



Zootaxa 2378: 1–84 (2010)
www.mapress.com/zootaxa/

Copyright © 2010 · Magnolia Press

Monograph

ISSN 1175-5326 (print edition)

ZOOTAXA

ISSN 1175-5334 (online edition)

ZOOTAXA

2378

A checklist of the fish fauna of Greenland waters

PETER R. MØLLER^{1,4}, JØRGEN G. NIELSEN¹, STEEN W. KNUDSEN¹,
JAN Y. POULSEN¹, KAJ SÜNKSEN² & OLE A. JØRGENSEN³

¹Natural History Museum of Denmark, Zoological Museum, University of Copenhagen, Universitetsparken 15,
DK-2100 Copenhagen Ø, Denmark. E-mail: PDRMoller@snm.ku.dk

²Greenland Institute of Natural Resources, P.O. Box 570, GL-3900 Nuuk, Greenland. E-mail: Kaj@natur.gl

³DTU Aqua, National Institute of Aquatic Resources, Technical University of Denmark, Charlottenlund Slot,
Jægersborg Allé 1, 2920 Charlottenlund, Denmark. E-mail: olj@aqu.dtu.dk

⁴Corresponding author



Magnolia Press
Auckland, New Zealand

Peter R. Møller, Jørgen G. Nielsen, Steen W. Knudsen, Jan Y. Poulsen¹, Kaj Sünksen & Ole A. Jørgensen
A checklist of the fish fauna of Greenland waters
(*Zootaxa* 2378)

84 pp.; 30 cm.

26 February 2010

ISBN 978-1-86977-467-7 (paperback)

ISBN 978-1-86977-468-4 (Online edition)

FIRST PUBLISHED IN 2010 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: zootaxa@mapress.com

<http://www.mapress.com/zootaxa/>

© 2010 Magnolia Press

All rights reserved.

No part of this publication may be reproduced, stored, transmitted or disseminated, in any form, or by any means, without prior written permission from the publisher, to whom all requests to reproduce copyright material should be directed in writing.

This authorization does not extend to any other kind of copying, by any means, in any form, and for any purpose other than private research use.

ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

Table of contents

Abstract	3
Introduction	4
Material and methods	5
Results and discussion	5
Acknowledgements	12
Checklist	13
Literature	70

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 asteroides*, *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. Krøyer (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 (Schwarzthans 2004). Since then

temperatures have decreased and today's Greenland has 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 Jónsson & 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

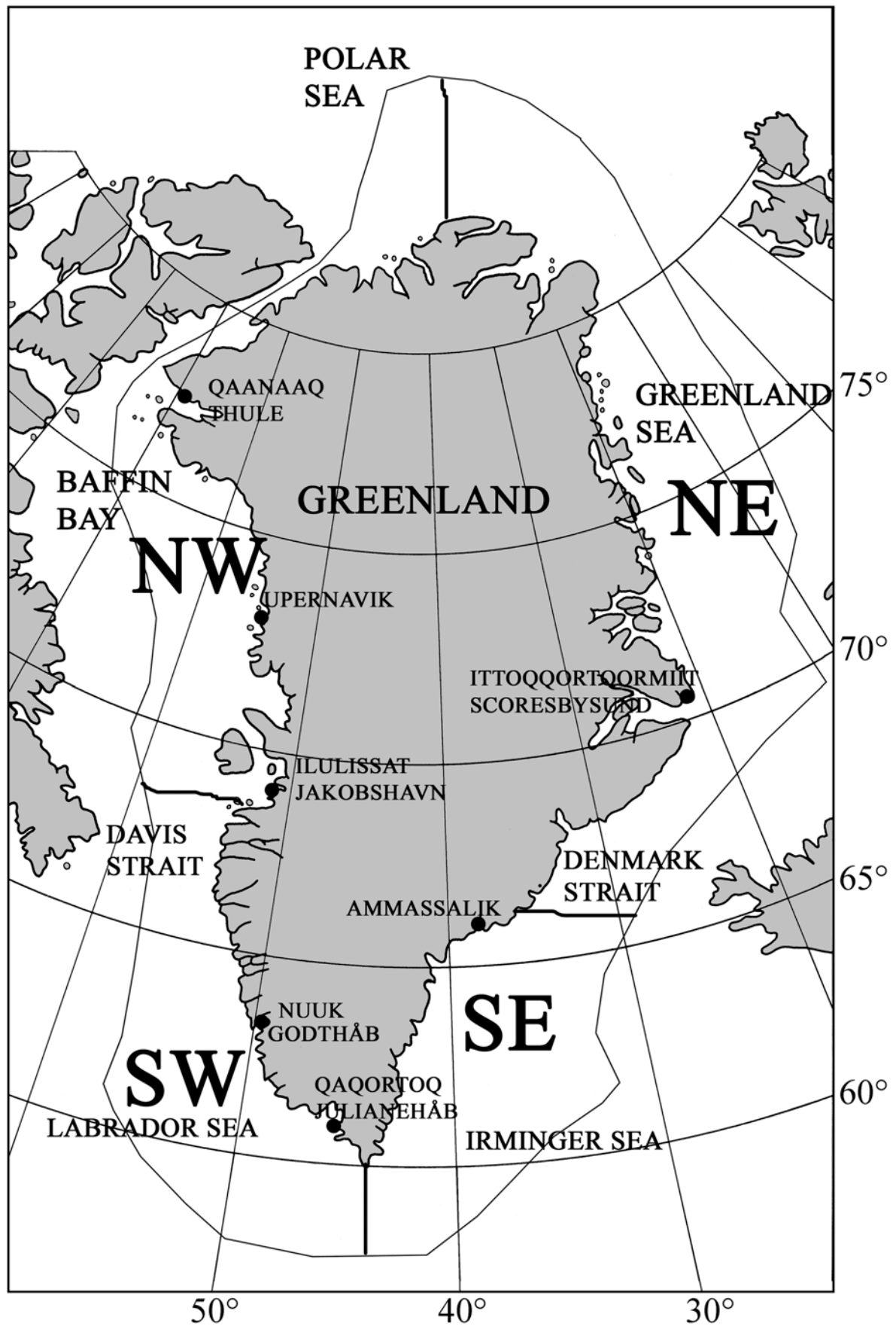


FIGURE 1. Map of the Greenland EEZ and of the four major regions in Greenland waters. SW-South West, NW-North West, SE-South East, NE-North East.

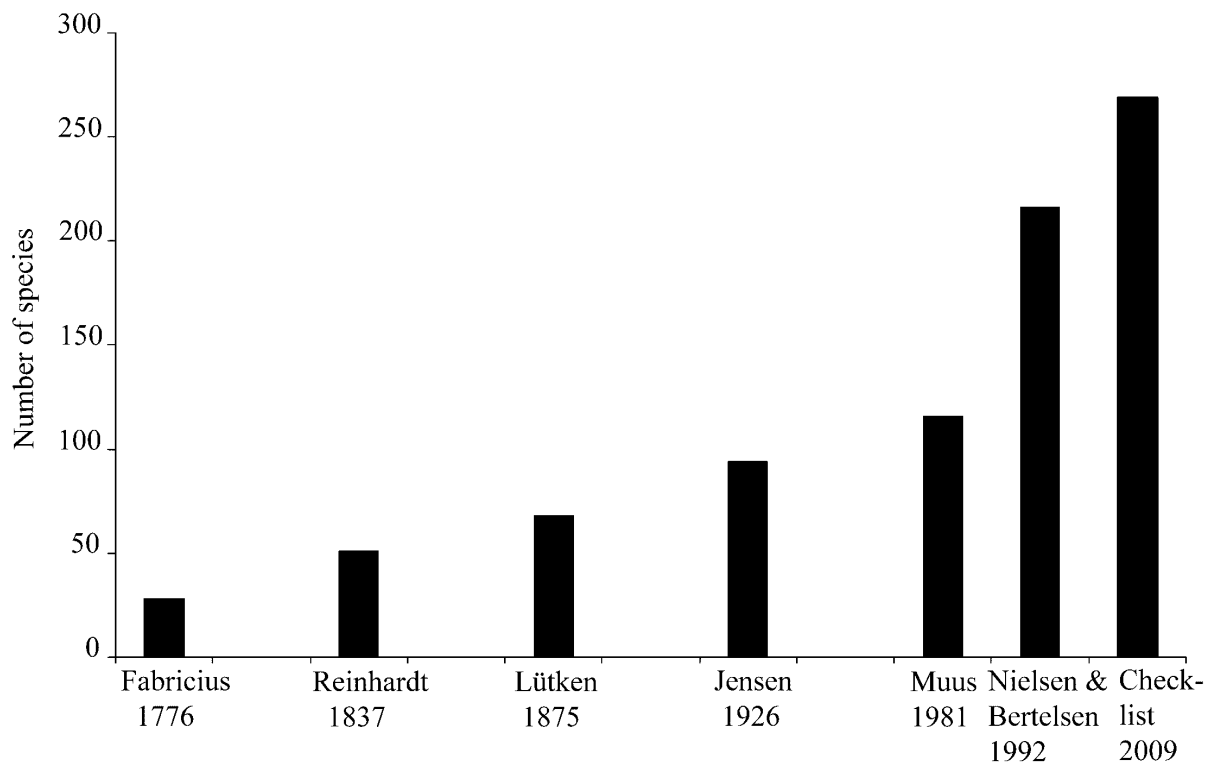


FIGURE 2. Number of species included in previous and current checklists of the Greenland fish Fauna.

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 bigelowi* 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.

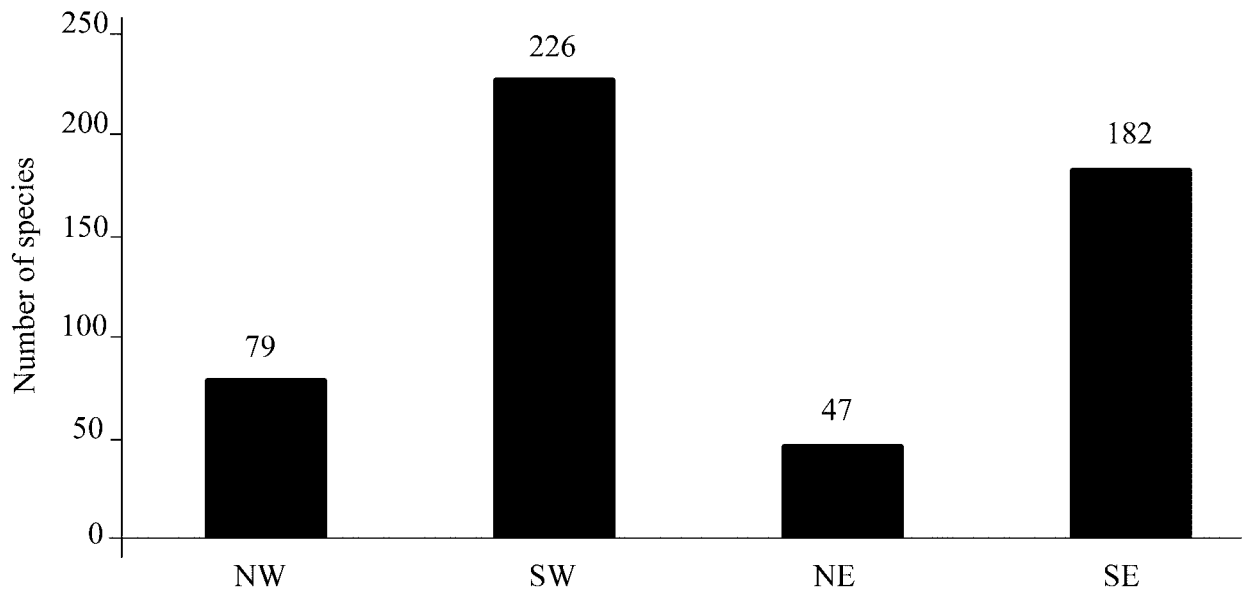


FIGURE 3. Number of species in the four major regions in Greenland waters, November 2009.

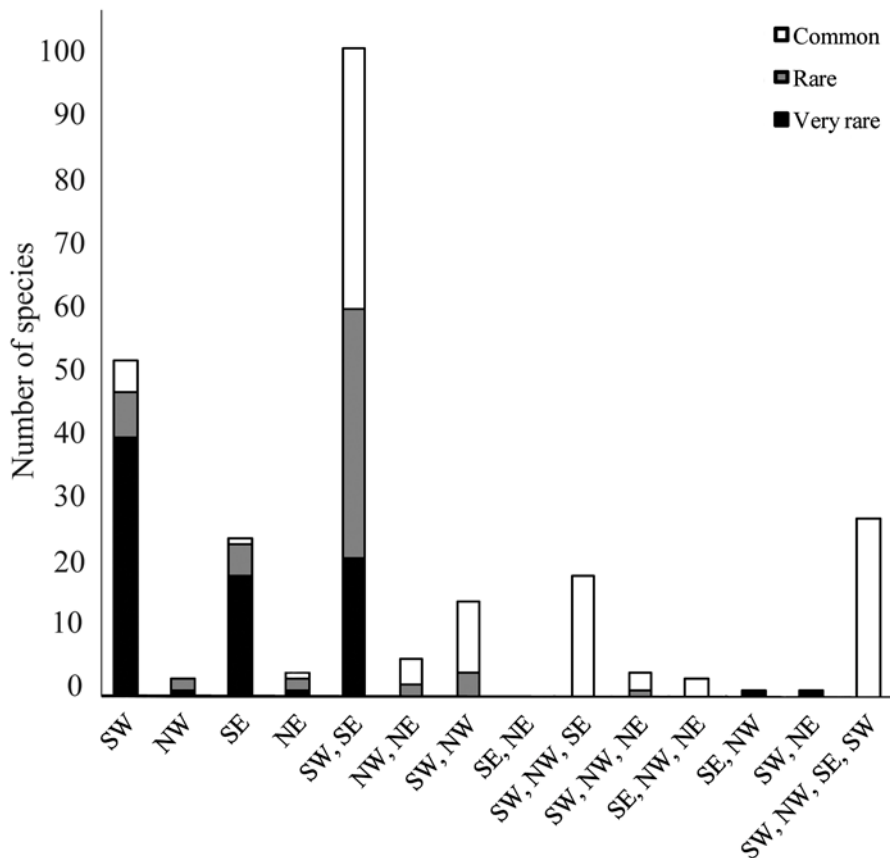


FIGURE 4. Distribution of the 269 fish species known from Greenland waters. Each species is classified as very rare, < 5 records; rare, 6–50 records, or common, > 50 records.

TABLE 1. Fish species added to the Greenland fauna since Nielsen & Bertelsen (1992).

	Year	Region	Depth, m	Source
Caught 1992-2009				
<i>Apristurus laurussonii</i> (Saemundsson, 1922)	1999-2000	SW, SE	800-1413	Jørgensen <i>et al.</i> (2005)
<i>Argyropelecus gigas</i> Norman, 1930	1998-2004	SW	418-1202	ZMUC
<i>Barbantus curvifrons</i> (Roule & Angel, 1931)	2001	SE	320	Jónsson & Pálsson (2006)
<i>Bathytroctes microlepis</i> Günther, 1878	2004	SE	1477-1508	ZMUC
<i>Benthalbella infans</i> Zugmayer, 1911	2003	SE	550-850	Jónsson & Pálsson (2006)
<i>Centroscymnus coelolepis</i> Bocage & Capello, 1864	2007-2009	NW, SE	886-1275	ZMUC
<i>Ceratoscopelus maderensis</i> (Lowe, 1839)	2009	SW	226	ZMUC
<i>Chimaera monstrosa</i> Linnaeus, 1758	2002	SE	900	Møller <i>et al.</i> (2004)
<i>Coryphaenoides mediterraneus</i> Giglioli, 1893	1998	SE	1455	ZMUC
<i>Dissostichus eleginoides</i> Smitt, 1898	2000	SW	1330	Møller <i>et al.</i> (2003)
<i>Einara edentula</i> (Alcock, 1892)	1997, 2009	SW	956-1195	ZMUC
<i>Entelurus aequoreus</i> (Linnaeus, 1758)	2005-2007	SW	0-168	ZMUC
<i>Epigonus telescopus</i> (Risso, 1810)	2002	SE	1015-1375	ZMUC
<i>Harriotta raleighana</i> Goode & Bean, 1895	2007	SE	1000-1240	ZMUC
<i>Helicolenus dactylopterus</i> (Delaroche, 1809)	1996-1998	SW, SE	220-242	ZMUC
<i>Hydrolagus pallidus</i> Hardy & Stehmann, 1990	1992	SW	1336	Møller (2001c)
<i>Guttigadus latifrons</i> (Holt & Byrne, 1908)	2004	SE	817	ZMUC
<i>Linophryne bicornis</i> Parr, 1927	2009	SW	1428	ZMUC
<i>Lophius piscatorius</i> Linnaeus, 1758	2007-2009	SW, SE	281-526	ZMUC
<i>Lycodes mcallisteri</i> Møller, 2001a	2001	SW, NW	650-900	Jørgensen <i>et al.</i> (2005)
<i>Maurolicus muelleri</i> (Gmelin, 1789)	1997-2009	SW	173-1119	ZMUC
<i>Melanolagus bericoides</i> (Borodin, 1929)	1995	SW	1089-1130	Amaoka (1995)
<i>Melanostomias bartonbeani</i> Parr, 1927	2005	SW	316	ZMUC
<i>Merlangius merlangus</i> (Linnaeus, 1758)	2004-2007	SW	12-150	ZMUC
<i>Nansenia oblita</i> (Facciola, 1887)	2009	SW	360	ZMUC
<i>Polyipnus asteroides</i> Schultz, 1938	1997-2009	SW	427-1162	ZMUC
<i>Polymetme corythaeola</i> (Alcock, 1898)	2004	SW	360	ZMUC
<i>Rhinochimaera atlantica</i> Holt & Byrne, 1909	1999-2004	SE	400-1500	Møller <i>et al.</i> (2004)
Caught before 1992				
<i>Aphanopus carbo</i> Lowe, 1839	1887-2008	SW, SE	396-1025	Collett (1887)
<i>Bathylaco nigricans</i> Goode & Bean, 1896	1990	SW	879	Nakamura & Okamura (1995)
<i>Careproctus kidoi</i> Knudsen & Møller, 2008	1988-2004	NW, SW	952-1487	Knudsen & Møller (2008)
<i>Danaphryne nigrifilis</i> (Regan & Trewavas, 1932)	1989	SW	1082	Stearn & Pietsch (1995)
<i>Etmopterus princeps</i> Collett, 1904	1988	SE	689	Yano (1995)
<i>Gonostoma elongatum</i> Günther, 1878	1984	SE	?	Badcock (1984)
<i>Gyrinomimus myersi</i> Parr, 1934	1989-1999	SE, SW	1145-1460	Amaoka (1995)

continued next page

TABLE 1. (continued)

	Year	Region	Depth, m	Source
<i>Halargyreus johnsonii</i> Günther, 1862	1989-2009	SW	653-1500	Okamura (1995)
<i>Lampris guttatus</i> (Brünnich, 1788)	1867-2005	SW	?	Lütken (1875)
<i>Linophryne algibarbata</i> Waterman, 1939	1990	SW	1075	Stearn & Pietsch (1995)
<i>Lumpenella longirostris</i> (Evermann & Goldsborough, 1907)	Ca. 1990	SW	734	Miki (1995)
<i>Lycenchelys paxillus</i> (Goode & Bean, 1879b)	1895-2009	SW	414-1250	Jensen (1902) Møller (1999)
<i>Lycodes adolfi</i> Nielsen & Fosså, 1993	1928-2004	NW, NE	386-1880	Nielsen & Fosså (1993)
<i>Lycodes gracilis</i> Sars, 1867	1994-2009	SE	280-900	Carl (2002)
<i>Lycodes luetkenii</i> Collett, 1880	1909-2008	SW, NW, NE	100-900	Saito & Okamura (1995)
<i>Lycodes paamiuti</i> Møller, 2001b	1988-2009	SW,NW, SE, NE	337-1337	Møller (2001b)
<i>Lycodes terraenovae</i> Goode & Bean, 1896	1988-2009	SW, SE	700-1500	Møller (1997)
<i>Lycodon mirabilis</i> Goode & Bean, 1883	1928-2009	SW, NW	600-1500	Jensen (1952a)
<i>Melanocetus murrayi</i> Günther, 1887	1990	SW	1160-1226	Stearn & Pietsch (1995)
<i>Microstomus kitt</i> (Walbaum, 1792)	1982	SE	111-424	Rätz (1999)
<i>Myxine jespersenae</i> Møller <i>et al.</i> , 2005	1991-2008	SW, SE	750-1550	Møller <i>et al.</i> (2005)
<i>Nezumia bairdii</i> (Goode & Bean, 1877)	1909-2009	SW	500-1255	Jensen (1926) Karrer (1973)
<i>Phyllorhynchichthys balushkini</i> Pietsch, 2004	1989	SW	1150	Pietsch (2004)
<i>Pseudnos gelatinosus</i> Chernova, 2001	1985	SW	0-650	Chernova (2001)
<i>Pseudnos groenlandicus</i> Chernova, 2001	1991-2004	SW, SE	786-1460	Chernova (2001)
<i>Pseudnos melanocephalus</i> Chernova & Stein, 2002	1962-2003	SW	949-962	Chernova & Stein (2002)
<i>Pseudnos micruroides</i> Chernova, 2001	1985-2003	SW, SE	0-1333	Chernova (2001)
<i>Rajella bigelowi</i> Stehmann, 1978	1991-2005	SW	1050-1500	Nakaya (1995)
<i>Rouleina attrita</i> (Vaillant, 1888)	1989-1997	SW, SE	834-1140	Nakamura & Okamura (1995)

Nineteen species (*Harriotta raleighana* Goode & Bean, 1895; *Centroscymnus coelolepis* Bocage & Capello, 1864; *Bathytroctes microlepis* Günther, 1878; *Einara edentula* (Alcock, 1892); *Ceratoscopelus maderensis* (Lowe, 1839); *Maurolicus muelleri* (Gmelin, 1789); *Argyropelecus gigas* Norman, 1930; *Polyipnus asteroides* Schultz, 1938; *Nansenia oblita* (Facciola, 1887); *Melanostomias bartonbeani* Parr, 1927; *Polymetme corythaeola* (Alcock, 1898); *Coryphaenoides mediterraneus* Giglioli, 1893; *Merlangius merlangus* (Linnaeus, 1758); *Guttigadus latifrons* (Holt & Byrne, 1908); *Entelurus aequoreus* (Linnaeus, 1758); *Helicolenus dactylopterus* (Delaroche, 1809); *Epigonus telescopus* (Risso, 1810); *Lophius piscatorius* Linnaeus, 1758; *Linophryne bicornis* 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), *Lycodon mirabilis* Goode & Bean, 1883 and *Gonostoma elongatum* 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 & Fosså, 1993; *Lycodes paamiuti* Møller, 2001b; *Pseudnos*

groenlandicus Chernova, 2001; *Pseudnos micruroides* Chernova, 2001; *Pseudnos gelatinosus* Chernova, 2001; *Pseudnos melanocephalus* Chernova & Stein, 2002; *Phyllorhinichthys 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.

Acknowledgements

The following persons are thanked for their help with collecting information and specimens: Kunio Amaoka, Michael Andersen, Gert Asmund, Lars Angantyr, Gerd Beck, Thomas Berg, Jesper Boje, Ingvar Bundgaard, Dan Carlsson, Dan Christensen, Hiromitsu Endo, Peter Fransen, Peter Gravlund, Louise Hansen, Paul M. Hansen, Ebbe Hartz, Lars Heilmann, Peter Houmark, Holger Hovgård, Hisashi Imanura, Bo Jacobsen, Sannie Jacobsen, Ingvar Jensen, Dennis Jensen, Sikka Joensen, Anders D. Jordan, Torben Jørgensen, Hanne & Jean Just, Hans Martin Høj, Anne Klitgaard, Troels Kullberg, Kåpe Lange, Børge Madsen, Tammes Menne, Martin Munck, Kazuhiro Nakaya, John Østergaard Nielsen, Julius Nielsen, Torkel Gissel Nielsen, Klaus Nygaard, Rasmus Nygaard, Søren A. Pedersen, Edward Qvist, Kim Præbel, Frank Riget, Jens Rosing, Michael Rosing, Søren Rysgaard, Finn Arni Samuelson, Hanne and Birger Sandell, Helle Siegstad, Birgir Sivertsen, Olaf Solsker, Lone Thorbjørn, Torben Wolf, and all fishermen and research vessel crew members that have assisted in the collection of fishes. Birgitte Rubæk made the fish drawings and Geert Brovad some of the photos.

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

Greenland distribution: SW, SE, common, spawning, benthic, 20–800 m (Lütken 1875: 122, Jensen 1926: 98, Jensen 1941a: 55, Muus 1981: 32, Nielsen & Bertelsen 1992: 6, Nakaya 1995: 45, Pedersen & Kanneworff 1995: 177, Rätz 1999: 5, Møller *et al.* 2005: 278 - BSKU, ZMUC. Elsewhere found on both sides of the North Atlantic.

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 jespersenae* 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).



FIGURE 5. *Myxine jespersenae*, ZMUC P02129, 463 mm TL, Davis Strait, 8 August 1991. Drawing Birgitte Rubæk.

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.

Literature: Vladykov (1984: 64), Flescher & Martini (2002: 17).

Scyliorhinidae (En-catsharks, Da-rødhajer, Gr-rødhajer)

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.

Literature: Compagno (1984b: 270), Quérou (1984: 95).

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

Greenland distribution: SW, NW, rare, breeding, benthic, 8–950 m. Few specimens known, apparently from the west coast only (Jensen 1914: 7, Jensen 1926: 101, Jensen 1939: 18, Jensen 1948: 10, Hansen 1963: 162, Muus 1981: 34, Nielsen & Bertelsen 1992: 8, Yano 1995b: 51, Rätz 1999: 6 - NSMT, ZMUC). Elsewhere found worldwide in temperate coastal waters.

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

Literature: Compagno (1984a: 111), McEachran & Branstetter (1984: 146), Mecklenburg *et al.* (2002: 88), Burgess (2002: 54).

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.

Centroscyllum fabricii (Reinhardt, 1825)

En-black dogfish, Dk-Fabricius' sorthaj, Gr-eqalussuaq qernertoq

Greenland distribution: SW, SE, common, breeding, benthopelagic, 522–1340 m (Lütken 1875: 122, Jensen 1914: 4, Jensen 1926: 101, Jensen 1948: 7, Hansen 1953: 188, Hansen 1963: 161, Muus 1981: 36, Nielsen & Bertelsen 1992: 8, Pedersen & Kannevorff 1995: 177, Yano 1995a: 283, Yano 1995b: 47, Rätz 1999: 6, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). Elsewhere known from both sides of the North Atlantic and in the Southwest Atlantic.

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

Literature: Compagno (1984a: 47), McEachran & Branstetter (1984: 133), Burgess (2002: 49).

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.

Literature: Compagno (1984a: 81), McEachran & Branstetter (1984: 139).

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 fløjlsahaj, Gr-portugisisk fløjlsahaj

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.

Literature: Compagno (1984a: 55), McEachran & Branstetter (1984: 134), Burgess (2002: 50).

Somniosus microcephalus (Bloch & Schneider, 1801)

En-Greenland shark, Dk-havkal or grønlandshaj, Gr-eqalussuaq or niialinga

Greenland distribution: SW, NW, SE, NE, common, breeding, benthic, 0–1500 m (Lütken 1875: 122, Jensen 1904a: 276, Jensen 1914: 8, Jensen 1926: 101, Jensen 1948: 13, Hansen 1953: 182, Muus 1981: 33, Nielsen & Bertelsen 1992: Yano 1995b: 52, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1862, Yano *et al.* 2007: 374 - HUMZ, ZMUC). Elsewhere found on both sides of the North Atlantic.

