

AN ANNOTATED LIST OF THE MACROLEPIDOPTERA OF SABLE ISLAND

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A list of 58 species of Macrolepidoptera is presented, representing 2 families of butterflies and 4 families of moths collected on Sable Island in 1976 and 1977. The month(s) when the species was collected, the number of specimens collected, and data on larval food plants and ecological notes also are given.

INTRODUCTION

During the summers of 1976 and 1977, extensive field work on Sable Island by Barry Wright of the Nova Scotia Museum of Science has greatly increased the knowledge of the Lepidoptera of this island. Collecting was done intermittently from early June to early October of both years using standard entomological techniques, including light trapping, sugaring, and diurnal collecting using nets and collecting jars. These methods have produced a list of Macrolepidoptera of Sable Island sufficiently complete as a basis for further work on, for example, faunal changes in the future.

Sable Island had been largely neglected entomologically chiefly because of its isolation and inaccessibility. Ferguson (1955) lists only one species of Macrolepidoptera, Ommatostola lintneri Grt. (Noctuidae), as occurring on the island, based on a specimen collected in 1899. In 1966, E.W. Rockburne and D.F. Hardwick of the Biosystematics Research Institute, Department of Agriculture, Ottawa, under the auspices of the National Museum of Natural Science, extensively collected on Sable Island. They listed 23 species of Macrolepidoptera representing two families of moths, the Arctiidae and Noctuidae as occurring on Sable Island (in Howden et al 1970).

The present study lists 58 species of Macrolepidoptera, representing 2 families of butterflies and 4 families of moths. All species listed by Rockburne and Hardwick in 1970 have been obtained in the most recent collections except for 2: Amphipoea interoceanica Sm. (Noctuidae), and Polia pulverulente Sm. (Noctuidae), the first probably having been misdetermined for the closely related Amphipoea americana Speyer (Noctuidae) which is moderately common on Sable Island. All species collected in this study have been previously collected from the mainland, although as will be indicated, some may yet prove to be specifically distinct.

Species listed here follow the arrangements in McDunnough (1938), using the taxonomy proposed chiefly by Forbes (1954) and various other writers. Botanical names follow those used by Roland and Smith (1969).

After each species, an estimate of abundance and the actual number, in parentheses, of specimens collected is given. The month(s) when the species was collected and any data on host plants of the larvae, ecological notes, or other relevant information concerning the species on Sable Island are given.

I thank Barry Wright of the Nova Scotia Museum for providing me with all the material collected on Sable Island in the past 2 yr and for his helpful comments and suggestions in the writing of this paper.

SPECIES LIST

Pieridae

Colias philodice (Godt.) Rare (1), June. A single female collected near West Light.

Nymphalidae

Vanessa virginiensis (Dru.) Rare (2), July and September. Probably common some years throughout the summer months; larvae observed feeding on pearly everlasting (Anaphalis margaritacea L.).

Sphingidae

Sphinx gordius (Cram.) Moderately common (16), June and July. Bred from ova on bayberry (Myrica pensylvanica Loissel.), the only host the larvae would accept.

Arctiidae

Diacrisia virginica (Fabr.) Moderately common (14), June and July. Bred from pupae found under boards near the New Main Station.

Noctuidae

Euxoa detersa (Wlk.) Abundant (69), August and September. One of the most common moths on Sable Island, but considered rare on the mainland.

Euxoa scandens (Riley) Abundant (38), July and August.

Euxoa messoria (Harr.) (?) Uncommon (5), September. Quite different in general coloration from the mainland E. messoria, and may eventually prove to be another species.

Agrotis venerabilis Wlk. Rare (1), September. Collected at a light trap near the Meteorological Station.

Agrotis sp Uncommon (7), June and July. This species, which resembles no other Agrotis species found in Nova Scotia, has markings similar to A. volubilis Harv., but has the ground color replaced by a light-brownish shade.

Spaelotis clandestina (Harr.) Rare (1). The exact date of capture, 15 June 1977, is rather early for this species which occurs on the mainland from early July to mid-August (Ferguson 1955).

Eurois occulta (L.) Moderately common (13), July.

Ochropleura plecta (L.) Rare (1), September. Probably more common on Sable Island than these collections suggest, as this species is very common on the mainland, and is well represented in the earlier collections (Howden et al 1970).

Peridroma saucia (Hbn.) Rare (2), June. Another species which is more than likely quite common on the island than the records indicate.

Heptagrotis phyllophora (Grt.) Abundant (30), July.

