

I was unfortunately absent when this huge fish was thrown upon the reef, and thus could only secure the head and a portion of the bones: the latter were sent to England some considerable time ago.

Experienced fishermen here inform me that men have been attacked by it, but that its movements are very slow, and no authenticated instance has occurred of any catastrophe having been caused by it. One man told me that he was once diving for an anchor in the harbour, and was followed to the surface by one of these monsters.

A very large fish of a similar appearance has been seen by the Aden divers; but I am not aware if any have ever been caught there. I imagine that it would require a very strong shark-line and hook to capture one of them: but I almost give up the idea of doing so; I have fished for them so often, and so constantly failed.

There are two kinds of this "Vielle," which attain to an enormous size:—one, "Vielle Crabe" (the one now at home); and another, "Vielle Babonne," the teeth of which are about half the length of the middle finger, in one row, and something in shape like those of the English pike\*. One of the latter, measuring 17 feet in length, was killed at the south point of this island last year, again during my absence; and, unfortunately, I could not even secure his head or any of the bones. The people will not eat them; and it was simply killed and cut away from the hook in the deep water, where the sharks must have quickly disposed of it. If any are caught during my residence here on any part of the island, I have now made arrangements for securing and preserving as much as nature will permit; but it is not easy to preserve a fish 17 feet long and nearly 4 feet across the shoulders. The length of the one whose head is now in the British Museum was given me as that "of three men," *i. e.* about 16 feet; but this measurement cannot be considered accurate at all.

Seychelles, Feb. 1869.

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XLV.—*Notes of a week's Dredging in the West of Ireland.*  
By GEORGE STEWARDSON BRADY, C.M.Z.S., and DAVID ROBERTSON.

[Plates XVIII.—XXII.]

THE naturalist who can count only upon a few days as the length of time which he is able to devote to a distant excursion will probably do well to confine his attention chiefly, if not

\*[ This may prove to be a species of *Lophius*.—A. GTHR.]

entirely, to some limited subject; otherwise the novelty of the creatures which he meets with, perhaps for the first time, will be liable to withdraw his attention from any careful or minute observation until his time is too far spent to allow of the serious study of any particular group. We have ourselves often erred in this way; but last year (1868) we resolved to devote our short furlough strictly to the examination of the Entomostraca and smaller Crustacea of the district which we proposed to visit. The following notes refer, therefore, almost entirely to that class. We do not suppose that the lists here given are by any means exhaustive: the restricted areas apparently occupied by some species make it almost certain that further opportunities of investigation would have revealed the existence of others as interesting as those which were actually observed\*; and there can be no doubt that both the marine and freshwater loughs of Western Ireland, especially of the Connemara district, offer yet a most promising, and in some departments an almost untouched field of research to both botanist and zoologist.

Our dredging during this excursion was confined to the coast in the neighbourhood of Westport, Clifden, and Roundstone; but we also found time to make a few gatherings in the freshwater lakes of the district, and, *en route*, to snatch an hour or two of work in Dublin Bay. The terminus of the Mullingar Canal at Dublin, from which we took some gatherings, afforded us a few interesting Ostracoda, amongst which was one species (*Cypridopsis obesa*) hitherto undescribed, though known to us from one or two specimens taken in the river Scheldt, as also from the occurrence of the valves in some posttertiary lacustrine deposits.

A most interesting feature in the fauna of the freshwater lakes of the Connemara district is the intermixture of marine or brackish-water species with those of strictly freshwater character. The small sheets of water to which we chiefly refer lie scattered by scores or even hundreds over the plateau bounded by the mountain of Urrisbeg on the south, the "twelve pins" on the east, Clifden on the north, and the Atlantic on the west. They are but slightly elevated above the present sea-level; and the presence in them of a partially marine fauna would appear to indicate a perhaps not very far distant elevation of this tract of country. In several of these lakes occurred

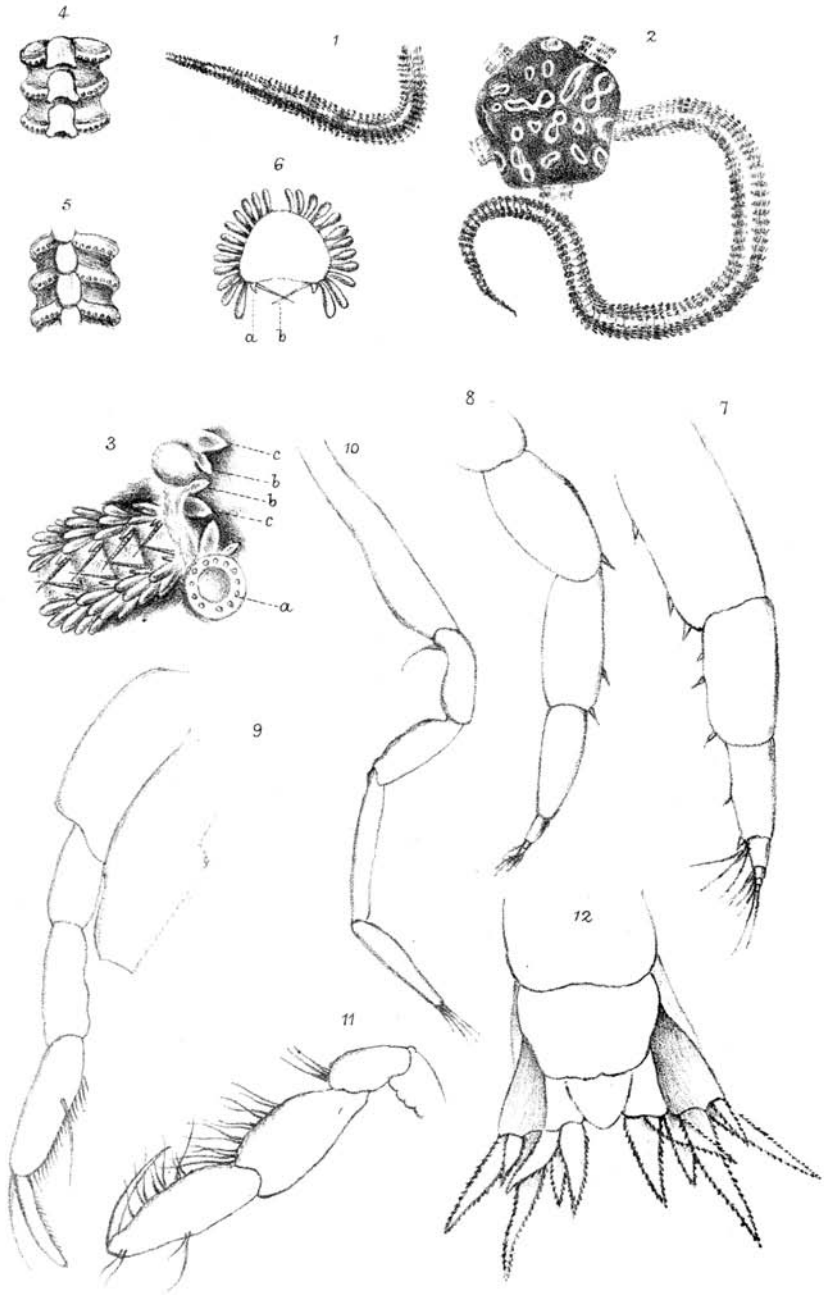
\* Especially when we consider the small area from which the material was taken; the dredge purposely used took hold so quickly that it seldom required to be drawn more than a few feet before it was full. The profusion of life in the sea-bed is strikingly indicated by the fact of so many members of one group being found within such narrow limits.

