

MEDDELELSER OM GRØNLAND

UDGIVNE AF

KOMMISSIONEN FOR VIDENSKABELIGE UNDERSØGELSER I GRØNLAND

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ON A NEW SPECIES
OF THE GENUS *MYsis*, WITH SOME
NOTES ON *MYsis OCULATA*
(O. FABRICIUS)

BY

CHARLOTTE HOLMQUIST

WITH 6 FIGURES IN THE TEXT

KØBENHAVN

C. A. REITZELS FORLAG

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1. Introduction.

Some years ago I set about studying problems concerning marine-glacial relicts, especially those belonging to the genus *Mysis* (Crustacea Peracarida), *Mysis oculata* and *Mysis relicta*. When studying morphological differences between these two species I was struck by the fact that there was a great variation within the samples of *Mysis oculata*, as it seemed to me at that time. I examined only museum samples already determined as *M. oculata* (HOLMQUIST, 1949). In the summer of 1956 I went to Greenland in order to finish my investigations on the marine-glacial relicts, i. e. to study the autecology etc. of those animals which were said to be the ancestors of the relicts. I stayed at the Danish Arctic Station at Godhavn, sampling at several different localities in the Disko Bugt area: in quite marine water as well as in somewhat brackish water and also in fresh water. On my return to Lund I examined the samples more thoroughly and found that what was earlier said to be *Mysis oculata* in reality must be considered to be two different species, *M. oculata* (O. FABRICIUS) 1780 sensu KRØYER 1861 and *M. litoralis* (BANNER) 1948. An examination of the large samples of the Riksmuseum of Stockholm, Sweden, confirmed my supposition. Once more, in 1957, I went to the Danish Arctic Station, collecting some more samples. I have now also examined the specimens in the Zoological Museum at Copenhagen, Denmark, and some from the Smithsonian Institution, Washington, D.C., U.S.A.

I take the opportunity here to express my heartfelt thanks to all those who helped me in my work, to those who sent me samples for study, to the board of "Universitetets Arktiske Station" at Copenhagen for placing at my disposal all the facilities at the Station at Godhavn, to those who helped me in my field work, and especially to the scientific leader of the Station, cand. mag. ULRIK RØEN, for organizing the field work, for good advice, and for his never ceasing interest. Grants from "Statens naturvetenskapliga forskningsråd" and "K. Fysiografiska Sällskapet i Lund" made the journeys possible.

I will give here only a description of the species and discuss the *Cancer oculatus* and *Cancer pedatus* of OTTO FABRICIUS. I intend to give a more detailed survey later on in connection with the above-mentioned problems on the marine-glacial relicts.

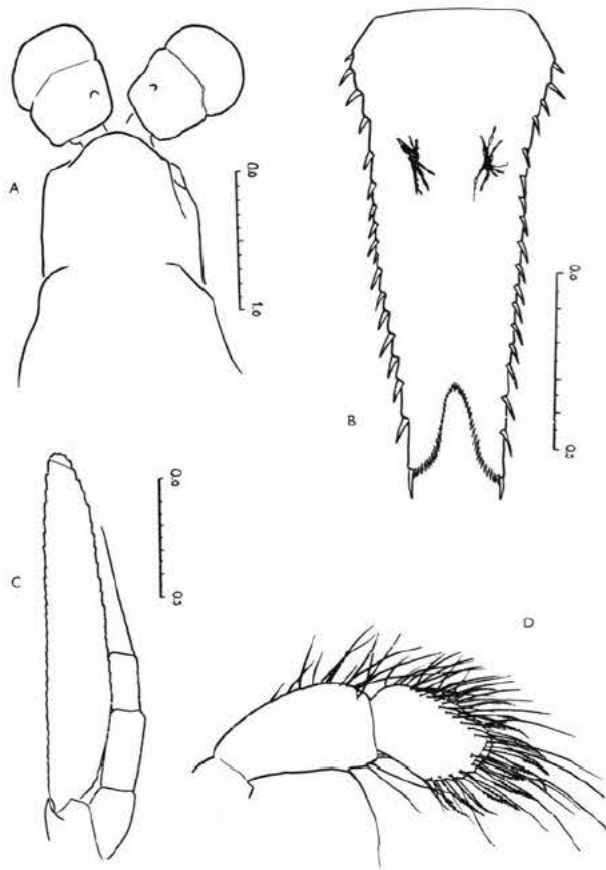


Fig. 1. *Mysis litoralis* (BANNER) 1948. A—C: Lectotype specimen, juv. abt. 8 mm; Friday Harbor, Washington; part of carapace, telson, and right antennal scale. D: ♀ 19.5 mm; Mudderbugten, Disko, Greenland; second maxillipede, distal segments of endopod.

