A.M.

*Helwick* L.V.—Six to eight dozen Larks passing S. at 11 A.M.

*Nash* L.H.—Two Song Thrushes killed at 9.30 P.M.; four Redwings killed between 9 and 11 P.M. (N., 4; C. M.)

*Start Point* L.H.—One “ Titlark” at 8.30 P.M.

#### OCTOBER 23D.

*Helwick* L.V.—Two Thrushes and a female Blackbird killed at 3 A.M.

*Nash* L.H.—A Woodcock killed at 2 A.M.

*Godrevy* L.H.—A great number of Redwings, Thrushes, and Starlings all night; some of each killed. (E., 6; G. M. P.)

*Longships* L.H.—Scores of Starlings and Thrushes all night; a great number striking.

#### WEATHER FOR WEEK, 24TH TO 31ST OCTOBER.

Conditions not pronounced. During earlier portion of week the weather dull, and at times wet over the southern and south-western parts of the United Kingdom, fine but rather foggy elsewhere; later on the rain spread northwards over England and Ireland, and the wind veered from E. to S.E. and S., with a rise of temperature and damp, close air. Pressure highest over Sweden and the Baltic, and, as a rule, lowest over the Bay of Biscay and off our south-western coasts,



the gradients for easterly winds being steepest on the 25th. Two depressions appeared, the second of which, apparently larger but not a deep system, approached the Irish Coasts on the 30th, and, moving northwards, caused freshening southerly winds and rain in the west; while light southerly breezes were felt at the eastern station, with very mild but dull and damp weather.—(From Weekly Summary, "Daily Weather Report," November 2d, 1886.)

## OCTOBER 24TH.

*Carnarvon Bay* L.V.—Ten Greenfinches and Chaffinches on deck all day; four caught.

*Cardigan Bay* L.V.—Several flocks of Starlings and Skylarks going S.W. during the day.

*Nash* L.H.—A few Blackbirds and Redwings between 4.30 and 5 A.M.; a few killed.

*Godrevy* L.H.—Great numbers of Redwings, Thrushes, Blackbirds, and Starlings all night; several killed.

*Longships* L.H.—Scores of Thrushes and Starlings all night; a good many captured.

*Wolf Rock* L.H.—Twenty "Grey Birds" flying around the lantern at 10 P.M.

*Bishop Rock* L.H.—Several Blackbirds, Thrushes, Redwings, and Fieldfares from 11 P.M. to daylight; six killed.

*Eddystone* L.H.—Thrushes, Redwings, Starlings, and Larks from midnight to 3 A.M.; fifty to sixty striking.

## OCTOBER 25TH.

*Helwick* L.V.—A Blackbird and a Lark killed at 2 A.M.

*Nash* L.H.—Large flocks of Lapwings passing S.E. from 7 to 10 A.M. Flock of Redwings passing S. at 10 A.M. Six Song Thrushes killed at 8.20 P.M. Ten Blackbirds killed between 8 and 10 P.M.

*Godrevy* L.H.—A great number of Redwings, Thrushes, and Starlings all night; several killed.

*Longships* L.H.—A few Puffins going S. during the morning. A good many Starlings, Thrushes, and Larks all night; several killed.

*Wolf Rock* L.H.—Twenty-four "Grey Birds" about lantern at 12 P.M.

*Bishop Rock* L.H.—Several hundreds of Blackbirds, Thrushes, Redwings, Fieldfares, Ring Ouzels, and "Copperfinches" from 9 P.M. to daylight (26th). Sixty Redwings, five Fieldfares, three

Ring Ouzels, and one "Copperfinch" (? *Fringilla montifringilla*) killed. Mr Troth remarks: "This is the largest migration that has been seen at the Bishop Rock for five years."

*Eddystone* L.H.—Thrushes, Redwings, and Starlings from 11 P.M. (24th) to 5 A.M.; a great number striking and falling over. Missel Thrushes, Blackbirds, Thrushes, Redwings, Fieldfares, Ring Ouzels, Larks, Starlings, Finches, and Warblers from 6 P.M. to 5 A.M. (26th); between one and two hundred struck and lost over; twenty-nine caught. All the birds struck the windward side of lantern during heavy rain.

*Portland Low* L.H.—Thrushes at 4 A.M. Sixty Chaffinches at 2 P.M.

*Shambles* L.V.—A number of Larks hovering round the lantern at 8 P.M.; a great number striking and falling over.

#### OCTOBER 26TH.

*Cardigan Bay* L.V.—Two Chaffinches on board, and several flying around all night.

*Nash* L.H.—A large flock of Lapwings flying around the lantern at 1 A.M.; one killed. Woodcocks at 3 A.M.; two killed. Goldcrests at 3.40 A.M.; two killed. Fieldfares at 4.10 A.M.; four killed. Skylarks at 5 A.M.; four killed. Four Snipe at 9 P.M., passing S.E. Missel Thrushes at 9.50 P.M.; one killed. Bramblings at 10 P.M.; one killed. Snipe at 10.30 P.M.; four killed. Mr Nicholas remarks: "Large numbers of birds flying around the lantern all the morning, but at sunrise a good many were passing S.E. A Green Woodpecker was seen with the others at mid-day."

*Bull Point* L.H.—A Blackbird killed at 2 A.M.

*Wolf Rock* L.H.—A Blackbird killed at 5 A.M.

*Eddystone* L.H.—Blackbirds, Fieldfares, Thrushes, and Redwings from 6 P.M. to 4 A.M. (27th); about sixty killed. (For early morning observations at this station see 25th October.)

*Portland Low* L.H.—One Snipe killed at 7 P.M.

#### OCTOBER 27TH.

*Langness* L.H.—Four birds struck between 7.30 and 9 P.M. A Starling and a Common Thrush killed.

*Bahama Bank* L.V.—Several Thrushes from 10 P.M. to 4 A.M. (28th); one killed.

*Skerries Rock* L.H.—Blackbirds, Thrushes, Larks, and Starlings from 8 P.M. to midnight; several killed.

*Nash* L.H.—A Wren killed at 2 A.M.; a Robin and Black Redstart killed at 2.10 A.M. A Red-winged Starling<sup>1</sup> (*Agelæus phæniceus*) captured at 3 A.M. Redwings at 10.40 P.M.; a few killed.

*Longships* L.H.—A Goldcrest at lantern at 3.30 A.M.

*Eddystone* L.H.—(See yesterday for information on this morning's observations.)

## OCTOBER 28TH.

*Langness* L.H.—One Blackbird at lantern at 9 P.M.

*Morecambe Bay* L.V.—Three "Dish Washers" (*Motacilla*) flying S. by W. at 10.30 A.M.

*South Stack* L.H.—Several Blackbirds and Finches flying round the lantern all night.

*Carnarvon Bay* L.V.—Finches and Linnets all day; "two Brown Linnets captured."

*Helwick* L.V.—A Thrush killed at 1.30 A.M.

*Nash* L.H.—A flock of from 80 to 100 Skylarks passed S. at 9 A.M.

*Breaksea* L.V.—Starlings, Larks, and House Sparrows from 7 to 10 P.M., flying round the lantern.

*Flatholm* L.H.—Five Thrushes, four Blackbirds, one Lark, and six Starlings killed between 1 and 3 A.M.

*Longships* L.H.—Puffins and Guillemots moving south all the morning.

*Bishop Rock* L.H.—A few birds at 3 A.M.

*Eddystone* L.H.—Blackbirds, Thrushes, Redwings, and Starlings from midnight to 3.30 A.M.; many struck and lost over.

*Portland Low* L.H.—One Fieldfare killed at 2 A.M.

## OCTOBER 30TH.

*Selker* L.V.—Thrushes and Larks all night; eight Thrushes killed.

*Skerries* L.H.—Fourteen dozen Blackbirds, Thrushes, Larks, and Starlings killed between midnight and 6 A.M.; also a few Chaffinches seen, but none killed. (Misty, rain.)

<sup>1</sup> Refer to the information given under this species in the next section of the Report for full particulars of this interesting occurrence.

*Cardigan Bay* L.V.—A good many birds at lantern all night.

*Helwick* L.V.—Two male Blackbirds and a Thrush killed at 11.30 P.M.

*Bull Point* L.H.—A Blackbird struck at 5 A.M.

*Longships* L.H.—Several Thrushes and Starlings all night; a few killed or captured. Puffins and Guillemots going south in the morning.

*Eddystone* L.H.—Numbers of Blackbirds, Thrushes, Redwings, Starlings, Larks, Finches, and "Flycatchers" from 9 P.M. to 5 A.M. (31st); a few striking, and two Blackbirds (females), two Thrushes, five Redwings, six Larks, and twenty-one Starlings captured.

*Start Point* L.H.—Blackbirds, Starlings, and a few small birds at lantern all night.

#### OCTOBER 31ST.

*Langness* L.H.—Three Blackbirds (one male and two females) on lantern from 3 to 5 A.M.

*Dee* L.V.—Hundreds of birds—\*Thrush, \*Missel Thrush, \*Blackbird, and \*Skylarks killed.

*Skerries* L.H.—A few Thrushes at midnight.

*Carnarvon Bay* L.V.—Blackbirds and Larks passing to S.W. in forenoon.

*Bardsey* L.H.—Six Blackbirds, six Thrushes, and one Jack Snipe killed at lantern.

*Cardigan Bay* L.V.—A male Blackbird struck lantern.

*Bull Point* L.H.—Six Blackbirds at 5 A.M.

*Eddystone* L.H.—Numbers of Blackbirds, Thrushes, Redwings, Starlings, Larks, Finches, and Flycatchers, from 9 P.M. (30th) to 5 A.M.; a few striking; and two Blackbirds (females), two Thrushes, five Redwings, six Larks, and twenty-one Starlings captured.

*Start Point* L.H.—A few Larks at 3 A.M.

#### WEATHER FOR WEEK, 21ST TO 27TH NOVEMBER.

During the week the distribution of pressure, temperature, and winds and weather, were all continuously anticyclonic. The system was formed over the British Islands on Sunday, the 21st, in a ridge which extended northwards from a small anticyclone, which at that time lay over France. On the 24th the system covered the North Sea, England, and the north-western half of France. For a day or two more the anticyclone grew higher, temperature became very low over

the inland counties as the anticyclone increased, so that early on the 24th minima were recorded as low as 27°. The centre of the system now moved westward, and the temperature rose decidedly. On the 25th the anticyclone moved to the westward of Ireland, and had afterwards decreased in intensity. The winds during its prevalence were light to moderate at most of the coast stations, calm inland; but the most striking feature was the continued prevalence of dense fogs. At the close of the week the system was dispersing, and mild south-westerly winds were setting in on our western and north-western coasts, with rain, increasing to strong south-westerly winds, while large areas of low pressure skirted our north-western and northern coasts.—(From Weekly Summary in "Daily Weather Report," November 29, 1886.)

## NOVEMBER 21ST.

*Holyhead Breakwater* L.H.—A Thrush killed at 6 A.M.

*Nash* L.H.—Two Song Thrushes killed at 9 P.M.

*Breaksea* L.V.—A few Fieldfares from 8 to 11 P.M.

*Eddystone* L.H.—A Redwing and a Starling killed at 3 A.M. Twenty-one Stormy Petrels captured between 6 and 12 P.M. They came to the light in twos and threes, striking the lantern very gently.

## NOVEMBER 22D.

*Langness* L.H.—A great many Blackbirds and several Starlings at lantern from midnight to 4 A.M. A Snipe at 10 A.M.

*Selker* L.V.—Thrushes at 1 A.M.; one caught and one killed.

*River Dee* L.V.—Blackbirds, Thrushes, and Starlings; numbers killed.

*Carnarvon Bay* L.V.—Thrushes, Blackbirds, and Larks at 1 A.M.

*Cardigan Bay* L.V.—Several Larks, and other birds not known, flying around the lantern all night.

*Helwick* L.V.—Two Redwings killed at lantern.

*Nash* L.H.—A Woodcock passed to N.W. at 2 P.M.

*Eddystone* L.H.—Numbers of Fieldfares, Redwings, Thrushes, Blackbirds, \*Blackcaps, \*Skylarks, and Storm Petrels; several of each species captured, including one Reed Warbler and three Petrels, from 7 P.M. to 6 A.M. (23d).

*Start Point* L.H.—A Mistletoe Thrush killed at 3 A.M. A Leach's Petrel (*Procellaria leucorrhoea*) captured at 10 A.M., resting inside one of the ventilators.

## NOVEMBER 23D.

*Langness* L.H.—A Redwing on the lantern at 12.15 A.M.

*Bahama Bank* L.V.—About a score Blackbirds, six “Grey Birds,” and a dozen Starlings, flying round the lantern all night; a few killed.

*Carnarvon Bay* L.H.—Many birds around the lantern all night. A Missel Thrush killed and fell on deck; numbers of others falling overboard.

*Helwick* L.V.—Several Blackbirds, Larks, and Starlings flying about all night.

*Nash* L.H.—Six Skylarks and two Lapwings killed at 11.30 P.M.

*Breaksea* L.V.—A few Larks, Starlings, and Lapwings from 7 P.M. to 4 A.M. (24th).

*Eddystone* L.H.—Numbers of Fieldfares, Redwings, Thrushes, Blackbirds, Larks, Starlings, “Reed Warbler,” and Stormy Petrels from 7 P.M. (22d) to 6 A.M. Very few striking, but some of each caught, including one “Reed Warbler” and three Petrels.

#### NOVEMBER 24TH.

*Selker* L.V.—Thrushes, Blackbirds, and Larks all night.

*Carnarvon Bay* L.V.—A flock of Blackbirds going east at 1.20 P.M.

*Helwick* L.V.—Several Blackbirds, Larks, and Starlings all night.

*Nash* L.H.—Two Thrushes killed at 11 P.M.

*Breaksea* L.V.—A \*Knot killed at 5.50 P.M. A \*Dunlin killed at 11 P.M.

*Bishop Rock* L.H.—About 200 Blackbirds, Thrushes, and Fieldfares from 9 P.M. to daylight (25th); several killed.

*Eddystone* L.H.—Hundreds of birds flying about all night,—Fieldfares, Missel Thrushes, Song Thrushes, Blackbirds, Larks, Starlings, Lapwings, and Stormy Petrels; caught three Thrushes, four Starlings, three Larks, and eight Petrels.

#### NOVEMBER 25TH.

*Bishop Rock* L.H.—About two hundred Blackbirds, Thrushes, and Fieldfares from 9 P.M. (24th) to daylight; several killed. A Linnet and “Copperfinch” (? *Fringilla montifringilla*) left the lantern at daybreak.

*Eddystone* L.H.—Hundreds Mistletoe Thrushes, Thrushes,

Fieldfares, Blackbirds, Larks, Lapwings, and Stormy Petrels from 7 P.M. to 6 A.M. (26th); one Blackbird, two Thrushes, one Lark, one \*Goldcrest, and three Storm Petrels.

*Plymouth Breakwater* L.H.—A Stormy Petrel caught at lantern at 9.45 P.M.

*Start Point* L.H.—Blackbirds at 2 A.M.; one captured.

*Shambles* L.V.—A number of Starlings around the lantern at 2 A.M.

#### NOVEMBER 26TH.

*Selker* L.V.—Thrushes, Blackbirds, Lapwings, and Curlews flying round the lantern from 4 to 7 A.M.

*Carnarvon Bay* L.V.—A flock of Lapwings at 10 P.M.; one killed.

*Smalls* L.H.—Blackbirds, Fieldfares, Larks, and Starlings; a great number striking lantern.

*Helwick* L.V.—Several Redwings, Larks, and Starlings all night.

*Eddystone* L.H.—Hundreds of Lapwings, Fieldfares, Blackbirds, Thrushes, Missel Thrushes, Larks, and Stormy Petrels, from 7 P.M. (25th) to 6 A.M.; many caught. A few birds seen flying about from 9 P.M. to 3 A.M. (27th); the Storm Petrels striking.

*Plymouth Breakwater* L.H.—Two Linnets at 10 P.M.

#### NOVEMBER 27TH.

*Selker* L.V.—Blackbirds, Thrushes, Larks, Lapwings, and Curlews all night.

*Carnarvon Bay* L.H.—A flock of Lapwings at 2 A.M.

*Cardigan Bay* L.V.—Several Blackbirds, Thrushes, and Larks flying round the lantern all night.

*Helwick* L.V.—A few Blackbirds, Fieldfares, and Larks all night.

*Scarweather* L.V.—A Wild Goose going south at 9 A.M.

*Breaksea* L.V.—Larks and Snipe from midnight to 4 A.M.; a Snipe killed.

*Eddystone* L.H.—A few birds flying about from 9 P.M. (26th) to 3 A.M.; three Storm Petrels struck. A few Starlings, Thrushes, and Petrels from 9 to 12 P.M.; several of each species captured.

## SEPARATE NOTES ON EACH SPECIES.

This section aims at furnishing in an epitomised form information on the movements of the various species comprised in the Report. In addition, however, to the observations furnished by the various Lightkeepers—the more important of which form the Diary of observations—the following notes have been incorporated :—

Observations made in Cumberland, communicated by Messrs Macpherson and Duckworth.

Notes from the North-West Coast of Merioneth, by Mr G. H. Caton-Haigh.

Notes from Somerset, by Mr Arthur H. Macpherson.

Notes from Minehead, Somerset, by Mr E. G. Waddilove (per Rev. H. A. Macpherson).

Notes from North Devon, by Mr Oliver V. Aplin.

To the above-named ornithologists, and to Mr W. Cecil Scott, of Leeds, the writer begs to tender his best thanks for their valued co-operation.

Additional particulars and information on the Meteorological Conditions may, in most cases, be obtained by a reference to the Diary which precedes this section of the Report.

The species marked \* have been identified from wings sent.

*Turdus viscivorus* (L.), Missel Thrush.—SPRING: February 27th, Eddystone, many striking, one killed. April 9th, N.W. Merioneth, several small flocks. Observed in small numbers during the

AUTUMN: October 5th, Langness, one caught; 20th, Langness, twelve; 26th, Nash; 31st, \*Dee L.V.; November 23d, Carnarvon Bay L.V.; 24th, 25th, and 26th, Eddystone.

*Turdus musicus* (L.), Song Thrush.—An important vernal movement from March 24th to 29th, affecting the coast generally.

AUTUMN: First noted at Chickens Rock, September 24th, when two were killed at 10.30 P.M. Afterwards present at the movements of the latter half of October and late November. Eighty were killed at Bardsey Light on October 20th.

*Turdus iliacus* (L.), Redwing.—SPRING: March 14th, at Eddystone, along with Thrushes and Wheatears; 26th, Langness,



two killed; night of 27th and morning of 28th, Eddystone, numbers; 29th, Langness, one struck.

AUTUMN: September 28th, Carlisle; October 2d, Carlisle, and many on the 7th; 13th, Wolf Rock, several; in numbers on the 19th. After at all the principal movements of the late autumn (October 18th to 31st, and November 21st to 27th).

*Turdus pilaris* (L.), Fieldfare.—SPRING: First noted at Chickens Rock on March 25th, along with Thrushes; last seen on April 16th at Allonby, Cumb.

AUTUMN: First on October 2d at Allonby, Cumb.; then on 24th at Bishop Rock, and afterwards in numbers during the movements of October and November (22d-27th).

*Turdus merula* (L.), Blackbird.—Important Spring movements, along with other *Turdinæ* and Wheatears, on March 24th and 27th.

AUTUMN: August 27th at the lanterns of the Selker L.V. and Start L.H.; September 3d, Nash, three killed; Eddystone, one; September 4th, many. Great movements on October 3d to 8th, October 18th to 31st, and November 22d to 27th. Fifty were killed at Bardsey L.H. on October 20th.

*Turdus torquatus*, L., Ring Ouzel.—SPRING: April 5th, Eddystone, two caught at midnight; April 12th, N.W. Merioneth, a pair.

AUTUMN: \*Start, August 3d, one killed at 3 A.M.; September 3d, Eddystone; 23d and 24th, Eddystone, one caught; October 3d, at Chickens Rock and Eddystone; 19th, Start, two captured; 25th, at Eddystone and Bishop Rock.

*Saxicola œnanthe* (L.), Wheatear.—SPRING: March 24th, at Chickens Rock, South Stack, and Eddystone stations; 26th, St Bees; April 11th, Langness; 23d, at Eddystone in hundreds; 29th, at Eddystone.

AUTUMN: August 3d and 4th, \*Start Point; 9th, Eddystone, in numbers; 23d, Nash, in numbers; 28th, Start, one killed; September 2d, Eddystone, in numbers; 3d and 4th, a general movement along the entire coast line; 20th, Eddystone; October 3d, Eddystone; 4th, \*Helwick (dozens); 8th, Langness and Skerries.

*Pratincola rubetra* (L.), Whinchat.—SPRING: April 24th, N.W. Merioneth, first seen.

AUTUMN: \*Smalls, September 23d, one killed.

*Pratincola rubicola* (L.), Stonechat.—August 4th, \*Start, one killed.

