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On a Crangon, some Schizopoda, and Cumacea new to or rare in the British Seas. By the Rev. Canon A. M. Norman, M.A., D.C.L., F.L.S.\*

THE Scotch Fishery Board have sent me for examination some of the higher Crustacea which have been met with during the past year. Among them are many species of interest, and these are recorded in the following notes. few exceptions the several forms are now first published as members of our Fauna, although some of them have been long known to myself. Mr. Brook and Mr. Scott must be congratulated on the success which has brought these species to light, and their discovery will, I trust, lead other naturalists to realize how much remains to be done among the great class of Crustacea in our seas, and that careful investigation will be amply rewarded even among the higher orders; but no real progress can be made with respect to the food of fishes until investigators are familiar with those smaller Crustacea which constitute so large a portion of that food. As an instance of this I may mention that Dr. Baird, many years ago, published an interesting paper on the food of the vendage. No author at that time was more competent to undertake the task, and one of the Entomostraca in the stomachs was new to science, Bosmina coregoni, and has not as yet been met with elsewhere in our islands than in Lochmaben. Yet when I repeated these investigations three years ago, I found that while the vendace fed on those species recorded by Dr. Baird, a large portion, perhaps in bulk the largest portion, of its food, was Leptodora hyalina, an Entomostracan unknown to Dr. Baird, and which, from its extraordinary tenuity, delicacy, and transparency, and its totally different form from that usual among Cladocera, was no doubt passed over by my old friend as something he could not make out, though it is much larger than the species he satisfactorily determined. A "more dainty dish to set before a" fish cannot well be imagined than Leptodora hyalina, an animal so transparent that, notwithstanding its size, it can scarcely be detected in a glass of water unless held up to the light.

[It seems desirable that this paper should be printed in the 'Annals,' as 'The Fourth Annual Report of the Fishery Board of Scotland,' in which it has already been published, is hardly likely to have extensive circulation among carcinologists.—A. M. N.]

Morman 1887

#### Order CARIDA.

Genus CRANGON, Fabricius.

Crangon (Cheraphilus) neglectus, G. O. Sars.

theraphilus neglectus, G. O. Sars, "Oversigt af Nonces Crustaceer" (Christ, Vidensk, Forhandl.), 1882, p. 45, pl. i. fig. 7.

Rostrum well rounded at the extremity. Carapace with a single central spine, and a second small tubercle-like spine on the central line behind it, without the lobe-like folds of fuscintus, and with the sulcus which in that species defines their lateral regions much less distinct and deep. Antennal scale not greatly widened at the base. Last joints of maxilliped not broadly flattened. Second perseopod longer, reaching one third the length of the hand of first pair; its chela very weak, the finger and thumb parallel and touching each other, and apparently altogether too feeble to be used for grasping. Body not speckled with brown. Carapace more or less suffused with rufous or chestnut colour; a band across the fourth segment of pleon, and a second across the telson and uropods of the same colour.

"Ad oras meridionales et occidentales Norwegiae in prof. 2-6 orgyarum fundo arenoso" (G. O. Sars). Haakelsund, Kors Fiord, Norway, 3 fathoms (A. M. N.), Tarbert, Loch Fyne (Scotch Fishery Laboratory).

I tooksix specimens of this shrimp, male and female, in 1878, in 3 fathoms water, at Haakelsund, Kors Fiord, West Norway, but at the time, from its general resemblance to C. fasciatus, passed it over as that species, as no doubt Norwegian naturalists had also done. In 1882 it was described by Prof. G. O. Sars. Mr. Scott has now added it to the British fauna, having forwarded to me for examination two or three small specimens which were taken at Tarbert. No other British specimens of this species are in my own collection, but it is not improbable that some of the northern specimens which have been referred to C. fasciatus belong to this new form. The two species to the unaided eye resemble each other closely, and one is apt to be led astray by the circumstance that, like C. fasciatus, C neglectus commonly has the carapace dark-coloured, and a band of colour across the third segment of the pleon, and another across the telson and uropods; but the colour of these bands is chestnut ("badia," Sars) in neglectus, but deep umber-brown in fasciatus.