2. *Mysis litoralis* (BANNER) 1948.

Description: Front margin of carapace evenly rounded. Eyes moderately large.

Antennular peduncle with the third segment about half as long as the first one, the second about half the length of the third.

Antennal scale setose all round, about five to five and a half times as long as broad; apex rounded; a slight distal suture is present; on the distal outer corner of the sympod there is a spine.

Maxilla with the distal segment of the endopod expanded; the distal margin armed with a densely set row of strong barbed spines, all of which are of about the same length. Along this row of spines, on the

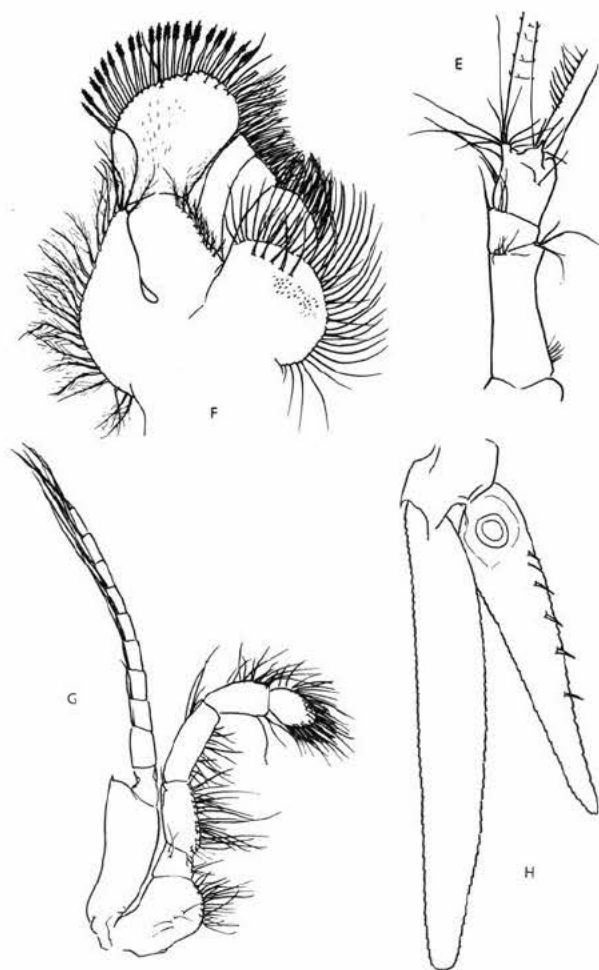


Fig. 2. *Mysis litoralis* (cont.). E—H: ♀ 19.5 mm; Mudderbugten, Disko, Greenland; right antennula, right maxilla, right second maxillipede, and right uropod.

proximal side of the segment, there is a row of setae, three to four in number.

Second maxillipede with the distal segment of the endopod rounded, armed with barbed spines or claws along the margin of the distal half of the segment, and a great many long setae.

Third to eighth thoracic limbs with barbed spines and long setae; basal plate of exopod with a short and stout spine at the outer distal corner.

Uropod: inner margin of the endopod with four to eight spines, the proximal ones near to the statocyst and the distal one about one third the length of the endopod from the apex.

Telson: lateral margins armed with more than twenty spines (less numerous in small animals), more crowded proximally and very often leaving an unarmed portion to the apical spine; distally to the base of the apical cleft there are only one to three spines, rarely none or four; the angle of the apical cleft measures 22° — 75° , being broader in small animals than in larger ones (314 specimens investigated, 29—4 mm); the distal lobes of the telson taper towards the apex; the two chromatophores are normally situated about one third the length of the telson from the base, but occasionally one was observed to lie just near to the base and the other at the normal place.

Length of adults 12—29 mm.

Lectotype: juv., ca. 8 mm; Friday Harbor, Wash.; 9/2/37; coll. C. C. DAVIS (U.S. Nat. Museum, Washington, D. C.).

Occurrence: *Mysis litoralis* seems to be a circumpolar, arctic and subarctic species, i. e. with about the same geographical distribution as *Mysis oculata*. They are sometimes found in the same sample.

