

The Leafhoppers (Homoptera, Auchenorrhyncha) of the Faroe Islands

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Úrtak

Á okkara leiðum eru froðusprettur smá flogkykt, men tær eru nær skyldar við tær stóru songfroðusprettarnar, ið hoyra til á teimum heitaru leiðum. Tær føroysku froðusprettarnar syngja eisini, men so mikið høgt, at mannaoyrað hoyra tað ikki. Froðusprettur súgva plantur. Hetta kann bæði løsta planturnar og flyta sjúkur yvir á tær; tað hava vit kortini ongantíð varnast í Føroyum.

Í Føroyum hava vit funnið 13 sløg higartil: *Javesella pellucida* (F.), *Philaenus spumarius* (L.), *Ulopa reticulata* (F.), *Anoscopus albifrons* (L.), *A. flavostriatus* (Don.), *Ribautiana ulmi* (L.), *Macrosteles ossiannilsoni* Lindb., *M. laevis* (Rib.), *M. viridigriseus* (Edw.), *M. alpinus* (Zett.), *Cicadula quadrinotata* (F.), *Strepitanus sordidus* (Zett.) og *Arthaldeus pascuellus* (Fall.). Vanliga ferðast froðusprettur við lotinum, og helst eru tær flestu av hesum slagnum foknar henda veg sunnanfrá. Tískil eru øll tey føroysku sløgin kend og vanlig í Skotlandi. Haðani vita vit um til samans 170 sløg. Tíverri vita vit í lötuni einki um froðusprettarnar í Hetlandi, Orkneyoyggjunum ella teimum uttastu Suðuroyggjunum. Í Íslandi eru 6 sløg funnin, av teimum kenna vit 5 úr Føroyum, í Grønlandi eru 2 sløg, og annað teirra *Macrosteles laevis* kenna vit bæði í Íslandi og í Føroyum. Einstøk sløg kunnu kortini hugsast at vera flutt higgar við fólki: At *Macrosteles alpinus* bara er at finna úti í Mykinesi kann væl vera, tí hon er innflutt við plantum, men er tað tó langt síðani. Stovnurin úti í Mykinesi er ógvuliga ólíkar øðrum stovnum, tí hann hevur valla nakrar svartar strikumyndir á kroppinum, sum annars eyðkenna slagið; *Javesella pellucida* er funnin á nøkrum gomlum norðbúgva-búplassum, víkingar kunnu hava flutt hana inn við fóðurgrasi. Og at enda kann *Ribautiana ulmi*, sum livir á álmlrøum, takka menniskjanum fyri, at hon er stódd í Føroyum. Í tí gomlu Havnini er ein urtagarður, har inngongdin er

kransað av kjálkabeinunum av tí størsta nebbafiskinum, sum nakrantíð er fingin undir Føroyum. Hetta er urtagarðurin uttan fyri "Christinesminde", og í hesum urtagarði er eitt ógvuliga gamalt álmlræ, sum hýsir einum heilsugóðum stovni av slagnum.

So hóast talið á sløgum er avmarkað, eru froðusprettur ógvuliga vanlig dýr, serliga har ið tað grør væl. Og gongur tú innangarðs, flýggja einar tíggu froðusprettur fyri hvørt stig, tú trínur. Uttangarðs eru eisini froðusprettur, men her er nógv minni til av teimum, og her eru tær serliga á vátlendi.

Introduction

The oldest leafhoppers from the Faroe Islands in the collections of the Zoological Museum in Copenhagen date back to 1863-68 and were collected on "Syderø" (Suðuroy) by A. Bergh.

But otherwise most of the Faroe leafhoppers in that museum were collected by Danish entomologists in the 1920's: first of all by J.P. Kryger who collected everything except birds from April 5th until May 10th 1925 and from May 29th until August 29th 1926 (Kryger, 1940).

Per Ketil and Birgitta Eriksson collected leafhoppers in the month of July 1989 in many localities. Also Per Ketil and Lars Trolle collected leafhoppers on the islands from August 21st until September 6th 1992

and we managed to collect leafhoppers on all islands except Kalsoy, Koltur, Hestur, Stóra and Lítla Dímun. Approximately half of the time we used sweep-nets, and the rest of the time we searched the vegetation directly on all fours. The specimens were kept deep-frozen until mounted on micro-pins. The 1989 and 1992 collections, which comprise app. 750 specimens are kept at the Museum of Natural History in Tórshavn.

On world-basis the total number of species from a conservative point of view will probably be around 15.000. But the Tropics contain many unexplored areas and as the Tropics are very rich in species the total number is probably considerably higher. The number of species fall rapidly as you move away from the equator: Great Britain has app. 350 species of which app. 170 have been found in Scotland (LeQuesne, 1960; 1965; 1969; LeQuesne and Payne, 1981) while Norway has app. 250 species (Ossiannilsson, 1983). Unfortunately nothing is known about the leafhoppers on the Orkneys and Shetlands, while on the other side Iceland has six species (Olafsson, 1991), five of which have been found on the Faroes and Greenland has two species (Trolle, unpubl.).

The nomenclature in this paper follows Ossiannilsson (1983) and names in brackets refer only to the names used in the *Zoology of the Faroes* (Henriksen, 1929). In this work Henriksen mentions six species from the Faroe Islands, while the present list comprises 13 species. Thus the number of species is limited, but the number of individuals is very high – nevertheless until

now there has been no name for “leafhopper” in the Faroese language. Leafhoppers are spread readily by wind (Günthart, 1987) or by plant material – the Shetland and Orkney Islands, The Outer Hebrides, mainland Scotland and possibly Norway being the most likely places of origin.

Material and species

FULGOROMORPHA, *Delphacidae*

1. *Javesella pellucida* (F.), Figs. 1 and 2.

New to the Faroe Islands. Distribution map, Fig. 42.

Javesella pellucida is a small easily recognizable species, the males are jet black, the females brownish yellow. The specimens from the Faroes (4 males and 1 female) are

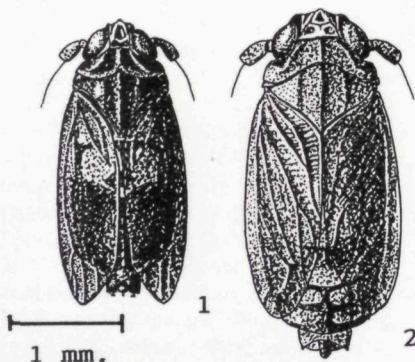


Fig. 1: *Javesella pellucida* (F.) male
Streymoy, Kirkjubøur, – 5 July 1989

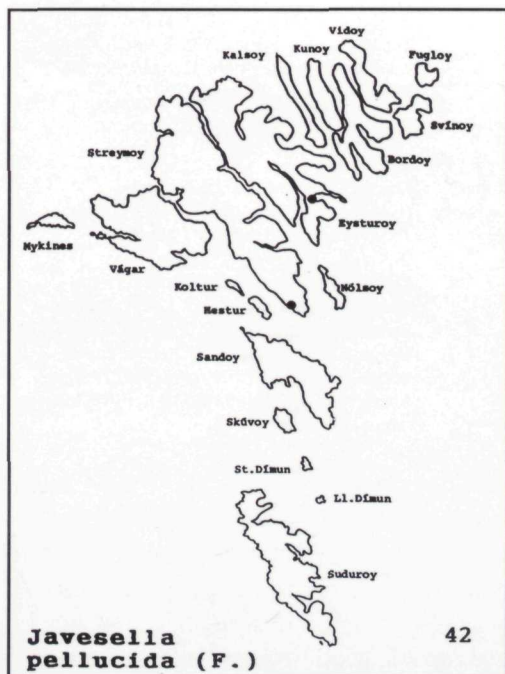
Fig. 2: *Javesella pellucida* (F.) female
Eysturoy, Lamba – 26 July 1989

all brachypters, *J. pellucida* differs from most other *Delphacidae* in the fact, that macropters are more common than brachypters. This is certainly the case in Scandinavia and Great Britain, but not in Iceland (Lindroth *et al.*, 1973).