Amathes c-nigrum (L.) Abundant (52), July. One of the more common species on Sable Island.

Amathes smithi (Snell.) Moderately common (16), September.

Rhynchagrotis cupida f brunneipennis (Grt.) Rare (2), September. Two specimens taken, one on 8 September 1977, the other on 12 September 1977, were both rather late for this species, the latest date of capture on the mainland being 2 September (Ferguson 1955).

Lacinipolia renigera (Steph.) Moderately common (14), July to September.

Lacinipolia lorea (Gn.) Rare (3), June and July. Rockburne and Hardwick (in Howden et al 1970) list this as one of the more common species on the island.

Nephelodes minians Gn. Abundant (31), September.

Faronta diffusa (Wlk.) Moderately common (13), June. This species is recorded by Ferguson (1955) as being double brooded on the mainland, but appears to be only single brooded on Sable Island.

Pseudaletia unipuncta (Haw.) Abundant (25), April to July.

Aletia oxygala (Grt.) Abundant (49), June and July.

Xylena nupera (Lint.) Rare (1), May.

Apamea amputatrix (Fitch.) Rare (1), July.

Apamea inordinata (Morr.) Moderately common (9), June. Quite scarce on the mainland, but apparently more common on Sable Island.

Apamea finitima (Gn.) Abundant (22), June.

Crymodes devastator (Brace) Abundant (25), June to September. A notorious cutworm on the mainland.

Protoagrotis niveivenosa (Grt.) Rare (2), July. A rare species throughout Nova Scotia.

Oligia bridghami (G. & R.) Rare (3), August to September.

Oligia mactata (Gn.) Rare (1), September.

Spartinophaga inops (Grt.) Rare (1), August.

Ommatostola lintneri (Grt.) Moderately common (11), July and August. Local on the mainland, being restricted to sand dunes and beaches; until 1966 this was the only species of lepidopteran recorded from Sable Island (Ferguson 1955).

Hypocoena sp Rare (1), September.

Helotropha reniformis (Grt.) Rare (1), August.

Amphipoea americana (Speyer) Moderately common (13), July and August. The closely related A. interoceanica (Sm.) recorded by Rockburne and Hardwick (in Howden et al 1970) has not been collected in the recent study, and was probably recorded in error by them for A. americana.

Papaipema sp (?) Rare (1), September.

Proxenus miranda (Grt.) Abundant (24), July. A species common on bogs and marshy areas on the mainland.

Galgula partita (Gn.) Rare (1), August.

Spodoptera frugiperda (J. E. Smith) rare (1), September.

Enargia infumata (Grt.) Rare (1), September. Collected by day as it flew over the dunes in the vicinity of the Meteorological Station.

Helicoverpa zea (Boddie) Uncommon (6), August and September.

Syngrapha rectangula (Kby.) Rare (1), July.

Syngrapha octoscripta (Grt.) Rare (1) September.

Autographa precatationis (Gn.) Rare (2), July to September. The only plusiid previously recorded from Sable Island (Rockburne & Hardwick in Howden et al 1970).

Plusia aereoides (Grt.) Uncommon (6), July.

Catocala unijuga (Wlk.) Rare (1), July.

Caenurgina erechtea (Cram.) Rare (1), August. A common open grassland species on the mainland, and will probably prove to be more common on Sable Island.

Anticarsia gemmatilis (Hbn.) Rare (1), September. A southern migrant, coming north in the autumn.

Hypena humuli (Harr.) Rare (2), July. A rather early record for this species which is common on the mainland from September to October (Ferguson 1955).

Liparidae

Orgyia leucostigma placiata (Wlk.) Abundant (47), July to September. Larvae collected from blueberry (Vaccinium sp), iris (Iris versicolor L.), bayberry (Myrica pensylvanica Loisel), grasses, sedges, and rushes; morphological differences from mainland specimens have been observed in both larvae and adults from Sable Island, and this could eventually prove to be a different species.

Geometridae

Heliopsis obsoleta (Fabr.) Uncommon (6), August and September.

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Geometridae

Nemoria rubrifrontaria (Pack.) Rare (3), June and July.

Mesothea incertata (Wlk.) Rare (5), June. Collected by day flying over the dunes in the vicinity of the Old Main Station.

Cyclophora pendulinaria (Gn.) Rare (1), July.

Pleuroprucha insularia (Gn.) Rare (1), July.

Eulythis testa (L.) Moderately common (12), September.

Eulythis explanata (Wlk.) Rare (2), July.

Eupithecia sobrinata interruptofasciata (Pack.) Rare (1), September.

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