Crangon fasciatus, Risso.

Crangon fasciatus, Risso, Crust. de Nice, p. 82, pl. iii. fig. 5, and Hist Nat. de FEur. Mérid. v. p. 64; Milne-Edwards, Hist. des Crust. ii

p. 342; Bell, Brit, Crust p. 259; White, Pop. Hist, Brit, Crust p. 107; Lucas, Hist, Nat. Anim. Artic. Alger, p. 38; Heller, Crust. des sudlichen Europa, p. 228, pl. vii. fig. 10. Egeon fusciatus, Kinahan, Britannic Species of Crangon and Galathea, p. 76, and wooslent.

Rostrum broadly and abruptly truncate at the extremity, its sides bending upwards, so that it is deeply sulcate in the centre. Carapace bearing a single central spine, on either side of which and between it and the margin are three slight lobe-like tolds. Between this portion of the carapace and its hinder margin is a deeply cut sulcus arching forwards at the sides. Antennal scale short and very broad, unusually expanded on the inner side at the base. Maxillipeds with the two terminal joints broad and flattened. Second perceptudes very short, just reaching the base of the hand of the first pair, the chela well developed (for a Crangon). Animals more or less speckled with dark brown, the carapace sometimes being entirely suffused with that colour. The epimera of the second, third, and fourth segments of the pleon are generally marked with the same colour, and also two transverse bands, one on the fourth segment, the other across the telson and uropods.

Specimens of this species are in my collection from Jersey (Sincl and Co.), Guernsey and Falmouth (A. M. N.), Star-eross, Devon (Mr. C. Purker), Weymouth (Mr. P. H. Gosse). I have also recorded it from Shetland, but cannot at this moment lay my hands on the specimens to re-examine them.

Other recorded localities are Salcombe Bay (Mr. Alder), Dublin and Belfast (Dr. Kinahan), Galway (Dr. Melville), Mediterranean (various authorities).

### Order SCHIZOPODA.

# Family Euphausiidæ.

#### Genus Boreophausia.

Rorcophansia, G. O. Sars, Preliminary Notice on the Schizopoda of H.M.S. \*Challenger\* expedition (Christ, Vidensk, Forhand, 1883, no. 7), p. 12; Report \*Challenger\* Schizopoda (vol. xiii.), 1885,

# Borcophausia Raschii (M. Sars).

Thisanopoda Raschii, M. Sars, "On Shesten Thisanopoda og dens Nerske Viter" (Christ Valenck Forhandl Isothe p. 11. Eughanent Raschii, G. O. Sars, "Oversigt af Norges Crustaceer" (Christ Vidensk, Forhandl, Iss2, no. 18), p. 51.

First found by M. Sars in the Christiania Fiord, and subwe could by his som. Prof. G. O. Sars, on the west coast

It has lately been added to the British fauna. Dr. Henderson has forwarded to me specimens for examination which were taken in the tow-net in the Firth of Forth by the Scottish Marine Station. I procured it in the same way in July last in Loch Fyne, when with Mr. J. Murray on loard the 'Medusa,' the vessel of the Scottish Marine Station, and, subsequently to my leaving, it was again taken by the 'Medusa' between the islands of Bute and Cumbrae; and now (February 1886) Prof. Ewart has found specimens in the stomachs of herrings caught on the east coast, and examined by the Scotch Fishery Board.

### Genus Nycripuysis, M. Sars.

Nyctiphanes, G. O. Sars, Preliminary Notices Schizopoda, 'Challenger' (Christ, Vidensk, Forhandl, 1883), p. 23; Report & Challenger' Schizopoda (vol. xiii, 1885), p. 111.