*Ruticilla titys* (Scop.), Black Redstart.—October 29th, Nash, one killed; November 3d, Langness, “female Redstart” observed at 11 A.M.; 12th, Carlisle, one; December 5th, Langness, “a female Redstart;” January 21st (1887), Towyn, one shot (*Field*, January 30th, 1887).

*Erithacus rubecula* (L.), Redbreast.—Only a few records.

AUTUMN: First noticed at the great movement at the Nash L.H. on September 3d; September 11th, Langness, one at 3 P.M. 24th, South Stack; October 20th, South Stack, one; 27th, Nash, one.

*Sylvia cinerea* (Bechst.), Whitethroat.—SPRING: April 11th, Langness; 23d, \*Nash, in numbers; May 10th, at Langness, with Sedge Warblers and Willow Wrens; six killed and two injured.

AUTUMN: August 2d and 3d, \*Start; 22d, Nash, many; September 1st, Longships, one killed; 3d, Dee L.V. and \*Nash, many; 23d, \*Smalls and \*Helwick, some dozens; 24th, \*Bull Point and Start.

*Sylvia atricapilla* (L.), Blackcap.—SPRING: April 22d, N.W. Merioneth, arrived.

AUTUMN: November 22d, \*Eddystone, one killed.

*Regulus cristatus* (Koch), Goldcrest.—Not numerous. The following are the only records:—

AUTUMN: September 5th, Langness, two or three; 24th, Chickens Rock, four at 10.30 P.M.; October 2d, Chickens Rock, a few; 4th, South Stack, one; 20th, Langness, one; Holyhead, one, and South Stack, one; 22d, Skerries, one; 26th, Nash, two killed; 27th, Longships, one; 29th, Holyhead, two; November 25th, \*Eddystone, one killed.

*Phylloscopus sibilatrix* (Bechst.), Wood Wren.—SPRING: May 7th, Carlisle.

*Phylloscopus rufus* (Bechst.), Chiff Chaff.—SPRING: March 24th, Ravenglass; April 2d, N.W. Merioneth, a good many.

AUTUMN: September 23d, \*Smalls, one killed; 29th, \*Bull Point, one killed.

*Phylloscopus trochilus* (L.), Willow Warbler.—SPRING: March 24th, Langness; April 10th, Langness; 27th, Langness; May 10th, Langness, along with Sedge Warblers and Whitethroats.

AUTUMN: August 1st, Nash; 3d, \*Start; September 3d, \*Nash, fifty or sixty between 2 and 3 A.M., twenty-four killed; 23d, \*Smalls and \*Helwick, some dozens; October 6th, Langness, one at 2 A.M.

*Acrocephalus phragmitis* (Bechst.), Sedge Warbler.—SPRING: April 10th, Langness, in numbers; May 10th, Langness, along with Willow Warblers and Whitethroats at midnight.

AUTUMN: August 6th, Start, two at midnight; 22d, \*Nash, in numbers; \*Burnham, one; 28th, \*Start, one; September 1st and 5th, Burnham; 23d, \*Smalls, in numbers.

*Locustella naevia* (Bodd.), Grasshopper Warbler. — SPRING: April 27th, Allonby.

AUTUMN: \*Skerries Rock, one killed at lantern in the autumn, date uncertain.

*Accentor modularis* (L.), Hedge Sparrow.—October 8th, Langness, one at 4 P.M.

*Troglodytes parvulus* (Koch), Wren.—SPRING: April 22d, Langness, one; \*Nash, seven at 10.30 P.M., four killed; 23d, Dee L.V., two killed; May 4th, South Bishop, two killed; 9th, Dee L.V., three killed.

AUTUMN: October 7th, South Stack, "Wrens;" 19th, Breaksea, one; 20th, Dee, one; 27th, Nash, one captured.

*Motacilla lugubris* (Temm.), Pied Wagtail.—SPRING: March 19th, Selker L.V., one caught; 22d, St Bees; Selker, a good many; April 2d, Selker, a good many passing east; 22d and 23d, Dee L.V., "Wagtails" passing east.

AUTUMN: September 5th, N.W. Merioneth, exceedingly numerous; October 28th, Morecambe Bay L.V., "three Dishwashers" at 10.30 A.M.

*Motacilla rayi* (Bonap.), Yellow Wagtail.—SPRING: April 29th, Allonby, Cumberland.

AUTUMN: August 4th, \*Start, a bird of the year killed at the lantern.

*Anthus pratensis* (L.), Meadow Pipit.—SPRING: April 2d, Selker L.V., "Titlarks;" 22d and 23d, Selker, "Titlarks" to E.

AUTUMN: August 27th, Selker, "Titlarks;" September 5th, N.W. Merioneth, numerous; October 4th, Cardigan Bay; afterwards present at the chief movements of the late autumn.

*Anthus trivialis* (L.), Tree Pipit.—April 16th, N.W. Merioneth, one; 20th, Carlisle; 24th, N.W. Merioneth, several.

AUTUMN : August 3d and 4th, \*Start, several at 3 A.M. each day.

*Anthus obscurus* (Lath.), Rock Pipit.—AUTUMN : September 4th, \*Longships, several between 11 P.M. and 2 A.M., two killed.

*Lanius excubitor* (L.), Great Grey Shrike.—Two shot in Cumberland in November. A female of the var. *Major* caught at Skinburness, Cumberland, on November 2d.

*Lanius collurio* (L.), Red-backed Shrike.—June 2d, N.W. Merioneth, a pair.

*Muscicapa grisola* (L.), Spotted Flycatcher.—SPRING : April 22d, Scotby, Cumberland.

AUTUMN : August 27th, \*Start Point, one caught ; and October 19th, “ three Spotted Flycatchers ” between 6 and 9 P.M.

*Muscicapa atricapilla* (L.), Pied Flycatcher.—April 25th, Carlisle.

*Hirundo rustica* (L.), Swallow.—SPRING : March 23d, Bull Point, two at 2 P.M. ; 26th, Nash, one ; April 15th and 17th, Langness, one each day ; 27th, Nash, three ; 30th, Nash, forty or fifty.

AUTUMN : August 4th and 6th, Langness, several ; 10th, Carnarvon Bay L.V. ; September 4th, South Bishop, a company ; 21st, at several stations ; last at Langness and Wolf Rock on October 13th. [This species is recorded in *The Field* as observed during November at Lymington on 22d ; Penzance, 23d ; Falmouth, 27th ; Portsatho, 29th ; and on the 7th of December at Bournemouth.]

*Chelidon urbica* (L.), Martin.—SPRING : April 20th, Carlisle ; 26th, N.W. Merioneth.

AUTUMN : August 6th, Start, one caught ; September 3d, Langness, a few ; October 4th, Flatholm.

*Cotile riparia* (L.), Sand Martin.—SPRING : March 23d, Rockliffe, Cumberland ; 25th, Carlisle ; 26th, St Bees.

AUTUMN : August 3d, Eddystone, one caught ; 9th, Eddystone, two caught ; September 24th, Eddystone.

*Carduelis elegans* (Steph.), Goldfinch.—AUTUMN : October 5th, Chickens Rock, three at lantern all night ; 18th, Chickens Rock, one ; 20th, at same station.

*Ligurinus chloris* (L.), Greenfinch.—AUTUMN : October 24th, Carnarvon Bay L.V., ten on deck all day.

*Fringilla cœlebs* (L.), Chaffinch.—SPRING: March 27th, Langness, one at lantern from 2 to 4 A.M.; April 23d, Langness, one at 10 A.M.

AUTUMN: October 7th, Helwick L.V., a large number; 8th, Cardigan Bay L.V., two; 20th, South Stack, one at lantern, and Cardigan Bay L.V., two on board at 7.30 A.M.; 25th, Portland, sixty at 2 P.M.; 26th, Cardigan Bay L.V., two; November 1st, Scarweather L.V., about fifty at 1.30 P.M. This species appears to be chiefly noted at the light-vessels during the daytime.

*Fringilla montifringilla* (L.), Brambling.—October 25th, Bishop Rock, many "Copperfinches" from 9 P.M. to midnight; 26th, Nash, many; November 25th, Bishop Rock, a "Copperfinch."

*Linota cannabina* (L.), Linnet.—SPRING: April 5th, Eddy-stone, two caught at 9 P.M.

AUTUMN: August 22d, Langness, a small flock at noon; October 5th, Langness, a flock at 9 A.M., and Portland, three or four from 1 to 3 A.M.; 28th, Carnarvon Bay L.V., with Finches all day; November 26th, Plymouth Breakwater, two at 10 P.M.

*Linota rufescens* (Vieill.), Lesser Redpole.—October 15th, South Stack, one caught at 7.30 P.M.

*Plectrophanes nivalis* (L.), Snow Bunting.—September 26th, Bishop Rock, one old bird.

*Emberiza miliaria*, L., Corn Bunting.—AUTUMN: September 3d, \*Nash, fifteen to twenty between 2.15 to 3 A.M., eight killed.

*Agelæus phœniceus* (L.), Red-winged Starling.—October 27th, Nash, one struck and captured at 3 A.M. Mr Nicholas had intended to forward this specimen to me, but during his absence for a few moments it was most unfortunately carried off by a cat. He had, however, no difficulty in identifying the bird from the description given in John's "British Birds," and promptly reported the occurrence. A skin of the species (an adult) was at once forwarded to him in order to test his identification of the bird, and he replied "that the bird killed very much resembled the one sent, except that the yellow on the wings was rather paler; the tips of the wings and the back of the neck were more sooty black, and I think it was a little larger;"—a description indicating an immature specimen. During the late hours of the 26th of October and the early ones

of the 27th an important migratory movement was taking place at this station:—At 9.50 P.M., Missel Thrushes; at 10 P.M., Bramblings; at 10.30 P.M., Snipe (four killed); at 12.40 A.M., Redwings (two killed); at 2 A.M., Wrens (one captured); at 2.10 A.M., Robins, and Black Redstart killed; and finally at 3 A.M., the Red-winged Starling. The wind prevailing at the time was a strongly easterly breeze; the weather cloudy, with passing showers of rain. Mr Nicholas is a most careful, intelligent, and painstaking recorder, and shows particular interest in our work, and there is little likelihood of his being mistaken in this matter. As an unbeliever in the unassisted occurrence of extra-Arctic American passerine birds in Europe, I would suggest that this was probably an escape from some vessel approaching the British coast.

*Sturnus vulgaris*, L., Starling.—The numbers and the frequency of the occurrence of this species is again manifest in the returns. It is impossible to do more than to refer to the diary portion of the report for particulars. Mr Caton Haigh, in his notes from the N.W. coast of Merioneth, remarks that many of the Starlings wintering there left during the second week of February, large flocks passing over flying due N. On the 26th of June, at 8 P.M., an immense flock passed over going S. It looked like a long, narrow stream, half a dozen yards wide and at least half a mile long.

*Pica rustica* (Scop.), Magpie.—September 28th, Cardigan Bay L.V., two Magpies flying around the ship at 9.30 A.M. October 22d, Langness, a Magpie at 9 A.M.

*Corvus corone*, L., Carrion Crow.—April 22d, Carnarvon Bay L.V., six at 8 A.M. going E. April 23d, Chickens Rock, one.

*Corvus frugilegus*, L., Rook.—Spring: March 23d, Langness, twelve at 9 A.M.

AUTUMN: October 20th, Cardigan Bay L.V., one.

*Alauda arvensis*, L., Skylark.—SPRING: March 23d, Selker L.V., a small party; 24th, Chickens Rock, great numbers; 25th, at Bahama Bank and Selker L.V.'s; 26th, Carnarvon Bay L.V., many.

AUTUMN: September 3d, Eddystone in numbers; afterwards many and often.

*Cypselus apus* (L.), Swift.—SPRING: April 29th, Carlisle. May 9th, N.W. Merioneth; 11th, Langness, a large flock. June 6th Eddystone, several.

AUTUMN : July 7th, Langness, large numbers. August 4th, Flatholm, small party ; 9th, a large flock ; 18th, Cardigan Bay, nine at 7.30 P.M. September 4th, Smalls, numbers ; 19th, Lundy, thirty or forty (J. J. Philips, "Field," October 2d, 1886, p. 510) ; 20th, Lundy, one (*Id.*).

*Caprimulgus europæus*, L., Nightjar.—SPRING : May 6th, N.W. Merioneth, but not common until the 22d.

AUTUMN : September 3d, \*Nash, four at 2.10 A.M., one killed.

*Gecinus viridis* (L.), Green Woodpecker.—October 26th, Nash. Mr Nicholas reports a great many birds at the lantern during the early hours of the morning ; at sunrise they passed S.E. ; and that a bird of this species was seen among the others.

*Cuculus canorus*, L., Cuckoo.—SPRING : April 19th, Langness, one at 10 A.M. ; 25th, Carlisle ; 27th, Nash, one passed to N. ; 29th, Nash, four.

AUTUMN : August 1st, Nash, two at lantern at 11.30 P.M. September 3d, \*Nash, six [young of the year] at 3 A.M., two killed.

*Accipiter nisus* (L.), Sparrow-Hawk.—AUTUMN : September 14th, Bishop Rock, one appeared ; 20th, Chickens Rock, one going E. at 7 A.M. ; 28th, Smalls, one in the morning.

*Tinnunculus alaudarius* (Gm.), Kestrel.—AUTUMN : October 5th, Wolf Rock, one ; Smalls, one.

*Pandion haliaëtus* (L.), Osprey.—AUTUMN : August 16th, Breconshire, one fishing at Llangorse Lake (Philips, *Zool.*, 1886, p. 417).

*Anser* ——— ? "Wild Goose."—SPRING : March 27th, St Bees, about twenty at 6 P.M.

—————, "Wild Duck."—AUTUMN : October 19th, a large number at 5.30 P.M.

*Anser segetum* (Gm.), Bean Goose.—April 27th, about 120 passed over Allonby in a flock ; eight more seen in July ; and many seen in October and November.

*Bernicla brenta* (P.), Brent Goose.—Present on Solway till end of March.

*Bernicla leucopsis* (Bechst.), Barnacle Goose.—October 11th, arrived at Rockliffe.

*Dafila acuta* (L.), Pintail Duck.—October 23d, Cumberland, one shot.

*Anas streperus*, L., Gadwall.—SPRING: March 11th, two seen at Bowness.

AUTUMN: August, Breconshire, a female shot (Philips, *Zool.*, 1886, p. 417). October (last week of), Solway, a bird of the year shot.

*Mareca penelope*, L., Widgeon.—SPRING: Allonby, two flocks of fifty or sixty on February 11th (evening, flying due E.). Ravenglass, last seen on April 23d. Flights of this and other fowl began to pass over Rockliffe in an E. or N.E. direction on April 21st, but the movement became accentuated on April 27th, on which evening large flocks began to pass up the Eden at 9 P.M. The movement continued in full swing up to 10.45, there generally being five minutes, and never more than ten, between parties; after 11th they continued to pass, but the movement had become less marked.

AUTUMN: Numbers at Monkhill on September 13th.

*Clangula glaucion* (L.), Golden-eye.—SPRING: April 26th, last seen at Monkhill, Cumberland.

AUTUMN: October 21st and 24th, Allonby, Cumberland.

*Edemia fusca* (L.), Velvet Scoter.—December 23d, a fine adult male shot on Eden.

*Mergus serrator*, L., Red-breasted Merganser.—April 13th, N.W. Merioneth, a flock of about a dozen, the last seen.

*Turtur communis*, Selby, Turtle Dove.—AUTUMN: September 11th, Minehead, Somerset, one. October 3d, Wolf Rock, a "Turtle Dove" at 11 A.M.

*Coturnix communis*, Bonnat, Quail.—AUTUMN: September 3d, one in the morning. October 5th, Eddystone, two caught at 2 A.M.

*Crex pratensis*, Bechst., Corn-Crake.—SPRING: April 26th and 27th, Carlisle and District. May 9th, Holyhead Breakwater, one at 2 P.M.

AUTUMN: October 9th, Skerries, one killed between 2 and 4 A.M.; 20th, Smalls, one killed.

*Gallinula chloropus* (L.), Moorhen.—AUTUMN: August 2d, \*Nash, one killed at midnight. September 3d, Dee L.V., one killed.

*Charadrius pluvialis*, L., Golden Plover.—AUTUMN: August 25th, Burnham, one killed.

*Squatarola helvetica* (L.), Grey Plover.—SPRING: May 7th, Allonby, Cumberland, six.



*Eudromias morinellus* (L.), Dotterel.—May 6th, Allonby, four seen, and again on the 8th.

*Vanellus vulgaris*, Bechst., Lapwing.—SPRING: March 27th, Carnarvon Bay, ten at 11 A.M.

AUTUMN: September 24th, Skerries, about twenty. October 25th, Nash, flocks passing S. from 7 to 10 A.M.; 26th, Nash, a large flock at lantern at 1 A.M. November 23d, Nash, two killed at 11.30 P.M.; 24th, Eddystone, many at night; 26th and 27th, at Selker L.V., Carnarvon Bay L.V., and Eddystone.

*Hæmatopus ostralegus*, L., Oyster-Catcher.—SPRING: April 23d, Chickens Rock, one.

AUTUMN: August 3d, Menai, two; 22d, Langness, seven; 27th, Eddystone, flocks.

*Phalaropus fulicarius* (L.), Grey Phalarope.—October 10th (about), near Winchester, one shot.

*Scolopax rusticula*, L., Woodcock.—SPRING: March 24th, Dee L.V., one killed; 29th, Selker L.V., one caught.

AUTUMN: September 21st, Eddystone, one killed. October 18th and 23d, Nash, one killed each night; 26th, Nash, two killed.

*Gallinago major*, Gm., Great Snipe.—AUTUMN: September 9th, Cardiganshire, an adult male shot on Llanddewihip Mountain; 25th, Baytor Mere, Devon, one shot. October 22d, North Devon, a bird of the year shot; 30th, Carlisle, one shot.

*Gallinago cœlestis* (Frenzel), Common Snipe.—AUTUMN: October 21st, Carnarvon Bay L.V., one killed; 22d, Langness, one at 10 A.M.; 26th, Nash, four passing to S.E. at 9.30 A.M., four killed at 10.30 P.M. November 27th, Breaksea L.V., one killed.

*Limnocytes gallinula* (L.), Jack Snipe.—AUTUMN: October 31st, Bardsey, one "Jack Snipe" killed.

*Tringa alpina*, L., Dunlin.—SPRING: April 25th, N.W. Merioneth.

AUTUMN: August 4th, Langness, a large number at 5 A.M.

*Tringa striata*, L., Purple Sandpiper.—October 20th, Solway, one shot.

*Tringa canutus*, L., Knot.—AUTUMN: August 18th, Dee L.V., thirty at lantern from 9 P.M. to midnight.

*Calidris arenaria* (L.), Sanderling.—May 20th, observed on Solway.

*Totanus hypoleucos* (L.), Common Sandpiper.—SPRING: April 16th, Carlisle; 17th, N.W. Merioneth.

AUTUMN: August 15th, Ilfracombe, passing E.; 19th, Barnstaple.

*Totanus canescens* (L.), Greenshank.—March 26th, Solway, last seen; returned August 16th.

*Numenius phaeopus* (L.), Whimbrel.—SPRING: April 2d, N.W. Merioneth, one, and on 28th a small flock. May 16th, Langness, several at 10 A.M.; 20th, Allonby, Cumberland, a few; 25th, Allonby, eight.

AUTUMN: July 27th, Allonby, two. August 10th, Langness, two. September 4th, N.W. Merioneth.

*Numenius arquata* (L.), Curlew.—SPRING: March 22d, Selker L.V., one at 8 A.M. April 9th, N.W. Merioneth, many passing overhead during the night.

AUTUMN: August 22d, Eddystone, ten at 1 P.M. September 4th, Chickens Rock, a few in the evening, also at the Skerries. November 27th, Selker L.V., at lantern all night.

*Sterna* ———? "Sea Swallow."—SPRING: Skerries Rock. Mr Rees says,—“The Sea Swallow always comes to this island true to the morning of the 6th of May; then they leave for one week, and return again for the laying season.”

AUTUMN: September 9th and 28th, Wolf Rock. October 2d, 4th, 7th, 13th, and 19th, a few observed at the Wolf Rock each day.

*Sterna fluviatilis*, Naum., Common Tern.—SPRING: April 22d, N.W. Merioneth, a small flock; 25th, several large flocks. May 13th and 14th, a very large number; the weather rough and wet, with much snow on the mountains.

AUTUMN: October 16th, Minehead, Somerset, three.

*Sterna macrura*, Naum., Arctic Tern.—SPRING: April 25th, N.W. Merioneth, a few with Common Terns.

*Sterna cantiaca*, Gm., Sandwich Tern.—SPRING: April 2d, Ravenglass; 16th, Allonby (both in Cumberland).

*Sterna minuta*, L., Little Tern.—April 29th, Ravenglass.

*Hydrochelidon nigra* (L.), Black Tern.—SPRING: May 13th, N.W. Merioneth, three in adult plumage.

*Procellaria pelagica*, L., Storm Petrel.—SPRING: May 21st, South Bishop, six at lantern all night.