Looking through material from Riksmuseum, Stockholm, I found *M. litoralis* in samples from Spitsbergen, Novaya Zemlya, from the vicinity of the Taimyr Peninsula and Bering Strait, from Greenland and Baffin Island. The lectotype, together with a few more specimens, was taken as far to the south as San Juan Island, near the south end of Vancouver Island. In the material from the Smithsonian Institution, Washington, I have found the species in samples from the north coast of Alaska. In samples from Zoologisk Museum in Copenhagen, *M. litoralis* was found from about 30 different localities in Greenland.

During my stay at the Arctic Station, Godhavn, *M. litoralis* was taken at the following localities: Mudderbugten, Disko ($69^{\circ}41' N$, $52^{\circ} W$), 26/VI, 31/VII 1956, 15/VII 1957; Taserssuaq at Atâ ($69^{\circ}48' N$, $50^{\circ}55' W$) on Arveprinsens Ejland, 25/VII 1956; lagoon at Ege, de Quervains Havn ($69^{\circ}46' N$, $50^{\circ}13' W$) together with some *Mysis oculata*, 17/VII and 20/VIII 1957; a brackish-water lake at Christianshaab ($68^{\circ}50' N$, $51^{\circ}8' W$), 22/VIII 1957; Qarajaq ($68^{\circ}40' N$, $50^{\circ}55' W$), 21/VII and 23/VIII 1957; Gieseckes Sø ($67^{\circ}45' N$, $53^{\circ}15' W$), 30/VIII 1957.

3. *Mysis oculata* (O. FABRICIUS) 1780 sensu KRØYER 1861.

Description: Carapace produced in front as a rounded angle. Eyes large.

Antennular peduncle as in *Mysis litoralis*.

Antennal scale about five to six times as long as broad, setose all round; apex rounded; a slight distal suture is present; on the distal outer corner of the sympod there is a spine.

Maxilla with the distal segment of the endopod expanded; the distal margin armed with a dense row of strong barbed spines, all of which are of about the same length. Along this row of spines, on the proximal side of the segment, there is a row of setae, four or five in number.

Second maxillipede with the distal segment of the endopod rounded, armed with strong barbed spines or claws leaving an unarmed portion proximally of only about one fifth of the segment; also supplied with long setae.

Third to eighth thoracic limbs with carpopropodus divided into eight to nine segments, armed with strong barbed spines and long setae; basal plate of the exopod as in *M. littoralis* with a short stout spine at the outer distal corner.

Uropod: inner margin of the endopod with five to nine spines situated as in *M. littoralis*.

Telson: lateral margins armed with more than twenty spines, evenly distributed along the whole margin and not leaving any unarmed portion distally; distal to the base of the apical cleft there are four to eight spines, less numerous in small specimens as is usual with spines in mysids; the proximal end of the apical cleft is always evenly rounded; the angle of the cleft measures about 2° — 49° , being broadest in small animals (386 specimens investigated, 27.5—4 mm); the distal lobes of the telson are broad right to the apex, distally evenly rounded; the two chromatophores are situated about one third the length of the telson from the base, sometimes they were seen to be irregularly placed.

Length of adults 15—28 mm.

Neotype: ad. ♀, 19 mm; Godhavn, from the stomach of *Gadus ogak*, 17/5 62, OLRİK (Zool. Mus., Copenhagen).

Occurrence: *Mysis oculata* is a circumpolar, arctic and subarctic species.

In the material from Riksmuseum, Stockholm, this species was found in samples from Spitsbergen, Novaya Zemlya, Bear Island, Jan Mayen, Greenland and Baffin Island. In the material from the Smithsonian Institution, Washington, I found it in samples from the north coast of Alaska. In samples from Zoologisk Museum, Copenhagen, *M. oculata* was found from about 55 localities in Greenland.

During my stay at the Arctic Station *Mysis oculata* was taken at the following localities: the bay off Arktiske Station, Godhavn, 18, 29, 30/VI, 3/VII, 9/VIII 1956, 3/VII 1957; Lyngmarksbugten, at the harbour of Godhavn, 15/VI 1956; Fortunebay, west of Godhavn ($69^{\circ}15.5' N$, $53^{\circ}45' W$), 16/VI, 11/VII 1956; the boat-harbour at Atå, Arveprinsens Ejland ($69^{\circ}46' N$, $50^{\circ}57' W$), 26/VII 1956; a bay to the east of Atå,