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

Literature: Compagno (1984a: 103), McEachran & Branstetter (1984: 143), Burgess (2002: 52).

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 Manitoq (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.

Literature: Quéro (1984: 87), Compagno (2001: 121), Branstetter *et al.* (2002: 30).

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.

Literature: Compagno (1984a: 234), Quéro (1984: 89), Branstetter *et al.* (2002: 32), Mecklenburg *et al.* (2002: 81).

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

Body almost circular, snout more or less pointed. Dorsal side with thorns and thornlets. Tail long and thin. Egg-laying. Fertilised eggs in large rectangular horny capsules, with a short horn in each corner. About 238 species, in all oceans from Arctic to Antarctic seas (Nelson 2006). Nine species in Greenland waters.

Amblyraja hyperborea Collett, 1879

En-Arctic skate, Dk-arktisk rokke, Gr-issittup tarraleqisaava

Greenland distribution: SW, NW, SE, common, spawning, benthic, 517–1484 m (Jensen 1914: 20, Jensen 1926: 101, Jensen 1948: 31, Muus 1981: 41, Nielsen & Bertelsen 1992: 8, Nakaya 1995: 58, Jørgensen *et al.* 2005: 1852, Sulak *et al.* 2009: 24 - BSKU, ZMUC). Elsewhere found in the Norwegian Sea and off New Zealand.

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-agdlernaq

Greenland distribution: SW, NW, SE, common, spawning, benthic, 20–1442 m (Lütken 1875: 122, Jensen 1914: 17, Jensen 1926: 101, Jensen 1948: 27, Muus 1981: 40, Nielsen & Bertelsen 1992: 10, Nakaya 1995:

57, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852, Sulak *et al.* 2009: 25 - HUMZ, ZMUC). Elsewhere found in the western North Atlantic southward to off North Carolina and in the eastern North Atlantic southward to the North Sea.

Literature: Stehmann & Bürkel (1984: 174), McEachran (2002: 62), Templeman 1984: 171.

Bathyraja spinicauda (Jensen, 1914)

En-spinetail ray, Dk-tornhalet rokke, Gr-taqqalerisaaq

Greenland distribution: SW, SE, common, spawning, 230–1442 m (Jensen 1914: 30, Jensen 1926: 101, Jensen 1948: 49, Karrer 1976: 371, Muus 1981: 39, Nielsen & Bertelsen 1992: 8, Nakaya 1995: 53, Rätz 1999: 6, Jørgensen *et al.* 2005: 1850, Sulak *et al.* 2009: 30 - HUMZ, ZMB, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Stehmann & Bürkel (1984: 167).

Dipturus linteus (Fries, 1838b)

En-sailray, Dk-hvidrokke, Gr-hvidrokke

Greenland distribution: SW, rare, guest, benthic, 400–600 m (Jensen 1914: 28, Jensen 1926: 101, Jensen 1948: 46, Muus 1981: 43, Nielsen & Bertelsen 1992: 10, Nakaya 1995: 60, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5, Sulak *et al.* 2009: 28 - HUMZ, ZMUC). Elsewhere found in the eastern North Atlantic.

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

Literature: Stehmann & Bürkel (1984: 194).

Malacoraja spinacidermis (Barnard, 1923)

En-roughskin skate, Dk-lodden rokke, Gr-lodden rokke

Greenland distribution: SW, SE, rare, guest, 650–1300 m (Nakaya 1995: 59, Nielsen & Bertelsen 1992: 10, Jørgensen *et al.* 2005: 1852, Sulak *et al.* 2009: 29 - ZMUC), Elsewhere found in the Atlantic Ocean.

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

Literature: Stehmann & Bürkel (1984: 182).

Rajella bathyphila Holt & Byrne, 1908

En-deepwater ray, Dk-dybhavssrokke, Gr-dybhavssrokke

Greenland distribution: SW, SE, rare, guest, 850–1500 m (Nakaya 1995: 54, Nielsen & Bertelsen 1992: 10, Rätz 1999: 6, Jørgensen *et al.* 2005: 1851, Sulak *et al.* 2009: 27 - HUMZ, ZMUC). Elsewhere found on both sides of the North Atlantic.

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

Literature: Stehmann & Bürkel (1984: 190).

Rajella bigelowi Stehmann, 1978 (Fig. 6)

En-Bigelow's ray, Dk-Bigelow's rokke, Gr-Bigelow's rokke

Greenland distribution: SW, guest, benthic, rare, 1050–1500 m (Nakaya 1995: 55, Jørgensen *et al.* 2005: 1852, Sulak *et al.* 2009: 27 - HUMZ, ZMUC). Elsewhere found on both sides of the North Atlantic.

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

Literature: Stehmann & Bürkel (1984: 191).

Rajella fyllae Lütken, 1887

En-round ray, Dk-Fyllas rokke, Gr-Fyllas rokke

Greenland distribution: SW, SE, common, spawning, bentic, 300–1271 m (Jensen 1914: 27, Jensen 1926: 101, Muus 1981: 44, Jensen 1948: 43, Nielsen & Bertelsen 1992: 8, Nakaya 1995: 56, Pedersen & Kan-

neworff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852, Sulak *et al.* 2009: 26 - HUMZ, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Stehmann & Bürkel (1984: 192).

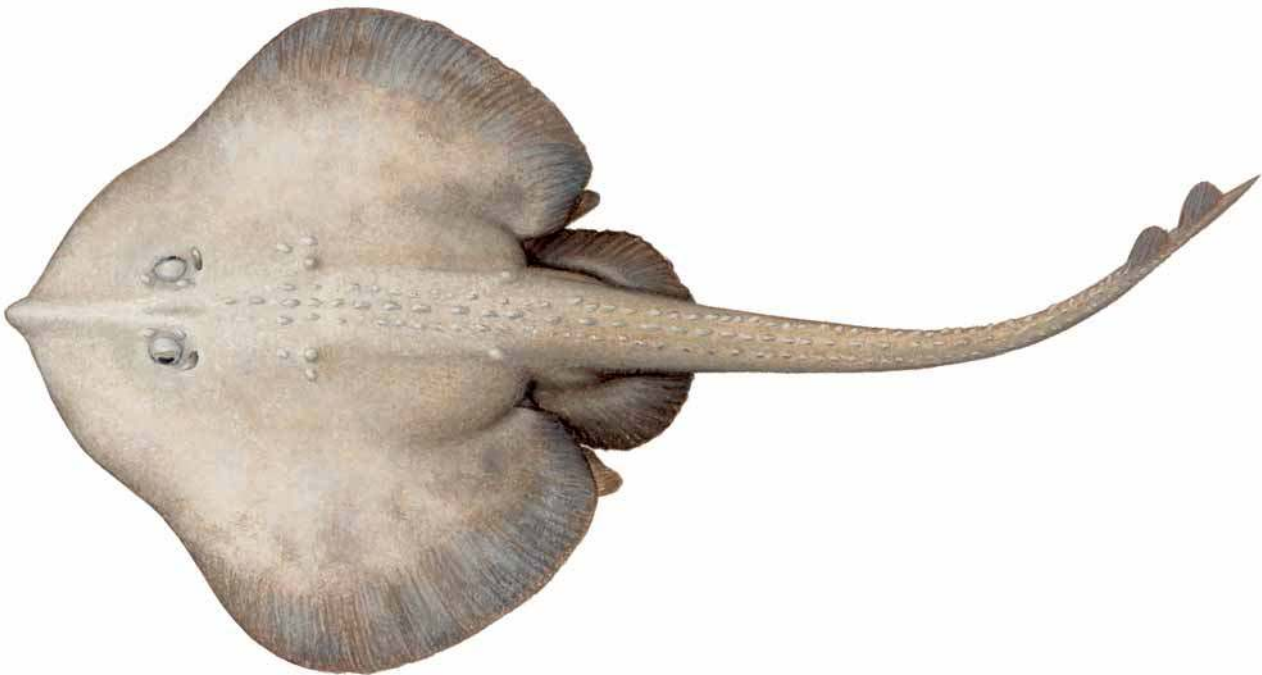


FIGURE 6. *Rajella bigelowi*, ZMUC P08475, Davis Strait, 30 September 1999. Drawing Birgitte Rubæk.

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.

Literature: Stehmann & Bürkel (1984: 213), Didier (1998: 286).

Hydrolagus affinis (Capello, 1868)

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

Greenland distribution: SW, SE, common, spawning, benthic, 1100–1960 m (Karrer 1976: 372, Nielsen & Bertelsen 1992: 10, Jónsson 1992: 117, Nakaya 1995: 46, Møller *et al.* 2004: 58, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMB, ZMUC). Elsewhere known from both sides of the North Atlantic and the Mid-Atlantic Ridge.

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.

Literature: Hardy & Stehmann (1990: 229).

Rhinochimaeridae (En-longnose chimaeras, Da-langsnudede havmus, Gr-langsnudede 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

Greenland distribution: SW, very rare, guest, benthic, 2020 m. Known from the holotype and one paratype caught in Davis Strait, 63°21'N, 57°00'W, 14 July 1970, ZMB 22591-92 (Karrer 1972: 210, 1973: 73, Nielsen & Bertelsen 1992: 10). Elsewhere found in the North Atlantic, Indian Ocean and South West Pacific.

Literature: Karrer (1972: 210).

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, 1001–1268 m, 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.

Literature: Karrer (1972: 206), Stehmann & Bürkel (1984: 217).

Rhinochimaera 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.

Literature: Stehmann & Bürkel (1984: 218).

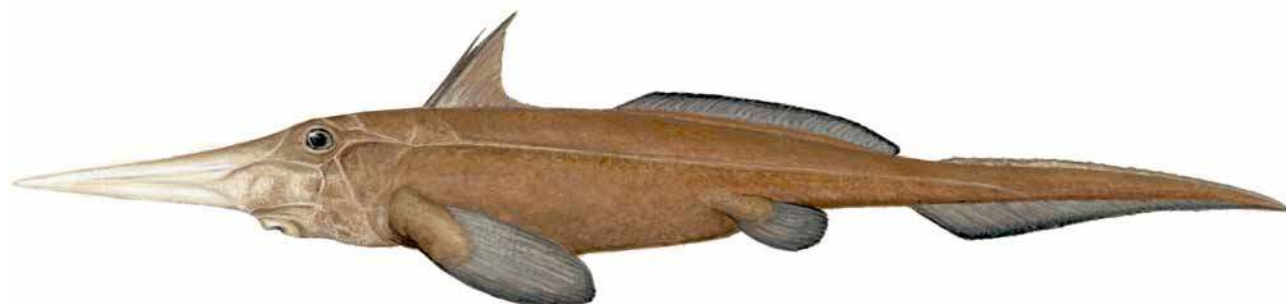


FIGURE 7. *Rhinochimaera atlantica*, ZMUC P0955, Denmark Strait, 26 June 1999. Drawing Birgitte Rubæk.

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

Slender fish with long tail, depressed snout and inferior mouth, large scales and short, soft-rayed 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.

Literature: Sulak (1986: 594).

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 chemnitzii Bloch, 1788

En-Chemnitz's spiny eel, Da-Chemnitz pigål, Gr-Chemnitz pigål

Greenland distribution: SW, SE, common, guest, 522–1458 m (Lütken 1875: 116, Jensen 1926: 101, Muus 1981: 60, Nielsen & Bertelsen 1992: 18, Okamura & Takahashi 1995: 61, Pedersen & Kannevorff 1995: 177, Rätz 1999: 6, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in all oceans, except polar waters.

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.

Literature: Mecklenburg *et al.* (2002: 119), Sulak (1986: 600).

Polyacanthonotus rissoanus De Filippi & Verany, 1857

En-smallmouth spiny eel, Da-savrygget pigål, Gr-savrygget pigål

Greenland distribution: SW, common, guest, 487–1458 m (Jensen 1926: 101, Karrer 1976: 373, Nielsen & Bertelsen 1992: 18, Okamura & Takahashi 1995: 62, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in all oceans, except polar waters.

Literature: Sulak (1986: 602).

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

Greenland distribution: SW, rare, guest, freshwater, benthic, 0–10 m (Fabricius 1780: 137, Schmidt 1909: 124, Jensen 1937: 3, Muus 1981: 58, Nielsen & Bertelsen 1992: 16, ZMUC). Elsewhere found in eastern North America. Records of this species in Europe (Boetius 1976) need confirmation.

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

Literature: Smith & Tighe (2002: 93).

Synphobranchidae (En-cutthroat 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,

54°05'W, 29 July 1895, ZMUC P321003 (Jensen 1926: 101, Jensen 1948: 59, Muus 1981: 59, Nielsen & Bertelsen 1992: 16). Elsewhere found in all oceans, except polar waters.

Literature: Saldanha & Bauchot (1986: 588), Mecklenburg *et al.* (2002: 123).

Synaphobranchus kaupi Johnson, 1862

En-Kaup's arrowtooth eel, Da-spidsesnudet dybhavsål, Gr-spidsesnudet dybhavsål

Greenland distribution: SW, SE, common, guest, 325–1458 m (Jensen 1926: 101, Jensen 1948: 58, Muus 1981: 59, Nielsen & Bertelsen 1992: 16, Okamura 1995: 64, Pedersen & Kannevorff 1995: 178, Jørgensen *et al.* 2005: 1852, BSKU, ZMUC). Elsewhere found in all oceans, except polar waters.

Literature: Saldanha & Bauchot (1986: 591), Tighe & Smith (2002: 95).

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, Julianehåbsfjord, 16 April 1990, ZMUC P312688 (Nielsen & Bertelsen 1992: 4). Elsewhere found in all oceans, except polar waters.

Literature: Nielsen (1986a: 552), Mecklenburg *et al.* (2002: 125).

Nemichthys scolopaceus Richardson, 1848

En-slender snipe eel, Da-langhalet sneppeål, Gr-langhalet sneppeål

Greenland distribution: SE, rare, guest, 334–1115 m (Nielsen & Bertelsen 1992: 16, Rätz 1999: 6, Jørgensen *et al.* 2005: 1852 - ZMUC). Elsewhere found in all oceans.

Remarks: In 2007 the Greenland R/V *Paamiut* caught a 139 cm specimen at 65°26.9'N, 31°33'W - a world record.

Literature: Nielsen (1986: 553), Mecklenburg *et al.* (2002: 126), Smith & Tighe (2002: 100).

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

Elongate, silvery, naked fish with long pointed jaws. Origin of dorsal fin posterior to origin of anal fin. Occurs pelagically in all oceans at 150–3000 m. Known from 10 species (Nelson 2006). One in Greenland waters.

Serrivomer beani Gill & Ryder, 1883

En-Bean's sawtoothed eel, Da-Beans næbål, Gr-Beans næbål

Greenland distribution: SW, SE, common, guest, 224–1960 m (Nielsen & Bertelsen 1992: 16, Nielsen & Schwägermann 1995: 65, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852: BSKU, ZMUC). Elsewhere found in the North Atlantic.

Literature: Bauchot (1986: 549), Tighe & Smith (2002: 103).

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 mid-point 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.

Literature: Mecklenburg *et al.* (2002: 131), Saldanha & Bauchot (1986: 557).

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

Greenland distribution: SW, SE, rare, guest, 294–1400 m (Jensen 1926: 101, Nielsen & Bertelsen 1992: 16, Nielsen & Schwägermann 1995: 66 - BSKU, ZMUC). Elsewhere known from the North Atlantic.

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 pelecanooides Vaillant, 1888

En-pelican eel, Da-pelikanål, Gr-pelikanål

Greenland distribution: SW, SE, rare, guest, 190–2020 m (Karrer 1973: 81, Nielsen & Bertelsen 1992: 16, Nielsen & Schwägermann 1995: 67 - HUMZ, ZMB, ZMUC). Elsewhere known from all oceans, except polar waters.

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

Greenland distribution: SW, SE, common, spawning, pelagic, 0–215 m (Lütken 1875: 121, Jensen 1926: 101, Jensen 1939: 14, Jensen 1948: 61, Muus 1981: 45, Nielsen & Bertelsen 1992: 18, ZMUC). Elsewhere found in the North Atlantic.

Literature: Whitehead (1984: 273), Munroe (2002: 111).

Argentinidae (En-argentines, Da-guldlaksfamilien, Gr-guldlaksfamilien)

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

Greenland distribution: SW, SE, common, guest, 100–765 m (Nielsen & Bertelsen 1992: 22, Amaoka 1995: 68, Rätz 1999: 5, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere known from the North Atlantic southwards to Georg's Bank and to Ireland.

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

Greenland distribution: SW, NW, SE, common, spawning, deep pelagic over bottom depths 412–1458 m (Jensen 1926: 101, Jensen 1948: 93, Karrer 1973: 75, Muus 1981: 52, Nielsen & Bertelsen 1992: 22, Amaoka 1995: 70, Jørgensen *et al.* 2005: 1850 - BSKU, ZMB, ZMUC). Elsewhere known from the North Atlantic.

Remarks: Needs revision.

Literature: Cohen (1984: 393).

Melanolagus bericoides (Borodin, 1929)

En-blacksmelt, Da-småøjjet sortsmelt, Gr-småøjjet 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-sølvs melt, Gr-sølvs melt

Greenland distribution: SW, SE, rare, spawning, deep pelagic, 180–960 m (Lütken 1875: 121, Jensen 1926: 101, Jensen 1948: 92, Nielsen & Bertelsen 1992: 22, Amaoka 1995: 69 - BSKU, ZMUC). Elsewhere known from the North Atlantic.

Literature: Cohen (1984: 391).

Nansenia oblita (Facciola, 1887)

En-no name, Da-bredhalet sølvs melt, Gr-bredhalet sølvs melt

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 gill-rakers. 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

Greenland distribution: SW, NW, SE, common, spawning, benthopelagic, 650–2020 m (Jensen 1948: 64, Karrer 1973: 75, Nielsen & Bertelsen 1992: 12, Nakamura & Okamura 1995: 72, Jørgensen *et al.* 2005: 1850 - BSKU, ZMB, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Markle & Quéro (1984: 230).

Alepocephalus bairdii Goode & Bean, 1879a

En-Baird's smooth-head, Dk-Bairds glathovedfisk, Gr-Bairds glathovedfisk

Greenland distribution: SW, SE, common, spawning, benthopelagic, 680–1400 m (Nielsen & Bertelsen 1992: 12, Nakamura & Okamura 1995: 73, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Markle & Quéro (1984: 231).

Bajacalifornia megalops (Lütken, 1898)

En-bigeye smooth-head, Dk-storøjet glathovedfisk, Gr-storøjet glathovedfisk

Greenland distribution: SW, SE, common, guest, benthopelagic 450–1460 m (Karrer 1976: 372, Nielsen & Bertelsen 1992: 12, Nakamura & Okamura 1995: 75, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere found in all Oceans, except polar waters.

Literature: Markle & Quéro (1984: 234).

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).

Literature: Markle & Quéro (1984: 235).

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.

Literature: Markle & Quéro (1984: 236).

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.

Literature: Markle & Quéro (1984: 242).

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

Bank, Denmark Strait (Nielsen & Bertelsen 1992: 12, Nakamura & Okamura 1995: 79). Elsewhere found in all oceans, except polar waters.

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

Greenland distribution: SW, SE, common, guest, benthopelagic over bottom depths 760–1255 m (Nielsen & Bertelsen 1992: 12, Nakamura & Okamura 1995: 78, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in Central and North Atlantic and South Eastern Pacific.

Literature: Markle & Quéro (1984: 249).

Xenodermichthys copei (Gill, 1884)

En-bluntsnout smooth-head, Dk-kortsnudet glathovedfisk, Gr-kortsnudet glathovedfisk

Greenland distribution: SW, SE, common, spawning?, benthopelagic, 400–1450 m (Nielsen & Bertelsen 1992: 12, Nakamura & Okamura 1995: 80, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in all oceans, except polar waters.

Literature: Markle & Quéro (1984: 252).

Platyroctidae (En-tubeshoulders, Da-skulderlysfisk, Gr-skulderlysfisk)

Body dark, head scaleless. Dorsal and anal fins near caudal fin. Shoulder sac producing luminous fluid, present behind opercular lobe. Light organs in many species. Known from 37 species in all oceans. Nine species in Greenland waters.

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).

Holtbyrnia anomala Krefft, 1980

En-bighead searsid, Dk-storhovedet skulderlysfisk, Gr-storhovedet skulderlysfisk

Greenland distribution: SW, SE, common, guest?, benthopelagic, 440–1444 m (Nielsen & Bertelsen 1992: 14, Nakamura & Okamura 1995: 81; Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found in the Atlantic Ocean.

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

Holtbyrnia macrops Maul, 1957

En-bigeye searsid, Dk-storøjet skulderlysfisk, Gr-storøjet skulderlysfisk

Greenland distribution: SW, SE, common, guest, benthopelagic, 350–1350 m (Nielsen & Bertelsen 1992: 14, Jørgensen *et al.* 2005: 1851 - ZMUC). Elsewhere found in the Eastern Atlantic Ocean.

Literature: Quéro *et al.* (1984: 260).

Maulisia mauli Parr, 1960

En-Maul's searsid, Dk-Mauls skulderlysfisk, Gr-Mauls skulderlysfisk

Greenland distribution: SW, SE, rare, guest, benthopelagic, 744–1482 m (Nielsen & Bertelsen 1992: 14 - ZMUC). Elsewhere known from the Atlantic and Indian Oceans.

Literature: Quéro *et al.* (1984: 261).

Maulisa microlepis Sazonov & Golovan, 1976

En-smallscale searsid, Dk-småskællet skulderlysfisk, Gr-småskællet skulderlysfisk

Greenland distribution: SW, SE, common, guest, benthopelagic 400–1460 m (Nielsen & Bertelsen 1992: 14, Nakamura & Okamura 1995: 82, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in the Atlantic Ocean.

Remarks: Nakamura & Okamura (1995: 83) described a specimen as *Maulisa* sp.

Literature: Quéro *et al.* (1984: 262).

Normichthys operosa Parr, 1951

En-multipore searsid, Dk-grubet skulderlysfisk, Gr-grubet skulderlysfisk

Greenland distribution: SW, SE, rare, guest, benthopelagic, 575–1500 m (Nielsen & Bertelsen 1992: 14, Nakamura & Okamura 1995: 84 - BSKU, ZMUC). Elsewhere found in the Atlantic Ocean.

Literature: Quéro *et al.* (1984: 263).

Platyroctes 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.

Literature: Quéro *et al.* (1984: 264).

Sagamichthys schnakenbecki (Kreffft, 1953)

En-Schnakenbeck's searsid, Dk-Schnakenbecks skulderlysfisk, Gr-Schnakenbecks skulderlysfisk

Greenland distribution: SW, SE, very rare, guest, benthopelagic, 200–875 m. Known from one specimen from Denmark Strait, 62°11'N, 34°00'W, 8 September 1989, ZMUC P17525, and two specimens from Davis Strait, 65°57'N, 56°25'W, 5 November 2001, ZMUC P17747 and 64°46'N, 55°30'W, 26 October 2004, ZMUC P17760 (Nielsen & Bertelsen 1992: 14, Nakamura & Okamura 1995: 85). Elsewhere found in the Eastern Atlantic Ocean.

Literature: Quéro *et al.* (1984: 265).

Searsia koefoedi Parr, 1937

En-Koefoed's searsid, Dk-Koefoeds skulderlysfisk, Gr-Koefoeds skulderlysfisk

Greenland distribution: SW, SE, rare, guest, benthopelagic, 520–1434 m (Nielsen & Bertelsen 1992: 14, Nakamura & Okamura 1995: 86 - BSKU, ZMUC). Elsewhere found in all oceans, except polar waters.

Literature: Quéro *et al.* (1984: 266).

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

Greenland distribution: SW, NW, SE, NE, common, spawning, 0–465 m (Lütken 1875: 121, Jensen 1904a: 274, Jensen 1910: 15, Jensen 1926: 101, Jensen 1939: 19, Jensen 1948: 79, Muus 1981: 51, Nielsen & Bertelsen 1992: 22, Pedersen & Kannevorff 1995, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005 - BSKU, ZMUC). Also found in colder parts of the northern hemisphere.

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

Literature: Klein-Macphee (2002: 163), Mecklenburg *et al.* (2002: 171).

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

Greenland distribution: SW, NE, very rare, guest, depth unknown. Known from two specimens caught near Arsuk, Paamiut, and Atamik, Nuuk, October 1. 1969, ZMUC P19549-50 and two specimens caught in Hurry Inlet, Ittoqqortoormiit/ Scoresbysund, 14 August 2009 and 12 September 2009 (identified from photos), (Muus 1981: 46, Nielsen & Bertelsen 1992: 22, ZMUC). Elsewhere found in the North Pacific and often introduced to the North Atlantic region.

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

Literature: Svetovidov (1984: 379), Kocik & Friedland (2002: 170), Mecklenburg *et al.* (2002: 205).

Salmo salar Linnaeus, 1758

En-Atlantic salmon, Da-atlantisk laks, Gr-atlantikup kapisilia

Greenland distribution: SW, SE, common, spawning in Kapisillit-river in Nuuk-fjord (Lütken 1875: 121, Jensen 1926: 101, Jensen 1939: 17, Jensen 1948: 65, Muus 1981: 47, Nielsen & Bertelsen 1992: 22 - ZMUC). Elsewhere found in North Atlantic.

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

Literature: Kocik & Friedland (2002: 174), Mecklenburg *et al.* (2002: 202).

Salvelinus alpinus (Linnaeus, 1758)

En-Arctic charr/char, Da-fjeldørred, Gr-eqaluk, kaporniangaq

Greenland distribution: SW, NW, SE, NE, common, spawning (Lütken 1875: 121, Jensen 1904a: 273, Jensen 1926: 101, Jensen 1948: 67, Muus 1981: 49, Nielsen & Bertelsen 1992: 22 - ZMUC). Elsewhere found in the northern Polar region and isolated populations further south in the European Alps and in North America.

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

Gonostomatidae (En-bristlemouths, Da-laksessildinger, Gr-laksessildinger)

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

Greenland distribution: SW, rare, guest, deep pelagic, 1040–3000 m (Jensen 1948: 110, Muus 1981: 53, Nielsen & Bertelsen 1992: 18 - ZMUC). Elsewhere found in all oceans.

Remarks: Apparently not recorded since 1928.

Literature: Badcock (1984: 290), Craddock & Hartel (2002: 183).

Cyclothone microdon (Günther, 1878)

En-veiled bristlemouth, Da-småttandet rundflab, Gr-småttandet rundflab

Greenland distribution: SW, NW, SE, common, guest, deep pelagic, 330–300 m (Jensen 1926: 101, Jensen 1948: 107, Muus 1981: 53, Nielsen & Bertelsen 1992: 18, Jørgensen *et al.* 2005: 1851 - ZMUC). Elsewhere found in all oceans.

Literature: Badcock (1984: 291), Craddock & Hartel (2002: 184).

Gonostoma bathyphilum (Vaillant, 1888)

En-spark anglemouth, Da-stor laksesilding, Gr-stor laksesilding

Greenland distribution: SW, SE, common, guest, deep pelagic, 358–1460 m (Karrer 1973: 76, Nielsen & Bertelsen 1992: 18, Nielsen & Schwägermann 1995: 89, Jørgensen *et al.* 2005: 1851 - BSKU, ZMB, ZMUC). Elsewhere known from northern Atlantic.