AUTUMN: October 16th, Nash, one killed. November 21st,

Eddystone, twenty-one captured between 6 and 12 P.M.; 22d, Eddystone, in numbers all night; 24th, 25th, 26th, and 27th, Eddystone, in numbers, many caught.

*Procellaria leucorrhœa*, Vieill., Leach's Petrel.—November 22d, \*Start, one captured at 10 A.M., resting inside one of the lantern ventilators.

*Stercorarius catarrhactes* (L.), Great Skua.—October 16th, Minehead, Somerset, one seen along with other Stercorariinæ. (N.W., squally, showers; sea very high.)

*Stercorarius pomatorhinus* (Temm.), Pomatorhine Skua.—October 16th, Minehead, Somerset, twelve, along with other Stercorariinæ. (N.W., squally; sea very high.)

*Stercorarius crepidatus* (Banks), Richardson's Skua.—October 16th, Minehead, Somerset, six, along with other Stercorariinæ. (N.W., squally; sea very high.)

*Puffinus anglorum* (Temm.), Manx Shearwater.—September 3d, Bishop's Rock, one killed.

*Puffinus* ———? "Large Shearwater."—September 14th, Bishop's Rock, "twenty Large Shearwaters during the day—not Manx Shearwaters."

*Colymbus glacialis*, L., Great Northern Diver.—December 21st, Hurst Point, two injured against lantern in the early morning.

*Colymbus arcticus*, L., Black-throated Diver.—December 29th, Solway.

*Lomvia troile* (L.), Guillemot.—AUTUMN: October 28th and 30th, Longships, Guillemots and Puffins moving S. all the morning.

*Uria grylle* (L.), Black Guillemot.—September 28th, Solway, a single bird observed.

*Fratercula arctica* (L.), Puffin.—SPRING: March 3d, Bishop's Rock, appeared. April 3d, Caldy, first appeared.

AUTUMN: October 16th, 25th, 28th, and 30th, and November 2d, Longships, moving S.

#### SUMMARY AND GENERAL REMARKS.

The Report for the West Coast of England and Wales, and the Isle of Man, refers to the seasonal movements during 1886 of 104 species.

The first vernal migratory movement occurred on the 24th of March, and was sustained until the 26th. During this interval

*Phylloscopus trochilus*, *Saxicola œnanthe*, *Pratincola rubicola*, and *Hirundo rustica*, along with *Turdus iliacus*, *T. pilaris*, *Scolopax rusticula*, and also *Turdus musicus*, *T. merula*, and *Alauda arvensis*, were observed—all at the lanterns, save *Hirundo rustica*, which occurred during the daytime. The weather prior to this initiatory migration had been severe and unsettled, and the movement was concurrent with the temporary prevalence of favourable conditions (see p. 82) over our Islands.

The spring immigrants flowed in gently at intervals during April and early May. The only rush recorded was on the 23d of April, when many Wheatears, Warblers, and "Flycatchers" occurred—the movement being especially pronounced at the Nash and the Eddystone: minor barometric depressions and low temperature, the wind being N.E., had prevailed prior to the 23d, on which day more favourable conditions set in, producing moderate southerly and south-easterly gales, and a rise in the temperature. The immigration of summer visitors extended until the 10th and 11th of May, when *Phylloscopus trochilus*, *Acrocephalus phragmitis*, and *Sylvia cinerea* were killed, and *Cypselus apus* observed at Langness. Of the transvolant spring migrants, *Numenius phæopus* was noticed at Langness on the 16th of May.

AUGUST.—The autumnal movements commenced with an emigration of *Cuculus canorus*, *Cypselus apus*, and *Phylloscopus trochilus*, several of which were killed at the Nash lantern on the 1st of August. This was followed by movements of *Phylloscopus rufa*, *Turdus torquatus*, *Sylvia cinerea*, *Saxicola œnanthe*, *Anthus trivialis*, *Motacilla rayi*, *Cotile riparia*, and *Cypselus apus*, extending from August the 3d to the 9th, and chiefly observed at southerly stations. On the night of the 22d there was a great rush of birds at the Nash, when some hundreds of *Acrocephalus phragmitis*, *Sylvia cinerea*, and many *Saxicola œnanthe* were flying around the lantern from 9 to 10.30 P.M., twenty-nine being killed. Emigrating summer visitors were also observed on the 23d, 27th, and 31st of the month.

SEPTEMBER.—On the 3d there was a decided rush of birds at the Nash, on which Mr Nicholas remarks as follows:—"There was an enormous arrival of small birds, the greatest number ever seen here at any one time." This singular movement lasted from 2.10 A.M. to 3.15 A.M., or a little over an hour,

during which brief interval unfortunate individuals of the following species perished at the lantern:—*Caprimulgus europæus*, *Emberiza miliaria*, *Sylvia cinerea*, *Phylloscopus trochilus*, *Cuculus canorus*, *Passer domesticus*, *Erithacus rubecula*, *Saxicola ananthe*, and *Turdus merula*.<sup>1</sup> A general emigration of summer birds on the 23d and 24th, when a very decided fall of temperature was recorded, was the only other movement during the month.

OCTOBER.—There were important migrations of summer birds and partial migrants on the 3d, 4th, and 5th, commencing simultaneously with the passing away of adverse meteorological conditions (*see* p. 91). Afterwards the records indicate a complete blank until the 18th, up to which day the weather was exceedingly unsettled, with strong winds and gales. From the 18th to the 31st, conditions were quieter, with north-easterly, easterly, and south-easterly winds, and under what may be termed mildly unfavourable conditions (*see* pp. 94 and 96), a steady and unbroken flow of migrants was kept up; during which the winter visitors first appeared at the stations, where, also, the departing summer birds put in a final appearance for the season.

NOVEMBER.—The only movement during the month took the form of rush, and extended from the 22d to 27th. This was, doubtless, occasioned by the outburst and prevalence of low temperature (*see* Meteorological conditions, p. 100) then experienced in our Islands, causing birds—*Turdinæ*, *Alauda arvensis*, *Vanellus vulgaris*, *Scolopax rusticula*, *Gallinago caelestis*, *Numenius arquatus*, and a few *Regulus cristatus*,—which would otherwise have been contented to remain with us, to seek more genial winter quarters.

The returns for this section of the coast again bear out the opinions expressed in former reports,—*First*, That the main body of the autumnal migrants reach the west coast of Wales and the south-west coast of England—and probably Ireland, too—by way of the Isle of Man; the north-western coast of England only receiving a comparatively small share in these movements; *Second*, That emigrants from Ireland, and other birds migrating *viâ* Irish routes, strike the British coast at the mouth of the Bristol Channel, along whose north shore it is believed

<sup>1</sup> For further particulars of this interesting movement, *see* p. 88.

many pass. It seems probable, however, from a careful examination of the records, that the right wing at least of these Irish migrants extends as far south as the Land's-End stations, and those from Land's-End to Start Point. This is made evident by the several independent—if they may be so termed—and important movements which are recorded in the diary, for this portion of the coast alone, under the following dates: August 22d, September 3d, and October 24th, 25th, and 26th, and which not only indicate the route followed, but also its origin (Ireland), by reason of the circumscribed area affected.

*Corvus cornix*, *Plectrophanes nivalis*, *Asio accipitrinus*, *Bernicla brenta*, *Fringilla montifringilla*, and *Passer montanus* are again absent, or very rarely mentioned in the returns; while *Scolopax rusticula* and *Regulus cristatus* were not at all frequent during the season under consideration.

Among the rarer or more interesting species observed may be mentioned *Agelæus phæniceus*, *Ruticilla titys*, *Procellaria leucorrhœa*, *Stercorarius catarrhactes*, *Anas streperus*, and *Pandion haliaëtus*.

*Gallinula chloropus*, *Pica caudata*, *Gecinus viridis*, and *Emberiza miliaria* (many of which occurred at the Nash on September 3d) may be mentioned as somewhat unusual migrants.

In conclusion, the writer would suggest to his colleagues the desirability of making an united report, instead of treating it by sections. This, it is thought, might readily be done, if the diary form were adopted, by giving under a common date-heading the information for the various coasts for that particular day; in which case the information for the East Coast of Scotland might lead, followed by the east of England, then the West Coast of Scotland, the coasts of Ireland, and finally the West Coast of England. By adopting such a readily feasible plan the significance and importance of each movement, the area covered by it, and the species participating in it, would be ascertained at a glance; while under the present arrangement, to obtain such very desirable and simple information, reference is necessary to no less than five separate reports.

The legs and wings referred to the Reed Warbler in the Irish Report are reserved for further examination.

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## IRISH COAST.

THE number of stations returning schedules shows a slight falling off since last year; but this is compensated for by some light-keepers, who take a greater interest in the subject, sending three, four, and even five schedules. A column has been added to the list of lighthouses, showing the number of schedules received from each station.

Mine Head, Tuskar, Rockabill, and Innishtrahull are foremost in number; but good schedules have been received from the Fastnet, Coningbeg, Eagle Island (East), and Blackrock (Mayo), and a few other localities.

The marked feature of 1886 has been the number of legs and wings forwarded—numbering about one hundred—cut from birds killed striking the lanterns. In some cases specimens were received in the flesh; and it is to be hoped that in all cases of rare birds this will be done in future. Generally speaking, the legs and wings can be identified with certainty, and they have been all carefully preserved for reference. Any doubts which may exist about a species will be removed if the light-keepers send a leg and wing of every bird killed striking, with the schedule, in the envelopes provided for this purpose.

The stations sending most specimens were the Tuskar, Rockabill, and Mine Head; but they were also received from eleven others. The rarities received were numerous. Mr Thomas Fortune sent the second Irish specimen of the Wry-neck from Arran Island, N., Co. Galway, killed striking at 2 A.M. on October 6th. The first specimen was shot at Dunmore, Co. Waterford, October 5th, 1877. From Mr Francis Ryan, of the Tearaght, Co. Kerry, only four wings and legs were received; but two of these proved rarities, one belonging to the Pied Flycatcher, caught at lantern September 21st, and the other to the Reed Warbler, found dead October 4th. Both species had only once before been recorded from Ireland. The Pied Flycatcher occurred at Ballina, Co. Mayo, in April 1875. The Reed Warbler is said to have been shot near Dublin on December 21st, 1843, but no specimen exists. Another leg and wing of the Pied Flycatcher, killed striking

October 5th, was sent by Mr George Dunleavy from the Fastnet, Co. Cork. From Coningbeg light-ship, Co. Wexford, a leg and wing of the Reed Warbler was forwarded by Mr Patrick Cullen and Mr William Clydesdale. It was killed striking October 4th, the same date as the Tearaght specimen.

These three species—Wryneck, Pied Flycatcher, and Reed Warbler—are examples of birds which breed in Great Britain, and have only been met with in Ireland during the autumnal migration, except the Pied Flycatcher, which once occurred in April. All the birds were observed on the south or west coasts.

Taking the other legs and wings in order. The Missel Thrush was sent from the Tuskar, being the only specimen yet received. A male and female Redstart were sent from Rockabill, Co. Dublin, by Mr Joseph Hammond, having been obtained on April 24th and May 9th respectively. The Redstart has quite recently been discovered to breed in Ireland, at Powerscourt, Co. Wicklow. The Black Redstart was received from the Fastnet, Co. Cork, found dead October 30th. It is recorded at four other stations on the south coast. Its regular occurrence in the south and east of Ireland has been established by this inquiry. On July 10th a "Blackstart" is reported at Rockabill, Co. Dublin; but no specimen having been sent, this unusual date requires confirmation. The Whinchat, which is in Ireland a local bird, was killed striking Coningbeg lantern on May 7th. Several Sedge Warblers and Whitethroats were received from Rockabill, the Tuskar, and other stations. A rush took place on May 9th. These Warblers were not previously recognised—"Tits," "Wrens," "Flycatchers," and "Sally-pickers" doing duty for them, and other allied species. The Grasshopper Warbler (rare and local in Ireland) was obtained at the Tuskar, having been correctly identified by Mr Richard Hamilton, from a copy of Morris' "British Birds" supplied to that station by the Irish Lights Board. The Blackcap was killed striking on Eagle Island, off Mayo, as late as October 31st, the leg, wing, and head being forwarded by Mr Daniel Hawkins. A fine old male Yellow Wagtail (*Motacilla Ravi*) was killed at the Tuskar on May 3d. It is rare and local in Ireland, occurring on the east and south coasts. The wing and leg of a Skylark, caught striking at Mine Head on 26th February, was of a much paler colour, and had shorter toes than the ordinary

form. A very large leg and wing of a Skylark was received from Arklow South light-ship, killed October 28th. The October immigration of the Chaffinch was evidenced by the production of legs and wings, and extended to the light-houses, several miles from land, off the west of Ireland. A Turtle Dove was received from the Tuskar in May, and some entries of "Doves" in the autumn, which have been placed under the heading "Pigeons," are perhaps referrible to this species. The repeated occurrence of the Corncrake, several miles from shore—killed striking against lanterns between 100 and 200 feet above the sea-level—must satisfy the sceptical that this bird can fly long distances and at a high level with great power and velocity. The Water Rail, which seems so unwilling to fly, was received from the Fastnet and Tuskar, and the Water Hen from Rathlin O'Birne, both having been killed striking on 26th and 28th October. The first two stations are seven or eight miles from the nearest land, and the last, two miles. The Water Hen is stated by Mr Macginley of Rathlin O'Birne to have struck "with tremendous force" at 11.30 P.M. This lantern is 116 feet over sea.

The words "Sand Larks," and "Sea Larks," so vague, and signifying almost any of the smaller Sandpipers, is now better understood by the production of legs and wings—those of the Curlew Sandpiper, Purple Sandpiper, Common Sandpiper, and Turnstone having been sent. A leg and wing of the Fork-tailed Petrel was forwarded from Eagle Island, W., off Mayo, caught at lantern in second week of October.

An egg of this species is recorded to have been found on the Tearaght, Co. Kerry (*Zoologist*, 1886, p. 367). Most of the legs and wings were obtained at the autumnal migration. The autumn rush of Thrushes, Starlings, Blackbirds, and Larks took place October 20th to 28th, on the E. and S.E. coasts, there being little evidence of it on the W. coast. From 27th February to 1st March another great movement took place on the S.E. coast, and again about March 27th. At the N.W. stations a great rush of Fieldfares, Blackbirds, Thrushes, and Starlings occurred December 17th and 24th, under the influence of a sudden pinch of cold. The Fieldfares were noticed in great numbers at Innishtrahull, a rocky islet six miles north of Donegal. Mr M. S. Kennedy "never saw the

like." There was snow, with a very strong wind. At Rathlin O'Birne (West Donegal) immense flocks of birds—Starlings, Thrushes, and Fieldfares—passed *west* December 18th to 23d. The nearest land to the west of this rocky island is America, and one is puzzled to know where the birds were going; but this is not an isolated occurrence—the westerly flight of land birds at stations off the west coast of Ireland has been noticed on other occasions. The movement is apparently as reckless as that of the Lemmings. The Ring Ouzel is again stated to have been seen in the winter (January 15th) at Mine Head. It is strange that not a single leg and wing of the Grey Linnet, or the Twite (birds, doubtless, included under the name of "Linnets"), has yet been received. They seem rarely to strike. There are two or three instances of the Golden Plover having been killed striking in 1886. The "Cream-coloured" Gulls seen off Blackrock, Mayo, November 5th, and also seen in August 1881, April and May 1882, and October 11th, 1884 (see Report, 1884, p. 181), were probably Iceland Gulls. The Gannet is well known to every light-keeper, and its movements are not likely to be confounded with any other bird. The entries, therefore, under it may be examined with confidence. Species which are ill-defined, or named with doubtful accuracy in the Report, are put in in inverted commas. In Ireland birds are far less numerous than in Great Britain, and their movements are less distinctly marked. Few entries have, therefore, been omitted, for their value cannot be estimated until a number of Reports have been compared. It is proposed next year to analyse all the Irish observations.

To all the light-keepers forwarding schedules our best thanks are due; to those sending legs and wings, and specimens in the flesh, we are under still further obligations. The interest evinced when three, four, and five schedules are filled with careful notes, shows the desire to further knowledge for its own sake, and speaks well for the intelligence of such observers. The Commissioners of Irish Lights, and their secretary, Mr Owen Armstrong, continue to give us their very necessary assistance; and Captain Boxer, R.N., in his frequent visits to the lighthouses, is ever ready to further the objects of this inquiry.

RICHARD M. BARRINGTON.

ALEXANDER G. MORE.

## LIST OF LIGHT-STATIONS.

	Schedules Filled.		Miles from Shore.	Names of Observers.
	Spring.	Autumn.		
1. Fastnet, Co. Cork,.....	2	x x	8	George Dunleavy.
2. Galley Head, Cork,.....	0	0 0	—	<i>No reply.</i>
3. Old Head, Kinsale, Cork,.....	0	0 0	—	<i>No reply.</i>
4. Mine Head, Waterford,.....	4	x x	—	Edward M'Carron.
5. Dungarvan, Waterford,.....	1	0 x	—	Wm. Higginbotham.
5.*Coningbeg Lt.-ship, Wexford,...	2	x x	10	{ Patrick Cullen and Wm. Clydesdale.
6. Barrels Rock Lt.-ship, do., ...	3	x x	4	Charles H. M'Cabe.
7. Tuskar Rock, do., ...	4	x x	7	{ Rd. Hamilton, Peter Page, & E. M'Kenna.
8. Arklow Sth. Lt.-ship, Wicklow,	2	x x	7	{ Patrick Clancy and Alfred B. Wall.
8.*Arklow North Lt.-ship, do.,...	3	x x	8	William Daly.
10. Kish Bank Lt.-ship, Dublin, ...	1	x 0	7	Michael Cunniam.
11. Howth Baily, Dublin,.....	0	0 0	—	<i>No reply.</i>
12. Rockabill, Dublin,.....	5	x x	5	{ Jos. Hammond and Henry Kelly.
13. Copeland (Mew) Island, Down,	1	x 0	3	John O'Donnell.
14. Maidens, Antrim,.....	2	x x	5	Michael Barry.
15. Rathlin, Antrim,.....	1	x 0	6	John A. Murray.
16. Innishtrahull, Donegal,.....	4	x x	6	M. S. Kennedy.
17. Dunree Head, Donegal,.....	1	x x	—	Jervis Brownell.
19. Tory Island, Donegal,.....	1	x 0	9	Henry Stocker.
20. Arranmore, Donegal,.....	2	x x	5	Henry Williams.
21. Rathlin O'Birne, Donegal,.....	1	0 x	2	J. C. Macginley.
22. Killybegs, Donegal,.....	3	x x	—	Joseph Hill.
23. Oyster Island, N. Sligo,.....	0	0 0	1	<i>No reply.</i>
24. Broadhaven, Mayo,.....	1	0 x	—	John A. Murray.
25. Eagle Island, E., Mayo,.....	2	x x	2	Daniel Hawkins.
26. Eagle Island, W., Mayo,.....	0	0 0	2	<i>No reply.</i>
27. Blackrock, Mayo,.....	2	x x	9	Edward Rohu.
28. Blacksod Point, Mayo,.....	0	0 0	—	<i>No reply.</i>
29. Clare Island, Mayo,.....	0	0 0	4	<i>No reply.</i>
30. Slyne Head, N., Galway,.....	0	0 0	3	<i>No reply.</i>
31. Slyne Head, S., Galway,.....	1	0 x	3	Rich. Widdicombe.
32. Arran Island, N., Galway,.....	2	x x	9	Thomas Fortune.
33. Straw Island, Galway,.....	0	0 0	9	<i>No reply.</i>
34. Arran Island, S., Galway,.....	0	0 0	6	<i>No reply.</i>
36. Samphire Island, Kerry,.....	1	x 0	—	R. Phelan.
37. Tearaght, Kerry,.....	2	x x	9	Francis Ryan.
38. Valentia, Kerry,.....	1	x 0	—	Joseph Williams.
39. Skelligs, Kerry,.....	2	x x	9	James Walshe.
40. Dursey Island, Cork,.....	0	0 0	$\frac{1}{2}$	<i>No reply.</i>

0 = No reply.

x = Schedule returned partly or wholly filled.

Spring, replies received, 24.

Autumn, replies received, 22.