*Loxoconcha elliptica*, a species heretofore met with only in estuarine situations or in pools of brackish water near high-water mark. In Ballinahinch Lough, *Porcellidium fimbriatum* was taken in considerable numbers—a capture the more remarkable as the family to which it belongs was not previously known to number amongst its members any freshwater representative. Several Copepoda were also taken; but of these we are not yet in a position to speak with accuracy. In Lough Moher, which lies further north, about five miles south of Westport, a new and very fine species of *Limnocythere* (*L. Sancti-Patricii*) was taken, and in the same place a few stunted specimens of Foraminifera belonging to two species, *Polystomella striato-punctata* and *Nonionina asterizans*. In the case of the *Porcellidium* it is barely possible that the specimens may have got *accidental* admission into the freshwater gathering, as the same species was taken in Birterbuy Bay on the day previous to its supposed capture in Ballinahinch Lough; but the number of specimens found and the fact of no other marine species occurring with it, would seem to negative this conclusion. Moreover the undoubted occurrence of other marine species in neighbouring lakes renders the matter more intelligible.

Setting aside the Ostracoda, to which we have devoted a separate section of this paper, the most interesting results of our dredging are as follows. In Birterbuy Bay a single fragment of a ray of a starfish hitherto unknown in Britain (*Ophianoplus annulosus*, Sars) was discovered; but, although this was recognized in the dredge as belonging to a species with which we were unacquainted, we were unsuccessful in finding any further portions of the animal. This fragment is here figured of the natural size (Pl. XXII. fig. 1). The species was originally described by M. Sars from a single specimen taken at Naples; and as our fragment, though large enough and well-enough preserved to admit of no doubt as to its specific identity, does not form a sufficient basis for a full description, we here transcribe Sars's account (Middelhavets Littoral-Fauna, pp. 79-83).

#### “ Genus OPHIANOPLUS.

“ Rimæ genitales interbrachiæ binæ. Fissuræ orales ad partem aboralem papillis duris instructæ: acervus papillarum dentalium sub columnis dentium. Discus omnino nudus et cute molli tectus, absque scutis radialibus. Brachia scutata, absque omni molliore integumento, spinis lateralibus lævibus. Papillæ spiniformes ad poros tentaculares.



“ *Ophianoplus annulosus*.

“Disco supra fusco annulis albis; spinis brachiorum 12.

“This Ophiuridan, of which I found a single example at Naples, in a depth of 40–50 fathoms, forms undoubtedly a new genus, allied to *Ophiocoma*, from which it is easily distinguished by its naked, non-granular disk.

“The disk is very stout or convex, though tolerably flat above, the circumference somewhat five-sided, being prominently arched between the rays, the ventral side rather convex. It is without any kind of armature whatever, being invested only by a smooth integument, and without any ray-plates, by which it is separated from Forbes’s genus *Ophiopsila*, to which it has some likeness. On the underside are ten genital fissures. The mouth-plates are small, rounded, but little longer than broad; and one of them, the madreporic-plate, is a little larger than the other four, circular, and surrounded by a spongy, elevated, and deeply punctate border. The mouth-fissures are, as in the genus *Amphiura* of Forbes, beset at the outer end (the sides being naked) with six hard papillæ, namely:—four conical and rather flattened, two on each side, of which the two largest are situated on the outer side of the first ventral ray-plate, and answer to the scale-shaped mouth-papillæ of *Amphiura*; the other two are a little smaller and situated directly under the small tooth-processes, of which we shall speak presently; lastly, there are two very small lancet-shaped papillæ placed higher up in the mouth-cavity, the points of which are turned inwards towards the mouth. These last correspond to the lancet-shaped mouth-papillæ of the *Amphiura*, with which this mouth-organ of *Ophianoplus* entirely agrees, except that the under surface of the ‘tooth-columns’ presents a number of rounded tooth-processes, as in *Ophiocoma*, which form three or four irregular rows. The masticatory organs, which are broader than those of *Ophiocoma*, and formed of a kind of bristles, have in that respect some likeness to those of *Ophiopholis scolopendrica* and *Ophiothrix fragilis*, but differ from the first in having numerous tooth-papillæ, and from the last in having mouth-papillæ.

“The rays are five or six times as long as the diameter of the disk, and differ from those of other Ophiuridæ in being thicker near the middle than at the base: they are nearly cylindrical, very convex above and at the sides, but flat below. The dorsal ray-plates are very small, rounded, about as broad as long, with a convex distal margin, the ventral plates a little longer, furcate, with the distal margin hollowed out; the side plates are much elevated, and have a prominent encircling

keel, to which the spines are fixed. The number of these reaches twelve; on the first ray-segment there are but two, on the following three, on the next four, and so on, until, on the tenth segment there are ten or eleven, and further on twelve; on the distal half the number decreases gradually towards the point. All these side-spines are smooth, somewhat compressed or flat, narrower at the root than at the obtuse rounded extremity. They are all nearly of a size, except the two or three lowest, which gradually become larger, so that the lowest is the longest, nearly double as long as the uppermost, or about as long as half the breadth of the ray.

"On the lower surface of the ray, immediately within or on the near side of the tentacle-pores (therefore not in a line with the lateral spines) are two foot-papillæ: these are of a quite unusual form, not being squamous, but spinous or cylindrical, with pointed ends; the outermost are very small; the inner, which are four or five times as long, or nearly as long as the lateral spines, but much more slender, have their apices directed forwards and inwards, so that they cross those of the corresponding papillæ of the opposite side.

"Diameter of the disk 11 millimetres, length of rays 60 millims. Colour of the upperside of the disk chestnut-brown, with large white rings, of which some are circular, some elliptical or elongated, and others forming coalescent rings like the figure 8; sides of the disk whitish, with small round chestnut-brown spots; ventral surface whitish. Rays chestnut on the upper surface, with narrow white cross striæ; spines greyish brown.

"This new Ophiuridan approaches, by its smooth disk, to Forbes's genus *Ophiopsila*, but differs essentially in the absence of ray-plates and the presence of smooth papillæ. From *Ophiarthrum*, Peters, which also has a smooth disk, it is separated by its smooth ray-spines, which in that genus are spinulose. From the genera *Ophiomyxa* and *Ophioscolex*, which also have naked disks, it is separated by the absence of a smooth integument on the rays. In respect of mouth-organs, it stands nearest to *Amphiura*, Forbes, from which it differs in its naked disk and spine-shaped foot-papillæ."

*Thyone fusus* (Müller) and *Synapta inhærens* (Müller) were found to be not uncommon in Birterbuy Bay in 12-14 fathoms; the latter also occurred, in 4 fathoms water, in Clew Bay. In Birterbuy Bay, *Macrorhynchopterus granulosus* (M'Coy) was taken—and in Ardbear Bay\*, on a very muddy bottom, several

\* Ardbear Bay, the bay on which the town of Clifden stands; so named in the maps of the Ordnance Survey.

annulose bodies, which appeared to be probably the detached tails of *Priapulius caudatus*.

The stalk-eyed Crustacea taken were as follows. No notes, however, were preserved of the Crabs, which were all well-known natives of the district:—

*Palemon* (*squilla?*); young. Clew Bay, 1 fathom.

*Athanas nitescens*, Leach. Ardbear Bay, 4 fathoms.

*Hippolyte varians*, Leach. Ardbear Bay.

— *fascigera*, Gosse. On *Laminaria saccharina*, Ardbear Bay, 4 fathoms.

— *Cranchii*, Leach. Ardbear Bay, 4 fathoms.

*Mysis flexuosa* (Müller), young. Clew Bay, 1 fathom.

For the following list and remarks on the sessile-eyed species we are indebted to the kindness of the Rev. Alfred Merle Norman, to whom our specimens were submitted for examination:—

*Probolium monoculoides* (Montagu) = *Montagua monoculoides*, Bate. Ardbear Bay, in rock-pools and in 4 fathoms water.

*Anonyx nanoides*, Lilljeborg. Ardbear Bay, 4 fathoms. Recorded as British in my Shetland Dredging Report\*.

*Phoxus Holbölli*, Kröyer. Coralline bed, in 4 fathoms, Ardbear Bay. Both male and female found. The former differs from the latter in having very long upper antennæ.

*Urothoë marina*, Bate. Ardbear Bay, 4 fathoms.

*Dexamine spinosa* (Montagu). Among Algæ between Ardbear and Mannin Bays; Clew Bay, 1 fathom, among weeds.

— *tenuicornis*, Rathke. Ardbear Bay, in rock-pools and in 4 fathoms water.