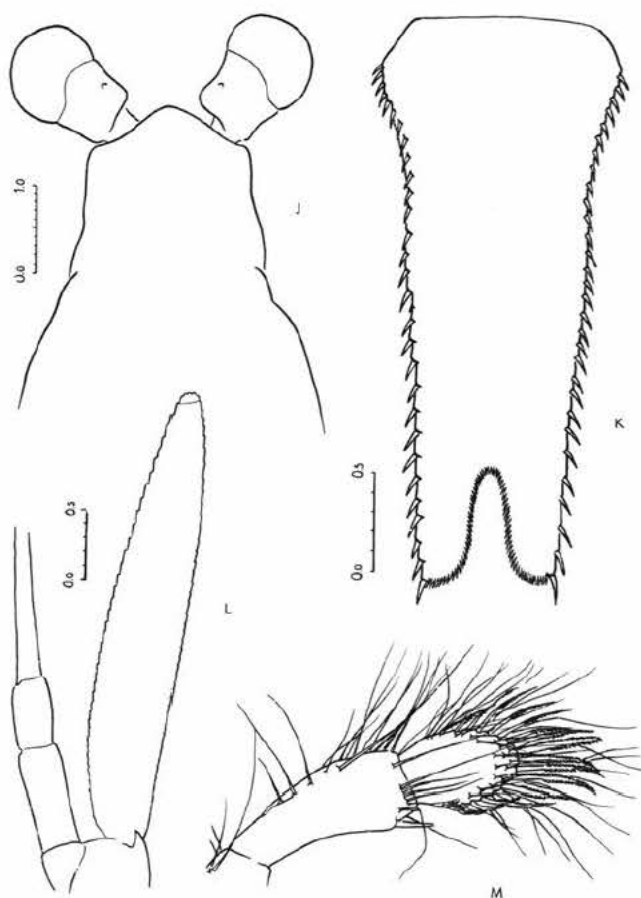


Fig. 3. *Mysis oculata* (O. FABRICIUS) 1780. J—L: Neotype specimen, ♀ 19 mm; Godhavn, Greenland; part of carapace, telson, and left antennal scale. M: ♀ 20 mm; Fortunebay, Disko, Greenland; second maxilliped, distal segments of endopod.

26/VII 1956, a lagoon at Ege, de Quervains Havn (cf. *M. litoralis*), 17/VII and 20/VIII 1957; the harbour at Hunde Ejland (68°51' N, 53°7' W), 28/VI and 22/VII 1957; a lagoon near the narrow sound Ikerasârssuk (67°43' N, 53°35' W), 30/VIII 1957.

4. *Cancer oculatus* and *Cancer pedatus* of OTTO FABRICIUS.

The first record of *Mysis oculata* in the literature is that of *Cancer oculatus* in OTTO FABRICIUS' Fauna Groenlandica of 1780 (p. 245, fig. 1). The description of the animal is not very exhaustive. There is also a drawing of the animal, but such an important character in mysids, for example, as the telson is not mentioned, nor is there any telson drawn

on the picture. Once more (1781, p. 565—567, fig. 2) FABRICIUS describes the species and gives a picture of it. This time, however, the drawing is somewhat different from the first one, i. e. the antennal scales are drawn with acute apices; the first time (1780) they were drawn with rounded apices. Also the second time he seems to have overlooked the telson. There may be no doubt that the animal described by FABRICIUS is a mysid. It may be that the second time he has drawn his picture from another species common in Greenland, *Mysis mixta*, which has

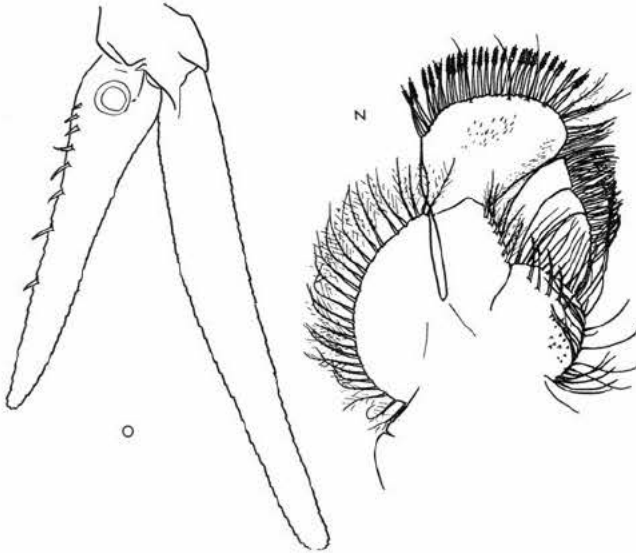


Fig. 4. *Mysis oculata* (cont.). N—O: ♀ 20 mm; Fortunebay, Disko, Greenland; right maxilla and left uropod.

