Granshaw, 19,

Clare Island Survey.

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DIPTERA.

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Introduction.

The following list of the Diptera of Clare Island and the surrounding mainland is the result of the examination and determination of over 4,000 specimens. In addition to the material obtained by myself during a few days' visit to the island in July, 1910, and a sojourn of about a fortnight in the neighbourhood of Westport exactly a year after this date, I have had the advantage of working through collections made by other entomologists, notably Mr. J. N. Halbert, Mr. Claude Morley, and the Rev. W. F. Johnson. In the list which follows, the name of the collector is indicated in every case within parentheses, and to all those who have thus assisted me I hereby tender my hearty thanks.

Of the 519 species here recorded no fewer than 160, or more than 30 per cent., appear to be new to the Irish fauna. These additions are indicated by an asterisk (*), while five species which are new to Britain have their names preceded by a double asterisk (**). In this connexion I must here express my great indebtedness to Professor G. H. Carpenter, who lent me one of Verrall's Lists of British Diptera, marked and most generously placed at his disposal by Col. J. W. Yerbury, showing what species were already recorded for Ireland. Without this help I should have found it a very troublesome task to ascertain which of the following species were new to the country.

With regard to the summarizing of results I feel it to be somewhat premature to pronounce any definite opinions on the question of distribution. Our knowledge of the Dipterous fauna of Ireland is very far behind, and with prolonged periods of collecting any conclusions now formed might be entirely upset. The following remarks are therefore only to be taken as suggestive. In the first place, our knowledge of Irish Diptera is in the main drawn from the records of A. H. Haliday, who appears to have collected chiefly in the eastern counties. The only paper of any importance dealing with the western counties is that by Colonel Yerbury on the Diptera of

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Cork and Kerry ("Irish Naturalist," vol. xi, pp. 74-93), in which 312 species are recorded. Up to the present, something like 1050 species have been recorded for Ireland as a whole, which number the present list increases to 1210. Of this total number, about 43 per cent. have been discovered in the district covered by the present Survey, and about 13 per cent. have not been recorded beyond it. This appears to me to show a somewhat large percentage of peculiarity; but whether this is due to insufficiency of knowledge or to an actual feature in distribution it is not yet possible to say.

My method of collecting has been to pin every specimen which fell to the net, be the species common or otherwise. The detailed figures given for each species and locality may therefore have a certain amount of value as indicating roughly the abundance or scarcity of the species concerned. But against this must be set the fact that while several days were spent on Clare Island, other localities show only the result of a single day's, or perhaps half a day's, collecting. The area richest in Diptera seems to be the Demesne at Westport, whence 148 species were obtained. This may be accounted for by its varied character—woodland, marsh, sea-coast, and open ground of various kinds all occurring within its limits. Belclare and Louisburgh come next, with 145 and 113 species respectively, while in a single forenoon at Mulranny 105 species were obtained.

Regarding the Dipterous fauna of Clare Island itself as compared with the mainland, little is worthy of note. The following figures indicate the results of the Survey, and are pretty much what one would expect:

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the species new to the British fauna one had	•	• 43	

Of the species new to the British fauna one belongs to the Tendipedidae (Chironomidae), two are Empidae, and two are Anthomyidae. They are as

Metriocnemus modestus Mg. (nec Verrall), Mydaea anceps Ztt. Hilara lasiopyga Lundbeck, Tachydromia albocapillata Fln. Limnophora nigriventris Ztt.

A word remains to be said as to the nomenclature used in this paper. In the main I have followed the "Katalog der Paliarktischen Dipteren" of

In the case of many common species of general distribution in Britain I have merely stated the

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Becker, &c., but have also adopted the names recently resuscitated by Hendel and other authors from the long-lost paper of Meigen's entitled "Nouvelle classification des mouches à deux ailes (Diptera L.)." This paper has given rise to a good deal of discussion and controversy; but as the International Commission on Zoological Nomenclature has decided (Opinion 28, October 1910) that the generic names there used must take precedence (when found valid) over those used in Meigen's later works, I have decided to use such names without question, following Hendel's opinion (Verhandl. der k. k. zool.-bot. Gesellschaft in Wien, 1908, pp. 43-69) as regards validity or otherwise. In pursuing such a course I fear many portions of the list possess an unfamiliar appearance; but to obviate difficulties I have inserted within parentheses the names used in Verrall's List in each case where there is an alteration.

