

SOME CHARALES (CHLOROPHYTA, CHAROPHYCEAE) FROM THE FAROES

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INTRODUCTION

In connection with Characeae studies in the North-Atlantic (Langangen, 1972; Langangen *et al.*, 1996), the author has examined specimens of Charales from the Faroes found in the following herbaria: Copenhagen (C), Stockholm (S), Lund (LD) and Oslo (O). Føroya Náttúrugripasavn (Museum of Natural History, Tórshavn) has no specimens of Charales collected from these islands.

OBSERVATIONS

Nitella opaca C. Agardh

Plants are 5-20 cm high. Most of the specimens examined did not exceed 10 cm. Different forms where the fertile branchlets form small, dense heads, seem to be common in the islands. All specimens collected in the Faroes are from July and August and only fertile material has been found. Ripe oospores are found both in July and August.

Nitella opaca is the most common species in the Faroes. The species is also known from Greenland (Langangen *et al.*, 1996), Iceland (Langangen, 1972) and it is common in the British Isles (Moore & Greene, 1983).

The specimen collected in lake Saksunarvatn in Streymoy is of special interest as it resemble *Nitella spanioclema* Groves & Bullock-Webster which is found in Ireland (Groves & Bullock-Webster, 1924). From the quantity of filamentous algae found on the specimen of *N. opaca*, one can judge that the growth of these algae are rich, which again suggest that the lake could be meso- or eutrophic. In such lakes *N. opaca* can be stressed, resulting in phenotypical modifications. When Krause (1992) visited the locus classicus of *Nitella spanioclema*, he did not find the species, but only similar modifications of *Nitella opaca*, which he presumed was caused by a local climatic influence. It would be of interest to study the locality, lake Saksunarvatn in more detail, as one should expect to find interesting varieties of *N. opaca* there.

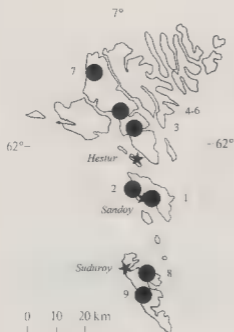


Figure 1. Distribution of *Nitella opaca*. ■ localities confirmed with specimens in herbaria. ★ localities known only from literature data.

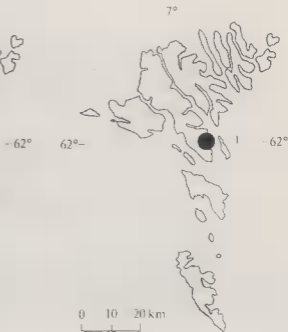


Figure 2. Distribution of *Nitella flexilis*. ■ localities confirmed with specimens in herbaria.

Specimens seen from different herbaria: 1. *Sandoy*, in a river at Sandur C.A. Feilberg & E. Rostrup 18.08.1867 (LD, C) (Rostrup, 1870). 2. *Sandoy*, Söltuvík, in a creek, 28.08.1897 leg. Ostenfeld (det. Nordstedt) (C). 3. *Streymoy*, Kalbakbotnur 18.07.1895 Simmons (O, LD, C) (Simmons, 1897). 4. *Streymoy*, Leynavatn, F. Børgesen (C) (Børgesen, 1899). 5. *Streymoy*, Kvívík, in a mountain lake, 25.08.1817 H.C. Lyngbye (C). 6. *Streymoy*, in a mountain lake on Skælingsfjall, 02.08. og 26.08.1817 H.C. Lyngbye (C). 7. *Streymoy*, Saksun i Saksunarvatn, 19.07.1980 D.E. Irvine (C). 8. *Suduroy*, Hvannhagi, 17.07.1897 Ostenfeld (C) (Børgesen, 1899). 9. *Suduroy*, Hvannafelli, 17.07.1817 H.C. Lyngbye (C).

Literature data: Børgesen (1899) also reports the species from Gróthúsvatnet (*Sandoy*) and Nordbergeldi (*Suduroy*). Rostrup (1870) reports it from "mountain lakes at the top of Hestø (*Hestur*)".

