

# *A note on the occurrence of land planarians in the Faroe Islands*

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## **Introduction**

Faunistic studies have been carried out in a number of different environments in the Faroe Islands over two different periods. The first was a thorough faunistic examination, with samples taken from marine, freshwater and terrestrial habitats. These studies were published over the period from 1928 to 1971 in *Zoology of the Faroes*, in which the marine and freshwater planarians were treated by Steinböck in 1929-30. The second study period was from 1978 to 1981, when a team from the universities of Bergen (Norway) and Lund (Sweden), in cooperation with the Faroese Museum of Natural History, sampled terrestrial animals for ecological studies. These examinations were published in a series entitled »Terrestrial Invertebrates of the Faroe Islands«, the main bulk of data appearing from 1979-1983 in *Fauna norv. Ser. A* and *Ser. B*.

No land planarians were discovered in the first study, but during the second study, *Rhynchodemus terrestris* (Müller) was recorded and sampled on Suðuroy in 1978 (Bengtson, 1982). More recently, the species *Artioposthia triangulata* Fyfe was found,

and so it is now considered worthwhile to publish the Faroese occurrences of these animals and in that connection suggest a possible immigration route.

## **Faroese records**

In the summer of 1987, the Museum received a dried specimen of a land planarian about 10 cm long. Later in 1987 more specimens were found, all in bad condition and not suitable for preservation, but identified as probably belonging to the species *Artioposthia triangulata*. They were all sampled on the outskirts of the capital, Tórshavn (Fig. 1) in connection with potato planting.

On May 5, 1990 the Museum received 6 specimens as well as 2 egg capsules which were sampled in the village of Kvívík, on the main island, Streymoy, about 30 km north-west of Tórshavn (Fig. 1). These specimens were well preserved in 70% alcohol and easily identifiable as *Artioposthia triangulata*. Their size varied from 5 to 12 cm in length and they were of a light chocolate grey brown colour (Fig. 2). The planarians were sampled in connection with planting potatoes, where more than a hundred specimens



were seen. Also in that connection, the finders had observed that no Lumbricids, the food animals of this species, were seen.

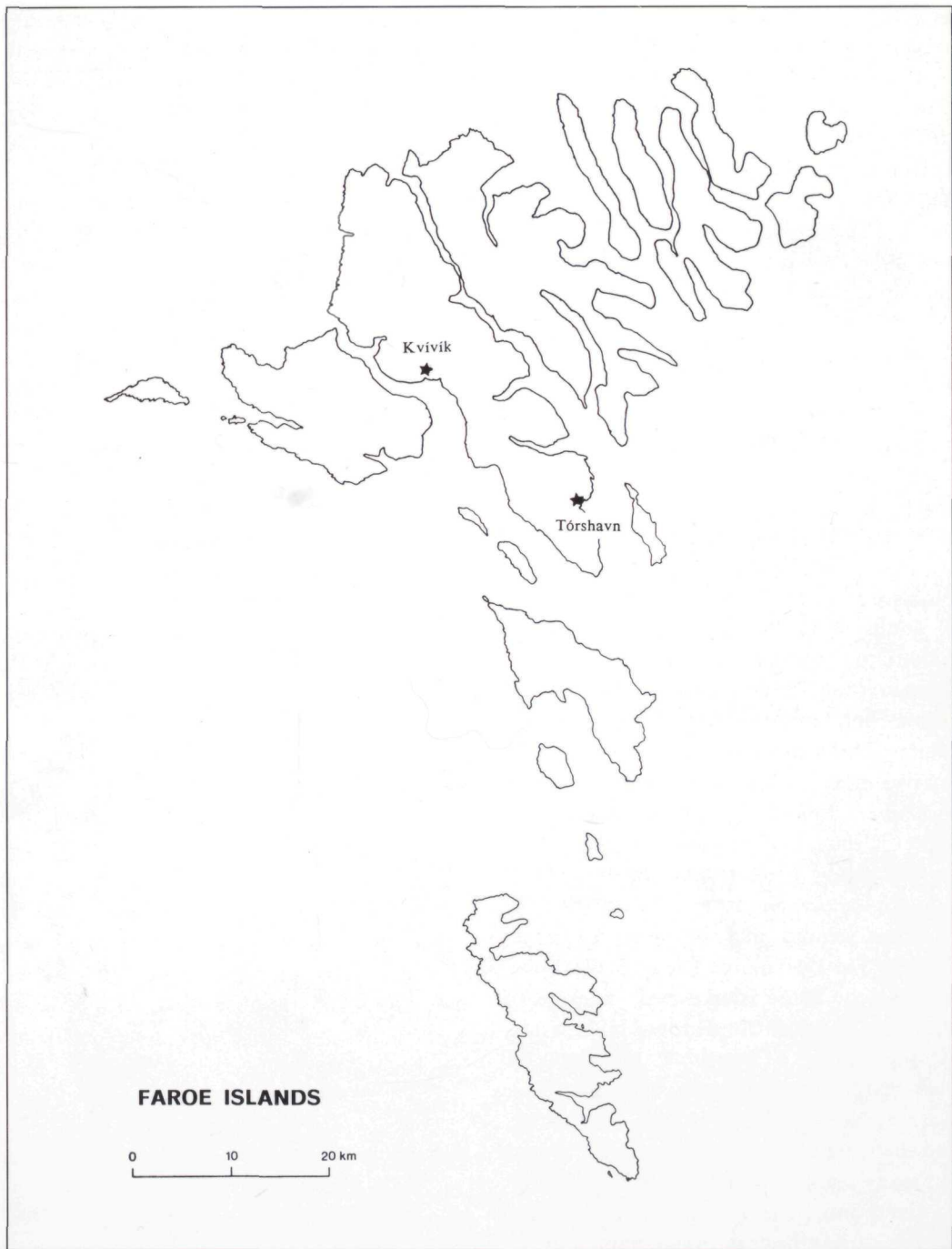
Again, in 1991 the Museum received 4 specimens, all *Artioposthia triangulata*, found in a hen run in Tórshavn, supplied with the remark that they also were observed in July 1982 in the downpipes of the building of the local Parliament in Tórshavn. This building is covered with grass on the roof, placed in 1982 and taken from the outskirts of Tórshavn.