an antennal scale with an acute apex. In his paper on OTTO FABRICIUS (1922, p. 336—337), AD. S. JENSEN points out all the difficulties FABRICIUS had to overcome when working out his large work *Fauna Groenlandica*. The only literature he had to hand in Greenland was LINNÉ's *Systemae Naturae*, and his optical equipment was not very good, consisting only of some kind of small optic glasses. About six years passed from the time when FABRICIUS returned from Greenland until his *Fauna* was published, and most of his samples were destroyed by storms during the journey back. It is quite understandable that some mistakes could be made. Nowadays it is not easy to make out what FABRICIUS' *Cancer oculatus* looked like, except that it may be a species of *Mysis* and probably *Mysis oculata*. The type material is not available.

In 1802 (p. 36—37) P. A. LATREILLE established the new genus *Mysis* for FABRICIUS' species *Cancer pedatus* and said: "Le *cancer oculatus* du même naturaliste se rapproche aussi beaucoup du *cancer*

pedatus ...". In 1803 (p. 282) he also encludes *Cancer oculatus* but he admits that he himself had no specimens for examination and that he only gives an account of "ce que Othon Fabricius nous a dit de ces crustacés douteux". He has also two drawings of "Mysis oculé" which look like reproductions of FABRICIUS' pictures except that there is a fifth caudal plate (telson?) with a rounded distal end. He says nothing about such a plate in his description. In *Encyclopédie methodique* of 1818 (p. 7, Pl. 333), LATREILLE gives some pictures of "*Mysis Fabricii*, Léach" which ought to be the same as *Mysis oculata* (see below). I have not succeeded in finding the original data of LEACH. It is said that he has an "Article Crustaceology" in *Edinburgh Encyclopaedia* of 1813

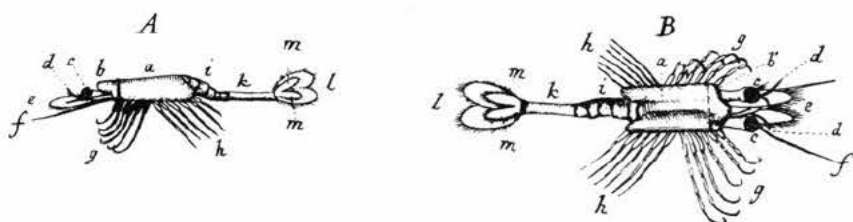


Fig. 5. From O. FABRICIUS' *Fauna Groenlandica*, 1780. *Cancer oculatus*.

—14. The only copy of this work that I have found in Swedish libraries is from the year 1830. In this work he only mentions *Mysis Saltatorius* as being the same as "Cancer pedatus of Otto Fabricius", i. e. nothing about *Cancer oculatus*. A. G. DESMAREST has the same pictures in his work on crustaceans of 1825 (plate 40, fig. 6) under the name of "Mysis de Fabricius", and he says (p. 242): "c'est peut-être celle q'Othon Fabricius a figurée dans la *Fauna Groenlandica*, fig. 1, sous le nom de *Cancer oculatus*". Maybe the pictures originally are drawn by LEACH from a real specimen of *Mysis oculata*. There are none of the above-mentioned names to be found in "List of the specimens of Crustacea in the collection of the British Museum" from 1847 (WHITE) in spite of the fact that there is "a cabinet of dry material that belonged to W. E. Leach" (letter from Dr. ISABELLA GORDON, British Museum, November 1957), and I am afraid that the specimens which LEACH may have had for his drawings never will be found again. Whatever he may have had, he talks in 1815 (p. 350) about "*Mysis Fabricii*. M. Caudâ lamellâ intermediâ apice obtusè emarginatâ: lamellis exterioribus apice rotundatis. *Habitat* in mari Groenlandico".

At the beginning of the nineteenth century the species was mentioned in reference works of different kinds (LATREILLE, 1817; LAMARCK, 1818; DESMAREST, 1823; GUÉRIN, 1827; GRIFFITH, 1833), often as *Mysis Fabricii*. J. V. THOMPSON (1828?) refers to works of LEACH and DES-

MAREST and he gives two figures, one of which looks like a reproduction from FABRICIUS, the other maybe from LATREILLE 1883. MILNE EDWARDS makes a distinction between "*Mysis Fabricii* de Leach" and "*Cancer oculatus* d'Othon Fabricius" (1837, p. 458, 460). As to the latter he says: "il nous paraît impossible de décider à quelle espèce il doit se rapporter", but he places it in a group where "la lame médiane de la nageoire caudale est entière au bout" (p. 459), the former in a group where it is "bifurquée" (p. 457).