Literature: Badcock (1984: 299).

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.

Literature: Badcock (1984: 300).

Sternoptychidae (En-hatchetfishes, Da-sølvøksefisk, Gr-sølvøksenimut)

Small, pelagic deepsea fish with silvery sides and large light organs. Body high 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.

Argyrolepecus 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.

Literature: Badcock (1984: 308).

Argyrolepecus hemigymnus 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.

Literature: Badcock (1984: 309).

Argyrolepecus olfersi (Cuvier, 1829)

En-Olfer's hatchetfish, Da-Olfers sølvøkse, Gr-Olfers sølvøkse

Greenland distribution: SW, very rare, guest, deep pelagic, 230–1100 m. Two specimens from off West Greenland, 64°42'N, 54°28'W, 4 July 2004, 264 m, ZMUC P2014823, and 64°42'N, 54°28'W, 2 July 2005, 230 m, ZMUC P2014834 (Jensen 1926: 101, Muus 1981: 55, Nielsen & Bertelsen 1992: 20, Jørgensen *et al.* 2005: 1850). Elsewhere found in northern Atlantic.

Literature: Badcock (1984: 310).

Maurolicus muelleri (Gmelin, 1789)

En-pearlside, 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.

Literature: Badcock (1984: 311).

Polyipnus asteroides Schultz, 1938

En-no name, Da-stjerne øksefisk, Gr-stjerne øksefisk

Greenland distribution: SW, very rare, guest, deep pelagic, 427–1162 m. Four specimens from off West Greenland, 60°22'N, 48°21'W, 427 m, 10 September 1997, ZMUC P209035; 63°45'N, 54°43'W, 1162 m, 7 October 1997, ZMUC P209036; 1998, detailed position unknown, ZMUC P209058; 60°13'N, 48°07'W, 443 m, 30 July 2009, ZMUC P2015136. Elsewhere known from western Atlantic.

Literature: Scott & Scott (1988: 172).

Polyipnus polli Schultz, 1961

En-Poll's hatchetfish, Da-rund sølvøkse, Gr-rund sølvøkse

Greenland distribution: SW, very rare, guest, deep pelagic, 417–1195 m. Three specimens from Davis Strait, 63°27'N, 56°00'W, 1195 m, 5 December 1992, ZMUC P208789 and 60°32'N, 48°47'W, 417 m, 21 August 2003, ZMUC P2014772-73 (Nielsen & Bertelsen 1992: 20). Elsewhere known from Atlantic Ocean.

Literature: Badcock (1984: 313).

Sternoptyx pseudobscura Baird, 1971

En-highlight hatchetfish, Da-skæv sølvøkse, Gr-skæv sølvøkse

Greenland distribution: SE, very rare, guest, deep pelagic, depth unknown. One specimen from Denmark Strait, 65°N, 30°W, 15 April 1989, ZMUC P208788 (Nielsen & Bertelsen 1992: 20). Elsewhere known from Atlantic Ocean.

Literature: Badcock (1984:316).

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.

Literature: Badcock (1984: 321).

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

Body elongate, color dark, no gill rakers in adults. Photophores without duct and lumen. Occurs deep pelagically in all oceans. Often divided into several families. Known from 273 species (Nelson 2006), with seven in Greenland waters.

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

Greenland distribution: SW, SE, common, spawning?, pelagic over bottom depths 200–1500 m (Muus 1981: 54, Nielsen & Bertelsen 1992: 20, Nielsen & Schwägermann 1995: 90, Pedersen & Kannevorff 1995: 177, Rätz 1999: 6, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found in all oceans.

Literature: Hartel & Craddock (2002: 191).

Malacosteus niger Ayres, 1848

En-stoplight loosejaw, Da-sort smalkæbefisk, Gr-sort smalkæbefisk

Greenland distribution: SW, SE, common, spawning?, pelagic over bottom depths 600–1475 m (Nielsen & Bertelsen 1992: 20, Nielsen & Schwägermann 1995: 94, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found in all oceans.

Literature: Gibbs (1984: 369).

Melanostomias bartonbeani Parr, 1927

En-Scaleless black dragonfish, Da-skælløs 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-slender snaggletooth, Da-slank ulvekæft, Gr-slank ulvekæft

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

Greenland distribution: SW, NW, SE, common, spawning?, pelagic over bottom depths 200–1500 m (Lütken 1875: 121, Jensen 1926: 101, Jensen 1948: 111, Muus 1981: 54, Nielsen & Bertelsen 1992: 20, Nielsen & Schwägermann 1995: 91, Pedersen & Kannevorff 1995: 178, Rätz 1999: 6, Jørgensen *et al.* 2005: 1852, BSKU, ZMUC). Elsewhere from north of 20°N in the Atlantic and south of 30°S in all oceans.

Remarks: First record from Greenland was from Uummannaq in 1842 (Jensen 1948).

Literature: Hartel & Craddock (2002: 192).

Triganolampa 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.

Literature: Hartel & Craddock (2002: 193).



FIGURE 8. *Triganolampa 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

Greenland distribution: SW, SE, common, spawning?, benthic or pelagic over bottom depths 472–1650 m (Karrer 1973: 79, Nielsen & Bertelsen 1992: 26, Post 1995: 95, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in the North Atlantic.

Literature: Krefft (1984: 424).

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

Greenland distribution: SW, very rare, guest, 1970–2020 m. Two specimens from off Fyllas Bank, 63°21'N, 57°00'W, 1970 (date unknown P. Bartsch pers. comm., 10 December 2008), ZMB 22590 (Karrer 1973: 77, Nielsen & Bertelsen 1992: 26). Elsewhere found in all oceans.

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

Greenland distribution: SW, SE, common, guest, pelagic over bottom depths 270–1440 m (Jensen 1904a: 272, Jensen 1926: 101, Jensen 1942: 7, Muus 1981: 56, Nielsen & Bertelsen 1992: 26, Post (1995: 96), Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere known from all oceans.

Literature: Mecklenburg *et al.* (2002: 238), Tighe (2002: 195).

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

Greenland distribution: SW, NW, SE, common, spawning?, pelagic over bottom depths 200–1000 m (Lütken 1875: 121, Jensen 1926: 101, Jensen 1942: 7, Muus 1981: 56, Nielsen & Bertelsen 1992: 26, Pedersen & Kannevorff 1995: 177, Post 1995: 98 - BSKU, ZMUC). Elsewhere known from the North Atlantic.

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-kortsnudet skalpelfisk

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

Greenland distribution: SW, very rare, guest, pelagic—depths unknown. Known from five specimens from Qaqortoq, 1 April, 1884, ZMUC 19; Lichtenauvfjord, 1910, ZMUC 26; Narsak, 28 March 1926, ZMUC 11; Karajats Storø, 15 August 1930, ZMUC 12 and Færingehavn, August 1957, ZMUC P23332 (Jensen 1926: 101, Jensen 1948: 114, Muus 1981: 57, Nielsen & Bertelsen 1992: 26). Elsewhere known from all oceans.

Literature: Post (1984: 494), Mecklenburg *et al.* (2002: 235), Tighe (2002: 196).

Anopteroidea (En-daggertooth, Da-dolktandfisk, Gr-dolktandfisk)

Elongate, silvery fish with a large mouth with long, sharp teeth, an adipose fin almost the length of the anal fin and no dorsal fin. Occurs deep pelagically in all oceans. Known from one species (Nelson 2006).

Anopterus pharao Zugmayer, 1911

En-daggertooth, Da-dolktandfisk, Gr-dolktandfisk

Greenland distribution: SW, SE, rare, guest, pelagic over bottom depths 340–1200 m (Nybelin 1946: 3, Thurow 1961: 399, Postolaky 1962: 25, Templeman 1970b: 499, Nielsen & Bertelsen 1992: 22, Nielsen & Schwägermann 1995: 99 - BSKU, ZMUC). Elsewhere found in all oceans.

Literature: Templeman (1970b: 499), Post (1984: 509).

Myctophidae (En-lanternfishes, Da-prikfisk, Gr-prikfisk)

Rather small fish with high dorsal fin placed above pelvic fins and anal fin below adipose fin. Body with large scales and light organs on its sides and ventrally. Pattern of light organs differs from one species to another. Occurs pelagically between 200 and 1000 meters. Known from 240 species (Nelson 2006), with eight in Greenland waters.

Benthosema glaciale (Reinhardt, 1837)

En-glacier lanternfish, Da-isprikfisk, Gr-isprikfisk

Greenland distribution: SW, NW, SE, common, spawning, pelagic over bottom depths 335–1455 m (Lütken 1875: 121, Jensen 1926: 101, Jensen 1948: 96, Muus 1981: 55, Nielsen & Bertelsen 1992: 24, Hulley 1995: 100, Pedersen & Kannevorff 1995: 177, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere found in the North Atlantic.

Literature: Craddock *et al.* (2002: 198), Mecklenburg *et al.* (2002: 249).

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.

Literature: Hulley (1984: 438).

Lampadena speculigera Goode & Bean, 1896

En-mirror lanternfish, Da-spejlhalet prikfisk, Gr-spejlhalet prikfisk

Greenland distribution: SW, SE, common, guest, pelagic over bottom depths 60–1265 m (Nielsen & Bertelsen 1992: 24, Hulley 1995: 101, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). Elsewhere found in the North Atlantic and circumglobal on southern hemisphere (subtropical convergence).

Literature: Hulley (1984: 458).

Lampanyctus crocodilus (Risso, 1810)

En-jewel lanternfish, Da-krokodille-prikfisk, Gr-krokodille-prikfisk

Greenland distribution: SW, SE, rare, guest, pelagic over bottom depths 750–1470 m (Jensen 1926: 101, Jensen 1948: 104, Nielsen & Bertelsen 1992: 24 - ZMUC). Elsewhere found in the North Atlantic.

Literature: Hulley (1984: 461), Craddock *et al.* (2002: 202).

Lampanyctus intricarius Tåning, 1928

En-diamondcheek lanternfish, Da-bredhalet prikfisk, Gr-bredhalet prikfisk

Greenland distribution: SW, SE, rare, guest, pelagic over bottom depths 540–1291 m (Nielsen & Bertelsen 1992: 24, Hulley 1995: 103 - BSKU, ZMUC). Elsewhere found in the North Atlantic and circumglobal on the southern hemisphere (subtropical convergence).

Literature: Hulley (1984: 463).

Lampanyctus macdonaldi (Goode & Bean, 1896)

En-rakery lanternfish, Da-Macdonalds prikfisk, Gr-Macdonalds prikfisk

Greenland distribution: SW, SE, common, guest, pelagic over bottom depths 430–1460 m (Karrer 1973: 79, Nielsen & Bertelsen 1992: 24, Hulley 1995: 102, Jørgensen *et al.* 2005: 1851 - BSKU, ZMB, ZMUC). Elsewhere found in the North Atlantic and circumglobal on the southern hemisphere (subtropical convergence).

Literature: Hulley (1984: 464).

Myctophum punctatum Rafinesque, 1810

En-spotted lanternfish, Da-slankhalet prikfisk, Gr-slankhalet prikfisk

Greenland distribution: SW, SE, common, guest, pelagic over bottom depths 1135–1350 m (Nielsen & Bertelsen 1992: 24, Hulley 1995: 105, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found in the North Atlantic.

Literature: Hulley (1984: 473), Craddock *et al.* (2002: 204).

Notoscopelus kroeyeri (Malm, 1861)

En-Kroeyer's lanternfish, Da-Krøyers prikfisk, Gr-Krøyers prikfisk

Greenland distribution: SW, SE, common, guest, pelagic over bottom depths 597–1451 m (Jensen 1926: 101, Jensen 1948: 106, Nielsen & Bertelsen 1992: 24, Hulley 1995: 104, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in the North Atlantic.

Literature: Hulley (1984: 478).

Protomyctophum arcticum (Lütken, 1892)

En-Arctic telescope, Da-arktisk prikfisk, Gr-arktisk prikfisk

Greenland distribution: SW, SE, common, spawning, pelagic over bottom depths down to 820 m (Jensen 1926: 101, Jensen 1948: 102, Muus 1981: 56, Nielsen & Bertelsen 1992: 24 - ZMUC). Elsewhere found in the North Atlantic.

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

Literature: Hulley (1984: 479).

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.

Literature: Klein-MacPhee (2002: 205), Mecklenburg *et al.* (2002: 259).

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

Greenland distribution: SW, SE, rare, guest, pelagic over bottom depths 100–900 m (Jensen 1926: 102, Jensen 1939, Muus 1981: 83, Nielsen & Bertelsen 1992: 34 - ZMUC). Elsewhere found in the North Atlantic.

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

Literature: Palmer (1986: 730).

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

Long dorsal and anal fins joined to caudal fin. Males with intromittent organ. Worldwide about 200 species, mainly on coral reefs (Nelson 2006, Møller and Schwarzhans 2008). Two in Greenland waters.

Bythites fuscus Reinhardt, 1837

En-arctic brotula, Da-arktisk brosmekvabbe, Gr-arktisk brosmekvabbe

Greenland distribution: SW, SE, very rare, spawning, benthic, 530–675 m. One specimen from Fiskenæsset, Amersulak, ca. 63°N, 51°W, 1834, ZMUC P771318 and one in Denmark Strait, 62°12'30"N, 40°28'30"W, 675 m, 10 September 2009, ZMUC P771685 (Reinhardt 1837: 116, Lütken 1875: 119, Jensen 1926: 102, Jensen 1948: 124, Nielsen & Bertelsen 1992: 34, Nielsen & Cohen 2002: 52). Elsewhere known from two specimens from the Canadian part of the Labrador Sea, depth 530 m.

Literature: Nielsen & Cohen (2002: 52).

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).

Literature: Nielsen (1986b: 1156), Mecklenburg *et al.* (2002: 268).



FIGURE 9. *Thallasobathia pelagica*, ZMUC P77853. Denmark Strait, 18 April 1991. Photo PRM.

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

Body with long pointed tail and small rough scales. Second dorsal fin and anal fin very long, first dorsal fin short. Pelvic fins placed under pectoral fins. The family contains ca. 350 species (Nelson 2006), 11 in Greenland waters.

Coryphaenoides armatus (Hector, 1875)

En-abysal grenadier, Dk-pansret skolæst, Gr-pansret skolæst

Greenland distribution: SW, SE, very rare, guest, benthic, 1955–3235 m. Two specimens from Davis Strait, 61°50'N, 56°21'W, 28 July 1895, ZMUC P372934 and 62°58'N, 57°42'W, 13 September 1974, ZMB 23762, and two specimens from Denmark Strait, 64°34'N, 31°12'W, 21 May 1895, ZMUC P372935-36 (Jensen 1926: 101, Jensen 1948: 182, Karrer 1976: 374, Nielsen & Bertelsen 1992: 28, Jørgensen 1996: 19). Elsewhere found worldwide in all oceans in depths below 2000 m, except Polar waters.

Remarks: Formerly known as *Nematonurus armatus*.

Literature: Cohen *et al.* (1990: 205), Mecklenburg *et al.* (2002: 275).

Coryphaenoides brevibarbis Goode & Bean, 1896

En-shortbeard grenadier, Dk-butnsnudet skolæst, Gr-butnsnudet skolæst

Greenland distribution: SW, SE, common, spawning, benthic at 430–1955 m (Karrer 1976: 374, Nielsen & Bertelsen 1992: 28, Okamura 1995: 123; Jørgensen 1996: 18, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere known from both sides of the Atlantic.

Remarks: Formerly known as *Chalinura brevibarbis*.

Literature: Geistdoerfer (1986: 652).

Coryphaenoides carapinus (Goode & Bean, 1883)

En-carapine grenadier, Dk-tipsnudet skolæst, Gr-tipsnudet skolæst

Greenland distribution: SW, very rare, guest, benthic, 1950 m. A single specimen caught in Davis Strait, 62°58'N, 57°42'W, 13 September 1974, ZMB 23763 (Karrer 1976: 374, Nielsen & Bertelsen 1992: 28, Jørgensen 1996: 19). Elsewhere found off both sides of the North Atlantic and southern Indian Ocean.

Remarks: Formerly known as *Lionurus carapinus*.

Literature: Geistdoerfer (1986: 665).

Coryphaenoides guentheri (Vaillant, 1888)

En-Günther's grenadier, Dk-Günthers skolæst, Gr-Günthers skolæst

Greenland distribution: SW, SE, common, spawning, benthic, 420–1470 m (mostly below 1000 m) (Karrer 1976: 373, Nielsen & Bertelsen 1992: 28, Okamura 1995: 124, Jørgensen 1996: 17, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found off eastern North Atlantic and in the Mediterranean.

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

Greenland distribution: SW, NW, SE, common, spawning?, benthic, 300–1458 m (Lütken 1875: 120, Jensen 1926: 101, Jensen 1948: 177, Muus 1981: 63, Nielsen & Bertelsen 1992: 28, Okamura 1995: 125, Pedersen & Kannevorff 1995: 177, Jørgensen 1996: 9, Rätz 1999: 5, Jørgensen *et al.* 2005:1851 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Geistdoerfer (1986: 659).

Macrourus berglax Lacepède, 1801

En-onion-eye grenadier, Dk-nordlig skolæst, Gr-nordlig skolæst

Greenland distribution: SW, NW, SE, common, spawning, benthic, 225–1458 m (Lütken 1875: 120, Jensen 1904a: 271, Jensen 1926: 101, Jensen 1948: 178, Muus 1981: 64, Nielsen & Bertelsen 1992: 28, Okamura 1995: 128, Pedersen & Kannevorff 1995, Jørgensen 1996: 20, Rätz 1999: 5, Fossen *et al.* 2003: 285, Jørgensen *et al.* 2005:1851 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Cohen *et al.* (1990: 235), Klein-MacPhee (2002: 213).

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

Greenland distribution: SW, common, spawning, benthic, 500–1255 m (Jensen 1926: 101, Karrer 1973: 83, Nielsen & Bertelsen 1992: 28 (as *N. aequalis*), Okamura 1995: 129, Jørgensen 1996: 27, Jørgensen *et al.* 2005: 1852 - BSKU, ZMB, ZMUC). Elsewhere found in the western North Atlantic.

Remarks: Confused with *Nezumia aequalis* in Jensen (1926: 101, 1948: 181) and Nielsen & Bertelsen (1992: 28).

Literature: Cohen *et al.* (1990: 266), Klein-MacPhee (2002: 215).

Trachyrhynchus murrayi Günther, 1887

En-roughnose grenadier, Dk-Murrays skolæst, Gr-Murrays skolæst

Greenland distribution: SW, SE, common, spawning?, benthic, 770–1450 m (Lütken 1875: 120, Jensen 1926: 101, Jensen 1948: 176, Muus 1981: 65, Nielsen & Bertelsen 1992: 28, Okamura 1995: 130, Jørgensen 1996: 27, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in the North Atlantic.

Literature: Geistdoerfer (1986: 675).

Moridae (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. Swimbladder 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 (Günther, 1878)

En-blue antimora, Dk-blå antimora, Gr-blå antimora

Greenland distribution: SW, SE, common, spawning?, benthic, 734–1460 m (Jensen 1926: 102, Jensen 1948: 173, Muus 1981: 82, Nielsen & Bertelsen 1992: 34, Okamura 1995: 106, Jørgensen *et al.* 2005: 1850, Fossen & Bergstad 2006: 19 - BSKU, ZMUC). Elsewhere found in the North and South Atlantic, South Pacific and southern Indian Oceans.

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*.

Literature: Meléndez & Markle (1997: 656).

Halargyreus johnsonii Günther, 1862

En-slender codling, Dk-slank ridder, Gr-slank ridder

Greenland distribution: SW, SE, rare, guest, benthic, 653–1500 m (Okamura 1995: 107 - BSKU, ZMUC). Elsewhere found in the North Pacific and Atlantic Oceans.

Literature: Cohen *et al.* (1990: 360), Mecklenburg *et al.* (2002: 284).

Lepidion eques (Günther, 1887)

En-North Atlantic codling, Dk-blå ridder, Gr-blå ridder

Greenland distribution: SW, SE, rare, guest, benthic, 670–1400 m (Jensen 1926: 101, Jensen 1948: 174, Brandes & Kotthaus 1959: 43, Templeman 1970a: 457, Karrer 1973: 82, Muus 1981: 83, Nielsen & Bertelsen 1992: 34, Okamura 1995: 108 - BSKU, ZMB, ZMUC). Elsewhere found in the Eastern North Atlantic.

Literature: Cohen *et al.* (1990: 365).

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

Greenland distribution: SW, SE, very rare, guest, benthic, 50–550 m. One specimen from Davis Strait, 64°22'N, 52°54'W, 22 July 1970, ZMUC P372915 (Lütken 1875: 120, Jensen 1926: 102, Nielsen & Bertelsen 1992: 34, Rätz 1999: 6). Elsewhere found on both sides of the North Atlantic.

Literature: Cohen *et al.* (1990: 38), Klein-MacPhee (2002: 226).

Gaidropsarus argentatus (Reinhardt, 1837)

En-Arctic rockling, Dk-kortstrålet arktisk havkvabbe, Gr-kortstrålet arktisk havkvabbe

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 100–1450 m (Lütken 1875: 120, Jensen 1904a: 270, Jensen 1926: 101, Jensen 1948: 167, Muus 1981: 80, Nielsen & Bertelsen 1992: 34, Endo 1995: 120, Pedersen & Kannevorff 1995: 177, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found in the Norwegian Sea and off Nunavut, Canada.

Remarks: Silvery juveniles often misidentified.

Literature: Svetovidov (1986: 704).

Gaidropsarus ensis (Reinhardt, 1837)

En-threadfin rockling, Dk-langstrålet arktisk havkvabbe, Gr-langstrålet arktisk havkvabbe

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 250–1500 m (Lütken 1875: 120, Jensen 1926: 101, Jensen 1948: 166, Karrer 1973: 82, Muus 1981: 81, Nielsen & Bertelsen 1992: 34, Endo 1995: 121, Pedersen & Kannevorff 1995: 177, Rätz 1999: 6, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found off the eastern coast of North America.

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).

Literature: Svetovidov (1986: 704).

Phycis chesteri Goode & Bean, 1879c

En-longfin hake, Dk-langstrålet skælbrosme, Gr-langstrålet skælbrosme

Greenland distribution: SW, SE, rare, guest, benthic, 340–675 m (Nielsen & Bertelsen 1992: 32, Endo 1995: 122 - BSKU, ZMUC). Elsewhere found off eastern coast of North America.

Literature: Cohen *et al.* (1990: 67), Klein-MacPhee (2002: 245).

Urophycis tenuis (Mitchill, 1814)

En-white hake, Dk-hvid skægbrosme, Gr-hvid skægbrosme

Greenland distribution: SW, very rare, guest, benthic, depth unknown. A single large specimen caught in Godthåbsfjord, Qugssuk, Sardloq, 64°23'N, 51°32'W, 20 June 1954, ZMUC P371629 (Nielsen & Bertelsen 1992: 32). Elsewhere found from Iceland to Florida.

Literature: Cohen *et al.* (1990: 88), Klein-MacPhee (2002: 256).

Gadidae (En-cods, Da-torskefisk, Gr-torskefisk)

Three dorsal fins and two anal fins. Head of vomer toothed. Swimbladder 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

Greenland distribution: NW, SE, NE, common, spawning, pelagic and benthic, over bottom depths 0–930 m (Jensen 1948: 141, Nielsen & Jensen 1967: 6, Muus 1981: 73, Nielsen & Bertelsen 1992: 30, Endo 1995: 109, Pedersen & Kanneworff 1995: 177, Riget *et al.* 1997: 21, Jordan *et al.* 2003: 1339, Jørgensen *et al.* 2005: 1850, Kjøie *et al.* 2008: 1017 - HUMZ, ZMUC). Elsewhere found in the Arctic Ocean (Jordan *et al.* 2003).

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

Greenland distribution: SW, NW, SE, NE, common, spawning, pelagic and benthic, over bottom depths down to 1390 m (Lütken 1875: 120, Jensen 1904a: 266, Johansen 1912: 665, Jensen 1926: 101, Jensen 1948: 124, Muus 1981: 71, Nielsen & Bertelsen 1992: 30, Endo 1995: 110, Pedersen & Kanneworff 1995: 177, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found in Arctic Ocean and Bering Sea.

Literature: Cohen *et al.* (1990: 11), Mecklenburg *et al.* (2002: 290).

Gadus morhua Linnaeus, 1758

En-Atlantic cod, Dk-almindelig torsk, Gr-saarullik, aalisangar

Greenland distribution: SW, NW, SE, common, spawning, benthic, 0–700 m (Lütken 1875: 119, Jensen 1904a: 265, Jensen 1926: 101, Jensen & Hansen 1931: 7, Jensen 1939: 4, Jensen 1948: 144, Muus 1981: 67, Nielsen & Bertelsen 1992: 30, Endo 1995: 111, Pedersen & Kanneworff 1995: 177, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found on both sides of the Atlantic Ocean.

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

Greenland distribution: SW, NW, common, spawning, benthic, 0–365 m (Lütken 1875: 119, Jensen 1904a: 265, Jensen 1926: 101, Jensen 1948: 155, Muus 1981: 70, Nielsen & Bertelsen 1992: 30, Endo 1995: 113,

Pedersen & Kannevorff 1995: 177, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found along the east coast of North America, and Arctic coasts of Canada.

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).

Literature: Cohen *et al.* (1990: 47), Mecklenburg *et al.* (2002: 297).

Melanogrammus aeglefinus (Linnaeus, 1758)

En-haddock, Dk-kuller, Gr-misaqqarnaq

Greenland distribution: SW, SE, common, guest, benthic 220–400 m (Jensen 1939: 13, Jensen 1948: 164, Muus 1981: 74, Nielsen & Bertelsen 1992: 30, Endo 1995: 114, Pedersen & Kannevorff 1995, Rätz 1999: 5 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

Remarks: Caught for the first time in Greenland at Sydprøven in October 1929 (Jensen 1948). Common off southern Greenland in 2007–2009. Very rare in cold years.

Literature: Cohen *et al.* (1990: 54), Klein-MacPhee (2002: 235).

Merlangius merlangus (Linnaeus, 1758)

En-whiting, Dk-hvilling, Gr-hvilling

Greenland distribution: SW, 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

Greenland distribution: SW, SE, common, guest, pelagic, over bottom depths 350–470 m (Jensen 1948: 182, Muus 1981: 75, Nielsen & Bertelsen 1992: 32, Endo 1995: 115, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

Remarks: First Greenland record from Skovfjord on the West Coast in 1947 (Jensen 1948). More than 4000 records since 1988.

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

Pollachius virens (Linnaeus, 1758)

En-saithe, Dk-sej, Gr-sej

Greenland distribution: SW, SE, rare, guest, benthic and pelagic, 400–828 m (Lütken 1875: 120, Jensen 1926: 101, Jensen 1939: 13, Jensen 1948: 142, Muus 1981: 76, Nielsen & Bertelsen 1992: 30, Endo 1995: 116, Rätz 1999: 5 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

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

Literature: Cohen *et al.* (1990: 71), Klein-MacPhee (2002: 247).

Trisopterus esmarki (Nilsson, 1855)

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

Greenland distribution: SW, SE, rare, guest, benthic and pelagic, 227–300 m (Nielsen & Bertelsen 1992: 32, Endo 1995: 117, Rätz 1999: 5 - HUMZ, ZMUC). Elsewhere found in the Northeast Atlantic.

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, iloruleqqortoq

Greenland distribution: SW, SE, rare, guest, benthic, 190–468 m (Fabricius 1780: 149, Lütken 1875: 120, Jensen 1904a: 270, 1926: 101, 1939: 14, 1948: 175, Muus 1981: 77, Nielsen & Bertelsen 1992: 32, Endo 1995: 118, Pedersen & Kanneworff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found on both sides of the Atlantic Ocean.