#### Nyctiphanes norregive (M. Sars).

Thysanopoda norvegica, M. Sars, Ferhandl. Scand. Naturf. i Christi-ania, 1856, p. 160; id. "Om Slægten Thysanopoda" (Christ. Vidensk. Forhandl. 1863), p. 2; G. O. Sars, "Oversigt af Norges Crustaeser" (Christ. Vidensk. Forhandl. 1882), p. 50; Norman, Last Report Dredging among the Shetland Isles (Brit. Assoc. Report, 1868), n. 265. p. 265.

Thysanopoda nana, M. Sars, Om Slægten Thysanopoda, p. 15 (junier).

Nyctiphanes norvegica has been found throughout the entire length of the Norwegian coast from Christiania to Vadso (G. O. Sars); and I am indebted to Prof. G. O. Sars for Norwegian specimens.

It has been known to me as a member of the British fauna for twenty-five years, having been first found by myself at Shetland, and a few years afterwards sent to me about the same time by Mr. David Robertson from the Firth of Clyde, and by Mr. Thomas Edward from the Moray Firth.

The following are additional localities of specimens in my

collection :-

 Tow-net, Valentia Island, 1870. A. M. N.
 Taken seven miles off the Berling Islands, coast of Portugal, by Mr. Davidson, July 22, 1870, when on board the · Porcupine.

Forcupine.
 Porcupine,' 1869; lat. 60° 34' N., long. 4' 40' W.
 'Triton,' August 1882, abundant in the Farce Channel.
 Eastport, N.E. America, from Prof. 8. I. Smith.
 Observed in 1880 by me when on board the French exploring-vessel 'Le Travailleur' in the Bay of Biscay.

7. During the summer of last year I procured it with the towing-net, when with Mr. Murray in the ' Medusa,' in Loch Fyne. Subsequently other specimens were forwarded to me which had been taken in Loch Long (Clyde); these exceed in dimensions all others that I have seen, and measure 50

8. Lastly, Prof. Ewart has sent me specimens taken from the stomachs of herrings on the east coast of Scotland.

The species would thus seem to be universally distributed over the North Atlantic Ocean, though it was not met with by the 'Challenger' expedition.

Nyctiphanes may be at once known from the other genera of the Euphausiidae by the presence of a scale-like process on the basal joint of the antennules, which is projected upwards, and would seem to form a sort of screen for the eyes.

# Tribe MYSIDEA.

# Genus Erythrops, G. O. Sars.

# Erythrops pygmwa, G. O. Sars.

Nematopus elegans, G. O. Sars, Beretning om en i Sommeren 1802 foretagen Zoologisk Reise i Christianias og Trondhjems Stifter, p. 42. Nematopus pygmæa, G. O. Sars, Beretning om en i Sommeren 1865 foretagen Zoologisk Reise ved Kysterne af Christianias og Christian-

foretagen Zoologisk Reise ved Kysterne at Christianias og Christianiasands Stifter, p. 17.
Erythrops pygnmen, G. O. Sars, Monographi over de ved Norges Kyster forekommende Mysider, 1870, p. 33, pl. ii. figs. 20–28.

A very small species, about 6 millim, long, now added to the British fauna; the specimens procured by the Fishery Board Laboratory at Tarbert.

# Genus Mysidopsis, G. O. Sars.

# Mysidopsis gibbosa, G. O. Sars.

Mysidopsis yildiosa, G. O. Sars, Beretning om en i Sommeren 1863 foretagen Zeologisk Reise, p. 28; Monographi over de ved Norges Kyster forekommende Mysider, 1872, p. 23, pl. viii. figs. 1–3.

A single specimen taken by myself at Valentia, Ireland, in 1870. Three females sent for examination by the Fishery Board Laboratory which were procured on a Zostera-bed at Tarbert, Loch Fyne, 1885. Now first recorded as British.

## Mysidopsis augusta, G. O. Sars.

Myn' jan angusta, G. O. Sars, Beretning om en i Sommeren 1863 foretagen Zeologisk Reise i Christiania Stift, 1864, p. 30; Mono-graphi over Norges Mysider, 1872, p. 23, pl. viii, figs. 1–13.

