A checklist of the fish fauna of Greenland waters

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Abstract

Although the Greenland fish fauna has been studied for more than 200 years, new species continue to be discovered. We here take the opportunity of the International Polar Year 2007–08 (IPY) to present an updated check-list of the fishes of Greenland and discuss whether the growing diversity can be explained by global warming. A total of 269 species from 80 families are known from the Greenland Exclusive Economic Zone (EEZ), based on published literature and specimens in museum collections. Since the latest publication covering all known Greenland fishes [Nielsen & Bertelsen 1992], 57 species have been added. Nineteen of these (Harriotta raleighana, Centroscymnus coelolepis, Bathytroctes microlepis, Einara edentula, Ceratoscopelus maderensis, Argyropelecus gigas, Maurolicus muelleri, Polyipnus asteroids, Nansenia oblita, Melanostomias bartonbeani, Polymetme corythaeola, Coryphaenoides mediterraneus, Merlangius merlangus, Guttigadus latifrons, Entelurus aequoreus, Helicolenus dactylopterus, Epigonus telescopus, Lophius piscatorius, Linophryne bicornis) are reported here for the first time. Twenty-nine of the species were added on the basis of taxonomic revisions and/or identification of specimens caught before 1992, whereas 28 species have been caught in Greenland waters for the first time since 1992. Ten species were new to science described since 1992. Only five of the added species are Arctic – i.e. mainly caught north of the Davis and Denmark Straits. Of the 28 species caught after 1992, five species (Maurolicus muelleri, Merlangius merlangus, Helicolenus dactylopterus, Lophius piscatorius, Entelurus aequoreus) from the southern regions (Atlantic) are mainly from shallow waters (< 400 m) and their arrival is likely to be a result of increasing temperatures. The explanation of the many new records of deep-water fishes is most likely increasing fishing efforts down to depths of 1500 m. The deep waters off Greenland (> 1500 m), however, remain almost unstudied.

Key words: Annotated check-list, Greenland EEZ, global warming, North Atlantic
Introduction

The effects of global warming on the Arctic ecosystems are intensively studied and discussed in recent years (Schiermeier 2007, Moline et al. 2008), but the consequences for the local fauna are not well known, and basic knowledge of the effects on the composition of the Arctic fish fauna is lacking. New species are still being described and huge areas of the sea-bottom have never been sampled, making analyses of faunal changes difficult or impossible. There is therefore an urgent need for more basic exploratory studies of the Arctic seas, if we wish to understand the changes that are likely to happen in the future.

With a coastline of more than 40,000 km, Greenland is not only the largest island of the world—it also is a very important area in the Arctic, covering subpolar and polar marine climate zones. It covers a great variety of habitats, from shallow fjords to deep-sea plains and ridges, down to > 4000 m. Greenland differs from Arctic Eurasia and North America by the lack of larger rivers and coastal waters therefore generally has a high salinity compared to the other Arctic regions.

The cold, deep, northern Baffin Bay and Greenland Sea are separated from the deep, warmer, southern Labrador and Irminger Seas by relatively shallow (600–800 m deep), east to west oriented submarine sills in the Davis and Denmark Straits (Fig. 1). A natural division of the Greenland Exclusive Economic Zone (EEZ), thus includes four major zones: 1) South West—from the southernmost point of Greenland, Cape Farewell, 59°46'W, 43°54'N to the Canada-Greenland submarine ridge (Assiat-Durban Island ca. 68°30'N) (Riis-Carstensen 1948) and to the mid-line between Canada and Greenland; 2) North West—from the Canada-Greenland submarine ridge/ Davis Strait (Assiat-Durban Island ca. 68°30'N) to the northernmost point of Greenland, Kap Morris Jessup 83°38'N, 32°31'W; 3) South East—from Cape Farewell to 67°N/ Denmark Strait and to the mid-line between Iceland and Greenland; 4) North East—from 67°N/ Denmark Strait to Kap Morris Jessup.

Fishes of the Greenland EEZ have been studied since Fabricius (1776, 1780), a Danish clergyman who studied the Greenland wildlife and described five new species of fish from shallow waters. Later the Danish ichthyologists: J.C.H. Reinhardt (described 18 new species, 1825–1840, still valid today), H. Kröyer (seven valid new species, 1836–1868) and C. F. Lütken (four valid new species, 1871–1892) continued to receive and describe interesting and new species from Greenland. Among the active collectors were C. P. Holbøll, who provided the first specimen of a ceratoid angler-fish (Himantolophus groenlandicus Reinhardt, 1837) and O. V. Kielsen, who collected the first bythitid fish (Bythites fuscus Reinhardt, 1837).

In the late 19th century many expeditions were initiated. The Danish Ingolf expedition was especially successful (Lütken 1898, Jensen 1904b). In the early 20th century the work was continued by Adolf S. Jensen (1902–1952), who collected and described eight new species and was much involved in the early expeditions such as: Tjalfe 1908–9 (Jensen 1909a, b), Dana 1925 (Jensen 1926) and Godthaab 1928 (Jensen 1950) and with the development of the fisheries. Also other nations have made several expeditions and fishery surveys in Greenland, e.g. the Norwegian Belgica expedition and the Swedish Kolthoff expedition, but with the exception of some East German cruises (Karrer 1972, 1973, 1976), the ichthyological results of these activities have been limited.

More recently, a joint Greenland /Japanese deep-sea survey series conducted during 1987–1995 resulted in several studies of Reinhardtius hippoglossoides (Walbaum, 1792) (e.g. Jørgensen 1997), the distribution and biology of Macrouridae (Jørgensen 1996) and Zoarcidae (Møller & Jørgensen 2000) and a book with photos and descriptions of all the species caught (Okamura et al. 1995). Greenland waters are now surveyed annually by the Greenland Institute of Natural Resources (R/V Paamiut) and the German Federal Research Centre for Fisheries (R/V Walther Herwig). The survey catch data are occasionally used for fish assemblage studies (Rätz 1999, Jørgensen et al. 2005).

Previous checklists of the Greenland fish fauna include: Fabricius 1776 (ca. 28 species), Reinhardt 1837 (ca. 51 species), Lütken 1875 (68 species), Jensen 1926 (94 species), Jensen 1928 (100 species, not listed – just a number), Muus 1981 (116 species), Nielsen & Bertelsen 1992 (216 species) (Fig. 2).

A recent study of fish otoliths from the middle Palaeocene (ca. 60 million years ago) of the West Greenland fish fauna indicated a temperate to warm temperate fauna (Schwarzhans 2004). Since then
temperatures have decreased and today's Greenland have an Arctic to Subarctic fauna. Also on a smaller timescale temperature changes have caused relatively dramatic changes in the fish fauna with immigration of "warm water" species such as *Melanogrammus aeglefinus* (Linnaeus, 1758), *Micromesistius poutassou* (Risso, 1827), *Pollachius virens* (Linnaeus, 1758) and *Squalus acanthias* Linnaeus, 1758 in warm periods in the last century (e.g. Jensen 1939, 1944a, Hansen 1949, Jensen & Fristrup 1950). The current status of the cod population size is well documented, with huge stocks in warm periods (1920–40ties, and 1980ties) and most recently the 2003 year class (e.g. Jensen 1939, Stein 2007). In fact 2003 was the warmest year in Greenland since 1950 and Ocean properties off West Greenland during recent times were more saline and up to 2°C warmer than normal (Stein 2007).

New species are added to the Greenland fish fauna each year, but it is presently unknown whether it is a result of increasing temperatures or if it is simply a result of increasing fishing and sampling activity in deep waters (400–1500 m).

In the present paper we take the opportunity of the International Polar Year 2007–08 (IPY) to present an updated checklist of the currently known fishes in Greenland waters and to analyse whether recent new species have arrived as a result of the increasing temperatures.

Material and methods

Most of the new records added since 1992 derive from fishery trawl surveys conducted by the R/V *Shinkai Maru* 1987–1995, Japan Marine Fishery Resource Research Center (JAMARC) and the R/V *Paamiut* 1997–2009, Greenland Institute of Natural Resources (GINR). The ichthyological results of the R/V *Shinkai Maru* surveys were summarized in Okamura *et al.* (1995). Unfortunately, the Greenland distribution of most species is mentioned in very general terms, and it is rarely possible to see in which region a species is recorded. For the present checklist these information have been obtained from museum collections (BSKU, HUMZ, NSMT)—museum abbreviations following Eschmeyer (1998). From the annual R/V *Paamiut* surveys rare specimens are collected for identification and are thereafter included in the collection held at the Zoological Museum, University of Copenhagen (ZMUC). Data from these specimens are included in the checklist as well. In addition to trawl surveys, new records have been provided by commercial fishermen, who sent frozen specimens to GINR from where they were later transferred to ZMUC. A few records were taken from the German R/V *Walther Herwig* trawl survey database (Rätz 1999). Important literature sources were Jensen (1942, 1944b, 1948), Muus (1981), Nielsen & Bertelsen (1992), Okamura *et al.* (1995), Whitehead *et al.* (1984–86), Jørgensen *et al.* (2005) and Jönsson & Pálsson (2006).

The species are listed alphabetically within the families, which have been arranged according to Nelson (2006). Each account includes: Scientific name with author(s) and year of description; popular names in English (En), Danish (Da) and Greenlandic (Gr), when available; Greenland distribution divided into four regions (SW-South West, NW-North West, SE-South East, NE-North East, see definition in the introduction above) (Fig. 1); abundance ranked into very rare (1–5 specimens), rare (6–50 specimens), common (>50 specimens); reproducing or guest status (sometimes with a ?, if status is uncertain), benthic or pelagic lifestyle, bottom depth range (not necessarily equal to catch depth for pelagic species); general distribution of the species; remarks and literature where description and illustration are available. Detailed catch data are only provided for the new records and the very rare species. For the more common species see the ZMUC homepage http://zoologi.snm.ku.dk/samlinger/vertebrates/dokument3/ for catch details.

Results and discussion

The total number of fish species known from the Greenland EEZ about one year after the end of the International Polar Year (IPY) (November 2009) is 269. In total 80 families are represented. About 80 species spawn in Greenland waters, but the biology for many other species is poorly studied and it is uncertain
FIGURE 1. Map of the Greenland EEZ and of the four major regions in Greenland waters. SW-South West, NW-North West, SE-South East, NE-North East.
whether they spawn in Greenland or not. The fish diversity is highest off South West and South East Greenland and lowest in North East and North West Greenland waters (Fig. 3). It is well known that the submarine sills between Canada and Greenland and Greenland and Iceland, are effective barriers especially for deep water species and that they have a strong impact on the water masses and the fish assemblages (Møller & Jørgensen 2000, Jørgensen et al. 2005). When looking at the distribution of the species it is also clear that most have a southern distribution in Greenland, often occurring at both sides of southern Greenland, but also several on one side only. A large proportion of these species, however, are either rare or very rare (Fig. 4). The species with a more widespread distribution, including all or nearly all major regions are common (Fig. 4). The West Greenland regions are more diverse than the East Greenland regions (Fig. 3, 4), probably a result of both higher temperatures, south to north directed sea currents, more intensive fishing and the biogeographical history of the various fish families.

The latest publication covering all known Greenland fishes (Nielsen & Bertelsen 1992), included 216 species of which 209 are recognized today, and 57 species have been added since then (Table 1, Fig 2). A few species that were included by Nielsen & Bertelsen (1992) are left out here due to lack of documentation (Notacanthus bonapartei Risso, 1840, Careproctus micropus (Günther, 1887), Paraliparis hystrix Merrett, 1983, Cottunculus sadko Essipov, 1937 and Lycodes rossi Malmgren, 1865) or taxonomic rearrangements (Arctogadus borisovi Dryagin, 1932 synonymized with Arctogadus glacialis (Peters, 1872)). Other earlier reported species left out here due to lack of documentation are Ruvettus pretiosus Cocco, 1833 (Anon 1966) and Centrolabrus exoletus (Linnaeus, 1758). The latter was reported by Fabricius (1780) from Greenland without locality, but not accepted by Reinhardt (1837) and for unknown reasons mapped off Northeast Greenland by Quignard & Pras (1986).

The largest recent contribution with 14 additional species mainly from deep waters is the book based on the R/V Shinkai Maru surveys (Okamura 1995; Table 1): Etmopterus princeps Collett, 1904; Rajella bigelowii Stehmann, 1978; Bathylaco nigricans Goode & Bean, 1896; Careproctus sp. (now identified as C. kidoi Knudsen & Møller, 2008); Rouleina attrita (Vaillant, 1888); Melanolagus bericoides (Borodin, 1929); Gyrinomimus sp. (now identified as G. myersi Parr, 1934); Nezumia bairdii (Goode & Bean, 1877);
Halargyreus johnsonii Günther, 1862; Lumpenella longirostris (Evermann & Goldsborough, 1907); Lycodes luetkenii Collett, 1880; Danaphryne nigrifilis (Regan & Trewavas, 1932); Melanocetus murrayi Günther, 1887; Linophryne algibarbata Waterman, 1939.

**FIGURE 3.** Number of species in the four major regions in Greenland waters, November 2009.

**FIGURE 4.** Distribution of the 269 fish species known from Greenland waters. Each species is classified as very rare, < 5 records; rare, 6–50 records, or common, > 50 records.
TABLE 1. Fish species added to the Greenland fauna since Nielsen & Bertelsen (1992).

<table>
<thead>
<tr>
<th>Species</th>
<th>Year</th>
<th>Region</th>
<th>Depth, m</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Argyroplecus gigas</em> Norman, 1930</td>
<td>1998-2004</td>
<td>SW</td>
<td>418-1202</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Bathytroctes microlepis</em> Günther, 1878</td>
<td>2004</td>
<td>SE</td>
<td>1477-1508</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Centroscymnus coelolepis</em> Bocage &amp; Capello, 1864</td>
<td>2007-2009</td>
<td>NW, SE</td>
<td>886-1275</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Ceratoscopeus maderensis</em> (Lowe, 1839)</td>
<td>2009</td>
<td>SW</td>
<td>226</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Coryphaenoides mediterraneus</em> Giglioli, 1893</td>
<td>1998</td>
<td>SE</td>
<td>1455</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Dissostichus eleginoides</em> Smitt, 1898</td>
<td>2000</td>
<td>SW</td>
<td>1330</td>
<td>Møller et al. (2003)</td>
</tr>
<tr>
<td><em>Einarad edentula</em> (Alcock, 1892)</td>
<td>1997, 2009</td>
<td>SW</td>
<td>956-1195</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Entelurus aequoreus</em> (Linnaeus, 1758)</td>
<td>2005-2007</td>
<td>SW</td>
<td>0-168</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Epigonus telescopus</em> (Risso, 1810)</td>
<td>2002</td>
<td>SE</td>
<td>1015-1375</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Harriotta raleighana</em> Goode &amp; Bean, 1895</td>
<td>2007</td>
<td>SE</td>
<td>1000-1240</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Helicolenus dactylopterus</em> (Delaroche, 1809)</td>
<td>1996-1998</td>
<td>SW, SE</td>
<td>220-242</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Hydrolagus pallidus</em> Hardy &amp; Stehmann, 1990</td>
<td>1992</td>
<td>SW</td>
<td>1336</td>
<td>Møller (2001c)</td>
</tr>
<tr>
<td><em>Guttigadus latifrons</em> (Holt &amp; Byrne, 1908)</td>
<td>2004</td>
<td>SE</td>
<td>817</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Linophrane bicornis</em> Parr, 1927</td>
<td>2009</td>
<td>SW</td>
<td>1428</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Lophius piscatorius</em> Linnaeus, 1758</td>
<td>2007-2009</td>
<td>SW, SE</td>
<td>281-526</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Mauropiclus muelleri</em> (Gmelin, 1789)</td>
<td>1997-2009</td>
<td>SW</td>
<td>173-1119</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Melanotomias bericoideus</em> (Borodin, 1929)</td>
<td>1995</td>
<td>SW</td>
<td>1089-1130</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Melanostomias bartonbeani</em> Parr, 1927</td>
<td>2005</td>
<td>SW</td>
<td>316</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Merlangius merlangus</em> (Linnaeus, 1758)</td>
<td>2004-2007</td>
<td>SW</td>
<td>12-150</td>
<td>ZMUC</td>
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<tr>
<td><em>Nansenida oblita</em> (Facciolà, 1887)</td>
<td>2009</td>
<td>SW</td>
<td>360</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Polyiptus asteroides</em> Schultz, 1938</td>
<td>1997-2009</td>
<td>SW</td>
<td>427-1162</td>
<td>ZMUC</td>
</tr>
<tr>
<td><em>Polymetme corythaeola</em> (Alcock, 1898)</td>
<td>2004</td>
<td>SW</td>
<td>360</td>
<td>ZMUC</td>
</tr>
</tbody>
</table>

Caught before 1992

<table>
<thead>
<tr>
<th>Species</th>
<th>Year</th>
<th>Region</th>
<th>Depth, m</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aphanopus carbo</em> Lowe, 1839</td>
<td>1887-2008</td>
<td>SW, SE</td>
<td>396-1025</td>
<td>Collett (1887)</td>
</tr>
</tbody>
</table>
Nineteen species (Harriotta raleighana Goode & Bean, 1895; Centroscymnus coeleoplis Bocage & Capello, 1864; Bathyroctes microlepis Günther, 1878; Einara edentula (Alcock, 1892); Ceratoscopelus maderensis (Lowe, 1839); Maurolicus muelleri (Gmelin, 1789); Argyropelecus gigas Norman, 1930; Polyipnus asteroides Schultz, 1894; Nansenia oblita (Facciolà, 1887); Melanostomias bartonbeani Parr, 1927; Halargyreus johnsonii Günther, 1862; Lampris guttatus (Brünnich, 1788); Linophryniformes; Bathytroctes microlepis (Günther, 1878); Einara edentula (Alcock, 1892); Ceratostomias maderensis (Lowe, 1839); Maurolicus muelleri (Gmelin, 1789); Argyropelecus gigas (Norman, 1930); Polyipnus asteroides (Schultz, 1894); Nansenia oblita (Facciolà, 1887); Melanostomias bartonbeani (Parr, 1927); Halargyreus johnsonii (Günther, 1862); Lampris guttatus (Brünnich, 1788); Linophryniformes; Bathytroctes microlepis (Günther, 1878); Einara edentula (Alcock, 1892); Ceratostomias maderensis (Lowe, 1839); Maurolicus muelleri (Gmelin, 1789); Argyropelecus gigas (Norman, 1930); Polyipnus asteroides (Schultz, 1894); Nansenia oblita (Facciolà, 1887); Melanostomias bartonbeani (Parr, 1927)) are reported here for the first time (Table 1).