## LEGS, WINGS, ETC., RECEIVED.

<i>Mine Head</i> , . . .	Leg and wing,	Kestrel, . . .	Shot 29th Oct.
<i>Fastnet</i> , . . .	"	Pied Flycatcher,	{ Killed striking, 4 A.M., Oct. 5.
<i>Tearaght</i> , . . .	"	"	{ Caught at lantern, 8 P.M. Sept. 21.
<i>Tuskar</i> , . . .	"	Missel Thrush,	October.
<i>Mine Head</i> , . . .	"	Thrush, . . .	Killed striking, Feb. 8.
<i>Coningbeg Lt.-ship</i> , . . .	"	" . . .	Received June 2.
<i>Tuskar</i> , . . .	"	" . . .	October.
<i>Rockabill</i> , . . .	"	" . . .	Killed striking, Oct. 7.
<i>Rathlin O' Birne</i> , . . .	"	" . . .	Struck, Dec. 25.
<i>Coningbeg Lt.-ship</i> , . . .	"	Redwing, . . .	Killed striking, Oct. 26.
<i>Rockabill</i> , . . .	"	" . . .	" Oct. 28.
<i>Arklow S. Lt.-ship</i> , . . .	"	Fieldfare, . . .	Dead on deck, Nov. 26.
<i>Rockabill</i> , . . .	"	" . . .	Killed striking, Oct. 24.
<i>Innishtrahull</i> , . . .	"	" . . .	" Oct. 27.
<i>Mine Head</i> , . . .	"	Blackbird, . . .	" Oct. 2.
" . . .	"	" . . .	Disabled strik'g., Oct. 29.
<i>Coningbeg Lt.-ship</i> , . . .	"	" . . .	Killed striking, Oct. 23.
<i>Tuskar Rock</i> , . . .	"	" . . .	October.
<i>Rockabill</i> , . . .	"	" (male),	Killed striking, Oct. 7.
" . . .	Rec'd. in flesh,	Redstart, . . .	Shot, April 24.
" . . .	"	" (female),	Killed striking, May 9.
<i>Fastnet</i> , . . .	{ Leg, wing, and tail, . . . }	Black Redstart,	{ Found dead on rock, Oct. 30.
<i>Mine Head</i> , . . .	Leg and wing,	Stonechat, . . .	Shot, February.
<i>Coningbeg Lt.-ship</i> , . . .	"	Whinchat, . . .	{ Struck lantern, 3 A.M., May 7.
<i>Mine Head</i> , . . .	"	Wheatear, . . .	{ Caught striking, 9.30 P.M., Aug. 22.
<i>Coningbeg Lt.-ship</i> , . . .	"	" . . .	Killed striking, Sept. 4.
<i>Eagle Island, E.</i> , . . .	"	" . . .	Shot first week in April.
<i>Coningbeg Lt.-ship</i> , . . .	"	Reed Warbler, . . .	Killed striking, Oct. 4.
<i>Tearaght Rock</i> , . . .	"	" . . .	Found dead, Oct. 4.
<i>Mine Head</i> , . . .	Rec'd. in flesh,	Sedge Warbler,	" May 3.
" . . .	Leg and wing,	" . . .	" May 10.
" . . .	"	" . . .	Killed striking, Aug. 22.
<i>Hook Tower</i> , . . .	{ Received in flesh } fr. Capt. Boxer,	" . . .	September.
<i>Tuskar Rock</i> , . . .	Rec'd. in flesh,	{ 4 male Sedge Warblers, . . . }	{ Killed striking, May 9.
" . . .	"	3 Sedge Warblers	" May 16.
" . . .	Leg and wing,	Sedge Warbler,	Caught striking, Sept. 24.
<i>Rockabill</i> , . . .	Rec'd. in flesh,	4 Sedge Warblers	Killed striking, May 9.
<i>Tuskar Rock</i> , . . .	"	{ Grasshopper Warbler, . . . }	{ Killed striking, 11.30 P.M., April 30.
" . . .	"	{ 5 Whitethroats (4 male and 1 female), . . . }	{ Killed striking, May 9.
" . . .	Leg and wing,	Whitethroat, . . .	{ Caught at lantern, Sept. 24.

LEGS, WINGS, ETC., RECEIVED—*continued.*

<i>Rockabill,</i>	Rec'd. in flesh,	5 Whitethroats,	Killed striking, May 9.
<i>Tearaght Rock,</i>	Leg and wing,	Whitethroat,	Shot, May 21.
<i>Eagle Island, E.,</i>	{ Leg, wing, and head, . . }	Blackcap,	Killed striking, Oct. 31.
<i>Mine Head,</i>	Leg and wing,	Willow Wren,	{ Caught striking, 1.30 A.M., Sept. 2.
<i>Tuskar Rock,</i>	{ Received in flesh } fr. Capt. Boxer,	"	{ Caught on balcony, Aug. 10.
"	Leg and wing,	Chiffchaff,	{ Caught at lantern, Sept. 24.
<i>Rockabill,</i>	"	"	Killed striking, Oct. 2.
<i>Mine Head,</i>	Wing,	Blue Tit,	Shot, February.
<i>Tuskar Rock,</i>	Rec'd. in flesh,	{ Yellow Wagtail } (fine old male),	Shot, May 3.
<i>Fastnet,</i>	Leg and wing,	Meadow Pipit,	Killed striking, Oct 29.
<i>Barrels Rock Lt.-ship,</i>	"	"	{ Killed striking, 9.30 P.M., Oct. 29.
<i>Rathlin O' Birne,</i>	"	Rock Pipit,	Killed striking, Oct. 14.
<i>Eagle Island, E.,</i>	"	"	Shot, Sept. 14.
<i>Eagle Island, W.,</i>	"	"	{ Killed striking, second week in October.
<i>Mine Head,</i>	"	{ Skylark (pale wing, claws short), . . }	{ Caught at lantern, Feb. 26.
"	"	Skylark,	{ Caught at lantern, March 23.
<i>Coningbeg Lt.-ship,</i>	"	"	Killed striking, Oct. 28.
<i>Arklow S. Lt.-ship,</i>	{ very " large,	{ " . . }	{ Caught on deck, Oct. 28.
<i>Rockabill,</i>	Leg and wing,	"	Killed striking, Oct. 21.
<i>Rathlin O' Birne,</i>	"	"	" Dec. 10.
<i>Eagle Island, W.</i>	"	"	{ Caught at lantern, second week in October.
<i>Fastnet,</i>	"	Snow Bunting,	{ Found dead on rock, Oct. 4.
<i>Rockabill,</i>	"	"	Shot, Oct. 31.
<i>Mine Head,</i>	Skin received,	Corn Bunting,	" February.
"	Rec'd. in flesh,	Reed Bunting,	" Feb. 8.
"	Skin received,	Yellowhammer,	" March 6.
<i>Fastnet,</i>	Leg and wing,	Chaffinch,	Dead on rock, Oct. 28.
<i>Tuskar,</i>	"	"	Killed striking, October.
<i>Rockabill,</i>	"	"	" Oct. 28.
"	"	Greenfinch,	" Oct. 28.
<i>Mine Head,</i>	Rec'd. in flesh,	Goldfinch,	Shot, March 2.
<i>Fastnet,</i>	Leg and wing,	Starling,	{ Killed striking, 7.30 P.M., Oct. 31.
<i>Coningbeg Lt.-ship,</i>	"	"	Struck lantern, March 2.
<i>Tuskar,</i>	"	"	" October.
<i>Rockabill,</i>	"	"	" Oct. 4.
<i>Tearaght Rock,</i>	Rec'd. in flesh,	Sand Martin,	Found dying, April 20.
<i>Tuskar Rock,</i>	"	Swift,	Probably shot, May 15.

LEGS, WINGS, ETC., RECEIVED—*continued.*

<i>Arran Island, N.</i> , . . .	Rec'd. in flesh,	Wryneck,	{ Killed striking, 2.30 A.M., Oct. 6.
<i>Tuskar</i> , . . . . .	"	Turtle Dove,	. Shot, May 12.
" . . . . .	Leg and wing,	Corncrake,	{ Caught at lantern, Sept. 23.
<i>Fastnet</i> , . . . . .	"	Water Rail,	{ Found dead on rock, Oct. 28.
<i>Tuskar</i> , . . . . .	Rec'd. in flesh,	"	{ Caught at lantern, Oct. 26.
<i>Rathlin O' Birne</i> , . . .	"	Water Hen,	. Killed striking, Oct. 28.
<i>Rockabill</i> , . . . . .	Leg and wing,	Jack Snipe,	. " Sept. 28.
<i>Rathlin O' Birne</i> , . . .	"	Snipe,	. " Dec. 12.
<i>Coningbeg Lt.-ship</i> , . .	"	Com. Sandpiper,	{ Found dead on deck, May 17.
" " . . . . .	"	{ Curlew Sand- piper, . . . }	{ Killed striking, May 31.
" " . . . . .	"	" . . . . .	" Aug. 12.
<i>Rockabill</i> , . . . . .	"	" . . . . .	" Oct. 28.
<i>Rathlin O' Birne</i> , . . .	"	{ Purple Sand- piper, . . . }	" Nov. 3.
<i>Eagle Island, E.</i> , . . .	"	" . . . . .	. Shot, April 7.
" " . . . . .	Wing,	Turnstone,	. " April 7.
<i>Blackrock, Mayo</i> , . . .	Leg and wing,	"	. Found dead, Nov. 17.
<i>Eagle Island, E.</i> , . . .	Rec'd. in flesh,	Stormy Petrel,	{ Caught at lantern, May 24.
<i>Eagle Island, W.</i> , . . .	Leg and wing,	{ Fork-tailed Pet- rel, . . . }	{ Caught at lantern, second week in October.

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## HAWKS.

*Fastnet.*—April 17th, two going N.; September 10th, two Hawks alighted 6 A.M.; 23d, one at 7 A.M.; killed a Titlark.

*Mine Head.*—February 23d, Peregrine Falcon seen to-day, first time since November; April 10th, hatching on cliff; 19th, eggs taken. More were laid and hatching re-commenced. August 16th, one Kestrel; October 29th, one shot. [Wing received.] A pair occasionally during winter.

*Coningbeg Light-ship.*—November 6th, one Sparrowhawk passed N.E.

*Arklow South Light-ship.*—September 4th, one Sparrowhawk on deck 10 A.M.; hazy.

*Arklow North Light-ship.*—November 28th, one Sparrowhawk going N.W. December 15th, one.

*Rockabill.*—February 8th, one Sparrowhawk at noon. March 22d, a Kestrel; May 23d, Hawks seen; June 30th, one seen; July 22d, one.

*Copeland (Mew) Island.*—May 21st, a Hawk at 6 P.M.

*Rathlin Island.*—June 10th, a Peregrine hovering.

*Innishtrahull.*—April 6th and 7th, one or two about island; wind strong N.W. and S.W. April 30th, two on island; October 6th and 7th, November 19th and 25th, December 6th and 13th, one or two noticed.

*Arranmore*.—April 22d, two Peregrines; 28th, four Sparrowhawks; June 25th, nine Sparrowhawks about station.

*Rathlin O' Birne*.—September 18th, one Sparrowhawk, 10 A.M., on island.

*Eagle Island, E.*—April 2d, a small Brown Hawk; October 6th and 31st, one large Hawk; December 29th, a small Hawk.

*Blackrock, Mayo*.—January 22d, one Falcon, 10 A.M., on rock; March 16th, a Sparrowhawk about rock; 22d, two Falcons soaring; April 16th, one; September 22d, one young Falcon about rock, carrying away head and intestines of a fish, and chased by a Royal Gull; October 3d, Kestrel, chasing Snow Buntings, one of which flew into the kitchen; October 4th, two Falcons; November 1st, one shot, when about to capture pet pigeon.

*Arran Island, N.*—June 28th, a Hawk seen; July 25th, one; August 12th and September, two.

*Tearaght*.—May 25th, a very large Hawk, of a brownish colour, remained on island up to July.

*Skelligs*.—August 28th, pair of Peregrines last seen; October 1st, first appearance since August; left on 2d; November 20th, two.

#### OWLS.

*Mine Head*.—July 25th, one flying about 9 P.M.; August 13th, one at 9 P.M.

*Rockabill*.—July 22d, "5 P.M.," one seen.

*Innishtrahull*.—A White Owl [? Snowy Owl.—R. M. B.] was seen on west point of island by islanders on 16th January; March 16th, one "Short-eared Owl" on island.

#### PIED FLYCATCHER (*Muscicapa atricapilla*, Linn.).

*Fastnet*.—October 5th, one killed striking at 4 A.M.; wind S.E., misty. [Wing and leg received; erroneously entered as "Goldcrest" in schedule. This is the third specimen killed in Ireland.]

*Tearaght*.—September 21st, 8 P.M., one caught at lantern. [Leg and wing received. The second Irish specimen.]

#### MISSEL THRUSH (*Turdus viscivorus*, Linn.).

*Mine Head*.—They leave here in summer.

*Tuskar*.—[October, leg and wing received without date.]

THRUSH (*Turdus musicus*, Linn.).

[No doubt frequently confounded with Redwing.]

*Fastnet*.—October 18th and 19th, continuous flocks from 10 P.M. on 18th to 9 A.M. on 19th, coming from S.E., going N.W., flying high; wind E.N.E., then E. Less flocks passed when wind changed. 22d, numbers from 1 A.M. to 5 A.M. about the light; rain.

*Mine Head*.—February 8th, one killed striking. [Leg and wing received.]

*Coningbeg Light-ship*.—June 2d. [Received leg and wing of Thrush.]

*Tuskar Rock*.—January 25th and 26th, 2 to 3 A.M., Thrushes, Larks, and Starling; some struck, none killed; clear sky, wind light W. February 9th, flocks of Thrushes passed W. 3 P.M.; 27th and 28th, Thrushes, Blackbirds, Larks, and Starlings passed N.W.; wind strong E.; rain, fog, snow. Migration during night, and on morning of 28th to 10 A.M. Constantly striking, and "countless numbers" killed and disabled. March 13th, small flocks 10 to 11 A.M. passed N.W.; September 29th, one killed striking at midnight. From October 16th to 23d Thrushes killed striking every night, except 22d, from thirty-three on the 16th to two on the 21st; they were accompanied by Blackbirds and Starling, but most Thrushes were killed. The wind was strong from E. and N. Numbers were round the lantern. On 22d, at noon, there were many on the rock; 26th, four killed striking; 30th, three. November 7th, one found killed; 25th, one killed striking.

*Arklow South Light-ship*.—January 25th, several about lantern to midnight; wind light, hazy. February 11th, three killed striking; 21st, several Thrushes, with Starling, striking at midnight; six dead on deck; several killed; 27th and 28th, several Thrushes during night killed against lantern; wind strong S.E. March 2d, several flocks, 2 P.M., going W.; 13th, 2 A.M., about lantern at night; 14th, do.; 20th, 1.30 A.M. to 6 A.M., about lantern; fog. March 27th, Thrushes about lantern; rain. October 7th, midnight, Thrushes about lantern, none killed; fog; wind light S.W. 18th, 9 A.M. to noon, several

going N.W. 19th, 9 P.M. to midnight, about lantern, one killed striking; wind fresh N.E., showery; 22d to 28th, numbers passed, mostly at night; wind fresh from E. 31st, eight killed striking, passing at night with Blackbirds; wind fresh S.; rain.

*Arklow North Light-ship*.—February 11th, hundreds of Larks, Thrushes, and Stares about lantern; about two dozen killed. 27th and 28th, several Thrushes during day about ship; wind strong S.S.E. March 1st, four caught on board; 18th, six killed striking; 25th and 27th, great quantity of Larks, Thrushes, and "Stares" about ship at night; wind fresh S.W.; hazy, rain; three Thrushes killed, numbers fell overboard. April 3d, several about lantern. September 14th, several about lantern at midnight; 21st, do. October 8th, at 2 A.M., and on 9th, some at noon, going N.W.; 17th, some at 7 A.M., going N.W.; 30th, about lantern at midnight, four killed striking. November 22d, two killed striking at midnight; misty, rain.

*Kish Light-ship*.—March 1st, several about ship all day; 2d, do.; caught one.

*Rockabill*.—January 30th, Thrushes at night, striking; several killed. February 26th, 27th, 28th, Thrushes striking at night; numbers killed; mist, rain, snow; wind S.E., fresh. March 14th, Thrushes passing; 22d, about lantern at night. July 15th, a "Mountain Thrush," 7.30 A.M. September 25th, one on rock. October 2d, 2 A.M., about light, with Skylarks; 7th, 3 A.M., a number about light; about twelve killed striking; wind light N., fog. [Leg and wing of Thrush received.] 28th, 10 P.M., a number about light, with Blackbirds, Redwings, Chaffinches, Greenfinches, etc.; some killed; gloomy; wind S.E., strong. (See under the various species.)

*South Maidens*.—February 20th, one caught on balcony at 1 A.M., and one found dead. April 20th, one killed striking, 9 P.M. October 4th, some on balcony during night; 5th, several killed against glass up to midnight.

*Innishtrahull*.—January 17th, one on island. February 22d, one killed striking, 4 A.M.; wind N., fresh, misty. September 26th, one striking. October 4th, a great number of Thrushes and Larks about lantern, striking S.W. side; wind strong S.E., hazy. 5th, one; 12th and 15th, one or two striking, 11 P.M.

*Tory Island*.—March 17th, four killed striking.

*Arranmore*.—June 18th, two about station. December 21st, Blackbirds and Thrushes all day; snow showers.

*Rathlin O' Birne*.—September 6th, three on island; wind light N.E.; first seen. December 18th to 23d, flocks of Starling, Thrushes, and Fieldfare during snow (see under Fieldfare). December 25th, fifteen at midnight; wind strong W.; four killed striking. [Leg and wing of one received.]

*Killybegs*.—November 8th, two; wind fresh S.W. December 16th, three; 18th, about twenty, with Blackbirds, Larks, and flocks of Starling; wind light, snow.

*Slyne Head, S.*—October 18th, twelve Thrushes, first seen this winter; wind strong N.E. December 17th, numbers of Blackbirds and Thrushes; 18th, great numbers of Starlings, Thrushes, Blackbirds, Larks, Linnets, and Chaffinches on island while snow lasted; wind strong N.E., snow.

*Arran Island, N.*—January 6th, two. November 25th, one. December 18th to 21st, flocks with Fieldfares, Blackbirds, and Starling.

*Tearaght*.—October 17th, a few. November 14th, a great many arrived. 18th, Thrushes in thousands; also a great number of Starling and Skylarks; snow appears heavy on shore. 24th, a great number left.

*Skelligs*.—October 2d, several. November 15th, five "Mountain Thrush."

#### REDWING (*Turdus iliacus*, Linn.).

*Fastnet*.—October 22d, numbers, 1 A.M. to 5 P.M., about light; one killed striking; rain, wind E.N.E.

*Mine Head*.—October 17th, one. Plentiful up to date, 20th January 1887.

*Coningbeg Light-ship*.—October 23d, several Thrushes, 7 to 12 P.M., round light; 26th, several Thrushes round light; six killed striking. [Leg and wing of Redwing received.—R. M. B.] 26th to 30th, several with Blackbirds, Larks, and Starling round light at night; wind E. or S.E., strong gloomy rain.

*Barrels Rock Light-ship*.—April 20th, three Mountain Thrushes going N., rested awhile on ship; light haze. October 30th, Mountain Thrushes passing 8 P.M. to 3 A.M. on 31st with Starlings, one struck going N.; showery; wind fresh S.

*Rockabill*.—October 28th, 10 P.M., Redwing about lantern, with

Thrushes, Blackbirds, etc.; wind strong S.E., gloomy. [Leg and wing of Redwing received.] December 14th, one on rock; stormy, wind E.

*Tearaght*.—March 3d, a great number of Redwings and Blackbirds on island; 25th, last of Redwings and Blackbirds seen to-day. October 6th, several seen.

### FIELDFARE (*Turdus pilaris*, Linn.).

*Mine Head*.—A few occasionally, from 19th October to date, January 20th, 1887.

*Tuskar Rock*.—October 30th, one killed against glass.

*Arklow South Light-ship*.—November 26th, Fieldfare dead on deck. [Leg and wing received.]

*Rockabill*.—October 24th, Fieldfares at 11 P.M. about light; several killed; wind E., strong, gloomy. [Leg and wing received.] December 17th, two, 3 P.M., going W.; wind N., fresh.

*Innishtrahull*.—October 27th, one killed striking, 11 P.M.; wind strong S.E., overcast. [Leg and wing of Fieldfare received.] December 18th to 20th, "a most extraordinary rush of Fieldfares; wind N., very stormy, with heavy snow showers. They all apparently came from Scotch coast. I never saw such a rush; the oldest people on island never saw the like. A great number left on 21st; not one to be seen after 23d." [None are entered as killed striking.]

*Arranmore*.—December 21st, eight Fieldfares; snow showers; also Blackbirds, Thrushes, and Starling.

*Rathlin O' Birne*.—Immense flocks of birds passed here, from December 18th to 23d, their flight being always to the W., Starlings, Thrushes, and Fieldfares. [There is no land W. of Rathlin O' Birne but America.—R. M. B.]

*Eagle Island, E*.—December 17th, large flock at daylight on island; wind fresh N.; 19th, about one hundred on island, 10 A.M.; wind fresh N.

*Arran Island, N*.—December 18th to 21st, flocks with Thrushes, Blackbirds, etc.

*Tearaght*.—November 18th, a large flock on island (snow on shore); 24th, left island.

BLACKBIRD (*Turdus merula*, Linn.).

*Fastnet*.—October 18th and 19th, from 10 P.M. on 18th to 9 A.M. on 19th, continuous flocks with Thrushes coming from S.E., going N. and N.W.; wind E.N.E. to E. 22d, numbers, 1 A.M. to 5 A.M., about light; wind E.N.E., rain; one killed striking (female). 23d, two males captured on rock after night; wind light E., hazy. 24th, one on rock. 25th, one disabled. Blackbirds leave in summer.

