

Spiders (Araneae) in the Faroe Islands: an annotated checklist and an update on inter-island distributions

Eiturkoppur (Araneae) í Føroyum: eitt endurskoðað yvirlit og ein dagføring av útbreiðslu innanoyggja

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Úrtak

Í 1980- og 1990-árunum vórðu fallfellur settar upp í fleiri oyggjum í Føroyum. Tað varð gjørt á rættiliga nógvum støðum, á ymsum búðkjum (eis. høgt uppi) og allar árstíðir. Tað gav rættiliga nógv nýggjar upplýsingar um støðuna hjá eiturkoppum her á landi, eitt nú vórðu skrásett 10 nýggj sløg, nevniliga *Crustulina guttata*, *Agyneta gulosa*, *A. ramosa*, *A. subtilis*, *Centromerus prudens*, *Hypomma bituberculatum*, *Mughiphantes whymperi*, *Ostearius melanopygius*, *Arctosa alpigena* og *Ozyptila atomaria*. Harumframt vórðu 3 sløg, ið rakt varð við innandura, funnin fyri fyrstu ferð (*Araneus diadematus*, *A. quadratus* og *Tegenaria atrica*). Tískil er talið á eiturkoppum, ið eru funnir í Føroyum, nú 83. Viðgjørdir verða ávísir tættir (ið mest hava samband við innsavningarhátt og -orku), sum hava virkað til, at fleiri nýggjar upplýsingar eru fingnar til vegar, og nomið verður við nøkur ávís dømi um útbreiðslu og hvørjar broytingar kunnu væntast í støðuni hjá sløgnum.

Abstract

Pitfall trapping at a large number of sites, on several islands, in different habitats (incl. high altitudes), and at

all seasons in the 1980s and 1990s yielded a considerable amount of new information on the status of spiders in the Faroe Islands, including first records of 10 species viz. *Crustulina guttata*, *Agyneta gulosa*, *A. ramosa*, *A. subtilis*, *Centromerus prudens*, *Hypomma bituberculatum*, *Mughiphantes whymperi*, *Ostearius melanopygius*, *Arctosa alpigena*, and *Ozyptila atomaria*. An additional 3 species collected indoors are reported for the first time (viz. *Araneus diadematus*, *A. quadratus*, and *Tegenaria atrica*) and hence the current total number found in the Faroes is 83. Some factors (mostly related to collecting methods and effort) contributing to this increase in new information, and some specific cases of distribution and of presumably real changes in the status of species, are discussed.

Introduction

As the spider faunas of the British Isles and SW Fennoscandia are, by and large, well known (Merrett and Murphy, 2000; Aakra and Hauge, 2000; 2003) new information on the spider species found on offshore and remote islands in the NE Atlantic becomes increasingly interesting, for instance with regard to faunal colonisation of islands and

dispersal ability of species. When Brændegaard (1928) completed his major treatise on the spiders of the Faroe Islands, based on collections made by Danish zoologists in 1925-1926 and previously published information, he listed 43 species as having been found in the islands. In dealing with the spider fauna of Shetland in a zoogeographic context, Ashmole (1979) listed 59 (+1 ?) species in the Faroes. He based this figure on previously published information (including Holm 1967) and an unpublished list of species collected by Holm in 1966. In summer 1978 (with some additional fieldwork in 1979) a Swedish-Norwegian team (including two of the present authors viz. S.-A.B. and P.H.E.) made extensive collections (112 localities), all over the archipelago, with the primary aim of studying the influence of Man on the species composition of the terrestrial invertebrate fauna of the Faroes (see Enckell *et al.*, 1987; Enckell, 1989). The spider material was published by Bengtson and Hauge (1979, see also 1981) and among the 49 species collected, 7 were reported new to the Faroes. Holm (1980) published 15 species new to the islands and, also referring to those reported by Bengtson and Hauge (1979), he put the total number of spider species found in the Faroes at 66 (cf. Discussion). Since then and until now only three species new to the Faroes have been reported (Hauge *et al.*, 2002; Magnussen, 2003; Aakra and Olsen, 2003).

For the majority of species our knowledge about their distribution in the islands increased considerably as a result of the fieldwork in 1978. During the subsequent

decades collecting (pitfall trapping) was conducted in a number of places and for different reasons. First, to re-investigate a number of localities studied in 1978. Second, to study seasonal and annual variation by continuously trapping in logistically convenient localities. Third, to study some islands or particular sites in more detail, viz. the small islands Koltur and Lítla Dímun, Kunoy, and sites with abandoned settlements or shielings on Kunoy and Borðoy (see Enckell and Rundgren, 1988). This paper reports on 13 species recorded for the first time in the islands and numerous other findings that contribute significantly to our knowledge of the distribution of Faroese spiders.

Areas, collecting, and material

The Faroes consist of 18 islands (Fig. 1) ranging in size from 0.8 to 374 km² (total area 1,399 km²) and mountain peaks reaching 882 m a.s.l. The climate is maritime with mild winters and cool summers (4.1 and 11.1 °C in February and August, respectively) with frequent strong winds and varying but regular rainfall. Vegetation is dominated by various types of grassland (mostly grass heaths) and on higher grounds sparse alpine vegetation (Fosaa, 2001). However, in association with the, almost invariably coastal, settlements there are usually infields with lush grass meadows and rich herbage that contrast with the less rich grasslands and heaths that constitute most of the outfield habitats.

Pitfall trapping provided effectively the entire spider material. At each locality one series consisting of 5 traps was employed,

in most cases only during the summer season (i.e. June-August), but at some localities the traps were operated through the year and in some cases for several years. In the latter localities more than one series of traps (in the following referred to as stations) were employed. The traps were placed ca. 5 m apart and consisted of glass jars (depth 12 cm, diameter 6 cm) filled with alcohol with some formalin, and a dash of fluid soap. A metal roof covered each trap. For collections limited to the summer season the traps were usually left for the entire period before they were emptied, whereas at the localities studied for longer periods the traps were emptied at irregular intervals of occasionally 2 weeks but usually 1-3 months. In some localities, for instance on Lítla Dímun, where we had to rely on helicopter support, the traps were emptied once a year, or twice at the most.

In summer 1988 (approx. between the first week of July and early August) pitfall trapping was carried out on 8 islands and in 32 localities (see Fig. 1) that had previously been investigated in 1978. The locality numbers used in 1978 are adopted in present study, and details on location and habitat are given by Bengtson and Hauge (1979: Fig. 2 and App. I): The following islands and locations were studied: Suðuroy (locs 52, 53, 55, 59-63), Sandoy (locs 33-36, 38), Streymoy (locs 2, 3, 5, 27, 29-31, 42), Vággar (locs 10, 13), Eysturoy (locs 9, 16, 17, 20), Borðoy (locs 48, 106), Viðoy (locs 45, 47), and Fugloy (loc. 71). Pitfall traps were also employed for about 2 months (July-August) in 4 localities, not previously investigated, viz. in lush grass around re-

mains of and old building outside Sandvík (Suðuroy) in 1988, on a grass heath slope on the outskirts of the settlement Víkarbyrgi (Suðuroy) in 1989, on a grass heath/meadow at Leynarvatn (Streymoy) in 1989, and on a grass heath/meadow at Skarðsvík (Fugloy) in 1988 and also in 1991 (Fig. 1 and Enckell and Rundgren, 1988; with reference to the locality at Skarðsvík see also Matras *et al.* 2004). Fig. 1 shows the geographical position of the above-mentioned localities.