*Atylus Swammerdami* (M.-Edwards). Very common among Algæ between Ardbear and Mannin Bays.

— *bispinosus*, Bate. Ardbear Bay, 4 fathoms.

*Aora gracilis*, Bate. Ardbear Bay, 4 fathoms.

*Microdeuteropus anomalus* (Rathke). On coralline bed in Ardbear Bay, 4 fathoms; both sexes. This is the true *M. anomalus*, but not, I think, the same as that described by Bate and Westwood under that name. *M. gryllotalpa* of B. & W. (not of Costa) is described from the young male of this species. (See my Shetland Dredging Report.)

— *versiculatus*, Bate. A female specimen (the sex figured by B. & W.), in 4 fathoms, Ardbear Bay.

\* Norman, "Shetland Final Dredging Report. Part II. On the Crustacea, Tunicata, Polyzoa, Actinozoa, Hydrozoa, and Porifera" [Report of the British Association for 1868 (1869)].

- Protomedeia* (?) *Whitei*, Bate. In the same locality as the last.
- Melita obtusata* (Montagu) = *M. proxima*, another form of the male, and *Megamæra Alderi*, the female. In Ardbear Bay (4 fathoms) on *Laminaria saccharina*. Also many specimens of both sexes nestling between the tentacles of *Anthea Cereus*, in Ardbear Bay—a strange and, one would have thought, a dangerous habitat.
- Mæra semiserrata* (Bate) = *Megamæra semiserrata*, Bate & Westwood, Brit. Sessile-eyed Crust. vol. i. p. 401. Ardbear Bay, 4 fathoms.
- Eurystheus erythrophthalmus* (Lilljeborg). Ardbear Bay, 4 fathoms.
- Gammarus locusta*, Linn. Among seaweeds between Ardbear and Mannin Bays.
- Amphithoë rubricata* (Montagu). Clew Bay, 1 fathom, among weeds.
- Podocerus pelagicus* (Leach). Rock-pools in Ardbear Bay.
- Cerapus abditus*, Templeton. Ardbear Bay, in 4 fathoms.

Genus EXUNGUIA\*, Norman, n. g.

Antennæ short and strong; flagella rudimentary, upper pair without a secondary appendage. Body wide; coxæ shallow. First gnathopods long, slender, filiform; dactylos obsolete. Second gnathopods subchelate, slender, but yet much stouter than the very delicate first pair. Pereiopods rather short, subequal; propodos longer than carpus. Uropods all two-branched; branches short, simple. Telson squamiform.

This genus seems to be most nearly allied to *Cratippus*, from which it is distinguished by the remarkable character of the first gnathopods.

*Exunguia stilipes*, Norman, n. sp. Pl. XXII. figs. 7-12.

Head produced into a short rostrum between the upper antennæ. Eyes on a process between the upper and lower antennæ. Antennæ of both pairs subequal, strong, but short, equal in length to first 3-4 segments of body; joints of peduncle subequal to each other in length, but each rather shorter and of less diameter than the preceding, round, smooth, except one or two minute spines on the inner margin; flagella rudimentary, scarcely a third of the length of the last joint of peduncle, composed of three or four excessively short articulations. First gnathopods slender and filiform, basos long and slender, more than equal in length to ischium and metacarpus

\* From *ex* and *unguis*, without a nail.



combined; these two joints subequal to each other, and shorter than the carpus, which is equal to the propodos; these last two joints slender and round; no dactylos, its place supplied by a fasciculus of little spines projecting directly forwards; with the exception of this terminal fasciculus of spines, the whole limb is entirely glabrous. Second gnathopods not large, subchelate; carpus and propodos subequal, flattened, posterior margin gently arched and furnished with tufts of spines, palm not defined; dactylos in the form of a slender, sharp, only slightly curved nail, rather more than half the length of the propodos. Pereiopods subequal, short; basos not expanded; propodos longer than carpus, and bent at a right angle to it, with three or four small spines on the front margin; nail small, acute, not a third of the length of the propodos, and bent at a right angle to it, the whole limb thus taking a strikingly hamate character. Segments of the pleon with the infero-posteal margins well rounded. All the uropods two-branched, their branches one-jointed, flattened, lanceolate, wholly devoid of spines or hairs; but under a high power of the microscope, the edges are seen to be serrulate. Telson small, squamiform, simple, entire. Maxillipedes having the palp long, slender, and four-jointed, the third joint having the inner margin clothed with thick down. Length scarcely one-fifth of an inch.

Found by Messrs. G. S. Brady and D. Robertson in a sponge in Birterbuy Bay in 1868. The structure of the last joints of the pereiopods seems peculiarly to fit those limbs for grasping tenaciously the tissues of the sponge in which the animal lives. *Atylus gibbosus*, which also inhabits sponges, has the pereiopods developed on a somewhat similar plan, the propodos being shorter than the carpus, and the nail bent at right angles to it; but in this species the carpus is furnished with a tuft of strong spines, which seem to assist in the act of prehension.

I know of no Amphipod, except the members of the family Hyperiadæ, that has the flagella of both antennæ in a condition so rudimentary as those of *Exunguia*.

*Corophium crassicorne*, Bruzelius = *C. Bonellii*, B. & W., the female. Both sexes, Ardbear Bay, 4 fathoms. The form described by B. & W. as *C. Bonellii* is unquestionably the female of this present species, as I have stated in my 'Shetland Report;' but it is worth calling attention to the fact that here, again, the two sexes occur in company.

*Caprella acanthifera*, Leach. Both sexes in Ardbear Bay, 4 fathoms.

- Proto pedata* (Abildgaard). A single specimen in Ard-  
bear Bay, on *Laminaria saccharina*.  
*Tanaïs Dulongii*, B. & W. Among weed, Westport Bay.  
*Jera albifrons* (Montagu). Westport Bay.  
*Idotea tricuspidata*, Desmarest. Young specimens, Ard-  
bear Bay.  
— *emarginata*, Fabricius. The young in extraordinary  
abundance among Algæ between Ard-bear and Mannin  
Bays.  
*Dynamene rubra*, Leach. Young specimen among weeds,  
Clew Bay, 1 fathom; and in rock-pools in Ard-bear Bay.

### CLADOCERA.

The following Crustacea belonging to this order were found in the freshwater loughs in the neighbourhood of Clifden. It is noticeable that where vegetation was abundant, Entomostraca were very plentiful, but usually of the larger and commoner species; while in those lakes which were almost bare of plants the specimens found, though few in number, belonged often to small but rare species.

<i>Daphnia pulex</i> (Linn.).	<i>Lynceus macrourus</i> , Müller.
— <i>Jardini</i> , Baird.	— <i>elongatus</i> (G. O. Sars).
<i>Sida crystallina</i> (Müller).	— <i>costatus</i> (G. O. Sars).
<i>Acantholeberis curvirostris</i> (Müll.).	— <i>guttatus</i> (G. O. Sars).
<i>Macrothrix rosea</i> (Jurine).	— <i>truncatus</i> , Müller.
<i>Lathonura rectirostris</i> (Müller).	— <i>exiguus</i> , Liljeborg.
<i>Bosmina longispina</i> , Leydig.	— <i>barbatus</i> , Brady*.
<i>Polyphemus pediculus</i> (Linn.).	— <i>nanus</i> (Baird).
<i>Drepanothrix hamata</i> , G. O. Sars.	— <i>testudinarius</i> , Fischer.
<i>Eurycerus lamellatus</i> (Müller).	— <i>sphæricus</i> , Müller.
<i>Lynceus quadrangularis</i> , Müller.	— <i>globosus</i> (Baird).
— <i>harpæ</i> (Baird).	

In addition to these species, *Lynceus falcatus* and *L. rostratus* were found in Lough Moher, near Westport, and in a burn near the same place *Lynceus trigonellus*, *L. uncinatus*, and *Monospilus tenuirostris*. The specimens which we refer to *L. rostratus*† differ somewhat from the same species as it occurs at Belsay, in the county of Northumberland, the only other recorded British habitat, in having a single small spine at the postero-ventral angle of each valve, and in the rather less hairy ventral margin: in other respects they seem to be essentially the same.

