

Report on the Surtsey Investigation in 1965Terrestrial Invertebrates

by

Carl H. Lindroth, Hugo Anderson and Högni Bödvarsson
 Department of Entomology, Zoological Institute
 University, Lund

Field work in the "base area", the Westman Islands, notably on Heimaey, including a short visit to Surtsey, was carried out during the period July 20th to 29th by Dr. Lindroth and Mr. Andersson. The resulting collections have not yet been fully worked up but it is already evident that our knowledge of the Invertebrate fauna of Heimaey has been substantially enlarged. Several species new to Iceland have been discovered.

All terrestrial Invertebrate animals observed and collected on Surtsey itself, as far as known, have been available to us. The collection is preserved at the Zoological Institute, Lund, for the time being, but it is agreed that its final place of storage will be at the Museum of Natural History, Reykjavík. Similarly, the first specimen of every species collected on each of the other islands of the Westman group will be deposited there.

The following terrestrial Invertebrates have been observed on Surtsey:

I n s e c t a

Diptera. (Flies and Midges) 6 species.

fam. Chironomidae (det. D.R. Oliver, Ottawa)

Diamesa ursus Kieff. 1 ♀. Leg. Sturla Fridriksson,
14. V. 1964.

Cricotopus sp. 3 ♀. Leg. Jutta Magnússon, 3. VII. 1965.

Gen. sp. (subfam. Orthoclaadiinae) 1 ♀ (dead). Leg.
Sigurdur Helgason, 28. VII. 1965.

fam. Helomyzidae (det. Hugo Andersson, Lund).

Helomyza modesta Meig. 4 dead specimens and 4 empty
(hatched) puparia near the lagoon
under a piece of wood covered with

thin ashes, in a stratum of sand with fragments of *Ascophyllum* algae and feathers of birds. Leg. Sigurdur Helgason, 24. VII. 1965. This is the first terrestrial animal known to have bred on the island.

fam. Cordyluridae (det. Hugo Andersson).

Scatophaga stercoraria L. ♂. Leg. Sigurdur Helgason, 28. VII. 1965.

fam. Calliphoridae (det. Hugo Andersson).

Calliphora erythrocephala Meig. 1 ♀. Leg. Sigurdur Helgason, 28. VII. 1965.

Lepidoptera. (Butterflies and Moths) 2 species.

fam. Noctuidae (det. Per Douwes, Lund).

Agrotis ypsilon Retz. 1 ♂. Leg. Eythór Einarsson, 15. X. 1964.

Plusia gamma L. 1 ♀. Leg. Sturla Fridriksson, 4. X. 1965.

A c a r i d a (Mites)

fam. Gamasidae (det. Max Sellnick, Grosshansdorf pr. Ahrensburg, Germany).

Thinoseius spinosus Willmann. Leg. Sigurdur Helgason, 24. & 28. VII. 1965. This mite was found, together with the dead ♀ of the *Orthocladiin* midge, on which they seemed to feed, near the lagoon in several specimens. The place is also close to where puparia and dead flies of *Helomyza modesta* were found. The biology of this mite is known from Germany, where the nymphal stage has been found attached to littoral flies. It seems therefore that the species possesses unusual facilities for passive long-range dispersal.

Plans for 1966.

All three members of the team intend to visit Surtsey and the Westman Islands for a period of about 10 days, in June. Besides general field-work the following points are foreseen:

- (1) three glue-traps for catching small air-borne animals should be established on Surtsey;
- (2) an artificial freshwater pool - by collecting rainwater in a plast-covered depression in the lava - should be constructed;
- (3) nest material from anticipated breeding birds - probably Rissa tridactyla - should be individually collected and investigated on possible occurrence of small animals;
- (4) several millions of small, bright yellow plast grains (already available) should be released off shore, at outgoing tide, in the southern part of the main Westman Island, Heimaey. If carried to Surtsey by sea drift, they would be easily discovered.