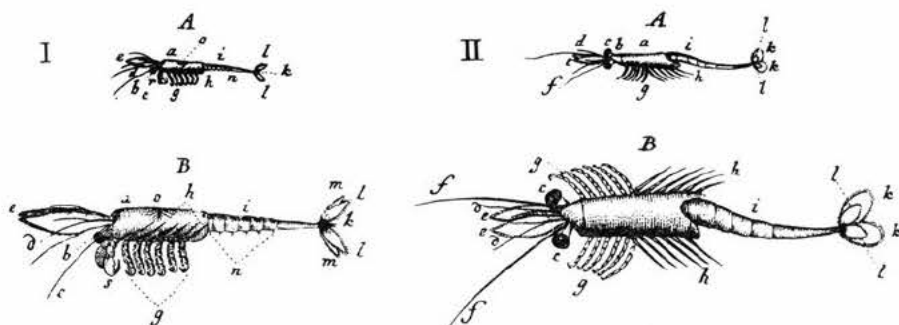


Fig. 6. From O. FABRICIUS, Om Hvalaaset, 1781. I. *Cancer pedatus*. II. *Cancer oculatus*.*)

Thus it is possible that LEACH had specimens for determination. The first, however, who without doubt has examined specimens of *Mysis oculata* after FABRICIUS, is HENRIK KRØYER (1837, p. 406). He states that *C. oculatus* seems to be LEACH's *Mysis Fabricii*. He gives also a short description in 1838—39 (p. 255) but with no more characters than other authors before him for identifying the animals. First in 1861 (p. 13—21 and 41) he brings out an exhaustive description. Before that some drawings of *Mysis oculata*, made by KRØYER, were published in "Voyages en Scandinavie . . ." (PAUL GAIMARD, Crust., Pl. 8). He refers to these pictures in his paper of 1861. He mentions that a great many of the zoological tables in GAIMARD's large work lack any text and that his paper of 1861 will compensate to some extent for this. What year the tables were published is not indicated, but there are some authors who give the year 1846 or perhaps 1849 (cf. for example STEPHENSEN 1913, p. 77).

Following KRØYER's description of *Mysis oculata* the species is easily recognized. There is no doubt what animals he had to hand except, maybe, for his fig. 3 on the plate. These last figures (a—f) are indicated to be from a juvenile specimen, but there is nothing about

*) Alterations of the original markings (Fig. 1—2 to I—II) of Fabricius' figures have been made by the editor.

them in the text. They are probably from a very young specimen of *Mysis oculata*, though the telson looks as if it could be from a specimen of *Mysis litoralis*. I have looked for those samples which KRØYER had for examination at the Museum of Copenhagen but I have not succeeded in finding them. He says himself (p. 13) that he had determined specimens from Spitsbergen as well as from Greenland. In view of his exhaustive description I think, however, that there is no doubt what species may be called *Mysis oculata*, i. e. *Mysis oculata* (O. FABRICIUS) 1780 sensu KRØYER 1861.

Another species, *Mysis litoralis*, was hitherto confused with *M. oculata*. In 1948 (p. 104—106, Pl. VI) BANNER established a new genus, *Pugetomysis*, and described a new species *P. litoralis* on some animals taken at Friday Harbor, Washington. In later papers (1954a, p. 127, and 1954b, p. 581) he states that *P. litoralis* may be a synonym of *M. oculata*. He kindly sent me the specimens for re-examination. After a careful examination it appears to me that it agrees well with those specimens I found earlier in samples together with *Mysis oculata* and hitherto confused with it. Therefore it may be named *Mysis litoralis* (BANNER) 1948.