For the rest of the localities trapping was conducted throughout the year. From Lítla Dímun, material from two stations on top of the 0.8 km² and 414 m high island for 1982-85 is included in present study. The habitat can be described as a sheep grazed, damp grass heath. The material from Koltur (2.8 km²) included here was collected in 1991-95 at 6 stations: one around the old and no longer inhabited farm buildings, one at the southern end of the island (Fjallið, 101 m a.s.l.) and 4 at the northern end along a south-facing, very steep, grassy mountain slope, from the bottom to the top (with a moist grass heath/meadow) of Kolturhamar, the highest point on the island (478 m a.s.l.).

On the northern islands, two abandoned, small settlements were studied over several years viz. Skarð on Kunoy and Skálatóftir on Borðoy which were abandoned in 1919 and 1914, respectively (see Enckell and Rundgren, 1988), and traps were placed among and in close vicinity of the remains of farm buildings. Many of the samples are yet to be processed, but the present paper includes data from 6 stations at Skarð (3 in

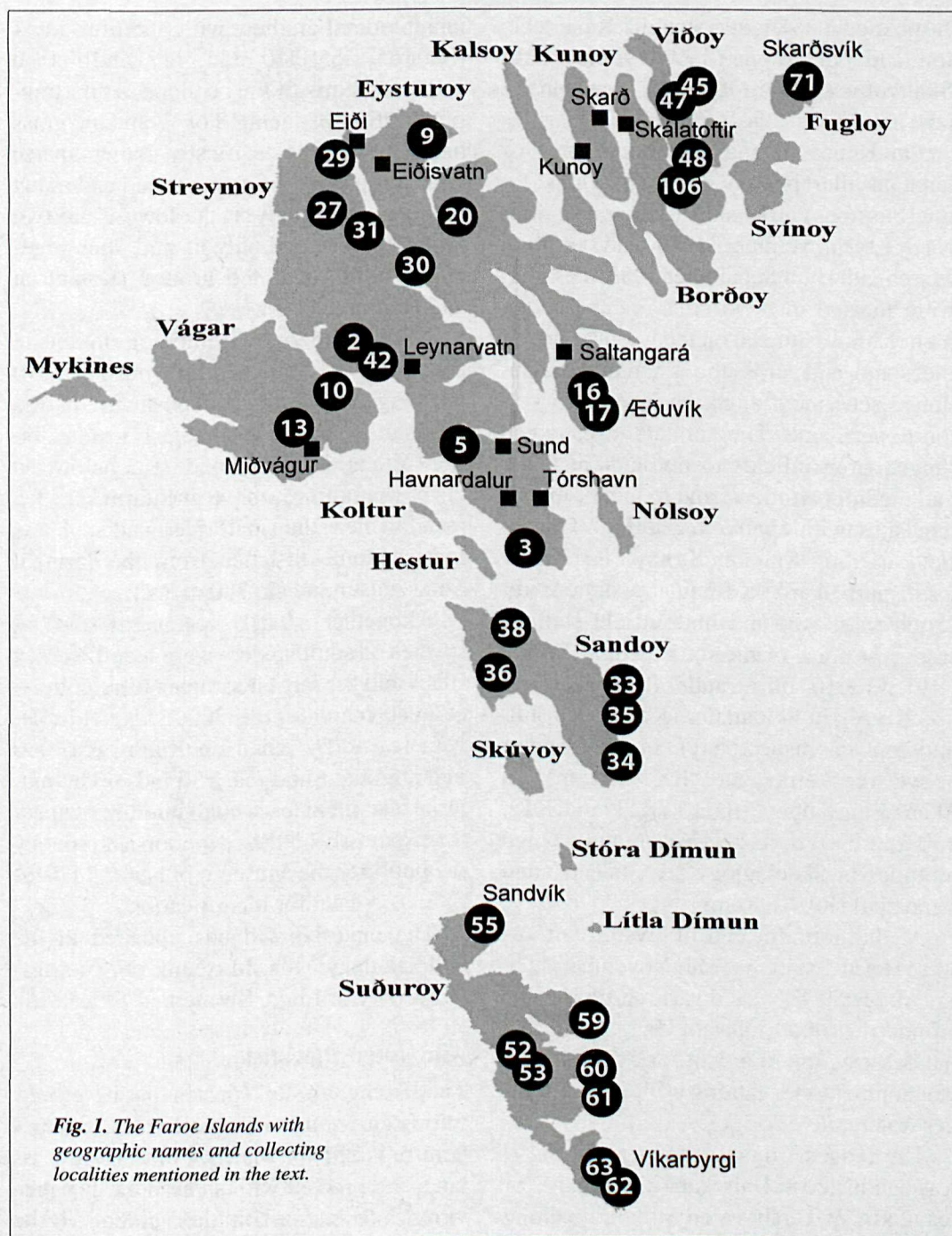


Fig. 1. The Faroe Islands with
geographic names and collecting
localities mentioned in the text.

July-August 1984, see stations K4-K6 below, and 3 in the years 1994-1995) and 2 at Skálatofir (1994), all in rich, grassy habitats.

On Kunoy, a narrow mountainous island, pitfall traps were operated (with some intermissions) at 13 sites (denoted stations K1-K13) in summer 1983 and between March 1984 and September 1985. The sites were located in the vicinity of the settlement Kunoy, situated on the western side of the island, and across the island to the abandoned settlement at Skarð (see above) on the eastern side. The habitats investigated ranged from infields to outfields at lower and medium altitudes, and to higher mountain sites with sparse vegetation. The infield stations were at Kunoy (K1, 65 m a.s.l.) and Skarð (K4-K6; the stations referred to above) and the outfield stations were just north of the settlement at Kunoy (K9 and K10, 30 m and 140 m a.s.l., respectively), in Skiðudalur (K2 and K3, 140 and 350 m, respectively), in Skarðsdalur above the settlement (K8, 270 m), in Skarðsgjógv above Skarð (K11 and K12, 150 and 290 m, respectively), and at high altitudes in Skarðsgjógv (K7, 620 m) and Urðarfjall (K13, 800 m).

At the northern end of Eysturoy, traps were run at 5 stations from November 1979 to August 1981 in dwarf shrub heaths around the lake Eiðisvatn (Fig. 1). Due to the construction of a dam for hydroelectric development the stations were later set under water.

The longest run of trapping (1979-87) was conducted in Dalsskarð in Havnardalur (ca. 2 km W Tórshavn on Streymoy) along

an altitudinal gradient with 6 stations (st. 1 - 6: 165, 265, 310, 385, 445, and 460 m a.s.l., respectively). The slope at the trapping stations is facing S or W and the grass heath vegetation is mostly rather sparse with wet patches of open ground and many boulders, especially at the lowest and two highest levels, and only at st. 2 does vegetation fully cover the ground (Danielsen and Hansen, 2000).