Javesella pellucida hibernates in the adult stage. Breeding plants as well as food-plants are grasses: *Avena sativa* and *Lolium perenne* being preferred as oviposition plants; each female produces from 500 to 1000 eggs. So far *Javesella pellucida* has only been found in two localities, which also happen to be old Norse settlements, so a human introduction is a definite possibility. However, with *Lolium perenne* being an ingredient in the grass-mixtures used for lawns, there seem to be many possible sites in the future, certainly *Javesella pellucida* can be found on most lawns in more southern latitudes; it is widespread in Europe including Norway, Scotland and Iceland.

Streymoy: Kirkjubøur, 5 July 1989 (P.Ketil)

Eusturoy: Lamba, 26 July 1989 (P.Ketil)



CICADOMORPHA, Cercopidae

2. *Philaenus spumarius* (L.), Figs. 5-8.

Distribution map, Fig. 43.

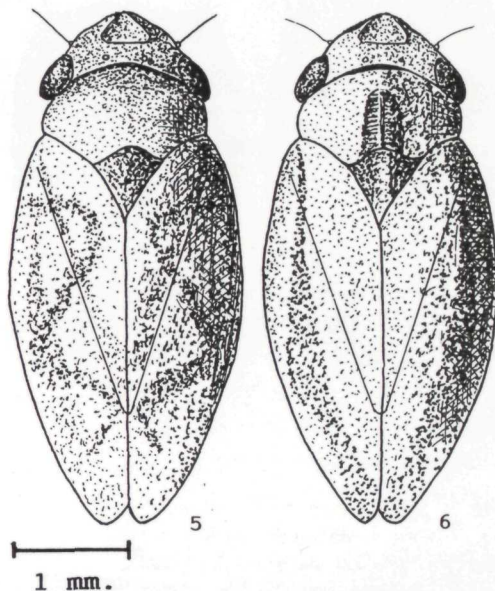


Fig. 5: *Philaenus spumarius* (L.) female
Suðuroy, Sumba – 2 September 1992

Fig. 6: *Philaenus spumarius* (L.) male
Streymoy, Kaldbak – 23 August 1992

The common “Meadow Spittle-bug” *Philaenus spumarius* is extremely variable especially further South. On the Faroe Islands it is usually more or less khaki-coloured with indistinct markings (*f. typica*, Fig. 5). At Sumba on Suduroy we found some very pretty specimens: *f. leucocephala* (Fig. 8). The larvae are light green and are hiding inside the well-known “cuckoo-spit”. *Philaenus spumarius* feeds primarily on herbaceous plants, but the list of host-plants is long, exceeding 1000 plant species. In the Faroes *Philaenus spumarius* is found on the lush vegetation in the “infield”, mainly in

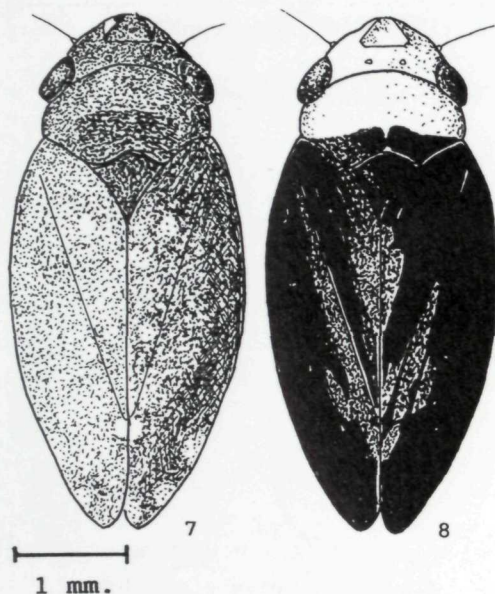
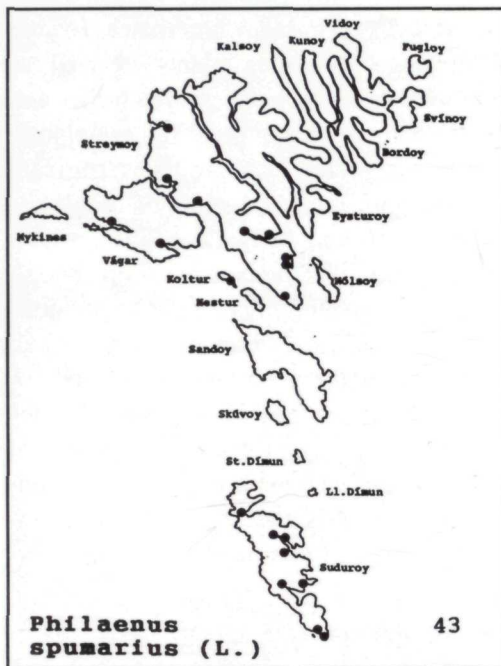


Fig. 7: *Philaenus spumarius* (L.) male
Vágur, Miðvágur – 26 August 1992

Fig. 8: *Philaenus spumarius* (L.) female
Suðuroy, Sumba – 2 September 1992

ditches and meadows. It hibernates in the egg-stage. The adults are rather weak fliers, the direction of flight is determined largely by the wind (Weaver and King, 1954). It is widespread in the Palaearctic region including Norway, Scotland and Iceland and also introduced into the Nearctic region.

- Vágur: Bøur, 26 August 1992 (P.Ketil/L.Trolle)
Midvágur, 26 August 1992 (P.Ketil/L.Trolle)
Streymoy: Saksun, 24 August 1992 (P.Ketil/L.Trolle)
Vestmanna, 21 June 1926 (J.P.Kryger)
Vestmanna, 9 July 1989 (P.Ketil)
Vestmanna, 22 August 1992 (P.Ketil/L.Trolle)
Kvívík, 22 August 1992 (P.Ketil/L.Trolle)
Kirkjubøur, 22 July 1926 (J.P.Kryger)
Kirkjubøur, 22 August 1926 (J.P.Kryger)
Tórshavn, 19 July 1926 (J.P.Kryger)
Tórshavn, 22 July 1926 (J.P.Kryger)
Tórshavn, 22 August 1926 (J.P.Kryger)
Tórshavn, Sanatoriet, 15 July 1926 (J.P.Kryger)



- Tórshavn, 21 August 1992 (P.Ketil/L.Trolle)
Tórshavn, 5 September 1992 (P.Ketil/L.Trolle)
Kaldbak, 23 August 1992 (P.Ketil/L.Trolle)
Kaldbak, church, 23 August 1992
(P.Ketil/L.Trolle)
Kaldbakshotnur, 23 August 1992
(P.Ketil/L.Trolle)
Koltur: Koltur, 1 August 1926 (J.P.Kryger)
Suðuroy: Hvalba, 2 September 1992 (P.Ketil/L.Trolle)
Trongsivágur, 3 September 1992
(P.Ketil/L.Trolle)
Líðin, 2 September 1992 (P.Ketil/L.Trolle)
Øravík, 1 September 1992 (P.Ketil/L.Trolle)
Porkeri, 2 September 1992 (P.Ketil/L.Trolle)
Vágur, 2 September 1992 (P.Ketil/L.Trolle)
Sumba, 2 September 1992 (P.Ketil/L.Trolle)
Akraberg, 2 September 1992 (P.Ketil/L.Trolle)

CICADOMORPHA, Cicadellidae

3. *Ulopa reticulata* (F.), Fig. 3. New to the Faroe Islands. Distribution map, Fig. 44.