Twenty-nine of the 57 species were actually caught before 1992 (Table 1), but were not included for a number of reasons, but mainly due to lack of access to frozen specimens. Four species (Aphanopus carbo Lowe, 1839, Lampris guttatus (Brünnich, 1788), Lycodonomorphidae Goode & Bean, 1883 and Leiognathus elongatus (Günther, 1878)) reported by Collett (1887), Lütken (1875), Jensen (1952a) and Badcock (1984), respectively, were overlooked by Nielsen & Bertelsen (1992). The remaining 27 species caught before 1992, have appeared in the literature later as a result of taxonomic revisions, including description of nine species new to science: Lycodes adolfi Nielsen & Fossà, 1993; Lycodes paamiuti Møller, 2001b; Psednos

TABLE 1. (continued)

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Year</th>
<th>Region</th>
<th>Depth, m</th>
<th>Source</th>
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</thead>
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<tr>
<td>Lampris guttatus</td>
<td>1867-2005</td>
<td>SW</td>
<td>?</td>
<td>Lütken (1875)</td>
</tr>
<tr>
<td>Lympenella longirostris</td>
<td>Ca. 1990</td>
<td>SW</td>
<td>734</td>
<td>Møller (1999)</td>
</tr>
<tr>
<td>Lycenchelys paullus</td>
<td>1895-2009</td>
<td>SW</td>
<td>414-1250</td>
<td>Jensen (1902)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Møller (1999)</td>
</tr>
<tr>
<td>Lycoodes paamiuti</td>
<td>1988-2009</td>
<td>SW, NW</td>
<td>337-1337</td>
<td>Møller (2001b)</td>
</tr>
<tr>
<td>Lycodonomorphidae</td>
<td>1928-2009</td>
<td>SW, NW</td>
<td>600-1500</td>
<td>Jensen (1952a)</td>
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<tr>
<td>Nezumia bairdii</td>
<td>1909-2009</td>
<td>SW</td>
<td>500-1255</td>
<td>Jensen (1926)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Karrer (1973)</td>
</tr>
<tr>
<td>Psednos gelatinosus</td>
<td>1985</td>
<td>SW</td>
<td>0-650</td>
<td>Chernova (2001)</td>
</tr>
</tbody>
</table>
groenlandicus Chernova, 2001; Psednos micruroides Chernova, 2001; Psednos gelatinosus Chernova, 2001; Psednos melanocephalus Chernova & Stein, 2002; Phyllophromichthys balushkini Pietsch, 2004; Myxine jespersenae Møller et al., 2005; Careproctus kidoi Knudsen & Møller, 2008 or simply by identification or re-identification of older museum specimens (Table 1). Twenty-eight of the 57 species were caught for the first time in Greenland waters since 1992, of which only one (Lycodes mcallisteri Møller, 2001a) has its main distribution in the Arctic—i.e. North of the Davis Strait. There is no doubt that the discovery of this species as well as a few other recently described Arctic species (L. adolfi, C. kidoi) is a result of increased deep-water fishing in the Baffin Bay, and not a recent immigration (Møller 2001a, Knudsen & Møller 2008).

By far, most of the new species and records in Greenland waters are from the “warm” south Greenland waters. The southern parts of the Greenland EEZ are open to the rest of the Atlantic Ocean, without barriers, other than deep water. Less deep, slope habitat corridors, are present from the continents and the Mid-Atlantic Ridge, so in theory a large fraction of the Atlantic fish fauna could end up in Greenland waters. The fishing and survey effort have increased considerably in waters down to 1500–2000 m since 1988 (Okamura 1995), so it is not surprising that many new species have been recorded. The deepest waters of Greenland (> 1500 m), however, are still almost completely unstudied. There seems to be no decline in the rate of new fish records from Greenland waters and with future exploration of the deepest parts, the total number are likely to grow considerably.

**Species that may have arrived since 1992 due to temperature rise**

The shallow waters of Greenland have been intensively fished for more than a century so it is relatively safe to conclude that any unknown species of fish occurring in today’s catches are in fact new in the area. Since the latest list of all Greenland fishes was compiled (Nielsen & Bertelsen 1992) nine species (Barbantus curvifrons (2001, SE), Ceratoscopelus maderensis (2009, SW), Maurolicus muelleri (1997–2009, SW), Nansenia oblita (2009, SW), Melanostomias bartonbeani (2005, SW), Merlangius merlangus (2004–2007, SW), Helicolenus dactylopterus (1996–1998, SE, SW), Lophius piscatorius (2007–2009, SE, SW), Entelurus aequoreus (2005–2007, SW) have been caught in shallow waters (<400 m) (Table 1). Except for Barbantus curvifrons (Jónsson & Pálsson 2006), Ceratoscopelus maderensis, Nansenia oblita and Melanostomias bartonbeani, that are bathypelagic species caught only once, all have been caught more than once and seem not to be single, stray specimens. They are common in Iceland and Northern European waters, and it seems likely that they have been recruited from Iceland via the Irminger and West Greenland currents, which is a well documented route for Gadus morhua (Wieland & Hovgård 2002, Hovgård & Wieland 2008). It is likely that the occurrence of these species within the last ca. 10 years in Greenland waters can be explained by increasing temperatures, which also cause growing stocks of commercial boreal species such as Gadus morhua and Melanogrammus aeglefinus (Stein 2007). Higher temperatures were also seen in the 1920s to 40s, without these species being recorded. In recent years the temperature has raised to a level even higher than in the 1920s–40s, so it is tempting to conclude that rising temperature is causing new species to enter Greenland waters. The relation between increasing water temperature and increase in number of species has, however, not yet been fully analysed and documented.

Expansion of distribution range has been noted and related to increasing temperatures for Entelurus aequoreus caught off Svalbard (Fleischer et al. 2007). Microstomus kitt, which has been caught almost annually since 1982 by German R/V Walther Herwig fisheries surveys (O. H. Fock pers. comm. December 2007), was reported by Rätz (1999), and was thus unknown to Nielsen & Bertelsen (1992). It is found in shallow water on the South-East coast, where little survey activity is conducted by the GINR. It is common off Iceland and may be following the same route as the above-mentioned species in warm periods.

In the 1920s–40s increasing temperatures resulted in the immigration of several warm water species (Jensen 1939), and some of those (e.g. Melanogrammus aeglefinus and Micromesistius poutassou) are now relatively common members of the Greenland fish fauna. The future will tell us if the observed new records of “warm water” species represent real immigrations that will last and perhaps even develop into commercial fisheries on attractive species such as Lophius piscatorius or if they will remain rare in Greenland waters.
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Checklist

Myxinidae (En-hagfish, Da-slimål, Gr-ivik)
Barbels around mouth. Many mucus producing glands on sides of body. Worldwide about 70 species in all cold and temperate zones (Nelson 2006). Two species in Greenland waters.

Myxine glutinosa Linnaeus, 1758
En-common hagfish, Dk-almindelig slimål, Gr-ivik
**Remarks:** Records of *M. glutinosa* from depths more than ca. 800 m are likely to be *M. jespersenae* (Møller et al. 2005) that have been misidentified. Western Atlantic population is sometimes named *M. limosa* (Wisner & McMillan 1995, Mok 2001), but since the differences between this taxa and *M. glutinosa* are still unclear, the latter name is used here.
**Literature:** Fernholm & Vladykov (1984: 68), Martini & Flescher (2002: 10).

Myxine jespersenae Møller et al., 2005 (Fig. 5)
En-Jespersen’s hagfish, Dk-Jespersens slimål, Gr-Jespersens ivik
**Greenland distribution:** SW, SE, rare, spawning, benthic, ca. 750–1550 m (Møller et al. 2005: 275, ZMB, ZMUC). Elsewhere found off southern Iceland.
**Remarks:** The holotype is from Greenland waters. *Myxine jesperseni* was reported as *M. glutinosa* or *M. ios* Fernholm, 1981 in literature before 2005 (Karrer 1973: 73, Møller 2001c, Treble 2002, Jørgensen 2003). The latter species does not appear to occur in Greenlandic waters.
**Literature:** Møller et al. (2005: 274).

Petromyzontidae (En-lampreys, Da-lampretter, Gr-lampretter)
Seven round gill openings on each side, circular mouth armoured with rings of horny teeth. Juveniles, which live buried in mud, are called prides. All the ca. 34 known species spawn in freshwater, but many are migratory like the salmon and reach maturity in salt water. About half of the species are parasitic on other fish (Nelson 2006). One species recorded from Greenland waters.

Petromyzon marinus (Linnaeus, 1758)
En-sea lamprey, Dk-havlampret, Gr-havlampret
Greenland distribution: SW, SE, very rare, guest. Known from 3 specimens attached to a ship off Cape Farewell in August 1923. One of the specimens was sent to the Zoological Museum in Trondheim, Norway (Jensen 1926: 101, Jensen 1941a: 57, Muus 1981: 31, Nielsen & Bertelsen 1992: 6). Recently, seven specimens were caught between Greenland and Iceland in August and September 2008, by R/V Paamiut (one at 65°32'N, 29°47'W, 459 m, 24 August 2008; one at 65°28'N, 32°18'W, 709 m, 4 September 2008; three at 64°58'N, 34°28'W, 759 m, 5 September 2008 and two at 64°22'N, 35°19'W, 376 m, 3 September 2009 – ZMUC P02372-373). Elsewhere found at both sides of the North Atlantic.

Remarks: Lütken (1875: 122) included Lampetra fluviatilis (Linnaeus, 1758) in his list of Greenland fishes, based on four specimens (ZMUC 47, 48, 116, 117) labeled “Greenland - 19 October 1839”. Jensen (1941a: 57) regarded the specimens mislabeled, so L. fluviatilis is not included here.


Scyliorhinidae (En-catsharks, Da-rødajer, Gr-rødajer)
First dorsal fin placed above or behind basis of pelvic fins. Spiracles and anal fin present. Spines and keels absent. Most produce egg-capsules, but a few are viviparous. Represented in all oceans, except polar waters, with more than 120 species (Nelson 2006). One species in Greenland waters.

Apristurus laurussonii (Saemundsson, 1922)
En-Iceland catshark, Dk-islandsk kattehaj, Gr-islandsk kattehaj

Greenland distribution: SE, SW, very rare, guest, depth 800–1413 m. Known from two specimens from Denmark Strait, 65°13'N, 33°83'W, 28 June 1999, ZMUC P6205 and 62°21'N, 40°23'W, 3 July 2000, ZMUC P6209, and one specimen from Davis Strait, 62°06'N (discarded) (Jørgensen et al. 2005: 1850). Elsewhere found at both sides of the North Atlantic.

Remarks: The species was first caught in Greenland waters in 1999, 77 years after it was described from Iceland waters. Also known from the Canadian part of the Davis Strait/ Labrador Sea.


Squalidae (En-dogfish sharks, Da-pighajer, Gr-pighajer)
Anterior dorsal fin placed above or behind pelvic fins. Spiracle present. Anal fin and keels on caudal peduncle absent. Anteriorly in both dorsal fins a stout, not grooved spine. The family contains about 10 species from all oceans (Nelson 2006). One species in Greenland waters.

Squalus acanthias Linnaeus, 1758
En-piked dogfish, Dk-pighaj, Gr-eqalussuaq kukilik


Remarks: There is no evidence for occurrence of this species off East Greenland. A breeding female from Maniitsoq/Sukkertoppen was reported by Jensen (1914).


Etmopteridae (En-lantern sharks, Da-lyshajer, Gr-lyshajer)
Both dorsal fins with grooved spine. Luminous organs often present. Caudal fin with subterminal notch. The family contains 41 species from all Oceans (Nelson 2006). Two species in Greenland waters.
**Centroscyllium fabricii** (Reinhardt, 1825)
En-black dogfish, Dk-Fabricius’ sorthaj, Gr-eqalussuaq qernertoq


**Remarks:** This is the most common shark in Greenland waters.


**Etmopterus princeps** Collett, 1904
En-great lanternshark, Dk-lyshaj, Gr-lyshaj

**Greenland distribution:** SE, very rare, guest, pelagic, 689 m. Known from a single specimen caught in Denmark Strait at 64°59'N, 34°18'W, 689 m, July 5, 1988, FUMT-P21374 (Yano 1995b: 50). Elsewhere found on both sides of the North Atlantic.

**Remarks:** Common in Iceland waters.


**Somniosidae** (En-sleeper sharks, Da-havkale)
Dorsal fins absent or very small. Lateral ridge present on abdomen between pectoral and pelvic fins. The family contains about 17 species from all oceans (Nelson 2006). Two species in Greenland waters.

**Centroscymnus coelolepis** Bocage & Capello, 1864
En-Portuguese dogfish, Dk-portugisisk fløjlshaj, Gr-portugisisk fløjlshaj

**Greenland distribution:** NW, SE, very rare, breeding, benthic, 886–1275 m. Known from four specimens caught in Denmark Strait, two at 63°26'N, 38°28'W, 5–6 June 2007, ZMUC P07164-65 and one at 62°15'N, 40°30'W, 954 m, 14 August 2009, ZMUC P07192. One extra specimen was caught in Denmark Strait between May and June 2007 on the same trip as P07164-65, but was not preserved. A breeding female was caught and photographed in the southern Baffin Bay, 69°44'2''N, 59°24'6''W, 22 September 2007. Elsewhere known from both sides of the Atlantic and the Mediterranean.

**Remarks:** It was much unexpected to find this shark as far north as the Baffin Bay. Unfortunately, the specimen from Baffin Bay was lost during the transportation to Denmark, but the photograph from the vessel is good enough for identification.


**Somniosus microcephalus** (Bloch & Schneider, 1801)
En-Greenland shark, Dk-havkal or grønlandshaj, Gr-eqalussuaq or niialingaq


**Remarks:** The depth of occurrence is negatively correlated with latitude (Yano et al. 2007).


**Lamnidae** (En-mackerel sharks, Da-sildehajer, Gr-sildehajer)
Distinct keels on caudal peduncle and few, large teeth. Gill rakers absent. The family contains five species, represented in all oceans (Nelson 2006). One species in Greenland waters.
**Lamna nasus** (Bonnaterre, 1788)
En-porbeagle, Dk-sildehaj, Gr-sildehaj

**Greenland distribution:** SW, very rare, guest, pelagic. Known from a few specimens from Sisimiut, 1964 and Manitsoq (Muus 1981: 37, Nielsen & Bertelsen 1992: 6). Elsewhere found in the Atlantic and southern Pacific.

**Remarks:** Data on *L. nasus* from Greenland is very scarce and to our knowledge it is not recorded since 1981.


**Cetorhinidae** (En-basking sharks, Da-brugder, Gr-brugder)

Five large gill openings, extending on to upper surface of head. Teeth very small. Numerous long gill rakers. A strong keel present on each side of caudal peduncle. A single species in boreal, temperate and warm temperate seas of both hemispheres (Nelson 2006).