Also on Streymoy, 4 trapping stations in the vicinity of Sund, not far from Tórshavn (see Fig. 1), were surveyed in the period February-October 1984. St. 1 was an infield site at the farm Sund, st. 2 below the cliffs (hamrarna) above the farm, st. 3 a meadow near the small river, and st. 4 was located some distance from the farm at Sundshálsur and ca. 280 m a.s.l.

Altogether 10,010 specimens and 67 species of adult spiders were identified (by E.H.) and the largest samples were collected in Havnardalur (ca. 3000 inds), at Eiðisvatn (ca. 2750 inds), on Kunoy (ca. 600 inds), and at Sund (ca. 550 inds). The material also includes a small number of specimens, mostly collected indoors and sent by the public to the Museum of Natural History in Tórshavn for identification.

The material will be deposited in the collections of the Museum of Zoology, University of Lund, Sweden.

Annotated checklist

The list includes all species that have hitherto been recorded in the Faroes. Species here reported for the first time for the islands are marked with an asterisk. For previous information on the spiders of the

Faroes we refer to the papers by Brændegaard (1928), Bengtson and Hauge (1979), in the list below abbreviated Bgd (1928) and B & H (1979), respectively, and to Holm (1980). Where the presence or absence of a species in neighbouring areas is indicated, the following sources have been used: British Isles (Merrett and Murphy, 2000), Shetland (Ashmole, 1979; Milner, 1999), Norway (Aakra and Hauge, 2000; 2003), and Iceland (Agnarsson, 1996). The nomenclature follows Platnick (2003). Accepting the arguments of Saaristo (1973) and Roberts (1987), the two members of »*Meioneta*« are here listed under *Agynta*; see also Saaristo and Koponen (1998). Because of the many new generic names now being used, we also in some cases give in brackets the names used by Bengtson and Hauge (1979) to facilitate comparisons, but without taking a stand on taxonomical questions. The species are listed alphabetically (by genus and species) for each family.

Family PHOLCIDAE

***Pholcus phalangioides* (Fuesslin, 1775).** The present material includes one male collected in Tórshavn in October 2002. Known from Tórshavn already in 1989 and in 2004 also recorded in Miðvágur on Vágar (Jensen, 2004). First published records were from Saltangará on Eysturoy; large numbers in a building in 2000 and 2001 (Hauge *et al.*, 2002). Occurs indoors in the British Isles (incl. Shetland), Iceland, and recently recorded in Norway (Ingebrigtsen and Hauge, 2003).

Family ULOBORIDAE

***Uloborus plumipes* Lucas, 1846.** Second record for the Faroe: a female was collected in Tórshavn in 16.VII 2002. Previously reported from a plant shop in Torshavn in 2000 (Aakra and Olsen, 2003). Currently spreading northwards in Scandinavia inhabiting greenhouses and buildings (Jonsen, 1998). Recorded indoors in the British Isles (not found in Shetland) and in S Norway.

Family THERIDIIDAE

****Crustulina guttata* (Wider, 1834).** First record for the Faroes. A female was found at Æðuvík (loc. 17, rich herb and grass meadow, near shore in settlement; July 1980) on Eysturoy. Occurs in SW Norway, widespread in England, few Scottish records (Roberts, 1995) and not found in Shetland or Iceland.

***Robertus arundineti* (O.P.-Cambridge, 1871).** Previously found in one locality on Vágar (Bgd, 1928).

***Robertus lividus* (Blackwall, 1836).** Found in loc. 2 (1 ♀), at Sund (st. 2, 5 ♂♂ 2 ♀♀ and st. 4, 1 ♂) and at Eiðisvatn (3 ♂♂ 1 ♀) but known from 9 islands (probably also Nólsoy and Kunoy where juvenile *Robertus* sp. were found in 1978) and now in at least 22 locs. Widely distributed and probably more common than is revealed by pitfall trapping (see Holm, 1980).

Family LINYPHIIDAE

***Agynta decora* (O.P.-Cambridge, 1871).** First records for Lítla Dímun and Koltur

(Fjallið) and collected in 6 more locs where it had not previously been found. Now known from 10 islands (among the northern islands only on Viðoy) and at least 30 locs (also > 400 m a.s.l.), though mostly in small numbers.

****Agyneta (Meioneta) gulosa* (L. Koch, 1869).** First record for the Faroes in Havnardalur (2 ♂ ♂, 4.V - 10.VI 1980 at 460 m) on Streymoy. Occurs on the Scottish mainland, in Shetland, and SW Norway but not found in Iceland.

***Agyneta (Meioneta) nigripes* (Simon, 1884).** First record for Koltur (Kolturshamar, one male at 478 m) and also found in Havnardalur (18 ♂ ♂ 3 ♀ ♀, all but one at 460 m.). Now recorded on 5 islands and in 8 locs (small numbers); though it is a high ground species (found at 750 m by Holm (1980)) and may be found more commonly when looked for in proper places.

****Agyneta ramosa* Jackson, 1912.** First record for the Faroes. Collected at Sund on Streymoy in the period 20.V - 2.VII 1984 (st. 1, 5 ♂ ♂). Occurs in SW Norway and the British Isles but not recorded in Shetland or Iceland.

****Agyneta subtilis* (O.P.-Cambridge, 1863).** First record for the Faroes. A male was collected on Kunoy at K9 in June 1984. Occurs in SW Norway, the British Isles (incl. Shetland) and reported from Iceland (cf. Agnarsson, 1996).

***Bathyphantes gracilis* (Blackwall, 1841).**

Previously found once on Kunoy (B & H, 1979).

***Bolephthyphantes (Bolyphantes) index* (Thorell, 1856).** Previously found once on Suðuroy (Bgd, 1928).

***Bolyphantes luteolus* (Blackwall, 1833).** Found on Kunoy (K1, 2 ♀ ♀), in Havnardalur (2 ♂ ♂) and at Eiðisvatn (5 ♂ ♂ 2 ♀ ♀), obtained in the period October-April. Now recorded on 8 islands and in 18 locs. Bgd (1928) regarded the species as common but absent from the Northern islands. However, already in 1978 a female was collected on Svínø (and nowhere else in that year).

***Centromerita bicolor* (Blackwall, 1833).** First records for Lítla Dímun (very abundant), Kunoy (Skarð and K1, K8, and K10), and Fugloy (Skarðsvík, abundant), and in 5 additional locs (incl. Kolturshamar at 478 m). Known from at least 12 islands and 30 locs (only taking into account present collections and those presented by B & H (1979)). Holm (1980) believed that previous records of *C. bicolor* from the Faroes refer to *C. concinna* (see below) and did not mention the former species in his paper. However, in the museum in Uppsala there are specimens of *C. bicolor* from Borðoy, collected and identified by Holm. The species occurs commonly in neighbouring areas.