*Mine Head*.—October 2d, one found killed at base of light-house. [Wing and leg of female Blackbird received.] 19th, one. 29th, one found injured in garden in morning. [Leg and wing received.] A few seen occasionally afterwards.

*Dungarvan*.—October 26th, one struck 10 P.M.; misty.

*Coningbeg Light-ship*.—October 23d, several round light, 7 P.M. to midnight; wind E., strong, clear. [Leg and wing received.—R. M. B.] 26th to 30th, several round light at night, with Thrushes, Larks, and Starling.

*Barrels Rock Light-ship*.—December 5th, one alighted on ship, flew N.W. December 16th, two going N.W.; wind light E.

*Tuskar Rock*.—February 27th and 28th, numbers passing N.W. at night, with Thrushes, Larks, and Starling; wind E., strong; rain, fog, snow (see Thrush); many killed. March 13th, 2 to 5 A.M., ten killed striking; clear, wind E.; most of Blackbird killed were females. September 24th, 11 P.M., one killed striking. October 18th to 21st, one to three killed striking each night; numbers around light, with Thrushes and Starling. 22d, Blackbirds on rock at noon. 23d, two killed striking. 24th, small numbers on rock. 25th, one killed striking. 26th, eleven hen and five cock Blackbirds killed striking. 30th, five; during this October rush the wind was strong from N. to E., and Thrushes, Starlings, and on 26th, Larks accompanied the Blackbirds. November 8th and 9th, one seen. 14th, fourteen passed N.W. Two and three noted 21st and 25th. December 5th, eight at lantern 6 A.M. 6th, flocks passed N.W. at 8 A.M.

*Arklow South Light-ship*.—February 27th and 28th, several about lantern; many killed striking. (See under Thrush and Starling.) 20th, about lantern at night, 1.30 A.M. to 6 A.M.; fog. March 27th, 9 P.M. to 4 A.M., Blackbirds about lantern; four females killed striking, several fell overboard; rain. July 21st, one young Blackbird fell into the sea. October 30th, 8 P.M. to

midnight, several; 4 killed striking; wind fresh S., rain. 31st, two killed striking.

*Arklow North Light-ship*.—March 25th and 27th, four killed striking. April 3d, two ditto. September 21st, midnight, about lantern. 28th and 29th, do. October 30th, about lantern, midnight; wind fresh S., cloudy; six killed striking.

*Kish Light-ship*.—March 27th, flocks about ship with Starlings and Larks.

*Rockabill*.—January 30th, Blackbirds, with Thrushes, Stares, and Larks passing at night; several of each killed striking; wind S.W. light. February 26th and 27th, Blackbirds passing at night with Thrushes and "Stares;" wind S.E., misty, rain, snow. March 14th, Blackbirds passing. June 6th, several; misty. July 8th and 18th, one seen. October 7th, 3 A.M., a number, about twelve killed striking; also Thrushes; wind light N., fog. [Leg and wing of Blackbird received.] 28th, 10 P.M., about light, some killed striking; gloomy, wind S.E., strong. December 5th, one on rock. 14th, one during storm from E. 20th, some on rock; wind N.E., fresh.

*Copeland (Mew) Island*.—April 30th, forty; some breed on Island.

*South Maidens*.—February 20th, one caught on balcony, 1 A.M. March 20th, one on rock. October 4th, one struck—disabled. 5th, several killed up to midnight. 8th, one on rock all day. "During latter part October there was a great rush of Blackbirds, Skylarks, and Stares."

*Innishtrahull*.—October 5th, 11 P.M., one striking; misty. November 11th, 10 P.M., one striking; wind strong S.W.

*Arranmore*.—June 19th, four about station. December 21st, Blackbirds and Thrushes all day; snow showers.

*Rathlin O' Birne*.—November 10th, one on island; wind strong N.E. The first seen. December 25th, three do.; wind N.W., strong.

*Killybegs*.—November 1st, one; wind strong S.W. December 16th, two. 18th, about a dozen, with Thrushes, Larks, and Starling; snow, wind light.

*Slyne Head, S.*—December 17th, numbers of Thrushes and Blackbirds on island; wind strong N.E., snow. 18th, Blackbirds (see under Thrush).

*Arran Island, N.*—February 24th, one Blackbird (male) seen.



December 18th to 21st, flocks with Starling, Thrushes, and Fieldfare.

*Tearaght*.—March 3d, a great many Redwings and Blackbirds on island. 25th, last seen to-day. October 17th, a few.

*Valencia*.—one to four, June 1st, August 1st, 20th.

*Skelligs*.—October 2d, several.

#### RING OUZEL (*Turdus torquatus*, Linn.).

*Mine Head*.—May 11th, one seen; probably breeds here. January 15th, 1887, one seen; shot at, but missed. [See 1885 Report.]

#### HEDGE SPARROW (*Accentor modularis*, Linn.).

*Blackrock, Mayo*.—October 20th, one during day; wind light W.

*Tearaght*.—Hedge Sparrows and Wrens breed here; but I think a great many Hedge Sparrows leave in spring, as they are far more plentiful in winter. [Nests of both seen.—R. M. B.]

#### ROBIN (*Erithacus rubecula*, Linn.).

*Fastnet*.—October 20th, one on rock all day.

*Tuskar Rock*.—September 25th, 3 A.M., two at lantern glass; wind light S.W. November 5th, one on rock, 10 A.M.; wind N.W., light.

*Rockabill*.—March 23d, "Robins." April 3d, do. September 25th, one on rock.

*Arranmore*.—December 23d, three Robins.

*Broadhaven*.—November 8th, one; remains here.

#### REDSTART (*Ruticilla phœnicurus*, Linn.).

*Rockabill*.—April 24th, one shot at noon; wind light S.E., fog; only two seen. [Received a male Redstart in flesh.] May 9th, Redstart and Warblers passing all night; wind moderate E., misty; caught one Redstart. [Received one female Redstart in flesh. See under Whitethroat.] July 12th, a Redstart, 9 A.M.; wind strong S.W.

#### BLACK REDSTART (*Ruticilla titys*, Scopoli).

*Fastnet*.—October 23d, "A small bird about size of a Robin. Dark slate colour on back, light blue on breast, bill and legs

black. About all day; never saw one of this species before." [Probably Black Redstart.—R. M. B.] 31st, small bird, name unknown, got dead on rock. [Wing, leg, and tail of Black Redstart received.] November 21st, one seen; very dark in body. (Probably old male.)

*Mine Head.*—January 18th, one seen. 26th, another. January 19th, 1887, one seen, but not noticed until this date.

*Dungarvan.*—December 18th, one seen on lighthouse road.

*Tuskar Rock.*—November 7th, one caught on rock—forwarded [NOT received.—R. M. B.] 22d, one on rock at noon.

*Rockabill.*—July 10th, 11 A.M., a "Blackstart;" wind strong S.W. Rested for a short time. [This would be an extraordinary late date for a *Black Redstart*. The bird should be known at Rockabill, as Mr Hammond forwarded a fine old male last year.]

#### STONECHAT (*Saxicola rubicola*, Linn.).

*Mine Head.*—February 14th, one shot. A few seen during summer.

*Rockabill.*—April 25th, one seen.

*South Maidens.*—April 20th, one killed striking, 9 P.M. October 9th, one on rock.

*Rathlin Island.*—April 5th and 9th, one to three seen. June 6th, four.

*Innishtrahull.*—September 25th and 26th, five to six striking glass at night; wind strong S., misty.

*Arranmore.*—April 16th, two; wind light N.E. November 20th, two, all day.

*Killybegs.*—March 14th, four at 8 A.M.

#### WHINCHAT (*Saxicola rubetra*, Linn.).

*Coningbeg Light-ship.*—May 7th, one killed striking, 3 A.M.; wind light S.E., rain. [Leg and wing received.]

*Rockabill.*—April 27th, a Whinchat. May 8th, one. October 7th, a number of "Whinchats" at noon.

#### WHEATEAR (*Saxicola oenanthe*, Linn.).

*Fastnet.*—September 3d, 10 to 12 P.M., large flocks "Stone Chatters," fifteen killed striking; wind fresh S.E., misty, rain.

Several caught alive; all seemed young birds. September 4th, numbers, 12 to 3 A.M., three killed striking; wind fresh S.E., misty; several on rock all day. 6th, four, 10 to 11 P.M., about light; two killed striking; passing showers; wind fresh N.W.

*Mine Head*.—April 19th, first seen; several breed near. August 22d, two caught striking, 9.30 P.M.; hazy. [Leg and wing received.] 26th, two at lantern, 10 P.M.; fog. 28th, one at glass; thick fog.

*Coningbeg Light-ship*.—April 12th, one about ship. September 4th, one killed striking. [Leg and wing received.]

*Tuskar Rock*.—April 12th, passing in small numbers with Chaffinches, 10 P.M. to 4.30 A.M.; six of each killed striking; wind light S.W., clear. May 22d, 12 midnight, one killed striking; wind light N.E. July 30th, one on rock.

*Rockabill*.—April 21st, two killed striking; gloomy, wind strong E. 30th, four killed striking; misty, wind S., moderate. July 7th, Wheatears on rock; 14th, a young one. September 25th, two; 28th, 10 P.M., several about light; misty.

*South Maidens*.—April 25th, three on rock.

*Rathlin Island*.—May 20th and June 2d, noted.

*Arranmore*.—March 18th, six about station, the first seen; wind strong S.E., misty.

*Eagle Island, E*.—April 7th, five or six "Wheatears (Stonechats)" all day. [Leg and wing of one shot received.]

*Tearaght*.—April 14th, one struck, 11 P.M., not killed; fog. 16th, several seen to-day.

*Skelligs*.—March 28th, three all day. 29th, a number flying N.W. at noon.

### REED WARBLER (*Acrocephalus streperus*, Vieill.).

*Coningbeg Light-ship*.—October 3d and 4th, several small birds about light, 8 P.M. to midnight; overcast, one killed striking. [Leg and wing received, and doubtfully referred by Mr Dresser to this species, who says that the leg is nearer *Sylvia curruca*. It is improbable either species were migrating in any numbers, and most of the small birds were doubtless other Warblers.]

*Tearaght Rock*.—October 4th, one found dead. [Leg and wing received and submitted to Mr Dresser.]

SEDFE WARBLER (*Acrocephalus schænobænus*, Linn.).

*Mine Head.*—April 25th, one caught striking; wind N.E., strong breeze, fog. May 3d, one found dead. [Received Sedge Warbler.] 7th, one caught striking; wind E., calm, fog; a few against lantern all night; as many as five seen on sashes at a time. 8th, one found dead, several striking in night; fog continued. 9th, one found dead. 10th, another. [Leg and wing received.—R. M. B.] August 25th, a Whitethroat Warbler found dead at base of lighthouse; probably killed on 22d, during fog. [Leg and wing received. It was a Sedge Warbler.] 28th, one caught at glass. September 13th, one in garden.

*Tuskar Rock.*—May 9th, 9.30 P.M. to 1 A.M., small numbers with Whitethroats striking; fog; thirteen Whitethroats and ten Sedge Warblers killed. [Received four male Sedge Warblers, and five male and one female Whitethroat in flesh.—R. M. B.] May 16th, three killed striking. [Received Sedge Warbler.] May 22d, 10.30 P.M. to 2 A.M., Whitethroats and Sedge Warblers constantly striking, about fifty of each killed; wind light N.W. July 29th, one killed striking, 11.30 P.M. September 24th, one killed striking. [Leg and wing received.]

*Rockabill.*—May 7th, Sedge Warblers passing in numbers all night; rain, wind light S. 9th, Warblers passing all night. [Four Sedge Warblers received in flesh. See under White-throat.] 22d, "Warblers" passing, several killed.

GRASSHOPPER WARBLER (*Acrocephalus nævius*, Bodd.).

*Tuskar Rock.*—April 20th, one struck, 11.30 P.M.; wind light E., misty. [Received in flesh.]

WHITETHROAT (*Sylvia rufa*, Bodd.).

*Mine Head.*—May 9th, one caught striking; 12th, one singing in marshy ground. [Probably Sedge Warbler.]

*Tuskar Rock.*—May 9th, 9.30 P.M. to 1 A.M., Whitethroats and Sedge Warblers striking; fog; thirteen Whitethroats and ten Sedge Warblers killed. [Received five male and 1 female Whitethroat, and four male Sedge Warblers in flesh.] May 22d, 10.30 P.M. to 2 A.M., Whitethroats and Sedge Warblers constantly striking, about fifty of each killed; wind light N.W.

September 24th, one killed striking. [Leg and wing of White-throat received.]

*Rockabill*.—May 6th, Whitethroats passing; wind light S., misty. 9th, Warblers passing all night; fog and mist. [Received five Whitethroats in flesh. See also under Sedge Warbler.] There were immense quantities of these small birds here on night of 9th inst. 22d, "Warblers" passing. 23d, Whitethroats passing.

*Tearaght*.—May 21st, one Whitethroat shot. [Received in flesh.]

#### BLACKCAP (*Sylvia atricapilla*, Linn.).

*Tuskar Rock*.—November 7th, one found killed; forwarded. [Not received.—R. M. B.]

*Eagle Island, E*.—October 31st, one killed striking. [Leg, wing, and head received.]

#### CHIFFCHAFF (*Phylloscopus collybita*, Vieill.), and

#### WILLOW WREN (*Phylloscopus trochilus*, Linn.).

*Mine Head*.—April 24th, one caught striking, 1 A.M., fog. May 6th, one seen. September 2d, one caught on glass; wind N., clear, fine. [Leg and wing of Willow Wren received.]

*Tuskar Rock*.—September 24th, one Chiffchaff killed striking; wind light S.W. [Leg and wing received.]

*Arklow South Light-ship*.—April 25th, 8 A.M., one "Sally-picker" found dead on deck. [Perhaps Chiffchaff or Willow Wren.]

*Arklow North Light-ship*.—May 11th, great flocks of "Sally-pickers" about ship, 4 A.M.; calm, hazy; six killed striking. [May have been Sedge Warblers or Whitethroats.]

*Rockabill*.—April 23d, "Flycatchers" passing all night, numbers killed striking; gloomy, misty, wind E., light. May 4th, "Flycatchers" all night; numbers killed striking; wind fresh S., misty. September 1st, two "Flycatchers" all day on rock; clear. 28th, 10 P.M., several "Flycatchers" about light; misty, rain. October 2d, one "Flycatcher" killed striking; wind S.E., strong, overcast. [Leg and wing of Chiffchaff received.]

*Blackrock, Mayo.*—April 29th, one Willow Wren all day about rock; wind strong N.E.

GOLDEN-CRESTED WREN (*Regulus cristatus*, Koch).

*Rockabill.*—September 25th, one on rock. October 7th, 3 A.M., Golden-crested Wrens with "Common Wrens," Blackbirds, and Thrushes about light; fog, wind light N.

*South Maidens.*—October 8th, two Golden-crested Wrens.

*Arranmore.*—December 21st, one; snow showers.

*Rathlin O' Birne.*—December 26th, one on island. Passing snow showers.

*Skelligs*, October 10th, two Golden-crested Wrens.

WREN (*Troglodytes parvulus*, Koch).

*Mine Head.*—"A doubt having been expressed in a previous report of the common Wren being resident on the Tearaght Rock, I have seen it plentiful there both summer and winter. I believe there are between 60 and 100 always there, and I believe five might be found on the same extent of ground at Mine Head." [Mr M'Carron has recently moved from Tearaght Rock to Mine Head. Wren's nest seen by R. M. B.]

*Coningbeg Light-ship.*—April 12th, one "Wren" about ship, 5.30 A.M. [? this species.]

*Arklow South Light-ship.*—October 3d, 6 A.M., one "Wren" alive on deck, caught and let go; hazy, rain, wind strong S.

*Rockabill.*—April 10th, "Wrens;" 29th, do. October 7th, 3 A.M., "common Wrens" about lantern; wind light N., fog.

*Arranmore.*—December 22d, one "common Wren."

*Tearaght.*—Hedge Sparrows and Wrens breed here.

BLUE TIT (*Parus cæruleus*, Linn.).

*Mine Head.*—February 1886 [wing received.] January 3d, 1887, one seen.

WAGTAILS.

*Fastnet.*—April 18th, one on rock.

*Mine Head.*—June 16th, three, "not the common species." [From description, probably Grey Wagtail.] September 27th, four. January, 19th, 1887, one.

*Barrels Rock Light-ship*.—September 24th, one Yellow Wagtail going N.

*Tuskar Rock*.—March 13th, one "Grey" Wagtail killed striking, 3 A.M.; wind light E., clear. May 3d, two on rock, one killed. [Received in flesh—a fine male, *Motacilla Ravi*.] "They are not the first I have seen here."

*Arklow South Light-ship*.—February 21st, one about ship. September 15th, one about ship noon; wind light N.E.

*Rockabill*.—March 1st, one killed striking. May 5th, a Grey Wagtail. October 7th, 11 A.M., one Yellow Wagtail on rock.

*Innishtrahull*.—December 15th, one Wagtail; wind very strong N.E.

*Eagle Island, E.*—April 27th, two Pied Wagtails on island; first seen. May 1st, two. December 6th, two.

*Arran Island, N.*—July 25th, two Wagtails. December, the two Wagtails remained since July.

*Skelligs*.—October 2d, two Wagtails.

#### ROCK PIPIT (*Anthus obscurus*, Lath.) and

#### TITLARK (*Anthus pratensis*, Linn.).

*Fastnet*.—September 4th, 12 to 3 A.M., two killed striking; wind fresh S.E., misty. October 3d, two; 29th, one killed striking; hazy. [Leg and wing of Titlark received.]

*Coningbeg Light-ship*.—October 24th, flocks going N.W.; wind E., fresh.

*Barrels Rock Light-ship*.—October 4th, one Lark 9 A.M. 29th, Lark passing 9 P.M. to midnight, one killed striking; rain. [Leg and wing of Titlark received.] 30th, small flock of Larks 11 A.M. going N.

*Arklow South Light-ship*.—19th and 26th September, one Titlark.

*Arklow North Light-ship*.—April 7th, some Titlarks passing N.W. November 8th, a flock.

*Kish Light-ship*.—March 1st, several about ship; 2d, ditto, caught two. May 2d, one about ship. June 14th, one. August 12th, three on board.

*South Maidens*.—January 31st, three on rock. April 1st, midnight, one killed striking. October 6th, some about light.

*Innishtrahull*.—September 3d, one striking 10 P.M.; 5th, four

striking; wind strong S., overcast. 29th, one at lantern. Titlarks [? Rock Pipits] are resident.

*Rathlin O'Birne*.—October 14th, one killed striking, 1 A.M.; wind light W. [Leg and wing of Rock Pipit received.]

*Killybegs*.—October 4th, four at noon.

*Eagle Island, E.*—March 27th, three all day. Breed here. September 14th, one shot. [Leg and wing of Rock Pipit received.] October 26th, four.

*Eagle Island, W.*—October, one killed striking, second week. [Leg and wing of Rock Pipit received.]

*Arran Island, N.*—A flock on island.

*Skelligs*.—Titlark remains all the year.

#### SKYLARK (*Alauda arvensis*, Linn.).

*Fastnet*.—October 22d, one killed striking; rain. 29th, several on rock.

*Mine Head*.—February 26th, Lark caught striking. [Leg and wing received (see Preface). They were submitted to the best authorities, who referred them, after some difference of opinion, to this species.] March 23d, one killed striking. [Leg and wing received.] November 13th, one chased into coal store by "Kestrel;" doing well in cage.

*Coningbeg Light-ship*.—April 21st, three Larks about ship; hazy. October 14th, one. 28th to 30th, several Larks and Thrushes about ship at night; gloomy with rain. Some killed striking. [Leg and wing of Skylark received.]

*Tuskar Rock*.—February 10th, 11th, and 12th, constantly passing in small flocks to N.W. February 27th and 28th, passing at night with Thrushes and Blackbirds to N.W., numbers killed; wind strong E., rain, snow, fog. October 26th, eight killed striking; Blackbirds, Thrushes, and Starling with them (see under each). December 16th and 29th, one at lantern.

*Arklow South Light-ship*.—January 25th, several about lantern to midnight. February 8th, 4 to 8 A.M., Skylarks about ship; calm and foggy. 11th, three killed striking at night. *A large number floating by ship in the water in day time.* March 13th, 2 A.M., Thrushes, Stares, and Larks about lantern; four Larks fell on deck, killed; hazy. 14th, about lantern; wind light N.E., hazy. 20th, Thrushes, Skylarks, Stares, and Blackbirds,



1.30 A.M. to 6 A.M., about lantern; foggy, light S.W. wind. 27th, Skylarks about lantern 9 P.M. to 4 A.M., one killed striking. October 4th, several about lantern 10 P.M.; wind, light S.E., cloudy; four killed striking. 5th and 7th, several about lantern, three caught and let go. 18th, 9 A.M. to noon, Larks going N.W. 28th, Thrushes and Larks 12 to 4 A.M.; overcast, wind light S.E. [Leg and wing received.]