\* Intellectual Observer, vol. xii. p. 423.

† This and other little-known British species enumerated in the present paper will be found described and figured in 'A Monograph of the British Entomostraca belonging to the Families Bosminidæ, Macrothricidæ, and Lynceidæ,' by the Rev. A. M. Norman, M.A., and George S. Brady, C.M.Z.S. London: Williams & Norgate, 1867.

## OSTRACODA.

*Lists of Species taken.*

<i>Mullingar Canal, Dublin.</i>	<i>Westport Quay, in a salt-water tidal pond at high-water mark, amongst Zostera.</i>
Cypris compressa, Baird.	Cythere lutea, Müller.
— reptans (Baird).	— castanea, G. O. Sars.
Cypridopsis obesa, nov. sp.	— villosa, G. O. Sars.
Candona candida (Müller).	— cicatricosa, G. O. Sars.
— compressa (Koch).	— gibbosa, nov. sp.
— albicans, Brady.	Loxoconcha elliptica, Brady.
Limnocythere inopinata (Baird).	Xestoleberis aurantia (Baird).
	Cytherura nigrescens (Baird).
<i>River Liffey, at Dublin, North Wall.</i>	— Robertsoni, Brady.
Candona compressa (?) (Koch).	Sclerochilus gracilis, nov. sp.
Bairdia fulva, Brady.	
Cythere lutea, Müller.	<i>Lough Moher, Mayo.</i>
— castanea, G. O. Sars.	Cypris ovum, Jurine.
Cytheridea elongata, Brady.	Limnocythere Sancti-Patricii, n. sp.
Loxoconcha impressa (Baird).	
— elliptica, Brady.	<i>Freshwater Loughs near Clifden.</i>
Cytherura nigrescens (Baird).	Cypris lævis, Müller.
— similis, G. O. Sars.	Loxoconcha elliptica, Brady.
— cellulosa (Norman).	
— cuneata, Brady.	
Paradoxostoma variabile (Baird).	

Respecting the marine species, it should first be noted that all our dredgings being made in comparatively shallow water, many species are absent from the list which would doubtless have appeared had our time admitted of dredging in greater depths. Yet the results obtained are interesting, as indicating some well-marked peculiarities in the fauna of our Atlantic shores. Most remarkable, perhaps, is the almost entire absence of *Cythere lutea*, a species which in all other parts of the British islands is one of the most abundant. *Cythere tuberculata* and *concinna* appear also to be excessively scarce; and the strongly spinous species, such as *C. antiquata* and *Jonesii*, become much less robust, with more fragile shells and fewer and more attenuated spines. *Cytheridea punctillata*, a species very abundant in some of the Scottish lochs, as well as in most glacial clays, is also absent: the same may be said of *Ilyobates bartonensis* and *Cythere dunelmensis*. The common *Cytheropteron latissimum* appears to be displaced by *C. nodosum*. The occurrence of *Loxoconcha elliptica* in the freshwater lakes has already been noticed in our introductory remarks. The species which seem to be most characteristic of the district are perhaps *Cythere Macallana*, *pulchella*, and *cicatricosa*, *Cytheropteron nodosum* and *C. subcircinatum*. All these have indeed been found on other parts of the British coast, but nowhere so abundantly as in these dredgings from the bays of

Galway and Mayo. It is also worthy of note that, while in dredgings made further north (as notably in those of Professors Thomson and Carpenter between Faroe and Shetland) most of the species new to British ostracodists turn out to be identical with such as were previously familiar to us in the Scottish glacial clays, none of the marine species here described as new have yet been observed in the fossil state. Still it is possible that a search in greater depths of water off the Irish coast might lessen this apparent discrepancy.

Name of Species.	Dublin Bay, 3-4 fathoms.	Westport Bay, 4 fathoms.	Clifden Bay, up to 6 fath.	Birrerbuy Bay, 10-15 fathoms.	Remarks.
<i>Cypridopsis obesa</i> , nov. sp. . . . .	*	..	..	..	One example only.
<i>Bairdia inflata</i> (Norman). . . . .	..	*	..	..	
<i>Aglaia complanata</i> , nov. sp. . . . .	..	*	..	..	
<i>Pontocypris trigonella</i> , G. O. Sars. . . . .	*	*	*	*	
— <i>mytiloides</i> (Norman) . . . . .	..	*	*	*	
<i>Argillœcia angusta</i> (Brady) = <i>Pontocypris angusta</i> , Brady, Mon. Brit. Ostr. . . . .	..	..	*	*	
<i>Cythere lutea</i> , Müller. . . . .	*	..	..	*	Rare on west coast.
— <i>viridis</i> , Müller. . . . .	*	*	..	*	
— <i>pellucida</i> , Baird . . . . .	*	*	*	*	
— <i>castanea</i> , G. O. Sars . . . . .	*	*	*	*	
— <i>tenera</i> , Brady . . . . .	*	..	..	*	
— <i>porcellanea</i> , Brady . . . . .	..	*	..	..	
<i>Macallana</i> , nov. sp. . . . .	*	*	*	*	
<i>cicatricosa</i> , G. O. Sars . . . . .	*	*	*	*	
<i>villosa</i> , G. O. Sars . . . . .	*	*	*	*	
<i>angulata</i> (G. O. Sars) . . . . .	*	*	*	*	
<i>pulchella</i> , Brady . . . . .	*	*	*	*	Atlantic type; characteristic.
<i>Robertsoni</i> , Brady . . . . .	*	*	..	*	
<i>cuneiformis</i> , Brady . . . . .	*	*	..	*	
<i>albomaculata</i> , Baird . . . . .	*	*	*	*	
<i>convexa</i> , Baird . . . . .	*	*	*	*	
<i>tuberculata</i> (G. O. Sars) . . . . .	..	*	..	..	} Apparently rare on west coast.
<i>concinna</i> , Jones . . . . .	*	..	..	..	
<i>emaciata</i> , Brady . . . . .	..	*	*	*	Atlantic type.
<i>quadridentata</i> , Baird . . . . .	..	*	*	*	
<i>Jeffreysii</i> , Brady . . . . .	..	..	..	*	Ditto; rare.
<i>semipunctata</i> , Brady . . . . .	..	..	..	*	Ditto; rare.
<i>Jonesii</i> , var. <i>ceratoptera</i> , Bosq. . . . .	..	..	..	*	
<i>Whitei</i> (Baird) . . . . .	*	..	..	..	Rare.
<i>antiquata</i> (Baird) . . . . .	*	..	..	*	
<i>Limnocythere inopinata</i> (Baird) . . . . .	*	..	..	..	Probably washed down, but has also occurred in other marine dredgings.
<i>Cytheridea cornea</i> , nov. sp. . . . .	*	..	*	..	Apparently absent from Atlantic shores.
— <i>elongata</i> , Brady . . . . .	*	*	*	..	
— <i>punctillata</i> , Brady . . . . .	*	..	..	..	
<i>Eucythere declivis</i> (Norman) . . . . .	..	..	..	*	
—, var. <i>prava</i> , nobis . . . . .	..	*	*	..	

TABLE (continued).