***Centromerita concinna* (Thorell, 1875).** First records for Sandoy (loc. 34, 2 ♀ ♀), Lítla Dímun (abundant), Koltur (all stations

incl. 478 m), and Kunoy (Skarð and K1, K2, K8-K11). Also found at locs 5, 53, 63 (in each case a single female), Sund (st. 2-4) and in Havnardalur (very abundant) and at Eiðisvatn (very abundant). The most numerous species in the present material (27 % of all specimens). The species is an autumn breeder and the vast majority of inds were caught in October-February (males reach maturity in late autumn) and very few in June-August. Nevertheless, it is remarkable that the species was not found in 1978. In 1966, Holm (1980) collected it in 9 specified locs but at the same time he refers records from islands not visited by himself and states that the species was collected in 48 localities, presumably he considered previously published records referring to *C. bicolor* as belonging to *C. concinna* (see above). Anyhow, the species is widespread (found on 9 islands and in at least 27 locs), locally very abundant, mostly found in grass heaths and shrub heaths, and also on higher grounds (> 400 m). It is common and widespread in SW Norway and Shetland but not yet found in Iceland.

***Centromerus arcanus* (O.P.-Cambridge, 1873).** Found in shrub heath at Eiðisvatn (1 ♂) and on Kunoy (K8, 3 ♂ 3.V – 8.VI 1984) and these are the first males collected in the Faroes. Now recorded on 6 islands and in 9 locs. Occurs in SW Norway and Scotland but not found in Shetland or in Iceland.

***Centromerus dilutus* (O.P.-Cambridge, 1975).** Previously recorded once on Svínøi (B & H, 1979).

****Centromerus prudens* (O.P.-Cambridge, 1873).** First record for the Faroes. Found on Suðuroy, in two places at Sandvík: loc. 55 (2 ♀ 6.VII – 2.VIII 1988) and the shieling site (3 ♂ 2 ♀ in summer 1988), both with rich grass and herbage. Occurs in SW Norway, Shetland, and Iceland.

***Ceratinella brevipes* (Westring, 1851).** First record for Eysturoy (Eiðisvatn (2 ♂ 2 ♀), in autumn and early spring). Known from 5 islands and 6 locs, but will probably prove more widespread with extended seasonal coverage of collecting.

***Collinsia holmgreni* (Thorell, 1871).** Found on Kunoy at higher grounds i.e. 270, 620, and 800 m (K7, 3 ♂ 2 ♀, K8, 1 ♂, and K13, 5 ♂ 15 ♀; mostly in late July and August). Previously recorded in two locs on higher grounds (> 450 m) on Eysturoy (Bgd, 1928; Holm, 1980); a record from a locality near Tórshavn (Schenkel, 1925) is considered doubtful by Holm (1980).

***Diplocentria bidentata* (Emerton, 1882).** Found on Kunoy (K8, 5 ♂ 4 ♀), on Streymoy in Havnardalur (rather abundantly (64 ♂ 12 ♀), mainly in May) and at Sund (st. 3 and 4; total 10 ♂ 6 ♀) and at Eiðisvatn (3 ♀). Now recorded on 5 islands and in 10 locs. Appears to be relatively uncommon. Occurs on the Scottish mainland (though not in Shetland), SW Norway, and Iceland.

***Diplocephalus cristatus* (Blackwall, 1833).** Found in 4 locs (loc. 55, Sund,

Skarð, Skálatoftir) and now known from 10 islands and 20 locs.

***Diplocephalus permixtus* (O.P.-Cambridge, 1871).** First records on Lítla Dímun (very abundant), Kunoy (K8, 1 ♂ 7 ♀ ♀ and at Skarð 1 ♂), and Borðoy (Skálatoftir, 1 ♂) and also found at Sund (1, 9 ♂ ♂ 7 ♀ ♀), loc.5, and in Havnardalur and at Eiðisvatn. Altogether known from 10 islands and 21 locs in a variety of habitats.

***Drepanotylus uncatus* (O.P.-Cambridge, 1873).** First record for Eysturoy (Eiðisvatn, 3 ♂ ♂ 2 ♀ ♀) and also found in Havnardalur (9 ♂ ♂) and at Sund (st. 1-4; total 14 ♂ ♂ 7 ♀ ♀) ; mostly in September - May. Presently known from 4 islands and 8 locs but altogether only 39 inds.

***Entelecara errata* (O.P.-Cambridge, 1913).** Previously found once (5 ♀ ♀) on Streymoy (Holm, 1980).

***Erigone arctica* (White, 1852).** Found in Havnardalur and at Eiðisvatn and now recorded on 8 islands and in at least 20 locs.

***Erigone atra* (Blackwall, 1841).** First records for Kunoy (K10, 1 ♀), Lítla Dímun (very abundant), Sandoy (loc. 36, 1 ♀), Koltur (at the farm, 7 ♂ ♂ 4 ♀ ♀), and Fugloy (Skarðsvík, 6 ♂ ♂). Also found at loc. 61, Sund (st. 1, 15 ♂ ♂), in Havnardalur, and at Eiðisvatn (very abundant). Widely distributed and locally abundant; found on 11 islands and in at least 22 locs.

***Erigone promiscua* (O.P.-Cambridge,**

1872). First records for Koltur (several stations, though not at 478 m a.s.l., total 9 ♂ ♂ 1 ♀), Kunoy (K8, 2 ♂ ♂ in spring), and Fugloy (Skarðsvík, 2 ♂ ♂). Also found at loc. 63, in Havnardalur (relatively abundant) and at Eiðisvatn (1 ♂). Widespread and now found on 12 islands and in at least 23 locs. Occurs in SW Norway and Shetland but not in Iceland.

***Erigone psychrophila* Thorell, 1871.** First record for Streymoy (Havnardalur, 3 ♂ ♂ 4 ♀ ♀, 165-445 m) and Kunoy (K7, 2 ♂ ♂ 3 ♀ ♀). Only found on 4 islands and in 6 locs (records for Suðuroy doubtful according to Holm (1980)). Evidently uncommon in the Faroes and a high mountain species that occurs in SW Norway, Iceland, and the Scottish mainland, but not yet found in Shetland.

***Erigone tirolensis* L. Koch, 1872.** First record for Kunoy (K7 at 620 m, 11 ♂ ♂ 7 ♀ ♀) and also found in Havnardalur (total 19 ♂ ♂ 6 ♀ ♀, the majority at 460 m) and at loc. 31 (2 ♂ ♂, 600 m) on Streymoy and in the shrub heath at Eiðisvatn (2 ♂ ♂) on Eysturoy. Only found on 3 islands and in 6 locs. A high mountain species found in SW Norway, Scotland (not in Shetland), and Iceland.

***Gonatium rubens* (Blackwall, 1833).** First records for Koltur (Kolturshamar, up to 478 m) and Kunoy (Skarð) and now found on 7 islands and in at least 21 locs.

***Gongyliidiellum vivum* (O.P.-Cambridge, 1875).** First record for Kunoy (Skarð 2 ♂ ♂

in summer 1984) and found in Havnardalur (4 ♂ ♂ 1 ♀, also in winter), and recorded in 8 locs on 6 islands. Appears to be uncommon (due to winter activity?) and occurs in Scotland, Shetland, SW Norway but not in Iceland.