Literature: Cohen *et al.* (1990: 29), Klein-MacPhee (2002: 223).

Molva dipterygius (Pennant, 1784)

En-blue ling, Dk-byrkelange, Gr-byrkelange

Greenland distribution: SW, SE, common, spawning, benthic, 230–1140 m (Jensen 1948: 165, Templeman 1969: 145, Nielsen & Bertelsen 1992: 32, Muus 1981: 79, Endo 1995: 119, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found on both sides of the Atlantic Ocean.

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

Greenland distribution: SW, rare, guest, benthic, depth unknown (Lütken 1875: 120, Jensen 1939: 14, Jensen 1948: 165, Muus 1981: 78, Nielsen & Bertelsen 1992: 32, Rätz 1999: 6—apparently no specimens from Greenland in museum collections). Elsewhere found on both sides of the North Atlantic.

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.

Literature: Caruso (1986: 1363).

Caulophryniidae (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 Strait, 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).

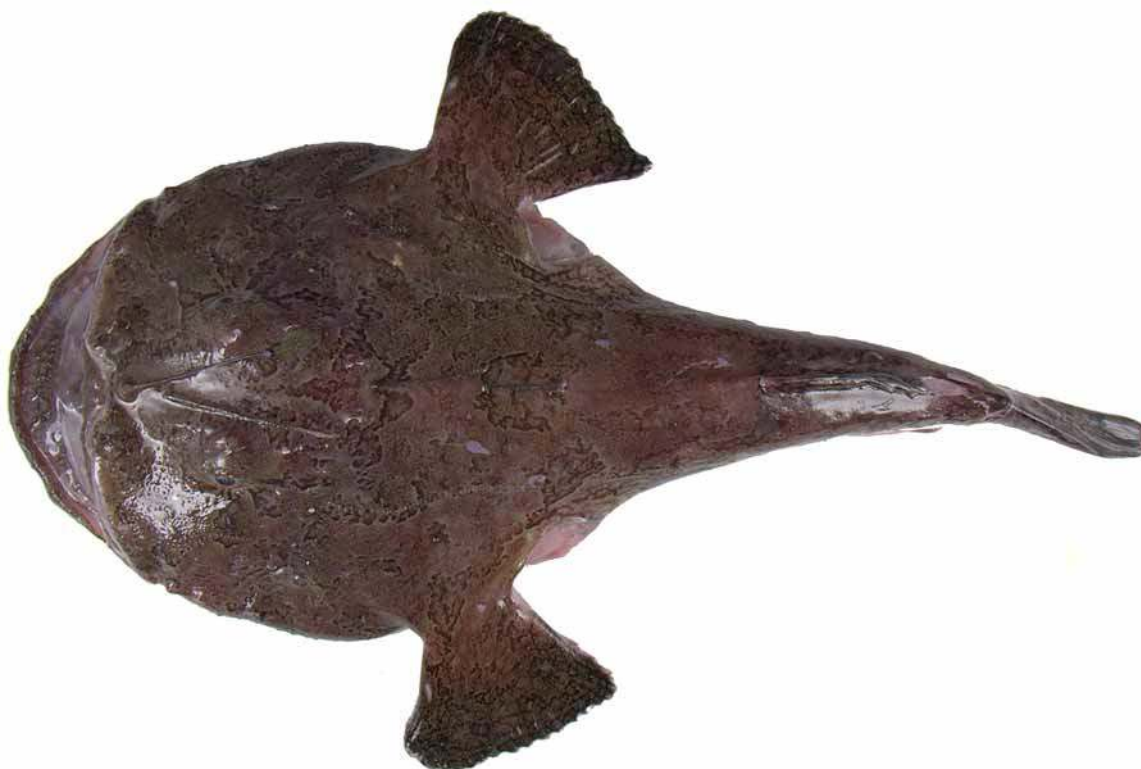


FIGURE 11 *Lophius piscatorius*, ZMUC P922667, Qaqortoq/ Julianehåbsbugten, 21 June 2007. Photo SWK.

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

Greenland distribution: SW, SE, rare, guest, 300–1500 m. Six specimens from off southern Greenland (Nielsen & Bertelsen 1992: 4, Pietsch 2009: 215 - ZMUC). Elsewhere found in all oceans.

Literature: Bertelsen (1986: 1385).

Chaenophryne longiceps Regan, 1925

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

Greenland distribution: SW, SE, rare, guest, 479–1500 m. Fourteen specimens from Davis Strait and three from Denmark Strait (Nielsen & Bertelsen 1992: 60, Stearn & Pietsch 1995: 134, Pietsch 2009: 212 - ZMUC). Elsewhere found in all oceans.

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.

Literature: Stearn & Pietsch (1995).

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.

Literature: Bertelsen (1986: 1390).

Lophodolos acanthognathus Regan, 1925

En-whalehead dreamer, Da-højpanedet mareangler, Gr-højpanedet mareangler

Greenland distribution: SW, SE, rare, guest, 200–1300 m. Six specimens from Denmark Strait and one from Davis Strait (Nielsen & Bertelsen 1992: 60, Pietsch 2009: 214 - ZMUC). Elsewhere found in all oceans.

Literature: Bertelsen (1986: 1392).

Oneirodes eschrichtii Lütken, 1871

En-Eschricht's dreamer, Da-Eschrichts mareangler, Gr-Eschrichts mareangler

Greenland distribution: SW, SE, rare, guest, 200–1174 m. Many specimens off southern Greenland (Lütken 1875: 117, Jensen 1926: 102, Muus 1981: 157, Nielsen & Bertelsen 1992: 60, Stearn & Pietsch 1995: 136, Jørgensen *et al.* 2005: 1852, Pietsch 2009: 216 - ZMUC). Elsewhere found in all oceans.

Remarks: Holotype from unknown locality in Greenland.

Literature: Bertelsen (1986: 1395), Mecklenburg *et al.* (2002: 309).

Oneirodes macrosteus Pietsch, 1974

En-big-bone dreamer, Da-nordatlantisk mareangler, Gr-nordatlantisk mareangler

Greenland distribution: SW, SE, very rare, guest, 450–950 m. Two specimens from Davis Strait 64°24.7'N, 57°54.2'W, 812 m, 15 June 1990, HUMZ 118604 and 64°32'N, 55°26'W, 17 August 1992, ZMUC P922301, and one from Dohrn Bank, Denmark Strait, 66°16'N, 30°23'W, 21 April 1991, ZMUC P922249 (Nielsen & Bertelsen 1992: 60, Stearn & Pietsch 1995: 137, Pietsch 2009: 217). Elsewhere found in the Central and North Atlantic.

Literature: Bertelsen (1986: 1396).

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. micractis* specimen in Nielsen & Bertelsen (1992: 61, Fig. 7) was re-identified and described as a new species, *P. balushkini*, by Pietsch (2004). In 1995 a true *P. micractis* was caught in Davis Strait, so both species are present in Greenland waters.

Literature: Pietsch (2004: 797).

Phyllorhinichthys micractis Pietsch, 1969

En-shortpole 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*.

Literature: Bertelsen & Pietsch (1977: 178), Bertelsen (1986: 1398).

Spiniphryne gladisphenae (Beebe, 1932)

En-spiny dreamer, Da-pigget mareangler, Gr-pigget mareangler

Greenland distribution: SW, very rare, guest, 1950–1955 m. One specimen from Davis Strait, 62°58'N, 57°42'W, 13 September 1974, ZMB 23470 (Karrer 1976: 375, Nielsen & Bertelsen 1992: 60, Pietsch 2009: 215). Elsewhere found in the Atlantic Ocean.

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

Greenland distribution: SW, SE, very rare, guest, 300–1457 m. Two specimens from Denmark Strait at 66°24'N, 29°50'W, 1 November 1990, ZMUC P922232; 62°04'N, 40°20'W, 1430 m, 13 August 2009, ZMUC P922690, and three from Davis Strait, 63°42.8'N, 55°07.6'W, 1219 m, 8 August 1991, HUMZ 120702; 63°43'N, 54°28'W, 14 August 1992, ZMUC P922300; 63°59'N, 54°42'W, 23 September 2002, ZMUC P 922527 (Nielsen & Bertelsen 1992: 62, Stearn & Pietsch 1995: 139, Jørgensen *et al.* 2005: 1852, Pietsch 2009: 212). Elsewhere found in all oceans.

Literature: Bertelsen (1986: 1376).

Melanocetus murrayi Günther, 1887

En-Murray's blackdevil, Da-Murrays klumpangler, Gr-Murrays klumpangler

Greenland distribution: SW, 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)

Mouth almost vertical. Four dorsal and anal fin rays. Posterior part of long shaft seen behind head. Caudal fin rays prolonged and with free tips. Worldwide with four species (Nelson 2006), two in Greenland waters.

Ceratias holboelli Krøyer, 1845a

En-northern seadevil, Da-Holbølls storangler, Gr-Holbølls storangler

Greenland distribution: SW, SE, rare, guest, 300–1300 m. Several specimens from Disko Bay southwards along the west coast and off southeast coast northwards to Dohrn Bank (Lütken 1875: 117, Jensen 1926: 102, Bertelsen 1943: 186, Muus 1981: 156, Nielsen & Bertelsen 1992: 62, Stearn & Pietsch 1995: 131, Jørgensen *et al.* 2005: 1851, Pietsch 2009: 206 - BSKU, ZMUC). Elsewhere found in all oceans.

Remarks: The holotype is from off South West Greenland.

Literature: Bertelsen (1986: 1403), Mecklenburg *et al.* (2002: 303), Pietsch (2002: 274).

Cryptosaras couesii Gill, 1883

En-triplewart seadevil, Da-trevortet storangler, Gr-trevortet storangler

Greenland distribution: SW, SE, rare, guest, 300–1150. Eight specimens from Davis Strait and two from Denmark Strait (Nielsen & Bertelsen 1992: 62, Stearn & Pietsch 1995: 132, Jørgensen *et al.* 2005, Pietsch 2009: 207 - HUMZ, ZMUC). Elsewhere found in all oceans.

Literature: Bertelsen (1986: 1404), Mecklenburg *et al.* (2002: 302).

Gigantactinidae (En-whipnose anglers, 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

Greenland distribution: SW, SE, rare, guest, 300–1300 m. Three specimens from Davis Strait and three from Denmark Strait (Nielsen & Bertelsen 1992: 62, Stearn & Pietsch 1995: 133, Pietsch 2009: 223 - BSKU, ZMUC). Elsewhere found in all oceans.

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

Linophryinidae (En-leftvents, Da-trådanglere. Gr-trådanglere)

Spines dorsally on head. Illcium 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

Greenland distribution: SW, SE, very rare, guest, 450–1089 m. One specimen from Davis Strait 63°57'N, 55°17'W, 29 September 2000, ZMUC uncat. (5054) and four from Dohrn Bank, Denmark Strait, April 1991, ZMUC P922269; 66°27'N, 30°29'W, 22 April 1991, ZMUC P922270; 65°02'N, 31°06'W and 62°59'N, 33°33'W, June 2003 (Nielsen & Bertelsen 1992: 62, Jónsson & Pálsson 2006: 199). Elsewhere found in all oceans.

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

Greenland distribution: SW, very rare, guest, 1136–1164 m. Three specimens from Davis Strait 63°23'N, 54°14'W, 6 October 1988, ZMUC P922271; 63°15'N, 53°58'W, 1164 m, 7 October 1988, HUMZ 113695; 63°18.6'N, 54°17.3'W, 1180 m, 24 June 1990, HUMZ 118817 (Nielsen & Bertelsen 1992: 62, Stearn & Pietsch 1995: 142, Pietsch 2009: 227). Elsewhere found in the North Atlantic.

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

Linophryne lucifer Collett, 1886

En-devilish leftvent, Da-tvebladet trådangler, Gr-tvebladet trådangler

Greenland distribution: SW, SE, rare, guest, deep pelagic. Three specimens from Davis Strait and 10 from Denmark Strait (Karrer 1976: 376, Nielsen & Bertelsen 1992: 62, Stearn & Pietsch 1995: 143, Pietsch 2009: 226 - BSKU, ZMB, ZMUC). Elsewhere found in the North Atlantic.

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

Literature: Bertelsen (1976: 8), Bertelsen (1986: 1411).

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.

Literature: Maul (1986: 758).

Poromitra capito Goode & Bean, 1883

En-ridgehead, Da-pigkindet kogleskælfisk, Gr-pigkindet kogleskælfisk

Greenland distribution: SW, SE, rare, guest, pelagic—over bottom depths 415–1475 m (Nielsen & Bertelsen 1992: 36, Jørgensen *et al.* 2005 - ZMUC). Elsewhere found in the North Atlantic and Central South Pacific.

Literature: Maul (1986: 761).

Poromitra crassiceps (Günther, 1878)

En-crested bigscale, Da-butkindet kogleskælfisk, Gr-butkindet kogleskælfisk

Greenland distribution: SW, SE, rare, guest, pelagic—over bottom depths 560–1460 m (Nielsen & Bertelsen 1992: 36, Amaoka 1995: 147 - BSKU, ZMUC). Elsewhere found in all oceans.

Literature: Amaoka (1995: 147), Mecklenburg *et al.* (2002: 318).

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.

Literature: Maul (1986: 763), Mecklenburg *et al.* (2002: 319).

Scopelogadus beani (Günther, 1887)

En-Bean's bigscale, Da-Beans kogleskælfisk, Gr-Beans kogleskælfisk

Greenland distribution: SW, SE, rare, guest, pelagic—over bottom depths 290–1470 m (Nielsen & Bertelsen 1992: 36, Jørgensen *et al.* 2005 - ZMUC). Elsewhere found in the Atlantic, southern Indian Ocean and in the Southwest Pacific.

Literature: Maul (1986: 765).

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, very 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°36.3N, 56°22.3W, 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-troldfisk, Gr-troldfisk)

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-troldfisk, Gr-troldfisk

Greenland distribution: SW, SE, rare, guest, pelagic—over bottom depths 190–1360 m (Karrer 1976: 375, Nielsen & Bertelsen 1992: 36, Amaoka 1995: 146 - HUMZ, ZMB, ZMUC). Elsewhere known from all oceans.

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.

Literature: Post (1986: 744).

Trachichtyidae (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

Greenland distribution: SW, SE, rare, guest, over bottom depths 465–1500 m (Nielsen & Bertelsen 1992: 36, Jørgensen *et al.* 2005: 1851 - ZMUC). Elsewhere known from temperate parts of all oceans.

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

Literature: Maul (1986: 750).

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

Greenland distribution: SW, NW (to Upernavik), SE, NE (to Ella Island), common, spawning, fresh and brackish water and along the shore in the algal zone (Lütken 1875: 115, Jensen 1904a: 249, Jensen 1910: 15, Jensen 1926: 101, Muus 1981: 60, Nielsen & Bertelsen 1992: 38 - ZMUC). Elsewhere on the northern hemisphere between 35°N and 70°N.

Literature: Bannister (1986: 640), Krueger (2002: 314), Mecklenburg *et al.* (2002: 333).

Scorpaenidae (En-rockfishes, Da-rødfiskfamilien, Gr-suluppaakkat ilaqtariit)

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

Greenland distribution: SW, SE, very rare, guest, benthic, 220–242 m. Known from Cape Farewell, 59°29'N, 44°54'W, 29 August 1996, ZMUC P791349-50 and Davis Strait, 64°17'N, 53°27'W, 24 September 1998, ZMUC P791353. Elsewhere found on both sides of the North Atlantic.

Literature: Klein-Macphee & Collette (2002: 332).

Sebastes fasciatus Storer, 1854

En-Acadian redfish, Dk-amerikansk rødfisk, Gr-amerikap suluppaagaa

Greenland distribution: SE, rare, guest, benthic, depth unknown (Nielsen & Bertelsen 1992: 48). Elsewhere known from the western North Atlantic.

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

Literature: Hureau & Litvinenko (1986: 1224), Klein-Macphee & Collette (2002: 334).

Sebastes marinus (Linnaeus, 1758)

En-Ocean perch, Dk-stor rødfisk, Gr-Suluppaagaq angisooq

Greenland distribution: SW, SE, common, breeding, benthic 50–600 (1250) m (Lütken 1875: 117, Jensen 1904a: 225, Jensen 1922: 90, Jensen 1926: 102, Jensen 1939: 18, Muus 1981: 110, Nielsen & Bertelsen 1992: 48, Ishida 1995: 151, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

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

Literature: Hureau & Litvinenko (1986: 1225).

Sebastes mentella (Travin, 1951)

En-deepwater redfish, Dk-dybhavs rødfisk, Gr-suluppaagaq itisoormiu

Greenland distribution: SW, NW, SE, common, breeding, benthic and pelagic 277–1444 m (Ishida 1995: 152, Nielsen & Bertelsen 1992: 48, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere found in the North Atlantic.

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

Greenland distribution: SE, rare, guest, benthic, 300–669 m (Nielsen & Bertelsen 1992: 48, Ishida 1995: 160, Rätz 1999: 5 - BSKU, ZMUC). Elsewhere known from the eastern North Atlantic.

Literature: Hureau & Litvinenko (1986: 1227).

Cottidae (En-sculpins, Da-ulkefamilien, Gr-kanassut ilaqtariit)

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

Greenland distribution: SW, NW, SE, NE, common, breeding, benthic, 27–1366 m (Jensen 1952b: 6, Muus 1981: 116, Nielsen & Bertelsen 1992: 48, Yabe 1995: 161, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

Remarks: Probably often confused with *Artediellus uncinatus*.

Literature: Fedorov (1986: 1244), Klein-MacPhee (2002: 346).

Artediellus uncinatus (Reinhardt, 1835)

En-Arctic hookear sculpin, Dk-grønlandsk halvulk, Gr-imaviup kanajua

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 20–546 m (Lütken 1875: 116, Jensen 1904a: 241, Jensen 1926: 102, Jensen 1952b: 3, Muus 1981: 115, Nielsen & Bertelsen 1992: 48, Yabe 1995: 163, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere found along the North American east-coast and in the Arctic Ocean.

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

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 10–930 m (Lütken 1875: 116, Jensen 1904a: 245, Jensen 1926: 102, Jensen & Volsøe 1949: 10, Muus 1981: 118, Nielsen & Bertelsen 1992: 48, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - ZMUC). Elsewhere circumarctic, except for the Chukchi and East Siberian Seas.

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

Literature: Fedorov (1986: 1250), Mecklenburg *et al.* (2002: 456).

Icelus spatula Gilbert & Burke, 1912

En-spatulate sculpin, Dk-spatel-tornulk, Gr-spatel-tornulk

Greenland distribution: SW, NW, common, spawning, benthic, 25–930 m (Jensen & Volsøe 1949: 15, Muus 1981: 119, Nielsen & Bertelsen 1992: 48, Yabe 1995: 164, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere from the Arctic Ocean, North Pacific and Sea of Okhotsk.

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

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 0–170 (500) m (Lütken 1875: 116, Jensen 1904a: 227, Jensen 1910: 15, Jensen 1926: 102, Jensen 1952b: 17, Muus 1981: 117, Nielsen & Bertelsen 1992: 50, Pedersen & Kannevorff 1995: 177, Yabe 1995: 163, Riget *et al.* 1997: 21 - BSKU, ZMUC). Elsewhere found in the Arctic Ocean.

Literature: Fedorov (1986: 1249), Klein-Macphee (2002: 347), Mecklenburg *et al.* (2002: 464).

Myoxocephalus quadricornis (Linnaeus, 1758)

En-fourhorn sculpin, Dk-hornulk, Gr-hornulk

Greenland distribution: NW, NE, common, spawning, benthic, 0–20 m (Jensen 1904a: 228, Johansen 1912: 645, Jensen 1926: 102, Muus 1981: 123, Nielsen & Bertelsen 1992: 50 - ZMUC). Elsewhere found in the Arctic Ocean and the Baltic Sea.

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

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 0–451 m (Lütken 1875: 116, Jensen 1904a: 239, Jensen 1910: 4, Johansen 1912: 644, Jensen 1926: 102, Muus 1981: 121, Nielsen & Bertelsen 1992: 50, Pedersen & Kannevorff 1995, Yabe 1995: 165, Riget *et al.* 1997: 21 - BSKU, ZMUC). Elsewhere in the North Pacific, Arctic Ocean and North Atlantic.

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

Literature: Fedorov (1986: 1254), Klein-Macphee (2002: 353), Mecklenburg *et al.* (2002: 478).

Myoxocephalus scorpioides (Fabricius, 1780)

En-Arctic sculpin, Dk-falsk ulk, Gr-falsk ulk

Greenland distribution: SW, NW, rare, spawning, benthic, 0–40 m (Lütken 1875: 116, Jensen 1926: 102, Muus 1981: 122, Nielsen & Bertelsen 1992: 50 - ZMUC). Elsewhere in the Arctic Ocean and western North Atlantic.

Literature: Fedorov (1986: 1254), Mecklenburg *et al.* (2002: 479).

Triglops murrayi Günther, 1888

En-moustache sculpin, Dk-Murrays knurulk, Gr-Murrays knurulk

Greenland distribution: SW, SE, common, spawning, benthic, 50–530 m (Jensen 1944b: 18, Muus 1981: 126, Nielsen & Bertelsen 1992: 50, Pedersen & Kanneworff 1995: 177, Yabe 1995: 166, Rätz 1999: 5 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

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

Literature: Fedorov (1986: 1257), Klein-Macphee (2002: 356).

Triglops nybelini Jensen, 1944b

En-bigeeye sculpin, Dk-Nybelins knurulk, Gr-Nybelins knurulk

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 35–1354 m (Jensen 1944b: 24, Muus 1981: 126, Nielsen & Bertelsen 1992: 50, Pedersen & Kanneworff 1995: 177, Yabe 1995: 167, Jørgensen *et al.* 2005: 1852 - HUMZ, ZMUC). Elsewhere known from the eastern Arctic Ocean.

Literature: Fedorov (1986: 1258), Mecklenburg *et al.* (2002: 426).

Triglops pingelii Reinhardt, 1837

En-ribbed sculpin, Dk-Pingels knurulk, Gr-Pingels knurulk

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 5–930 m (Lütken 1875: 116, Jensen 1904a: 247, Jensen 1910: 9, Johansen 1912: 651, Jensen 1926: 102, Jensen 1944b: 7, Muus 1981: 124, Nielsen & Bertelsen 1992: 50, Pedersen & Kanneworff 1995: 177, Yabe 1995: 168, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852 - BSKU, ZMUC). Elsewhere known from the North Pacific, North Atlantic and Arctic Oceans.

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

Literature: Fedorov (1986: 1259), Mecklenburg *et al.* (2002: 426).

Agonidae (En-poachers, Da-panserulke, Gr-kanajorlaak)

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

Greenland distribution: SW, NW, common, spawning, benthic, 20–350 m (Lütken 1875: 117, Jensen 1926: 102, Muus 1981: 130, Nielsen & Bertelsen 1992: 52, Kanayama 1995: 171, Pedersen & Kanneworff 1995: 177, Rätz 1999: 5 - HUMZ, ZMUC). Elsewhere known from the North Pacific, western North Atlantic and Arctic Oceans.

Literature: Klein-Macphee (2002: 361), Mecklenburg *et al.* (2002: 553).

Leptagonus decagonus (Bloch & Schneider, 1801)

En-Atlantic poacher, Dk-arktisk panserulk, Gr-kanajorlak (issittormiu)

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 36–930 m (Lütken 1875: 116, Jensen 1926: 102, Muus 1981: 129, Nielsen & Bertelsen 1992: 52, Kanayama 1995: 172, Pedersen & Kanneworff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). Elsewhere known from the

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

Greenland distribution: SW, NW, common, spawning, benthic, 45–140 m (Lütken 1875: 117, Jensen 1926: 102, Muus 1981: 131, Nielsen & Bertelsen 1992: 50, Kanayama 1995: 173 - HUMZ, ZMUC). Elsewhere found in a circumpolar distribution in the Arctic Ocean.

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).

Cottunculus microps Collett, 1875

En-Polar sculpin, Dk-almindelig paddeulk, Gr-almindelig paddeulk

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 200–1458 m (Jensen 1904a: 226, Jensen 1926: 102, Jensen 1952b: 13, Muus 1981: 127, Nielsen & Bertelsen 1992: 52, Pedersen & Kannevorff 1995: 177, Yabe 1995: 169, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Fedorov (1986: 1262), Klein-Macphee (2002: 357).

Cottunculus thomsonii (Günther, 1882)

En-pallid sculpin, Dk-Thomsons paddeulk, Gr-Thomsons paddeulk

Greenland distribution: SW, SE, common, spawning, benthic, 639–1344 m (Jensen 1926: 102, Jensen 1952b: 12, Karrer 1973: 86, Muus 1981: 128, Nielsen & Bertelsen 1992: 50, Yabe 1995: 170, Jørgensen *et al.* 2005: 1851 - BSKU, ZMB, ZMUC). Elsewhere found on both sides of the North Atlantic.

Literature: Fedorov (1986: 1263).

Psychrolutes subspinosus (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

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic or pelagic, 5–1376 m (Lütken 1875: 117, Jensen 1904a: 249, Jensen 1926: 102, Muus 1981: 133, Nielsen & Bertelsen 1992: 54, Kanayama 1995: 174, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851, Hartz *et al.* 2009 - BSKU, ZMUC). Elsewhere found on both sides of the Atlantic Ocean.

Literature: Davenport (1985: 1), Stein (1986: 1271), Klein-Macphee (2002: 363).

Cyclopteroopsis mcalpini (Fowler, 1914)

En-Arctic lumpsucker, Dk-dværgstenbider, Gr-dværgstenbider

Greenland distribution: NW, rare, spawning, benthic, 50–150 m (Muus 1981: 137, Nielsen & Bertelsen 1992: 54 - ZMUC). Elsewhere found in the Barents Sea.

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 lumpsucker, Dk-læderfinnet stenbider, Gr-læderfinnet stenbider

Greenland distribution: NW, NE, rare, common, spawning, benthic 68–400 (930) m (Jensen 1944b: 53, Muus 1981: 136, Nielsen & Bertelsen 1992: 54, Kanayama 1995, Pedersen & Kannevorff 1995: 177, Jørgensen *et al.* 2005: 1851, Knudsen *et al.* 2007: 652 - ZMUC). Elsewhere known from the Sea of Okhotsk and Arctic Ocean southwards to Labrador.

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

Eumicrotremus spinosus (Fabricius, 1776)

En-Atlantic spiny lumpsucker, Dk-pigget stenbidder, Gr-nipisarluk

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 10–400 (930) m (Lütken 1875: 117, Jensen 1904a: 250, Jensen 1910: 15, Johansen 1912: 656, Jensen 1926: 102, Jensen 1944b: 48, Muus 1981: 135, Nielsen & Bertelsen 1992: 54, Kanayama 1995: 175, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851, Knudsen *et al.* 2007: 652 - BSKU, ZMUC). Elsewhere known from the Arctic Ocean and the North Atlantic.

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

Greenland distribution: SW, NW, rare, spawning, benthic 952–1487 m. Known from 22 specimens from Baffin Bay (Nielsen & Bertelsen 1992: 56 (as *C. micropus*), Kido & Yabe 1995: 177 and Jørgensen *et al.* 2005: 1851 (as *Careproctus* sp.), Knudsen *et al.* 2007: 652 (as *Careproctus* sp. 1), Knudsen & Møller 2008: 176 - HUMZ, ZMUC). Elsewhere found in the Canadian part of the Baffin Bay.