Name of Species.	Locality.				Remarks.
	Dublin Bay, 3-4 fathoms.	Westport Bay, 4 fathoms.	Clifden Bay, up to 6 fath.	Briereby Bay, 10-15 fathoms.	
<i>Eucythere Argus</i> ( <i>G. O. Sars</i> ) . . . . .	*	*			
<i>Loxoconcha impressa</i> ( <i>Baird</i> ) . . . . .	*	*	*	*	
— <i>granulata</i> , <i>G. O. Sars</i> . . . . .			*		
— <i>guttata</i> ( <i>Norman</i> ) . . . . .	*	*	*	*	
— <i>tamarindus</i> ( <i>Jones</i> ) . . . . .	*	*	*	*	
<i>Xestoleberis aurantia</i> ( <i>Baird</i> ) . . . . .	*		*	*	
— <i>depressa</i> , <i>G. O. Sars</i> . . . . .		*	*	*	
<i>Bythocythere simplex</i> ( <i>Norman</i> ) . . . . .	*				
— <i>constricta</i> , <i>G. O. Sars</i> . . . . .	*				
<i>Cytherura nigrescens</i> ( <i>Baird</i> ) . . . . .	*		*	*	
— <i>similis</i> , <i>G. O. Sars</i> . . . . .	*	*	*		
— <i>cuneata</i> , <i>Brady</i> . . . . .	*	*	*		
— <i>angulata</i> , <i>Brady</i> . . . . .				*	
— <i>striata</i> , <i>G. O. Sars</i> . . . . .	*	*	*	*	
— <i>undata</i> , <i>G. O. Sars</i> . . . . .	*	*	*	*	
— <i>flavescens</i> . . . . .			*	*	
— <i>cornuta</i> , <i>Brady</i> . . . . .	*	*	*	*	
— <i>gibba</i> ( <i>Müller</i> ) . . . . .	*	*	*	*	
— <i>Robertsoni</i> . . . . .			*	*	
— <i>acuticostata</i> , <i>G. O. Sars</i> . . . . .			*	*	
— <i>cellulosa</i> ( <i>Norman</i> ) . . . . .	*	*	*	*	
<i>Cytheropteron nodosum</i> , <i>Brady</i> . . . . .			*		
— <i>punctatum</i> , <i>Brady</i> . . . . .	*				Rare.
— <i>subcircinatum</i> , <i>G. O. Sars</i> . . . . .			*		
— <i>rectum</i> , <i>Brady</i> . . . . .			*		Rare.
— <i>multiformum</i> ( <i>Norman</i> ) . . . . .			*	*	
<i>Pseudocythere caudata</i> , <i>G. O. Sars</i> . . . . .			*	*	Rare.
<i>Sclerochilus contortus</i> ( <i>Norman</i> ) . . . . .	*	*	*	*	
— —, var. <i>abbreviatus</i> . . . . .			*		
— <i>gracilis</i> , <i>nov. sp.</i> . . . . .	*	*	*		
<i>Cytherideis subulata</i> , <i>Brady</i> . . . . .	*	*	*		
<i>Paradoxostoma variabile</i> ( <i>Baird</i> ) . . . . .	*	*	*	*	
— <i>abbreviatum</i> , <i>G. O. Sars</i> . . . . .	*			*	
— <i>ensiforme</i> , <i>Brady</i> . . . . .	*			*	
— <i>flexuosum</i> , <i>Brady</i> . . . . .	*	*	*	*	
— <i>arcuatum</i> <sup>p</sup> , <i>Brady</i> . . . . .			*	*	
— <i>obliquum</i> , <i>G. O. Sars</i> . . . . .			*	*	
— <i>hibernicum</i> , <i>Brady</i> . . . . .		*	*	*	
<i>Polycope compressa</i> , <i>nov. sp.</i> . . . . .			*		

## Order OSTRACODA.

## Fam. Cypridæ.

## Genus CYPRIDOPSIS, Brady.

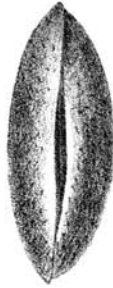
*Cypridopsis obesa*, nov. sp. Pl. XVIII. figs. 5-7.

Carapace of the female excessively tumid; as seen from the side subtriangular, highest in the middle; greatest height equal

1



2



3



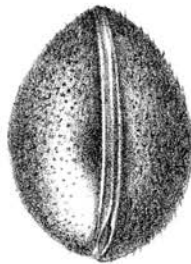
4



5



6



7



8



9



10



11



to nearly two-thirds of the length; extremities rounded; superior margin very boldly arched, inferior straight or slightly sinuated in the middle. Seen from above, broadly ovate, greatest width near the middle, subacuminate in front, broadly rounded behind; width equal to nearly three-fourths of the length. Shell-surface closely and largely punctate, clothed, but not very thickly, with short appressed hairs. Colour yellowish brown. Length  $\frac{1}{4}$  inch.

*Hab.* In the Mullingar Canal, Dublin, and dredged (one example) in Dublin Bay, in 3–4 fathoms water.

The only other localities in which this very distinct and fine species has hitherto been noticed in a recent state are in the rivers Maas and Scheldt in Holland, and in the river Ouse, near Lynn, Norfolk (*Ann. & Mag. Nat. Hist. ser. 4. vol. iii. p. 45*); it is, however, abundant in the fluviatile clays of Hornsea, in Yorkshire.

The occurrence of this species in several cases in marine or estuarine situations and in company with truly marine species is remarkable.

#### Genus AGLAIA, Brady.

*Aglaia complanata*, nov. sp. Pl. XX. figs. 4, 5.

Carapace, as seen from the side, oblong, subreniform, highest about the middle; greatest height equal to less than half the length; extremities rounded; superior margin evenly but slightly arched, inferior almost straight. Seen from above, compressed ovate, extremities pointed; greatest width in the middle, and not much exceeding one-fourth of the length. Surface of the valves smooth, bearing a few short scattered hairs; shell thin and fragile. Lucid spots arranged in an irregular rosette. Length  $\frac{1}{4}$  inch.

*Hab.* Westport Bay, 4 fathoms.

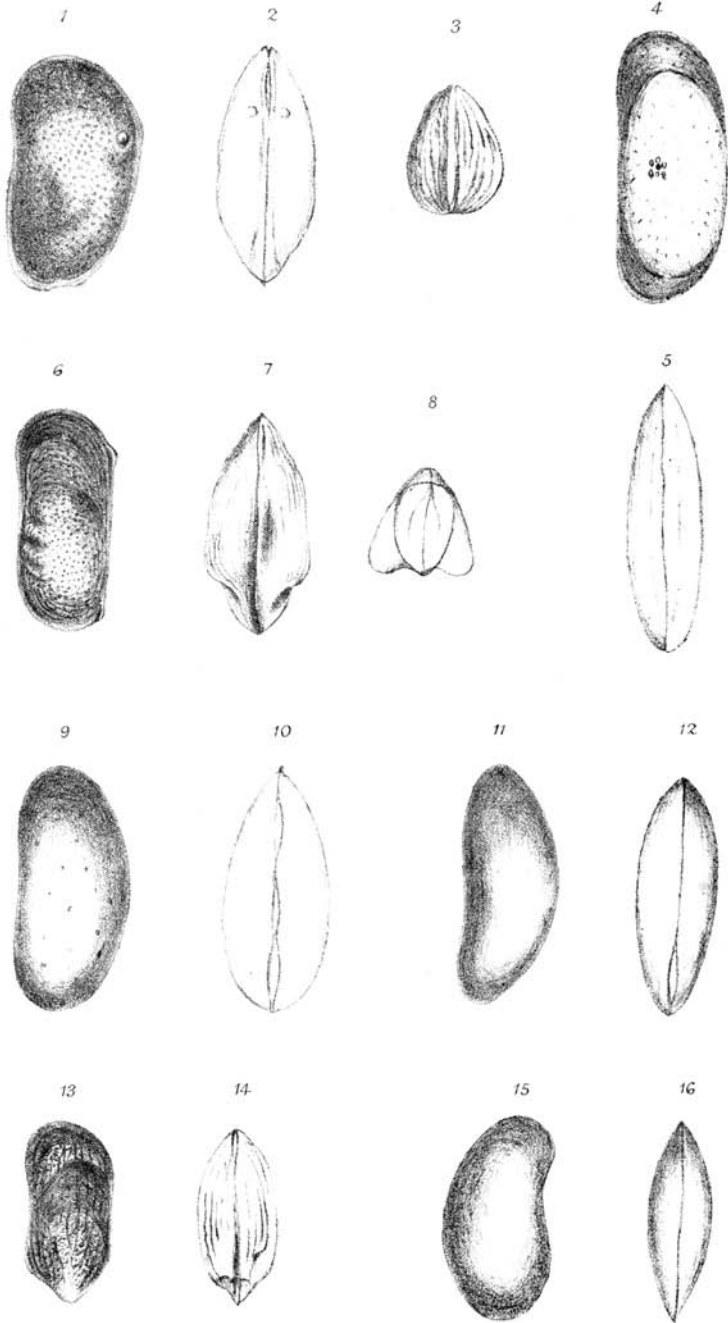
The genus *Aglaia* was proposed by one of the present writers, in a French publication ('*Les Fonds de la Mer*') for the reception of a Mediterranean species very similar to *A. complanata* in general characters, and exhibiting peculiarities of anatomical structure which distinctly separated it from any established genus. We have had no opportunity of examining the animal of *A. complanata*.