Hilaira frigida (Thorell, 1872). First records from Lítla Dímun (19 ♂ ♂ 5 ♀ ♀), Koltur (Kolturshamar, 27 ♂ ♂ 17 ♀ ♀ at 478 m) and Kunoy (K7, at 620 m, 22 ♂ ♂ 26 ♀ ♀ and K13 at 800 m, 1 ♂ 1 ♀). In addition found at Sund (st. 2-4), in Havnardalur (abundant), and at Eiðisvatn (common). Widely distributed and common; found on 12 islands and in at least 42 locs.

Hilaira nubigena Hull, 1911. Previously recorded once on Eysturoy (Holm, 1980).

**Hypomma bituberculatum* (Wider, 1934). First record for the Faroes. One male found at Eiðisvatn (summer 1981) on Eysturoy. Occurs in SW Norway and Shetland but not in Iceland.

Improphantes (Lepthyphantes) complicatus (Emerton, 1882). First records for Streymoy (Havnardalur, 18 ♂ ♂ 1 ♀) and Kunoy (K7, 15 ♂ ♂ 5 ♀ ♀) and also found at Eiðisvatn on Eysturoy (1 ♀); all in May-June. Uncommon and presently only known from 3 islands and 4 locs. Occurs in Scotland (though not in Shetland), SW Norway, and Iceland.

Lepthyphantes ericaeus (Blackwall, 1853). First records for Kunoy (K1, K10, K11, and Skarð) and Viðoy (locs 45 and

105) and found in 11 additional locs. Widely distributed and occurs on 10 islands and in at least 30 locs. Occurs in Shetland and SW Norway but not in Iceland.

Lepthyphantes leprosus (Ohlert, 1867). Previously found on three occasions in Tórshavn, Streymoy (Bgd, 1928).

Leptorhoptrum robustum (Westring, 1851). Previously known from all islands except for Stóra Dímun and Lítla Dímun and was in the collection from 1978 found in 49 locs and the 547 inds comprised 34 % of the total adult spiders. In the present material the species was found in 24 locs and the 436 inds comprised 4.4 % of the total material.

Mecynargus (Rhaebothorax) morulus (O.P.-Cambridge, 1873). First records for Koltur (Kolturshamar, at 478 m) and Kunoy (K7 and K8) and also found at loc. 53, in Havnardalur and at Eiðisvatn. Now known from 8 islands and 25 locs.

Monocephalus fuscipes (Blackwall, 1836). In the summer collections from 1978 all 29 inds (from 12 locs) were females (see also Holm (1980)). In the present material found on Borðoy (Skálatoftir, 6 ♂ ♂) and Kunoy (K1, K2, K8-K11, abundantly, 46 ♂ ♂ 46 ♀ ♀ and Skarð, 5 ♂ ♂ 9 ♀ ♀) in spring and summer 1984). At present known from 6 islands and 23 locs, all in the northern parts of the Faroes. A west European species that occurs in Scotland and Shetland but not in Norway or Iceland.

****Mughiphantes whymperei* (F.O.Pickard-Cambridge, 1894).** First records for the Faroes. Found on the grass heath slope in Havnardalur (at stations 2, 4, and 6; total 3 ♂ ♂ 1 ♀, summers 1981, 1983, and 1984) and on Kunoy (K13, at 800 m, 13 ♂ ♂ 40 ♀ ♀ trapped 9.VII - 15.VIII 1984). Occurs in Norway but not in the British Isles or Iceland.

***Oreonetides vaginatus* (Thorell, 1872).** First records on Lítla Dímun (1 ♂), Koltur (Kolturshamar, 3 ♂ ♂, 478 m), and Kunoy (Skarð, 3 ♂ ♂ and at K7, 2 ♂ ♂ 2 ♀ ♀), and found in Havnardalur (28 ♂ ♂ 5 ♀ ♀; the majority at 460 m). Known from 6 islands and 9 locs. Occurs in Scotland (incl. Shetland) and SW Norway.

****Ostearius melanopygius* (O.P.-Cambridge, 1879).** First records for the Faroes. Found on Viðoy (loc. 45, 1 ♀), Eysturoy (loc. 17, 2 ♀ ♀), Kunoy (Skarð, all 3 stations, 4 ♀ ♀), and Borðoy (Skálatoftir, both stations, total 5 ♀ ♀). All finds (except the shrub heath at loc. 45) are in rich grass heaths or meadows associated with settlements (incl. abandoned ones). Occurs in British Isles (but not in Shetland), Norway (Aakra and Olsen, 2003), and in Iceland only found twice in greenhouses.

***Poeciloneta variegata (globosa)* (Blackwall, 1841).** First record for Fugloy (Skarðsvík, 1 ♀) in the north, and also found at Sund (st. 2, 1 ♂). According to Bgd (1928) the species »appears to be common but not occurring on the northern islands«, though during the extensive field-

work in 1978 it was only found in 4 locs (B & H, 1979). Known from 8 islands (incl. Borðoy in the north) and 20 locs. Occurs in Scotland, Shetland, SW Norway but not in Iceland.

***Porrhomma convexum* (Westring, 1861).** First records for Suðuroy (loc. 52, 1 ♀), Kunoy (Skarð, 2 ♀ ♀ and at K12, 1 ♂), and Borðoy (Skálatoftir, 1 ♂, 1 ♀), all in moist sites. In addition found on Streymoy in Tjørnuvík (loc. 29) and Havnardalur. Known from 7 islands and 12 locs. Occurs in SW Norway, Iceland, and Scottish mainland, but not in Shetland.

***Porrhomma egeria* Simon, 1884.** Previously recorded once on Viðoy (B & H 1979).

***Porrhomma montanum* (L. Koch, 1879).** First records for Suðuroy (locs 52 and 61) and Eysturoy (loc. 17); all 3 locs with one female each in rich grass or herb meadows. Previously only one female found on Streymoy (Bgd, 1928), thus a rare species in the Faroes. Occurs in all neighbouring areas.

***Saaristoa (Oreonetides) abnormis* (Blackwall, 1841).** First records from Kunoy (Skarð, 10 ♂ ♂ 4 ♀ ♀ and at K12, 8 ♂ ♂) and Fugloy (Skarðsvík, 1 ♀), and also found in 4 more sites (loc. 45, Leynarvatn, Sund, and Skálatoftir). Widespread and at present known from 10 islands and at least 38 locs.

***Savignia frontata* (Blackwall, 1833).** First records from Lítla Dímun (abundant) and

Fugloy (Skarðsvík) and in addition in 6 locs. Widespread and common and now known from 12 islands and at least 40 locs. *Scotinotylus (Caledonia) evansi* (O.P.-Cambridge, 1894). Found on Streymoy (Havnardalur, 16 ♂♂ 4 ♀♀ and at Sund st. 2, 2 ♂♂), Eysturoy (Eiðisvatn, 1 ♂), and Kunoy (K7, 5 ♂♂ 4 ♀♀). Previously recorded once (4 inds in 1966) on Eysturoy, thus apparently not a common species in the Faroes. Occurs in all neighbouring areas.