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-Reinhardt's ringbug, Gr-Reinhardt's ringbug

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 100–1840 m (Lütken 1875: 118, Jensen 1904a: 255, Johansen 1912: 663, Jensen 1926: 102, Muus 1981: 140, Nielsen & Bertelsen 1992: 56, Kido & Yabe 1995: 176, Pedersen & Kannevorff 1995: 177, Riget *et al.* 1997: 21, Chernova 2005: 4, Jørgensen *et al.* 2005: 1851, Knudsen *et al.* 2007: 652, Knudsen & Møller 2008: 177 - BSKU, ZMUC). Elsewhere found in the North Atlantic, Kara and Laptev Seas, but some records might belong to other species (Chernova 2005).

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

Literature: Kido & Yabe (1995: 176), Chernova (2005: 4), Knudsen *et al.* (2007: 652).

Liparis fabricii Krøyer, 1847

En-gelatinous snailfish, Dk-Fabricius ringbug, Gr-Fabricius ringbug

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 5–1460 m (Lütken 1875: 117, Jensen 1904a: 252, Johansen 1912: 662, Jensen 1926: 102, Muus 1981: 139, Nielsen & Bertelsen 1992: 54, Kido & Yabe 1995: 178, Riget *et al.* 1997: 21, Jørgensen *et al.* 2005: 1851, Knudsen *et al.* 2007: 652 - BSKU, ZMUC). Elsewhere found in a circumpolar distribution pattern in the Arctic seas.

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

Literature: Stein & Able (1986: 1278), Mecklenburg *et al.* (2002: 592).

Liparis gibbus Bean, 1881

En-variegated snailfish, Dk-pukkelrygget ringbug, Gr-pukkelrygget ringbug

Greenland distribution: SW, NW, NE, common, spawning, benthic, 0–600 m (Nielsen & Bertelsen 1992: 54, Kido & Yabe 1995: 179, Jørgensen *et al.* 2005: 1851, Knudsen *et al.* 2007: 652 - HUMZ, ZMUC). Elsewhere found in the North Pacific and in the Arctic Ocean.

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

Literature: Mecklenburg *et al.* (2002: 585).

Liparis tunicatus Reinhardt, 1837

En-kelp snailfish, Dk-grønlandsk ringbug, Gr-grønlandsk ringbug

Greenland distribution: SW, NW, NE, common, spawning, benthic, 0–415 m (Lütken 1875: 118, Muus 1981: 138, Nielsen & Bertelsen 1992: 54, Kido & Yabe 1995: 178, Pedersen & Kannevorff 1995: 177, Riget *et al.* 1997: 21, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). Elsewhere found in the Arctic Ocean.

Remarks: Commonly confused with *L. gibbus*.

Literature: Mecklenburg *et al.* (2002: 589).

Paraliparis bathybius (Collett, 1879)

En-black seasnail, Dk-arktisk dybhavsringbug, Gr-arktisk dybhavsringbug

Greenland distribution: NW, NE, common, spawning, benthopelagic, 545–1600 m (Jensen 1950: 243, Muus 1981: 141, Nielsen & Bertelsen 1992: 56, Kido & Yabe 1995: 181, Jørgensen *et al.* 2005: 1852, Knudsen *et al.* 2007: 652 - HUMZ, ZMUC). Elsewhere found in the Arctic Ocean.

Literature: Stein & Able (1986: 1280).

Paraliparis copei Goode & Bean, 1896

En-blacksnout seasnail, Dk-Copes dybhavsringbug, Gr-Copes dybhavsringbug

Greenland distribution: SW, SE, common, spawning?, benthopelagic, (360) 710–1460 (1902) m (Jensen 1950: 246, Karrer 1973: 86, Muus 1981: 142, Nielsen & Bertelsen 1992: 56, Kido & Yabe 1995: 182, Jørgensen *et al.* 2005: 1852, Knudsen *et al.* 2007: 652, Chernova & Møller 2008: 371 - ZMB, HUMZ, ZMUC). Elsewhere found in the North and South Atlantic.

Literature: Scott & Scott (1988: 530), Chernova & Møller (2008).

Paraliparis garmani Burke, 1912

En-pouty seasnail, Dk-Garmans dybhavsringbug, Gr-Garmans dybhavsringbug

Greenland distribution: SW, SE, common, spawning?, benthopelagic, 550–987 m (Karrer 1973: 86, Nielsen & Bertelsen 1992: 56, Kido & Yabe 1995: 183, Jørgensen *et al.* 2005: 1852, Knudsen *et al.* 2007: 652 - BSKU, ZMB, ZMUC). Elsewhere found the in the western North Atlantic.

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

Literature: Scott & Scott (1988: 531).

Psednos christinae Andriashev, 1992

En-European dwarf snailfish, Dk-Christina's dværg-ringbug, Gr-Christina's dværg-ringbug

Greenland distribution: SE, very rare, pelagic, guest?, 843–854 m. A single specimen caught off East Greenland, 62°19'N, 40°23'W, 16 June 2006, ZMUC P821887. Elsewhere found in the Northeast Atlantic.

Remarks: According to Chernova (2001: 486), the specimen identified as *P. christinae* by Kido & Yabe 1995: 185 is an undescribed species.

Literature: Chernova (2001: 486).

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.

Literature: Chernova (2001: 488).

Psednos groenlandicus Chernova, 2001

En-Greenland dwarf snailfish, Dk-grønlandsk dværg-ringbug, Gr-grønlandsk dværg-ringbug

Greenland distribution: SW, SE, very rare, pelagic, guest?, 786–1460 m. Known from four specimens from Davis Strait, 63°26.7'N, 53°54.7'W, 1055 m, 5 August 1991, ZMUC P82763; 65°09'N, 56°07'W, 786 m, 23 August 1992, ZMUC P82519; 64°30'N, 56°17'W, 930 m, 27 September 1997, ZMUC P82660, holotype; 63°47'N, 54°18'W, 1258 m, 15 November 2001, ZMUC P821735 and one from Denmark Strait, 61°53'N, 39°57'W, 1457 m, 20 June 2004, ZMUC P821823 (Chernova 2001: 490, Knudsen *et al.* 2007: 652). Elsewhere known from the Mid-Atlantic Ridge (Chernova & Møller 2008).

Remarks: Misidentified as *Psednos harteli* in Jørgensen *et al.* 2005: 1852.

Literature: Chernova (2001: 486).

Psednos melanocephalus Chernova & Stein, 2002

En-none, Dk-sorthovedet dværg-ringbug, Gr-sorthovedet dværg-ringbug

Greenland distribution: SW, 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.

Literature: Chernova & Stein (2002: 762).

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.

Literature: Chernova (2001: 496).

Rhodichthys regina (Collett, 1879)

En-threadfin seasnail, Dk-rød dybhavsringbug, Gr-rød dybhavsringbug

Greenland distribution: NW, NE, common, spawning, benthopelagic 1180–1480 m (Jensen 1950: 243, Muus 1981: 142, Nielsen & Bertelsen 1992: 56, Kido & Yabe 1995: 184, Jørgensen *et al.* 2005: 1852, Knudsen *et al.* 2007: 652 - HUMZ, ZMUC). Elsewhere found in the Arctic Ocean.

Literature: Stein & Able (1986: 1282).

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.

Literature: Tortonese (1986: 807).

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.

Remarks: Formerly known as *Caristius groenlandicus*. Misidentified as *Paracaristius maderensis* (Maul, 1949) in Jørgensen *et al.* 2005: 1851

Literature: Tweddle & Anderson (2008).

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.

Literature: Post (1986: 748), Tweddle & Anderson (2008).

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-

nova 1998b: 714, Muus 1981: 100, Nielsen & Bertelsen 1992: 42, Koyanagi 1995: 188). Elsewhere found from the northwestern Atlantic/Arctic to the Barents Sea.

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

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 0–250 m (Lütken 1875: 119, Jensen 1904a: 264, Johansen 1912: 664, Anderson 1982: 29, Muus 1981: 99, Nielsen & Bertelsen 1992: 42, Koyanagi 1995: 188, Pedersen & Kannevorff 1995: 177, Chernova 1998a: 167, Rätz 1999: 5 - ZMUC). Elsewhere found from the eastern Canada via Beaufort Sea to the Barents Sea.

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

Greenland distribution: SW, very rare, spawning?, benthic, 3365 m. A single specimen caught off SW Greenland, 58°51.6'N, 53°04.3'W, 3365 m, 14 September 1969, MNHN 1970-0031 (Geistdoerfer *et al.* 1970: 452, Nielsen & Bertelsen 1992: 46). Elsewhere known from the eastern North Atlantic.

Remarks: *Lycenchelys labradorensis* 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-checked wolf eel, Dk-Kolthoffs porebrosme Gr-Kolthoffs porebrosme

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 202–930 m (1904a: 261, Jensen 1904b: 88, Jensen 1926: 102, Jensen 1952a: 26, Muus 1981: 107, Nielsen & Bertelsen 1992: 46, Møller & Jørgensen 2000: 27 - BSKU, ZMUC). Elsewhere known from the western North Atlantic to the Kara Sea.

Literature: Andriashev (1986: 1133).

Lycenchelys muraena (Collett, 1878)

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

Greenland distribution: NW, SE, NE, common, spawning, benthic, 350–1400 m (Nielsen & Bertelsen 1992: 46, Koyanagi 1995: 192, Møller & Jørgensen 2000: 27, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). Elsewhere known from the Norwegian and Kara Seas.

Literature: Andriashev (1986: 1134).

Lycenchelys paxillus (Goode & Bean, 1879b)

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

Greenland distribution: SW, common, spawning, benthic, 414–1250 m (Jensen 1902: 210, Jensen 1952a: 26, Nielsen & Bertelsen 1992: 46, Koyanagi 1995: 190, Møller & Jørgensen 2000: 27, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere known from off Nova Scotia to Virginia.

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 &

Bertelsen (1992) and Koyanagi (1995), but is now regarded a junior synonym of *L. paxillus* (Møller 1999, Anderson & Fedorov 2004).

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

Lycenchelys sarsii (Collett, 1871)

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

Greenland distribution: SW, common, spawning, benthic, 100–600 m (Muus 1981: 108, Nielsen & Bertelsen 1992: 46, Koyanagi 1995: 193, Møller & Jørgensen 2000: 27, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere known from Newfoundland to the North Atlantic.

Literature: Andriashev (1986: 1135).

Lycodes adolfi Nielsen & Fosså, 1993

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

Greenland distribution: NW, NE, common, spawning, benthic, 386–1880 m (Nielsen & Fosså 1993: 39, Saito & Okamura 1995: 203, Møller 1996: 17, Møller & Jørgensen 2000: 29, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere known from the Canadian part of Baffin Bay and the Norwegian Sea.

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

Greenland distribution: SW, NW, SE, common, spawning, benthic, 202–930 m (Jensen 1926: 102, Jensen 1952a: 10, Muus 1981: 102, Nielsen & Bertelsen 1992: 44, Pedersen & Kannevorff 1995: 177, Saito & Okamura 1995: 194, Møller 1996: 21, Møller 2000b: 848, Møller & Jørgensen 2000: 29, Jørgensen *et al.* 2005: 1851) - BSKU, ZMUC. Elsewhere known from both sides of the Northeast Atlantic.

Literature: Andriashev (1986: 1138).

Lycodes eudipleurostictus Jensen, 1902

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

Greenland distribution: SW, NW, SE, NW, common, spawning, benthic, 188–1187 m (Jensen 1902: 206, Jensen 1904a: 257, Jensen 1926: 102, Jensen 1952a: 13, Muus 1981: 100, Nielsen & Bertelsen 1992: 42, Saito & Okamura 1995: 195, Møller 1996: 24, Riget *et al.* 1997: 21, Møller & Jørgensen 2000: 30, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere recorded from both sides of the northern North Atlantic and off Arctic Alaska.

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

Lycodes frigidus Collett, 1879

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

Greenland distribution: NE, very rare, spawning, benthic, 1450–1500 m. Common in the deep Norwegian Sea, but only known from three specimens off East Greenland, 68°19'N, 23°14'W, 22 September 1989, ZMUC P761230, P761322, P761411 (Muus 1981: 101, Nielsen & Bertelsen 1992: 44, Møller 1996: 26). Elsewhere known from the Arctic Ocean. In Northeast Greenland waters expected to be common below 1500 m depth.

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*

paamiuti (Møller 2001b). *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

Greenland distribution: SW, NW, NE, rare, spawning, benthic, 100–900 m (Saito & Okamura 1995: 197, Møller 1996: 36, Møller & Petersen 1997: 289, Møller & Jørgensen 2000: 31, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere known from Norwegian, Northern Barents and Kara Seas.

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).

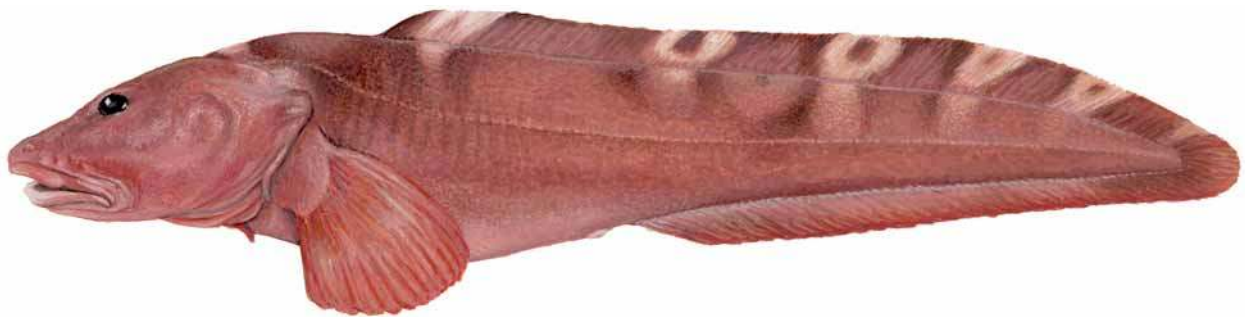


FIGURE 13 *Lycodes luetkenii*, ZMUC P762814, Greenland Sea, 15 August 1993. Drawing Birgitte Rubæk.

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

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 337–1337 m (Møller & Jørgensen 2000: 33 (as *Lycodes* sp. 1), Møller 2001b: 977, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMH, ZMUC). Elsewhere known from Canadian parts of the Baffin Bay and Davis Strait, and the Norwegian Sea.

Remarks: This species has previously been confused with *L. frigidus* (Saito & Okamura 1995: 196, dark male), *L. pallidus* (Saito & Okamura 1995: 199, pale female), *L. squamiventer* (Nielsen & Bertelsen 1992: 44) and many other species in museum collections (Møller 2001b).

Literature: Møller (2001b: 977).

Lycodes pallidus Collett, 1879

En-pale eelpout, Dk-bleg ålebrosme, Gr-bleg ålebrosme

Greenland distribution: NW, NE, rare, spawning, benthic, 30–1300 m (Jensen 1904a: 256, Jensen 1904b: 721, Jensen 1926: 102, Jensen 1952a: 14, Muus 1981: 104, Nielsen & Bertelsen 1992: 42, Møller & Jørgensen 2000: 31, Møller 2001b: 982, Jørgensen *et al.* 2005: 1851 - ZISP, ZMUC). Elsewhere known from the northern North Atlantic.

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).

Literature: Møller (2001b: 982).

Lycodes polaris (Sabine, 1824)

En-Canadian eelpout, Dk-polar-ålebrosme, Gr-polar-ålebrosme

Greenland distribution: NW, rare, spawning, benthic, 50–200 m (Jensen 1952a: 23, Muus 1981: 105, Nielsen & Bertelsen 1992: 44, Møller 1996: 46, Møller & Jørgensen 2000: 41 - ZMUC). Elsewhere known from Canadian Arctic to Okhotsk Sea.

Remarks: Records from East Greenland (Riget *et al.* 1997) need confirmation.

Literature: Andriashev (1986: 1142), Mecklenburg *et al.* (2002: 710).

Lycodes reticulatus Reinhardt, 1835

En-Arctic Eelpout, Dk-netmønstret ålebrosme, Gr-netmønstret ålebrosme

Greenland distribution: NW, SE, NE, common, spawning, benthic, 20–900 m (Lütken 1875: 119, Jensen 1904a: 258, Jensen 1904b: 61, Jensen 1926: 102, Jensen 1952a: 15, Muus 1981: 106, Nielsen & Bertelsen 1992: 44, Pedersen & Kannevorff 1995: 177, Saito & Okamura 1995: 198, Møller 1996: 49, Møller & Jørgensen 2000: 31, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere known from the Canadian parts of Baffin Bay to Nova Scotia in the western Atlantic and off Iceland, northern Barents Sea, Svalbard, Kara Sea, and Laptev Sea in the East.

Literature: Andriashev (1986: 1143), Mecklenburg *et al.* (2002: 712).

Lycodes seminudus Reinhardt, 1837

En-longear eelpout, Dk-halvnøgen ålebrosme, Gr-halvnøgen ålebrosme

Greenland distribution: SW, NW, NE, common, spawning, benthic, 50–1200 m (Lütken 1875: 119, Jensen 1904a: 260, Jensen 1904b: 71, Jensen 1926: 102, Jensen 1952a: 18, Muus 1981: 105, Nielsen & Bertelsen 1992: 44, Saito & Okamura 1995: 200, Møller 1996: 59, Riget *et al.* 1997: 21, Møller & Jørgensen 2000: 32, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). An Arctic species also found in the Beaufort Sea, Canadian parts of Baffin Bay, off North Iceland to the Faeroes, Svalbard Archipelago, northern Barents Sea and Kara Sea.

Literature: Andriashev (1986: 1145), Mecklenburg *et al.* (2002: 707).

Lycodes squamiventer Jensen, 1904b

En-none, Dk-bugskællet ålebrosme, Gr-bugskællet ålebrosme

Greenland distribution: NE, rare, spawning, benthic, 1350–1500 m (Jensen 1904b: 722, Nielsen & Bertelsen 1992: 44 (part), Møller 1996: 64 (part), Møller 2001b: 985 - ZMUC). Elsewhere known from the Norwegian Sea north off Iceland, Faroe Islands, Norway and Svalbard.

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.

Literature: Møller (2001b: 985).

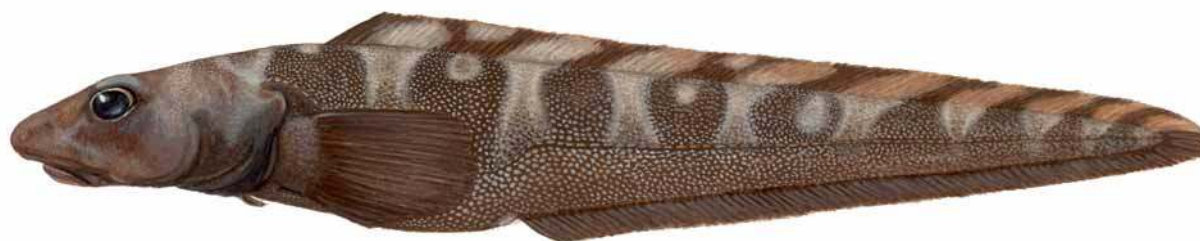


FIGURE 14 *Lycodes mcallisteri*, ZMUC P764746, Baffin Bay, 15 October 1999. Drawing Birgitte Rubæk.

Lycodes terraenovae Goode & Bean, 1896 (Fig. 15)

En-Atlantic eelpout, Dk-atlantisk ålebrosme, Gr-atlantisk ålebrosme

Greenland distribution: SW, SE, common, breeding, benthic, 700–1500 m (Saito & Okamura 1995: 202 (as *Lycodes* sp. A), Møller 1996: 68, Møller 1997: 45, Møller 2000b: 846, Møller & Jørgensen 2000: 34, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). Elsewhere known from the Northwest and East Atlantic.

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

Greenland distribution: SW, NW, common, spawning, benthic, 39–500 m (Lütken 1875: 118, Jensen 1904b: 13, Jensen 1926: 102, Jensen 1952a: 6 (part), Muus 1981: 103, Nielsen & Bertelsen 1992: 46 (part), Saito & Okamura 1995: 201 (photo is of *L. gracilis*), Møller 1996: 72 (part), Møller 2000b: 849, Møller & Jørgensen 2000: 34, Carl 2002: 69, Jørgensen *et al.* 2005: 1851 - HUMZ, ZMUC). Elsewhere found in the western North Atlantic.

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).

Literature: Carl (2002: 69).



FIGURE 15 *Lycodes terraenovae*, ZMUC P762510, Davis Strait, 29 August 1993. Drawing Birgitte Rubæk.

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

Greenland distribution: SW, NW, common, spawning, benthic, 600–1500 m (Jensen 1952a: 27, Karrer 1973: 84, Nielsen & Bertelsen 1992: 46, Koyanagi 1995: 205, Møller & Jørgensen 2000: 36, Jørgensen *et al.* 2005: 1851 - BSKU, ZMB, ZMUC). Elsewhere known from off eastern Canada to off North Carolina.

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 Mauretania and in the Mediterranean Sea.

Remarks: This species is mostly pelagic, but spawn in the bottom sediment.

Literature: Andriashev (1986: 1148), Scott & Scott (1988: 414), Klein-Macphee & Collette (2002: 468).

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.



FIGURE 16 *Melanostigma atlanticum*, ZMUC P762246, Davis Strait, 14 August 1991. Drawing Birgitte Rubæk.

Anisarchus medius (Reinhardt, 1937)

En-stout eelblenny, Dk-nordlig langebarn, Gr-nordlig langebarn

Greenland distribution: SW, NW, SE, common, spawning, benthic, 0–150 m (Lütken 1875: 118, Jensen 1904a: 256, Jensen 1926: 102, Muus 1981: 96, Jensen 1944b: 34, Nielsen & Bertelsen 1992: 40, Miki 1995: 207 - BSKU, ZMUC). Elsewhere found in the North Pacific, Chukchi and Beaufort Seas.

Literature: Makushok (1986: 1127), Mecklenburg *et al.* (2002: 758).

Eumesogrammus praecisus (Krøyer, 1836)

En-fourline snakeblenny, Dk-firliniet slimfisk, Gr-firliniet slimfisk

Greenland distribution: SW, NW, common, spawning, benthic, 0–400 m (Lütken 1875: 118, Jensen 1926: 102, Jensen 1944b: 37, Nielsen & Bertelsen 1992: 40, Miki 1995: 210, Pedersen & Kannevorff 1995: 177, Rätz 1999: 6, Jørgensen *et al.* 2005: 1851 - ZMUC, BSKU). Elsewhere found in the North Pacific, Chukchi and Beaufort Seas.

Literature: Mecklenburg *et al.* (2002: 746).

Leptoclinus maculatus (Fries, 1838a)

En-daubed shanny, Dk-pletlet langebarn, Gr-pletlet langebarn

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic and pelagic, 15–400 m (Lütken 1875: 118, Jensen 1904a: 255, Jensen 1926: 102, Muus 1981: 94, Jensen 1944b: 31, Nielsen & Bertelsen 1992: 40, Miki 1995: 208, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - ZMUC, HUMZ). Elsewhere found in the North Atlantic, North Pacific and Beaufort Sea.

Remarks: Probably rare on the east coast.

Literature: Collette (2002: 476), Mecklenburg *et al.* (2002: 756).

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

Greenland distribution: SW, rare, spawning, benthic, 0–370 m (Lütken 1875: 118, Jensen 1926: 102, Jensen 1944b: 33, Muus 1981: 96, Nielsen & Bertelsen 1992: 40 - ZMUC). Elsewhere found in the North Pacific, Chukchi and Beaufort Seas.

Remarks: Apparently not recorded since 1934.

Literature: Makushok (1986: 1128), Mecklenburg *et al.* (2002: 759).

Lumpenus lampretaeformis (Walbaum, 1792)

En-snakeblenny, Dk-spidschalet langebarn, Gr-spidschalet langebarn

Greenland distribution: SW, NW, SE, common, spawning, benthic, 30–450 m (Lütken 1875: 118, Jensen 1904a: 255, Jensen 1926: 102, Muus 1981: 95, Nielsen & Bertelsen 1992: 40, Miki 1995: 209, Pedersen & Kannevorff 1995: 177, Rätz 1999: 5 - ZMUC, HUMZ). Elsewhere found in the North Atlantic including the Baltic Sea.

Remarks: Probably rare on the east coast.

Literature: Makushok (1986: 1129), Collette (2002: 474).

Stichaeus punctatus (Fabricius, 1780)

En-Arctic shanny, Dk-pletlet slimfisk, Gr-pletlet slimfisk

Greenland distribution: SW, NW, common, spawning, benthic, 0–50 m (Lütken 1875: 118, Jensen 1910: 15, Jensen 1926: 102, Jensen 1944b: 36, Muus 1981: 93, Nielsen & Bertelsen 1992: 40 - ZMUC). Elsewhere found in Labrador waters and in the North Pacific and Beaufort Sea.

Literature: Collette. (2002: 477), Mecklenburg *et al.* (2002: 747).

Pholidae (En-gunnels, Da-tangspræl, Gr-ilaqutariit qussaannakkut)

Body elongate, strongly compressed. Pelvic fins very short and head very small. Dorsal and anal fins long and not fused with caudal fin. Known from 12 species occurring in the northern part of the Pacific and Atlantic oceans (Nelson 2006). Two species in Greenland waters.

Pholis gunnellus (Linnaeus, 1758)

En-rock gunnel, Dk-almindelig tangspræl, Gr-qussaannaq

Greenland distribution: SW, common, spawning, benthic, 0–10 m (Lütken 1875: 118, Jensen 1926: 102, Jensen 1942: 41, Muus 1981: 90, Nielsen & Bertelsen 1992: 42, Rätz 1999: 6 - ZMUC). Elsewhere found on both sides of the Atlantic Ocean.

Literature: Makushok (1986: 1124), Collette (2002: 481).

Pholis fasciata (Bloch & Schneider, 1801)

En-banded gunnel, Dk-båndet tangspræl, Gr-båndet tangspræl

Greenland distribution: SW, NW, common, spawning, benthic, 0–110 m (Lütken 1875: 118, Jensen 1926: 102, Jensen 1942: 42, Muus 1981: 91, Nielsen & Bertelsen 1992: 42 - ZMUC). Elsewhere found in the North Pacific and Arctic Oceans.

Literature: Mecklenburg *et al.* (2002: 777).

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

Greenland distribution: SW, NW, SE, common, spawning, benthic and pelagic, 110–1440 m (Lütken 1875: 119, Jensen 1926: 102, Jensen 1948: 121, Muus 1981: 89, Nielsen & Bertelsen 1992: 38, Miki 1995: 212,

Pedersen & Kanneworff 1995: 177, Riget *et al.* 1997: 21, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere, on both sides of the North Atlantic Ocean. Perhaps also in the Beaufort Sea (see Mecklenburg *et al.* 2002).

Remarks: Small specimens are sometimes caught pelagically (Jørgensen 1995).

Literature: Barsukov (1986: 1114), Mecklenburg *et al.* (2002: 784).

Anarhichas lupus Linnaeus, 1758

En-Atlantic wolf-fish, Dk-stribet havkat, Gr-qeeraaraq

Greenland distribution: SW, NW, SE, common, spawning, benthic, 100–1130 m (Lütken 1875: 119, Jensen 1926: 102, Jensen 1948: 117, Muus 1981: 87, Riget & Messtorff 1988: 13, Nielsen & Bertelsen 1992: 38, Miki 1995: 212, Miki 1995: 214, Pedersen & Kanneworff 1995: 177, Rätz 1999: 5, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere found on both sides of the North Atlantic Ocean.