**Cetorhinus maximus** (Gunnerus, 1765b)
En-basking shark, Dk-brugde, Gr-eqalussuarsuaq

**Greenland distribution:** SW, SE, very rare, guest, pelagic. Known from a few specimens, including a 8 m long specimen from the Godthåbsfjord in August 1951 (Lütken 1875: 122, Hansen 1953: 188, Muus 1981: 38, Nielsen & Bertelsen 1992: 6). Elsewhere found in Atlantic, Indian and Pacific Oceans.


**Rajidae** (En-rays and skates, Da-ægte rokker, Gr-ægte rokker)


**Amblyraja hyperborea** Collett, 1879
En-Arctic skate, Dk-arktisk rokke, Gr-issittup tarraleqisaava


**Remarks:** A detailed comparison of North Atlantic and South Pacific specimens is needed.

**Literature:** Stehmann & Bürkel (1984: 174).

**Amblyraja jenseni** Bigelow & Schroeder, 1950
En-Jensen’s skate, Dk-Jensens rokke, Gr-Jensens rokke

**Greenland distribution:** SW, SE, very rare, guest, benthic, 1950–2000 m. Known from a single specimen from Davis Strait 62°55'N, 58°00'W, 13 September 1974, ZMB 23702 and one from the Denmark Strait 64°47'N, 32°38'W, 14 September 1973 (Karrer 1976: 371, Nielsen & Bertelsen 1992: 8). Elsewhere found in the western North Atlantic and on the Mid-Atlantic Ridge.

**Literature:** Scott & Scott (1988: 45), Sulak *et al.* (2009: 7).

**Amblyraja radiata** Donovan, 1808
En-thorny skate, Dk-tærbe, Gr-agdlernaaq

Bathyraja spinicauda (Jensen, 1914)
En-spinetail ray, Dk-tornhalet rokke, Gr-taqqalerisaaq

Remarks: Often confused with Rajella bathyphila, which is likely to be the case for the specimen shown in Nakaya (1995, HUMZ 118864).


Dipturus linteus (Fries, 1838b)
En-sailray, Dk-hvidrokke, Gr-hvidrokke

Remarks: Often confused with Dipturus linteus (see above).


Malacoraja spinacidermis (Barnard, 1923)
En-roughskin skate, Dk-lodden rokke, Gr-lodden rokke

Remarks: Known from more than 15 specimens from Davis Strait, but only two from Denmark Strait.


Rajella bathyphila Holt & Byrne, 1908
En-deepwater ray, Dk-dybhavsrøkke, Gr-dybhavsrøkke

Remarks: Color very variable from white to gray. Often confused with Dipturus linteus (see above).


Rajella bigelowi Stehmann, 1978 (Fig. 6)
En-Bigelow’s ray, Dk-Bigelow’s rokke, Gr-Bigelow’s rokke

Remarks: Known from less than 15 specimens from Davis Strait.


Rajella fyllae Lütken, 1887
En-round ray, Dk-Fyllas rokke, Gr-Fyllas rokke

**Literature:** Stehmann & Bürkel (1984: 192).

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**FIGURE 6.** *Rajella bigelowi*, ZMUC P08475, Davis Strait, 30 September 1999. Drawing Birgitte Rubæk.

**Chimaeridae** (En-Shortnose chimaeras, Da-kortnæsede havmus, Gr-kortnæsede havmus)

Operculum (gill cover) covering the four gill slits; males with a movable, club-shaped outgrowth on head; first dorsal fin tall and short with first dorsal fin ray modified into a long barbed poisonous spine. The family contains 22 species, in all oceans except polar waters (Nelson 2006). Three species in Greenland waters.

**Chimaera monstrosa** Linnaeus, 1758

En-rabbit fish, Dk-havmus, Gr-havmus

**Greenland distribution:** SE, very rare, spawning, benthic, depth 900 m. A juvenile specimen known from Greenland waters, 62°09’N, 40°35’W, 25 June 2002, ZMUC P0958 (Møller et al. 2004: 56). Elsewhere found in the Northeastern Atlantic.


**Hydrolagus affinis** (Capello, 1868)

En-smalleyed rabbitfish, Dk-småøjet havmus, Gr-småøjet havmus


**Remarks:** A 140 mm juvenile indicates spawning in Greenland waters (Møller et al. 2004).

**Literature:** Stehmann & Bürkel (1984: 214), Hardy & Stehmann (1990: 229).

**Hydrolagus pallidus** Hardy & Stehmann, 1990

En-no name, Dk-bleg havmus, Gr-bleg havmus
Greenland distribution: SW, very rare, guest, benthic, 1336 m. A single female known from Davis Strait, 63°11′N, 54°23′W, 11 August 1992, ZMUC P0949 (Møller 2001c: 38, Møller et al. 2004: 59). Elsewhere found on both sides of the North Atlantic and on the Mid-Atlantic Ridge.


Rhinochimaeridae (En-longnose chimaeras, Da-langsnude havmus, Gr-langsnude havmus)

Snout long and pointed. Lateral line canals are open grooves. The family contains eight species, found in all oceans, except polar waters (Nelson 2006). Three species in Greenland waters.

Harriotta haeckeli Karrer, 1972
En-smallspine spookfish, Dk-langsnudet havmus, Gr-langsnudet havmus


Harriotta raleighana Goode & Bean, 1895
En-narrownose chimaera, Dk-smalsnudet havmus, Gr-smalsnudet havmus

Greenland distribution: SE, very rare, guest, benthic, 1000–1240 m. Known from two specimens from Denmark Strait, 63°26′N, 38°26′W, 10 June 2007, ZMUC P0980, and 63°25′N, 38°27′W, 1017-1236, 10 June 2007, ZMUC P0981. Elsewhere found in the Atlantic Ocean and in the Southwestern Pacific.


Rhinocichimaera atlantica Holt & Byrne, 1909 (Fig. 7)
En-spearnose chimaera, Dk-spydnæset havmus, Gr-spydnæset havmus

Greenland distribution: SE, rare, guest, benthic, 400–1500 m (Møller et al. 2004: 59 - ZMUC). Elsewhere found in both sides of the North Atlantic.


Halosauridae (En-halosaurids, Da-havøglefisk, Gr-havøglefisk)

Slender fish with long tail, depressed snout and inferior mouth, large scales and short, softrayed dorsal fin placed midway between pectoral and pelvic fins. Occurs in all oceans on or near the bottom at 400–5000 m. Known from 15 species (Nelson 2006). One in Greenland waters.

Aldrovandia phalacra (Vaillant, 1888)
En-Hawaiian halosaurid fish, Da-skaldet havøglefisk, Gr-skaldet havøglefisk
Greenland distribution: SW, very rare, guest, 1181 m. One specimen caught off West Greenland at 63°41'N, 55°03'W, 5 October 1988, HUMZ 113685 (Okamura & Takahashi 1995: 63). Elsewhere known from all oceans, except polar waters.


Notacanthidae (En-spiny eels, Da-pigål, Gr-pigål)
Slender fish with long tail, inferior mouth and spines in dorsal and anterior part of anal fins. Occurs in all oceans and lives on or near the bottom at 125–3500 m. Known from 10 species (Nelson 2006). Two in Greenland waters.

Notacanthus chemnitzi Bloch, 1788
En-Chemnitz’s spiny eel, Da-Chemnitz pigål, Gr-Chemnitz pigål

Remarks: The presence of Notacanthus bonapartei in Greenland waters as indicated by Sulak (1986) and Nielsen and Bertelsen (1992) could not be confirmed, so it is not included here.


Polyacanthonotus rissoanus De Filippi & Verany, 1857
En-smallmouth spiny eel, Da-savrygget pigål, Gr-savrygget pigål


Anguillidae (En-freshwater eels, Da-ferskvandsål, Gr-ferskvandsål)
Minute scales, small gill opening, complete lateral line. Known from 15 species, mostly catadromous (Nelson 2006). One species in Greenland waters.

Anguilla rostrata (LeSueur, 1817)
En-American eel, Dk-Amerikansk ål, Gr-Nimeriak

Remarks: Three specimens caught 23 July 2005 in Qassimiut near Qaqortoq/ Julianehåb were the first recorded since 1965.


Synaphobranchidae (En-cutthrout eels, Da-dybhavsål, Gr-dybhavsål)
Slender fish with gill openings low on body, at or below insertion of pectoral fin. Found in all oceans, except polar waters. Known from 32 species (Nelson 2006). Two in Greenland waters.

Histiobranchus bathybius (Günther, 1877)
En-deepwater arrowtooth eel, Da-butsnudet dybhavsål, Gr-butsnudet dybhavsål
Greenland distribution: SW, very rare, guest, 2700–3250 m. Two specimens caught by the Danish Ingolf Expedition in 1895 in the Davis Strait, 61°50’N, 56°02’W, 28 July 1895, ZMUC P321002 and 60°17’N,
Synaphobranchus kaupi Johnson, 1862
En-Kaup’s arrowtooth eel, Da-spidssnudet dybhavsål, Gr-spidsnudet dybhavsål

Nemichthyidae (En-snipe eels, Da-sneppeål, Gr-sneppeål)
Very elongate fish with a long caudal filament, origin of dorsal fin anterior to that of anal fin and tips of jaws are bent outwards. Occurs deep pelagically in all oceans down to about 2000 m. Known from nine species (Nielsen & Smith 1978). Two species in Greenland waters.

Avocettina infans ( Günther, 1878)
En-avocet snipe eel, Da-korthalet sneppeål, Gr-korthalet sneppeål
Greenland distribution: SW, very rare, guest, pelagic, 365–530 m. Known from one specimen caught 20 nautical miles off Qaqortoq, Julianehaabfjord, 16 April 1990, ZMUC P312688 (Nielsen & Bertelsen 1992: 4). Elsewhere found in all oceans, except polar waters.

Nemichthys scolopaceus Richardson, 1848
En-slender snipe eel, Da-langhalet sneppeål, Gr-langhalet sneppeål
Remarks: In 2007 the Greenland R/V Paamiut caught a 139 cm specimen at 65°26.9’N, 31°33’W - a world record.

Serrivomeridae (En-sawtoothed eels, Da-næbål, Gr-næbål)

Serrivomer beani Gill & Ryder, 1883
En-Bean’s sawtoothed eel, Da-Beans næbål, Gr-Beans næbål

Cyemidae (En-bobtail snipe eel, Da-korthalet ål, Gr-korthalet ål)
Small, compressed, velvet-black fish with pointed jaws and with origin of dorsal and anal fins behind midpoint of fish. Occurs deep pelagically in all oceans down to 5100 m. Known from two species (Nelson 2006). One in Greenland waters.
*Cyema atrum* Günther, 1878  
En-bobtail snipe eel, Da-korthalet ål, Gr-korthalet ål  
**Greenland distribution:** SE, very rare, guest, caught pelagically in 400 m over 2100 m bottom depth. One specimen caught during the “Overflow” expedition in the Denmark Strait 62°65'N, 33°75'W, 20 September 1973, ISH 346-1973 (Nielsen & Bertelsen 1992: 16). Elsewhere found in all oceans, except polar waters.  

*Saccopharyngidae* (En-gulper eels, Da-slugål, Gr-slugål)  
Black deep-sea fish with a large mouth and an extremely long, tapering tail ending in a light organ. Occurs pelagically in all oceans down to ca. 3000 m. Known from 10 species (Bertelsen & Nielsen 1986). One species in Greenland waters.  

*Saccopharynx ampullaceus* (Harwood, 1827)  
En-gulper eel, Da-almindelig slugål, Gr-almindelig slugål  
**Remarks:** The holotype was found floating at the surface in Davis Strait (about 62°N, 57°W) in the autumn of 1826.  
**Literature:** Bertelsen & Nielsen (1986: 531).  

*Eurypharyngidae* (En-pelican eels, Da-pelikanål, Gr-pelikanål)  
Black deep-sea fish with an enormous mouth that reaches behind origin of dorsal fin and a long tapering tail ending in a light organ. Occurs pelagically in all oceans from 500–3000 m. Only known from one species (Nielsen *et al.* 1989).  

*Eurypharynx pelecanoides* Vaillant, 1888  
En-pelican eel, Da-pelikanål, Gr-pelikanål  
**Literature:** Nielsen & Bertelsen (1986: 534).  

*Clupeidae* (En-herrings, Da-sildefamilien, Gr-sildefamilien)  
Silvery with large scales and a sharp ventral line, no lateral line and pelvic fins placed far back below dorsal fin. Occurs often in large, near-shore, pelagic schools in all oceans, but mainly in the tropics. Known from 188 species (Nelson 2006). One in Greenland waters.  

*Clupea harengus* Linnaeus, 1758  
En-Atlantic herring, Da-atlantisk sild, Gr-atlantikup ammassassuaa  

*Argentinidae* (En-argenties, Da-guldalaksfamilien, Gr-guldalaksfamilien)  
Elongate, silvery fish with a small mouth, a large eye equal to snout length, distinct lateral line, pelvic fins placed below dorsal fin and an adipose fin placed above anal fin. Occurs in deep pelagic or near-bottom schools. Known from 23 species in all oceans (Nelson 2006). One species in Greenland waters.
**Argentina silus** (Ascanius, 1775)
En-larger argentine, Da-almindelig guldlaks, Gr-almindelig guldlaks


**Literature:** Cohen (1984: 387).

**Microstomatidae** (En-pencilsmelts, Da-blyantsmeltfamilien, Gr-blyantsmeltfamilien)
A diverse family of mesopelagic fishes. Eye large, more than twice the length of snout in most species, mouth small, dorsal fin origin well behind midpoint of body, adipose fin present or absent.
Known from about 38 species, in all oceans (Nelson 2006). Three species in Greenland waters.

**Bathylagus euryops** Goode & Bean, 1896
En-goiter blacksmelt, Da-almindelig sortsmelt, Gr-almindelig sortsmelt


**Remarks:** Needs revision.

**Literature:** Cohen (1984: 393).

**Melanolagus bericoides** (Borodin, 1929)
En-blacksmelt, Da-småøjet sortsmelt, Gr-småøjet sortsmelt

**Greenland distribution:** SW, rare, guest, deep pelagic over bottom depths 1089–1130 m (Amaoka 1995: 71 - BSKU, ZMUC). Elsewhere known from warmer parts of all oceans.

**Remarks:** Until recently assigned to the genus *Bathylagus*. Often confused with *Bathylagus euryops*. Revision needed.

**Literature:** Cohen (1984: 392).

**Nansenia groenlandicus** (Reinhardt, 1840)
En-Greenland argentine, Da-sølvsmelt, Gr-sølvsmelt


**Literature:** Cohen (1984: 391).

**Nansenia oblita** (Facciolà, 1887)
En-no name, Da-bredhalet sølvsmelt, Gr-bredhalet sølvsmelt

**Greenland distribution:** SW, very rare, guest, deep pelagic, 360 m. One specimen from Davis Strait, 60°06'N, 46°31'W, 1 August 2009, ZMUC P191778. Elsewhere known from the North Atlantic.

**Literature:** Cohen (1984: 391).

**Alepocephalidae** (En-slickheads, Da-glathovedfisk, Gr-glathovedfisk)
Body dark, head scaled, dorsal and anal fins placed near caudal fin. Teeth usually small or absent, long gillrakers. More than 90 species from all oceans (Nelson 2006). Eight species in Greenland waters.

**Alepocephalus agassizii** Goode & Bean, 1883
En-Agassiz' slickhead, Dk-Agassiz glathovedfisk, Gr-Agassiz glathovedfisk


*Alepocephalus bairdii* Goode & Bean, 1879a
En-Baird's smooth-head, Dk-Bairds glathovedfisk, Gr-Bairds glathovedfisk


*Bajacalifornia megalops* (Lütken, 1898)
En-bigeye smooth-head, Dk-storøjet glathovedfisk, Gr-storøjet glathovedfisk


*Bathylaco nigricans* Goode & Bean, 1896
En-black warrior, Dk-sort glathovedfisk, Gr-sort glathovedfisk

Greenland distribution: SW, very rare, guest, benthopelagic, 879 m. A single specimen from Davis Strait, 64°50.4'N, 56°03.5'W, 17 June 1990, BSKU 49221 (Nakamura & Okamura 1995: 76). Elsewhere found in the North Atlantic, eastern Pacific and Indian Oceans.

Remarks: Placed in a separate family Bathylaconidae in Nelson (2006), but recent molecular studies suggest that it is included in Alepocephalidae (Lavoué et al. 2008, Poulsen et al. 2009).


*Bathytroctes microlepis* Günther, 1878
En-smallscale smooth-head, Dk-småøjet glathovedfisk, Gr-småøjet glathovedfisk

Greenland distribution: SE, very rare, guest, benthopelagic, 1477–1508 m. One specimen from Denmark Strait, 62°13'N, 40°10'W, 20 June 2004, ZMUC P17776. Elsewhere found in all oceans, except polar waters.