Semljicola (Latithorax) faustus (O.P.-Cambridge, 1900). First records for Eysturoy (Eiðisvatn, 16 ♂♂ 10 ♀♀) and Kunoy (K10, 1 ♂ 1 ♀, winter), and also found in Havnardalur (4 ♂♂ 3 ♀♀) and at Sund (st. 2, 5 ♂♂ 1 ♀); mostly in spring and autumn and in small numbers. Known from only 4 islands and 7 locs. Occurs in all neighbouring areas.

Tenuiphantes (Lepthyphantes) menzei (Kulczynski, 1887). First records on Koltur (Kolturshamar, 6 ♂♂ 3 ♀♀) and Eysturoy (Eiðisvatn, 19 ♂♂ 19 ♀♀ and loc. 20, 1 ♂), and in addition on Viðoy (loc. 45, 1 ♀) and Kunoy (Skarð, 1 ♂ 1 ♀ and at K1, 2 ♀♀ and K10, 1 ♀). Only known from these 4 islands and altogether 8 locs, thus apparently uncommon in the Faroes.

Tenuiphantes (Lepthyphantes) tenuis (Blackwall, 1852). First record for Kunoy (K7, 1 ♀) and also found in loc. 61 (1 ♀) on Suðuroy, Havnardalur (3 ♀♀) and Sund (st. 1, 1 ♀) on Streymoy, and at Eiðisvatn (3 ♀♀, in dwarf shrub). Now known from 6

islands (10 locs, all with rich grass and herb vegetation) though in small numbers. Occurs in Norway and Shetland but not in Iceland.

Tenuiphantes (Lepthyphantes) zimmermanni (Bertkau, 1890). Widely distributed and previously known from all islands except for Skúvoy and Lítla Dímun and in the 1978 collections found in 62 locs and 256 inds, which was 16 % of total. In the present material the species was found in 28 locs and 303 inds, which is 3.0 % of total.

Tiso aestivus (L. Koch, 1872). Previously recorded in one locality each on Streymoy (at 340 m) and Eysturoy (at 750 m) (Holm, 1980).

Tiso vagans (Blackwall, 1834). First records on Suðuroy (Víkabyrgi, 1 ♂), Koltur (1 ♂), and Kunoy (K1, K2, and K8-K10; total 20 ♂♂ 10 ♀♀). In addition found at locs 13, 20, 36, and 45 (total: 4 ♂♂ 3 ♀♀) and 1 in Havnardalur (66 ♂♂ 31 ♀♀), mostly at station 3 at 385 m, at all seasons). Widespread and found on 9 islands and in 16 locs. Occurs in Scotland, Shetland, and SW Norway but not in Iceland.

Tmeticus affinis (Blackwall, 1855). Previously found once on Streymoy (Bgd, 1928).

Walckenaeria antica (Wider, 1834). First records for Kunoy (Skarð, 1 ♂ 1 ♀ and at K1, K2, and K10; total 3 ♂♂ 3 ♀♀) and also found at Eiðisvatn (2 ♀♀); winter

records. Presently known from 5 islands and 9 locs. Occurs in neighbouring areas, except for Iceland.

***Walckenaeria clavicornis* (Emerton, 1882).** First records for Lítla Dímun (14 ♂♂), Koltur (Kolturshamar, 20 ♂♂ 4 ♀♀, at 478 m), Streymoy (Havnardalur, 31 ♂♂ 12 ♀♀ and at Sund, st. 2-4, total 32 ♂♂ 10 ♀♀), and Kunoy (K7, 2 ♂♂ 2 ♀♀). Also recorded in loc. 63 (1 ♀) and at Eiðisvatn (4 ♂♂ 5 ♀♀). Evidently widespread and found on 10 islands and in 16 locs. Holm (1980) found it at 600 m on Eysturoy. Occurs in all the neighbouring areas.

***Walckenaeria cuspidata* (Blackwall, 1833).** First records on Sandoy (loc. 34, 1 ♀) and Kunoy (K8, 5 ♂♂ 2 ♀♀) and addition found in Havnardalur (7 ♂♂ 4 ♀♀) and at Sund (st. 3 and 4, total 9 ♂♂ 4 ♀♀) on Streymoy and at Eiðisvatn (1 ♂ 1 ♀) and loc. 9 (1 ♀) on Eysturoy. Now known from 5 islands and 11 locs in small numbers. Occurs in all neighbouring areas.

***Walckenaeria nodosa* (O.P.-Cambridge, 1873).** First record for Eysturoy (Eiðisvatn, 4 ♂♂ 1 ♀) and also found in Havnardalur (3 ♂♂ 1 ♀) and at Sund (st. 2, 1 ♀). Apparently rare and previously only found in 2 locs on Streymoy (2 ♀♀). Occurs in all neighbouring areas.

***Walckenaeria nudipalpis* (Westring, 1851).** First records for Suðuroy (loc. 60, 1 ♀) and Kunoy (Skarð, 1 ♀ and at K2, K8, and K12, total 1 ♂ 3 ♀♀) and found in

6 more locs (*viz.* locs 2 and 5, Havnardalur, Sund, Eiðisvatn, and Skálatoftir). Now recorded on 7 islands and in 21 locs, usually in small numbers.

***Walckenaeria obtusa* (Blackwall, 1836).** Previously recorded once on Streymoy (Bgd, 1928).

Family TETRAGNATHIDAE

***Metellina (Meta) merianae* (Scopoli, 1763).** Previously found on at least 10 islands and in many locs (Bgd, 1928; B & H, 1979; Holm, 1980).

Family ARANEIDAE

****Araneus diadematus* Clerck, 1757.** First record for the Faroes. A female was collected indoors in Tórshavn 15.X 2003. Common in all neighbouring areas.

****Araneus quadratus* Clerck, 1757.** First record for the Faroes. A female was collected indoors in Tórshavn 1.X 2002. Occurs in Norway and on the Scottish mainland but not yet recorded in Shetland or Iceland.

***Nuctenea umbratica* (Clerck, 1757).** Previously recorded once in Tórshavn (Magnussen, 2003). Occurs in Britain and Norway.

Family LYCOSIDAE

***Alopecosa pulverulenta* (Clerck, 1757).** Found in shrub heath at Eiðisvatn (9 ♂♂ 8 ♀♀) and presently known from 3 islands and 6 locs, thus apparently uncommon.

****Arctosa alpigena* (Doleschall, 1852).**

First record for the Faroes. One male was collected by pitfall trapping at Sund (st. 3) on Streymoy 20.V-10.VI 1986. Occurs in Scotland (though not in Shetland), Norway, and Iceland.

***Pardosa eiseni* (Thorell, 1875).** According to Holm (1980) the single female from Kirkjubøreyn, near Tórshavn, recorded by Schenkel (1925) more probably belongs to *Pardosa trailli* (O.P.-Cambridge, 1873); a mountainous species that occurs in Norway and Scotland (though not in Shetland).

***Pardosa palustris* (L., 1758).** First record for Koltur (Kolturshamar at 478 m, 1 ♂ in 1991). Now found on 5 islands and in at least 24 locs but not in abundance (cf. Schenkel 1925 with reference to Eiði on Eysturoy).

***Pardosa sphagnicola* (Dahl, 1908).** First record on Eysturoy (Eiðisvatn, 1 ♀ in 1980) and now known from 3 island and 4 locs, thus apparently uncommon.