Literature: Barsukov (1986: 1115), Rountree (2002: 485).

Anarhichas minor Olafsen, 1772

En-spotted wolffish, Dk-pletet havkat, Gr-Qeeraq, qeerngaq milagulaar

Greenland distribution: SW, NW, SE, common, spawning, benthic, 20–550 m (Lütken 1875: 119, Jensen 1904a: 226, Jensen 1926: 102, Jensen 1948: 118, Muus 1981: 88, Riget & Messtorff 1988: 13, Nielsen & Bertelsen 1992: 38, Miki 1995: 216, Pedersen & Kanneworff 1995: 177, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1850 - BSKU, ZMUC). Elsewhere known from both sides of the North Atlantic Ocean.

Literature: Barsukov (1986: 1115), Rountree (2002: 494).

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-swallowers, 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 swallower, Da-Hartels slughalsfisk, Gr-Hartels slughalsfisk

Greenland distribution: SW, SE, common, guest, pelagic—over bottom depths 495–1030 m (Nielsen & Bertelsen 1992: 38, Shinohara & Okamura 1995: 218, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere known from all oceans.

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).

Literature: Mecklenburg *et al.* (2002: 791).

Trichiuridae (En-scabbard-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

Greenland distribution: SW, SE, rare, guest, over bottom depths 396–1025 m (Collett 1887: 3, Jensen 1926: 102, Amaoka 1995: 220 - BSKU, ZMUC, ZMUO). Elsewhere known from the North Atlantic.

Remarks: *Aphanopus minor* Collett 1887, a junior synonym, was described from East Greenland, 65°N, 31°W, holotype ZMUO J1797.

Literature: Parin (1986: 977), Nakamura & Parin (1993: 65).

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

Greenland distribution: SW, very rare, guest, pelagic, depth unknown. One specimen from off Qaqortoq (Julianehåb) caught 9 September 1900, ZMUC P74164 (Jensen 1926: 102, Nielsen & Bertelsen 1992: 4). Elsewhere known from the North Atlantic and North Pacific.

Literature: Collette (2002: 516).

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-putorugtoq

Greenland distribution: SW, NW, common, spawning, 0–500 m (Lütken 1875: 121, Jensen 1926: 101 (as *A. lancea*), Petersen 1977: 309, Muus 1981: 84, Nielsen & Bertelsen 1992: 38 - ZMUC). Elsewhere known from off East Canada.

Literature: Nizinski (2002: 502).

Ammodytes marinus Raitt, 1934

En-lesser sand eel, Da-havtobis, Gr-havtobis

Greenland distribution: SW, NW, common, spawning, 0–400 m (Muus 1981: 85, Nielsen & Bertelsen 1992: 38, Amaoka 1995: 219 - BSKU, ZMUC). Elsewhere known from off Northwest Europe.

Literature: Reay (1986: 946).

Syngnathidae (En-pipefishes, Da-nålefisk, Gr-nålefisk)

Body elongate and encased in a series of bony rings. Pelvic fins absent. One dorsal fin. Gill openings very small. Known from 232 species (Nelson 2006), one in Greenland waters.

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, Fiskenæsset 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).

Literature: Dawson (1986: 629).

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

Greenland distribution: SW, SE, rare, spawning, 50–1600 m (Jensen 1926: 102, Muus 1981: 151, Nielsen & Bertelsen 1992: 58, Amaoka 1995: 220, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found off Northwest Europe and Northeast America to Cape Cod.

Literature: Nielsen (1988: 1299), Klein-MacPhee (2002: 561).

Hippoglossoides platessoides (Fabricius, 1780)

En-long rough dab, Da-håising, Gr-oqutaq

Greenland distribution: SW, NW, SE, NE, common, spawning, benthic, 10–450 m (Lütken 1875: 121, Jensen 1904a: 272, Jensen 1926: 102, Muus 1981: 150, Nielsen & Bertelsen 1992: 58, Amaoka 1995: 222, Pedersen & Kannevorff 1995: 177, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found off Northwest Europe and off Northeast America to Cape Cod.

Remarks: Divided into two subspecies, *H. p. platessoides* distributed from Greenland westwards, and *H. p. limandoides* distributed from Iceland eastwards (Nielsen 1986b).

Literature: Nielsen (1986b: 1300), Klein-MacPhee (2002: 564).

Hippoglossus hippoglossus (Linnaeus, 1758)

En-Atlantic halibut, Da-helleflynder, Gr-nataarnaq

Greenland distribution: SW, NW, SE, common, spawning, benthic, 50–2000 m (Lütken 1875: 120, Jensen 1926: 102, Muus 1981: 148, Nielsen & Bertelsen 1992: 58, Amaoka 1995: 223, Rätz 1999: 5, Jørgensen *et al.* 2005: 1851 - BSKU, ZMUC). Elsewhere found off Northwest Europe and off Northeast America to Cape Cod.

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

Literature: Nielsen (1986b: 1301), Klein-MacPhee (2002: 569).

Microstomus kitt (Walbaum, 1792)

En-lemon sole, Da-rødtunge, Gr-rødtunge

Greenland distribution: SE, rare, guest, benthic, 111–424 m (Rätz 1999: 6). Elsewhere found off Iceland and Northwest Europe.

Literature: Nielsen (1986b: 1304)

Pleuronectes platessa Linnaeus, 1758

En-plaice, Da-rødspætte, Gr-rødspætte

Greenland distribution: SW, SE, rare, guest, a few to 100 m (Muus 1981: 153, Nielsen & Bertelsen 1992: 58 - ZMUC). Elsewhere found off Iceland and Western Europe.

Remarks: Larvae are transported with currents from Iceland.

Literature: Nielsen (1986b: 1305)

Reinhardtius hippoglossoides (Walbaum, 1792)

En-Greenland halibut, Da-hellefisk, Gr-qaleralik

Greenland distribution: SW, NW, SE, NE, common, spawning, bentho-pelagic, 200–2000 m (Lütken 1875: 120, Jensen 1904a: 271, Jensen 1926: 102, Jensen 1935: 3, Smidt 1969: 79, Muus 1981: 145, Nielsen & Bertelsen 1992: 58, Riget *et al.* 1992: 7, Amaoka 1995: 226, Pedersen & Kannevorff 1995: 177, Jørgensen 1997: 39, Riget *et al.* 1997: 21, Rätz 1999: 5, Jørgensen *et al.* 2005: 1852, Pomilla *et al.* 2008: 1 - BSKU, ZMUC). Elsewhere found in the North Atlantic and North Pacific.

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.

Literature: Klein-MacPhee (200b: 830), Mecklenburg *et al.* (2002: 585).

Literature

- Abe, T. & Hotta, H. (1963) Description of a new deep-sea fish of the genus *Rondeletia* from Japan. *Japanese Journal of Ichthyology*, 10, 43–48.
- Alcock, A.W. (1892) Natural history notes from H. M. Indian marine survey steamer 'Investigator,' Lieut. G.S. Gunn, R.N., commanding.-Series II, No. 5. On the bathybial fishes collected during the season of 1891–92. *Annals and Magazine of Natural History* (Series 6), 10, 345–365.
- Alcock, A.W. (1898) Natural history notes from H. M. Indian marine survey ship 'Investigator,' Commander T.H. Heming, R.N., commanding.-Series II., No. 25. A note on the deep-sea fishes, with descriptions of some new genera and species, including another probably viviparous ophidioid. *Annals and Magazine of Natural History* (Series 7), 2, 136–156.
- Amaoka, K. (1995) Argentinidae, Bathylagidae, Trachichthyidae, Anaplogasteridae, Melamphaidae, Barbourisiidae, Rondeletidae, Cetomimidae, Ammodytidae, Trichiuridae and Pleuronectidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo. pp. 68–71, 145–150, 219–226.
- Anderson, M.E. (1982) Revision of the fish genera *Gymnelus* Reinhardt and *Gymnelopsis* Soldatov (Zoarcidae), with two new species and comparative osteology of *Gymnelus viridis*. *National Museums of Canada, Publications in Zoology*, 17, 1–76.
- Anderson, M.E. & Fedorov V.V. (2004) Family Zoarcidae Swainson 1839—eelpouts. *California Academy of Sciences. Annotated Checklists of Fishes*, 34, 1–58.
- Andriashev, A.P. (1986) Zoarcidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1130–1150.
- Andriashev, A.P. (1992) Morphological evidence for the validity of the antitropical genus *Pseudnos* Barnard (Scorpaeniformes, Liparididae) with a description of a new species from the eastern North Atlantic. *Uo (Japanese Society of Ichthyology)*, 41, 1–18.
- Anon (1966) Usædvanlig fangst. *Sportsfiskeren* 2, 43.
- Ascanius, P. (1767–1806) *Icones rerum naturalium, ou figures enluminés d'histoire naturelle du Nord*. Copenhagen.
- Ayres, W.O. (1848) On a very curious fish. *Proceedings of the Boston Society of Natural History*, 3 (1848–1851), 69–70.
- Badcock, J. (1984) Gonostomatidae, Sternoptychidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the north-eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 284–301, 302–317.
- Baird, R.C. (1971) The systematics, distribution and zoogeography of the marine hatchetfishes (family Sternoptychidae). *Bulletin of the Museum of Comparative Zoology*, 142, 1–128.

- Bannister, K. (1986) Gasterosteidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 640–643.
- Barsukov, V.V. (1986) Anarhichadidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1113–1116.
- Barnard, K.H. (1923) Diagnoses of new species of marine fishes from South African waters. *Annals of the South African Museum*, 13, 439–445.
- Bauchot, M.-L. (1986) Serrivomeridae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 548–550.
- Bean, T.H. (1881) Descriptions of new fishes from Alaska and Siberia. *Proceedings of the United States National Museum*, 4, 144–159.
- Beebe, W. (1932) Nineteen new species and four post-larval deep-sea fish. *Zoologica, Scientific Contributions of the New York Zoological Society*, 13, 47–107.
- Beebe, W. (1933) Deep-sea isospondylous fishes. Two new genera and four new species. *Zoologica, Scientific Contributions of the New York Zoological Society*, 13, 159–167.
- Bertelsen, E. (1943) Notes on the deep-sea angler-fish *Ceratias holbölli* Kr. Based on specimens in the Zoological Museum of Copenhagen. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening*, 107, 185–206.
- Bertelsen, E. (1976) Records of parasitic males in three species of *Linophryne*. *Steenstrupia*, 4, 7–18.
- Bertelsen, E. (1982) Notes on *Linophryne* VIII. A review of the genus *Linophryne*, with new records and descriptions of two new species. *Steenstrupia*, 8, 49–104.
- Bertelsen, E. (1986) Ceratioidei. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1371–1414.
- Bertelsen, E. & Krefft, G. (1988) The ceratioid family Himantolophidae (Pisces, Lophiiformes). *Steenstrupia*, 14, 9–89.
- Bertelsen, E. & Nielsen, J.G. (1986) Saccopharyngidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 530–533.
- Bertelsen, E. & Pietsch, T.W. (1975) Results of the research cruises of FRV "Walther Herwig" to South America. XXXVIII. Osteology and relationships of the ceratioid anglerfish genus *Spiniphryne* (family Oneirodidae). *Archiv für Fischereiwissenschaft*, 26, 1–11.
- Bertelsen, E. & Pietsch, T.W. (1977) Results of the research cruises of FRV "Walther Herwig" to South America. XLVII. Ceratioid anglerfishes of the family Oneirodidae collected by the FRV "Walther Herwig". *Archiv für Fischereiwissenschaft*, 27, 171–189.
- Bertelsen, E., Pietsch T.W. & Lavenberg R.J. (1981) Ceratioid anglerfishes of the family Gigantactinidae: morphology, systematics, and distribution. *Contributions in Science (Los Angeles)*, 332, 1–74.
- Bigelow, H.B. & Schroeder W.C. (1950) New and little known cartilaginous fishes from the Atlantic. *Bulletin of the Museum of Comparative Zoology*, 103, 385–408.
- Bloch, M.E. (1786) Naturgeschichte der ausländischen Fische. Berlin. *Naturgeschichte der Ausländischen Fische*, 2, 1–160.
- Bloch, M.E. (1788) Ueber zwey merkwürdige Fischarten. *Abhandlungen der Böhmischen Gesellschaft der Wissenschaften*, 3, 278–282.
- Bloch, M.E. & Schneider, J.G. (1801) *M. E. Blochii, Systema Ichthyologiae iconibus cx illustratum. Post obitum auctoris opus inchoatum absolvit, correxit, interpolavit Jo. Gottlob Schneider, Saxo. Berolini. Sumtibus Auctoris Impressum et Bibliopolio Sanderiano Commissum*, 1–584.
- Bocage, J.V.B. du & F. de Brito Capello (1864) Sur quelques espèces inédites de Squalidae de la tribu Acanthiana, Gray, qui fréquentent les côtes du Portugal. *Proceedings of the General Meetings for Scientific Business of the Zoological Society of London*, 1864, 260–263.
- Boetius, J. (1976) Elvers, *Anguilla anguilla* and *Anguilla rostrata* from two Danish localities. Size, body weight, developmental stagenand number of vertebrae related to time of ascent. *Meddelelser fra Danmarks Fiskeri- og Havundersøgelser*, 7, 199–220.
- Bonaparte, C.L. (1840) Iconografia della fauna italica per le quattro classi degli animali vertebrati. Tomo III. Pesci. Roma.
- Bonnaterre, J.P. (1788) Tableau encyclopédique et méthodique des trois règnes de la nature... Ichthyologie. Paris.
- Borodin, N.A. (1929) Some new deep sea fishes. *Proceedings of the New England Zoölogical Club*, 10, 109–111.
- Brandes, C.H. & Kotthaus, A. (1959) Rare fish from distant northern seas area. Germany B. records of the Institut für Meeresforschung and the Abteilung Fischereibiologie der biologischen anstalt Helgoland, Bremerhaven. *Annales Biologiques*, 14, 42–43.
- Branstetter, S., Collette, B.B., & Klein-MacPhee, G. (Eds.) (2002) Mackerel Sharks: Family Lamnidae. *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. pp. 27–32.
- Brauer, A. (1902) Diagnosen von neuen Tiefseefischen, welche von der Valdivia-Expedition gesammelt sind. *Zoologischer Anzeiger*, 25, 277–298.

- Brünnich, M.T. (1788) Om en ny fiskart, den draabeplettede pladefish, fanget ved Helsingör i Nordsöen 1786. *Kongelige Danske Selskab Skrifter, Nye Samlingafdet*, 3, 398–407.
- Burgess, G.H. (2002) Spiny Dogfishes: Family Squalidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 48–57.
- Burke, C.V. (1912) A new genus and six new species of fishes of the family Cyclogasteridae. *Proceedings of the United States National Museum*, 43, 567–574.
- Capello, F. de B. (1868) Descrição de dois peixes novos provenientes dos mares de Portugal. *Jornal do Ciências Matemáticas, Physicas e Naturaes, Lisboa*, 1, 314–317.
- Carl, H. (2002) Taxonomic revision of the subspecies of *Lycodes vahli* Reinhardt. *Steenstrupia* 27, 65–81.
- Carr, S.M., Kivlichan, D.S., Pepin, P. & Crutcher, D.C. (1999) Molecular systematics of gadid Fishes: implications for the biogeographic origin of Pacific species. *Canadian Journal of Zoology*, 77, 17–26.
- Caruso, J.H. (1986) Lophiidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the north-eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1362–1363.
- Chernova, N.V. (1998a) Reestablishment of the validity of species *Gymnelus bilabrus* Andriashev 1937 with characteristics of species *G. viridis* verified (Fabricius, 1780) (Zoarcidae). *Journal of Ichthyology*, 38, 163–169.
- Chernova, N.V. (1998b) A new species *Gymnelus andersoni* sp. nova, from the Arctic seas with refinement of the species status of *G. retrodorsalis* Le Danois and *G. pauciporus* Anderson (Fam. Zoarcidae). *Journal of Ichthyology*, 38, 708–715.
- Chernova, N. (2001) A review of the genus *Pseudnos* (Pisces, Liparidae) with description of ten new species from the North Atlantic and Southwestern Indian Ocean. *Bulletin of the Museum of Comparative Zoology*, 155, 477–507.
- Chernova, N.V. (2005) New species of *Careproctus* Liparidae from the Barents Sea and adjacent waters. *Journal of Ichthyology*, 45, 689–699.
- Chernova, N.V. & Møller, P.R. (2008) A new snailfish, *Paraliparis nigellus* sp. nov. (Scorpaeniformes, Liparidae), from the northern Mid-Atlantic Ridge - with notes on occurrence of *Pseudnos* in the area. *Marine Biological Research*, 4, 369 – 375.
- Chernova, N.V. & Stein, D.L. (2002) Ten new species of *Pseudnos* (Pisces, Scorpaeniformes: Liparidae) from the Pacific and North Atlantic Oceans. *Copeia*, 2002, 755–778.
- Chernova, N.V., Stein, D.L. & Andriashev, A.P. (2004) Family Liparidae Scopoli 1777—snailfishes. *California Academy of Science, Annotated checklist of fishes*, 31, 1–72.
- Cocco, A. (1829) Su di alcuni nuovi pesci de' mari di Messina. *Giornale di Scienze Lettere e Arti per La Sicilia Anno 7*, 26, 138–147.
- Cocco, A. (1833) Cenni sul genere *Ruvettus* e sui caratteri che lo distinguono. *Osservationes Peloritani*, 8, 18.
- Cohen, D.M. (1963) A new genus and species of bathypelagic ophidioid fish from the western North Atlantic. *Breviora*, 196, 1–8.
- Cohen, D.M. (1984) Bathylagidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 392–394.
- Cohen, D.M., Inada, T., Iwamoto, T. & Scialabba, N. (1990) FAO species catalogue. *Volume 10*. Gadiform fishes of the world (order Gadiformes). An annotated and illustrated catalogue of cods, hakes, grenadiers and other gadiform fishes known to date. *FAO (Food and Agriculture Organization of the United Nations) Fisheries Synopsis 125*, 10, 1–442.
- Collett, R. (1871) *Lycodes sarsii*, n. sp. ex ordine Anacanthinorum Gadoideorum, descripsit. *Forhandlinger i Videnskabs-selskabet i Christiania*, 1871, 62–66.
- Collett, R. (1875) *Norges fiske, med bemaerkninger om deres Udbredelse*. Christiania. Norges fiske, med bemaerkninger om deres Udbredelse, 1–240.
- Collett, R. (1878) Fiske, indsamlede under den norske Nordhavs-Expeditions 2 første Togter, 1876 og 1877. *Forhandlinger i Videnskabs-selskabet i Christiania (for 1878)*, 4, 1–24.
- Collett, R. (1879) Fiske fra Nordhavs-Expeditionens sidste Togt, Sommeren 1878. *Forhandlinger i Videnskabs-selskabet i Christiania (for 1878)*, 14, 1–106.
- Collett, R. (1880) *The Norwegian North-Atlantic Expedition, 1876–1878*. Zoology. Fishes. Grøndahl & Son, Christiania, 1–164.
- Collett, R. (1886) On a new pediculate fish from the sea off Madeira. *Proceedings of the General Meetings for Scientific Business of the Zoological Society of London*, 1886 (pt 2), 138–143.
- Collett, R. (1887) *Aphanopus minor*, en ny Dybvandsfisk af Trichiuridernes Familie fra Grønland. *Forhandlinger i Videnskabs-selskabet i Christiania (for 1886)*, 19, 1–7.
- Collett, R. (1889) Diagnoses de poissons nouveaux provenant des campagnes de "L'Hirondelle." III. Description d'une espèce nouvelle du genre *Hoplostethus*. *Bulletin de la Société Zoologique de France*, 14, 306.
- Collett, R. (1904) Diagnoses of four hitherto undescribed fishes from the depths south of the Faroe Islands. *Forhandlinger i Videnskabs-selskabet i Christiania (for 1904)*, 9, 1–7.
- Collette, B.B. (2002) Stichaeidae, Scombridae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's*

- Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 474–481, 516–536.
- Compagno, L.J.V. (1984a) Sharks of the world. An annotated and illustrated catalogue of shark species known to date. Part 1 - Hexanchiformes to Lamniformes. *FAO Fisheries Synopsis* 125, 4, 1–249.
- Compagno, L.J.V. (1984b). Sharks of the World. An Annotated and Illustrated Catalogue of Shark Species Known to Date. Part 2 - Carcharhiniformes. *FAO Fisheries Synopsis* 125, 4, 251–655.
- Compagno, L.J.V. (2001) Sharks of the world. An annotated and illustrated catalogue of shark species known to date, *Volume 2. Bullhead, mackerel and carpet sharks (Heterodontiformes, Lamniformes and Orectolobiformes)*. *FAO Species Catalogue for Fishery Purposes*. No. 1, 2, 1–269.
- Craddock, J.E. & Hartel, K.E. (2002) Bristlemouths: Family Gonostomatidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 181–184.
- Craddock, J.E., Hartel, K.E. & Flescher, D. (2002) Lanternfishes: Family Myctophidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp.198–204.
- Cuvier, G. (1829) Le Règne Animal, distribué d'après son organisation, pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée. Edition 2, 2, 1–406.
- Davenport, J. (1985) Synopsis of biological data on the lumpsucker *Cyclopterus lumpus* (Linnaeus 1758). *FAO Fisheries Synopsis* No. 147. 31 p.
- Dawson, C.E. (1986) Syngnathidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 628–639.
- De Filippi, F. & Verany, G.B. (1857) Sopra alcuni pesci nuovi o poco noti del Mediterraneo. Nota. *Memorie / Reale Accademia delle scienze di Torino (Ser. 2)*, 18, 187–199.
- Delaroche, F.E. (1809) Suite du mémoire sur les espèces de poissons observées à Ivija. Observations sur quelques-uns des poissons indiqués dans le précédent tableau et descriptions des espèces nouvelles ou peu connues. *Annales du Muséum d'Histoire Naturelle, Paris*, 13, 313–361.
- DeWitt, H.H., Heemstra, P.C. & Gon, O. (1990) Nototheniidae. In: Gon, O. & Heemstra, P. 1990. *Fishes of the Southern Ocean*, pp. 279–332.
- Didier, D.A. (1998) The leopard Chimaera, a new species of chimaeroid fish from New Zealand (Holocephali, Chimaeriformes, Chimaeridae). *Ichthyological Research*, 45, 281–289.
- Donovan, E. (1802–08) The natural history of British fishes, including scientific and general descriptions of the most interesting species, and an extensive selection of accurately finished coloured plates. London.
- Drazen, J.C. & Robison, B.H. (2004) Direct observations of the association between a deep-sea fish and a giant scyphomedusa. *Marine and Freshwater Behaviour and Physiology*, 37, 209–214.
- Dryagin, P.A. (1932) *Arctogadus*, eine neue Gadidengattung aus Nordostsibirien. *Zoologischer Anzeiger*, 98, 151–154.
- Endo, H. (1995) Gadidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 109–111, 113–122.
- Eschmeyer, W.N. (1998) *Catalog of fishes*. Special Publication, California Academy of Sciences, San Francisco. 3 vols. 2905 p.
- Essipov, V.K. (1937) On the fishes of the Polar basin and adjacent deepwater regions. *Problemy Arktiki: sbornik statej, Arkticeskij i Antarkticeskij Naucno-Issledovatel'skij Institut, Glavnogo Upravlenija Severnogo Morskogo Puti, Ministerstva Morskogo Flota SSSR*. 1937, 4, 85–97.
- Evermann, B.W. & Goldsborough, E.L. (1907) The fishes of Alaska. *Bulletin of the Bureau of Fisheries (for 1906)*, 26, 219–360.
- Fabricius, O. (1776) In: Müller, O.F. (Ed.), *Zoologiae Danicae prodromus, seu animalium Daniae et Norvegiae indigenarum characteres, nomina, et synonyma imprimis popularium. Havniae. Zoologiae Danicae prodromus, seu animalium Daniae et Norvegiae indigenarum characteres, nomina, et synonyma imprimis popularium*, 282 pp.
- Fabricius O. (1780) *Fauna Groenlandica, systematice sistens, animalia Groenlandiae occidentalis*. Copenhagen, Leipzig.
- Facciola, L. (1887) Sull'esistenza di due forme diverse di *Microstoma* nel Mar di Messina. *Naturalista Siciliano*, 6, 193–197.
- Fedorov, V.V. (1986) Cottidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the north-eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1243–1260.
- Fernholm, B. (1981) A new species of hagfish of the genus *Myxine*, with notes on other eastern Atlantic myxinids. *Journal of Fish Biology*, 19, 73–82.
- Fernholm, B. & Vladykov, V.D. (1984) Myxinidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 68–69.
- Fleischer, D., Schaber, M. & Piepenburg, D. (2007) Atlantic snake pipefish (*Entelurus aequoreus*) extends its northward