*Einara edentula* (Alcock, 1892)
En-toothless smooth-head, Dk-tandløs glathovedfisk, Gr-tandløs glathovedfisk

Greenland distribution: SW, very rare, guest, benthopelagic, 956–1195 m. Three specimens from Davis Strait, 63°26'N, 55°06'W, 1142 m, 3 October 1997, ZMUC P17717; 64°18'N, 55°57'W, 956 m, 20 September 2009, ZMUC P17903 and 63°25'N, 55°56'W, 1195 m, 25 September 2009, ZMUC P17904. Elsewhere found in all oceans, except polar waters.


*Photostylus pycnopterus* Beebe, 1933
En-starry smooth-head, Dk-prikket glathovedfisk, Gr-prikket glathovedfisk

Greenland distribution: SW, SE, very rare, guest, pelagic, 701–1230 m. Known from three specimens from Davis Strait, 65°01'N, 55°06'W, 701 m depth, 20 August 1987, HUMZ 112331; 63°20'N, 54°47'W, 4 November 2004, ZMUC P17762 and 63°54'N, 54°48'W, 3 November 2004, ZMUC P17765 and one from Dohrn

**Literature:** Markle & Quéro (1984: 247).

**Rouleina attrita** (Vaillant, 1888)
En-softskin smooth-head, Dk-blødskindet glathovedfisk, Gr-blødskindet glathovedfisk

**Greenland distribution:** SW, SE, rare, guest, benthopelagic 834–1140 m (Nakamura & Okamura 1995: 77 - BSKU, ZMUC). Elsewhere found in all oceans, except polar waters.

**Literature:** Markle & Quéro (1984: 249), Mecklenburg et al. (2002: 166).

**Rouleina maderensis** Maul, 1948
En-Madeiran smooth-head, Dk-nøgen glathovedfisk, Gr-nøgen glathovedfisk


**Literature:** Markle & Quéro (1984: 249).

**Xenodermichthys copei** (Gill, 1884)
En-bluntsnout smooth-head, Dk-kortsnudet glathovedfisk, Gr-kortsnudet glathovedfisk


**Literature:** Markle & Quéro (1984: 252).

**Platytyroctidae** (En-tubeshoulders, Da-skulderlysfisk, Gr-skulderlysfisk)

**Barbantus curvifrons** (Roule & Angel, 1931)
En-palebelly searsid, Dk-blegbuget skulderlysfisk, Gr-blegbuget skulderlysfisk

**Greenland distribution:** SE, very rare, guest, benthopelagic, 320 m. A single specimen from Denmark Strait, 63°14'N, 32°46'W, 5 July 2001 (Jónsson & Pálsson 2006). Elsewhere found in all Oceans, except polar waters.

**Literature:** Quéro et al. (1984: 258).

**Holothyria anomala** Krefft, 1980
En-bighead searsid, Dk-storhovedet skulderlysfisk, Gr-storhovedet skulderlysfisk


**Literature:** Quéro et al. (1984: 259).

**Holothyria macrops** Maul, 1957
En-bigeye searsid, Dk-storøjet skulderlysfisk, Gr-storøjet skulderlysfisk


**Literature:** Quéro et al. (1984: 260).
Maulisia mauli Parr, 1960
En-Maul's searsid, Dk-Mauls skulderlysfisk, Gr-Mauls skulderlysfisk

Maulisa microlepis Sazonov & Golovan, 1976
En-smallscale searsid, Dk-småskællet skulderlysfisk, Gr-småskællet skulderlysfisk

Normichthys operosa Parr, 1951
En-multipore searsid, Dk-grubet skulderlysfisk, Gr-grubet skulderlysfisk

Platytroctes apus Günther, 1878
En-legless searsid, Dk-højrygget skulderlysfisk, Gr-højrygget skulderlysfisk
Greenland distribution: SW, SE, very rare, guest, benthopelagic, 300–950 m. Known from one specimen from Denmark Strait, 65°45'N, 30°00'W, 22 May 1992, ZMUC P17490 and one from Davis Strait 64°42'N, 55°52'W, August 1991, ZMUC P17452 (Nielsen & Bertelsen 1992: 14). Elsewhere found in all oceans, except polar waters.

Sagamichthys schnakenbecki (Krefft, 1953)
En-Schnakenbeck's searsid, Dk-Schnakenbecks skulderlysfisk, Gr-Schnakenbecks skulderlysfisk

Searsia koefoedi Parr, 1937
En-Koefoed's searsid, Dk-Koefoeds skulderlysfisk, Gr-Koefoeds skulderlysfisk

Osmeridae (En-smelts, Da-smeltfamilien, Gr-smeltfamilien)
Small, elongate fish with upper jaw ending below eye, short dorsal fin placed at midpoint of fish and long anal fin below adipose fin close to caudal fin. Occurs in salt- and freshwater on the northern hemisphere. Known from 31 species (Nelson 2006). One species in Greenland waters.
**Mallotus villosus** (Müller, 1776)  
En-capelin, Da-lodde, Gr-ammassat  


**Remarks:** Caught locally in spawning period. Exported e.g. to Denmark for petfood.  


**Salmonidae** (En-salmons, Da-laksefamilien, Gr-kapisiliafamilien)  
Large fish with spotted body, a well developed adipose fin above short anal fin and a fleshy flap above base of pelvic fin. Reproduce in freshwater and live during feeding period in salt water. Occur naturally on the northern hemisphere only. Known from ca. 66 species (Nelson 2006). Three species in Greenland waters.

**Oncorhynchus gorbuscha** (Walbaum, 1792)  
En-pink salmon, Da-pukkellaks, Gr-pukkellaks  


**Remarks:** Two Greenland specimens from 1969 might be strays form stocking in North Harbour River in New Foundland (Muus 1981).  


**Salmo salar** Linnaeus, 1758  
En-Atlantic salmon, Da-atlantisk laks, Gr-atlantikup kapisilia  


**Remarks:** Most Greenland specimens are migrants from North America and Europe (Pyefinch 1969).  


**Salvelinus alpinus** (Linnaeus, 1758)  
En-Arctic charr/char, Da-fjeldørred, Gr-eqaluk, kaporniangaq  


**Literature:** Svetovidov (1984: 383), Mecklenburg et al. (2002: 199).

**Gonostomatidae** (En-bristlemouths, Da-laksessildinger, Gr-laksesildinger)  
Small, slender, dark fish with tiny often indistinct lightorgans on ventral side of head and body. Mouth reaches far behind small eyes. Deep pelagic fishes known from all oceans. Known from 23 species (Nelson 2006), with four in Greenland waters.
Cyclothone braueri Jespersen & Tåning, 1926
En-Brauer’s bristlemouth, Da-Brauers rundflab, Gr-Brauers rundflab
Remarks: Apparently not recorded since 1928.

Cyclothone microdon (Günther, 1878)
En-veiled bristlemouth, Da-småtandet rundflab, Gr-småtandet rundflab

Gonostoma bathyphilum (Vaillant, 1888)
En-spark anglemouth, Da-stor laksesilding, Gr-stor laksesilding

Gonostoma elongatum Günther, 1878
En-elongated bristlemouth, Da-slank laksesilding, Gr-slank laksesilding
Greenland distribution: SE, very rare, guest, depth unknown. Elsewhere known from all oceans.
Remarks: This species was reported to occur in Greenland by Badcock (1984: 300), but no details of the record are available.

Sternopthyidae (En-hatchetfishes, Da-sølvøksefisk, Gr-sølvøksenimut)
Small, pelagic deepsea fish with silvery sides and large light organs. Body hight and compressed with a sharp ventral edge and oblique mouth except for the more elongate Maurolicus muelleri. Pelagic deep sea fishes from all oceans. Known from ca. 67 species (Nelson 2006), with seven in Greenland waters.

Argyropelecus gigas Norman, 1930
En-large hatchetfish, Da-stor sølvøkse, Gr-stor sølvøkse
Greenland distribution: SW, very rare, guest, deep pelagic, 418–1202 m. Known from three specimens caught in Davis Strait, 63°47'N, 54°57'W, 1202 m, 27 August 1993, ZMUC P209003; date and detailed position unknown, 1998, ZMUC P209084 and 64°46'N, 53°06'W, 418 m, 1 July 2004, ZMUC P2014821). Elsewhere found in northern Atlantic.

Argyropelecus hemigynus Cocco, 1829
En-halfnaked hatchetfish, Da-halvnøgen sølvøkse, Gr-halvnøgen sølvøkse
Greenland distribution: SW, SE, very rare, guest, deep pelagic, 322–1454 m. Known from three specimens caught off West Greenland, 63°20'N, 54°47'W, 1230 m, 4 November 2004, ZMUC P2014794, 66°23'N, 54°39'W, 322 m, 5 July 2004, ZMUC P2014833 and 60°05'N, 46°30'W, 360 m, 1 August 2009, ZMUC P2015135 and one from off East Greenland 65°13'N, 31°45'W, 1454 m, 26 June 1999, ZMUC P209063 (Nielsen & Bertelsen 1992: 20). Elsewhere found in all oceans.
Argyropelecus olfersi (Cuvier, 1829)
En-Olfer’s hatchetfish, Da-Olfers sølvøkse, Gr-Olfers sølvøkse

Maurolicus muelleri (Gmelin, 1789)
En-pearlsild, Da-laksesild, Gr-laksesild
Greenland distribution: SW, rare, guest, deep pelagic, 173–1119 m. Known from a few trawl stations between year 1997 and 2009 - ZMUC. Elsewhere found in the Atlantic and East Pacific Oceans.

Polyipnus asteroides Schultz, 1938
En-no name, Da-stjerne øksefisk, Gr-stjerne øksefisk

Polyipnus polli Schultz, 1961
En-Poll’s hatchetfish, Da-rund sølvøkse, Gr-rund sølvøkse

Sternoptyx pseudobscura Baird, 1971
En-highlight hatchetfish, Da-skæv sølvøkse, Gr-skæv sølvøkse

Phosichthyidae (En-lightfishes, Da-lysfisk, Gr-lysfisk)
Serial photophores with lumen and duct, adipose fin usually present, barbel on lower jaw absent. Occurs deep pelagically in all oceans. Known from 20 species (Nelson 2006), one in Greenland waters.

Polymetme corythaeola (Alcock, 1898)
En-rendezvous fish, Da-kontaktfisk, Gr-kontaktfisk
Greenland distribution: SW, very rare, guest, pelagic over bottom depth of 360 m. A single specimen from Davis Strait, 61°25’N, 50°19’W, 25 August 2004, ZMUC P2014824. Elsewhere found in all oceans, except polar waters.

Stomiidae (En-barbled dragonfishes, Da-boafisk, Gr-boafisk)

*Borostomias antarcticus* (Lönnberg, 1905)
En-large-eye snaggletooth, Da-antarktisk ulvekæft, Gr-antarktisk ulvekæft
**Greenland distribution:** SW, SE, common, spawning?, pelagic over bottom depths 320–1480 m (Nielsen & Bertelsen 1992: 20, Nielsen & Schwägermann 1995: 93 - BSKU, ZMUC). Elsewhere found in all oceans south of 35°S and north of 40°N.
**Literature:** Gibbs (1984: 331).

*Chauliodus sloani* Bloch & Schneider, 1801
En-Slone’s viperfisk, Da-Slones segltandfisk, Gr-Slones segltandfisk
**Literature:** Hartel & Craddock (2002: 191).

*Malacosteus niger* Ayres, 1848
En-stoplight loosejaw, Da-sort smalkæbefisk, Gr-sort smalkæbefisk
**Literature:** Gibbs (1984: 369).

*Melanostomias bartonbeani* Parr, 1927
En-Scaleless black dragonfish, Da-skælles dragekæftfisk, Gr-dragekæftfisk
**Greenland distribution:** SW, very rare, guest, pelagic over bottom depth 316 m. A single specimen caught in Davis Strait, 63°19’N, 52°39’W, 13 August 2005, ZMUC P2014829. Elsewhere known from all oceans.
**Literature:** Gibbs (1984: 358).

*Rhadinesthes decimus* (Zugmayer, 1911)
En-slim snaggletooth, Da-slankulvekæft, Gr-slankulvekæft
**Greenland distribution:** SE, very rare, guest, pelagic over bottom depth of 450 m. A single specimen caught in Denmark Strait, 66°14’N, 30°29’W, 450 m, 22 April 1991, ZMUC P208851 (Nielsen & Bertelsen 1992: 20). Elsewhere known from all oceans.
**Literature:** Gibbs (1984: 334).

*Stomias boa* (Risso, 1810)
En-scaly dragonfish, Da-boafisk, Gr-boafisk
Remarks: First record from Greenland was from Uummannaq in 1842 (Jensen 1948).


*Trigonolampa miriceps* Regan & Trewavas, 1930 (Fig 8)
En-threelight dragonfish, Da-tre-lys dragekæftfisk, Gr-tre-lys dragekæftfisk

**Greenland distribution:** SW, SE, very rare, guest, pelagic over bottom depths 580–1226 m. Three specimens from Davis Strait, 63°19'N, 54°53'W, 1226 m, 6 August 1991, ZMUC P208752; 65°44'N, 55°46'W, 580 m, 19 August 1994, ZMUC P208997 and position unknown, 3.9 2008, ZMUC uncat., and two specimens from Denmark Strait, BSKU (Nielsen & Bertelsen 1992: 4, Nielsen & Schwägermann 1995: 92). Elsewhere known from North Atlantic and Southern Ocean south of ca. 30°S.


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**FIGURE 8.** *Trigonolampa miriceps*, ZMUC uncat, Davis Strait, 3 September 2008. Photo JYP.

**Notosudidae** (En-waryfishes, Da-øglesmeltfamilien, Gr-øglesmeltfamilien)
Elongate fish with short dorsal fin placed at midpoint of fish, the longer anal fin placed far back below adipose fin, pectoral fin reaching pelvic fin and lateral line distinct. Occurs deep pelagically in all oceans. Known from 19 species (Nelson 2006), one in Greenland waters.

**Scopelosaurus lepidus** (Krefft & Maul, 1955)
En-blackfin waryfish, Da-nordlig øglesmelt, Gr-nordlig øglesmelt


**Synodontidae** (En-lizardfishes, Da-dybhavsøglefisk, Gr-dybhavsøglefisk)
Elongate fishes with long jaws ending far behind eyes and numerous long, pointed teeth. No adipose fin. Lives on the bottom in 1000–3500 m. Known from 57 species (Nelson 2006). One species in Greenland waters.
**Bathysaurus ferox** Günther, 1878
En-deepsea lizardfish, Da-dybhavsøglefisk, Gr-dybhavsøglefisk


**Literature:** Sulak (1984: 406).

**Scopelarchidae** (En-pearleye fishes, Da-perleøjefisk, Gr-perleøjefisk)
Elongate fish with large, upward-directed tubular eyes. Dorsal fin placed above pelvic fins and the long anal fin below adipose fin. Large lateral line scales. Occurs deep pelagically in all oceans. Known from 17 species (Nelson 2006), one in Greenland waters.

**Benthalbella infans** Zugmayer, 1911
En-Zugmayer’s pearleye, Da-Zugmauers perleøjefisk, Gr-Zugmayers perleøjefisk

**Greenland distribution:** SE, very rare, guest, pelagic over bottom depths 550–850 m. One specimen from Denmark Strait, 64°46’N, 34°18’W, June 2003 (Jónsson & Pálsson 2006: 138). Elsewhere found in all oceans.

**Literature:** Johnson (1984: 485)

**Paralepididae** (En-barracudinas, Da-lakstobiser, Gr-lakstobiser)
Elongate fish with a long, pointed snout, loose scales, a distinct lateral line and short dorsal fin placed well in front of the anal fin. Occurs deep pelagically in all oceans. Known from 56 species (Nelson 2006). Three species in Greenland waters.

**Arctozenus rissoi** (Bonaparte, 1840)
En-ribbon barracudina, Da-Rissos lakstobis, Gr-Rissoq lakstobis


**Magnisudis atlantica** (Krøyer, 1868)
En-duckbill barracudina, Da-kort lakstobis, Gr-kort lakstobis

**Greenland distribution:** SW, SE, rare, guest, pelagic over bottom depths 400–1215 m (Muus 1981: 56, Nielsen & Bertelsen 1992: 26, Post 1995: 97, BSKU, ZMUC. Elsewhere known from the Atlantic and North-Pacific Oceans.