A drawing of this species is before me, which was made

from a specimen sent for examination by Mr. T. Edward\* from Banff in August 1863; a second British specimen has now (March 1886) been taken by the Fishery Board at Tarbert, Loch Fyne.

On the Norwegian coast it has been found in the Har-

danger and Christiania Fiords and at Aalesund.

Mysidopsis angusta has a very narrow, lanceolate antennal scale, which is ciliated all round, and is about twice the length of the peduncle of the antennules. The telson is cleft at the apex, and the sides of the cleft are quite plain, that is, without any teeth or serration within the cleft, and by this character the species may be distinguished not only from the other species of Mysidopsis, but from all Mysidea which have as yet been described.

# Genus LEPTOMYSIS, G. O. Sars.

Leptomysis lingvura, G. O. Sars.

Mysis lingvara, G. O. Sars, Beretning om en i Sommeren 1805 fore-tagen Zoologisk Reise, p. 21; Monographi over de ved Norges Kyster forekommende Mysider, 1879, p. 35, pl. xi.

Although not hitherto recorded as occurring in our seas, Leptomysis linguura was found by me twenty-six years ago in great abundance at Howden, County Durham, and shortly afterwards at Seaham Harbour. It remained with a MS. name in my collection until it was described by Prof. G. O. Sars. In 1883 it was sent to me by Mr. C. Parker from Starcross, Devon, and last year one or two specimens were forwarded to me for determination from Tarbert, Loch Fyne, by the Scotch Fishery Board. It would thus seem that the species is widely distributed round our coast.

#### Genus Mysis, Latreille.

Mysis inermis, Rathke.

Mysis inermis, Rathke, Beytrage zur Fauna Norvegens, p. 20: Lilljeborg, Œfversigt af Vet, Akad. Handl. 1852, p. 3.

Mysis cernuta, Kröyer, Nat. Tidsskr. 3 R. B. I. p. 26, pl. i. fig. 3, a-g; Goes, Crust. Decap. Podoph. Marina Sveciae, p. 14.

Mysis truncatula, G. O. Sars, Beretning on en i Sommeren 1863 foretagen Zoologisk Reise, p. 16 (monstrositas).

Mysis inermis, Norman, Last Report Dredging among the Shetland Isles (Rept. Brit. Assoc. 1868), p. 200; G. O. Sars, Monographi over ved Norges Kyster forekommende Mysider, 1879, p. 54, pl. xxvii.

Specimens of this species are in my collection from the

\* This species is called, in a Catalogue of Crustacea at the end of Smiles's 'Life of a Scotch Naturalist,' "Mysis mirta." It is much to be regretted that that list should have been published without revision.

following habitats:—Baltic Sea (Prof. Lovén), Bergen, Norway (Prof. Lilljebory). Kors Fiord, 1878, and Lervig, Hardanger Fiord, Norway, 1879; Shetland, 1867, in rock-pools; Guernsev, 1865; Oban, 1877; Cullercoats, Northumberland (A. M. N.). Tarbert, Loch Fyne, 1885 (Scotch Fishery Laboratory). It has been sent to me for examination from the Moray Firth by Mr. T. Edward.

#### Mysis arenosa, G. O. Sars.

Mysis arrnosa, G. O. Sars, Nye Bidrag til kundskaben om Middelhavets Invertebratfauna, I. Middelhavets Mysider, 1876, p. 16, pls. v. & vi.

This small species, described from the Mediterranean, was added to the British fauna by Mr. C. Parker, who found specimens, in 1884, at Starcross, Devon, which he forwarded to me; and specimens have now been taken at Tarbert, Loch Fyne, by the Scotch Fishery Laboratory.

#### Mysis Lamorna, Couch.

Mysis Lamornæ, R. Q. Couch, The Zoologist, 1856, p. 5286; Norman, Ann & Mag. Nat. Hist. ser. 3, vol. vi. 1860, pl. viii. figs. 4-6; Goës, Crustacca Decapoda Podophthalmia Svecie, p. 15.