Nitella flexilis (L.) C. Agardh

Nitella flexilis has only been found in one locality in the Faroes, by Torshavn which most probably is a oligotrophic lake. The species is known from Greenland (Langangen *et al.*, 1996), Iceland (Langangen, 1972) and is common in Europe (Corillion, 1957).

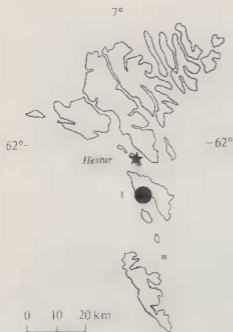


Figure 3. Distribution of *Chara globularis*. ■ localities confirmed with specimens in herbaria. ★ localities known only from literature data.

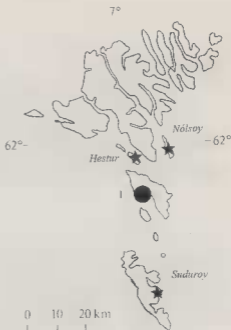


Figure 4. Distribution of *Chara delicatula*. ■ localities confirmed with specimens in herbaria. ★ localities known only from literature data.

Specimens seen from different herbaria: 1. *Streymoy*, Torshavn, 02.08.1926, N. Rasmussen (C).

Chara globularis Thuillier (= *C. fragilis* Desv.)

Plants are 5-20 cm high, slightly lime-encrusted and therefore often green. Specimens from the Faroes have long bracteoles and anterior bracts and papillose posterior bracts. In the islands the species has been found in a river and in a lake. The species are fertile in May-September. All specimens found are richly fertile, but are not found with ripe oospores.

Chara globularis has been found in Greenland (Langangen *et al.*, 1996) and Iceland (Langangen, 1972) and it is common in Europe (Corillion, 1957).

Specimens seen from different herbaria: 1. *Sandoy*, in a river at Sudur, C.A. Feilberg & E. Rostrup 18.08.1867 (C, S, LD, O) (Rostrup, 1870).

Literature data: Rostrup 1870 also reports it from "mountain lake at the top of Hestø (*Hestur*)". The species is also reported in Braun & Nordstedt (1882).

Chara delicatula C. Agardh

Chara delicatula is only known from one locality in the Faroes. Many authors have treated *Chara globularis* and *Chara delicatula* as one species (Olsen, 1944; Langangen, 1974; Moore, 1986), while other have treated them as two species (Migula, 1897; Groves & Bullock-Webster, 1924; Corillion, 1957). The species is found in Greenland (Langangen *et al.*, 1996) and in Iceland (Langangen, unpublished data), and is common in the British Isles (Moore & Greene, 1983). *Chara delicatula* is probably widely distributed throughout Europe (Corillion, 1957).

Specimens seen from different herbaria: 1. *Sandoy*, in a creek into Gróthúsvatnet, 28.08.1897 Ostenfeld (C). Børgesen (1899) reports it as: "Found in watercourses and bog pools on Sandø (*Sandoy*); Nolsø (*Nólsøy*); and Hove (*Suduroy*)"; and reported by Rostrup from Sandø; and from tarns on Hestø (*Hestur*).

DISCUSSION

Four species of charophytes have been found in the Faroes; *Nitella opaca*, *N. flexilis*, *Chara globularis* and *C. delicatula*. The ecology of these species is similar, and they are all known to have broad ecological amplitudes for most parameters. They are well known from "cold" areas and are mostly found in oligotrophic, slightly acid to neutral lakes (Olsen, 1944; Corillion, 1957; Langangen, 1974).

In Greenland *Chara globularis* is found in waters with *Potamogeton gramineus* L., *P. jilliformis* Pers., *Myriophyllum alterniflorum* DC., *Hippuris vulgaris* L. and *Chara delicatula* (Langangen *et al.*, 1996). This agrees well with observations elsewhere (Olsen, 1944; Corillion, 1957).

The four species found in the Faroes are all common in Europe (Corillion, 1957), and reported from Greenland and Iceland. Compared to the Shetlands, where 5 species of *Chara* and two species of *Nitella* are known (Moore & Green, 1983), the charophyte flora of the Faroes is poor. Most finds of charophytes in the Faroes are very old, and we must hope that new, more systematic collections can be done in the near future.

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