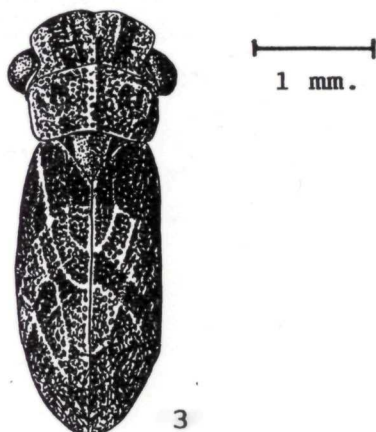
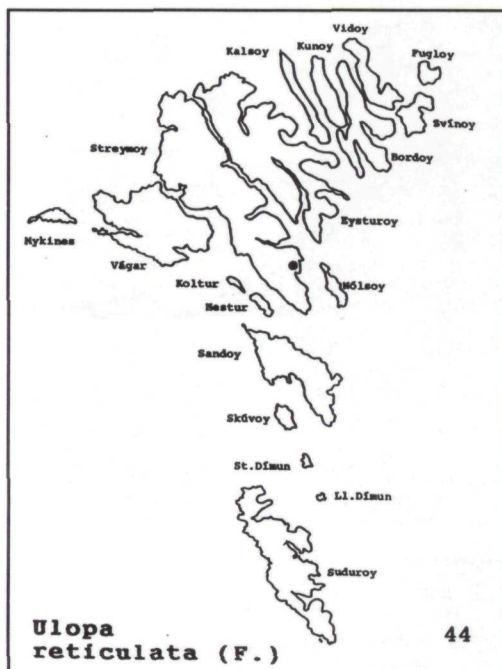


Fig. 3: *Ulopa reticulata* (F.) -female
Streymoy, Hoydalar – 25 August 1992

Unmistakable, this leafhopper lives exclusively on heather (*Calluna vulgaris*). The colour is reddish-brown, the larvae being very much like the adults. On August 25th 1992 we went to the plantation near what used to be the Sanatorium, but is now the High School, in Hoydalar.

In the plantation there are a few patches of heather, and here in this protected environment we found a single specimen of *Ulopa reticulata*. We spent some time looking for this species elsewhere, but we were unable to find the leafhopper on the otherwise wonderful heathers on Vágur, on Eysturoy and at Dalá on Viðoy.

Ulopa reticulata probably hibernates as an adult, imagines and larvae can be found together at most times of the year. It is widespread in Europe inclusive Southern Norway and Scotland, but has not been



found on Iceland. Nothing is known of how it is spread, as it lacks hindwings – possibly the small larvae are blown about.

Streymoy: Tórshavn, 25 August 1992 (P.Ketil/L.Trolle)

4. *Anoscopus albifrons* (L.), Figs. 9 and 10.
New to the Faroe Islands. Distribution map, Fig. 45.

Much varying in colour, males are brownish yellow to reddish brown; females straw-yellow to dark brown, almost black, usually finely mottled. The markings on the head are sometimes indistinct, but males are readily identified by the shape of their aedeagus (Fig. 27); females by the small median incision of the 7th abdominal sternum (Fig. 28). Henriksen (1929) actually

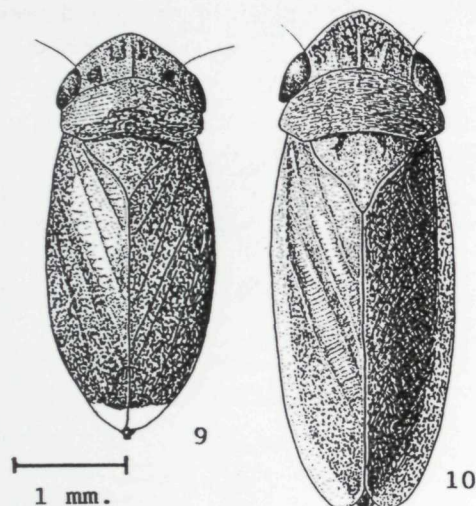


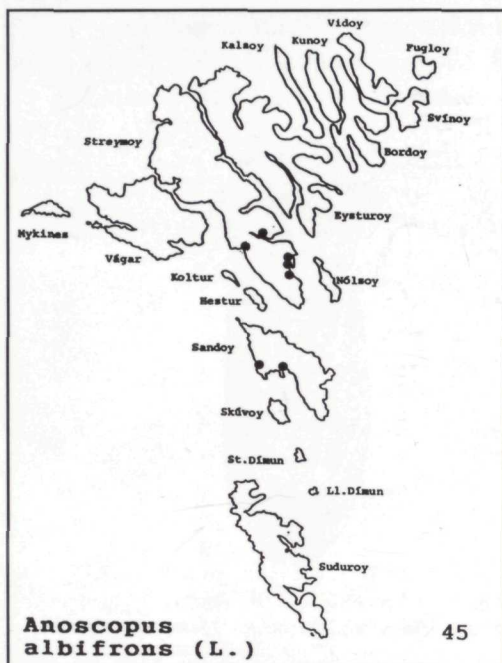
Fig. 9: *Anoscopus albifrons* (L.) male
Streymoy, Kaldbak – 23 August 1992

Fig. 10: *Anoscopus albifrons* (L.) female
Sandoy, Sandur – 29 August 1992

mentions this species in his remarks to *A. flavostriatus*, when he writes: "those taken in the latest years (on Strømø) are somewhat varying, and do perhaps represent a new species."

Like all *Anoscopus* species it stays very close to the ground, which makes it difficult to find. It prefers rather dry places, and it possibly feeds on grasses, but little is known of its host-plants. At Kaldbak we found several specimens on heather on a vertical rock-face, and at Hoydalar and at Trongisvágur on Suðuroy we found some very small *Anoscopus* larvae on heather, which could well be *A. albifrons*, however, *Anoscopus* larvae cannot be identified at the present time.

A. albifrons is widespread in Europe, it is found in Scotland, is rare in Norway and is not known from Iceland.



- Streymoy: Argir, 4 July 1926 (J.P.Kryger)
Argir, 21 August 1926 (J.P.Kryger)
Tórshavn, Hoydalar, 16 July 1926 (J.P.Kryger)
Tórshavn, 6 July 1989 (P.Ketil)
Tórshavn, 31 August 1992 (P.Ketil/L.Trolle)
Kaldbaksfjørður, 23 August 1992
(P.Ketil/L.Trolle)
Norðradalur, 8 July 1989 (P.Ketil)
Sandoy: Sandur, 29 August 1992 (P.Ketil/L.Trolle)
Søltuvík, 29 August 1992 (P.Ketil/L.Trolle)

5. *Anoscopus flavostriatus* (Don.), Figs. 11 and 12. Distribution map, Fig. 46. (*Arocephalus flavostrigatus* Don.).

The male with characteristic markings on the head and the wings, also the aedeagus is distinct (Fig. 29); the female is brownish with two yellowish white spots at the apex of the head.

Anoscopus flavostriatus prefers damper conditions than *A. albifrons*, but sometimes the two species are found together, as we

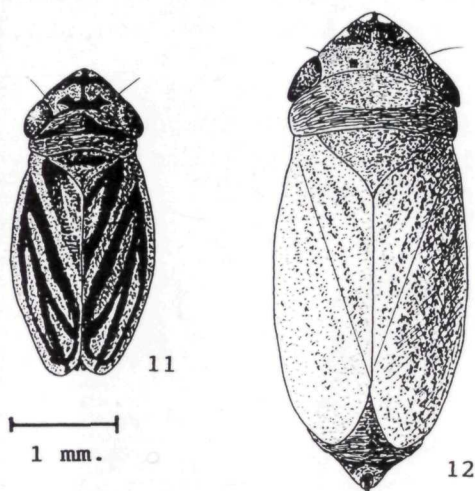
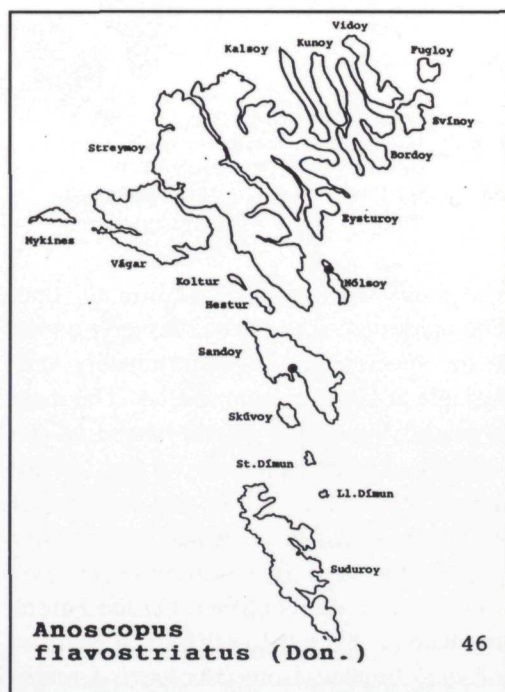


Fig. 11: *Anoscopus flavostriatus* (Don.) male

Nólsoy, Nólsoy – 30 August 1992

Fig. 12: *Anoscopus flavostriatus* (Don.) female

Sandoy, Sandur – 29 August 1992



did on the meadow behind the sand dunes at Sandur. Little is known of its host plants except possibly “grasses”. It is widespread in Europe, but usually not very common. It is found in Scotland and a few places in Norway, but not in Iceland.