**Literature:** Mecklenburg et al. (2002: 239).

**Paralepis coregonoides** Risso, 1820
En-sharpchin barracudina, Da-nordisk lakstobis, Gr-nordisk lakstobis


**Literature:** Post (1984: 505).

**Alepisauridae** (En-lancetfishes, Da-skalpelfisk, Gr-skalpelfisk)
Elongate fish with very long and high dorsal fin, several knifelike teeth and a large mouth ending well behind eyes. They reach 1–2 meter in length. Occurs deep pelagically in all oceans. Known from two species (Nelson 2006), both occurring in Greenland waters.
**Alepisaurus brevirostris** Gibbs, 1960
En-shortnose lancetfish, Da-kortsnudet skalpelfisk, Gr-kortsnuddet skalpfisk

**Greenland distribution:** SW, SE, very rare, guest, pelagic over bottom depths 300–1115 m. Known from five specimens from Lille Hellefiskebanke, 10 September 1975, ZMUC P2334533; 65°45'N, 30°00'W, 22 May 1992, ZMUC P2340955; 63°34'N, 54°23'W, 17 September 1990, ZMUC P2340949; 66°06'N, 57°17'W, 3 September 1993, ZMUC P2340977 and Godthåbsfjord 1995–98, ZMUC uncat. (Muus 1981: 57; Nielsen & Bertelsen 1992: 26). Elsewhere found in the western Atlantic and southern Pacific.

**Literature:** Post (1984: 494)

**Alepisaurus ferox** Lowe, 1833
En-longnose lancetfish, Da-langsnudet skalpelfisk, Gr-langsnudet skalpelfisk


**Anotopterus pharao** Zugmayer, 1911
En-daggertooth, Da-dolktandfisk, Gr-dolktandfisk


**Benthosema glaciale** (Reinhardt, 1837)
En-glacier lanternfish, Da-isprikfisk, Gr-isprikfisk


**Ceratoscopelus maderensis** (Lowe, 1839)
En-Madeira lanternfish, Da-Madeira prikfisk, Gr-Madeira prikfisk

**Greenland distribution:** SW, very rare, guest, pelagic over bottom depth 226 m. One specimen from Davis Strait, 67°25'N, 57°15'W, 24 June 2009, ZMUC P2393929. Elsewhere found in the North Atlantic and Mediterranean.

*Lampadena speculigera* Goode & Bean, 1896
En-mirror lanternfish, Da-spejlhalet prikfisk, Gr-spejlhalet prikfisk


**Literature:** Hulley (1984: 458).

*Lampamyctus crocodilus* (Risso, 1810)
En-jewel lanternfish, Da-krokodille-prikfisk, Gr-krokodille-prikfisk


*Lampamyctus intricarius* Tåning, 1928
En-diamondcheek lanternfish, Da-bredhalet prikfisk, Gr-bredhalet prikfisk


**Literature:** Hulley (1984: 463).

*Lampamyctus macdonaldi* (Goode & Bean, 1896)
En-rakery lanternfish, Da-Macdonalds prikfisk, Gr-Macdonalds prikfisk


**Literature:** Hulley (1984: 464).

*Myctophum punctatum* Rafinesque, 1810
En-spotted lanternfish, Da-slankhalet prikfisk, Gr-slankhalet prikfisk


*Notoscopelus kroeyeri* (Malm, 1861)
En-Kroeyer’s lanternfish, Da-Krøyers prikfisk, Gr-Krøyers prikfisk


**Literature:** Hulley (1984: 478).

*Protomyctophum arcticum* (Lütken, 1892)
En-Arctic telescope, Da-arktisk prikfisk, Gr-arktisk prikfisk

Remarks: The ZMUC collection holds only three samples, perhaps due to confusion with *Benthosema glaciale*.


**Lampridae** (En-opahs, Da-glansfisk, Gr-glansfisk)
Large, compressed, oval fish with small, protractile, toothless mouth and red fins. Occurs in warmer parts of all oceans. Known from two species (Nelson 2006), one in Greenland waters.

*Lampris guttatus* (Brünnich, 1788)
En-opah, Da-glansfisk, Gr-glansfisk
Greenland distribution: SW, very rare, guest, depth unknown. Two specimens from off Ivigtut 1867, 1892, ZMUC 76-77 and one from off Aasiaat 2005 (photo) (Lütken 1875: 115, Jensen 1926: 101). Elsewhere found in all oceans.


**Trachipteridae** (En-deal fishes, Da-vågmære, Gr-vågmære)
Large ribbon-like fish with long dorsal fin and a fan-shaped caudal fin. Body with 3–9 large, dark spots. Occurs pelagically in all oceans. Known from ca. 10 species (Nelson 2006), one in Greenland waters.

*Trachipterus arcticus* (Brünnich, 1788)
En-deal fish, Da-vågmær, Gr-vågmær

Remarks: Most known specimens found stranded. Twelve specimens in ZMUC collection.


**Bythitidae** (En-viviparous brotulas, DA brosmekvabber, GR brosmekvabbe)

*Bythites fuscus* Reinhardt, 1837
En-arctic brotula, Da-arktisk brosmekvabbe, Gr-arktisk brosmekvabbe


*Thalassobathia pelagica* Cohen, 1963 (Fig. 9)
En-no name, Da-pelagisk brosmekvabbe, Gr-pelagisk brosmekvabbe
Greenland distribution: SE, very rare, guest, pelagic at ca. 1000 m. One specimen from Dohrn Bank, Denmark Strait, 66°05'N, 30°14' W, April 1991, ZMUC P77853 (Nielsen & Bertelsen 1992: 34). Elsewhere known from rather few specimens in the Atlantic and North Pacific Oceans.

Remarks: Often found associated with Scyphomedusae (Drazen & Robison 2004).

Macrouridae (En-grenadiers, rattails; Da-skolæste, langhaler; Gr-imminnguit, tupissuitit)

Coryphaenoides armatus (Hector, 1875)
En-abyssal grenadier, Dk-pansret skolæst, Gr-pansret skolæst
Remarks: Formerly known as Nematonurus armatus.

Coryphaenoides brevibarbis Goode & Bean, 1896
En-shortbeard grenadier, Dk-butsnudet skolæst, Gr-butsnudet skolæst
Remarks: Formerly known as Chalinura brevibarbis.

Coryphaenoides carapinus (Goode & Bean, 1883)
En-carapine grenadier, Dk-tipsnudet skolæst, Gr-tipsnudet skolæst
Remarks: Formerly known as Lionurus carapinus.

Coryphaenoides guentheri (Vaillant, 1888)
En-Günther's grenadier, Dk-Günters skolæst, Gr-Günters skolæst

**Literature:** Geistdoerfer (1986: 658).

*Coryphaenoides longifilis* Günther, 1877
En-treadfin grenadier, Dk-langfinnet skolæst, Gr-langfinnet skolæst

**Greenland distribution:** SW, very rare, guest, benthic at 870–900 m. A single specimen caught in the Davis Strait, 64°47'N, 56°05'W, 5 September 1990, ZMUC P373608 (Nielsen & Bertelsen 1992: 28, Jørgensen 1996: 27). Elsewhere known from both sides of the Atlantic.

**Remarks:** Formerly knowns as *Gadomus longifilis*.

**Literature:** Mecklenburg et al. (2002: 273).

*Coryphaenoides mediterraneus* Giglioli, 1893
En-Mediterranean grenadier, Dk-middelhavsskolæst, Gr-middelhavsskolæst

**Greenland distribution:** SE, very rare, guest, benthic at 1455 m. A single specimen caught in the Denmark Strait, 61°50'N, 40°09'W, 7 July 1998, ZMUC P374426. Elsewhere known from both sides of the Atlantic.

**Remarks:** Formerly knowns as *Chalinura mediterranea*.

**Literature:** Geistdoerfer (1986: 653).

*Coryphaenoides rupestris* Gunnerus, 1765a
En-roundnose grenadier, Dk-almindelig skolæst, Gr-almindelig skolæst


**Literature:** Geistdoerfer (1986: 659).

*Macrourus berglax* Lacepède, 1801
En-onion-eye grenadier, Dk-nordlig skolæst, Gr-nordlig skolæst


*Nezumia aequalis* (Günther, 1878)
En-common Atlantic grenadier, Dk-glat skolæst, Gr-glat skolæst

**Greenland distribution:** SE, very rare, guest, benthic, 918 m. One specimen caught in Denmark Strait, 62°88'N, 40°34'W, 5 July 1999, ZMUC P374336. Elsewhere found in the eastern North Atlantic.

**Remarks:** A specimen reported by Jensen (1926: 101, 1948: 181) from Davis Strait in 1909 is *N. bairdi*. Also confused with *N. bairdi* in Nielsen & Bertelsen (1992: 28).

**Literature:** Geistdoerfer (1986: 669), Cohen et al. (1990: 264).

*Nezumia bairdii* (Goode & Bean, 1877)
En-marlin-spike grenadier, Dk-bronze skolæst, Gr-bronze skolæst


*Trachyrhynchus murrayi* Günther, 1887
En-roughnose grenadier, Dk-Murrays skolæst, Gr-Murrays skolæst


*Moridea* (En-deepsea cods, Da-dybhavstorsk, Gr-dybhavstorsk)
One to three dorsal fins, one or two anal fins. Head of vomer without or with minute teeth. Swimblader not connected with auditory capsules. Caudal peduncle usually relatively slender. Anal fin often with a notch. Known from about 105 species (Nelson 2006), four in Greenland waters.

**Antimora rostrata** (Günter, 1878)
En-blue antimora, Dk-blå antimora, Gr-blå antimora


Literature: Cohen et al. (1990: 354).

**Guttigadus latifrons** (Holt & Byrne, 1908)
En-no name, Dk-stribet ridder, Gr-stribet ridder

Greenland distribution: SE, very rare, guest, benthic, 817 m. A single specimen from Denmark Strait, 65°22'N, 30°42'W, 13 June 2004, ZMUC P375313. Elsewhere found in the Atlantic and Indian Oceans.

Remarks: Formerly known as *Laemonema latifrons*.


**Halargyreus johnsonii** Günther, 1862
En-slender codling, Dk-slank ridder, Gr-slank ridder


**Lepidion eques** (Günther, 1887)
En-North Atlantic codling, Dk-blå ridder, Gr-blå ridder


Phycidae (En-phycid hakes, Da-skælbrosmer, Gr-skælbrosmer)
One anal fin, two dorsal fins, specialized otolith, egg diameter small, less than 1 mm. The monophyly of the family is uncertain. Known from 25 species (Nelson 2006) from all oceans, except polar waters, with five in Greenland waters.

Enchelyopus cimbrius (Linnaeus, 1766)
En-fourbeard rockling, Dk-firtrådet havkvabbe, Gr-firtrådet havkvabbe

Gaidropsarus argentatus (Reinhardt, 1837)
En-Arctic rockling, Dk-kortstrålet arktisk havkvabbe, Gr-kortstrålet arktisk havkvabbe
Remarks: Silvery juveniles often misidentified.

Gaidropsarus ensis (Reinhardt, 1837)
En-threadfin rockling, Dk-langstrålet arktisk havkvabbe, Gr-langstrålet arktisk havkvabbe
Remarks: The description of this species was based on two specimens removed from the stomach of a hooded seal Cystophora cristata in Uummannaq in 1834 (Jensen 1948).

Phycis chesteri Goode & Bean, 1879c
En-longfin hake, Dk-langstrålet skælbrosme, Gr-langstrålet skælbrosme

Urophycis tenuis (Mitchill, 1814)
En-white hake, Dk-hvid skægbrosme, Gr-hvid skægbrosme

Gadidae (En-cods, Da-torskefisk, Gr-torskefisk)
Three dorsal fins and two anal fins. Head of vomer toothed. Swimblader not connected with auditory capsules. Known from about 31 species (Nelson 2006), with nine in Greenland waters.
Arctogadus glacialis (Peters, 1872)
En-Arctic cod, Dk-istorsk, Gr-istorsk
**Remarks:** Arctogadus borisovi Drjagin, 1932 is a junior synonym (Møller et al. 2002, Jordan et al. 2003).
**Literature:** Jordan et al. (2003: 1339).

Boreogadus saida (Lepechin, 1774) (Fig. 10)
En-polar cod, Dk-polartorsk, Gr-eqalugaq
**Literature:** Cohen et al. (1990: 11), Mecklenburg et al. (2002: 290).

Gadus morhua Linnaeus, 1758
En-Atlantic cod, Dk-almindelig torsk, Gr-saarullik, aalisangar
**Literature:** Cohen et al. (1990: 44), Klein-MacPhee (2002: 228).

**FIGURE 10.** Boreogadus saida, Nuuk Harbour, 24 September 2000. Photo PRM.

Gadus ogac Richardson, 1836
En-Greenland cod, Dk-uvak, fjordtorsk; Gr-uugaq

Remarks: Genetic studies have not been able to separate *G. macrocephalus* and *G. ogac* (Carr et al. 1999, Møller et al. 2002). Earlier reports of this species from Southeast Greenland (Jensen 1904a) were misidentification of other species (Jensen 1948).


**Melanogrammus aeglefinus** (Linnaeus, 1758)

En-haddock, Dk-kuller, Gr-misaqqarnaq


**Merlangius merlangus** (Linnaeus, 1758)

En-whiting, Dk-hvilling, Gr-hvilling

**Greenland distribution:** SW, SE, very rare, guest, benthic and pelagic, 12–150 m. Found in Davis Strait, 63°13'N, 51°43'W, 350 m, 16 August 2004, ZMUC P375427-29 and inshore in the Julianehåb Bay with gill-net 60°55'N, 45°23'W, 12 m, 7 July 2007. Elsewhere found in the Northeast Atlantic, including Mediterranean Sea and Black Sea.

Literature: Cohen et al. (1990: 56).

**Micromesistius poutassou** (Risso, 1827)

En-blue whiting, Dk-blåhvilling, sortmund, Gr-imaluunniit


Literature: Cohen et al. (1990: 61).

**Pollachius virens** (Linnaeus, 1758)

En-saithe, Dk-sej, Gr-sej


Remarks: Indication of spawning in Greenland in warm periods (Jensen 1939).


**Trisopterus esmarki** (Nilsson, 1855)

En-Norway pout, Dk-spærling, Gr-spærling


Literature: Cohen et al. (1990: 77).
Lotidae (En-hakes and burbots, Da-torskekvabber, Gr-torskekvabber)
One or two dorsal fins and one anal fin, barbel on chin present, but no barbels on snout. Caudal fin rounded. Recognized as a subfamily by many authors (e.g. Nelson 2006). Known from three genera and five species in the North Atlantic and Mediterranean (Nelson 2006). Three species in Greenlandic waters.

Brosme brosme (Ascanius, 1772)
En-tusk, Dk-brosme, Gr-tinguttooq, iloruleqqortooq

Molva dipterygius (Pennant, 1784)
En-blue ling, Dk-byrkelange, Gr-byrkelange
Remarks: According to Tåning (1958) two specimens reported as M. molva by Jensen (1948) are in fact M. dipterygia.
Literature: Cohen et al. (1990: 63).

Molva molva (Linnaeus, 1758)
En-ling, Dk-almindelig lange, Gr-almindelig lange
Remarks: Molva dipterygia and M. molva was probably confused in older literature (Tåning 1958).
Literature: Cohen et al. (1990: 64).

Lophidae (En-goosefishes, Da-havtasker, Gr-havtasker)
Large, flattened head, large teeth, small skin flaps around lower jaw. Dorsal fin rays modified to a fishing apparatus on top of head. Known from 25 species in all oceans, except polar waters (Nelson 2006). One species in Greenland waters.

Lophius piscatorius Linnaeus, 1758 (Fig. 11)
En-angler, Da-havtaske, Gr-havtaske
Greenland distribution: SW, SE, very rare, guest, depth 281–631 m. Known from two specimens on the west coast, Qaqortoq/ Julianehåbsbugten, 61°22′N, 50°14′W, 324 m, 21 June 2007, ZMUC P922667 and Nuuk Fjord, 63°30′N, 51°45′W, 526 m, 10 January 2008, ZMUC uncat., and two specimens from the Denmark Strait, 62°18′N, 40°49′W, 631 m, 18 August 2008, ZMUC uncat; 63°29′N, 38°25′W, 281 m, 8 September 2009, ZMUC P922694. Elsewhere found off Iceland and Northwest Europe.

Caulophrynidae (En-fanfins, Da-faneanglere, Gr-faneanglere)
Very long and numerous rays in dorsal and anal fin. No esca on transformed anterior dorsal fin ray. Worldwide with five species (Nelson 2006), one in Greenland waters.
**Caulophryne jordani** Goode & Bean, 1896

En-Jordan’s fanfin, Dk-Jordans faneangler, Gr-Jordans faneangler

**Greenland distribution:** SW, SE, very rare, guest, 354–1434 m. Two specimens from Denmark Strait at 64°41’N, 33°41’W, 29 June 1999, ZMUC P922458; 65°29’N, 30°03’W, 354 m, 21 August 2009, ZMUC P922691 and three specimens from Davis Striat, 64°04.9’N, 55°33.9’W, 1063 m, 12 June 1990, HUMZ 118865; Godthaabs-fjorden, 1997, ZMUC P922525, catch date unknown; 63°45’N, 57°20’W, 1382 m, 23 September 2009, ZMUC P922692 (Nielsen & Bertelsen 1992: 60, Stearn & Pietsch 1995: 144, Pietsch 2009: 222). Elsewhere found in all oceans, except polar areas.