Mysis aurantia, G. O. Sars, Beretning om en i Sommeren 1863 foretagen Reise, p. 20.

Mysis Lamornæ, G. O. Sars, Monographi over de ved Norges Kyster forekommende Mysider, 1879, p. 65, pl. xxx.

This species is known to me from the following localities, whence specimens are in my collection : - Falmouth (A. M. N.), Banff (Mr. T. Edward), Scaham, County Durham (Mr. G. Hodge), Loch Goil (Mr. D. Robertson), Tarbert, Loch Fyne (Scotch Fishery Laboratory).

#### Genus Striella, Dana.

(= Cynthia, Thompson.)

The more tangible generic characters are as follows:-Antennal scale subrhomboidal, the external margin naked until it terminates in a spine, whence it slopes to meet an inner margin, and is similarly setose; the scale has a small terminal joint, generally furnished with five setie. Peraco-pods seven-jointed, the terminal joint or finger biarticulate and nail-formed, at the end of preceding joint a dense bunch of setae, which are microscopically spined. Telson elongated, linguiform, entire at the apex, furnished with marginal and terminal spines, so arranged that smaller spines alternate with larger. Outer propods two-jointed, first joint without sette on external margin, but furnished with a series of spines, the three distal spines exceeding the others in size.

Pleopods of female as in Mysis; of male well developed, consisting of two multiarticulate swimming branches, with a curious two-lobed appendage attached to the base of the inner branch, one of these lobes being more or less spirally coiled.

Siriella Clausii, G. O. Sars.

Siriella Clausii, G. O. Sars, Middelhavets Mysider, 1876, p. 81, pls. xxix.-

Rostrum acute, triangular, not reaching beyond middle of first joint of antennules. Antennules with only one seta on inner margin of last joint of peduncle. Antennal scale subrhomboidal, rather narrow, of nearly equal breadth throughout, not quite reaching the end of peduncle of antennules, its extremity extending considerably beyond the spine of external margin. Peræopods slender, the finger very slender, its first joint longer in its lesser (that is front) length than broad; second joint or nail very slender and delicate, only slightly bent. Telson terminating in three spinules of equal length and two setae between the distal lateral spines; sides of telson having three or four spines at base, separated by an interval from those which follow; on the distal portion three to five smaller spines occupying the intervals between the larger spines. Uropods wider than in crassipes, the outer with ten to twelve spines on exterior margin of first joint; second joint broader in proportion than in crassipes, half as long again as broad. Inner uropods with spines throughout entire length of inner margin to the otolith, but not so crowded towards the base as in crassipes; smaller spines alternating with the larger on upper portion, but the four or five most distal spines without smaller intermediates.

Tarbert, Loch Fyne, April 1886 (Scotch Fishery Board

Laboratory).
Goletta, Cagliari, Syracuse, Messina, and Spezzia, in the Mediterranean (G. O. Sars).

[Dec. 15, 1886.—Since received by me from Trieste (Dr. Koelbel).]

The distinguishing characters of S. Clausti are the single seta on inner margin of last joint of peduncle of antennules, the slender legs and claws, and three equal-sized spinules between the ultimate spines of the telson.

Siriella norvegica, G. O. Sars.

Siriella norvegica, G. O. Sars, Untersog, over Christianiafjordens Dyhwandsfauna, 1869, p. 30; Monog, over de ved Norges Kyster forekommende Mysider, 1879, p. 24, pls. xvii. and xviii.

Very like the last in general characters and in rostrum,

antennal scale, percopods, &c.; but it attains a larger size, 19 millim. as against 10 millim. The following are points of distinction :- Last joint of peduncle of antennules with three sette on inner margin; antennal scales perhaps rather longer, reaching end of peduncle of antennules, and rather wider in the middle than towards extremity. General character of telson as in last species, but the extremity having a central small spinule, flanked on each side by a still more minute spinule and pair of setæ between the ultimate spines. Outer uropods with seventeen to twenty-five spines on outer margin of first joint. Inner uropods with smaller spines alternating with larger throughout the inner margin, except between the

last and penultimate spines.