Nólsoy: Nólsoy, 30 August 1992 (P.Ketil/L.Trolle)

Sandoy: Sandur, 29 August 1992 (P.Ketil/L.Trolle)

Suduroy: No locality, 1863-1868 (A.Bergh)

6. *Ribautiana ulmi* (L.), Fig. 4. New to the Faroe Islands. Distribution map, Fig. 47.

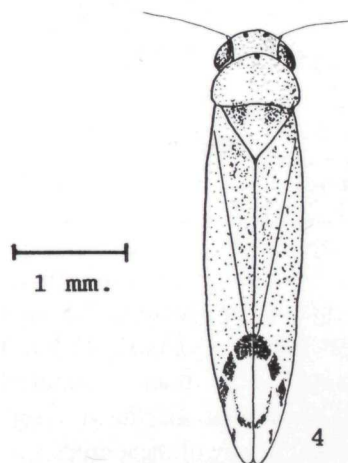
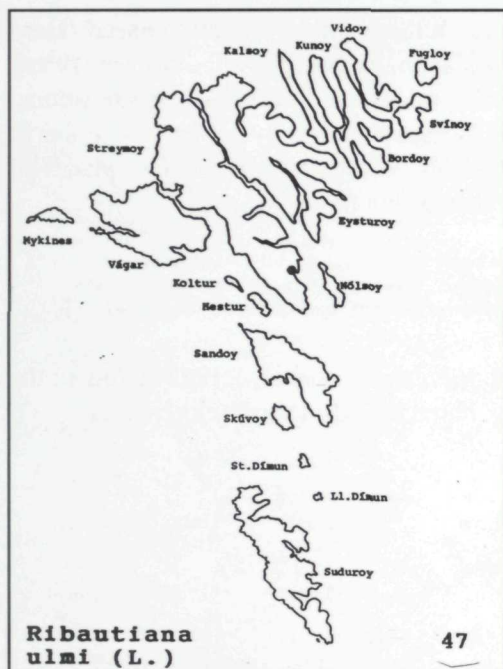


Fig. 4: *Ribautiana ulmi* (L.) female

Streymoy, Tórshavn – 5 September 1992

Ribautiana ulmi belongs to the subfamily Typhlocybinae, which are all slender, delicate leafhoppers, that do not jump like most leafhoppers, but fly well. The colour is shining white or yellow in more mature specimens. It lives exclusively on elm trees.

When we arrived in the Faroes in 1992, we knew, that *Ribautiana ulmi* had been



found in Reykjavik in Iceland. We also knew, that elm trees (i.e. *Ulmus glabra*) had been planted more than a hundred years ago in downtown Tórshavn (Højgaard *et al.*, 1989). If any of these trees still existed, there would be a good chance of finding the species. On August 31st we found a single specimen on a fir tree in the plantation in Tórshavn. We knew then, that there must be at least one elm tree somewhere near, and we did find it downtown on Sep. 5th 1992 in the old garden to "Christinesminde" with an entrance surrounded by the lower jaw from the largest finwhale caught in the Faroes (Michelsen, 1930).

Ribautiana ulmi is widespread in Europe, including Scotland and Norway and has been introduced into North America.

Streymoy: Tórshavn, 31 August 1992 (P.Ketil/L.Trolle)
Tórshavn, 5 September 1992 (P.Ketil/L.Trolle)

7. *Macrosteles ossiannilssoni* Lindb.,
Figs. 13 and 14. New to the Faroes,
map, Fig. 48.

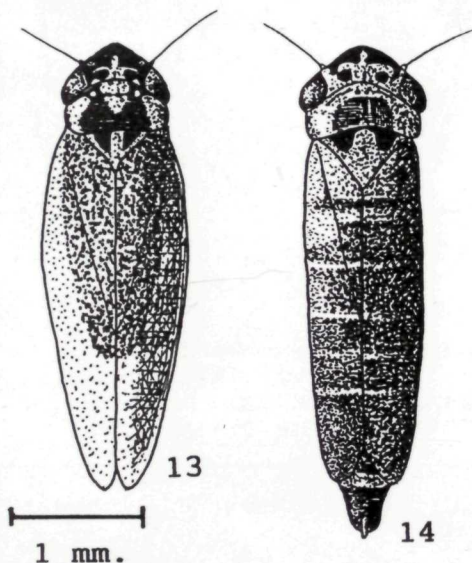
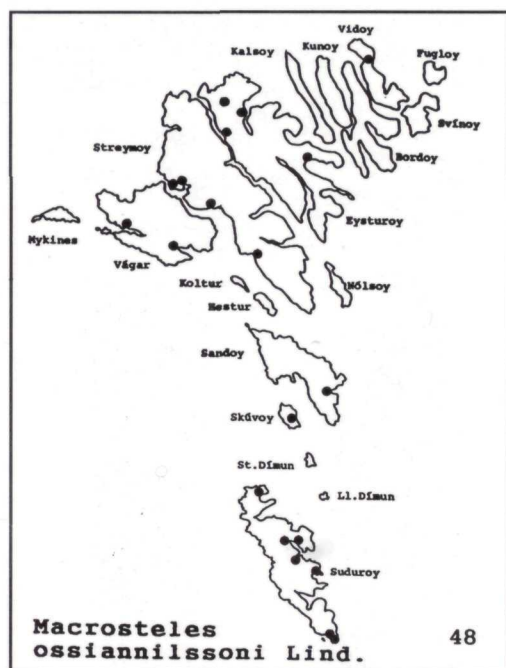


Fig. 13: *Macrosteles ossiannilssoni* Lindb. male
Streymoy, Dalá – 22 August 1992

Fig. 14: *Macrosteles ossiannilssoni* Lindb. female
Eysturoy, Svínáir – 24 August 1992

The genus *Macrosteles* is a "difficult" one. The markings on the head may give a clue to the species, but are unfortunately very variable at least in some species. The male is readily identified by the shape of the aedeagus and the apodemes of the 2nd abdominal sternum. While the females of some species can be identified with certainty, the females of the so-called *sexnotatus*-group cannot be identified. On the Faroes the main problem is to separate *M. ossiannilssoni*-females from *M. laevis*-females



and here the dentation on the second valvulae may provide a clue. In Fennoscandia and Denmark there are 19 species, in the Faroes 4 species.

The colour of *M. ossiannilssoni* is greenish or yellowish, the markings on the head are black. The aedeagus of the male (Fig. 30) together with the shape of the apodemes (Fig. 31) separates it from the very similar *M. sexnotatus* (Fall.), which is not found on the Faroes, the second valvula of the female (Fig. 32) is strongly serrated.

On the Faroe Islands it is found in damp places like meadows and near streams in the outfield. Little is known of its host plants, but it is sometimes associated with *Juncus squarrosus* L., which is widespread and common on all islands except Myki-

nes, Koltur, Stóra and Lítla Dímun (Hansen, 1966) or *Sphagnum* (LeQuesne, 1969). It is widespread in Europe including Scotland and Norway, but so far not found in Iceland. It is a common and widespread species.