*Arklow North Light-ship.*—February 11th, hundreds of Larks about lantern at night (*see* under Starling). March 13th, flock going N.W. 18th, large number about lantern; wind, strong S.E., snow. 19th, flocks going N.W. 10 A.M. 25th and 27th, great quantity at midnight; hazy, rain, wind fresh S.W.; two killed striking. April 3d, several about lantern at midnight. September 14th, several; 28th and 29th, about lantern at midnight. October 9th, 12th, 18th, noted in day time going N.W.; 19th and 20th, several flocks going N.W.; 26th, about lantern at night. November 8th, a flock at noon. December 3d, several about lantern at midnight; misty.

*Kish Light-ship.*—March 27th, several flocks about ship; wind S.W., fresh. April 26th, one about lantern.

*Rockabill.*—January 30th, Larks, with Stares, Blackbirds, and Thrushes, passing at night; several of each killed striking. March 16th, a "Woodlark" seen. April 3d, Larks at night. October 2d, 2 A.M., about light; misty; one killed striking. [Leg and wing of Skylark received.] 7th, 3 A.M., a large number about light, 10 killed striking; also Blackbirds, Thrushes, etc.; wind light N.E., fog. December 4th, 2 A.M., a few about light; rain. 14th, four on rock 10 A.M.; wind E., stormy. 20th, 9 A.M., some on rock; wind strong N.E.

*South Maidens.*—January 28th, four found dead on flags. February 8th, four struck lantern 11 P.M.; overcast, gloomy. 9th, a large flock over rock, none struck. 12th, eleven; wind strong S. April 5th, 25th, and 30th, four noticed. October 4th, several on rock; 6th, large flocks about light, very few killed. "During the latter part of October there was a great rush of Larks, Blackbirds, and Stares."

*Innishtrahull.*—January 3d, one killed striking, 5 A.M.; wind strong S.W. February 6th, a number about lantern at midnight; overcast, rain, wind very strong S.; four killed striking. February 25th, three at 1 A.M. striking; clear. March 24th, four

at 2 A.M. about lantern, one killed; wind fresh S.E. June 30th, midnight, two disabled striking; fog. July 5th, one on balcony 11 P.M. October 4th, 11 P.M., a great number of Thrushes and Larks about lantern, striking the S.W. side of lantern; some killed, which struck with great force; wind strong S.E., overcast, hazy. 15th, one striking 11 P.M. November 23d and 24th, two striking; wind light, fog. December 18th, eighty to a hundred; wind N., snow, stormy.

*Arranmore.*—March 24th, Larks all day.

*Rathlin O' Birne.*—December 10th, about twenty at 10 P.M., five killed striking; wind light W., clear. [Leg and wing received.]

*Killybegs.*—March 28th, two in garden. May 7th, six going S.E. October 2d, six; 17th, 10 P.M., five or six about light. December 16th, four; 17th, one at lantern 9 P.M. 18th, about thirty, with Starling, Thrushes, and Blackbirds; snow, wind light.

*Eagle Island, E.*—October 3d, one seen.

*Eagle Island, W.*—Second week October, one caught at lantern. [Leg and wing received.]

*Blackrock, Mayo.*—November 25th, about lantern until midnight, four killed striking; wind light S.E., clear to gloomy.

*Slyne Head, S.*—December 18th, numbers with Chaffinches, etc., on island during the snow; wind strong N.E. (*see* under Thrush).

*Tearaght.*—November 18th, a great number (snow on shore). 24th, Larks have left.

#### SNOW BUNTING (*Plectrophanes nivalis*, Linn.).

*Fastnet.*—October 3d, two on rock; rarely seen here. 4th, one found dead. [Wing and leg received.]

*Dungarvan.*—December 19th, two seen; wind N.W., light.

*Rockabill.*—February 17th, Snow Bunting at 3 P.M. October 31st, one on rock shot. [Leg and wing received.]

*Innishtrahull.*—January 17th, five on island; wind strong W., snow showers. October 19th, numbers of Snow Buntings; wind light E., clear; left again.

*Tory Island.*—January 1st, ten Snowbirds on island; wind N.W., stormy.

*Arranmore.*—April 12th, two, in almost summer plumage.

June 13th, two, not in summer plumage. [Perhaps females.—R. M. B.] September 29th, seven, the first seen; wind light S.W.

*Rathlin O' Birne*.—December 19th, fifty-five at 9 A.M.; wind strong N.E., snow; ten found dead.

*Killybegs*.—December 10th, four; 13th, six.

*Broadhaven*.—December 26th, five.

*Eagle Island, E*.—March 27th, two on island. October 10th, three all day. 11th, five; wind strong W.

*Blackrock, Mayo*.—October 1st, three. November 18th, thirty; wind strong S.W., misty. December 9th, fifteen. Still on rock January 8th, 1887.

*Slyne Head, S*.—October 18th, one on island.

*Arran Island, N*.—January 14th, six on island.

*Tearaght*.—October 5th, eighteen on island; not seen afterwards.

#### COMMON BUNTING (*Emberiza miliaria*, Linn.).

*Mine Head*.—February 8th, one shot. A pair seen during summer. [Skin received.]

#### REED BUNTING (*Emberiza schoeniclus*, Linn.).

*Mine Head*.—February 8th, one shot. [Received.] March 22d, another. January 27th, 1887, I have not seen this species or the Common Bunting this winter.

#### YELLOW HAMMER (*Emberiza citrinella*, Linn.).

*Fastnet*.—October 3d, one seen.

*Mine Head*.—March 6th, several. A few always in neighbourhood. [Skin of one received.]

*Rockabill*.—July 20th, 10 A.M., one seen. December 6th, four on rock; wind strong S.W.

*Rathlin Island*.—May 24th, seven.

*Arranmore*.—November 17th, one.

*Rathlin O' Birne*.—November 12th, five on island; wind strong N.E., rain. Seldom seen.

*Skelligs*.—November 15th, three Yellow Hammers.

#### CHAFFINCH (*Fringilla cœlebs*, Linn.).

*Fastnet*.—October 23d, one on rock; 24th, two. 25th, eleven;

wind E., fresh. 27th and 28th, several about light all night; drizzling rain, wind light E.N.E. [Leg and wing received.] 30th, several about light with Greenfinches, 1 to 3 A.M.; misty, wind light S.

*Mine Head.*—October 23d, one; several afterwards. "Yellow Bunting, Greenfinch, and Chaffinch go farther inland in breeding season."

*Barrels Rock Light-ship.*—October 20th, small flocks going N.; wind fresh N.W. November 6th, three.

*Tuskar Rock.*—March 1st, nine on rock, noon; wind strong N.E. April 12th, 10 P.M. to 4 A.M., small number passed with Wheatears, six of each killed striking; clear. October 22d, one at noon; 24th, one on rock. 30th, two killed striking; overcast, rain. [Leg and wing received.] November 6th, one on rock; 7th, four; 9th, one found killed; 21st, two on rock.

*Arklow North Light-ship.*—March 1st, large flock of "Finches." December 8th, flock passed N.W., 2 P.M.

*Rockabill.*—February 11th, one. April 10th, Chaffinches. October 8th, six at 8 A.M.; fog. 28th, 10 P.M., about light, with Greenfinches, Redwings, Blackbirds, and Thrushes; wind strong S.E., gloomy. [Leg and wing received.]

*Arranmore.*—December 22d, two.

*Blackrock, Mayo.*—October 24th, one. 28th, twelve during day; wind light S.E., misty.

*Slyne Head, S.*—October 28th, three; wind strong S.E. December 18th, many while snow lasted (see under Starling).

*Tearaght.*—October 20th, several arrived, mostly females.

#### SPARROW (*Passer domesticus*, Linn.).

*Fastnet.*—April 18th, one; wind E.S.E., clear.

*Rockabill.*—March 23d, "Sparrows."

*Rathlin Island.*—June 1st, a flock at station.

*Arranmore.*—September 21st, four.

*Killybegs.*—March 10th, four Sparrows in garden. June 11th, four.

*Broadhaven.*—September 20th, seven remain here. October 7th, a flock.

GREENFINCH (*Coccothraustes chloris*, Linn.).

*Fastnet*.—October 29th, one died on rock exhausted; wind fresh S.W. 30th, some around light in night.

*Coningbeg Light-ship*.—April 15th, three passed N.; wind N.

*Rockabill*.—April 13th, Green Linnet at noon. October 28th, Greenfinches about light, 10 P.M., with Thrushes, etc.; gloomy, wind strong E. [Leg and wing received.] December 6th, three on rock; wind strong S.W. 26th, some on rock; wind light S.W.

*Broadhaven*.—September 23d, about eighty going S. October 3d, forty do.

GOLDFINCH (*Carduelis elegans*, Steph.).

*Mine Head*.—March 2d, one shot. [Received Goldfinch in flesh.] Another seen once or twice afterwards. January 1887, observed twice during winter.

*Arranmore*.—September 3d, three. They breed on island. December 22d, seventeen.

REDPOLE (*Linota rufescens*, Vieill.).

*Rockabill*.—April 7th, Redpoles seen at noon.

## LINNETS.

*Fastnet*.—September 15th, four Grey Linnets at 10 P.M. about light.

*Mine Head*.—January 25th, February 25th, Twite noticed. May 11th, found Twites' nests, in some of which were six eggs. Common summer and winter.

*Barrels Rock Light-ship*.—March 25th, seven going N. April 15th, small flock, 6 P.M., going N. 24th, about fifteen passed 7.30 P.M.; two struck, fell overboard; fog. September 26th, four going N.E. October 19th, small flock going N.W. December 20th, three small flocks, 11 A.M., going N.W.

*Arklow South Light-ship*.—September 28th, three going N.W.

*Arklow North Light-ship*.—November 5th, 2 P.M., large flock going W.

*Rockabill*.—March 2d, Linnets passing S. all day; snow showers; wind N., strong. October 7th, a flock, 11 A.M. December 10th, four on rock; wind strong W. December 16th, six

“Red-breasted Linnets” on rock, 11 A.M. 26th, Linnets on rock.

*South Maidens*.—October 8th, two Grey Linnets.

*Innishtrahull*.—October 23d, twenty “Scotch Linnets;” wind strong S.E.

*Arranmore*.—September 9th, eighteen going N.W.

*Rathlin O’Birne*.—September 15th, twenty-five Linnets, 9 A.M., going W. November 8th, twenty to thirty on island; wind light W.

*Killybegs*.—March 6th, six Grey Linnets came from W. April 4th, six. June 26th, and October 20th, about twenty. December 16th, about twenty.

*Broadhaven*.—September 16th, six remain here.

*Eagle Island, E*.—March 27th, several Linnets [Twite?]; they breed here. April 12th, two pair. October 30th, about three hundred Linnets; wind light S.E.

*Blackrock, Mayo*.—October 7th, twelve Grey Linnets about rock.

*Slyne Head, S*.—October 19th, flocks seen around dwellings; wind light. December 18th, Linnets, with Chaffinches, Thrushes, etc., while snow lasted.

*Arran Island, N*.—December 18th to 21st, flocks, with Starling, Fieldfare, Thrushes, and Blackbirds.

*Tearaght*.—October 17th, several flocks of Twites.

*Valencia*.—June 5th, few Grey Linnets.

#### STARLING (*Sturnus vulgaris*, Linn.).

*Fastnet*.—October 25th, one all day. 27th and 28th, several all night about light, one disabled; drizzling rain. 29th, several at night with other birds not known; hazy. A flock of several hundreds on rock in morning. 31st, 7 to 8 P.M., several about light; rain; one killed. November 6th, two on rock. [Leg and wing received.]

*Mine Head*.—February 26th, one caught striking. March 19th, one struck, 4 A.M.; fog. 26th, striking all night; as many as a dozen on sashes together; thick fog. 27th, striking at night plentifully; none seen in neighbourhood of lighthouse during day time. August 24th, a flock seen to-day. October 20th, a flock. 22d, striking from 11 P.M. to 3 A.M.; heavy rain; a few caught. November 7th, flocks in fields. 11th, one

struck glass, 2 A.M. Flocks occasionally seen up to January 15th, 1887.

*Dungarvan*.—October 28th, one struck, 2 A.M.; wind light, misty.

*Coningbeg Light-ship*.—March 2d, one struck. [Leg and wing of Starling received.] October 20th, two flocks going N.E.; wind N. 23d, several around light, 7 P.M. to midnight. 24th, flocks passed N.W. 26th to 30th, several Thrushes, Larks, Blackbirds, and Starling about the light at night; many struck and fell overboard; rain, gloomy.

*Barrels Rock Light-ship*.—March 25th, a few Starling, 8 to 12 P.M., about ship; fog, wind fresh S.W. October 20th, flocks passing N.; wind fresh N.W. 22d, flocks going N., 10 A.M. to 5 P.M., at intervals; wind E., fresh. 24th, 6 P.M. to midnight, flocks passing N.; wind E. 26th and 27th, passing all night to N.; cloudy; one struck, fell overboard. 29th, 30th, and November 1st, passing at night to N.; wind S. and S.W., moderate, rainy and cloudy. On 30th October, 9 P.M. to 3 A.M. 31st, accompanied by "Mountain Thrushes," one of each struck and fell overboard.

*Tuskar Rock*.—February 28th, 8 P.M. to 7 A.M., many passing, with Thrushes, Blackbirds, and Larks, to N.W.; wind E., strong, rain, fog, snow; several killed. March 13th, 1 A.M. to 5 A.M., wind light E.; twelve killed striking; clear. July 28th, 11 P.M., one killed striking; overcast, misty. October 16th, five killed striking. 17th, nine do. 18th, seven do. 19th, four do. 20th, five do. 21st, three do. All at night, from 10 P.M. to 4 A.M.; wind N. to E., fresh. Numbers around light on these nights, with Blackbirds and Thrushes. 22d, at noon numbers on rock. 23d, nine killed striking. 24th, in small numbers on rock. 25th, two killed striking. 26th, three killed; a number at lantern glass. During this rush, from October 16th to 27th, the Starlings were accompanied by Thrushes and Blackbirds—numbers of which were also killed. [Leg and wing received.—R. M. B.] November 21st, four on rock. 23d, three at lantern. 29th, two on rock. December 29th, one killed striking.

*Arklow South Light-ship*.—February 10th, one killed striking. 11th, three. 21st, several at midnight killed striking; hazy. 27th and 28th, several Thrushes, Blackbirds, and Starling at night killed striking, fell overboard; wind strong S.E.; rain and snow. March 2d, 2 P.M., Starling going W.

13th, 2 A.M., about lantern; wind light, hazy. 14th, do. 20th, 1.30 A.M. to 6 A.M., with Skylarks, Thrushes, and Blackbirds about light; fog, wind light. March 27th, 9 P.M. to 4 A.M., "Stares" about lantern. 28th, 10 P.M., several about lantern. October 19th, 9 P.M. to midnight, about lantern.

*Arklow North Light-ship*.—February 10th, large flock at noon going N. 11th, there were hundreds of Larks, Thrushes, and "Stares" about lantern during middle watch; about two dozen killed. 27th and 28th, several; wind strong S., gloomy. March 1st, four caught on board. 18th, large numbers all night about lantern; wind strong S.E., snow showers. 25th and 27th, great quantity of Larks, "Stares," and Thrushes about lantern at night; five Stares killed striking; numbers fell overboard. October 26th, some about lantern, midnight. December 3d, several about lantern, midnight; misty. 8th, flock passed N.W., 2 P.M.

*Kish Light-ship*.—March 27th, flocks about ship.

*Rockabill*.—January 30th, Stares passing at night, with Larks, Thrushes, and Blackbirds; several of each killed striking. February 27th and 28th, passing at night with Blackbirds and Thrushes; large numbers killed striking; rain, snow, fog. March 22d, large numbers passing with Thrushes all night; fog, many killed striking. June 6th, several Stares. July 17th and 26th, some noticed in day time; rain and misty. October 4th, 1 A.M., several; two killed striking; overcast. [Leg and wing received.—R. M. B.] December 1st, several flocks going W. 4th, 2 A.M., a few about light; misty, rain. 14th, forty on rock; stormy, from E. 20th, Starling on rock.

*Copeland (Mew) Island*.—May 7th, six at 10 P.M., three killed striking; misty.

*South Maidens*.—January 26th, fifty at 11 A.M. April 25th, two. October, "During last part there was a great rush of Blackbirds, Skylarks, and Stares."

*Rathlin Island*.—April 3d, four.

*Innishtrahull*.—October 17th, one on island; wind strong N.E., clear. This is the first seen since last winter. It seemed very tired, and was quite tame.

*Arranmore*.—December 21st, Starling, with Blackbirds, Thrushes, and Fieldfares.

*Rathlin O' Birne*.—October 2d, six going W.; wind light S.; the first seen this winter. December 18th, 8 A.M., about two



hundred; stormy, from N.E., with snow; came from shore. Fifteen killed striking. Immense flocks remained four days on island during snow. (See under Fieldfare.)

*Killybegs.*—November 19th, several flying about light, 7.30 P.M.; gale from S.W. December 1st, flocks, 9 A.M. 8th, several flocks in neighbourhood; gale from S.W. 18th, small flocks flying about; snow, wind light; also Thrushes, Larks, and Blackbirds.

*Broadhaven.*—November 18th, Starling in flocks; remain here.

*Eagle Island, E.*—May 6th, one on island. October 24th, about one thousand, at 8 A.M., going inland; wind E., light. 29th, large flock going S.W.; wind S.W., light. 31st, 7.30 A.M., several thousand going W.; wind fresh S., clear. November 1st, several thousand in morning going W.; wind strong S.W. December 10th, several round lantern, 10 P.M.; rain. 19th, small flock on island, 10 A.M.; wind fresh N.

*Slyne Head, S.*—October 28th, sixteen on island; the first seen. December 18th, numbers with Thrushes, Blackbirds, Larks, Linnets, and Chaffinches, while snow lasted; wind strong N.E., snow.

*Arran Island, N.*—October 25th to 28th, flocks all day. December 18th to 21st, flocks, with Linnets, Fieldfares, Thrushes, and Blackbirds.

*Tearaght.*—February 15th, large flock on island. March 27th, all have left. November 14th, great many arrived. 18th, a great number with Thrushes. (See under Thrush.)

*Skelligs.*—November 11th, a great number. Remained all the month.

#### CHOUGH (*Pyrrhocorax graculus*, Linn.).

*Mine Head.*—April 14th, gathering material for nests; breed on cliffs. Seven or eight nests within three miles.

*Rathlin Island.*—June 20th, eight remain here.

*Arranmore.*—June 9th, two Choughs. December 4th, five all day.

*Blackrock, Mayo.*—October 20th, two. 24th, one on rock.

*Tearaght.*—March 25th, Choughs have left, except two breeding.

*Skelligs*.—September 20th, two left—being here all season. October 6th to 10th, four.

RAVEN (*Corvus corax*, Linn.).

*Mine Head*.—March 16th, a pair always in neighbourhood; breed on cliff near lighthouse; young birds in nest now.

*Rathlin Island*.—June 16th, two Ravens; remain here.

*Dunree Head*.—Two noted May 20th, October 26th, and December 30th, going W.

*Arranmore*.—June 26th, two; December 22d, two. They remain all the year.

*Rathlin O' Birne*.—September 28th, two; they build on a cliff to the S.W. of island.

*Broadhaven*.—October 7th, two going W.

*Blackrock, Mayo*.—April 25th, two "small Ravens."

*Tearaght*.—March 10th, two about island.

*Skelligs*.—September 1st, four; remained until 10th. November 20th, four.

HOODED CROW (*Corvus cornix*, Linn.).

*Fastnet*.—April 17th, three, remained all day.

*Innishtrahull*.—April 14th, two Grey-backed Crows during day. "They are destructive to the young lambs, and pick out their eyes and tongues." July 11th to 21st, seven old and young ones about island.

*Arranmore*.—June 4th, two Grey Crows. November 23d, two.

*Arran Island, N.*—May 10th, four on island.

*Tearaght*.—August 22d, nine seen.

*Valencia*.—August 6th, two.

*Skelligs*.—September 1st, five; remained until 10th. November 21st, four; remained all month.

ROOK (*Corvus frugilegus*, Linn.).

*Mine Head*.—August, "many died in *July* from hunger." [January?]

*Coningbeg Light-ship*.—April 22d, two "Crows" passed N.W. at 7 A.M.; wind N.E., light, clear.

*Barrels Rock Light-ship*.—April 3d, one "Crow" going N.; wind fresh S.W., clear. October 16th, one Crow going N.W.

*Arklow North Light-ship*.—March 29th, some "Crows," 9 A.M., going N.W.; wind light W.

*Rockabill*.—March 25th, "Crows" seen. June 16th, "Crows" seen. October 6th, six on rock.

*South Maidens*.—February 10th, five "Crows" going W. March 20th, a flock going N.E.; wind light, clear. April 7th, four.

*Arranmore*.—On 18th July large quantities of Rooks and their young came from the mainland; they remained five days. December 22d, one.

*Broadhaven*.—October 14th, sixty going S.

*Eagle Island, E*.—April 29th, three Rooks flew inland.

