

Spiders from Jan Mayen

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Toft, S. 1979. Spiders from Jan Mayen. *Fauna Norv. Ser. B.* 26, 24-25.

A collection of spiders from Jan Mayen, taken mainly by means of pitfall-traps in June — July 1972, contained five species, of which one, *Walckenaera clavicornis* (Emerton), is new to the island. *Collinsia holmgreni* (Thorell) is by far the dominant species. The fauna comprises three holarctic, and two palaeartic species.

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The spider fauna of the Norwegian arctic island Jan Mayen has been dealt with in papers by Bristowe (1925, 1948), the latter of which summarizes all collections made up to then. Though a total of about 800 specimens have been collected, only four species are recorded, all belonging to the family Linyphiidae: *Collinsia holmgreni* (Thorell), *Erigone tirolensis* L. Koch, *Hilaira frigida* (Thorell) and *Meioneta nigripes* (Simon).

Through the courtesy of Professor Niels Haarløv, I have had the opportunity to examine a new collection, made by Klaus Vestergaard, in June — July 1972. Most of the spiders in this collection were taken by means of pitfall-traps, of which 30 were used for different periods in various localities. Besides this, 281 core samples were extracted with a Berlese - extractor, but only five of these each contained a single spider. As none of the previous collections have used pitfall traps, one would expect somewhat different species proportions in the present material, but this is only partly observable.

The collection comprised a total of 187 specimens, of which 182 were taken in pitfall traps; five species could be identified, i.e. the four species previously reported from Jan Mayen, and one species new to the island: *Walckenaera clavicornis* (Emerton). All five specimens from extraction samples were juvenile *C. holmgreni*. Details about localities, habitats etc. are given below. The material will be kept at the Zoological Museum, Copenhagen, Denmark.

Walckenaera clavicornis (Emerton)

Material: 1 ♂

Locality: Nordahl Grieg Lia.

Habitat: In moss (*Racomitrium*) on gravelly ground.

Collinsia holmgreni (Thorell)

Material: 76 ♀ ♀ 37 ♂ ♂ 43 juv. in pitfall traps, 5 juv. in core samples.

Localities: Nordahl Grieg Lia, Tornoe delta, Fishburndalen, Kreklinghaugen, Havhestberget, Wilczekdalen, Blyttberget, Kvalrossbukta, Sjuhollendarbukta, Borgdalen, Søyla, Libergsletta.

Habitats: The species is distributed all over the island, and seems to occur in nearly all available habitats. By far the greatest numbers were caught in stony areas devoid of vegetation (Wilczekdalen). Bristowe also found them under stones. However, in a Norwegian high mountain area, Hauge et al. (1978) caught the largest numbers in eutrophic meadow, but it was also abundant in snow-bed. Palmgren (1965, 1976) reports it to occur in mountaneous heathland in northern Finland.

Erigone tirolensis L. Koch

Material: 4 ♀ ♀ 7 ♂ ♂ 1 juv.

Localities: Fishburndalen, Havhestberget, Kvalrossbukta. Bristowe (1948) also mentions Sjuhollendarbukta.

Habitats: In the first mentioned locality the trap was situated in a rich vegetation dominated by *Sibbaldia*; the remaining localities were moss below bird cliffs. Hauge et al. (1978) report the species to be abundant in a wide variety of high mountain habitats. In Northern Finland it occurs from the timberline to the highest mountain tops (Palmgren 1965, 1976).

Hilaira frigida (Thorell)

Material: 1 ♀ 2 ♂ ♂ 1 juv.

Localities: Nordahl Grieg Lia, Sjuhollendarbukta.

Habitats: At both localities the traps were situated in moss. According to Bristowe (1948) it is abundant throughout the island. The species has two activity peaks, one in very early spring, the other in late autumn (Hauge et al. 1978),

which may explain the low numbers in the present collection. In Northern Finland it is a dominant species of mountain heaths (Palmgren 1965, 1975).

Meioneta nigripes (Simon)

Material: 3 ♀ ♀ 6 ♂ ♂

Localities: Nordahl Grieg Lia, Wilczekdalen, Libergsletta, Fugleberget. Bristowe (1948) further mentions Fishburndalen and Bernakrater.

Habitats: The species has been taken in moss and stony areas without vegetation. This is in accordance with Hauge et al. (1978), who caught it exclusively in a pioneer ground habitat.

DISCUSSION

The five species known from Jan Mayen are widely distributed in the Northatlantic area. They all occur in Iceland (Brændegaard 1958), East Greenland (Brændegaard 1946), Scotland (Locket & Millidge 1953) and Northern Scandinavia (Palmgren 1965, 1975, 1976). In the two latter areas they are restricted to high mountains. Holm (1967) characterizes *C. holmgreni*, *W. clavicornis* and *H. frigida* as holarctic, *M. nigripes* and *E. tirolensis* as palaeartic.

A fauna comprising only five species of spiders may seem extremely poor. However, this figure is probably not very far from the equilibrium number of species in the area. For comparison, 38 species are known from East Greenland (Holm 1967), 16 species from Spitsbergen (Holm 1937, Tambs-Lyche 1967), both with a much larger area, and five species have been recorded from Bear Island (Holm 1937). Thus, in view of the small area and great isolation of Jan Mayen only few more species can be expected. The faunal composition has remained stable through the last 50 years.

ACKNOWLEDGEMENTS

I am greatly indebted to Professor Niels Haarløv and Dr. Klaus Vestergaard for having the opportunity to examine this collection, and for detailed information about the sampling sites.

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Received 10 May 1979.