In Fauna Groenlandica of 1780 FABRICIUS describes one more species, *Cancer pedatus*, which is mostly referred to *Mysis oculata*. KRØYER (1837, p. 406) has his doubts about this. He says that it belongs to *Mysis*, but he declares that he has not seen any specimens, nor has anybody else. When LATREILLE establishes the genus *Mysis* (1802, p. 36—37; 1810, p. 422) he does so for the species *Cancer pedatus* and, as with *Cancer oculatus*, he gives in 1803 (p. 282—285) an account of FABRICIUS' description of the species. In 1806 (p. 56) he does not mention *Cancer oculatus* but only *Cancer pedatus*, and this time as *Mysis saltatorius*. He adds: "Genus auctoritate Oth. Fabricii non examine proprio, institutum, de novo elaborandum!" After this *Cancer pedatus* reappears in the literature in 1818 (LAMARCK, p. 199—200) as *Mysis saltatorius* beside *Mysis oculata* and alone in other cases (LEACH, 1830a, p. 386). In 1828? (p. 31) J. V. THOMPSON talks about *Mysis pelagicus* and says: "This is the species described by Otho Fabricius under the title of *Cancer pedatus*, its characters would require to be more clearly pointed out . . ." That means that he has not seen any specimens either. In 1830 there is another paper by LEACH where he establishes a new genus, *Megalophthalmus*, for the species *Megalophthalmus Fabricianus*, referring to "*Cancer pedatus*, *Othonis Fabricii*, Faun. Groen. 243, No. 221". He gives a short description of the species and says: "Found abundantly in the northern seas, especially on the coast of Greenland, and in Baffin's bay". He may have had access to some animals. They are not to be found at the British Museum nowadays (letter from Dr. ISABELLA

GORDON, November 1957), and possibly they no longer exist. AD. S. JENSEN discusses the problem as to the identity of *Cancer pedatus* (1922, p. 350—351) and says that none of the authors who have tried to fix the identity has any doubts that it really is a *Mysis*. Maybe LEACH had. He says nothing, however, about the affinities of *Megalophthalmus*. JENSEN quotes a declaration from K. STEPHENSEN to the effect that *Cancer pedatus* may be a synonym of *Mysis mixta* LILLJEBORG 1852. In 1951 W. M. & O. S. TATTERSALL (p. 4) say: "*C. pedatus* has not been identified with certainty, but is probably a synonym of *C. oculatus*".

As with *Cancer oculatus*, it is really not easy to determine what animals FABRICIUS actually had. In 1781 he has a picture of the animal and a description in Danish (p. 562—565, fig. 1). It is also difficult to find out what animals LEACH may have had. There are, however, some characters given by FABRICIUS that struck me when studying the description and the figure: "thorace laeui compresso, fronte praerupta, pedibus pectoris duplici serie, manibus adaetylis, cauda tereti recta . . .", and he gives as especially characteristic a pair of "arms": "Ante pedes sub capite brachia duo breuissima, retro tendentia; articulata crassiora, manu latiore compressa, terminata vngue tenui curvo, et margine inferiore bidentato" (1780, p. 243—244; 1781, p. 561—565). But: the cephalothorax is not laterally compressed in mysids, it is rather cylindrical. The thoracopods have a dactylus which is seldom lacking. The abdomen in mysids, at least in the genus *Mysis*, is not straight but bent, somewhat downwards proximally and backwards again more distally (see FABRICIUS' own figure of *Cancer oculatus*; cf. also for the characters mentioned ZIMMER, 1926—1927). Though there are maxillipedes in mysids there is nothing that fits FABRICIUS' description of the "arms", nor his drawing. My opinion is that *Cancer pedatus* is not a mysid. On examining such other possibilities as mysis-stages of decapods, especially shrimps, and euphausiaceans, I am most inclined to think that those specimens which FABRICIUS had to hand were some euphausiaceans, taking into consideration the difficulties he had to overcome (see above) in his work with thereto attached possible mistakes. Euphausiaceans are very common in the waters off Greenland and serve more than mysids, anyhow more than *Mysis oculata*, as food for whales, just as FABRICIUS relates in 1781. The body is usually slightly compressed from the sides, and is rather often as straight as he has drawn it on the picture of *Cancer pedatus*. Comparing his two figures from 1781 it is striking that the exopods of the thoracopods have the appearance of an euphausiacean in fig. 1 (*C. pedatus*) and of a mysid in fig. 2 (*C. oculatus*). The first thoracopod in euphausiaceans is not especially different from the other thoracopods but the second is often elongated; if not, it is, according to ZIMMER (1926—1927, p. 816), different in "dass