*Arran Island, N*.—August 20th, four "Crows."

*Valentia*.—August 27th and 29th, four "Black Crows."

#### JACKDAW (*Corvus monedula*, Linn.).

*Fastnet*.—October 26th, three on rock; clear; wind E., light.

*Mine Head*.—August 13th, Daws may be seen daily.

*Arklow South Light-ship*.—March 28th, flock going N.E., 10 A.M.

*Rockabill*.—March 23d, Jackdaws at noon.

*Rathlin Island*.—June 18th, three; remain here.

#### MAGPIE (*Pica rustica*, Scop.).

*Dunree Head*.—September 20th, three.

*Arranmore*.—November 24th, one at 8 A.M.

#### SWALLOW (*Hirundo rustica*, Linn.).

*Fastnet*.—April 18th, two; first seen this season; wind E.S.E.

*Mine Head*.—April 14th, first seen; plentiful in summer. Swallows and Martins left about 20th October.

*Dungarvan*.—September 20th, 11 A.M., wind light E.; gloomy, misty. Hundreds of House Swallows resting on lighthouse walls, and going S.E. October 4th, a few stragglers, 8 A.M. to noon, passing in twos and threes to S.E.; fog. November 1st, one struck lantern 7.30 A.M.; not killed.

*Coningbeg Light-ship*.—April 12th, one going N. A few noted at intervals, April 15th to May 7th and 8th, when "a flock"

passed N.E.; wind S.E. and S. On 23d many passed during day. September 16th and 20th, flocks passing S.; wind fresh S.E., clear.

*Barrels Rock Light-ship*.—April 27th, three about ship. May 8th, small flocks going S.E.; fog; 19th to 23d, odd Swallows going N.; on 23d, several rested on ship, then flew N. September 15th to 21st, passing all day to S.E.; clear, wind N.E. to S.E.

*Tuskar Rock*.—May 9th, a flock alighted on rock at 6 A.M.; 19th, 10 to 11 A.M., large flocks passed to N.W.; seemed tired; wind light S.E. "I particularly notice a falling off in Swallows this summer." September 25th, 8 A.M., Swallows in a flock on the rock.

*Arklow South Light-ship*.—April 5th, two flying N.W. Also noted 12th and 23d. May 3d, 4th, and on 8th, several about lantern. Direction of flight generally N.W. June 28th, three. September 15th, two; 19th, flock flying high to S.E.; 28th, several about ship; wind S.W., cloudy.

*Arklow North Light-ship*.—May 9th and 10th, several flocks going N.W. in forenoon; wind variable. 11th, great flock about ship 2 P.M. September 17th, six going S.; 20th, flocks going S.W. October 5th, two flocks going S.W.

*Kish Light-ship*.—May 16th, flock going N.W.

*Rockabill*.—April 26th, Swallows passing all day. May 11th, Swallows passing. June 28th, large flocks all day going W.; wind light S.W. September 25th, nine passing from W. to E. October 5th, five going E.

*Copeland (Mew) Island*.—May 5th, sixty.

*South Maidens*.—April 25th, two on rock.

*Rathlin Island*.—April 19th, four; 23d, two. Noted May 6th and 7th.

*Dunree Head*.—July 12th, ten. August 1st, flocks at station. 18th, in great numbers; wind light S.W. Swallows breed near lighthouse.

*Arranmore*.—May 26th, one. November 28th, three Swallows all day; wind S.E., fresh, clear. [Very late.]

*Killybegs*.—April 26th, four Swallows.

*Blackrock, Mayo*.—April 16th, one about rock; wind N., light.

*Arran Island, N.*—May 9th, two seen.

*Tearaght*.—April 25th, one on island. May 1st, one; 18th, twelve.

*Skelligs*.—April 24th, three flying about.

## MARTINS.

*Fastnet*.—September 22d, at 10 A.M., about rock. Left for N.E.

*Mine Head*.—May 1st, House Martin. Plentiful all summer.

*Tuskar Rock*.—April 13th, one Martin on rock, 10 A.M.; 22d, small numbers going N.W.

*Tearaght*.—April 20th, one Sand Martin found dying. [Received in flesh.]

SWIFT (*Cypselus apus*, Linn.).

*Tuskar Rock*.—May 15th, one alighted 3 A.M.; wind strong N. [Leg and wing of Swift received.] June 19th and 20th, one seen. July 28th, 11.30 P.M., one killed striking; overcast, misty.

*Rockabill*.—May 30th, Swifts all day.

*Innishtrahull*.—One noted May 1st to June 7th at intervals.

*Blackrock, Mayo*.—September 19th, one about rock.

NIGHTGAR (*Caprimulgus europæus*, Linn.).

*Mine Head*.—May 29th, one heard at 2.30 A.M.

CUCKOO (*Cuculus canorus*, Linn.).

*Mine Head*.—May 7th, first heard.

*Copeland (Mew) Island*.—May 9th, one on island.

*Rathlin Island*.—May 10th, one at 6 A.M.

*Arranmore*.—May 15th, one, the first seen.

WRYNECK (*Iynx torquilla*, Linn.).

*Arran Island, N.*—October 6th, 2.30 A.M., wind very light S.W.; blue sky, cloudy, misty. One killed striking. [Received in flesh a male Wryneck, very fat, being the second Irish killed specimen; the first having been obtained at Dunmore, Co. Waterford, 5th October 1877.]

## “HOOPOE.”

*Rockabill*.—June 12th, one on rock.

## PIGEONS.

*Fastnet*.—October 5th, one "Dove" on balcony. Struck by keeper; fell into sea; wind fresh S.E.

*Mine Head*.—April 15th, about a dozen breed in caves near lighthouse. A few may always be seen. December 26th, about fifty Rock Pigeons in fields. January 1st, a dozen.

*Dungarvan*.—September 23d, Rock Pigeons all day about station. Not plentiful here.

*Barrels Rock Light-ship*.—October 3d, one "Dove" alighted on ship, then flew N.; wind S.E., fresh.

*Arklow South Light-ship*.—September 5th, one "Dove" on deck, 8 A.M.; calm, cloudy.

*Arklow North Light-ship*.—December 11th, one passed to N.W.; wind S.W., light.

*Kish Light-ship*.—March 1st, caught one on deck at 2 P.M.

*Rockabill*.—February 13th, one shot. April 20th, one do. June 27th, one Rock Dove. July 4th, one.

*Innishtrahull*.—January 17th, three Rock Pigeons, one shot. March 13th, eleven, breed in caves. September 8th, two. November 18th, five. Pigeons are resident.

*Dunree Head*.—Noted April 28th, May 10th, July 20th, October 4th, December 8th, from three to ten each date, all going S.E.

*Arranmore*.—May 27th, Rock Pigeons about all day.

*Rathlin O' Birne*.—December 27th, two Pigeons came to island, one blue and one white. They remained, and are tame.

*Broadhaven*.—November, Rock Pigeons at all times. Remain here.

*Arran Island, N.*—May 4th, seven; 8th, ten, going S.; 24th, five do.

*Skelligs*.—December 4th, one Pigeon all day.

TURTLE DOVE (*Turtur communis*, Selby).

*Tuskar Rock*.—May 8th, one alighted on rock, 8 A.M.; wind light S.E.; 12th, one on rock, shot. [Received in flesh.—R. M. B.] "I saw one or two every year since I came here, but could not tell what they were until I got this one."

## "PARTRIDGE."

*Rockabill*.—May 9th, "Partridges" at night. [There was an entry under Partridge last year, also at Rockabill. Some error—Quails ?]

CORNCRAKE (*Crex pratensis*, Bechst.).

*Mine Head*.—May 10th, heard, and frequently afterwards.

*Tuskar Rock*.—May 3d, one found dead; 23d, one on rock; fog. September 23d, 11 P.M., one caught alive at lantern glass; wind light N., cloudy; 24th one killed striking. [Leg and wing received.]

*Rockabill*.—May 9th, Corncrakes passed at night; 11th, do., some killed striking.

*Rathlin Island*.—April 27th, one. May 13th, one.

*Blackrock, Mayo*.—May 20th, Landrail at noon on rock; misty, wind light N.E.

*Skelligs*.—April 27th, one at noon, going N.; wind S.E.

WATER RAIL (*Rallus aquaticus*, Linn.).

*Fastnet*.—October 28th, one killed striking; got on rock after night; drizzling rain. [Leg and wing received.]

*Tuskar Rock*.—October 26th, one caught at lantern; wind E., fresh. [Received in flesh.]

WATER HEN (*Gallinula chloropus*, Linn.).

*Rathlin O'Birne*.—October 28th, 11.30 P.M., wind moderate S.E., very dark; "one struck S.W. side of lantern with tremendous force, and was killed instantly." [Received in flesh.] "I never observed one in this locality before."

GOLDEN PLOVER (*Charadrius plumbealis*, Linn.).

*Fastnet*.—October 5th, one killed striking, 4 A.M.; misty, wind S.E.

*Mine Head*.—January 18th, noticed in flocks; also 3d and 18th March. They leave during summer. October 23d, in flocks to-day, and frequently up to January 1st, 1887.

*Dungarvan*.—December 26th, numbers "Grey" Plover in fields.

*Tuskar Rock*.—March 1st, one passed N.; wind strong N.E., misty. April 21st, a flock passed N.W. 10 P.M.

*Arklow South Light-ship*.—March 13th, one "Plover;" wind light, hazy; killed striking, 2 A.M. October 3d, one "Grey" Plover.

*Rockabill*.—March 1st, one "Grey" Plover killed striking; wind strong N.E., snow. March 12th, large flocks Golden Plover going N.

*South Maidens*.—February 27th, a flock of "Grey" Plover going W.; wind strong S.E. April 1st, one hundred "Grey" Plover going N.W.; wind S., clear.

*Innishtrahull*.—October 17th, one going W. December 18th, sixteen; wind N., snow, very stormy. Left on 21st.

*Tory Island*.—February 5th, two "Plover" killed striking.

*Arranmore*.—April 29th, two Golden Plover going N.E. December 23d, one.

*Rathlin O'Birne*.—October 3d, one on island, shot. December 19th, thirty came from mainland; wind strong N.E., snow; five shot.

*Killybegs*.—November 12th, about a dozen; wind strong N.W. December 6th, twenty; wind strong S.W.

*Broadhaven*.—November 1st, flocks.

*Eagle Island, E*.—April 28th, one shot.

*Blackrock, Mayo*.—April 16th, one. 28th, 11 P.M., flock about lantern; misty. October 4th, one on rock.

*Slyne Head, S*.—November 4th, four "Grey" Plover going S.

#### GREEN PLOVER (*Vanellus vulgaris*, Bechst.).

*Mine Head*.—January 18th, great flocks going seaward in a S.W. direction; frosty, wind N. 26th, a few. March 1st, 2d, and 16th, in fields; leave during summer. October 23d, in flocks to-day, and frequently up to January 1st, 1887.

*Dungarvan*.—November 5th, large flocks of Lapwing about. 26th, large flocks flying to and from half tide rock. December 26th, numbers about.

*Tuskar*.—February 9th, one Peewit passed W., 11 A.M. March 1st and 13th, one or two on rock. October 27th, one, 3 A.M.

*Rockabill*.—February 24th, one. 28th, Lapwing at night. March 1st, large flocks going S. 2d, some going S. 19th, some seen.

*Copeland (Mew) Island*.—April 16th, twenty about; wind light, clear.



*South Maidens*.—April 24th, three Green Plover going N.W.; rain. October 6th, some about light at night.

*Rathlin O'Birne*.—December 29th, eight came from shore; wind N.W., fresh; two shot.

*Broadhaven*.—November 1st, one Peewit.

*Eagle Island, E*.—April 28th, one Lapwing.

#### SEA PIE (*Hæmatopus ostralegus*, Linn.).

*Fastnet*.—September 27th, twelve all day; first on rock this season.

*Rockabill*.—June 12th, 8 A.M., Sea Pies; also on 24th. November 4th, several.

*Copeland (Mew) Island*.—July 12th, fifty in vicinity.

*Rathlin Island*.—May 28th, seven Oyster-catchers going N.

*Innishtrahull*.—April 10th, two "Sea Magpies" on rocks. September 30th, one.

*Arranmore*.—May 15th, sixteen on rocks.

*Killybegs*.—March 4th, four Oyster-catchers on rocks. 20th, six.

*Broadhaven*.—December 26th, seven; remain here.

*Eagle Island, E*.—March 31st, two or three come from shore occasionally.

*Arran Island, N*.—January, February, and March, flocks during these months on island. In July and August, Sea Pie. December, do.

*Skelligs*.—March 31st and April 3d, one.

#### GREY PHALAROPE (*Phalaropus fulicarius*, Linn.).

*Dungarvan*.—November 13th, one swimming, shot. Identified by Mr R. J. Ussher.

#### WOODCOCK (*Scolopax rusticula*, Linn.).

*Fastnet*.—November 30th, 3 A.M., one got dead on balcony, killed striking; wind strong N.W., squally.

*Dungarvan*.—January 2d, 1887, one started in field near station.

*Tuskar Rock*.—November 30th, one, 9 A.M., going N.

*Rockabill*.—March 10th, two killed striking; wind strong S.E., gloomy.

*South Maidens*.—January 31st, 9 P.M., one struck during a snow shower, disabled. February 11th, one seen on rock. October 6th, one killed striking.

*Innishtrahull*.—December 21st, one; wind S.W., stormy. 27th to 30th, one also seen.

*Tory Island*.—February 4th, one killed striking; wind strong N.W., rain.

*Arranmore*.—December 20th, Woodcock.

*Rathlin O' Birne*.—December 18th, twelve on island, four shot; wind strong N.E., snow.

*Broadhaven*.—December 2d, one at noon.

*Blackrock, Mayo*.—November 12th, one on rock; wind N., fresh.

*Slyne Head, S.*—November 3d, one on island; gale from W. December 19th, one or two daily.

*Tearaght*.—October 30th, one struck, 5 A.M.; wind S.E., fog; not killed.

#### SNIPE.

*Fastnet*.—September 18th, two about rock at 9 A.M., gloomy; very large. October 30th, one round light.

*Mine Head*.—January 18th, 25th, and 26th, noticed in marshes. September 12th, one, and subsequently in frosty weather in marshes.

*Tuskar Rock*.—November 27th, one snipe on rock.

*Arklow South Light-ship*.—September 24th, one struck foremast, 11 P.M.; wind light S.W., cloudy; fell on deck—kept alive in cabin.

*Rockabill*.—February 25th, one Jack Snipe killed striking. 26th, Snipe passing at night. April 27th, one Jack Snipe; wind light S.E., misty. September 28th, one killed striking, 10 P.M.; misty. [Leg and wing of Jack Snipe received.]

*South Maidens*.—October 6th, one killed striking, 11 P.M.

*Innishtrahull*.—January 17th, one on island. October 4th, one small Snipe—[may have been Jack Snipe.]—killed striking, at 11 P.M.; wind strong S.E., hazy. December 2d, one Snipe; wind strong N., snow. 14th and 15th, a Jack Snipe seen; wind very strong N.E. December 30th, six to eight on island.

*Arranmore*.—December 20th, Snipe.

*Rathlin O'Birne*.—December 12th, one killed striking; wind fresh W., snow showers. [Leg and wing received.]

*Broadhaven*.—December 3d, one Snipe and a Jack Snipe; both are plentiful.

*Arran Island, N.*—November 24th, a Snipe on island.

“SEA LARKS,” &c.

*Fastnet*.—September 27th, sixteen “Sand Larks.” They frequent rock at intervals all the season. October 28th, four. December 11th, six.

*Coningbeg Light-ship*.—May 17th, 4 A.M., one Common Sandpiper got dead on deck. [Leg and wing received.] May 31st, a “little Stint” killed striking at midnight; overcast, showers. [Leg and wing of Curlew; Sandpiper received on June 2d.] August 12th, one killed striking. [Leg and wing of Curlew Sandpiper received.] October 14th, three “Pectoral Sandpipers” about ship; 16th, two do.

*Barrels Rock Light-ship*.—May 13th, one “Sand Lark.”

*Rockabill*.—February 25th, a “Temminck’s Stint” killed striking. [Doubtfully accurate. Leg and wing not received.] October 28th, Sandpiper killed striking; gloomy, wind strong E. [Leg and wing of Curlew Sandpiper received.]

*Copeland (Mew) Island*.—May 7th, 11 P.M., ten “Sand Larks,” six killed striking; misty.

*South Maidens*.—January 28th, six “Sand Larks” on rock. February 8th, one.

*Innishtrahull*.—September 6th and 7th, a number of “Sand Larks” on island each day; wind strong S.W. December 15th, eight; wind very strong N.E.

*Arranmore*.—April 18th, one Ringed Dotterel. June 28th, four “Sand Larks” on rocks. December 28th, seven Dotterel all day; wind strong N.E. 21st, seven.

*Rathlin O'Birne*.—November 3d, 3 A.M., one Sand Lark killed striking; wind strong W., squally. [Leg and wing of Purple Sandpiper received.] They are plentiful on rock, and come to dwellings in stormy weather.

*Broadhaven*.—December 27th, one Ringed Dotterel.

*Eagle Island, E.*—April 7th, five Turnstone and ten Purple Sandpiper on island. [Leg and wing of Purple Sandpiper and Turnstone received.] April 28th, two Common Sandpiper

breeding; also last year. October 12th and November 1st, one Turnstone. December 28th, three; a gale from N.W. October 26th, three Purple Sandpipers. November 6th, six remained on island several days.

*Blackrock, Mayo.*—November 17th, bird found dead in yard; wind S.W., fresh. "This species is seen on the top of a rock whenever a storm is approaching, and during a gale." [Leg and wing of Turnstone received.]

*Arran Island, N.*—December, "Sand Larks" about island.

#### REDSHANK (*Totanus calidris*, Linn.).

*Fastnet.*—September 21st, two about all day; wind fresh E.

*Coningbeg Light-ship.*—October 17th, one seen.

*Innishtrahull.*—April 10th, one on island; wind light N.E. December 15th, one; wind very strong N.E. 30th, about ten on island.

*Arran Island, N.*—Flocks during January, February, and March about island. December, do.

#### GREENSHANK (*Totanus canescens*, Gmel.).

*Dungarvan.*—December 5th, six seen on strand.

#### CURLEW (*Numenius arquata*, Linn.).

*Fastnet.*—September 5th, six at 2 A.M. about light; clear. 8th, four going S.E.

*Mine Head.*—February 7th, two at night calling; fog. March 19th, several during day; great fog. 22d, flying about lantern in night; fog. August 22d, 9 P.M., Curlew heard passing; also noted September 2d, 14th, and December 20th.

*Tuskar Rock.*—March 13th, Curlew passed 4.30 A.M.

*Arklow South Light-ship.*—February 23d, one about ship.

*Arklow North Light-ship.*—September 25th, Curlew about lantern 10 P.M.

*Rockabill.*—March 19th, Curlew about all day. June 16th and July 28th, noted.

*South Maidens.*—March 19th, five going N.E.; wind strong S. 26th, 3 A.M., fifty; wind strong S.W.

*Innishtrahull.*—January 2d, 14th, 21st, and February 16th, three to seven noticed about island. September 8th, a flock on island.

*Dunree Head*.—Noted November 2d, 5th, and December 9th.

*Arranmore*.—December 15th, three.

*Killybegs*.—April 8th, six. Noted October 8th, 12th, and 26th.

*Broadhaven*.—October 19th, Curlew in flocks remain here.

*Eagle Island, E*.—March 28th, one.

*Arran Island, N*.—Curlew during February and March.

Noted also April 30th.

*Tearaght*.—August 21st, two going N.E. September 13th, one seen.

#### WHIMBREL (*Numenius phaeopus*, Linn.).

*Mine Head*.—August 17th, four going S.W., flying at about 400 feet, and calling.

*Dungarvan*.—September 10th, two; rare at this season. 21st, four flying high to S.E., and whistling.

*Coningbeg Light-ship*.—April 28th, a flock passed N. over ship; wind N.E., fresh, hazy.

*Innishtrahull*.—June 4th and 7th, a few "young Curlew" about island; misty. [Probably Whimbrel.]

*Arranmore*.—June 26th, one Whimbrel going S.E. December 17th, two [? Curlew.].

*Blackrock, Mayo*.—May 10th, sixty May birds going N.E.; wind N., light.

#### TERNs.

*Fastnet*.—September 4th, several "Mew Gulls" in night. None struck; misty.

*Coningbeg Light-ship*.—May 25th and 26th, great flocks of Common Tern about ship; 30th, one flock.

*Rockabill*.—May 22d, Terns noticed.

*Copeland (Mew) Island*.—May 19th, forty "mews" or "Sea-Purrs"—first arrival. June 5th, fifty hatching on island. 18th, a hundred about island. September 11th, they left to-day. They build on rocks and on grass; not more than four eggs in each nest.

*Innishtrahull*.—May 27th, two "Sea-Tern" about island.

*Killybegs*.—May 16th, two Terns. June 3d, about eight.

*Eagle Island, E*.—May 31st, two "Sea-Mew."