***Pirata piraticus* (Clerck, 1757).** Found in locs 2, 13, 38, in Havnardalur, at Sund (st. 2 and 3, total 45 inds) and at Eiðisvatn (125 inds); total 136 ♂ ♂ 47 ♀ ♀. Now recorded on 6 islands and in at least 17 locs, mostly in small numbers.

***Trochosa terricola* Thorell, 1856.** Only found on Viðoy at loc. 45 (1 ♂ in shrub heath), where a single juvenile was previously collected in 1978. Known from 5 islands but only from 7 locs and few inds.

Family AGELENIDE

***Tegenaria domestica* (Clerck, 1757).** A female collected in Tórshavn in 11.VI 2002 and previously found in one locality each on Streymoy, Eysturoy, and Suðuroy (see Bgd, 1928; Holm, 1980).

****Tegenaria atrica* C.L. Koch, 1843.** First records for the Faroes. Found indoors in Tórshavn (1 ♂, 13.IX 1990) on Streymoy and at Æðuvík (1 ♂, 17.IX 2002) on Eysturoy. Occurs indoors in all neighbouring countries.

Family HAHNIIDAE

***Hahn timer montana* (Blackwall, 1841).** Previously found in one locality on Suðuroy (Bdg, 1928).

Family CLUBIONIDAE

***Clubiona trivialis* C.L. Koch, 1843.** Previously found in two locs on Streymoy (Bgd, 1928; Holm, 1980).

Family GNAPHOSIDAE

***Haplodrassus signifer* (C.L. Koch, 1839).** Previously found in one locality each on two islands (Bgd, 1928; B & H, 1979).

Family THOMISIDAE

****Ozyptila atomaria* (Panzer, 1801).** First record for the Faroes. Found on Kunoy (K10, 3 ♂ ♂) in summer 1984. Occurs in W Norway and Scotland but not found in Shetland or Iceland.

***Ozyptila trux* (Blackwall, 1846).** Found in locs 36, 42, 47 and 59; total 14 ♂ ♂ 1 ♀. Presumably rather uncommon and so far

found on 6 islands and in 8 locs.

Xysticus cristatus (Clerk, 1757). First records for Koltur (5 ♂♂), Kunoy (K1, K8, and K10, total 13 ♂♂ 3 ♀♀) and Viðoy (loc. 47, 1 ♂ 2 ♀♀). Widely distributed and now found on 9 islands (incl. the northern islands; cf. Bgd 1928) and in at least 29 locs, though nowhere in large numbers.

Discussion

The Faroes have a relatively low species richness which is presumably mainly related to their remoteness, small area, narrow range of habitats, prevailing oceanic climate and the relatively short period of time that the islands have been open to colonisation since the latest glaciation (e.g. Bengtson, 1982; Enckell, 1989). The number of spider species recorded in the islands will (as in any given area), for several reasons, continue to increase with sampling effort and ongoing immigration. Thus, Brændegaard's (1928) list of 43 species was based on the combined efforts of a number of collectors, whose options (seasonally and geographically) were usually limited for logistic reasons. When Holm (1980) in 1966 spent about a month (25 June-20 July) in the Faroes, he visited 5 of the islands and employed various collecting methods. Among ca. 1,500 specimens collected and identified he found 15 species not previously recorded (he claimed 16, but one of them (*P. variegata* (*globosa*)) had in fact previously been reported). The summer collecting in 1978 (largely pitfall trapping but including other methods as well, see Bengt-

son and Hauge 1979), covering effectively the whole archipelago, yielded ca. 1,600 adult specimens, and included 7 species recorded for the first time. The present pitfall material (ca. 10,000 adult specimens), for the first time including significant collections made outside the summer season, added 10 species to the Faroese list viz. the comb-footed spider *C. guttata*, the money spiders *A. gulosa*, *A. ramosa*, *A. subtilis*, *C. prudens*, *H. bituberculatum*, *M. whymperi*, and *O. melanopygius*, the wolf spider *A. alpigena*, and the crab spider *O. atomaria*. With the above-mentioned species and the present indoor-finds of the cobweb spider *T. atrica* and the ord-weavers *A. diadematus* and *A. quadratus*, and previously published finds of three more anthropochorous spiders viz. *P. phalangioides*, *N. umbratica*, and *U. plumipes* the number of species found in the islands has increased considerably (> 20 %) since the papers by Bengtson and Hauge (1979) and Holm (1980) were published. In the former paper the authors had access to the information given by Holm to Ashmole (1979) and they claimed that 67 (instead of 68) species of spiders had been recorded in the Faroes, although the paper only listed 65, the reason being that *C. concinna*, *P. montanum*, and *W. obtusa* had been left out by mistake (Bengtson and Hauge, 1981). On the other hand they included an old record of *Erigonoplus* (*Trichopterna*) *globipes* (L. Koch, 1872) from Tórshavn (see Brændegaard, 1928) in their list, not knowing that Holm (1980: 111, 114) had inspected the two specimens, that were being kept in the collections of the the Museum of Zoology, Copenhagen, and

identified them as belonging to *M. morulus*. Also Holm's paper needs, however, to be revised as he listed 66 species but did not include *C. bicolor*, although he did himself collect and identify it from the the Faroes (see the annotated species list). Thus, the two papers converge on 67 species and with the additional 16 the total number now amounts to 83; 59 of which (i.e. 71 %) belong to the family Linyphiidae. At least 7 species on the list are synanthropic (viz. *P. phalangioides*, *U. plumipes*, *L. leprosus*, *M. merianae*, *N. umbratica*, *T. domestica*, and *T. atrica*) and quite possibly some more, e.g. *B. index* and *T. affinis*, both considered accidental (Brændegaard 1928), and the two *Araneus* species, which leaves at the most 76 non-synanthropic species native to the Faroes, about 78% of which are linyphiids. For comparison, Agnarsson (1996) gives 84 species native to Iceland of which 61 (73 %) are linyphiids, which is representative for northern latitudes (Koponen, 1993).

The preceding historical sketch indicates some factors that obviously contribute to the present, considerable extension of the previous species lists. For instance, increased sample sizes will, for purely statistical reasons, yield more species, as will the use of different collecting methods and an increased geographical coverage and inclusion of different habitats (e.g. mountain tops), and perhaps more importantly collecting also outside the summer season. The commonness of *C. concinna* is a striking example of the latter, as only 1 % (of 1639) individuals from Havnardalur and Eiðisvatn were caught during

June - August. Holm (1980) considered the species common and suspected that earlier investigators had misidentified it for *C. bicolor*. This does not, however, explain the complete absence of *C. concinna* in the summer collections of 1978 (Bengtson and Hauge, 1979). Ashmole (1979: 89) notes that in Shetland in spring the pitfall traps contained *C. bicolor* but no *C. concinna*. Other Faroese species for which collecting outside the summer season is, or may be, particularly important in order to establish their status are e.g. *A. pulverulenta*, *B. luteolus*, *C. prudens*, *C. brevipes*, *D. bidentata*, *G. vivum*, *S. faustus*, *L. mengei*, and *W. antica*. Another factor that in recent years has contributed to the extension of the species list is the increased public awareness of spiders indoors and on buildings.