#### Genus BAIRDIA, M'Coy.

*Bairdia fulva*, Brady. Pl. XVIII. figs. 1–4.

*Bairdia fulva*, Brady, *Monog. Recent Brit. Ostrac. p. 474, pl. 28. fig. 21.*

Carapace compressed; as seen from the side, subreniform, rather higher in front than behind; greatest height near the



G.S. Brady del. et lith.

W. West imp.



middle, and equal to fully half the length; extremities rounded: superior margin boldly arched, sloping more abruptly in front than behind; inferior sinuated in the middle. Seen from above, compressed ovate, widest in the middle; extremities equally pointed; width much less than half the length; end view subrhomboidal, widest in the middle. Shell thin and fragile, semitransparent, smooth, thickly covered with very short delicate hairs. Length  $\frac{1}{3}$  inch.

*Hab.* In sand from Scarpa Bay, Orkney (D. O. Drewett, Esq.); and in the river Liffey at North Wall, Dublin.

The locality (Shetland) given in the 'Monograph' was inserted by mistake for Scarpa Bay. The specific name *fulva* does not well apply to the specimens here described, they being almost colourless; but the discrepancy is scarcely important enough to warrant a change of name\*.

#### Fam. Cytheridæ.

##### Genus CYTHERE, Müller.

*Cythere porcellanea*, Brady. Pl. XIX. figs. 1-4.

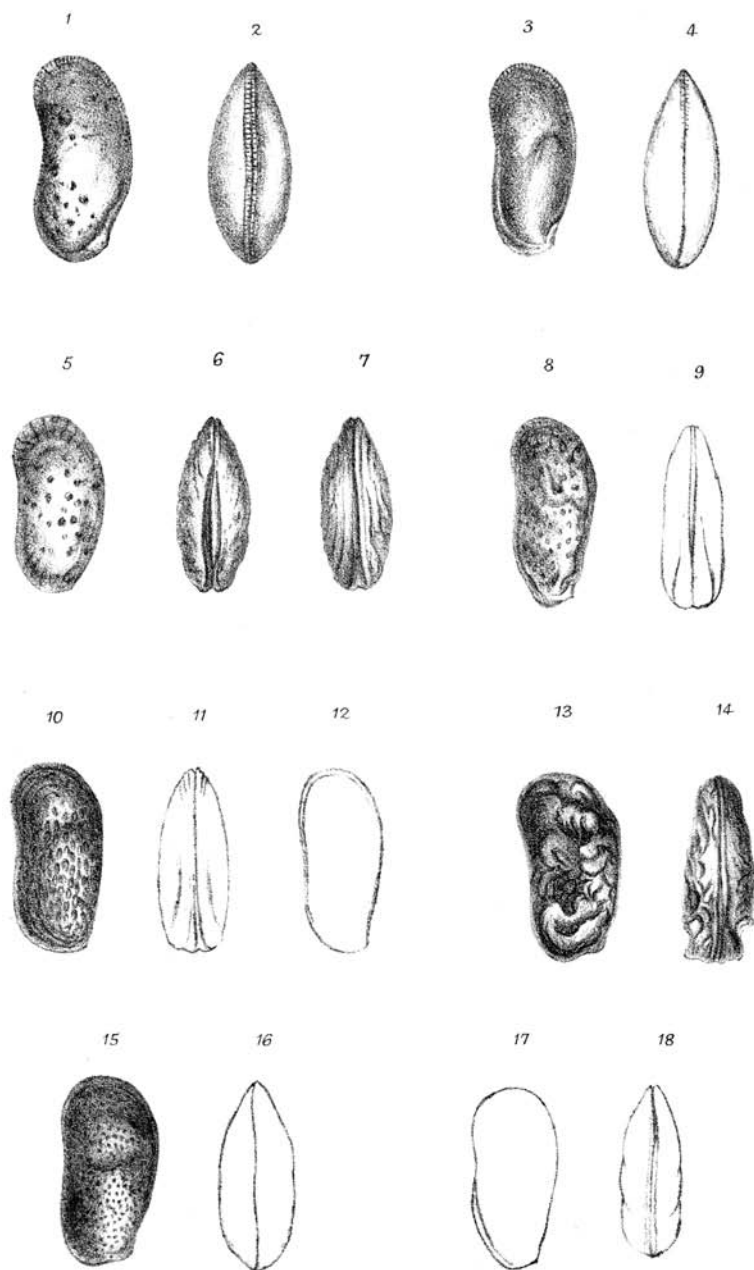
*Cythere porcellanea*, Brady, Ann. & Mag. Nat. Hist. ser. 4. vol. iii. p. 47, pl. 7. figs. 1-4.

Carapace of the *female*, as seen from the side, flexuous, reniform, highest in the middle, greatest height equal to rather less than half the length; anterior extremity evenly, posterior obliquely rounded: superior margin evenly arched, inferior deeply sinuated in the middle; postero-superior angle well marked. Seen from above, ovate, widest in the middle, pointed in front; width less than the height. Shell-surface smooth and polished, marked often behind the middle with a few scattered indistinct puncta. Colour whitish. Length  $\frac{1}{6}$  inch. Carapace of the *male* in shape much like that of the following species, except that the outline, when seen from above, is regularly ovate.

*Hab.* Westport Bay, 4 fathoms; and on the muddy shore of Budle Bay, Northumberland, near low-water mark (G. S. B.); and Dungeness Bay, and River Ouse at Lynn (Mr. E. C. Davison's dredgings).

The Dutch specimens from which this species was originally described appear to be either young or stunted individuals; and the figures which accompanied the description do not give

\* Since this was in the printer's hands, I have seen examples of *B. fulva* in dredgings from the Dutch localities mentioned above; so that this species would seem to come into the category of fluvio-marine species, to which *Cypridopsis obesa* also belongs.—G. S. B.



a correct idea of the adult shell. It has been necessary therefore to figure and describe the species afresh\*.

The differences between *C. porcellanea* and *C. Macallana*, though small, are sufficient to require the separation of the two species. The first-named is rather the larger, has much less surface-sculpture, and, as seen from above, is more regularly ovate in outline; it is also paler in colour, and seems to be sublittoral in habitat. Both species are very nearly allied to *C. pellucida* and *C. castanea*, figures of which we have thought it desirable to give in this place, they not having been sufficiently discriminated in the plates illustrating Mr. Brady's 'Monograph.' These species (*C. pellucida* and *castanea*), especially the latter, have the valves almost always marked with one, two, or more transverse furrows; but though the males of *C. porcellanea* and *C. Macallana* bear similar impressions, the females are entirely free from them.

*Cythere Macallana*, nov. sp. Pl. XIX. figs. 5-9.