*Arran Island, N*.—June 14th and 16th, a flock of Tern about. July 16th, a flock. September 16th, do.

*Tearaght*.—October 3d, "Lesser Terns." Hundreds flying about; remained until 7th October.

## GULLS.

*Fastnet*.—September 4th, flocks of Grey Gulls going S.E.; seemed this year's birds. November 5th, two large Royal Gulls seen; rare here. Small Royal [Lesser Black-backed?—R. M. B.] Gulls frequent rock during year. December 10th, Kittiwakes in large numbers about rock feeding.

*Mine Head*.—March 2d, Black-headed Gulls and Herring Gulls in fields. July 19th to 31st, about thirty to a hundred Gulls about and at intervals after. August 9th, about sixty Kittiwakes on rocks; also Herring Gulls, Black-headed, and Common Gulls. September 27th, one Royal Gull. December 12th, January 13th and 20th, one to three Royal Gulls. January 1887, Kittiwakes do not remain here.

*Dungarvan*.—September 11th, thousands of Black-headed Gulls fishing.

*Barrels Rock Light-ship*.—March 27th, large flocks of Gulls. April 17th, do. going E.; wind E., fresh.

*Rockabill*.—December 14th, large numbers of Gulls during storm from E.

*Innishtrahull*.—April 16th, 17th, and 20th, a few Black-headed and numbers of "Common" Gulls. September 8th to 11th, a number of Grey-backed Gulls. December 15th, Herring Gulls, Kittiwakes, and "Grey Gulls" still in vicinity.

*Dunree Head*.—June 7th, flocks. December 14th, eight.

*Arranmore*.—May 21st, "shot a bird which answers the description of Richardson Skua given in the 'Dictionary of British Birds.'" [Leg and wing not forwarded.]

*Killybegs*.—July 11th, forty.

*Broadhaven*.—September 25th, five Black-headed Gulls and flock of Kittiwake.

*Blackrock, Mayo*.—March 6th, flock of Gulls about rock; 21st, "small Gulls" first visit rock to breed. November 5th, two uncommon Gulls soaring during day; wind N., strong. "They were cream-coloured Gulls, about the size of a small Royal Gull, or a little larger than the Kittiwake; bill and legs like the latter; dusky cream colour on breast, but a richer cream colour on the back; covert feathers of wings edged with a shade darker colour, marking the feathers very distinctly; the long feathers of wings gradually becoming lighter towards the tips

to an ivory shade; wing full and well developed. I wounded one bird, and it flew to the mainland; the other was less distinctly marked. They are same sort as visited locality in 1881." [See 1881 Report, p. 86; 1882 Report, p. 104; 1884 Report, p. 181.] January 6th, 1887, twenty Royal Gulls; seldom see so many, as they generally go in couples.

*Slyne Head, S.*—October 10th, flocks of Gulls.

*Arran Island, N.*—Flocks in May and March, July and August.

*Samphire Island.*—January, February, and March, Cormorants and Gulls.

*Tearaght.*—February 27th, a large flock of Herring Gulls. March 5th, Kittiwakes flying round island. August 24th, one Skua Gull chasing Gulls close to island. October 4th, thousands of Kittiwakes. During October Kittiwakes, all young, plentiful.

*Skelligs.*—March 12th, Kittiwakes first landed on rock. December 10th, great number of Kittiwake, Herring Gulls, and a few Great Black-backed.

#### MANX SHEARWATER (*Puffinus anglorum*, Temminck).

*Fastnet.*—May 24th, 1 A.M., six; one killed striking; misty; the first seen since I came here.

*Mine Head.*—June 29th, heard distinctly several times about 11 P.M.; calm and dark.

*Coningbeg Light-ship.*—May 27th and 28th, several about the ship. In September, several.

*Barrels Rock Light-ship.*—March 27th, large flock Manx Shearwaters; wind strong S.W. May 23d, flocks apparently after fish.

*Arklow North Light-ship.*—May 1st, large flock of "Mackerel Cocks" going E.

*Rockabill.*—April 22d, one caught on balcony at midnight; wind E., gloomy.

*Arranmore.*—March 18th, eighteen about rocks, the first seen; wind strong S., misty.

*Blackrock, Mayo.*—October 23d, some going S. November 2d, a great quantity, 7 to 9 A.M., going S.W.; wind strong S.W.

*Slyne Head, S.*—November 3d, continuous flocks going S.W., from 9 to 11 A.M.; width of string about 100 yards.

*Tearaght.*—April 11th, heard for first time this year.

*Skelligs*.—February 25th, 10 P.M., wind strong S.W.; misty; first heard on rock. August 26th, the last night bird heard on rock.

FORK-TAILED PETREL (*Cymochorea leucorrhoea*, Vieill.).

*Eagle Island, W.*—October, 2d week, one caught at lantern. [Leg and wing received.]

STORMY PETREL (*Procellaria pelagica*, Linn.).

*Fastnet*.—August 24th, three about lantern in night; first this season.

*Coningbeg Light-ship*.—September 21st to 23d, several about ship during day; wind fresh, clear. 24th, three on ship, midnight. Noted also October 5th, 8th, 10th, to 13th; and on 15th there was storm from W.; great numbers about ship.

*Barrels Rock Light-ship*.—September 25th, two. October 8th, five. 12th, fourteen about ship; stormy. December 9th, five; wind N.W., fresh.

*Tuskar Rock*.—September 26th, 4 A.M., one caught alive.

*Arklow South Light-ship*.—October 15th, one in water about ship.

*Rockabill*.—June 8th, 4 P.M., six; wind strong S.

*Rathlin O'Birne*.—October 1st, one found dead on island.

*Eagle Island, E.*—May 24th, one caught alive. [Received in flesh.] The only one seen since I came here.

*Blackrock, Mayo*.—May 5th, some about light, 1 A.M.; foggy; the first seen. June 5th, numbers about light during night; wind light S.W., gloomy. September 24th, 1 A.M., one caught at lantern.

*Tearaght*.—April 14th, several flying round light all night. October 30th, some struck 2 A.M., none killed.

*Skelligs*.—April 27th, 10 P.M., one struck, disabled. May 7th, first heard under stones.

RAZORBILL (*Alca torda*, Linn.).

*Fastnet*.—October 26th, several large flocks passing S.E. at intervals of about 15 minutes. December 10th, large numbers about rock.

*Mine Head*.—February 14th, several young Razorbills seen at intervals. July 9th and 10th, several. August 9th, young



Razorbills heard—and at all hours on the water up to September 1st.

*Rathlin Island*.—March 17th, flocks.

*Arranmore*.—March 10th, eight Razorbills; wind fresh S.E., misty.

*Blackrock, Mayo*.—March 16th, “flocks of Auks” on water. 22d, do.

*Tearaght*.—March 14th, Razorbills arrived. August 9th, Guillemots and Razorbills left rock by this date. September 25th, Razorbills old and young fishing about island. October 4th, young Razorbills in water by thousands; plentiful during October, all young. November 9th, Razorbills about rock in thousands.

*Skelligs*.—March 12th, first came on rock. August 14th (see under Puffin). December 10th, a number of young Razorbills about rock; remained all month. 17th, several old ones, and Guillemot to 31st.

#### GUILLEMOT (*Uria troile*, Linn.).

*Mine Head*.—July 26th, a few.

*Dungarvan*.—September 15th, in great numbers; fishing.

*Barrels Rock Light-ship*.—May 30th to June 3d, flocks of “Murs” passing S.E. Noted also December 1st to 5th, and numerous flocks on December 10th going S.W.

*Rathlin Island*.—March 17th, flocks on water.

*Arranmore*.—March 8th, twenty-eight, first seen; wind strong S., misty.

*Killybegs*.—October 16th, three seen. 28th, four.

*Blackrock, Mayo*.—January 24th, flock of Guillemots at noon; wind fresh N.E.

*Tearaght*.—February 5th, Guillemots arrived on rock, 8 A.M.; wind strong S.E. August 9th, Guillemots and Razorbills all gone by this date.

*Skelligs*.—January 28th, first landed on rock; wind S.E., fresh. August 14th (see under Puffin). December 17th, several to 31st.

#### LITTLE AUK (*Mergulus alle*, Linn.).

*Mine Head*.—March 28th, about half a dozen answering the description of Roche given in Morris’ “Birds.”

PUFFIN (*Fratercula arctica*, Linn.).

*Fastnet*.—April 12th, 7 A.M., about sixty alighted on the Little Fastnet. A most unusual occurrence. September 25th, an immense number, 6 to 8 A.M., close to rock; came from W., and left in a body for S.E.; misty, wind fresh S.W.

*Coningbeg Light-ship*.—In September several about ship.

*Barrels Rock Light-ship*.—March 26th, two Sea Parrots at 5 P.M. drifting past; wind strong S.W.; the first seen. May 2d, Sea Parrots drifting past to E. 4th and 9th, constantly passing.

*Rockabill*.—December 14th, 11 A.M., a storm from E. Large numbers of "Puffins." [Probably Razorbills.]

*Rathlin Island*.—March 17th, flocks.

*Innishtrahull*.—June 7th to 16th, a number fishing.

*Dunree Head*.—June 26th, flocks.

*Arranmore*.—March 9th, ten Puffins; the first seen; wind strong S., gloomy.

*Eagle Island, E*.—March 26th to 31st, flocks of "Puffins and Sea Parrots" going W. April 3d and 29th, small flocks going W. October 13th to 18th, continuous flocks of Sea Parrots going W.; wind strong N.W.

*Blackrock, Mayo*.—April 11th, Puffins first arrived on water. 23d, first perched on rock.

*Arran Island, N*.—February 14th, several flocks of "Puffins" [?—R. M. B.] going N. Large flocks in May. In July and August, Puffins.

*Tearaght*.—March 25th, Puffins arrived in large numbers. August 15th, all gone by this date.

*Valencia*.—A few at intervals, June, July, and August. Four struck, August 12th, none killed.

*Skelligs*.—March 21st, first came on rock for about two hours, 4 P.M. April 2d, Puffins landed *en masse*, 3 P.M.; wind strong S.W. August 6th, great numbers left. 14th, most of the birds left, except a few Puffins—night birds (Manx Shearwater)—and Mother Careys. 27th, all gone.

GREAT NORTHERN DIVER (*Colymbus glacialis*, Linn.).

*Mine Head*.—March 28th, one seen off boat-landing.

*Dungarvan*.—January 1st, 1887, three resting on water, calling loudly to each other; wind S.W., fresh.

*Rockabill*.—March 13th, a Northern Diver all day; wind light E. April 17th, one. November 4th, one about rock.

*Broadhaven*.—October 24th, one seen fishing; wind S.E., light.

#### CORMORANT (includes SHAG).

*Fastnet*.—September 4th, two flocks Green Cormorants going S.E.

*Mine Head*.—April 19th, a few Crested Cormorants hatching on cliffs; thirty or forty of the common kind also hatching. They return to the cliffs in the evening summer and winter. They do not follow the coast line, but keep a straight course overland.

*Coningbeg Light-ship*.—May 29th, two going W. October 9th, one on ship.

*Barrels Rock Light-ship*.—October 26th, two. November 2d, two going E.

*Tuskar Rock*.—December 16th, fifteen on rock.

*Rockabill*.—July 25th and 27th, some seen. November 4th, Cormorants.

*Rathlin Island*.—May 30th, two Green Cormorants.

*Innishtrahull*.—January 15th, eleven on rocks; wind W., strong. October 6th, three. Cormorants are constantly here.

*Dunree Head*.—April 21st, a flock; also noted June 29th, September 23d, October 24th, November 10th, and from December 20th to 28th, in great numbers. On every occasion they were going N.

*Broadhaven*.—September 25th, twelve Green Cormorants and two hundred Cormorants.

*Eagle Island, E*.—April 2d, one. October 26th, may be seen almost daily; are residents.

*Blackrock, Mayo*.—January 26th, a strange Cormorant on rock 10 A.M.; wind strong N.E. "Grey head with black band from base of beak to neck; white patch under eye, and deep green crest; rich bronze green back, and white patch on sides." February 26th, a strange Cormorant. April 1st and 10th, do. January 8th, 1887, two strange Cormorants. The male was the same as in January 1886; the female had breast dusky white, getting gradually brown up to the neck; back, the same as the Common Cormorant.

*Arran Island, N.*—During May, flocks passing. In July and August, some.

*Samphire Island.*—January, February, and March, Cormorants and Gulls.

*Valencia.*—Three or four June 1st, 8th, July 4th, and 26th.

#### GANNET (*Sula bassana*, Linn.).

*Fastnet.*—April 18th, large flocks of Gannets seen since 1st inst. May 21st, three large flocks going N.W.; several of last year's birds among them. October 25th, several flocks.

*Mine Head.*—August 11th, one seen. None for a long time before this; scarce here.

*Dungarvan.*—September 15th, Gannets.

*Coningbeg Light-ship.*—May 24th, two about ship. In September, several.

*Barrels Rock Light-ship.*—July 12th, three going W. September 22d, two going E. October 8th, odd Gannets going E. all day. December 1st to 5th, Gannets.

*Tuskar Rock.*—October 30th, a great number about rock.

*Arklow South Light-ship.*—April 12th, flocks; 17th to 27th, one to ten at intervals flying N.E. May 1st, several going S.E. all day. August 22d and 23d, several flocks flying N.E. September 19th, large flock going N.E. Noted also 22d, 25th, and several on 26th flying S.W.

*Arklow North Light-ship.*—March 30th, flocks going N. April 13th to 20th, flocks going N. at intervals. May 1st, do.; 6th, large flocks going S. September 18th, flocks.

*Kish Light-ship.*—A few Gannets noted May 8th, 12th, June 3d, 18th, July 3d, 28th, and August 26th, generally going N.E.

*Rockabill.*—January 28th, Gannets all day.

*Copeland (Mew) Island.*—June 12th, twenty in vicinity. July 4th, some going S.

*Innishtrahull.*—March 12th, five going N.W.; wind light S.E.—the first seen this year. 28th, three. April 29th, a number fishing. October 4th, one Gannet. December 15th, none seen since October 4th.

*Dunree Head.*—September 8th, twenty seen; 24th, one.

*Arranmore.*—March 11th, Gannets first seen; wind fresh S.E., misty.

*Broadhaven.*—September 25th, Gannets in thousands all day.

*Eagle Island, E.*—March 26th and 31st, continuous flocks of Gannets going W. April 18th to 28th, forty to fifty fishing; 29th, small flock. October 13th to 18th, continuous flocks going W.; wind strong N.W. 27th, twenty.

*Blackrock, Mayo.*—January 24th, three Gannets—first seen for year. 26th, flocks going N. March 7th, seven—the last seen going N. 22d, flocks fishing about rock. September 20th, odd Gannets going S. 26th, small numbers passing S. during day; wind strong S. October 2d, great numbers passing S., flying low, and not fishing; wind strong S.E.

*Arran Island, N.*—February 16th, flocks all day going N. June 10th, very numerous all day. In July and August, Gannets in flocks.

*Tearaght.*—February 27th, Gannets going S. October 6th, hundreds of old and young close to rock. During October Gannets were plentiful; they came from N. about daylight; some remained until noon, and then went S.

*Skelligs.*—February 6th, first landed on the Little Skellig; wind fresh W. August 27th, still on Little Skellig. September 26th, Gannet left the Little Skellig.

#### HERON (*Ardea cinerea*, Linn.)

*Mine Head.*—January 26th, one. June 13th, one passed S.W. September 4th, two flying high to S.; calm. 24th, one going N. November 3d, one.

*Barrels Rock Light-ship.*—July 27th, five “Cranes” going S.E. September 26th, two going W.

*Rockabill.*—July 16th, a “Crane” at 11 A.M. December 30th, one Heron 2 P.M., going W.

*Rathlin Island.*—May 16th, two Herons going W.

*Arranmore.*—June 28th, three Herons going S.E.; wind light S.W. December 19th, one.

*Broadhaven.*—November 18th, seven going S; wind strong S.W.

*Arran Island, N.*—May 9th, one Heron on island; calm. June 6th, one. July 20th, one. August 1st, two.

#### GEESE.

*Mine Head.*—November 21st, two going N., 3 P.M.

*Dungarvan.*—November 17th, two swimming in sea 7 A.M.

*Rockabill.*—June 20th, three Wild Geese.

*Innishtrahull.*—May 15th, one shot. November 4th, twenty-seven flying very high to S.; wind very strong S.W. November 25th, 30th, and December 2d, four to seven passing S.W. On November 26th, a large flock going N.E., and making a great noise. December 21st to 24th, six to eight about island, Brent Geese; stormy from S.W.

*Tory Island.*—Wild Geese, four to twenty-four noted January 6th, 10th, 11th, 24th, February 5th, and May 12th—in every case coming from N. and going S. January 25th, nine Barnacle on lake.

*Arranmore.*—December 21st, Barnacle.

*Rathlin O'Birne.*—September 13th, eighteen Barnacle going S.—the first seen; earlier than usual; wind light N.E. 21st, seven going S.; never saw so many passing so early in season. December 23d, forty-five, two killed by keeper. January 5th, 1887, more Barnacle passed here this winter than for some years previous. They are apparently returning N. now, as several hundred passed on the 3d inst., and did not alight on island.

*Broadhaven.*—October 28th, a flock of Brent Geese going S.; wind S.E., strong. December 3d, great numbers of Wild Geese.

*Eagle Island, E.*—April 13th, large flock of Barnacle going N. 17th, a flock heard passing 11 P.M. October 19th, about a hundred Barnacle going S.W.; wind N.E., light. December 1st, one shot.

*Blackrock, Mayo.*—November 3d, one on rock shot. 25th, ten "Grey Lags or Grass Barnacle" about rock, six shot; some about lantern 11 P.M.; gloomy.

*Slyne Head, S.*—October 6th, sixteen Barnacle going S.W.—the first this winter; noted also 22d and 26th. November 13th, three "young Barnacle," two shot. November 16th, eighteen.

*Arran Island, N.*—April 26th, five Wild Geese going N.E. November 6th to 9th, a few Barnacle noted.

*Samphire Island.*—January, February, and March, Barnacle and Wild Duck; they leave last week in April.

## DUCKS.

*Fastnet*.—October 24th, six Duck.

*Dungarvan*.—September 10th, thirteen on rock. 14th, large flock of Golden Widgeon—first this season. 30th, about forty Widgeon. November 27th, seven Teal; not plentiful here. December 1st, large flock of Common Duck; 27th, large flock of Teal.

*Barrels Rock Light-ship*.—July 27th, seven Wild Duck.

*Tuskar Rock*.—November 27th, one Wild Duck at lantern at midnight; misty. December 19th, one on rock.

*Arklow North Light-ship*.—May 3d, flock going N. September 15th, three. October 20th, some Wild Ducks round ship.

*Kish Light-ship*.—March 1st, flock going S.

*Rockabill*.—January 26th, Wild Duck passing W. March 15th, Wild Duck all day. June 5th, "Eider Duck and young" [?—R. M. B.]. October 29th, four Wild Duck 10 A.M.

*Copeland (Mew) Island*.—April 22d, two. August 3d, one and six young ones. 7th, one struck lantern 11 P.M.; wounded; very dark; wind light.

*Rathlin Island*.—April 3d, noon, three Eider Duck drifting W. 16th, seventeen Eider Duck on the water; wind light N. "The Eider Duck was seen here sixteen years ago." June 7th, two Sheldrake.

*Tory Island*.—Wild Duck, eight to ten, noted February 3d, March 17th and 30th, coming from N., going S.

*Arranmore*.—April 19th, two going N.W.

*Rathlin O' Birne*.—December 31st, four on island; wind fresh S.E.; misty; one shot.

*Broadhaven*.—December 26th, flock Wild Duck.

*Arran Island, N.*—January 14th, twelve Wild Duck; 21st, nine. April 24th, seven.

*Sampshire Island*.—January, February, and March, Barnacle and Wild Duck; they leave last week in April.

## "MERGANSER."

*Dungarvan*.—November 25th, five fishing in bay. December 29th, two.

## BIRDS NOT IDENTIFIED.

*Coningbeg Light-ship*.—October 8th, 11 A.M., “two birds, fifty yards from ship, feeding on the water; light grey on back, and body white and black; bill from  $1\frac{1}{2}$  to 2 inches long.”

*Barrels Rock Light-ship*.—October 4th, “A strange bird rested and flew N. It was about size of a Blackbird, had white wings and a white breast. Could not catch it.”

## BATS.

*Fastnet*.—October 3d, one seen; sleeps in cleft on rock.

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Late in the autumn an immigration of the Greater Spotted Woodpecker (*Dendrocopus major*, Linn.) occurred. It is a very rare visitor to Ireland, and although not obtained at any light station the following records may be of interest:—

November 27th, one at Kilkeel, Co. Down. A second near Newry, Co. Down, about same date. A third at Glasslough, Co. Monaghan (see *Zoologist*, 1887, p. 75). A fourth at Newcastle, Co. Wicklow, in February 1887. This species is also recorded from Northumberland on 18th and 20th October.

















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**Date Due**

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<b>Date Due</b>	