sein Endglied meist kurz, löffelförmig und mit einer Querreihe von kräftigen Dornen ausgestattet ist . . . Bei der Gattung *Thysanoessa* Brandt ist er manchmal durchaus normal entwickelt, bei *manchen Arten* aber mehr oder weniger verlängert . . . unter gleichzeitiger Änderung seiner Bewehrung". It may be that it is something like this that FABRICIUS has seen when describing a pair of mouth-palpi and near to these the "arms" (1781, p. 563). He says also that the abdomen has small, two-segmented legs. In mysids, i. e. the tribe *Mysini*, they are unsegmented, except the third and fourth pleopods of the males which have another structure. In euphausiaceans the basis of the pleopods is two-segmented and supplied with an unsegmented exopod and endopod. Through "small optical glasses" (or without) they may look two-segmented. It may be added that he has neither mentioned any pleopods in *Cancer oculatus* nor drawn any on the picture. It is probable that he has overlooked them since they are small. He overlooked a telson as to *Cancer oculatus*. Maybe he has done the same in *Cancer pedatus* and only seen the two marked, narrow and acute subapical plates on it, characteristic of euphausiaceans: "Cauda . . . terminatur spinis 2 mediis brevibus, basi connatis" (1780, p. 244). Such things as the antennal scales with setae all round and the chromatophores could be mistakes. As to *Cancer oculatus*, he does not mention any chromatophores, nor has he drawn any, but nevertheless there may be no doubt that it is a *Mysis* where the chromatophores, unless in old, preserved material, are usually very marked.

In 1933 K. STEPHENSEN records the following species of euphausiaceans from western Greenland: *Thysanopoda acutifrons* HOLT & TATTERSALL, *Meganyctiphanes norvegica* (M. Sars), *Thysanoessa inermis* (KRÖYER), *Th. longicaudata* (KRÖYER), and *Th. raschi* (M. Sars). The three species of *Thysanoessa* seem to be the most common in these waters. Thus it could be possible that *Cancer pedatus* is a synonym of one of these euphausiaceans. Whatever it may be, I do not think that it is a mysid. In any case it is not synonymous with any species of the genus *Mysis*.

5. Remarks.

As mentioned above, I intend to give a more detailed survey on the different species of *Mysis* later on in connection with problems on marine-glacial relicts. It may be enough here to point to those characters most significant for distinguishing the two species *M. oculata* and *M. litoralis*, i. e. the form and armature of the telson, the form of the front margin of the carapace, the somewhat larger eyes in *M. oculata*, and the

differences in the armature of the endopod of the second maxillipedes. *Mysis oculata* seems on the whole to be more strongly armed than *M. litoralis*. It should also be mentioned cursorily that the two species are found mostly at localities of somewhat different kinds. When they sometimes are found together the members of the one species are usually much more frequent than those of the other species.

M. litoralis was originally described by BANNER (1948) as *Pugetomysis litoralis* but later on assigned as a synonym of *M. oculata* by the same author (1954). Also it has hitherto been confused with *M. oculata*. — *M. oculata* was originally described by O. FABRICIUS (1780) as *Cancer oculatus*. In the same year he described another species, *Cancer pedatus*, which has not yet been identified. Considering the facts from the descriptions (1780 and 1781) and the drawing (1781) by FABRICIUS, which were discussed above, it seems not improbable that *Cancer pedatus* belongs to the order Euphausiacea, i. e. it is not a synonym of any species of the genus which was called *Mysis* for more than a hundred years. The genus *Mysis* was, however, established on the species *Cancer pedatus* as described by FABRICIUS (LATREILLE 1802, 1810). That means that the genus *Mysis* does not exist in reality. Nevertheless the name has been used for a long time—in reality since LATREILLE established the genus—for *Cancer oculatus* O. FABRICIUS. Later on some more species were described as related to that genus. It would be most convenient if the name could keep the position it has obtained. In order to preserve the name *Mysis* in the sense it has had for so long, I have presented a request to the International Commission on Zoological Nomenclature on the subject, assigning *Mysis oculata* (O. FABRICIUS) 1780 sensu KRØYER 1861 as the type species. Since there is no type specimen kept I have selected a neotype specimen from a sample collected in Greenland in 1862 (Godhavn, OLRİK), the only sample found which KRØYER could probably have had access to. It belongs to Zoologisk Museum in Copenhagen.

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*) Since I handed in the manuscript, the Secretary of the Int. Comm. on Zool. Nomenclature, FRANCIS HEMMING, told me as follows:

"The volume (Volume 3) of the *Hist. nat. gén. partic. Crust. Ins.* in which the name *Mysis* Latreille was published is dated "An X" in the French Revolutionary Calendar and has in consequence commonly been treated as having appeared in the period September 1801—September 1802. Griffin, F. J. (1938, *J. Soc. Bibl. nat. Hist.* 1:157) has shown, however, that this volume was not published until "An XI" and therefore that names published in it should be dated "September 1802—September 1803"."

It is to be added that Volume 6 of the same work is dated "An XI". No alterations have been made in the present paper from those usually found in the literature, i. e. 1802 and 1803 respectively.