## PSYLLIDÆ IN CERTAIN HIGHLAND COUNTIES.

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RECENTLY, in a paper in the *Transactions of the Entomological Society*, Lal<sup>1</sup> enumerates fourteen species of Psyllidæ which he had collected in the Edinburgh district. These, added to my own list<sup>2</sup> of ten species captured on the Island of South Rona, and certain casual records of very common species, represent the present extent of the Scottish list, although a paper of mine<sup>3</sup> dealing with the Psyllid Fauna of twelve of the islands of the Inner and Outer Hebrides is now in the press.

However, last year, owing to the necessity which arose for procuring certain Scottish material for genetical research, I spent three periods in the Highlands and Islands. On these occasions, advantage was taken of the opportunity offered to collect as many Psyllidæ as possible. On the first visit the counties of Perth, Inverness and Elgin were examined, on the second the Islands of Skye, Raasay, Longay, Scalpay and Fladday, and on the third Mull, Tiree, Coll, Canna, Barra, South Uist, with certain areas in Argyllshire.

In spite of the generally unfavourable weather experienced, and of the fact that the first-named visit took place in April and the third in October and November, as a result of my work I am able to report no fewer than twenty-four species for the areas in question. Some of these represent very important captures.

# 1. Aphalara calthæ Linn.

Struan, Aviemore and Oban. Several of the Aviemore specimens resembled Löw's variety maculipennis very closely.

### 2. A. exilis Web. and Mohr.

Struan and Aviemore, very abundant on juniper as well as on pines and spruces. This is the first time hibernating adults have been collected from conifers of any description.

<sup>&</sup>lt;sup>1</sup> Lal, K. B. (1934), Trans. Ent. Soc. Lond., vol. lxxxii., pp. 363-385.

<sup>&</sup>lt;sup>2</sup> Scottish Naturalist (1935), May-June, pp. 57-59.

<sup>&</sup>lt;sup>3</sup> Ent. Mo. Mag. (1936). (In press.)

### 3. A. (Anomocera) nervosa Först.

Struan, Aviemore and Forres. Larvæ were found in these localities on the roots and lower portions of Achillea millefolium.

### 4. Aphalaroida ericæ Curt.

Struan, Aviemore, Forres (Culbin Sands) and Oban (Glencruiten). At all these points the larvæ were observed on the host plants at ground level.

## 5. Psylla peregrina Först.

Struan, Aviemore, Forres (Culbin Sands and Findhorn) and Oban. The hibernating eggs were detected whenever they were sought, clustered round the buds and in the leaf scars of hawthorn twigs.

#### 6. P. sorbi Linn.

Almost as common as the preceding species; the eggs were noticed in similar situations on mountain ash.

### 7. P. mali Schmdbg.

Struan, Forres and Oban; hibernating eggs on crab and cultivated apple.

### 8. P. nigrita Zett.

Struan, Aviemore and Forres; collected freely as they oviposited on the host plants which are various species of *Salix*. Only a few hibernating adults were beaten at Oban from Coniferæ.

## 9. P. melanoneura Först.

Most abundant, both as egg-laying adults in spring and as hibernating individuals in autumn.

## 10. P. bagnalli Harr.

Hibernating adults on Coniferæ near Oban; not common.

## 11. P. pruni Scop.

A few at Oban from Coniferæ but one male from the unusual foodplant, bullace, at Struan.

## 12. P. brunneipennis Edw.

Sparingly at Struan, Aviemore and Oban, over-wintering on Conjeræ.

## 13. P. dudai Sulc.

Sparingly on sallows at Glencruiten.

## 14. P. ambigua Först.

Small larvæ found on Salices nearly everywhere.

## 15. P. abdominalis M.-D.

With the preceding species.

#### 16. P. subferruginea Edw.

Hibernating on conifers at Struan and Oban, but not very plentiful.

### 17. Arytaina genistæ Latr.

Struan, Aviemore, Forres and Oban. On the Culbin Sands an immaculate-winged form was found.

## 18. Psyllopsis spp.

Eggs were found abundantly on the buds of the common ash everywhere; these, in all probability, should be referred to both *Ps. fraxini* and *Ps. fraxinicola*.

#### 19. Trioza urticæ Linn.

Common everywhere both in hibernation, or on its host, *Urtica dioica*.

#### 20. T. remota Först.

Common in hibernation at Oban on Coniferæ; rarely at Struan and Aviemore,

#### 21. T. maura Först.

Four females and two males at Struan from conifers. A single pair from a similar situation at Glencruiten; a very rare British species.

#### 22. T. albiventris Först.

Quite uncommon at Struan, Aviemore and Oban. Specimens were taken from birch in the Altyre Woods, near Forres, and from the dwarf willow, Salix repens, on the Culbin Sands.

## 23 T. munda Först.

At Struan only. Except for my record of this species on Canna, I can find no mention of its capture in any of the literature other than that it was one of those species sent to Förster by Walker and Halliday prior to 1848.