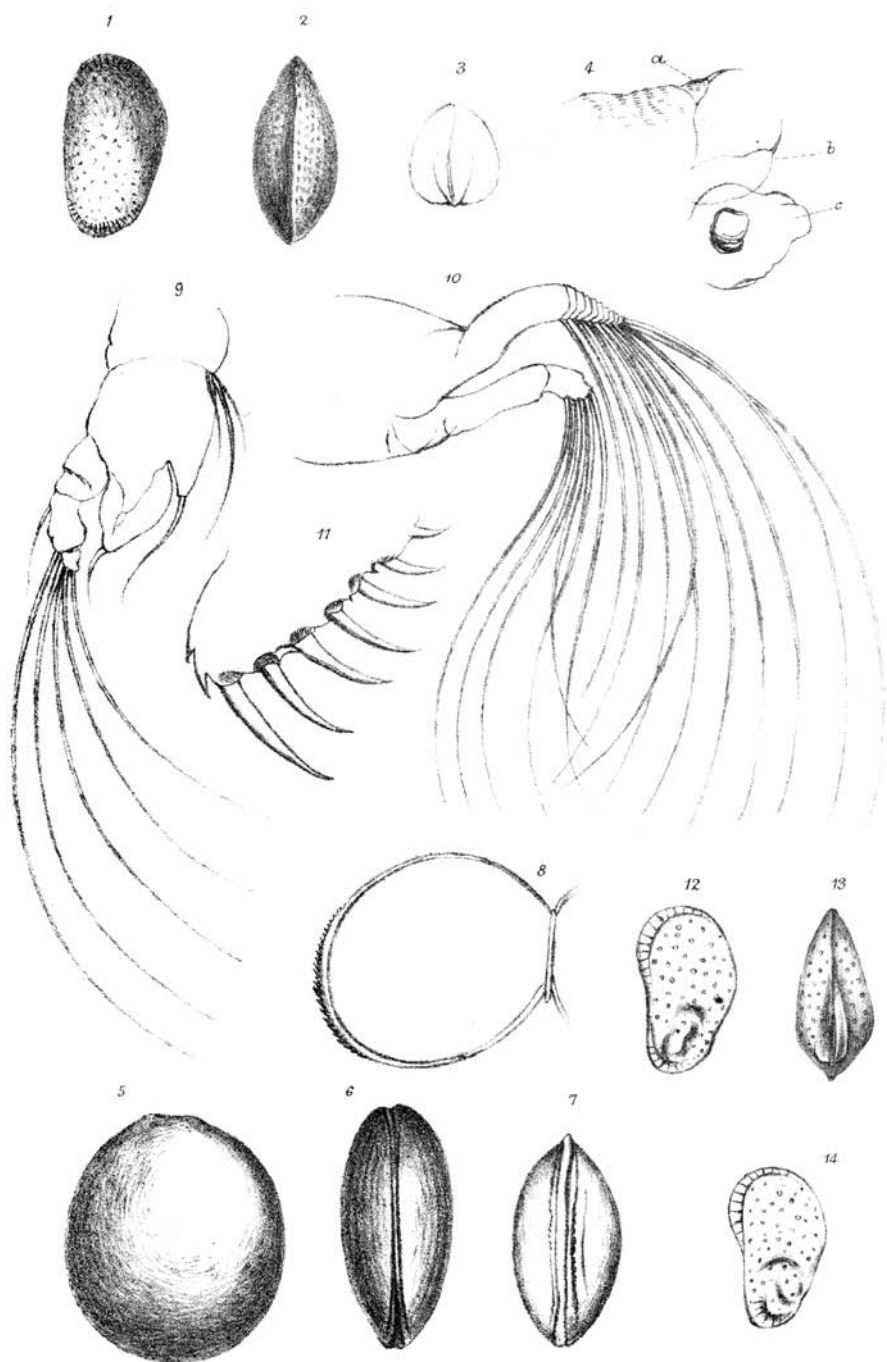
Carapace of the *female*, seen from the side, subreniform; greatest height situated in front of the middle, and equal to half the length; anterior extremity evenly, posterior obliquely rounded: superior margin well arched, highest over the eyes, in front of which it is slightly excavated, ending posteriorly in an obtuse angle; inferior sinuated in the middle. Seen from above, ovate, widest in the middle, rounded behind, subacuminate in front; width less than the height. Surface of the shell vaguely and distantly punctate, the ventral surface more or less marked with sinuous grooves. Colour yellowish brown. Length  $\frac{1}{6\frac{1}{2}}$  inch. The shell of the *male* is longer and narrower, more tapering (as seen laterally) towards the posterior extremity, and has the dorsal margin almost straight; seen from above, the sides are subparallel, and the posterior extremity obtuse; the shell-surface is also usually less sparingly punctate than in the female.

*Hab.* Dublin, Westport, and Clifden Bays.

*Cythere gibbosa*, nov. sp. Pl. XXI. figs. 1-3.

Carapace of the *female* tumid; seen from the side, subtriangular or trapezoidal, highest in front of the middle; greatest height equal to more than half the length, extremities obliquely rounded, the anterior being much the broader: superior

\* I may add that I have recently had the opportunity of examining a larger series of Ostracoda from the river Scheldt, and have found a number of examples of *C. porcellanea* differing in no respects from those described in the present paper.—G. S. B.



G.S. Brady del et lith.

W. West imp

margin obtusely angulated in front of the middle, thence sloping steeply towards each extremity; inferior quite straight. Seen from above, the outline is ovate, widest in the middle; extremities pointed; width equal to half the length. Shell of the *male* narrower and longer. Shell-surface smooth and polished, bearing a few short, scattered hairs, which are papillose at the base; obscurely punctate on the ventral surface. Colour whitish. Length  $\frac{1}{8}$  inch.

*Hab.* In a large tidal pond at Westport Quay, amongst *Zostera*; and at Budle Bay, Northumberland\*.

*Cythere pulchella*, Brady. Pl. XX. figs. 1-3.

*Cythere pulchella*, Brady, Monog. Rec. Brit. Ostrac. p. 404; Ann. & Mag. Nat. Hist. ser. 4. vol. ii. p. 32, pl. 5. figs. 18-20.

This species was admitted into the 'Monograph of the British Ostracoda' on the occurrence of a single specimen in shell-sand from Sutherlandshire. We have found it sparingly in most of our gatherings from the Connemara district; but it would appear to reach its finest development in the Arctic seas. (See Ann. & Mag. Nat. Hist. *loc. cit.*)

*Hab.* Westport, Clifden, and Birterbuy Bays.

*Cythere Robertsoni*, Brady.

*Cythere Robertsoni*, Brady, Ann. & Mag. Nat. Hist. ser. 4. vol. ii. p. 33, pl. 4. figs. 5, 8-10.

This species is new to the British fauna, the specimens from which it was originally described having been dredged by Mr. Robertson at Christiania.

*Hab.* Dublin Bay, 3-4 fathoms; Westport Bay, 4 fathoms.

*Cythere cicatricosa*, Sars. Pl. XIX. figs. 13, 14.

*Cythere cicatricosa*, G. O. Sars, Oversigt af Norges marine Ostracoder, p. 33. — *badia* (in part), Brady, Monog. Recent Brit. Ostrac. p. 399 (but not figures).

—? *crispata*, Brady, Ann. & Mag. Nat. Hist. ser. 4. vol. ii. p. 221, pl. 14. figs. 14, 15.

Carapace of the *female*, as seen from the side, subreniform or subsigmoid, higher in front than behind; greatest height in front of the middle, and equal to more than half the length; anterior extremity rounded, posterior subtruncate, slightly sinuated above the middle: superior margin gently arched, slightly excavated in front of the eyes, and ending in an obtuse angle behind; inferior deeply sinuated near the

\* Budle Bay is a large expanse of shallow water which at low tide recedes so as to leave a muddy flat, through which a small stream finds its way to the sea. The situation is, therefore, essentially similar to that at Westport, where *C. gibbosa* was first found.—G. S. B.

middle. Outline, as seen from above, compressed, oblong, obtusely pointed in front, truncate behind, the sides deeply emarginate near the posterior extremity; widest behind the middle; greatest width not much exceeding one-third of the length. Shell of the *male* longer and narrower. Surface of the valves irregularly sculptured in a flexuous manner. Colour yellowish brown, the raised ornament often deeply tinged with slaty blue or black. Length  $\frac{1}{10}$  inch.

In the 'Monograph of the Recent British Ostracoda,' this species was confounded with *Cythere badia*, Norman, to which it bears considerable resemblance. *C. badia*, however, has only a vaguely punctate surface-ornament, without any trace of the conspicuous flexuous rugæ which mark *C. cicatricosa*; the dorsal aspect of the former is also regularly ovate, while that of the present species is distinctly truncate behind. The figures in the 'Monograph' give a correct idea of the true *C. badia*, and, when compared with those given here, will show more clearly than a verbal description the differences between the two species. The form described and figured by Mr. Brady, in the 'Annals and Magazine of Natural History,' under the name of *C. crispata*, does not differ materially from the present, except in its greater size and its more prominent and profuse surface-sculpture. The northern species may perhaps be looked upon as a depauperized form of the Mediterranean *C. crispata*; and this view derives some confirmation from its greater abundance on the western shores of Ireland.