Norway, Christiania Fiord and west coast (G. O. Sars);

Lervig, Hardanger Fiord (A. M. N.).

Siriella norvegica has not as yet been found on our coast, but may be expected to occur. Its characters are given here, as well as those of the next species, for comparison with their very close allies.

#### Siriella crassipes, G. O. Sars.

? Cynthia Flemingii, II. Goodsir, Bell, British Stalk-eyed Crustacea 1853, p. 379 (mas). Siriella crassipes, G. O. Sars, Middelhavets Mysider, 1876, p. 80,

In general characters very near the two preceding species, but the whole form is somewhat more robust in proportion to size, and the legs are much stronger. The following will

supply diagnostic characters.

Antennules with three setse on inner margin of third joint of peduncle. Antennal scale less parallel-sided than in Clausii, widening slightly about the middle, as in norvegica. Peracopods stout and strongly built, the joints more flattened and wider in proportion to their length than in the two preceding species; finger with first joint not longer in lesser (front) length than broad, second joint or nail strong and well curved. Telson terminating in a small spinule, flanked on each side by the usual sette, and a more minute spinule between the ultimate pair of spines; three or four basal spines of lateral margin, as usual, separated by an interval from following spines; on hinder portion two to six smaller spines (varying in number according to size of specimen) in the intervals between the larger spines. Uropods narrow; outer with nine to twelve spines on external margin of basal joints, terminal joint twice as long as broad. Inner uropods with smaller spines alternating with the larger on the upper half of inner margin, but eight or more distal spines without such smaller spines between them.

This species has been known to me as a member of our fauna for the last twenty-five years, at which time I found it at Cullercoats, Northumberland. Specimens are also in my collection from Banff (T. Edward); Starcross, Devon (C. Parker, 1883); Jersey (Sinel and Co., 1884).

It is recorded in 'The Life of a Scotch Naturalist' under

the name Mysis aculeata, a MS. name by which I had called the female when first found.

Cynthia Flemingii, Goodsir, is a male of this genus, and most probably of this species; but it is impossible to identify it with any degree of certainty from the description given.

In the Mediterranean this species was found by Sars in

company with S. Clausii at Goletta.

[Dec. 15, 1886.—Since received by me from St. Andrews (Dr. M'Intosh).]

# Siriella Brooki, Norman, n. sp.

Very like the three species which have just been described, The rostrum is shorter and bent downwards at the extremity, The antennules have one seta on inner margin of last joint of peduncle. The peræopods are intermediate in thickness between those of Clausii and crassipes, the finger strong, the first joint not longer in its lesser (front) length than its breadth, second joint or nail strong and well curved. Telson terminating in a small spinule, flanked on each side by the usual setæ, and a very minute spinule between the ultimate spines. Uropods narrow, outer pair with ten to twelve spines on exterior margin of first joint; terminal joint twice as long as broad. Inner uropod with seven or more distal spines of interior margin without smaller intermediate spines, and even above these they only become decidedly smaller by degrees. Colour of specimens, which had been a few days in spirit, white, the eyestalks and peduncles of antenna suffused with yellow; telson and uropods more or less stained with yellow or pink. Length from the end of antennal scale to extre-mity of uropod rather more than half an inch, or 14 millim.

About a dozen specimens, including both sexes, examined. Very near to crassipes, from which it differs in being more slender in general form, with less strong peracopods, and a single seta only on inner margin of ultimate joint of peduncle

Possibly it may prove to be a variety of crassipes; but more extended observation is necessary to clear up this point. With regard to the number of setæ on inner side of last joint of peduncle of antennules, I may mention that in some specimens of S. crassipes I have not been able to make out more than two, and in one specimen of S. Brooki the left antennule has a second seta, while the right bears as usual

S. Brooki has been found at Tarbert, Loch Fyne, by the Fishery Board, in company sometimes with S. Clausii. I have named the species after Mr. G. Brook.