- distribution range to Svalbard (Arctic Ocean). *Polar Biology*, 30, 1359–1362.
- Flescher, D. & Martini, F.H. (2002) Lampreys. Order Petromyzontiformes. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 16–19.
- Fossen, I. & Bergstad, O.A. (2006) Distribution and biology of blue hake, *Antimora rostrata* (Pisces: Moridae), along the mid-Atlantic Ridge and off Greenland. *Fisheries Research*, 82, 19–29.
- Fossen, I., Jørgensen, O.A. & Gundersen, A.C. (2003) Roughhead grenadier (*Macrourus berglax*) in the waters off East Greenland: distribution and biology. *Journal of Fisheries and Aquatic Sciences*, 31, 285–298.
- Fowler, H.W. (1914) Fishes collected by the Peary Relief Expedition of 1899. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 66, 359–366.
- Fries, B.F. (1838a) Ichthyologiska bidrag till Skandinaviens fauna. *Kongliga Vetenskaps Akademiens nya Handlingar; Stockholm* for 1837, 23–58.
- Fries, B.F. (1838b) Granskning af de vid Svenska kusterna förekommande arter af Fisk-släktet *Raja*. *Kongliga Vetenskaps Akademiens nya Handlingar; Stockholm*, 1838, 126–164.
- Geistdoerfer, P. (1986) Macrouridae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 644–676.
- Geistdoerfer P., Hureau, J.C. & Rannou, M. (1970) Deux Poissons abyssaux nouveaux capturés dans l'atlantique nord et est: *Bathytyphlops azorensis* n. sp. (Ipnoidea) et *Lycenchelys labradorensis* n. sp. (Zoarcidae). *Bulletin du Museum National D'Histoire Naturelle*, 42, 452–459.
- Gibbs, R.H., Jr. (1960) *Alepisaurus brevirostris*, a new species of lancetfish from the western North Atlantic. *Breviora*, 123, 1–14.
- Gibbs, R.H. (1984) Astronesthidae, Chauliodontidae, Stomiidae, Melanostomiidae, Malacosteidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 325–370.
- Giglioli, E.H. (1893) Di una nuova specie di Macruride appartenente alla fauna abissale del Mediterraneo. *Zoologischer Anzeiger*, 16, 342–345.
- Gilbert, C.H. & Burke, C.V. (1912) Fishes from Bering Sea and Kamchatka. *Bulletin of the Bureau of Fisheries* (for 1910), 30, 31–96.
- Gill, T.N. (1883) Deep-sea fishing fishes. *Forest and Stream*, 1883, 284.
- Gill, T.N. (1884) Three new families of fishes added to the deep-sea fauna in a year. *American Naturalist*, 18, 433.
- Gill, T.N. & Ryder, J.A. (1883) Diagnoses of new genera of nemichthyoid eels. *Proceedings of the United States National Museum*, 6, 381, 260–262.
- Gmelin, J.F. (1789) *Caroli a Linné. Systema Naturae per regna tria naturae, secundum classes, ordines, genera, species; cum characteribus, differentiis, synonymis, locis. Editio decimo tertia, aucta, reformata*. 3 vols. in 9 parts. Lipsiae, 1788–93.
- Goode, G.B. & Bean, T.H. (1877) Descriptions of two new species of fishes (*Macrurus bairdii* and *Lycodes verrillii*) recently discovered by the U.S. Fish Commission, with notes upon the occurrence of several unusual forms. *American Journal of Science and Arts (Series 3)*, 14, 470–478.
- Goode, G.B. & Bean, T.H. (1879a) Description of *Alepocephalus bairdii*, a new species of fish from the deep-sea fauna of the western Atlantic. *Proceedings of the United States National Museum*, 2, 55–57.
- Goode, G.B. & Bean, T.H. (1879b) Description of a species of *Lycodes* (*L. paxillus*) obtained by the United States Fish Commission. *Proceedings of the United States National Museum*, 2, 44–46.
- Goode, G.B. & Bean, T.H. (1879c) Descriptions of two gadoid fishes *Phycis chesteri* and *Haloporphyrus viola*, from the deep-sea fauna of the northwestern Atlantic. *Proceedings of the United States National Museum*, 1, 256–260.
- Goode, G.B. & Bean, T.H. (1883) Reports on the results of dredging under the supervision of Alexander Agassiz, on the east coast of the United States, during the summer of 1880, by the U. S. coast survey steamer "Blake", Commander J. R. Bartlett, U. S. N., commanding. *Bulletin of the Museum of Comparative Zoology*, 10, 183–226.
- Goode, G.B. & Bean, T.H. (1895) On *Harriotta*, a new type of chimaeroid fish from the deeper waters of the northwestern Atlantic. *Scientific results of exploration by the U. S. Fish Commission Steamer Albatross. Proceedings of the United States National Museum*, 17, 471–473.
- Goode, G.B. & Bean, T.H. (1896) Oceanic ichthyology, a treatise on the deep-sea and pelagic fishes of the world, based chiefly upon the collections made by the steamers Blake, Albatross, and Fish Hawk in the northwestern Atlantic, with an atlas containing 417 figures. *Special Bulletin U. S. National Museum*, 2, 1–553.
- Gunnerus, J.E. (1765a) Efterretning om Berglaxen, en rar Norsk fisk, som kunde kaldes: *Coryphaenoides rupestris*. *Det Trondhiemske Selskabs Skrifter*, 3, 50–58.
- Gunnerus, J.E. (1765b) Brugden (*Squalus maximus*). *Det Trondhiemske Selskabs Skrifter*, 3, 33–49.
- Günther, A. (1862) Catalogue of the fishes in the British Museum. Catalogue of the Acanthopterygii, Pharyngognathi and Anacanthini in the collection of the British Museum, 4, 1–534.
- Günther, A. (1864) On a new genus of pediculate fish from the Sea of Madeira. *Proceedings of the General Meetings for*

- Scientific Business of the Zoological Society of London*, 1864, 301–303.
- Günther, A. (1877) Preliminary notes on new fishes collected in Japan during the expedition of H.M.S. 'Challenger'. *Annals and Magazine of Natural History (Series 4)*, 20, 433–446.
- Günther, A. (1878) Preliminary notices of deep-sea fishes collected during the voyage of H.M.S. 'Challenger'. *Annals and Magazine of Natural History (Series 5)*, 2, 17–28, 179–187, 248–251.
- Günther, A. (1882) Report on the fishes. In: Tizard, T.H. & Murray, J. Exploration of the Farøe channel, during the summer of 1880, in H.M.'s hired ship "Knight Errant". *Proceedings of the Royal Society of Edinburgh*, 11, 677–680.
- Günther, A. (1887) Report on the deep-sea fishes collected by H. M. S. Challenger during the years 1873–76. *Report on the Scientific Results of the Voyage of H. M. S. Challenger*, 22, 1–268.
- Günther, A. (1888) Report on the fishes obtained by Mr. J. Murray in deep water on the north-west coast of Scotland, between April 1887 and March 1888. *Proceedings of the Royal Society of Edinburgh*, 15, 205–220.
- Hansen, P.M. (1949) Studies on the biology of the cod in Greenland waters. *Rapports et Procès-Verbaux des Réunions du Conseil Permanent International pour L'Exploration de la Mer*, 123, 1–83.
- Hansen, P. (1953) Havkalen, den arktiske dybhavshaj. *Grønland*, 5, 182–188.
- Hansen, P. (1963) Sjældne hajer i grønlandske farvande. *Grønland*, 5, 161–172.
- Hardy, G.S. & Stehmann, M. (1990) A new deep-water ghost shark, *Hydrolagus pallidus* n. sp. (Holocephali, Chimaeridae), from the Eastern North Atlantic, and redescription of *Hydrolagus affinis* (Brito Capello, 1867). *Archiv für Fischereiwissenschaft*, 40, 229–248.
- Hartel, K.E. & Craddock, J.E. (2002) Dragonfishes and viperfishes. Family Stomiidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 191–194.
- Hartz, E., Glimmerveen, S., Hovius, N. & Hartz, T.D. (2009) *Reisen til istiden: to gutter på arktisk ekspedisjon*. Gyldendal Norsk Forlag, Oslo, Norway.
- Harwood, I. (1827) On a newly discovered genus of serpentiform fishes. *Philosophical Transactions of the Royal Society of London*, 1827, 49–57.
- Hector, J. (1875) Notes on New Zealand ichthyology. *Transactions and Proceedings of the New Zealand Institute*, 7, 239–250.
- Holt, E.W.L. & Byrne, L.W. (1908) Second report on the fishes of the Irish Atlantic slope. Fisheries, Ireland, *Scientific Investigations* (1906), 5, 1–63.
- Holt, E.W.L. & Byrne, L.W. (1909) Preliminary note on some fishes from the Irish Atlantic slope. *Annals and Magazine of Natural History (Series 8)*, 3, 279–280.
- Hovgård, H. & Wieland, K. (2008) Fishery and environmental aspects relevant for the emergence and decline of Atlantic cod (*Gadus morhua*) in West Greenland waters. In: Kruse, G.H., Drinkwater, K., Ianelli, J.N., Link, J.S., Stram, D.L., Wepestad, V. & Woodby, D. (Eds.), *Resiliency of gadid stocks to fishing and climate change*. Alaska Sea Grant Program, 2008, pp. 89–110.
- Hulley, P.A. (1984) Myctophidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 429–483.
- Hulley, P.A. (1995) Myctophidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 100–105.
- Hureau, J.-C. & Litvinenko, N.I. (1986) Scorpaenidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1211–1229.
- Ishida, M. (1995) Scorpaenidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 151–152, 160.
- Jensen, A.S. (1902) Ichthyologiske studier. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening*, København, 1901, 191–214.
- Jensen, A.S. (1904a) The fishes of East-Greenland. *Meddelelser om Grønland*, 29, 210–276.
- Jensen, A.S. (1904b) The North-European and Greenland Lycodinae. *Danish Ingolf Expedition*, 2, 1–99.
- Jensen, A.S. (1909a) Indberetninger om Fiskeriundersøgelserne ved Grønland i 1908. *Beretning og Kundgørelser vedrørende Kolonierne i Grønland*, 2, 11–32.
- Jensen, A.S. (1909b) Beretning om Fiskeriundersøgelserne ved Grønland i 1909. *Beretning og Kundgørelser vedrørende Kolonierne i Grønland*, 5, 73–106.
- Jensen, A.S. (1910) Fishes. *Reports of the second Norwegian Arctic Expedition in the "Fram" 1898–1902*, 25, 3–15.
- Jensen, A.S. (1914) The selachians of Greenland. *Mindeskript for Japetus Steenstrup*, 2, 1–40.
- Jensen, A.S. (1922) Researches on the distribution, biology, and systematics of the Greenland fishes. *Videnskabelige Meddelelser fra Dansk Naturhistorisk forening, København*, 74, 89–109.
- Jensen A.S. (1926) Investigations of the "Dana" in West Greenland waters, 1925. *Rapports et Procès-verbaux des Réu-*

- nions du Conseil Permanent International pour l'Exploration de la Mer, 39, 85–102.
- Jensen, A.S. (1928) The fauna of Greenland. In: Greenland, vol 1. Reitzel, Copenhagen.
- Jensen, A.S. (1935) The Greenland halibut (*Reinhardtius hippoglossoides*) its development and migration. *Det Kongelige Danske videnskabernes selskabs skrifter*, 9, 1–32.
- Jensen, A.S. (1937) Remarks on the Greenland eel, its occurrence and reference to *Anguilla rostrata*. *Meddelelser om Grønland*, 118, 3–8.
- Jensen, A.S. (1939) Concerning a change of climate during recent decades in the Arctic and Subarctic regions from Greenland in the west to Eurasia in the east, and contemporary biological and geophysical changes. *Det Kongelige Danske Videnskabelige Selskab, Biologiske Meddelelser*, 14, 1–77.
- Jensen, A.S. (1941a) The Marsipobranchs of Greenland. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening, København*, 105, 55–57.
- Jensen, A.S. (1941b) A new deep sea berycoid fish from Davis Strait *Caristius groenlandicus* n. sp. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening, København*, 105, 49–53.
- Jensen, A.S. (1942) Contributions to the ichthyofauna of Greenland, 1–3. *Skrifter udgivet af Universitetets zoologiske Museum København*, II, 1–44.
- Jensen, A.S. (1944a) Klimasvingninger over arktis og deres følgevirkninger med særligt henblik på Grønland. *Det grønlandske selskabs aarsskrift*, 7–19.
- Jensen, A.S. (1944b) Contributions to the ichthyofauna of Greenland 4–7. *Spolia Zoologica Musei Hauniensis*, 4, 1–60.
- Jensen, A.S. (1948) Contributions to the ichthyofauna of Greenland 8–24. *Spolia Zoologica Musei Hauniensis*, 9, 1–182.
- Jensen, A.S. (1950) On some deep-sea fish caught by the Danish Godthaab Expedition 1928 not previously known from West Greenland. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening, København*, 112, 243–248.
- Jensen, A.S. (1952a) Recent finds of Lycodinae in Greenland waters. *Meddelelser om Grønland*, 142, 1–28.
- Jensen, A.S. (1952b) On the Greenland species of the genera *Arteidiellus*, *Cottunculus* and *Gymnocanthus* (Teleostei, Scleroparei, Cottidae). *Meddelelser om Grønland*, 142, 1–21.
- Jensen, A.S. & Fristrup, B. (1950) Den arktiske klimaforandring og dens betydning, særligt for Grønland. *Geografisk Tidsskrift*, 50, 20–47.
- Jensen, A.S. & Hansen, P.M. (1931) Investigations on the Greenland cod (*Gadus callarias* L.) with an introduction on the history of the Greenland cod fishery. *Rapports et Procès-Verbaux des Réunions du Conseil Permanent International pour L'Exploration de la Mer*, 72, 1–41.
- Jensen, A.S. & Volsøe, H. (1949) A revision of the genus *Icelus* (Cottidae). With remarks on the structure of its urogenital papilla. *Det kongelige danske videnskabernes selskab, Biologiske Meddelelser*, 21, 1–26.
- Jespersen, P. & Tåning, A.V. (1926) Mediterranean Sternoptychidae. *Report on the Danish Oceanographical Expeditions 1908–10 to the Mediterranean and adjacent seas*, 2, 1–59.
- Johansen, F. (1912) The fishes of the Denmark Expedition. *Meddelelser om Grønland*, IIX, 633–675.
- Johnson, J.Y. (1862) Descriptions of some new genera and species of fishes obtained at Madeira. *Proceedings of the General Meetings for Scientific Business of the Zoological Society of London* 1862, 2, 167–180.
- Johnson, J.Y. (1864) Description of three new genera of marine fishes obtained at Madeira. *Proceedings of the General Meetings for Scientific Business of the Zoological Society of London*, 1863, 403–410.
- Johnson, R.K. (1984) Scopelarchidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 484–488.
- Jónsson, G. (1992) *Íslenskir fiskar* (2.ed.). Fjölvi, Reykjavík, Iceland. 568 pp.
- Jónsson, G. & Pálsson, J. (2006) *Íslenskir fiskar (Icelandic fishes)*. Reykjavík, Iceland. 336 pp.
- Jordan, A.D., Møller, P.R. & Nielsen, J.G. (2003) Revision of *Arctogadus* Dryagin, 1932 (Teleostei: Gadidae). *Journal of fish biology*, 62, 1339–1352.
- Jordan, D.S. & Evermann, B.W. (1898) The fishes of North and Middle America: a descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, north of the Isthmus of Panama. Part II. *Bulletin of the United States National Museum*, 47, 1241–2183.
- Jørgensen, O.A. (1995) *Anarhichas denticulatus*, biology. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, 213 pp.
- Jørgensen, O.A. (1996) Distribution and biology of Grenadiers (Macrouridae) in West Greenland Waters. *Journal of Northwest Atlantic Fisheries Science*, 18, 7–29.
- Jørgensen, O.A. (1997) Pelagic occurrence of Greenland halibut, *Reinhardtius hippoglossoides* (Walbaum), in West Greenland waters. *Journal of Northwest Atlantic Fisheries Science*, 21, 39–50.
- Jørgensen, O.A. (2003) Survey for Greenland Halibut in NAFO Divisions 1C–1D, 2002. *NAFO Scientific Council Documents*, 03/20, 1–25.
- Jørgensen, O.A., Hvingel, C., Møller, P.R. & Treble, M. (2005) Identification and mapping of bottom fish assemblages in Davis Strait and Southern Baffin Bay. *Canadian Journal of Fisheries and Aquatic Sciences*, 62, 1833–1852.
- Kanayama, T. (1995) Agonidae, Cyclopteridae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chi-

- kuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 171–175.
- Karrer, C. (1972) Di Gattung *Harriotta* Goode and Bean, 1895 (Chondrichthyes, Chimaeriformes, Rhinochimaeridae) mit Beschreibung einer neuen Art aus dem Nordatlantik. *Mitteilungen aus dem Zoologischen Museum in Berlin*, 48, 203–221.
- Karrer, C. (1973) Über das Vorkommen von Fisharten im Nordwestatlantik (Neufundland-Baffinland). *Fischerei-Forschung Wissenschaftliche Schriftenreihe*, 11, 73–90.
- Karrer, C. (1976) Über Fischarten aus der Davisstrasse und Labradorsee. *Mitteilungen aus dem zoologischen Museum in Berlin*, 52, 371–376.
- Kido, K. & Yabe, M. (1995) Liparidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 176–185.
- Klein-MacPhee, G. (2002) Osmeridae, Grenadiers, Gadidae, Cottidae, Cyclopteridae, Pleuronectidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 162–170, 212–216, 223–261, 346–357, 363–368, 560–587.
- Klein-MacPhee, G. & Collette, B.B. (2002) Scorpaenidae, Zoarcidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 331–338, 466–474.
- Knudsen, S.W. & Møller, P.R. (2008) *Careproctus kidoi*, a new Arctic species of snailfish (Teleostei: Liparidae) from Baffin Bay. *Ichthyological Research*, 55, 175–182.
- Knudsen, S.W., Møller, P.R. & Gravlund, P. (2007) Phylogeny of the snailfishes (Teleostei: Liparidae) based on molecular and morphological data. *Molecular Phylogenetics and Evolution*, 44, 649–666.
- Kocik, J.F. & Friedland, K.D. (2002) Salmon and Trout: Family Salmonidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 170–181.
- Koefoed, E. (1952) Zeomorphi, Percomorphi, Plectognathi. *Scientific Results of Michael Sars North Atlantic Deep-Sea Expedition 1910*, 4, 1–26.
- Koyanagi, M. (1995) Zoarcidae. In: Okamura O, Amaoka K, Takeda M, Yano K, Okada K, Chikuni, S. (Eds.), *Fishes collected by R/V "Shinkai Maru" in the waters around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 188–193, 204–206.
- Krefft, G. (1953) Eine neue *Searsia*-Art (Isospondyli, Searsidae) aus isländischen Gewässern. *Zoologischer Anzeiger*, 151, 259–266.
- Krefft, G. (1980) A new species of *Holtbyrnia* Parr (Searsiidae, Salmoniformes) from the northern Atlantic Ocean. *Archiv für Fischereiwissenschaft*, 31, 53–62.
- Krefft, G. (1984) Notosudidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 421–425.
- Krefft, G. & Maul, G.E. (1955) *Notosudis lepida* n. sp. (Iniomi, Notosudidae), eine neue Fischart aus dem östlichen Nordatlantik. *Archiv für Fischereiwissenschaft*, 6, 305–316.
- Krueger, W.H. (2002) Sticklebacks: Family Gasterosteidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine, Third Edition*. Smithsonian Institution Press. Washington, DC, pp. 312–321.
- Krøyer, H.N. (1836) Ichthyologiske Bidrag. *Naturhistorisk Tidsskrift (Kjøbenhavn)*, 1, 25–38.
- Krøyer, H.N. (1845a) Ichthyologiske Bidrag. 10. *Ceratis hollbölli*. *Naturhistorisk Tidsskrift (Kjøbenhavn)*, 1, 639–649.
- Krøyer, H.N. (1845b) "Preliminary report". *Oversigt over det Kongelige Danske Videnskabernes Selskabs Forhandlinger og dets Medlemmers Arbejder (Kjøbenhavn) 1844* (no. 8), 139–141.
- Krøyer, H.N. (1845c) Ichthyologiske Bidrag. *Naturhistorisk Tidsskrift (Kjøbenhavn)*, 1, 213–282.
- Krøyer, H.N. (1847) Ichthyologiske Bidrag. 11–12. *Naturhistorisk Tidsskrift (Kjøbenhavn)*, 2, 225–290.
- Krøyer, H.N. (1862) Nogle Bidrag til Nordisk ichthyologi. *Naturhistorisk Tidsskrift (Kjøbenhavn)* (Ser. 3), 1, 233–310.
- Krøyer, H.N. (1868) To nye fiske for den danske fauna. *Tidsskrift for fiskeri*, 2, 70–71.
- Køie, M., Steffensen, J.F., Møller, P.R. & Christiansen, J.S. (2008) The parasite fauna of *Arctogadus glacialis* (Peters) (Gadidae) from western and eastern Greenland. *Polar Biology*, 31, 1017–1021.
- Lacepède, B.G.E. (1801) *Historie naturelle des poissons*, 3, 1–558.
- Lavoué, S., Miya, M., Poulsen, J.Y., Møller, P.R. & Nishida, M. (2008) Monophyly, phylogenetic position and inter-familial relationships of the Alepocephaliformes (Teleostei) based on whole mitogenome sequences. *Molecular Phylogenetics and Evolution*, 47, 1111–1121.
- Le Danois, E. (1913) Note sur un nouveau poisson de la famille des Lycodidae: le *Gymnelis retrodorsalis* November sp. *Bulletin de la Société Zoologique de France*, 38, 258–259.
- Lepechin, I.I. (1774) Descriptio piscis, e Gadorum genere, Russis saida dicti. *Novi Commentarii Academiae Scientiarum Imperialis Petropolitanae*, 1773, 18, 512–521.

- Lesueur, C.A. (1817) A short description of five (supposed) new species of the genus *Muraena*, discovered by Mr. Le Sueur, in the year 1816. *Journal of the Academy of Natural Sciences, Philadelphia*, 1, 81–83.
- Linnaeus, C. (1758) *Systema Naturae*, Ed. X., 1, 1–824.
- Linnaeus, C. (1766) *Systema naturae sive regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Laurentii Salvii, Holmiae*. 12th ed.
- Lowe, R.T. (1833) Description of *Alepisaurus*, a new genus of fishes. *Proceedings of the General Meetings for Scientific Business of the Zoological Society of London* 1833, 104.
- Lowe, R.T. (1839) A supplement to a synopsis of the fishes of Madeira. *Proceedings of the General Meetings for Scientific Business of the Zoological Society of London*, 1839, 76–92.
- Lütken, C.F. (1871) *Oneirodes eschrichtii* Ltk., en ny grønlandsk Tudsefisk. *Oversigt over det Kongelige Danske Videnskabernes Selskabs Forhandlinger og dets Medlemmers Arbejder (Kjøbenhavn)*, 1871, 2, 56–74 + 9–17.
- Lütken, C.F. (1875) A revised catalogue of the fishes of Greenland. In: Jones, T. R. (Ed.), *Manual of the natural history, geology of Greenland and the neighboring regions, prepared for the use of the Arctic expedition of 1875*. London, 1875, pp. 115–122.
- Lütken, C.F. (1877) Korte bidrag til nordisk Ichthyographi. I. Foreløbige Meddelelser om nordiske Ulkefiske (Cottoidei). *Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjøbenhavn*, 1876–1877, 355–388 + 72–98.
- Lütken, C.F. (1887) Korte Bidrag til nordisk Ichthyographi. VI. En for Grønlandshavet ny Rokke-art (*Raja Fyllae* n. sp. ad int.) m. m. *Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjøbenhavn*, 1887, 1–4.
- Lütken, C.F. (1892) Korte Bidrag til nordisk Ichthyographi. VIII. Nogle nordiske Laxesild (Scopeliner). *Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjøbenhavn*, 1891, 203–233.
- Lütken, C. (1898) The Ichthyological Results. *The Danish Ingolf expedition*, 2, 1–39.
- Lönnberg, E. (1905) Pelagische von der schwedischen Südpolar Expedition 1901–1903 erbeutete Fische. *Zoologischer Anzeiger*, 28, 762–768.
- Makushok, V.M. (1986) Pholidae, Lumpenidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1126–1129.
- Malm, A.W. (1861) Raekke af fiske, krebsdjur og bloddjur, som ere nye for den Skandinaviske fauna. *Förhandlingar vid de Skandinaviske naturforskarnes*, 1860, 8, 616–624.
- Malmgren, A.J. (1865) Om Spetsbergens fisk-fauna. *Öfversigt af Kongliga Vetenskaps-Akademiens förhandlingar; Kungliga Svenska Vetenskapsakademien*, 1864, 21, 489–539.
- Markle, D.F. & Quero, J.-C. (1984) Alepocephalidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 228–253.
- Martini, F.H. & Flescher, D. (2002) Hagfishes, Order Myxiniiformes. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 9–16.
- Maul, G.E. (1948) Monografia dos peixes do Museu Municipal do Funchal. Ordem Isospondyli. *Boletim do Museu Municipal do Funchal*, 3, 5–41.
- Maul, G.E. (1949) Alguns peixes notáveis. *Boletim do Museu Municipal do Funchal*, 4, 22–42.
- Maul, G.E. (1957) Further additions to the previously revised family Searsidae. *Boletim do Museu Municipal do Funchal*, 10, 5–21.
- Maul, G.E. (1986) Trachichthyidae, Melamphidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 745–752, 756–765.
- McEachran, J.D. (2002) Rajidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 60–75.
- McEachran, J.D. & Branstetter, S. (1984) Squalidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 128–147.
- Mecklenburg, C.W., Mecklenburg, T.A. & Thorsteinson, L.K. (2002) *Fishes of Alaska*. American Fisheries Society, Bethesda, Maryland, 1037 pp.
- Meléndez, C.R. & Markle, D.F. (1997) Phylogeny and zoogeography of *Laemonema* and *Guttigadus* (Pisces; Gadiformes; Moridae). *Bulletin of Marine Science*, 61, 593–670.
- Melo, M. (2009) Revision of the Genus *Chiasmodon* (Acanthomorpha: Chiasmodontidae), with the description of two new species. *Copeia* 2009(3), 583–608.
- Merrett, N.R. (1983) A new species of the deep-sea fish genus *Paraliparis* Collett (Liparididae) from the eastern North Atlantic, with notes on its ecology. *Journal of Fish Biology*, 23, 429–439.
- Miki, T. (1995) Stichaeidae, Anarhichadidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research

- Center, Tokyo, pp. 207–216.
- Mitchill, S.L. (1814) Arrangement and description of the codfishes of New-York: addressed to the editors. *The American medical and philosophical register of annals of medicine, natural history, agriculture, and the arts*, 4, 618–627.
- Moline, M.A., Karnovsky, N.J., Brown, Z., Divoky, G.J., Frazer, T.K., Jacoby, C.A., Torres, J.J. & Fraser, W.R. (2008) High latitude changes in ice dynamics and their impact on polar marine ecosystems. *Annals of the New York Academy of Sciences*, 1134, 267–319.
- Munroe, T. (2002) Herrings. Family Clupeidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 111–160.
- Mok, H-K. (2001) Nasal-sinus papillae of hagfishes and their taxonomic implications. *Zoological Studies*, 40, 355–364.
- Muus, B.J. (1981) Fisk. In: Muus, B.J., Salomonsen, F. & Vibe, C. (Eds.), *Grønlands fauna. Fisk, Fugle, Pattedyr*. Gyldendalske Boghandel, Nordisk Forlag A/S, Copenhagen.
- Müller, O.F. (1776) *Zoologiae Danicae prodromus, seu animalium Daniae et Norvegiae indigenarum characteres, nomina, et synonyma imprimis popularium*, 282 pp.
- Møller, P.R. (1996) *Taxonomy and zoogeography of the Atlantic species of the eelpout genus Lycodes (Zoarcidae)*. Unpublished Masters Thesis. University of Copenhagen.
- Møller, P.R. (1997) Identity of the Atlantic eelpouts *Lycodes terraenovae* Collett, 1896, *L. atlanticus* Jensen, 1902 and *L. agulhensis* Andriashev, 1959 (Pisces, Zoarcidae). *Steenstrupia*, 22, 45–58.
- Møller, P.R. (1999) Taxonomic status of the western North Atlantic eelpout *Lycenchelys paxillus* (Goode and Bean, 1879) (Pisces, Zoarcidae). *Ichthyological Research*, 46, 323–328.
- Møller, P.R. (2000a) Restoration of the taxon *Lycodes marisalbi*, with notes on its disjunct Arctic distribution. *Journal of Fish Biology*, 57, 1404–1415.
- Møller, P.R. (2000b) On the validity of the eelpout *Lycodes terraenovae* Collett, 1896 (Pisces, Zoarcidae). *Copeia*, 2000, 846–850.
- Møller, P.R. (2001a) A new zoarcid, *Lycodes mcallisteri* from eastern Arctic Canada (Teleostei: Perciformes). *Ichthyological Research*, 48, 111–116.
- Møller, P.R. (2001b) Redescription of the *Lycodes pallidus* species complex (Pisces, Zoarcidae), with a new species from the Arctic/North Atlantic Ocean. *Copeia*, 2001, 972–996.
- Møller, P.R. (2001c) Nyt om Grønlands fiskefauna. *Dansk Naturhistorisk Forenings Årsskrift*, 11, 35–39.
- Møller, P.R., Feld, T.K., Poulsen, I.H., Thomsen, P.F. & Thormar, J.G. (2005) *Myxine jespersenae*, a new species of hagfish (Myxiniiformes: Myxiniidae) from the North Atlantic Ocean. *Copeia*, 2005, 274–285.
- Møller, P.R., Jordan, A.D., Gravlund, P. & Steffensen, J.F. (2002) Phylogenetic position of the cryopelagic cod-fish genus *Arctogadus* Drjagin, 1932 based on partial mitochondrial cytochrome b sequences. *Polar Biology*, 25, 342–349.
- Møller, P.R. & Jørgensen, O.A. (2000) Distribution and abundance of eelpouts (Pisces, Zoarcidae) off West Greenland. *Sarsia*, 85, 23–48.
- Møller, P.R., Jørgensen, O.A. & Kullberg, T. (2004) New records of chimaeroid fishes from Greenland waters (North Atlantic), with description of juvenile *Chimaera monstrosa* and *Hydrolagus affinis* (Holocephali, Chimaeridae). *Cybium*, 28, 55–60.
- Møller, P.R., Nielsen, J.G. & Fossen, I. (2003) Patagonian toothfish found off Greenland. *Nature*, 421, 599.
- Møller, P.R. & Petersen, Æ. (1997) New data on the rare eelpout *Lycodes luetkeni* Collett 1880 (Pisces, Zoarcidae) from Greenlandic and Icelandic waters. *Cybium*, 21, 289–296.
- Møller, P.R. & Schwarzhans, W. (2008) Review of the Dinematichthyini (Teleostei, Bythitidae) of the Indo-West Pacific. Part IV. *Dinematichthys* and two new genera with description of nine new species. *The Beagle, Records of the Museum and Art Galleries of the Northern Territory* 23, 29–110.
- Nakamura, K. & Okamura, O. (1995) Alepocephalidae, Searsiidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 72–86.
- Nakamura, I. & Parin, N.V. (1993) FAO species catalogue. Snake mackerels and cutlassfishes of the world (families Gempylidae and Trichiuridae). *FAO Fish Synopsis*, 125, 15, 1–136.
- Nakaya, K. (1995) Myxiniidae, Chimaeridae, Rajidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 45–46, 53–60.
- Nelson, J.S. (2006) *Fishes of the World, fourth ed.* Wiley, New York.
- Neyelov, A.V. (1979) *Seismosensory system and classification of cottidae fishes (Cottidae: Myoxocephalinae, Artediellinae)*. Akad. Nauka, Leningrad, 208 pp.
- Nielsen, J.G. (1986a) Nemichthyidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 551–554.
- Nielsen, J.G. (1986b) Bythitidae, Pleuronectidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp.