- Vágur: Bøur, 26 August 1992 (P.Ketil/L.Trolle)
 Miðvágur, 26 August 1992 (P.Ketil/L.Trolle)
 Streymoy: Dalá, N. of Vestmanna, 22 August 1992 (P.Ketil/L.Trolle)
 Vestmanna, 22 August 1992 (P.Ketil/L.Trolle)
 Kvívík, 22 August 1992 (P.Ketil/L.Trolle)
 Norðradalur, 26 July 1989 (P.Ketil)
 Eysturoy: Slættaratindur, 24 August 1992 (P.Ketil/L.Trolle)
 Funningur, 25 July 1989 (P.Ketil)
 Svináir, 24 August 1992 (P.Ketil/L.Trolle)
 Norðragöta, 26 July 1989 (P.Ketil)
 Viðoy: Viðareiði, 5 September 1992 (P.Ketil/L.Trolle)
 Sandoy: Húsavík, 21 July 1989 (P.Ketil)
 Skúvoy: Skúvoy, 20 July 1989 (P.Ketil)
 Suðuroy: Sandvík, 2 September 1992 (P.Ketil/L.Trolle)
 Trongisvágur, 1 September 1992 (P.Ketil/L.Trolle)
 Tvøroyri, 7 July 1926 (J.P. Kryger)
 Øravík, 2 September 1992 (P.Ketil/L.Trolle)
 Høvi, 3 September 1992 (P.Ketil/L.Trolle)
 Sumba, 2 September 1992 (P.Ketil/L.Trolle)
 Akraberg, 2 September 1992 (P.Ketil/L.Trolle)

8. *Macrosteles laevis* (Rib.), Figs. 15 and 16. Distribution map, Fig. 49.

(*Cicadula sexnotata* (Fall.).)

Macrosteles laevis looks so much like *M. ossiannilssoni* that really they cannot be told apart. However the male genitalia are distinctive, especially the aedeagus (Fig. 33) and the second abdominal sternum (Fig. 34). The second valvula of the female (Fig. 35) is serrated, but rather less so than that of the female *M. ossiannilssoni*.

M. laevis is the only species, which will tolerate close sheep-grazing and so it is the species, which can also be found in drier areas in the outfield. It is rarely numerous in

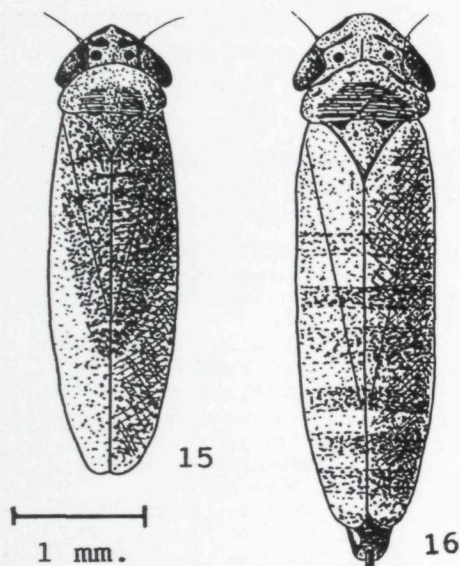
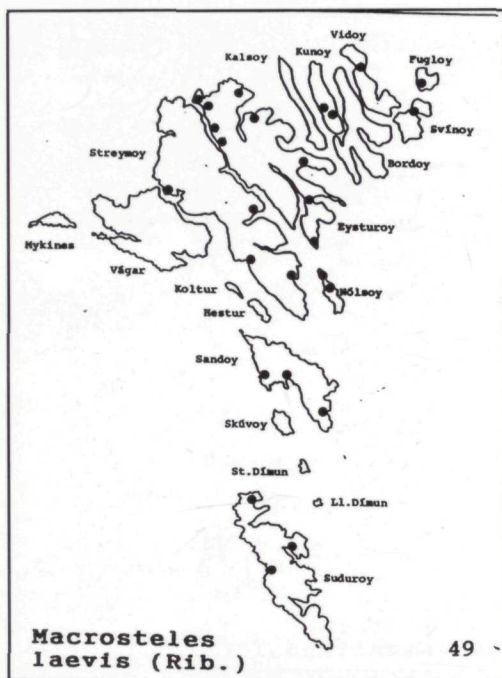


Fig. 15: *Macrosteles laevis* (Rib.) male
Streymoy, Kollafjørður – 24 August 1992
Fig. 16: *Macrosteles laevis* (Rib.) female
Streymoy, Kollafjørður – 24 August 1992

such places, whereas in dry meadows the number of individuals can be almost astronomical, for instance at Svínáir on Eysturoy. It feeds mainly on various grasses including cereals and sometimes the leafhoppers are so numerous, that they cause extensive damage to the plants due to sap losses caused by the feeding insects (Tullgren, 1925). *M. laevis* has also been shown to be a vector of various virus diseases like the European aster yellows and the oat blue dwarf on cereals and other plants (Ossianilsson, 1983).

It is very widespread in Europe including Scotland, Norway and Iceland. It is also found in Greenland. On the Faroe Islands it is a common species.



- Streymoy: Dalá, N. of Vestmanna, 22 August 1992 (P. Ketil/L. Trolle)
Kollafjørður, 24 August 1992 (P. Ketil/L. Trolle)
Norðradalur, 26 July 1989 (P. Ketil)
Tórshavn, 6 July 1989 (P. Ketil)
Tórshavn, Skansin, 21 August 1992 (P. Ketil/L. Trolle)
Tórshavn, 5 September 1992 (P. Ketil/L. Trolle)
Nólsoy: Nólsoy, 30 August 1992 (P. Ketil/L. Trolle)
- Eysturoy: Eiði, 27 July 1989 (P. Ketil)
Eiðisvatn, 25 July 1989 (P. Ketil)
Gjógv, 25 July 1989 (P. Ketil)
Ljósa, 25 July 1989 (P. Ketil)
Svínáir, 24 August 1992 (P. Ketil/L. Trolle)
Norðragöta, 26 July 1989 (P. Ketil)
Lamba, 26 July 1989 (P. Ketil)
Æðuvík, 26 July 1989 (P. Ketil)
- Kunoy: Kunoy, 5 September 1992 (P. Ketil/L. Trolle)
Haraldssund, 5 September 1992 (P. Ketil/L. Trolle)
- Víðoy: Víðareiði, 5 September 1992 (P. Ketil/L. Trolle)
- Svínø: Svínø, 14 July 1989 (P. Ketil)
- Fugloy: Kirkja, 17 July 1989 (P. Ketil)
- Sandoy: Sóltnúvík, 29 August 1992 (P. Ketil/L. Trolle)
Sandur, 22 July 1989 (P. Ketil)
Dalur, 21 July 1989 (P. Ketil)
- Suðuroy: Sandvík, 2 September 1992 (P. Ketil/L. Trolle)
Líðin, 2 September 1992 (P. Ketil/L. Trolle)
Fámjin, 2 September 1992 (P. Ketil/L. Trolle)

9. *Macrosteles viridigriseus* (Edw.), Figs. 17 and 18. New to the Faroe Islands, map see Fig. 50.

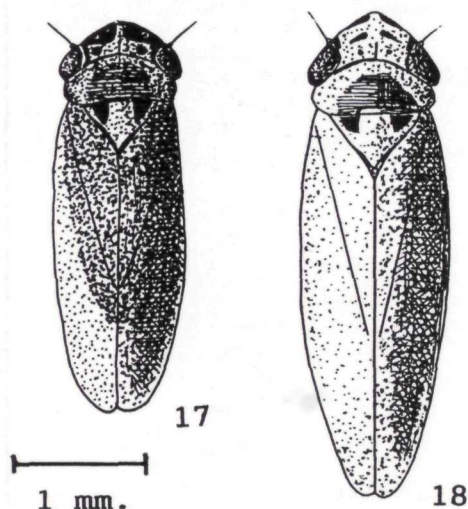
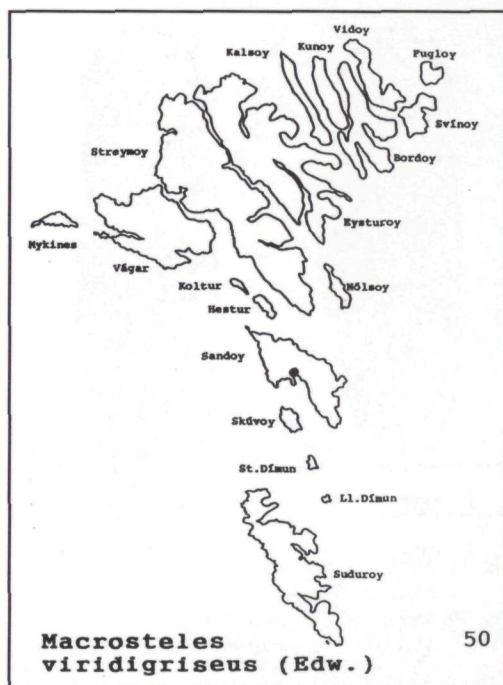


Fig. 17: *Macrosteles viridigriseus* (Edw.) male
Sando, Sandur – 22 July 1989

Fig. 18: *Macrosteles viridigriseus* (Edw.) female
Sando, Sandur – 29 August 1992

M. viridigriseus also belongs to the *sexnotatus*-group. The male aedeagus with cylindrical appendages, which apically are approximately parallel (Fig. 36): second abdominal sternum see Fig. 37; the female valvula is hardly serrated at all.