### Siriella armata (M.-Edw.).

Cynthia armata, M.-Edw. Hist. Nat. d. Crust. ii. p. 403 (mas, Ade G.

O. Sars). Mysic Griffstheier, Bell, Hist. Brit. Crust. p. 342. Mysic rostratus, Guérin, Iconog. Crust. pl. xxiii. fig. 3 (probably). Servella armata, G. O. Sars, Middelhavets Mysider, 1876, p. 90, pl. xxxv.

Animal very long and slender. Rostrum of great size, the extremity very acute and reaching the end of the second joint of the peduncle of the antennules. Antennal scale long and narrow, not quite so long as peduncle of antennules. Perseopods slender. Telson terminating usually in four equalsized spinules and two setas between the ultimate spines. Wide intervals between the larger spines of lateral margin, these intervals occupied by six to ten smaller crowded spines of nearly equal size. Uropods very long and unusually narrow; outer bearing very numerous (twenty-five to thirty) spines on external margin, second joint about one third to one half longer than broad. Inner margin of inner uropods with numerous spines, gradually increasing in length distally, and without admixture of smaller spines. Length 3 inch, or 20 millim. The branchial appendage (?) of the second and following pleopods in the male is completely coiled.

The greatly developed rostrum at once distinguishes this species from the other British representatives of the genus; but another form from the Mediterranean, Siriella frontalis, M.-Edw., bears a close general resemblance, but the branchial appendages of the pleopods of male are wholly different and not coiled, and on this ground Claus has instituted a new genus—Pseudosiriella—for its reception. There are three spinules at the termination of the telson in this species, and as many as fifteen smaller spines are in the intervals between the larger spines on the sides of the telson.

\* Pseudosiriella frontalia, M.-Edw., is also a member of the British fauna. I have a drawing made many years ago, at a time when I had no other Crustacea than British, which undoubtedly represents the female of this species; but unfortunately no locality is under the drawing. The specimen was probably one sent to me for examination.

Dec. 15, 1886.—Since received from St. Andrews (Prof. MIntosh) and Trieste (Dr. Koelbel).]

### Order CUMACEA.

Genus LAMPROPS, G. O. Sars.

Lamprops fasciata, G. O. Sars.

Lamprope fasciata, G. O. Sars, Om en i Sommeren 1802 foretagen Zoologisk Reise i Christianias og Trondhjems Stifter, 1803, p. 44; "Om den aberrante krebsdyrgruppe Cumacea" (Vid. Selsk. Forhandl. 1864), p. 60.

First sent to me as British by Mr. David Robertson, who found it at Helensburgh, in the Firth of Clyde; and (March 1886) taken by the Fishery Board Laboratory among sand at low water, Tarbert, Loch Fyne.

"Habitat rara in sinu Nidrosiensi prope urbem Stenkjær

in prof. 12-20 orgyarum, adque insulas Lofotenses, ubi unicum inveni exemplar" (G. O. Sars).

It may at once be known from the other described species of the genus by three oblique folds which are present down the sides of the carapace.

The above is the only species of the genus as yet known in the British sea. Other closely allied forms which were included in this genus have recently been separated by Sars under the name *Hemilamprops*. Of this restricted genus we have in Britain the following representatives. *Hemilamprops* is a MS. genut of G. O. Sars, which he has not yet defined.

#### Hemilamprops rosea (Norman).

- Vaunthompsonia rosea, Norman, Trans. Tyneside Nat. Field-Club. v. (1802), p. 271, pl. xiii. figs. 1-3, Q. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianassa elegans, Norman, loc. cit. p. 275, pl. xiv. figs. 1-6, S. Cyrianas
- Fifty to one hundred miles east of Tynemouth, Northum-