1153–1166, 1299–1307.

- Nielsen, J.G. & Bertelsen, E. (1986) Eurypharyngidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, p. 534.
- Nielsen, J.G. & Bertelsen, E. (1992) *Fisk i grønlandske farvande*. Atuakkiorkfik, Nuuk, Greenland, 68 pp.
- Nielsen, J.G., Bertelsen, E. & Jespersen, Å. (1989) The biology of *Eurypharynx pelecanoioides* (Pisces, Eurypharyngidae). *Acta Zoologica (Stockholm)*, 70, 187–197.
- Nielsen, J.G. & Cohen, D.M. (2002) Notes on *Bythites* (Pisces, Bythitidae), with a new genus for *B. hollisi*. *Archive of Fishery and Marine Research*, 50, 49–54.
- Nielsen, J.G. & Fosså, S.V. (1993) *Lycodes adolfi*, a new species of eelpout (Zoarcidae) from Greenland. *Cybium*, 17, 39–44.
- Nielsen, J.G. & Jensen, J.M. (1967) Revision of the Arctic cod genus, *Arctogadus* (Pisces, Gadidae). *Meddelelser om Grønland*, 184, 1–28.
- Nielsen, J.G. & Schwägermann, A. (1995) Serrivomeridae, Saccopharyngidae, Eurypharyngidae, Osmeridae, Gonostomatidae, Chauiodontidae, Stomiidae, Melanostomiidae, Astronesthidae, Malacosteidae, Anotopteridae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 65–67, 87, 89–94, 99.
- Nielsen, J.G. & Smith, D.G. (1978) The eel family Nemichthyidae (Pisces: Anguilliformes). *Dana Report*, 88, 1–71.
- Nilsson, S. (1855) *Skandinavisk fauna. Fjerde Delen: Fiskarna. Första Häftet*. Lund, 768 pp.
- Nizinski, M.S. (2002) Sand lances. Family Ammodytidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 496–505.
- Norman, J.R. (1930) Oceanic fishes and flatfishes collected in 1925–1927. *Discovery Reports*, 2, 261–369.
- Nybelin, O. (1946) Sur quelques espèces du genre *Anotopterus* Zugmayer et sur la position systématique de la famille des Anotopteridae. *Göteborgs Kungliga vetenskaps-och vitterhets-Samhälles Handlingar*, 5, 3–16.
- Okamura, O. (1995) Synaphobranchidae, Macrouridae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 64, 123–130.
- Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.) (1995) *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center. Gôdo-Kaikan Bldg, Kioi-cho, Chiyoda-ku, Tokyo, Japan.
- Okamura, O. & Miyahara, H. (1995) Caristiidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 186–187.
- Okamura, O. & Takahashi, A. (1995) Notacanthidae, Halosauridae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 61–63.
- Olafsen, E. (1772) *Vice-Lavmand Eggert Olafsens og Land-Physici Biarne Povelsens Reise igiennem Island*, 1, 1–618.
- Osório, B. (1909) Contribuição para o conhecimento da fauna bathypelagica visinha das costas de Portugal. *Memorias do Museum Bocage, Lisboa Fasc.*, 1, 1–35.
- Palmer, G. (1986) Trachipteridae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 729–732.
- Parin, N.V. (1986) Trichiuridae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 976–980.
- Parr, A.E. (1927) Ceratioidae. Scientific results of the third oceanographic expedition of the "Pawnee" 1927. *Bulletin of the Bingham Oceanographic Collection Yale University*, 3, 1–34.
- Parr, A.E. (1934) Report on experimental use of a triangular trawl for bathypelagic collecting with an account of the fishes obtained and a revision of the family Cetomimidae. *Bulletin of the Bingham Oceanographic Collection Yale University*, 4, 1–59.
- Parr, A.E. (1937) Concluding report on fishes. With species index for articles 1–7 (fishes of the third oceanographic expedition of the "Pawnee"). *Bulletin of the Bingham Oceanographic Collection Yale University*, 3, 1–79.
- Parr, A.E. (1945) Barbourisidae, a new family of deep sea fishes. *Copeia*, 1945, 127–129.
- Parr, A.E. (1951) Preliminary revision of the Alepocephalidae, with the introduction of a new family, Searsidae. *American Museum Novitates*, 1531, 1–21.
- Parr, A.E. (1960) The fishes of the family Searsidae. *Dana Report*, 51, 1–109.
- Paxton, J.R. (1986) Rondeletiidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 526–527.
- Pedersen, S.A. & Kanneorff, P. (1995) Fish on the West Greenland shrimp grounds, 1988–1992. *ICES Journal of Marine Science*, 52, 165–182.

- Pennant, T. (1784) *Arctic zoology*. 2 vols. Henry Hughs, London.
- Peters, W. (1872) *Säugethiere und Fische, in Zwiete deutsche Nordpolar Expedition*, pp. 157–174.
- Petersen, G.H. (1977) The occurrence of the sand eel (*Ammodytes dubius*) in 0.1 m² van Veen grab samples taken during winter in Godhavn Havn, Disko Bugt. *ICES Journal of Marine Science*, 37, 309–310.
- Pietsch, T.W. (1969) A remarkable new genus and species of deep-sea angler-fish (family Oneirodidae) from off Guadalupe Island, Mexico. *Copeia*, 1969, 365–369.
- Pietsch, T.W. (1974) Osteology and relationships of ceratioid anglerfishes of the family Oneirodidae, with a review of the genus *Oneirodes* Lütken. *Science Bulletin of the Natural History Museum, Los Angeles County*, 18, 1–113.
- Pietsch, T.W. (2002) Seadevils or deep-sea anglerfishes. Family Ceratiidae (2002) In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 274–276.
- Pietsch, T.W. (2004) Revision of the deep-sea anglerfish genus *Phyllorhinichthys* Pietsch (Lophiiformes: Ceratioidei: Oneirodidae), with the description of a new species from the Atlantic Ocean. *Copeia*, 2004, 797–803.
- Pietsch, T.W. (2009) Oceanic Anglerfishes: Extraordinary Diversity in the Deep Sea. University of California Press, Berkeley, Los Angeles, London, 558 pp.
- Pomilla, C., Treble, M.A., Postma, L.D., Lindsay, M.M. & Reist, J.D. (2008) Initial genetic evidence of population structure of Greenland Halibut (*Reinhardtius hippoglossoides*) in the Northwest Atlantic. *Journal of Northwest Atlantic Fishery Science*, 40, 1–15.
- Popov, A.M. (1926) On ichthyology of the Kara and adjacent Barents seas. *Trudy Leningradskogo obshchestva estestvoispytatelei = Travauz de la Société des naturalistes de Leningrad*, 56, 27–55.
- Post, A. (1984) Alepisauridae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 494–495.
- Post, A. (1986) Paralepididae, Caristiidae, Anoplogasteridae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 498–508, 747–748, 767–768.
- Post, A. (1995) Notosudidae, Paralepididae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 95–98.
- Postolaky, A.I. (1962) Occurrence of *Anotopterus pharao* Zugmayer (Pisces, Scopeliformes) in the North Atlantic. *Journal of Ichthyology*, 2, 25–28.
- Poulsen, J.Y., Møller, P.R., Lavoué, S., Knudsen, S.W., Nishida, M. & Miya, M. (2009) Higher and lower-level relationships of the deep-sea fish order Alepocephaliformes (Teleostei: Otocephala) inferred from whole mitogenome sequences. *Biological Journal of the Linnean Society*, 98, 923–936.
- Pyefinch, K.A. (1969) The Greenland salmon fishery. *Proceedings of the Challenger Society*, 4, 4–12.
- Quéro, J.-C. (1984) Lamnidae, Cetorhinidae, Scyliorhinidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 83–90, 95–100.
- Quéro, J.-C., Matsui, T., Rosenblatt, R.H. & Sazonov, Y.I. (1984) Searsidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 256–267.
- Quignard, J.-P. & Pras, A. (1986) Labridae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 919–942.
- Rafinesque, C.S. (1810) *Indice d'ittiologia siciliana; ossia, catalogo metodico dei nomi latini, italiani, e siciliani dei pesci, che si rinvencono in Sicilia disposti secondo un metodo naturale e seguito da un appendice che contiene la descrizione de alcuni nuovi pesci siciliani*. Messina.
- Raitt, D.S. (1934) A preliminary account of the sandeels of Scottish waters. *Journal du Conseil*, 9, 365–372.
- Reay, P.J. (1986) Ammodytidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 945–950.
- Rätz, H.-J. (1999) Structures and changes of demersal fish assemblage off Greenland, 1982–96. *NAFO (Northwest Atlantic Fisheries Organization) Scientific Council Studies*, 32, 1–15.
- Regan, C.T. (1925) New ceratioid fishes from the N. Atlantic, the Caribbean Sea, and the Gulf of Panama, collected by the 'Dana'. *Annals and Magazine of Natural History (Series 9)*, 15, 561–567.
- Regan, C.T. & Trewavas, E. (1930) The fishes of the families Stomiidae and Malacosteidae. *Danish Dana Expedition 1920–22 in the North Atlantic and the Gulf of Panama*, 6, 1–143.
- Regan, C.T. & Trewavas, E. (1932) Deep-sea angler-fishes (Ceratioidea). *The Carlsberg Foundation's Oceanographical Expedition Round the World 1928–30 and Previous "Dana" Expeditions Under the Leadership of the Late Professor Johannes Schmidt, Dana Report*, 2, 1–113.
- Reinhardt, J.C.H. (1825) Ichthyologische bidrag. In: H.C. Örsted (Ed.), *Oversigt over det Kongelige Danske Videnskaberne Selskabs Forhandling og dets Medlemmers Arbejder (Kjøbenhavn)* 1824–25, 1–35.

- Reinhardt, J.C.H. (1830) Om Grønlands Fiske. In: H.C. Örsted (Ed.), *Oversigt over det Kongelige Danske Videnskaberne Selskabs Forhandlinger*, (1829–30), 15–20.
- Reinhardt, J.C.H. (1831) Preliminary report. *Oversigt over det Kongelige Danske Videnskaberne Selskabs Forhandlinger*, (1830–31), 1–40.
- Reinhardt, J.C.H. (1835) Preliminary report. *Oversigt over det Kongelige Danske Videnskaberne Selskabs Forhandlinger*, (1834–35), 5–7.
- Reinhardt, J.C.H. (1836) Om den Islandske Vaagmaer. Ichthyologiske bidrag til Grønlands fauna. *Oversigt over det Kongelige Danske Videnskaberne Selskabs Forhandlinger*, (1835–36), 8–12.
- Reinhardt, J.C.H. (1837) *Ichthyologiske bidrag til den grønlandske fauna*. Det Kongelige Danske videnskaberne selskabs naturvidenskabelige og matematiske afhandlinger, 7, 83–196.
- Reinhardt, J.C.H. (1840) Om nye Grønlandske fiske. *Oversigt over det Kongelige Danske Videnskaberne Selskabs Forhandlinger*, (1839), 7, 8–10.
- Richardson, J. (1836) The Fish. In: *Fauna Boreali-Americana; or the zoology of the northern parts of British America: containing descriptions of the objects of natural history collected on the late northern land expeditions, under the command of Sir John Franklin, R. N.*, 3, 1–327.
- Richardson, J. (1848) Fishes. In: A. Adams (Ed.), *The zoology of the voyage of H. M. S. Samarang; under the command of Captain Sir Edward Belcher, during the years 1843–1846*, pp. 1–28.
- Richardson, J. (1855) Fishes. In: Belcher, Sir E. (Ed.), *The last of the Arctic voyages in search of Sir J. Franklin*, 2, 347–376.
- Riget, F., Boje, J. & Simonsen, V. (1992) Analysis of meristic and genetic differentiation in Greenland halibut (*Reinhardtius hippoglossoides*) in the Northwest Atlantic. *Journal of Northwest Atlantic Fishery Science*, 12, 7–14.
- Riget, F.F., Dietz, R. & Johansen, P. (1997) Zinc, cadmium, mercury and selenium in Greenland fish. *Meddelelser om Grønland, Bioscience*, 48, 1–29.
- Riget, F. & Messtorff, J. (1988) Distribution, abundance and migration of Atlantic wolffish (*Anarhichas lupus*) and spotted wolffish (*Anarhichas minor*) in West Greenland waters. *NAFO (Northwest Atlantic Fisheries Organization) Scientific Council Studies*, 12, 13–20.
- Riis-Carstensen, E. (1948) *Den Grønlandske Lods*. I. Del Vestgrønland. Det Kongelige Danske Søkort-Arkiv, Copenhagen.
- Risso, A. (1810) *Ichthyologie de Nice, ou histoire naturelle des poissons du département des Alpes Maritimes*, 388 pp.
- Risso, A. (1820) Mémoire sur quelques poissons observés dans la mer de Nice. *Journal de Physique, de Chimie et d'Histoire Naturelle*, 91, 241–255.
- Risso, A. (1827) *Histoire naturelle des principales productions de l'Europe méridionale, et particulièrement de celles des environs de Nice et des Alpes maritimes*. F. G. Levrault, Paris & Strasbourg.
- Risso, A. (1840) Observations sur quelques poissons de la mer de Nice. *Archiv für Naturgeschichte*, 6, 376–393.
- Roule, L. & Angel, F. (1931) Observations et rectifications concernant divers poissons recueillis par S. A. S. le Prince Albert Ier de Monaco au cours des campagnes 1911 à 1914. *Bulletin de l'Institut Océanographique (Monaco)*, 581, 1–8.
- Rountree, R.A. (2002) Wolffishes. Family Anarhichadidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 485–496.
- Sabine, E. (1824) Fish. Appendix X. Natural history. In: *A supplement to the appendix of Captain Parry's voyage for the discovery of a north-west passage in the years 1819–20, containing an account of the subjects of natural history. Journal of a voyage for the discovery of a north-west passage from the Atlantic to the Pacific; performed in the years 1819–1820, in his majesty's ships Hecla and Griper, under the orders of William Edward Parry, R. N., F. R. S., and commander of the expedition*. John Murray, London.
- Saemundsson, B. (1922) Zoologiske Meddelelser fra Island. XIV. Fiske, ny for Island, of supplerende Oplysninger om andre, tidligere kendte. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening, Kjøbenhavn*, 74, 159–201.
- Saito, H. & Okamura, O. (1995) Zoarcidae-Lycodes. In: Okamura O., Amaoka K., Takeda M., Yano K., Okada K., & Chikuni S. (Eds.), *Fishes collected by R/V "Shinkai Maru" in the waters around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 194–203.
- Saldanha, L. & Bauchot, M.L. (1986) Synaphobranchidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 586–992.
- Sars, M. (1867) I. Om *Lycodes gracilis*, en ny norsk Fisk. II. Om Fossiler I glaciale Mergelboller fra Stjørdalen. *Forhandlinger i Videnskabs-selskabet i Christiania*, 1886, 40–51.
- Sazonov, Y.I. & Golovan, G.A. (1976) New species of fishes of the family Searsidae (Salmoniformes, Alepocephaloidei) from the eastern Atlantic Ocean. *Trudy Instituta okeanologii im. P P. Shirshova*, 104, 7–12.
- Schiermeier, Q. (2007) The new face of the Arctic. *Nature*, 446, 133–135.
- Schmidt, J. (1909) Ferskvandsaalenes (*Anguilla*) Udbredning i verden I. Det atlantiske ocean med tilgrænsede omraader

- en bio-geografisk studie. *Det Kongelige Danske Videnskabernes Selskab, 7. række, naturvidenskab og matematik, Afdeling VIII*, 3, 1–52.
- Schultz, L.P. (1938) Review of the fishes of the genera *Polyipnus* and *Argyropelecus* (Family Sternoptichidae), with descriptions of three new species. *Proceedings of the United States National Museum*, 86, 135–155.
- Schultz, L.P. (1961) Revision of the marine silver hatchetfishes (family Sternoptychidae). *Proceedings of the United States National Museum*, 112, 587–649.
- Schwarzahns, W. (2004) Fish otoliths from the Paleocene (Selandian) of West Greenland. *Meddelelser om Grønland, Geoscience*, 42, 1–32.
- Scott, W.B. & Scott, M.G. (1988) Atlantic fishes of Canada. *Canadian Bulletin of Fisheries and Aquatic Sciences* 219, 1–731.
- Shinohara, N. & Okamura, O. (1995) Chiasmodontidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, 218 pp.
- Smidt, E. (1969) The Greenland halibut (*Reinhardtius hippoglossoides*). Biology and exploitation in Greenland waters. *Meddelelser fra Danmarks Fiskeri og Havundersøgelser*, 6, 79–148.
- Smith, D.G. & Tighe, K.A. (2002) Anguillidae, Nemichthyidae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Fishes of the Gulf of Maine*. Washington: Smithsonian Institution Press. pp. 92–95, 100–101.
- Smitt, F.A. (1898) Poissons de l'expédition scientifique à la Terre de Feu. II. *Bihang till Kongliga Svenska vetenskaps-akademiens handlingar. Stockholm*, 24, 1–80.
- Stearn, D. & Pietsch, T.W. (1995) Caulophrynidae, Ceratiidae, Gigantactinidae, Linophrynidae, Melanocetidae, and Oneirodidae. In: Okamura, O., K. Amaoka, M. Takeda, K. Yano, K. Okada & Chikuni S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 131–144.
- Stehmann, M. (1978) *Raja "bathyphila"*, eine Doppelart des Subgenus *Rajella*: Wiederbeschreibung von *R. bathyphila* Holt & Byrne, 1908 und *Raja bigelowi* spec. nov. (Pisces, Rajiformes, Rajidae). *Archiv für Fischereiwissenschaft*, 29, 23–58.
- Stehmann, M. & Bürkel, D.L. (1984) Rajidae. In: Whithead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the north-eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris Ltd, pp. 163–196.
- Stein, D.L. (1986) Cyclopteridae. In: Whithead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 3*. UNESCO, Paris, pp. 1269–1274.
- Stein, D.L. & Able, K.W. (1986) Liparididae. In: Whithead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, volume 3*. UNESCO, Paris, pp. 1275–1283.
- Stein, M. (2007) Warming Periods off Greenland during 1800–2005: Their Potential Influence on the Abundance of Cod (*Gadus morhua*) and Haddock (*Melanogrammus aeglefinus*) in Greenlandic Waters. *Journal of Northwest Atlantic Fishery Science*, 39, 1–20.
- Storer, D.H. (1854) A new species of fish from Provincetown, found in the harbor at that place. *Proceedings of the Boston Society of Natural History*, 5 (1854–1856), 31.
- Sulak, K.J. (1984) Synodontidae (including Macristiidae and Bathysauridae). In: Whithead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 405–411.
- Sulak, K.J. (1986) Halosauridae, Notacanthidae. In: Whithead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 593–598, 599–603.
- Sulak, K.J., MacWhirter, P.D., Luke, K.E., Norem, A.D., Miller, J.M., Cooper, J.A. & Harris, L.E. (2009) Identification guide to skates (family Rajidae) of the Canadian Atlantic and adjacent regions. *Canadian Technical Report of Fisheries and Aquatic Sciences*, 2850, 1–34.
- Svetovidov, A.N. (1984) Salmonidae. In: Whithead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean. Volume 1*, UNESCO, Paris, pp. 373–385.
- Svetovidov, A.N. (1986) Gadidae. In: Whitehead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 2*. UNESCO, Paris, pp. 680–710.
- Templeman, W. (1969) The scientific name, distribution and characteristics of the blue ling, *Molva dipterygia* (Pennant), from west Greenland and Newfoundland areas. *Fiskeridirektoratets Skrifter Serie Havundersøkelser*, 15, 145–162.
- Templeman, W. (1970a) A review of the morid fish genus *Lepidion* of the North Atlantic with first records of *Lepidion eques* from the western North Atlantic. *Journal of the Fisheries Research Board of Canada*, 27, 457–498.
- Templeman, W. (1970b) Distribution of *Anotopterus pharao* in the North Atlantic and comparison of specimens of *A. pharao* from the western North Atlantic with those from other areas. *Journal of the Fisheries Research Board of Canada*, 27, 499–512.
- Templeman, W. (1984) Variations in number of median dorsal thorns and rows of teeth in thorny skate (*Raja radiata*) of the Northwest Atlantic. *Journal of Northwest Atlantic Fishery Science*, 5, 171–180.
- Thurow, F. (1961) Das erste vollständige exemplar von *Anotopterus pharao* Zugm. Aus den grönländischen gewässern.

Zoologischer Anzeiger, 167, 399–403.

- Tighe, K.A. (2002) Barracudinas. Family Paralepididae. Lancetfishes. Family Alepisauridae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 195–197.
- Tighe, K.A. & Smith, D.G. (2002) Cutthroat eels. Family Synaphobranchidae, Sawtooth eels. Family Serrivomeridae. In: Collette, B.B. & Klein-MacPhee, G. (Eds.), *Bigelow and Schroeder's Fishes of the Gulf of Maine*, Third Edition. Smithsonian Institution Press. Washington, DC, pp. 95–97, 103–104.
- Tortonese, E. (1986) Apogonidae. In: Whitehead, P.J.P., Bauchot, M.L., Hureau, J.C., Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean. Volume 2*. UNESCO, Paris, pp. 803–809.
- Travin, V.I. (1951) *Sebastes mentella* Travin sp. November in Barentz Sea. *Doklady Akademii nauk SSSR = Comptes rendus de l'Académie des sciences de l'URSS*, 77, 741–744. [In Russian].
- Treble, M.A. (2002) Analysis of data from the 2001 trawl survey in NAFO subarea 0. *Northwest Atlantic Fisheries Organization, Scientific Document*, 02/47, 1–28.
- Tweddle, D. & Anderson, M.E. (2008) A collection of marine fishes from Angola, with notes on new distribution records. *Smithiana, Publications in Aquatic Biodiversity, Bulletin*, 8, 3–24.
- Tåning, Å.V. (1928) Synopsis of the scopolids in the North Atlantic. Preliminary review. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening*, 86, 49–69.
- Tåning, Å.V. (1958) Observations of supposed intermingling or a certain connection between some stocks of boreal and subarctic demersal food fishes of the eastern and western Atlantic. *Special Publication - International Commission for the Northwest Atlantic Fisheries*, 1, 313–325.
- Vaillant, L.L. (1888) *Expéditions scientifiques du "Travailleur" et du "Talisman" pendant les années 1880, 1881, 1882, 1883. Poissons. Paris. Expéditions scientifiques du "Travailleur" et du "Talisman" pendant les années 1880, 1881, 1882, 1883. Poissons*, 406 pp.
- Valenciennes, A. (1833) *Hoplostethus cornutus*. In: Cuvier, G. & Valenciennes, A. (Eds.), *Histoire naturelle des poissons. Tome neuvième. Suite du livre neuvième. Des Scombroïdes. Histoire naturelle des poissons. Tome Sixième*, 9.
- Vladykov, V.D. (1984) Petromyzonidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 64–67.
- Walbaum, J.J. (1792) *Petri Artedi sueci genera piscium. In quibus systema totum ichthyologiae proponitur cum classibus, ordinibus, generum characteribus, specierum differentiis, observationibus plurimis. Redactis speciebus 242 ad genera 52. Ichthyologiae pars III*. Ant. Ferdin. Rose, Grypeswaldiae [Greifswald].
- Waterman, T.H. (1939) Studies on deep-sea angler-fishes (Ceratioidea). *Bulletin of the Museum of Comparative Zoology*, 85, 65–94.
- Whitehead, P.J.P. (1984) Clupeidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C. & Nielsen, J. & Tortonese, E. (Eds.), *Fishes of the North-Eastern Atlantic and the Mediterranean, Volume 1*. UNESCO, Paris, pp. 286–281.
- Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C., Nielsen, J. & Tortonese, E. (Eds.), (1984–1986) *Fishes of the North-eastern Atlantic and the Mediterranean*. UNESCO, Paris.
- Wieland, K. & Hovgård, H. (2002) Distribution and Drift of Atlantic Cod (*Gadus morhua*) Eggs and Larvae in Greenland Offshore Waters. *Journal of the Northwest Atlantic Fisheries Science*, 30, 61–76.
- Wisner, R.L. & McMillan, C.B. (1995) Review of new world hagfishes of the genus *Myxine* (Agnatha, Myxinidae) with descriptions of nine new species. *Fishery Bulletin*, 93, 530–550.
- Woods, L.P. (1973) *Diretmoides pauciradiatus*. In: Woods, L.P. & Sonoda, P.M. (Eds.), *Fishes of the western North Atlantic. Order Berycomorphi (Beryciformes). Memoirs of the Sears Foundation of Marine Research*, 1, 263–396.
- Yabe, M. (1995) Cottidae, Psychrolutidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 161–170.
- Yano, K. (1995a) Reproductive biology of the black dogfish, *Centroscyllium fabricii* collected from waters off western Greenland. *Journal of the Marine Biological Association of the United Kingdom*, 75, 283–310.
- Yano, K. (1995b) Squalidae. In: Okamura, O., Amaoka, K., Takeda, M., Yano, K., Okada, K. & Chikuni, S. (Eds.), *Fishes collected by the R/V Shinkai Maru around Greenland*. Japan Marine Fishery Resources Research Center, Tokyo, pp. 47–52.
- Yano, K., Stevens, J.D. & Compagno, L.J.V. (2007) Distribution, reproduction and feeding of the Greenland shark *Somniosus (Somniosus) microcephalus*, with notes on two other sleeper sharks, *Somniosus (Somniosus) pacificus* and *Somniosus (Somniosus) antarcticus*. *Journal of Fish Biology*, 70, 374–390.
- Zugmayer, E. (1911) Diagnoses de poissons nouveaux provenant des campagnes du yacht "Princesse-Alice" (1901 à 1910). *Bulletin de l'Institut Océanographique (Monaco)*, 193, 1–14.