M. viridigriseus is confined to wet or moist seashore meadows i.e. it is to some extent halophilous and there are not many salt marshes on the Faroe Islands. Very little is known of its host plants. *M. viridigriseus* is a rare species almost everywhere – it is known from Scotland and Norway, but not from Iceland.



Sando: Sandur, 22 July 1989 (P.Ketil)
Sandur, 29 August 1992 (P.Ketil/L.Trolle)

10. *Macrosteles alpinus* (Zett.). (Figs. 19 and 20). New to the Faroe Islands, map see Fig. 51.

M. alpinus is a typical member of the *sexnotatus*-group. Usually the black markings are strongly extended and even confluent. The ground colour is brownish yellow and in dark specimens the forewings may be partly fuscous.

However, the Faroese specimens differ greatly from other populations. The markings are much reduced: the spots on the junction of the vertex and the frontoclypeus are hardly visible from above, the intermediate transverse lines are reduced to a pair of short streaks or often completely absent

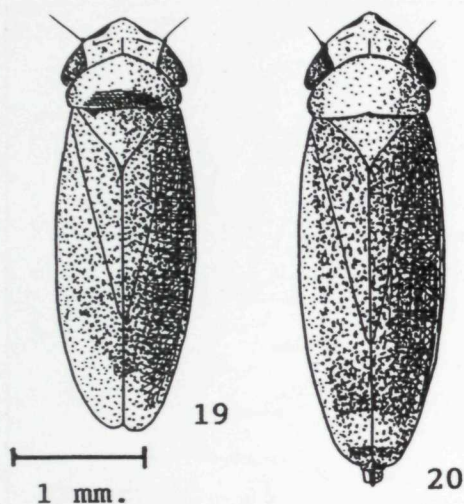
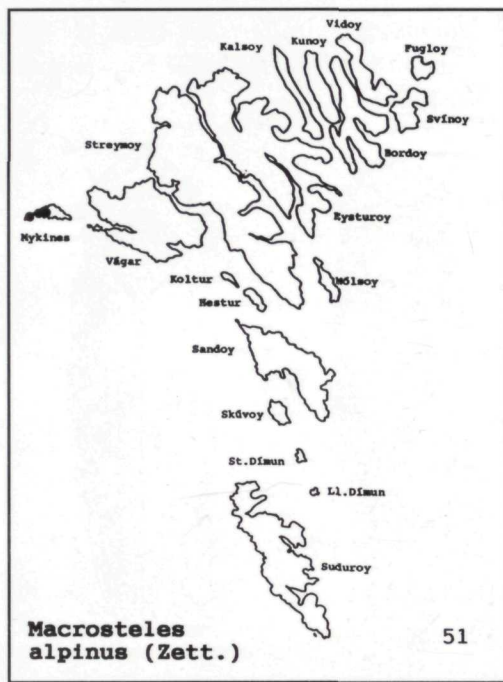


Fig. 19: *Macrosteles alpinus* (Zett.) male
Mykines, Mykineshólmur – 27 August 1992

Fig. 20: *Macrosteles alpinus* (Zett.) female
Mykines, Djúpidalur – 28 August 1992



especially in the females, and the caudal spots represented by a pair of small spots or absent (Figs. 40 and 41), pronotum, scutellum and forewings greenish-yellowish without markings. Aedeagus (Fig. 38) and the second abdominal sternum (Fig. 39) in the male are typical of that of *M. alpinus* (Zett.).

M. alpinus is found on Mykines and on Mykineshólmur, in the infield around the hamlet and everywhere in the outfield on the western half of Mykines, which was as far as we managed to collect leafhoppers in the few days, we stayed on the island.

M. alpinus is found in Scotland and is widespread in Norway, but not known from Iceland. It possibly feeds on grasses, but has also been associated with *Juncus squarrosus* L. (LeQuesne, 1969), which is

widespread on the Faroes, but not found on Mykines (Hansen, 1966) and *Menyanthes trifoliata* L. (Linnavuori, 1952), which on the Faroes has only been found on Vágur, Streymoy, Sandoy and Suðuroy (Hansen, 1966). The isolated presence of *M. alpinus* on Mykines could indicate a human introduction, and the species must have been on Mykines for a very long time in order to differ morphologically so much from the typical species. The fact that we did not find *M. ossiannilssoni* or *M. laevis*, which are otherwise everpresent, may be due to interspecific competition, but the question of the host plants of the *Macrosteles* species on the Faroe Islands needs further investigation in order to try and explain the distribution of the species.

Mykines: Mykineshólmur, 27 August 1992
(P.Ketil/L.Trolle)
Mykines, 28 August 1992 (P.Ketil/L.Trolle)
Djúpidalur, 28 August 1992 (P.Ketil/L.Trolle)

11. *Cicadula quadrinotata* (F.), Figs. 21 and 22. Distribution map, Fig. 52.
(*Thamnottetix quadrinotatus* Fabricius).

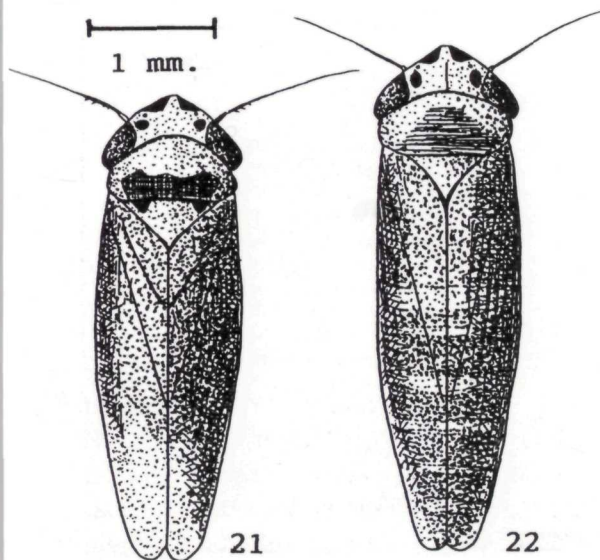
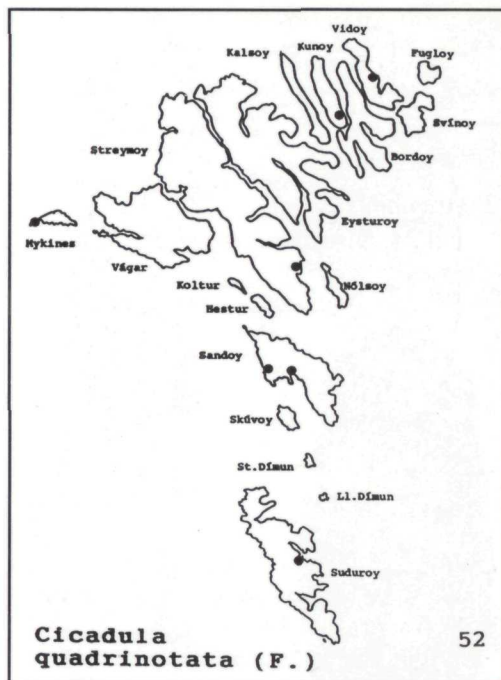


Fig. 21: *Cicadula quadrinotata* (F.) male
Viðoy, Dalá – 5 September 1992

Fig. 22: *Cicadula quadrinotata* (F.) female
Sandy, Söltuvík – 29 August 1992

The genus *Cicadula* has 11 species in Fennoscandia, but on the Faroes only 1 species, which is easily recognized by the 4 black spots on the vertex. The colour is orange-yellow or greenish-yellow. It lives on lush meadows, but the hostplants are unknown.