To save space the following contractions are used:—CI., Clare Island; M., Mainkand; (H.), J. N. Halbert; (M.), Claude Morley; (J.), Rev. W. F. Johnson; and (G.), Percy H. Grimshaw.

LIST OF SPECIES.

ORTHORRAPHA NEMATOCERA.

Family Lycoriidae (Sciaridae).

- Lycoria (Sciara) flavipes Mg.—M.: Louisburgh, one & (H.); Brackloon Wood, one & and one & (G.).—A woodland species, distinguished by its large size, slender build, and light colour.
- L. thomae L.—M.: Castlebar Lough, one ? (G.); Westport, one ?, riverside (G.).—A large and conspicuous species, easily recognized by its smoky wings, and, in the ?, by the yellow stripe down each side of the abdomen.

[Besides the above, over thirty specimens of this difficult genus were taken, two on Clare Island and the rest on various parts of the adjacent mainland. Several species are represented; but I have not succeeded in identifying any of them.]

Family Fungivoridae (Mycetophilidae).

*Mycomya (Sciophila) trilineata Ztt.—M.: Achill, one & of what I believe is this species, taken by Mr. Halbert.

Boletina analis Mg.—CI.: one (G.). M.: Louisburgh, one (M.).

Leia (Glaphyroptera) fascipennis Mg.—M.: Belclare, one of (H.).

Fungivora (Myoetophila) signata My.-M.: Brackloon Wood, two (G.).

Balioptera combinata L.—M.: Westport, one in Demesne (H.).

B. tripunctata Fln.—M.: Louisburgh, one (H.); Westport, one in Demesne (G.).

Anthomyza gracilis Fln.—M.: Westport, two (? collector); Westport, one in Demesne and one on riverside (G.); Louisburgh, one (H.); Lough near Westport, one (G.).

*Paranthomyza nitida Mg.—M.: Westport, four in garden (G.).

Family Ochthiphilidae.

Ochthiphila aridella Fln.—M.: Westport, five in Demesne, and Lough near Westport, one (G.).

0. juncorum Fln.—M.: Westport, one in Demesne (G.).

Family Milichidae.

Phyllomyza securicornis Fln.—CI.: one 3 (G.).

Family Agromyzidae.

Agromyza flaveola Fln.—M.: Glendarary, one (H.); Westport, one, and Brackloon Wood, two (G.).

A. nigripes Mg.—M.: Westport, one on riverside (G.).

*A. reptans Fln. -M.: Westport, one in garden (G.).

Cerodonta (Ceratomyza) denticornis *Panz.*—M.: Louisburgh, two (M.); Belclare, one (H.); Westport, one in Demesne (G.)

Family Phytomyzidae.

Phytomyza affinis Fln.—CI.: one (G.) M.: Belclare,one (H.); Lough near Westport, one (G.).

P. flava Fln.—M.: Westport, one in Demesne (H.), one in garden and one in Demesne (G.); Knappagh, one (G.).

*P. flavicornis Fln.—M: Westport, six in garden (G.).

P. obscurella Fln.—M.: Louisburgh, one (H.).

P. populicola Wlk.—M.: Westport, three on riverside and one in Demesne; Belclare, one (G.).

Napomyza lateralis Fln. -CI.: one (H.).

Family Conopidae.

Conops quadrifasciata Deg.—M.: Knappagh, three & (G.).

Occemyia atra Fab.—M.: Westport, one in Demesne (H.).

Sicus ferrugineus L.—CI.: one \mathcal{J} (M.). M.: Mulranny, one \mathcal{J} , and Lough near Westport, one \mathcal{J} (G.).