After a broadcasting of the occurrence of the planarians in the Faroe Islands, the

Museum has received further records, all from the summer 1991, of the worm from several localities in Tórshavn and furthermore also from both the most northern and southern parts of the country. It must be concluded that the planarian after about 10 years of known occurrence today is general distributed in the Faroe Islands.

#### North Atlantic distribution

The species *Rhynchodemus terrestris* is widely distributed throughout Europe, including Britain, Ireland and Orkney (Hartog, 1962; Berland, 1968; Jones, 1978; Ball



and Reynoldson, 1981) as well as Denmark (Mather and Christensen, 1991), Western Norway and the south coast of Iceland (Lindroth, Andersson, Böldvarsson and Richter, 1973, p. 146).

The other species of land planarian, *Artioposthia triangulata*, a new species in the Faroe Islands, originates from New Zealand and was first discovered in 1963 in two gardens in the vicinity of Belfast (Willis and Edwards, 1977; Ball and Reynoldson, 1981). It has expanded its distribution area and was later found in the northern part of Scotland in 1977 (Wakelin and Vickerman, 1979; Blackshaw and Stewart, 1991), and also in a greenhouse in Reykjavík, Iceland in 1990 (E. Ólafsson, pers. comm.), but it is not known to occur in Denmark or Norway.

### Discussion

It would seem that the dispersal of land planarians is made possible by anthropochorous transport via import of plants containing soil from their native localities. This also seems to have been the case for two other turbellarian species, *Kontikia andersoni* Jones, from the Indo-pacific region (Jones, 1981a) and *Geoplana sanguinea*, native to Australia (Jones, 1981b). *Kontikia andersoni* turned up in 1976 in Northern Ireland, and *Geoplana sanguinea* (Moseley) in 1980 on the Isle of Scilly. Ships arrive in the Faroe Islands every week, with all kinds of goods for Faroese households, including plants. These boats load most of their cargo in Denmark, but also visit Western Norway and Scotland on passage, and there are also connections with Iceland. For many years potatoes have been bought in Scotland and Denmark, transported on the regular cargo ships, and then planted in the

Faroes. Since 1976 there has also been regular summer passenger ship traffic between the Faroe Islands and Shetland/Scotland. In the summer several Faroese travel to the Northern part of Scotland as tourists, and it is not prohibited to buy plants to take home, thus also providing the possibility of importing invertebrates or their egg capsules in the surrounding soil.

In Denmark, *Rhynchodemus terrestris* is a common species, so the import route is impossible to discover for this species. The situation is otherwise with *Artioposthia triangulata* which has never been recorded in Denmark (Mather and Christensen, 1991). The most likely immigration route for this species, then, is from Scotland in connection with either the import of potatoes for planting or the purchase of potted plants.

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### Úrtak

Hesi seinastu árinu eru 2 slög av turbulariumaðki, sum haldí til uppi á landi, funnin. Hvørki teirra eru skrásett her áður. Annað slagið, *Rhynchodemus terrestris* (Müller), varð funnið í Suðuroy í 1978 (Bengtson, 1982). Hitt slagið, *Arthioposthia triangulata* Fyfe, varð funnið í Tórshavn á sumri 1987 og aftur á sumri 1990 í Kvívík. Hitt seinna slagið er slættur maðkur, brúnligur á liti, verður upp í um leið 10 cm langur og ½ cm breiður. Í 1991 varð turbulariumaðkurin funnin um alt landið.

Turbulariumaðkurin er rovdjór, ið etur reyðmaðk. Tað var eisini, tá ið tey settu epli niður, at tey komu fram á *Arthioposthia triangulata*. Ikki ein einisti reyðmaðkur var í eplaveltuni, har tey funnu meiri enn 100 dýr av hesum slagnum.

Bæði sløgini eru helst flutt við folki. Hitt fyrri slagið, *Rhynchodemus terrestris*, er spjatt víða um Norður-Europa, Danmark,

Ongland, Írland, Orkneyoyggjarnar, Vestur-Noreg íroknað. Tað er eisini funnið á súðurlandinum í Íslandi.

Hitt seinna slagið, *Arthioposthia triangulata*, kemur av fyrstan tíð úr New Zealandi. Ikki fyrr enn í 1963 varð tað funnið í Europa, í tveimum urtagørðum í Belfast. Men seinni, í 1977, hevur tað breitt seg til norðara partin av Skotlandi, og í 1989 er tað eisini funnið á Súðurlandinum. Enn er eingin fráboðan komin um, at tað er funnið í Danmark ella Noregi. Tí verður mett, at slagið er flutt við folki av óvart sum maðkur ella í egghylki í mold úr Skotlandi/Onglandi. Antin í plantum, sum ferðafólk kunnu hava keypt heim við sær. Ella – og tað er meira líkt til, at so er – er tað komið við influttum seteplum. Síðani 1976 hevur verið fast summarsamband vil Skotland. Harumframt hava vit í nógv ár keypt seteplir m.a. úr Skotlandi.