**Literature:** Bertelsen (1986: 1374).

**FIGURE 11** *Lophius piscatorius*, ZMUC P922667, Qasortoq/ Julianehåbbugten, 21 June 2007. Photo SWK.

**Oneirodidae** (En-dreamers, Da-mareanglere, Gr-mareanglere)

Dorsal fin with 5–7 and anal fin with 4–6 rays. Movable illicium projecting from head. The species can be recognized by the form of head and esca. Worldwide with 62 species (Nelson 2006), 10 in Greenland waters.

**Chaenophryne draco** Beebe, 1932

En-lesser smoothhead, Da-drage-mareangler, Gr-drage-mareangler


**Literature:** Bertelsen (1986: 1385).

**Chaenophryne longiceps** Regan, 1925

En-giant smoothhead, Da-glathovedet mareangler, Gr-glathovedet mareangler


**Literature:** Bertelsen (1986: 1386).
Danaphryne nigrifilis (Regan & Trewavas, 1932)
En-blackthread dreamer, Da-sorttrådet mareangler, Gr-sorttrådet mareangler
Greenland distribution: SW, very rare, guest, 1082 m. One specimen from Davis Strait, 63°18'N, 54°45'W, 1082 m, BSKU 48877, 26 May 1989 (Stearn & Pietsch 1995: 135, Pietsch 2009: 218). Elsewhere found in the Atlantic and Pacific oceans.

Dolopichthys longicornis Parr, 1927
En-longthread dreamer, Da-langsnudet mareangler, Gr-langsnudet mareangler
Greenland distribution: SW, very rare, guest, 500–946 m. Four specimens from Davis Strait, 66°11'N, 56°32'W, 7 July 2004, ZMUC P922539, 64°48'N, 57°10'W, 2 September 2005, ZMUC P922544 and 64°05'N, 57°40'W, 946 m, 23 September 2009, ZMUC P922698 (Nielsen & Bertelsen 1992: 60). Elsewhere found in all oceans.

Lophodolos acanthognathus Regan, 1925
En-whalehead dreamer, Da-højpandet mareangler, Gr-højpandet mareangler

Oneirodes eschrichtii Lütken, 1871
En-Eschricht’s dreamer, Da-Eschrichts mareangler, Gr-Eschrichts mareangler
Remarks: Holotype from unknown locality in Greenland.

Oneirodes macrosteus Pietsch, 1974
En-big-bone dreamer, Da-nordatlantisk mareangler, Gr-nordatlantisk mareangler

Phyllorhinichthys balushkini Pietsch, 2004
En-Balushkin’s dreamer, Da-Balushkins mareangler, Gr-Balushkins mareangler
Greenland distribution: SW, very rare, guest, 1150 m. One paratype from Davis Strait, 63°42'N, 54°23'W, 7 May 1989, ZMUC P922288 (Nielsen & Bertelsen 1992: 61, Fig. 7). Elsewhere in the Atlantic Ocean.
Remarks: The P. microactis specimen in Nielsen & Bertelsen (1992: 61, Fig. 7) was re-identified and described as a new species, P. balushkini, by Pietsch (2004). I 1995 a true P. microactis was caught in Davis Strait, so both species are present in Greenland waters.
**Phyllorhinichthys micractis** Pietsch, 1969
En-shorfpole dreamer, Da-bladsnudet mareangler, Gr-bladsnudet mareangler

**Greenland distribution:** SW, very rare, guest, 970 m. One specimen from Fyllas Bank, 64°04'N, 55°48'W, 17 August 1995, ZMUC P922440. Elsewhere found in all oceans.

**Remarks:** The illustration in Nielsen & Bertelsen (1992: 61, Fig. 7) shows *P. balushkini*.


**Spiniphryne gladisphenae** (Beebe, 1932)
En-spiny dreamer, Da-pigget mareangler, Gr-pigget mareangler


**Literature:** Bertelsen & Pietsch (1975: 1).

**Melanocetidae** (En-blackdevils, Da-klumpanglere, Gr-klumpanglere)
Dorsal fin with 12–17 and anal fin with four fin rays. No spines on head. The basal shaft of the illicium is hidden below the skin. Worldwide with five species (Nelson 2006), two in Greenland waters.

**Melanocetus johnsoni** Günther, 1864
En-Johnson’s blackdevil, Da-Johnsons klumpangler, Gr-Johnsons klumpangler


**Literature:** Bertelsen (1986: 1376).

**Melanocetus murrayi** Günther, 1887
En-Murray’s blackdevil, Da-Murrays klumpangler, Gr-Murrays klumpangler

**Greenland distribution:** SW, SE, very rare, guest, pelagic, 150–280 m above bottom at 1160–1226 m bottom depth. One specimen from Davis Strait, 63°09'N, 53°36'W, 25 June 1990, BSKU 49286 (Stearn & Pietsch 1995: 138, Pietsch 2009: 212). Elsewhere found in all oceans.

**Literature:** Bertelsen (1986: 1377).

**Himantolophidae** (En-footballfishes, Da-fakkelanglere, Gr-fakkelanglere)
Skin with large, bony plates each with a centrally placed spine. Worldwide with 18 species (Nelson 2006), one in Greenland waters.

**Himantolophus groenlandicus** Reinhardt, 1837 (Fig. 12)
En-Atlantic footballfish, Da-Reinhardts fakkelangler, Gr-Reinhardts fakkelangler

**Greenland distribution:** SW, very rare, guest, deep pelagic, stranded and down to 230 m. Five specimens from Davis Strait, Nuuk, 1833 (HT), ZMUC P922466; Manitsoq, 14 October 1886, ZMUC P922469; Manitsoq, February 1909, ZMUC P922476; Fyllas Banke, 16 August 1965, ZMUC P921942 and 59°32'N, 45°31'W, 7 September 1997, ZMUC P922452 (Lütken 1875: 117, Jensen 1926: 102, Muus 1981: 155, Nielsen & Bertelsen 1992: 62, Pietsch 2009: 208). Elsewhere found in all oceans.

**Remarks:** Holotype from off Nuuk, Davis Strait.

**Literature:** Bertelsen (1986: 1380), Bertelsen & Krefft (1988: 37).
FIGURE 12 *Himantolophus groenlandicus*, ZMUC P922452, Davis Strait, 7 September 1997. Photo PRM.

**Ceratiidae** (En-seadevils, Da-storanglere, Gr-storanglere)

*Ceratias holboelli* Krøyer, 1845a
En-northern seadevil, Da-Holbølls storangler, Gr-Holbølls storangler
**Remarks:** The holotype is from off South West Greenland.

*Cryptopsaras couesii* Gill, 1883
En-triplewart seadevil, Da-trevortet storangler, Gr-trevortet storangler

**Gigantactinidae** (En-whipnose angels, Da-piskeanglere, Gr-piskeanglere)
Body slender. The long illicium often longer than the fish itself. Worldwide with 22 species (Nelson 2006), one in Greenland waters.
**Gigantactis vanhoeffeni** Brauer, 1902
En-Vanhoeffen’s whipnose, Da-Vanhøffens piskeangler, Gr-Vanhøffens piskeangler


**Literature:** Bertelsen et al. (1981: 31), Bertelsen (1986: 1406), Mecklenburg et al. (2002: 313).

**Linophrynidae** (En-leftvents, Da-trådanglere, Gr-trådanglere)
Spines dorsally on head. Illicium and basal shaft very short. Species of *Linophryne* with long barbel ending in a number of papillae with many small lightorgans. Worldwide with 27 species (Nelson 2006), four in Greenland waters.

**Haplophryne mollis** (Brauer, 1902)
En-albino leftvent, Da-blegangler, Gr-blegangler


**Literature:** Bertelsen (1986: 1408).

**Linophryne algibarbata** Waterman, 1939
En-weedybeard leftvent, Da-bladskægget trådangler, Gr-bladskægget trådangler

**Greenland distribution:** SW, very rare, guest, 1075 m. One specimen from Davis Strait, 63°20.3’N, 54°02.8’W, 1075 m, 28 August 1990, HUMZ 118541 (Stearn & Pietsch 1995: 141). Elsewhere found in the North Atlantic.

**Literature:** Bertelsen (1976: 13).

**Linophryne bicornis** Parr, 1927
En-no name, Da-tveskægget trådangler, Gr-tveskægget trådangler

**Greenland distribution:** SW, very rare, guest. One specimen from Davis Strait, 63°06’N, 54°02’W, 1428 m, 26 September 2009, ZMUC P922693. Elsewhere found in the North Atlantic and Indian Ocean.

**Literature:** Bertelsen (1982: 82).

**Linophryne coronata** Parr, 1927
En-crowned leftvent, Da-kronet trådangler, Gr-kronet trådangler


**Literature:** Bertelsen (1976: 10), Bertelsen (1986: 1411).

**Linophryne lucifer** Collett, 1886
En-devilish leftvent, Da-tvebladet trådangler, Gr-tvebladet trådangler

Remarks: A specimen from Denmark Strait (ZMUC P922290) is the only known Greenland ceratoid with a dwarf male attached.


Melamphaidae (En-bigscale fishes, Da-kogleskælsfisk, Gr-kogleskælsfisk)
Small, black fish with large scales, a short, blunt snout and a square head with cavities and bony ridges. Occurs deep pelagic in all oceans from 400-3500 m. Known from 36 species (Nelson 2006), five in Greenland waters.

Melamphaes microps (Günther, 1878)
En-ridgehead, Da-rundhovedet kogleskælfisk, Gr-rundhovedet kogleskælfisk.
Greenland distribution: SE, very rare, guest, pelagic—over bottom depths 976 m. One specimen from Denmark Strait, off Kulusuk, 64°52'N, 34°08'W, 23 June 2002, ZMUC P412389 (Nielsen & Bertelsen 1992: 36). Elsewhere found antitropically in the Atlantic and in the southern parts of the Indian and Pacific oceans.

Poromitra capito Goode & Bean, 1883
En-ridgehead, Da-pigkindet kogleskælfisk, Gr-pigkindet kogleskælfisk

Poromitra crassiceps (Günther, 1878)
En-crested bigscale, Da-butkindet kogleskælfisk, Gr-butkindet kogleskælfisk

Scopeloberyx robustus (Günther, 1887)
En-longjaw bigscale, Da-småøjet kogleskælfisk, Gr-småøjet kogleskælfisk
Greenland distribution: SW, SE, guest, pelagic—over bottom depths 1125–1280 m. Two specimens from Greenland waters, one from Davis Strait, 63°26'N, 54°41'W, 8 September 2005, ZMUC P412409 and one from Denmark Strait, 61°57'N, 40°04'W, 19 June 2004, ZMUC P412391 (Nielsen & Bertelsen 1992: 36). Elsewhere found in all oceans.

Scopelogadus beani (Günther, 1887)
En-Bean’s bigscale, Da-Beans kogleskælfisk, Gr-Beans kogleskælfisk

Rondeletiidae (En-redmouth whalefishes, Da-rødmundede hvalfisk, Gr-rødmundede hvalfisk)
Small, robust, scaleless fish with a large mouth, dorsal and anal fins placed opposite each other close to the caudal fin and a lateral line system of vertical rows of small papillae on body. Occurs deep pelagically in all oceans. Known from two species (Nelson 2006), one in Greenland waters.
**Rondeletia loricata** Abe & Hotta, 1963  
En-redmouth whalefish, Da-rødmundet hvalfisk, Gr-rødmundet hvalfisk  
**Greenland distribution:** SW, SE, very rare, guest, pelagic—over bottom depths 450–1450 m. Two specimens from Davis Strait, 63°42'N, 54°02'W, 7 May 1989, ZMUC P2340991; 63°04.7'N, 53°51.3'W, 1500 m, 25 June 1990, HUMZ 118573 and two specimens from Denmark Strait, 66°25'N, 30°20'W, 23 April 1991, ZMUC P2340990; 62°22'N, 40°19'W, 26 June 2002, ZMUC P2393480 (Nielsen & Bertelsen 1992: 18, Amaoka 1995: 149). Elsewhere found in all oceans.  
**Literature:** Paxton (1986: 526).

**Barbourisiidae** (En-velvet whalefishes, Da-fløjls-hvalfisk, Gr-fløjls-hvalfisk)  
Medium-sized, scaled, red fish with a broad lateral line with a single pore row and dorsal and anal fins placed opposite each other. Occurs deep pelagically in all oceans. Known from one rare species.  

**Barbourisia rufa** Parr, 1945  
En-velvet whalefish, Da-fløjls-hvalfisk, Gr-fløjls-hvalfisk  
**Greenland distribution:** SW, SE, very rare, guest, pelagic—over bottom depths 295–1140 m. Two specimens caught in Greenland waters, one from Davis Strait, 63°32'N, 55°07'W, 1139 m, 4 October 1988, HUMZ 113678, and one from Denmark Strait, 65°45'N, 30°00'W, 22 May 1992, ZMUC P2340954 (Nielsen & Bertelsen 1992: 18, Amaoka 1995: 149). Elsewhere known from all oceans.  
**Literature:** Mecklenburg *et al.* (2002: 322).

**Cetomimidae** (En-flappy whalefishes, Da-slaskede hvalfisk, Gr-slaskede hvalfisk)  
Medium-sized fish with scaleless, loose skin, a large mouth, minute eyes, a distinct lateral line and dorsal and anal fins placed opposite each other. Occurs deep pelagic in 1000–4000 m. Known from about 20 species (Nelson 2006), one in Greenland waters.  

**Gyrinomimus myersi** Parr, 1934  
En-no name, Da-Myers hvalfisk, Gr-Myers hvalfisk  
**Greenland distribution:** SW, SE, rare, guest, pelagic—over bottom depths 1145–1460 m. Three specimens caught in Greenland waters, two from Davis Strait, 63°26'N, 54°07'W, 20 June 1989, BSKU 49075 and 63°36.3'N, 56°22.3'W, 8 July 1991, HUMZ 120899, and one from Denmark Strait, 65°12'N, 32°43'W, 1459 m, 27 June 1999, ZMUC P2341702 (Amaoka 1995: 150).  
**Remarks:** The genus is currently under revision by J. Paxton.  
**Literature:** Amaoka (1995: 150).

**Anoplogasteridae** (En-fangtooth, Da-trolfdisk, Gr-trolfdisk)  
Deep bodied fish with furrowed head higher than long, mouth with long, fanglike teeth and lateral line in an open groove. Occurs deep pelagically in all oceans. Known from two species (Nelson 2006), one in Greenland waters.  

**Anoplogaster cornuta** (Valenciennes, 1833)  
En-fangtooth, Da-trolfdisk, Gr-trolfdisk  
**Literature:** Post (1986: 767), Mecklenburg *et al.* (2002: 326).
**Diretmidae** (En-spiny fins, Da-dukatfisk, dukatfisk)

Eliptic, compressed fish with large eyes, rough scales and a large, almost vertical mouth. Occurs deep pelagically in all oceans. Known from 4 species (Nelson 2006), one in Greenland waters.

*Diretmoides pauciradiatus* (Woods, 1973)

En-longwing spinyfin, Da-få-strålet dukatfisk, Gr-få-strålet dukatfisk

Greenland distribution: SW, very rare, guest, pelagic, 870 m. One specimen caught off Aasiaat (Egedesminde) ca. 1985 and one from Denmark Strait, 64°54.4’N, 34°05.2’W, 30 April 2008, ZMUC uncat. (Nielsen & Bertelsen 1992: 36). Elsewhere known from all oceans.

Remarks: The specimen from Aasiaat was identified by Jørgen Nielsen, but was claimed by the collector, a local fisherman.


**Trachichthyidae** (En-roughies, Da-slimhovedfisk, Gr-slimhovedfisk)

Rather large compressed fish with distinct mucus cavities on head, small teeth and ridges of scutes along ventral edge. Occurs near bottom in all oceans at 100–1500 m. Known from ca. 40 species (Nelson 2006), one in Greenland waters.

*Hoplostethus atlanticus* Collett, 1889

En-orange roughy, Da-orange savbug, Gr-orange savbug


Remarks: A 5.5 cm specimen was caught at Dorn Bank off East Greenland.


**Gasterosteidae** (En-sticklebacks, Da-hundestejler, Gr-kakilisak pingasunik kapinartulik)

Small fish without scales or with bony scutes, 3–15 free spines in front of dorsal fin and a strong spine in each pelvic fin. Occurs in fresh-, brackish- and salt-water in the northern hemisphere. Known from eight species (Nelson 2006), one in Greenland waters.