C. quadrinotata was first found by J.P. Kryger in 1926 on the meadow in front of what was then the Sanatorium (now the High School) in Hoydalar. Sixty-six years later we went out and looked for it on the same meadow and were very pleased to see, that it was still very numerous there. But we also found the species elsewhere on the Faroes in places with rich vegetation i.e. with moderate to no sheep grazing, typically in the infield.

C. quadrinotata is widespread throughout the Palaearctic and also common in Scotland, Norway and Iceland.

Mykines: Mykineshólmur, 27 August 1992
(P.Ketil/L.Trolle)

Streymoy: Tórshavn, July, August 1926 (J.P.Kryger)
Tórshavn, 25 August 1992 (P.Ketil/L.Trolle)
Tórshavn, 5 September 1992 (P.Ketil/L.Trolle)

Kunoy: Haraldssund, 5 September 1992 (P.Ketil/L.Trolle)

Viðoy: Dalá, 5 September 1992 (P.Ketil/L.Trolle)
 Sandoy: Sandur, 29 August 1992 (P.Ketil/L.Trolle)
 Søltuvík, 29 August 1992 (P.Ketil/L.Trolle)
 Suðuroy: Øravík, 2 September 1992 (P.Ketil/L.Trolle)

12. *Streptanus sordidus* (Zett.), Figs. 23 and 24. Distribution map, Fig. 53.

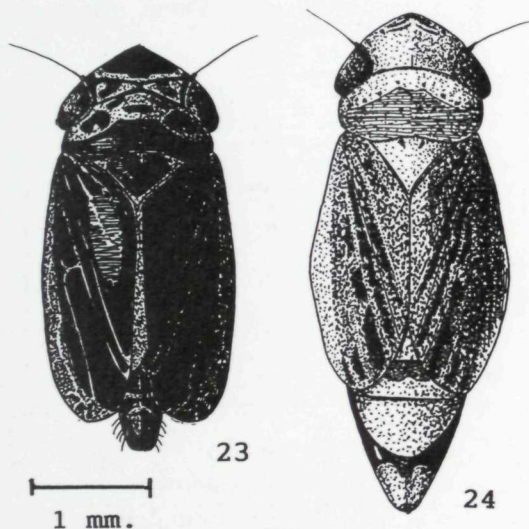


Fig. 23: *Streptanus sordidus* (Zett.) male
 Kunoy, Kunoy – 5 September 1992

Fig. 24: *Streptanus sordidus* (Zett.) female
 Borðoy, Klaksvík – 5 September 1992

(*Athysanus sordidus* Zetterstedt.).

Much varying in colour: the males get progressively darker with age and occasionally completely black or even ultramarine (when alive) specimens can be found. The females can vary from unicolorous light to almost black. The males are usually subbrachypterous, while the females are brachypterous.

S. sordidus is found everywhere where the vegetation is lush i.e. it is a typical

leafhopper of the infield in ditches and fields used for haymaking. It is widespread in Europe and also found in Scotland and Norway. It is perhaps surprising that this, the most common leafhopper on the Faroes, is not found in Iceland while the most common Icelandic leafhopper (*Jas-sargus distinguendus* Flor), which is also found in Scotland and southern Norway, is not found on the Faroes.

Mykines: Mykineshólmur, 27 August 1992 (P.Ketil/L.Trolle)
 Mykines, 26 August 1992 (P.Ketil/L.Trolle)
 Djúpidalur, 28 August 1992 (P.Ketil/L.Trolle)
 Vágur: Bøur, 26 August 1992 (P.Ketil/L.Trolle)
 Miðvágur, 26 August 1992 (P.Ketil/L.Trolle)
 Streymoy: Tjørnuvík, 24 August 1992 (P.Ketil/L.Trolle)
 Saksun, 24 August 1992 (P.Ketil/L.Trolle)
 Hvalvík, 24 August 1992 (P.Ketil/L.Trolle)
 Dalá, N. of Vestmanna, 22 August 1992 (P.Ketil/L.Trolle)
 Vestmanna, 22 August 1992 (P.Ketil/L.Trolle)
 Kvívík, 22 August 1992 (P.Ketil/L.Trolle)
 Kaldbaksbotnur, 23 August 1992 (P.Ketil/L.Trolle)
 Kaldbak, church, 23 August 1992 (P.Ketil/L.Trolle)
 Kollafjørður, 24 August 1992 (P.Ketil/L.Trolle)
 Hoydalar, 8 September 1925 (Lemche)
 Hoydalar, July 1926 (J.P. Kryger)
 Hoydalar, 25 August 1992 (P.Ketil/L.Trolle)
 Tórshavn, 29 July 1926 (J.P. Kryger)
 Tórshavn, 5 September 1992 (P.Ketil/L.Trolle)
 Kirkjubøur, September 1925 (Lemche)
 Eysturoy: Eiði, 22 July 1989 (P.Ketil)
 Gjógv, 25 July 1989 (P.Ketil)
 Funningur, 27 July 1989 (P.Ketil)
 Ljósa, 25 July 1989 (P.Ketil)
 Elduvík, 26 July 1989 (P.Ketil)
 Svínáir, 24 August 1992 (P.Ketil/L.Trolle)
 Lamba, 26 July 1989 (P.Ketil)
 Nólsoy: Nólsoy, 30 August 1992 (P.Ketil/L.Trolle)
 Kunoy: Kunoy, 5 September 1992 (P.Ketil/L.Trolle)
 Haraldssund, 5 September 1992 (P.Ketil/L.Trolle)
 Borðoy: Klaksvík, 5 September 1992 (P.Ketil/L.Trolle)
 Viðoy: Viðareidi, 5 September 1992 (P.Ketil/L.Trolle)
 Dalá, 5 September 1992 (P.Ketil/L.Trolle)
 Svínay: 16 August 1926 (J.P. Kryger)
 Fugloy: Kirkja, 16 July 1989 (P.Ketil)
 Sandoy: Søltuvík, 29 August 1992 (P.Ketil/L.Trolle)
 Sandur, 22 July 1989 (P.Ketil)

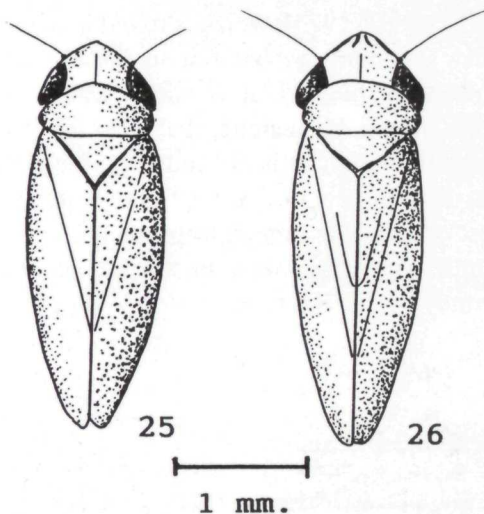
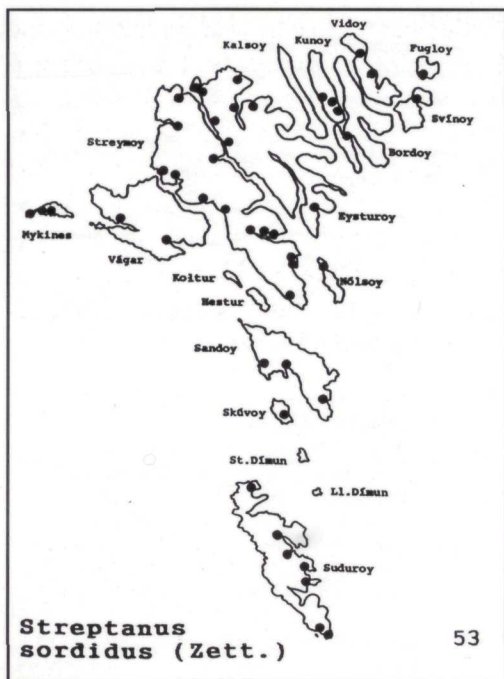


Fig. 25: *Arthaldeus pascuellus* (Fall.) male
Svínø, Svínø – 16 August 1916

Fig. 26: *Arthaldeus pascuellus* (Fall.) female
Denmark, Christiansø – 20 July 1979