There are, of course, biological reasons for anticipating amendments to the species list; e.g. an ongoing immigration. Spiders in general have a good ability to disperse and many linyphiids are well-known aeronauts (e.g. Bristowe, 1929; Duffey, 1956). In this context it can be noted that the vast majority of spiders on the Faroese list are to be found both in the British Isles and in SW Norway and may thus have emigrated from either of these two regions, and there are relatively few species that occur in only one of them (see Ashmole, 1979; Holm, 1980). The Faroes undoubtedly receive immigrants from time to time and some of them may get established, whereas others go extinct after a while. It is however, extremely hard to distinguish between a new immigrant and a rare species that has previously been overlooked (McArdle, 1990) and even

harder to establish the extinction of a small spider population. Indeed, it is difficult to document changes in distribution and/or abundance of spiders. However, the present data considerably increased the knowledge about Faroese spiders and in addition to new species on the list there are some 80 new island records; not unexpectedly many of them refer to the islands most intensively studied *viz.* Kunoy and Koltur. Several of the 18 islands obviously need to be more thoroughly surveyed and so far only 18 species have been recorded on 9-16 islands, while 24 species occur on 4-8 islands, and 25 species seem to have restricted distributions and are each found on one island and often only once. In the case of the latter category (the seemingly rare species) a comparison with, and reference to, other animal taxa (flying ones, and species liable to be transported by winds or by Man) seem justified. Following the passage of low-pressure areas the Faroes receive immigrants of insects, e.g. invasions of Lepidoptera and Syrphidae (e.g. Kaaber, 1997a; 1997b; Kaaber and Andreassen, 1999; Jensen, 2000; 2001), that may or may not get established, but result in amendments to the list of species recorded in the islands. Among the spiders that have recently been discovered in the Faroes, some are presumably already established, e.g. the introduced *P. phalangioides* and *U. plumipes*; the former is a cosmopolitan species that is widespread in Europe and at least used to be absent from the extreme north (see Roberts, 1995) and the latter species is currently extending its range in NW Europe (Jonsson, 1998). *O. melanopygius* is inter-

esting because it is a cosmopolitan species that is usually closely linked to human activities (Aakra and Olsen, 2003). In the Faroes it was not found until 1988, and is now known from 4 islands but nowhere in association with inhabited settlements (though the abandoned ones at Skarð and Skálatoftir); a spontaneous successful colonization or a remnant of past introductions?

For some species there are at least some indications of changes in status, long-term or short-term, worthy of comment. The fact that Holm (1980) in 1966 found *C. concinna* to be common and that we now found it in summer samples from 13 localities but in none from 1978 (Bengtson and Hauge, 1979) is not fully explained by the species' seasonal activity pattern. Could it be that the species had a poor year in 1978; a short-term fluctuation indicating the risk of stochastic extinctions? Similarly, *T. zimmermanni* and *L. robustum* have both been regarded as common in the islands (Brændegaard, 1928; Bengtson and Hauge, 1979; Holm, 1980) but in the present study remarkably fewer individuals were caught. Another two species, *B. luteolus* and *P. variegata*, were both considered common by Brændegaard (1928), which is not supported by later studies (Bengtson and Hauge, 1979 and Holm, 1980). In the case of the former the explanation for this discrepancy may be that the species is mainly winter active and mainly to be found on high grounds. For *P. variegata* it may be a question of a long-term decline, which has been indicated for Shetland (Ashmole, 1979: 91). Finally, and to further illustrate the difficulties in distinguishing between single

incidents and annual fluctuations or trends in changes, *B. gracilis* may be taken as an example. This species was first recorded in the Faroes in 1978 (one female on Borðoy; Bengtson and Hauge, 1979) and in Iceland in 1974 (Bengtson *et al.*, 1976). Since then the species has been found in a number of localities and districts of Iceland (Agnarsson, 1996; Bengtson and Hauge, unpubl.) but not recovered in the Faroes. Was this a single vagrant, a failure to colonize or a subsequent extinction? Indeed, similar questions may be asked with regard to several other spiders on the Faroese list (e.g. *C. dilutus*, *E. errata*, *H. nubigena*, *P. egeria*, *W. obtusa*).

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Mercury in liver, eggs and feather of black guillemot *Cepphus grylle faeroeensis* in the Faroe Islands

Kyksilvur í livur, eggum og fjøður frá *Cepphus grylle faeroeensis* í Føroyum

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Úrtak

Í tífðarskeiðnum 1995-1997 varð eitt størri tal av teisti tikin til kanningar nær sunnari parti av Streymoy og við Hestoy. Kanningarskráin fevndi um hvat føði teisti tekur og innihaldi av umhvørviseitri av ymiskum slag. Í seinri árum eru eisini egg undan teisti tikin til endamáli kanningar av umhvørviseitrandi evnum. Hesi egg hava verið heintaði á Skúvoy og í Koltri, og eru tey kannaðið fyri millum annað kyksilvur og stálar isotopar av kóvievni og kolevni. Hendan greinin er ein samanstilling av kyksilvur úrslitunum fyri ymiskan vevnað og aldursbólkar av teisti sum eru íkomin eftir eini røð av kanningum í ymiskum høpi. Sæð samlað varð funnið eitt miðalinnihald av kyksilvuri í fjøður og livrum uppá ávíkavist 4,72 mg/kg og 1,11 mg/kg í teimum 33 fuglunum sum vórðu kannaðir einkultvís, sum gevur eitt lutfall ímillum hesar uppá 4,2. Stórar individuallar variatiónir vórðu ávístar, serliga millum hannarnar, og tí var ikki gjørligt at ávísa nakran eftirfarandi mun á kyksilvur-innihaldinum millum vaksnar og ungar hannar. Miðalinnihaldið av kyksilvuri í eggum sum vóru heintaði á hesum báðum plássum minkaði úr 0,46 mg/kg í 1999 til 0,32 mg/kg í 2001.

Abstracts

During 1995-1997 a large number of black guillemots from an area near the southern part of Streymoy and Hestoy were sacrificed in connection with a large study

of the birds' diet and of pollutants load in the Faroe Islands. In recent years also black guillemot eggs have been sampled for the purpose of environmental monitoring. The eggs have been gathered on Skúvoy and Koltur and have been analysed for pollutants such as mercury as well as for stable isotopes of nitrogen and carbon. The present article is a synthesis of the mercury data gathered in these projects studying mercury in various black guillemot tissues and age classes. The overall mean feather and liver mercury concentrations in 33 individually analysed birds was 4,72 mg/kg and 1,11 mg/kg respectively, thus with a ratio between them of 4,2. There were large individual variations especially among the males, but significant differences in liver mercury concentration between adult and juveniles could not be discerned. The mercury concentration in eggs sampled at both locations decreased from an average of 0,46 mg/kg in 1999 to 0,32 mg/kg in 2001.

Introduction

During recent years a suite of species inhabiting the Faroese coastal environment has been investigated for use in regular monitoring of pollutants. The pollutants in focus have been heavy metals such as mercury, lead and cadmium, and manmade pollutants such as PCB and pesticides or