*Gasterosteus aculeatus* Linnaeus, 1758

En-three-spined stickleback, Da-trepigget hundestejle, Gr-kakilisak pingasunik kipinartulik


**Scorpaenidae** (En-rockfishes, Da-rødfiskfamilien, Gr-suluppaakkat ilaqutariit)

Body compressed, head usually with ridges and spines. Scales ctenoid. Dorsal fin usually single, often with a notch. Worldwide 418 species have been recognized, five in Greenland waters.

*Helicolenus dactylopterus* (Delaroche, 1809)

En-blackbelly rosefish, Dk-blåkæft, Gr-blåkæft


Sebastes fasciatus Storer, 1854
En-Acadian redfish, Dk-amerikansk rødfisk, Gr-amerikap suluppaagaag


**Remarks:** Probably often confused with other species of *Sebastes.*


Sebastes marinus (Linnaeus, 1758)
En-Ocean perch, Dk-stor rødfisk, Gr-Suluppaagaq angisooq


**Remarks:** Probably often confused with other species of *Sebastes.*

**Literature:** Hureau & Litvinenko (1986: 1225).

Sebastes mentella (Travin, 1951)
En-deepwater redfish, Dk-dybhavsrødfisk, Gr-suluppaagaq itisooormiu


**Remarks:** Probably often confused with other species of *Sebastes.*

**Literature:** Hureau & Litvinenko (1986: 1226).

Sebastes viviparus Krøyer, 1845c
En-Norway redfish, Dk-lille rødfisk, Gr-suluppaagaq mikisoq


**Literature:** Hureau & Litvinenko (1986: 1227).

Cottidae (En-sculpins, Da-ulkefamilien, Gr-kanassut ilaqutarit)
Body often more or less naked. Eyes high on head. Single lateral line. No spines in anal fin. Adults without swimbladder. Known from about 275 species, 11 in Greenland waters.

Artediellus atlanticus Jordan & Evermann, 1898
En-Atlantic hookear sculpin, Dk-atlantisk halvulk, Gr-atlantikup kanajua


**Remarks:** Probably often confused with *Artediellus uncinatus.*


Artediellus uncinatus (Reinhardt, 1835)
En-Arctic hookear sculpin, Dk-gronlandsk halvulk, Gr-imaviup kanajua

Remarks: Probably often confused with *Artediellus atlanticus*.

**Literature:** Fedorov (1986: 1246).

*Icelus bicornis* (Reinhardt, 1840)
En-twohorn sculpin, Dk-almindelig tornulk, Gr-kanajoq kapinartulik nalinginnaq


**Remarks:** In early literature *I. bicornis* was not separated from *I. spatula*.


*Icelus spatula* Gilbert & Burke, 1912
En-spatulate sculpin, Dk-spatel-tornulk, Gr-spatel-tornulk


**Remarks:** In early literature *I. bicornis* was not separated from *I. spatula*.

**Literature:** Fedorov (1986: 1251), Mecklenburg *et al.* (2002: 455).

*Gymnocanthus tricuspis* (Reinhardt, 1830)
En-Arctic staghorn sculpin, Dk-glatulk, Gr-glatulk


*Myoxocephalus quadricornis* (Linnaeus, 1758)
En-fourhorn sculpin, Dk-hornulk, Gr-hornulk


**Remarks:** Formerly named *Triglopsis quadricornis*.

**Literature:** Fedorov (1986: 1260), Mecklenburg *et al.* (2002: 477).

*Myoxocephalus scorpius* (Linnaeus, 1758)
En-shorthorn sculpin, Dk-almindelig ulk, Gr-kanajoq nalinginnaq


**Remarks:** Some recognize two or three subspecies (Neyelov 1979).


*Myoxocephalus scorpioides* (Fabricius, 1780)
En-Arctic sculpin, Dk-falsk ulk, Gr-falsk ulk


**Triglops murrayi** Günther, 1888
En-moustache sculpin, Dk-Murrays knurulk, Gr-Murrays knurulk

Remarks: Jensen (1944b) treated this species as a subspecies of *T. pingelii*.


**Triglops nybelini** Jensen, 1944b
En-bigeye sculpin, Dk-Nybelins knurulk, Gr-Nybelins knurulk


**Triglops pingelii** Reinhardt, 1837
En-ribbed sculpin, Dk-Pingels knurulk, Gr-Pingels knurulk

Remarks: This species has the widest distribution of all sculpins (Yabe 1995).


**Agonidae** (En-poachers, Da-panserulke, Gr-kanajorlaat)
Body usually elongate, covered with bony plates. All fin rays unbranched. Swim bladder absent. Known from 47 species on the northern hemisphere and off southern South America (Nelson 2006), three in Greenland waters.

**Aspidophoroides monopterygius** (Bloch, 1786)
En-alligatorfish, Dk-almindelig krokodilleulk, Gr-almindelig krokodilleulk


**Leptagonus decagonus** (Bloch & Schneider, 1801)
En-Atlantic poacher, Dk-arktisk panserulk, Gr-kanajorlak (issittormiu)
North Pacific, North Atlantic and Arctic Oceans.

**Literature**: Fedorov (1986: 1266), Mecklenburg et al. (2002: 537).

**Ulcina olrikii** (Lütken, 1877)
En-Arctic alligatorfish, Dk-Olriks panserulk, Gr-Olriks panserulk

**Literature**: Fedorov (1986: 1267), Mecklenburg et al. (2002: 552).

**Psychrolutidae** (En-fathead sculpins, Da-paddeulke, Gr-paddeulke)
Body naked or with a few prickles. Interorbital space wider than eye diameter, except in *Malacocottus*. Lateral line reduced, with less than 20 pores. Known from about 35 species from all oceans (Nelson 2006). Three species in Greenland waters. *Cottunculus sadko* Essipov, 1937 is not included here, as the status of the species and differences to *C. microps* are uncertain (Yabe 1995).

**Psychrolutes subspinatus** (Jensen, 1902)
En-no name, Dk-glat paddeulk, Gr-glat paddeulk
**Greenland distribution**: NE, rare, spawning, benthic, 900–1500 m. Known from nine specimens (Nielsen & Bertelsen 1992: 52 - ZMUC). Elsewhere known from the Norwegian Sea.

**Literature**: Fedorov (1986: 1264).

**Cyclopteridae** (En-lumpfishes, Da-stenbiderfamilien, Gr-nipisat)
Body globose, more or less covered with tubercles. Usually with two short dorsal fins. Pelvic fin present. Known from 28 species (Nelson 2006), with four in Greenland waters.

**Cyclopterus lumpus** Linnaeus, 1758
En-lumpsucker, Dk-almindelig stenbidder, Gr-nipisa

**Cyclopteropsis mcalpini** (Fowler, 1914)
En-Arctic lump sucker, Dk-dværgstenbider, Gr-dværgstenbider


**Remarks:** The holotype PU 2950 is from NW Greenland. Probably easily confused with species of *Eumicrotremus*.

**Literature:** Stein (1986: 1270).

**Eumicrotremus derjugini** Popov, 1926
En-leatherfin lump sucker, Dk-læderfinnet stenbider, Gr-læderfinnet stenbider


**Literature:** Stein (1986: 1272), Mecklenburg *et al.* (2002: 566).

**Eumicrotremus spinosus** (Fabricius, 1776)
En-Atlantic spiny lump sucker, Dk-pigget stenbidder, Gr-nipisarluk


**Literature:** Stein (1986: 1274), Mecklenburg *et al.* (2002: 570).

**Liparidae** (En-snailfishes, Da-ringbugfamilien, Gr-ringbugfamilien)

Body scaleless, except for small prickles in some species. Pelvic fin disk present or absent. Known from 335 species (Chernova *et al.* 2004, Nelson 2006), with 14 in Greenland waters.

**Careproctus kidoi** Knudsen & Møller, 2008
En-Kido’s snailfish, Dk-Kidos ringbug, Gr-Kidos ringbug


**Remarks:** Easily confused with *C. reinhardti* or mistaken for *C. micropus*. *Careproctus micropus* has only been caught near the Faroe Islands.

**Literature:** Knudsen & Møller (2008).

**Careproctus reinhardti** Krøyer, 1862
En-sea tadpole, Dk-Reinhardts ringbug, Gr-Reinhardts ringbug

Remarks: This genus is being revised by Natalia Chernova, and might include more undescribed species from Greenland waters.


**Liparis fabricii** Krøyer, 1847
En-gelatinous snailfish, Dk-Fabricius ringbug, Gr-Fabricius ringbug


Remark: *Liparis koefoedi* is a junior synonym of *L. fabricii*.


**Liparis gibbus** Bean, 1881
En-variegated snailfish, Dk-pukkelrygget ringbug, Gr-pukkelrygget ringbug


Remarks: Juvenile specimens may be mistaken for *L. tunicatus* due to stripes and bands on body.


**Liparis tunicatus** Reinhardt, 1837
En-kelp snailfish, Dk-grønlandsk ringbug, Gr-grønlandsk ringbug


Remarks: Commonly confused with *L. gibbus*.


**Paraliparis bathybius** (Collett, 1879)
En-black seasnail, Dk-arktisk dybhavsringbug, Gr-arktisk dybhavsringbug


**Paraliparis copei** Goode & Bean, 1896
En-blacksnout seasnail, Dk-Copes dybhavsringbug, Gr-Copes dybhavsringbug


**Paraliparis garmani** Burke, 1912
En-pouty seasnail, Dk-Garmans dybhavsringbug, Gr-Garmans dybhavsringbug

Remarks: Records of Paraliparis hystrix Merrett, 1983 in Greenland waters could not be confirmed.


Psednos christinae Andriashev, 1992
En-European dwarf snailfish, Dk-Christina’s dværg-ringbug, Gr-Christina’s dværg-ringbug


Psednos gelatinosus Chernova, 2001
En-gelatinous dwarf snailfish, Dk-gele dværg-ringbug, Gr-gele dværg-ringbug
Greenland distribution: SE, very rare, pelagic, guest?, 0–650 m. Known from one specimen (holotype) from 63°05’54''N, 39°39’54”W, 14 August 1985, MCZ 64537 (Chernova 2001: 488).

Remarks: Only known from off South East Greenland.


Psednos groenlandicus Chernova, 2001
En-Greenland dwarf snailfish, Dk-grønlandsk dværg-ringbug, Gr-grønlandsk dværg-ringbug


Psednos melanocephalus Chernova & Stein, 2002
En-none, Dk-sorthovedet dværg-ringbug, Gr-sorthovedet dværg-ringbug
Greenland distribution: SW, SE, very rare, pelagic, guest?, 949–962 m. Known from four specimens from Davis Strait, 58°15’N, 48°45’W, 0–3172 m, 2 April 1962, LACM 10011-13, holotype and paratypes; 64°03’N, 57°37’W, 926 m, 20 September 2003, ZMUC P821736 (Chernova & Stein 2002: 762, Knudsen et al. 2007: 652). Only known from off Greenland.


Psednos micruroides Chernova, 2001
En-multipore dwarf snailfish, Dk-mangeporet dværg-ringbug, Gr-mangeporet dværg-ringbug
Greenland distribution: SW, SE, very rare, pelagic, guest?, 0–1333 m. One specimen from Denmark Strait, 63°50’18”N, 35°40’30”W, 0–900 m, 13 August 1985, MCZ 64538, holotype, and one from Davis Strait, 63°45’N, 57°23’W, 1333 m, 28 June 2003, ZMUC P821667 (Chernova 2001: 496, Knudsen et al. 2007: 652). Only known from off Greenland.

Rhodichthys regina (Collett, 1879)  
En-threadfin seasnail, Dk-rød dybhavsringbug, Gr-rød dybhavsringbug  

Epigonidae (En-deepwater cardinalfishes, Da-dybhavskardinalfisk, Gr-dybhavskardinalfisk)  
Elongate fish with the two dorsal fins separated and second dorsal and anal fins covered with scales. Occurs pelagically in all oceans. Known from about 25 species (Nelson 2006), one in Greenland waters.

Epigonus telescopus (Risso, 1810)  
En-bulls-eye, Da-teleskop-kardinalfisk, Gr-teleskop-kardinalfisk  
Greenland distribution: SE, very rare, guest, pelagic, 1015–1375 m. Two specimens caught 26 June 2000 on two stations in Denmark Strait, 65°10’N, 33°23’W (discarded) and 65°11.7’N, 32°52.4’W, ZMUC P44276. Elsewhere in the Atlantic and southern Pacific.  

Caristiidae (En-manefishes, Da-mankefisk, Gr-mankefisk)  
Oval-formed fish with a steep head profile, large eyes, small mouth and dark dorsal, anal and pelvic fins with long rays that can be folded in a groove in the high, compressed body. Occurs deep pelagically in all oceans. Known from about five species (Nelson 2006), two in Greenland waters.

Platyberyx groenlandicus (Jensen, 1941b)  
En-Greenland manefish, Da-grønlandsk mankefisk, Gr-grønlandsk mankefisk  
Greenland distribution: SW, SE, rare, guest, pelagic, 300-1660. Three specimens known from Davis Strait including the holotype and four specimens known from Denmark Strait (Jensen 1941b: 4, Nielsen & Bertelsen 1992: 36, Okamura & Miyahara 1995: 186 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic and Northeast Pacific Oceans.  

Platyberyx opalescens Zugmayer, 1911  
En-no name, Dk-opal mankefisk, Gr-opal mankefisk  
Greenland distribution: SW, SE very rare, pelagic, depth 670 m. Known from one specimen from Denmark Strait, 65°24’N, 31°05’W, 676-668 m, 4 July 1988, ZMUC P40130 and one specimen from Davis Strait, position unknown, 1998, ZMUC P40307. Elsewhere known from off Iceland and in the East Atlantic.  

Zoarcidae (En-eelpouts, Da-ålekvabber, Gr-ålekvabber)  
Elongate bottom fishes with the caudal fin fused with dorsal and anal fins. Scales small or absent. Pectoral fins very small or absent and placed in front of the pectoral fins. Lives in salt and brackish water from Arctic to Antarctic seas. Known from about 230 species (Nelson 2006), 26 in Greenland waters.

Gymnelus retrodorsalis Le Danois, 1913  
En-aurora unernak, Dk-kortfinnet fiskedoktor, Gr-kortfinnet fiskedoktor  
Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 0–500 m (Anderson 1982: 35, Cher-

**Remarks:** According to Chernova (1998b) specimens recorded from Western Arctic Canada and Kara Sea belong to different species.

**Literature:** Chernova (1998b: 743).

**Gymnelus viridis** (Fabricius, 1780)

En-fish doctor, Dk-grøn fiskedoktor, Gr-grøn fiskedoktor


**Remarks:** This wide distribution was recently questioned by Chernova (1998a), claiming that *G. viridis* is restricted to Greenland waters only and that records from elsewhere belong to other species. Yet another new species might be present in Greenland waters (Møller pers. obs.).

**Literature:** Chernova (1998a: 167), Mecklenburg et al. (2002: 690).

**Lycenchelys alba** (Vaillant, 1888)

En-none, Dk-dybhavs porebrosme, Gr-dybhavs porebrosme


**Remarks:** *Lycenchelys labradoensis* Geistdoerfer et al., 1970 is a junior synonym of *L. alba* (Andriashev 1986, Møller 1999).

**Literature:** Andriashev (1986: 1133), Møller (1999: 326).

**Lycenchelys kolthoffi** Jensen, 1904b

En-checkered wolf eel, Dk-Kolthoffs porebrosme Gr-Kolthoffs porebrosme


**Literature:** Andriashev (1986: 1133).

**Lycenchelys muraena** (Collett, 1878)

En-moray wolf eel, Dk-muræne-porebrosme, Gr-muræne-porebrosme


**Literature:** Andriashev (1986: 1134).

**Lycenchelys paxillus** (Goode & Bean, 1879b)

En-common wolf eel, Dk-stor porebrosme, Gr-stor porebrosme


**Remarks:** Jensen (1902) described a specimen caught off West Greenland (64°54’N, 55°10’W) as a new species, *L. ingolfianus*. According to Jensen (1952a) there are no additional records. It was included by Nielsen &

**Literature:** Scott & Scott (1988: 405), Møller (1999: 323).

*Lycenchelys sarsii* (Collett, 1871)

En-Sars’ wolf eel, Dk-Sars porebrosme, Gr-Sars porebrosme


**Literature:** Andriashev (1986: 1135).

*Lycodes adolfi* Nielsen & Fosså, 1993

En-Adolf's eelpout, Dk-Adolfs ålebrosme, Gr-Adolfs ålebrosme


**Remarks:** Caught by both the Ingolf- expedition in the Norwegian Sea and the Godthaab- expedition in Baffin Bay, but overlooked until 1993. Included in Saito & Okamura (1995: 203) as *Lycodes* sp. B.