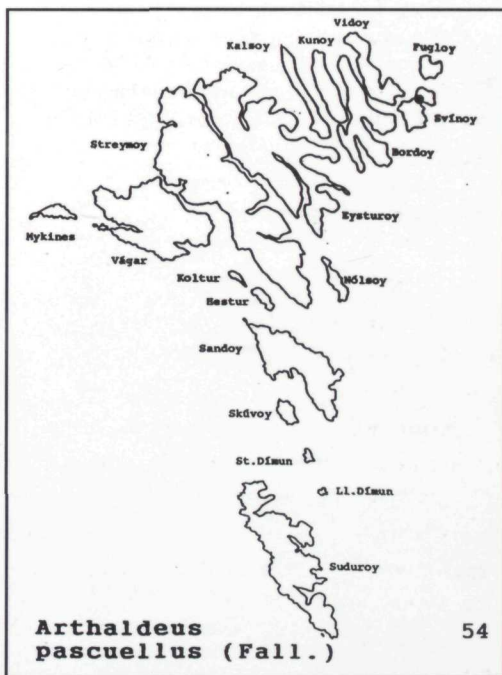
- Sandur, 29 August 1992 (P.Ketil/L.Trolle)
 Dalur, 21 July 1989 (P.Ketil)
 Skúvoy: Skúvoy, 20 July 1989 (P.Ketil)
 Suðuroy: Sandvík, 2 September 1992 (P.Ketil/L.Trolle)
 Trongisvágur, 2 September 1992 (P.Ketil/L.Trolle)
 Ljóðin, 2 September 1992 (P.Ketil/L.Trolle)
 Øravík, 2 September 1992 (P.Ketil/L.Trolle)
 Høvi, 3 September 1992 (P.Ketil/L.Trolle)
 Porkeri, 2 September 1992 (P.Ketil/L.Trolle)
 Sumba, 2 September 1992 (P.Ketil/L.Trolle)
 Akraberg, 2 September 1992 (P.Ketil/L.Trolle)

13. *Arthaldeus pascuellus* (Fall.), Figs. 25 and 26. Distribution map, Fig. 54.

(*Deltocephalus pascuellus* Fallén).

A small greenish leafhopper, vertex near apex with a pair of dark oblique streaks, otherwise unicolorous light.

It lives on both dry and moist meadows, and the host plants are probably grasses. It has also been associated with *Juncus gerar-*



di (Schaefer, 1973), which is found in Scotland and Norway, but not in the Faroes (Jóhansen, *in litt.*). It is widespread, not only in the Palaearctic, but also in the Nearctic region. It is not found on Iceland but is common in Scotland and Norway. Just one male is known from the Faroe Islands. This was taken in the hamlet on Svínø by J.P. Kryger.

Svínø: Svínø, 16 August 1926 (J.P. Kryger)

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Fig. TEXTS:

Fig. 27: *Anoscopus albifrons* (L.) – aedeagus in ventral and left aspect

Fig. 28: *Anoscopus albifrons* (L.) – female abdomen from below

Fig. 29: *Anoscopus flavostriatus* (Don.) – aedeagus in ventral and left aspect

Fig. 30: *Macrosteles ossiannilssoni* Lindb. – aedeagus in ventral and left aspect

Fig. 31: *Macrosteles ossiannilssoni* Lindb. – male 2nd.abdominal sternum

Fig. 32: *Macrosteles ossiannilssoni* Lindb. – female 2nd. valvula

Fig. 33: *Macrosteles laevis* (Rib.) – aedeagus in ventral and left aspect

Fig. 34: *Macrosteles laevis* (Rib.) – male 2nd. abdominal sternum

Fig. 35: *Macrosteles laevis* (Rib.) – female 2nd. valvula

Fig. 36: *Macrosteles viridigriseus* (Edw.) – aedeagus in ventral and left aspect

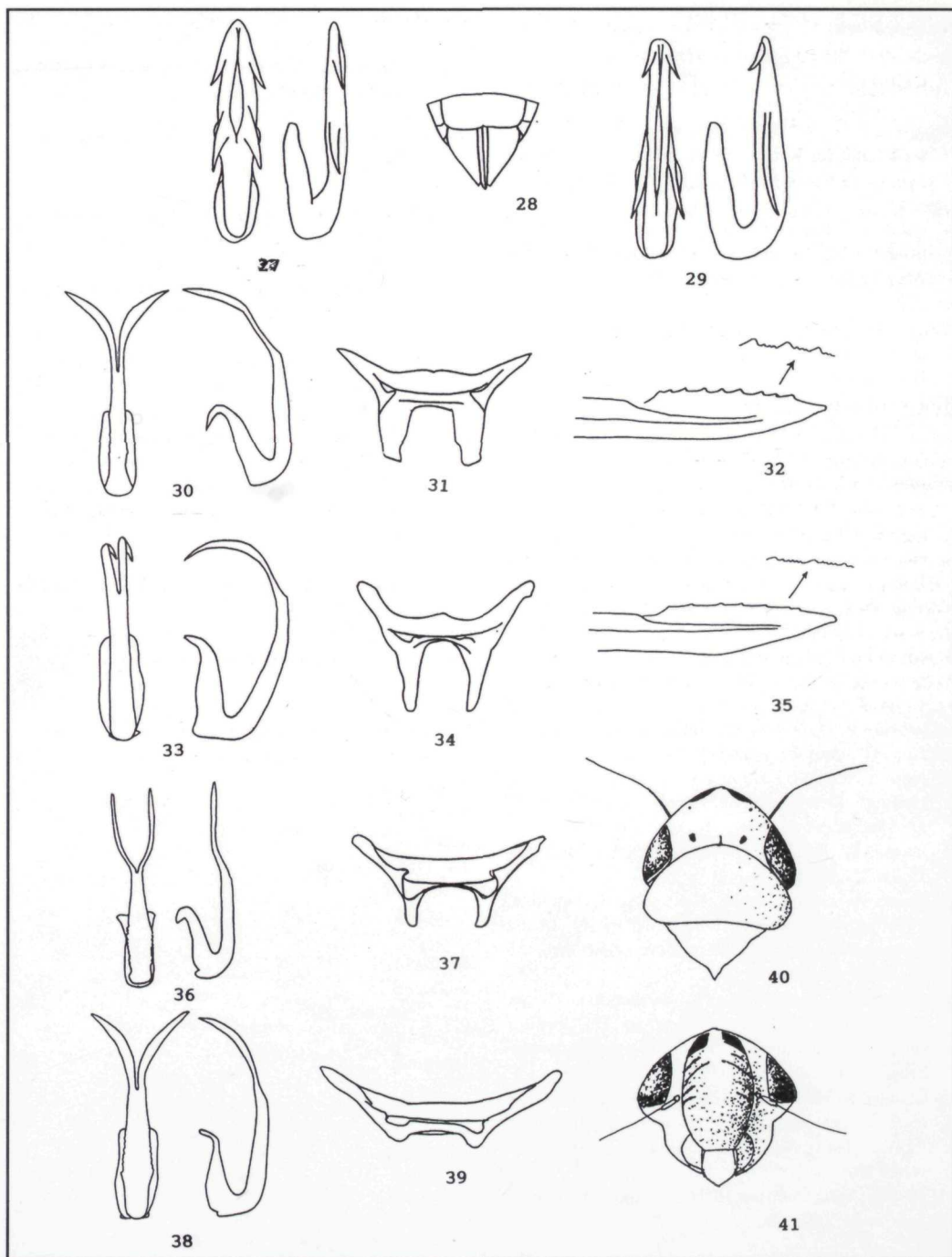
Fig. 37: *Macrosteles viridigriseus* (Edw.) – male 2nd. abdominal sternum

Fig. 38: *Macrosteles alpinus* (Zett.) – aedeagus in ventral and left aspect

Fig. 39: *Macrosteles alpinus* (Zett.) – male 2nd. abdominal sternum

Fig. 40: *Macrosteles alpinus* (Zett.) – Female: vertex, pronotum and scutellum – specimen from Mykines.

Fig. 41: *Macrosteles alpinus* (Zett.) – female: face – specimen from Mykines.



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