## 24. Trioza sp.

Females of an unknown species were beaten from juniper at Aviemore. These belong almost certainly to a species unrecorded as British, but, in the absence of males, it is inadvisable to describe them.

A CONTRIBUTION TO THE ORNITHOLOGY OF WEST LANARKSHIRE AND EAST RENFREW-SHIRE.

(TERRITORY COVERED—THE WHITE CART AND ITS TRIBUTARIES.) By PHILIP ALEXANDER CLANCEY, Glasgow.

(Continued from p. 91.)

- 66. THE MALLARD, Anas platyrhyncha platyrhyncha Linnæus. Common at all seasons.
- 67. THE TEAL, Anas crecca crecca Linnæus. Common, breeds in suitable localities.
- 68. THE WIDGEON, Anas penelope Linnæus. Occurs.
- 69. THE POCHARD, Nyroca ferina ferina (Linnæus). Occurs in the winter months.
- 70. THE TUFTED DUCK, Nyroca fuligula (Linnæus). Common on the lochs and breeds in quite considerable numbers.
- 71. THE CORMORANT, Phalacrocorax carbo carbo (Linnæus). One record. (See Scot. Nat., 1935, p. 172.)
- 72. THE GANNET, Sula bassana (Linnæus). Occasionally found.
- 73. THE GREAT CRESTED GREBE, Podiceps cristatus cristatus (Linnæus). Rare, but breeds on a few of the lochs.
- 74. THE LITTLE GREBE, Podiceps ruficollis ruficollis (Pallas). Common on all lochs and smooth flowing rivers.
- 75. THE WOOD-PIGEON, Columba palumbus palumbus Linnæus. Common, but much persecuted. Breeds in the pine and larch woods in considerable numbers.
- 76. THE STOCK-DOVE, Columba anas Linnaus. Common, but somewhat local. Does not appear to be on the increase.
- 77. THE RINGED PLOVER, Charadrius hiaticula hiaticula Linnæus. One seen at the Binend Loch, Renfrewshire, on the 23.viii.1933.
- 78. THE SOUTHERN GOLDEN PLOVER, Charadrius apricarius apricarius Linnæus.
- Not uncommon on the moors during the breeding season. 79. THE LAPWING, Vanellus vanellus (Linnæus).
- Abundant at all seasons.
- 80. THE TURNSTONE, Arenaria interpres interpres (Linnæus). Two or three observed at the Binend Loch, Renfrewshire, on the 12.v.1933.

81. The Southern Dunlin, *Erolia alpina schinzii* (C. L. Brehm). Not uncommon on the moors and loch sides during the breeding season.

82. THE SANDPIPER, Tringa hypoleucos Linnæus.

On whole common but appears to be decreasing. (See Scot. NAT., 1935, p. 171.)

- 83. The British Redshank, *Tringa totanus britannica* Mathews.

  Common during the spring and summer months. Breeds in the marshes.
- 84. The Curlew, *Numenius arquata arquata* (Linnæus). Common on the moors.
- 85. The Common Snipe, Capella gallinago gallinago (Linnæus).

  Common at all seasons. Breeds in considerable numbers.
- 86. THE JACK SNIPE, Lymnocryptes minimus (Brünnich). Occurs.
- 87. The Woodcock Scolopax rusticola rusticola Linnæus. Not rare. Breeds in several places.
- 88. The Common Tern, Sterna hirundo hirundo Linnæus.

  Seen frequently in the summer. One or two pairs breed yearly on the Brother Loch, Renfrewshire.
- 89. THE BLACK-HEADED GULL, Larus ridibundus ridibundus Linnæus.

Very common. Breeds in vast numbers on the moors.

- 90. THE COMMON GULL, Larus canus canus Linnæus. Frequently seen.
- 91. THE HERRING GULL, Larus argentatus argentatus Pontoppidan.
  Immature and non-breeding birds frequently seen.
- 92. THE BRITISH LESSER BLACK-BACKED GULL, Larus fuscus grællsii Brehm.
  Occasionally seen.
- 93. THE LAND-RAIL, Crex crex (Linnæus).
  A common summer visitor.
- 94. THE MOOR-HEN, Gallinula chloropus chloropus (Linnæus).

  To be found in considerable numbers on the lochs and rivers.
- 95. The Coot, Fulica atra atra Linnæus.

  Rare. A few pairs breed on several of the lochs.
- 96. The British Black Grouse, Lyrurus tetrix britannicus
  Witherby and Lönnberg.
  Found on the moors, but exact status uncertain.
- 97. THE BRITISH RED GROUSE, Lagopus scoticus scoticus (Latham). Common on the moors.
- 98. THE PHEASANT, *Phasianus colchicus* Linnæus. Local.
- 99. THE PARTRIDGE, *Perdix perdix perdix* (Linnæus).

  Common in the arable districts and stubble lands.