**Literature:** Nielsen & Fosså (1993: 39).

*Lycodes esmarkii* Collett, 1875

En-greater eelpout, Dk-Esmarks ålebrosme, Gr-Esmarks ålebrosme


**Literature:** Andriashev (1986: 1138).

*Lycodes eudipleurostictus* Jensen, 1902

En-doubleline eelpout, Dk-dobbeltliniet ålebrosme, Gr-dobbeltliniet ålebrosme


**Literature:** Andriashev (1986: 1138), Mecklenburg et al. (2002: 710).

*Lycodes frigidus* Collett, 1879

En-glacial eelpout, Dk-småskællet ålebrosme, Gr-småskællet ålebrosme


**Remarks:** Records and illustration of this species in Saito & Okamura (1995) and the distribution off West Greenland mentioned by Nielsen & Bertelsen (1992) is not correct, and is caused by confusion with *Lycodes*
Lycodes frigidus has not been caught off West Greenland.

**Literature:** Andriashev (1986: 1139), Mecklenburg et al. (2002: 726).

*Lycodes gracilis* Sars, 1867  
En-none, Dk-almindelig ålebrosme, Gr-almindelig ålebrosme  
**Greenland distribution:** SE, common, spawning, benthic, 280–900 m (Carl 2002: 75 - ZMUC). Elsewhere found along the coasts of Iceland and Norway southwards to Kattegat.  
**Remarks:** This species was regarded a subspecies of *L. vahlii* Reinhardt, 1831, but Carl (2002) showed that it has specific rank. Illustrated in Saito & Okamura (1995: 201) as *L. vahlii*.  
**Literature:** Carl (2002: 75).

*Lycodes luetkenii* Collett, 1880 (Fig. 13)  
En-Lütken's eelpout, Dk-Lütkens ålebrosme, Gr-Lütkens ålebrosme  
**Remarks:** Caught at the Tjalfe-expedition in 1909, but was overlooked in Greenland until 1995. Freshly caught specimens more or less pink in body color.  
**Literature:** Andriashev (1986: 1140), Møller & Petersen (1997: 289).

*Lycodes mcallisteri* Møller, 2001a (Fig. 14)  
En-McAllisters eelpout, Dk-McAllisters ålebrosme, Gr-McAllisters ålebrosme  
**Greenland distribution:** SW, NW, rare, spawning, benthic, 650–900 m (Jørgensen et al. 2005: 1851 - ZMUC). Elsewhere known from Canadian parts of Baffin Bay, Hudson Strait, Cumberland Sound.  
**Remarks:** Relatively common off Thule in the northern Baffin Bay.  
**Literature:** Møller (2001a: 111).

*Lycodes mucosus* Richardson, 1855  
En-saddled eelpout, Dk-slimet ålebrosme, Gr-slimet ålebrosme  
**Greenland distribution:** NW, very rare, spawning, benthic, 0–180 m. Four specimens from the Thule area: Thule, 3 August 1917, ZISP 40715; Thule, date unknown, ZMUC P76631; 76°37′55″N, 68°38′15″W, 4 August 1928, ZMUC P76632; 75°20.8′N, 58°38.6′W, 4 August 1980, ZMUC P766603 (Jensen 1952a: 24, Nielsen & Bertelsen, 1992: 4, Møller 1996: 39, Møller & Jørgensen 2000: 41). Elsewhere known from the Canadian Arctic to Sea of Okhotsk.  
**Remarks:** Two of the specimens were collected from rock pools in the Thule area by the famous polar explorers Knud Rasmussen and Peter Freuchen.  
**Literature:** Mecklenburg et al. (2002: 708).
**Lycodes paamiuti** Møller, 2001b  
En-Paamiut eelpout, Dk-Paamiuts ålebrosme, Gr-Paamiuts ålebrosme  

**Lycodes pallidus** Collett, 1879  
En-pale eelpout, Dk-bleg ålebrosme, Gr-bleg ålebrosme  
Remarks: This species has previously been confused with *L. paamiuti* (Saito & Okamura 1995: 199; Møller 1996: 42), *L. marisalbi* (see Møller 2000a) and *L. squamiventer* and many other species in museum collections (Møller 2001b).  

**Lycodes polaris** (Sabine, 1824)  
En-Canadian eelpout, Dk-polar-ålebrosme, Gr-polar-ålebrosme  
Remarks: Records from East Greenland (Riget et al. 1997) need confirmation.  

**Lycodes reticulatus** Reinhardt, 1835  
En-Arctic Eelpout, Dk-netmønstret ålebrosme, Gr-netmønstret ålebrosme  

**Lycodes seminudus** Reinhardt, 1837  
En-longear eelpout, Dk-halvnøgen ålebrosme, Gr-halvnøgen ålebrosme  
Lycodes squamiventer Jensen, 1904b
En-none, Dk-bugskællet ålebrosme, Gr-bugskællet ålebrosme


Remarks: This species was once regarded a subspecies or deepwater form of L. pallidus (Jensen 1904b). Since then the two former subspecies and L. paamiuti have been confused, resulting in false records of L. squamiventer off West Greenland (e.g. in Nielsen & Bertelsen 1992 and Møller 1996). Møller (2001b) presented new characters supporting the specific status of L. squamiventer and showed that it is probably endemic to the Norwegian Sea.


Lycodes terraenovae Goode & Bean, 1896 (Fig. 15)
En-Atlantic eelpout, Dk-atlantisk ålebrosme, Gr-atlantisk ålebrosme


Remarks: Lycodes atlanticus Jensen, 1902 is a junior synonym (Møller 1997, 2000b).

Literature: Møller (1997: 45).

Lycodes vahlii Reinhardt, 1831
En-Vahl's eelpout, Dk-Vahls ålebrosme, Gr-Vahls ålebrosme


Remarks: Originally described from a specimen removed from the stomach of a Greenland shark, caught off Qaqortoq/Julianehåb, West Greenland. Until recently two subspecies were recognised: L. vahlii vahlii Reinhardt, 1831 from the northwestern Atlantic including West Greenland and L. vahlii gracilis Sars, 1867 from the northeastern Atlantic including East Greenland. Lycodes gracilis was restored on the basis of several characters e.g. meristics, color, and teeth by Carl (2002).

**Lycodonus flagellicauda** (Jensen, 1902)
En-none, Dk-piskehalet pladebrosme, Gr-piskehalet pladebrosme
**Greenland distribution:** NE, common, spawning, benthic, 350–1500 m (Nielsen & Bertelsen 1992: 46 (part), Koyanagi 1995: 204 - HUMZ, ZMUC). Elsewhere known from the Norwegian Sea, off Iceland, Faroe Islands and Norway.
**Remarks:** *Lycodonus flagellicauda* has been confused with *L. mirabilis* by Muus (1981: 109) and Nielsen & Bertelsen (1992: 46, Fig. 7, is *L. mirabilis*).
**Literature:** Andriashev (1986: 1147).

**Lycodonus mirabilis** Goode & Bean, 1883
En-chevron scutepout, Dk-vestatlantisk pladebrosme, Gr-vestatlantisk pladebrosme
**Remarks:** *Lycodonus mirabilis* has been confused with *L. flagellicauda* by e.g. Muus (1981: 109) and Nielsen & Bertelsen (1992: 47, Fig. 7 is *L. mirabilis*).
**Literature:** Koyanagi (1995: 205).

**Melanostigma atlanticum** Koefoed, 1952 (Fig. 16)
En-Atlantic soft pout, Dk-blødkvabbe, Gr-blødkvabbe
**Greenland distribution:** SW, SE, rare, guest, benthic and pelagic, 600–1500 m (Nielsen & Bertelsen 1992: 4, Koyanagi 1995: 206, Møller & Jørgensen 2000: 36 - ZMUC). Elsewhere found from off eastern Canada to off Virginia, along the northern part of the Mid-Atlantic Ridge and from the Faeroe Islands to off Mauretanien and in the Mediterranean Sea.
**Remarks:** This species is mostly pelagic, but spawn in the bottom sediment.

**Stichaeidae** (En-pricklebacks, Da- buskhovedfamilien, Gr-buskhovedfamilien)
More or less elongated fish, with spinous rays in dorsal and anterior (1–5 rays) anal fin. Distributed on the northern hemisphere. Lives on the bottom, but juveniles of some species are often found pelagically. Known from 37 genera and 76 species. Often divided into six subfamilies (Nelson 2006). Seven species in Greenland waters.
**Anisarchus medius** (Reinhardt, 1937)
En-stout eelblenny, Dk-nordlig langebarn, Gr-nordlig langebarn
**Literature:** Makushok (1986: 1127), Mecklenburg *et al.* (2002: 758).

**Eumesogrammus praecisus** (Krøyer, 1836)
En-fourline snakeblenny, Dk-firliniet slimfisk, Gr-firliniet slimfisk
**Literature:** Mecklenburg *et al.* (2002: 746).

**Leptoclinus maculatus** (Fries, 1838a)
En-daubed shanny, Dk-plettet langebarn, Gr-plettet langebarn
**Remarks:** Probably rare on the east coast.

**Lumpenella longirostris** (Evermann & Goldsborough, 1907)
En-longsnout prickleback, Dk-langsnudet slimfisk, Gr-langsnudet slimfisk
**Greenland distribution:** SW, vary rare, guest, benthic, 734 m. A single specimen from western Greenland, 64°46'N, 56°39'W, 734 m, date unknown, HUMZ 112809 (Miki 1995: 211). Elsewhere found in the Bering and Okhotsk Seas.
**Remarks:** The specimen could not be located in the HUMZ collection (21 January 2008, pers. comm. Kazuhiro Nakaya).
**Literature:** Mecklenburg *et al.* (2002: 755).

**Lumpenus fabricii** Reinhardt, 1836
En-slender eelblenny, Dk-Fabricius langebarn, Gr-Fabricius langebarn
Remarks: Apparently not recorded since 1934.

*Lumpenus lampretaeformis* (Walbaum, 1792)
En-snakeblenny, Dk-spidshelet langebarn, Gr-spidshelet langebarn
Remarks: Probably rare on the east coast.

*Stichaeus punctatus* (Fabricius, 1780)
En-Arctic shanny, Dk-plettet slimfisk, Gr-plettet slimfisk
Remarks: Probably rare on the east coast.

*Pholis gunnellus* (Linnaeus, 1758)
En-rock gunnel, Dk-almindelig tangspræl, Gr-qussaannaq

*Pholis fasciata* (Bloch & Schneider, 1801)
En-banded gunnel, Dk-båndet tangspræl, Gr-båndet tangspræl

*Anarhichadidae* (En-wolffishes, Da-havkatte, Gr-havkatte)
Gill membrane attached to isthmus. Scales absent or minute. Pelvic fins absent, pectoral fins large. Jaws with large, strong canines anteriorly, and with large molariform teeth laterally. Known from four species (Nelson 2006), three in Greenland waters.

*Anarhichas denticulatus* Krøyer, 1845b
En-northern wolffish, Dk-blå havkat, Gr-qeeraasaq, utoqulaaq, najorpilik, tungujortoq
Remarks: Small specimens are sometimes caught pelagically (Jørgensen 1995).


Anarhichas lupus Linnaeus, 1758
En-Atlantic wolf-fish, Dk-stribet havkat, Gr-qeeraaraq


Anarhichas minor Olafsen, 1772
En-spotted wolffish, Dk-plettet havkat, Gr-Qeeraq, qeerngaq milagulaar


Nototheniidae (En-cod icefishes, Da-isfisk, Gr-isfisk)

Moderate to large, robust, scaled fish with a short, spinous dorsal fin followed by a much longer soft-rayed dorsal fin, a protractile mouth and 1–3 lateral lines. Occurs pelagically and near the bottom. Known from about 50 species, mostly in the southern hemisphere (Nelson 2006), one in Greenland waters.

Dissostichus eleginoides Smitt, 1898
En-Patagonian toothfish, Da-sort patagonisk isfisk, Gr-sort patagonisk isfisk

Greenland distribution: SW, very rare, guest, 1330 m. One specimen caught southwest of Nuuk, 63°02'N, 53°32'W, 1330 m, 23 November 2000, ZMUC P63215 (Møller et al. 2003: 599). Elsewhere known from the southern hemisphere.

Literature: Dewitt et al. (1990: 286).

Chiasmodontidae (En-swallovers, Da-slughalsfisk, Gr-slughalsfisk)

Elongate fish with a large mouth ending far behind eye and provided with long teeth. Short anterior spiny dorsal fin separated from longer soft rayed dorsal fin. Occurs pelagically in deep water in all oceans. Known from about 15 species (Nelson 2006), one in Greenland waters.

Chiasmodon harteli Melo, 2009
En-Hartel’s swallover, Da-Hartels slughalsfisk, Gr-Hartels slughalsfisk


Remarks: Reported for many years as Chiasmodon bolangeri Osório, 1909 or C. niger Johnson, 1864 in Greenland waters, but it is now clear that all belongs to the recently described C. harteli (Melo 2009).

Trichiuridae (En-scabard-fishes, Da-sabelfisk, Gr-sabelfisk)
Long, slender fish with a large mouth provided with strong, pointed teeth, a protruding lower jaw and a very long dorsal fin with many spines anteriorly. Occurs near bottom down to 2000 m. Known from about 40 species (Nelson 2006), one in Greenland waters.

Aphanopus carbo Lowe, 1839
En-black scabbardfish, Da-sort sabelfisk, Gr-sort sabelfisk
Remarks: Aphanopus minor Collett 1887, a junior synonym, was described from East Greenland, 65°N, 31°W, holotype ZMUO J1797.

Scombridae (En-mackerel fishes, Da-makrelfisk, Gr-makrelfisk)
Large, fusiform fish with a number of finlets behind second dorsal and anal fin, a deeply forked caudal fin and 2-3 keels on caudal peduncle. Occurs pelagically in upper layers of all oceans. Known from about 50 species (Nelson 2006), one in Greenland waters.

Thunnus thynnus (Linnaeus, 1758)
En-Atlantic bluefin tuna, Da-atlantisk tun, Gr-atlantisk tun

Ammodytidae (En-sand eels, Da-tobiser, Gr-tobiser)
Very elongate fish with pointed head and projecting lower jaw. Long dorsal and anal fins free of caudal fin and pelvic fins absent. Occurs in shallow water in large schools often burrowed in the bottom. Known from about 25 species (Nelson 2006), two in Greenland waters.

Ammodytes dubius Reinhardt, 1837
En-northern sand eel, Da-nordlig tobis, Gr-putorugoq

Ammodytes marinus Raitt, 1934
En-lesser sand eel, Da-havtobis, Gr-havtobis

Syngnathidae (En-pipefishes, Da-nålefisk, Gr-nålefisk)
Entelurus aequoreus (Linnaeus, 1758)
En-snake pipifish, Da-snippe, Gr-snippe

Greenland distribution: SW, very rare, guest, 0–168 m. Known from two records off SW Greenland from 2005-2007, 60°24'N, 47°08'W, 21 August 2005, ZMUC P39871; 63°05'N, 50°39'W, Fiskenenæsset south of Nuuk, 2005, ZMUC uncat. Elsewhere found in the Eastern Atlantic from Iceland to Baltic Sea and the Azores.
Remarks: Apparently this species is expanding its distribution into subarctic waters (Fleischer et al. 2007).

Pleuronectidae (En-righteye flounders, Da-flynderfamilien, Gr-nataarnakkut)
One of the 11 families of the order of flatfishes (Pleuronectiformes). Except for a very few species both eyes are placed on the same side of the body. The eyeless side is normally white or pale and the eyed side often takes the colour of the bottom. Newly hatched larvae are symmetrical with one eye on each side. Normally all flounders have the eyes on the right side. Worldwide ca. 90 species (Nelson 2006), found in all oceans but the majority in temperate and cold zones of the northern hemisphere. Six species in Greenland waters.

Glyptocephalus cynoglossus (Linnaeus, 1758)
En-witch, Da-skærising, Gr-skærising


Hippoglossoides platessoides (Fabricius, 1780)
En-long rough dab, Da-håising, Gr-oquutaq


Hippoglossus hippoglossus (Linnaeus, 1758)
En-Atlantic halibut, Da-helleflynder, Gr-nataarnaq

Remarks: With lengths up to 250 cm this is the second largest of all flatfish.

Microstomus kitt (Walbaum, 1792)
En-lemon sole, Da-rødtunge, Gr-rødtunge

Literature: Nielsen (1986b: 1304)
Pleuronectes platessa Linnaeus, 1758
En-plaice, Da-rødspætte, Gr-rødspætte


Remarks: Larvae are transported with currents from Iceland.

Literature: Nielsen (1986b: 1305)

Reinhardtius hippoglossoides (Walbaum, 1792)
En-Greenland halibut, Da-hellefisk, Gr-qaleralik


Remarks: The left eye has stopped the migration to the right side on the dorsal edge. Often caught pelagically far off the bottom swimming with the ventral edge and not the eyeless side downwards. The eyeless side more or less coloured.


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