The specific name *cicatricosa* has been used by Reuss and Bosquet to designate a species which we believe to be identical with *Cythere convexa*, Baird; but as Dr. Baird's name is of prior date, the proper course seems to be to reserve the term *cicatricosa* for the species so named by G. O. Sars, which is undoubtedly identical with that under consideration.

It should be mentioned that while *C. badia* seems to be a purely littoral species, *C. cicatricosa* is not met with except by the dredge. The localities given in the 'Monograph' (for *C. badia*) must be taken as belonging to the present species, except those to which the Rev. A. M. Norman's name is attached.

#### Genus LIMNICY THERE, Brady.

*Limnicythere Sancti-Patricii*, nov. sp.

Pl. XVIII. figs. 8-11, and Pl. XXI. fig. 4.

Carapace (of the *male*?), as seen from the side, reniform, nearly equal in height throughout, height equal to half the length; extremities well rounded, the anterior slightly the broader; superior margin almost straight, inferior deeply sinuated in

the middle. Seen from above, the outline is irregularly rhomboidal, widest somewhat behind the middle; extremities acuminate; greatest width rather less than the height. Seen from the front, the outline is widest at the base, with gradually converging sides and broadly arched apex; ventral margin convex, and prominently keeled in the middle. Surface of the valves sculptured with small, closely-set, polygonal excavations, marked across the middle with a conspicuous broad and deep curved furrow, in front of which is another, of similar character, but smaller; behind the posterior furrow the shell rises towards the ventral surface into a prominent rounded eminence: the ventral surface is furrowed in a longitudinal direction, and also marked more or less with cross striæ. Animal almost exactly like that of *L. inopinata*. Copulative organs of the female (Pl. XXI. fig. 4 c) subquadrangular, upper portion (b) elongated and ending in a short seta. Abdomen slightly hirsute, produced into two lobes, each with a short terminal seta (a).

*Hab.* Lough Moher, about five miles south of Westport, county Mayo.

All the full-grown specimens which we have examined of this very well-marked species possess the peculiar appendages represented in Pl. XXI., and which for the present we suppose to be the female copulative organs. Whatever they may be, they seem to be homologous with the parts of *L. inopinata* figured in the 'Monograph of Recent British Ostracoda,' pl. 38. fig. 9 m; and their presence in this peculiar form will probably constitute a good generic character.

#### Genus CYTHERIDEA, Bosquet.

*Cytheridea* (?) *cornea*, nov. sp. Pl. XX. figs. 9, 10.

Carapace, as seen from the side, subovate, highest in the middle; greatest height equal to less than half the length; anterior extremity well rounded, the posterior somewhat flattened; superior margin evenly arched, inferior almost straight. Seen from above, ovate, pointed in front, greatest width behind the middle, equal to the height. Shell thin and fragile, quite smooth, very sparingly punctate. Length  $\frac{1}{4}$  inch.

*Hab.* Dublin Bay, 2-4 fathoms, near the Pigeon-house; Westport Bay, 2-4 fathoms.

#### Genus EUCYTHERE, Brady.

*Eucythere declivis*, var. *prava*. Pl. XXI. figs. 12-14.

Some specimens identical in character with those here re-

ferred to were figured and briefly noticed by Mr. Brady in the 'Monograph of the Recent British Ostracoda' (pl. 27. figs. 52, 53, p. 430) as being probably a form of *C. declivis*. They differ from the normal form of that species in being furrowed or corrugated toward the hinder extremity, in the greater sinuation of the inferior and the less pronounced arching of the superior margin; the extremities are also bordered with a flange, which is marked by radiating hair-like lines. Seen from above, the shell is rather more acutely pointed and more tapering in front. Length  $\frac{1}{4}$  inch.

*Hab.* Westport and Clifden Bays.

#### Genus LOXOCONCHA, G. O. Sars.

##### *Loxoconcha elliptica*, Brady.

*Loxoconcha elliptica*, Brady, Monog. Rec. Brit. Ostrac. p. 435, pl. 27. figs. 38, 39, 45-48, & pl. 40. fig. 3.

The specimens of this species which we found in various freshwater loughs and pools differ from the typical brackish and marine form only in size and style of sculpture, the punctuation of the shell being more distinct, but the papillæ very few or absent; the size much less.

*Hab.* In a pool amongst *Utricularia minor*, south of Clifden, and in Loughs Fadda and Ballinahinch.

#### Genus CYTHERURA, G. O. Sars.

##### *Cytherura flavescens*, Brady. Pl. XX. figs. 13, 14.

*Cytherura flavescens*, Brady, Ann. & Mag. Nat. Hist. ser. 4. vol. iii. p. 49, pl. 8. figs. 13, 14.

Carapace, as seen from the side, oblong, subrhomboidal, nearly equal in height throughout; length equal to twice the height; anterior extremity rounded, posterior forming about the middle a short obtuse process; superior margin straight or slightly incurved, inferior distinctly sinuated. Seen from above, oblong ovate, widest in the middle; extremities pointed; width nearly equal to the height. Surface finely punctate and marked by distinct longitudinal ribs with irregular and less distinct cross striæ; central areola dark-coloured, saddle-shaped. Length  $\frac{1}{6}$  inch.

*Hab.* Clifden Bay, above low-water mark; River Ouse at Lynn, and Dungeness Bay, 7 fathoms (Mr. E. C. Davison's dredgings).

#### Genus CYTHEROPTERON, G. O. Sars.

##### *Cytheropteron rectum*, Brady. Pl. XX. figs. 6-8.

*Cytheropteron rectum*, Brady, Monog. Recent Brit. Ostrac. p. 476.

Of this species, which was not figured in Mr. Brady's 'Mo-



nograph,' we now give drawings. It seems to be of very rare occurrence, and we have had no opportunity of seeing the animal.

*Hab.* Westport Bay, 4 fathoms.

Genus SCLEROCHILUS, G. O. Sars.

*Sclerochilus* (?) *gracilis*, nov. sp. Pl. XX. figs. 11, 12.

Carapace, as seen from the side, elongate, subtriangular, highest in the middle; height much less than one-half of the length; extremities narrowly rounded: superior margin boldly arched, somewhat flattened in the middle; inferior straight, with a slight median sinuation. Seen from above, compressed ovate, widest in front of the middle, extremities pointed; width equal to one-third of the length. Shell perfectly smooth, milk-white. Length  $\frac{1}{4}$  inch.

*Hab.* At Westport, in company with *Cythere gibbosa*.

*Sclerochilus contortus*, var. *abbreviatus*. Pl. XX. figs. 15, 16.

This seems to bear much the same relation to the normal form of *S. contortus* as *Paradoxostoma abbreviatum* does to *P. variabile*; but, from the small number of specimens yet observed, we hesitate to describe it as a distinct species, not having been able to investigate the anatomy of the animal.

*Hab.* Clifden Bay, above low-water mark.

Fam. Polycopidæ.

Genus POLYCOPE, G. O. Sars.

*Polycope compressa*, nov. sp. Pl. XXI. figs. 5-11.

Carapace, as seen from the side, almost circular, the length being but slightly greater than the height. Seen from above, compressed, oblong, widest in front of the middle; width scarcely equalling half the length, rounded in front, obtusely pointed behind. Surface of the shell perfectly smooth; colour yellowish white. The free margins of the valves are minutely denticulate, with about fifteen small sharp teeth. Diameter  $\frac{1}{4}$  inch.

*Hab.* Clifden Bay, in 4 fathoms, on a fine gravelly bottom; also off Eddystone Lighthouse; and in a gathering from the harbour of Messina, about 8 fathoms, for which we are indebted to the kindness of Dr. Dohrn.

The much more compressed character of the valves, the denticulated edges, and absence of surface-sculpture at once distinguish this from the only hitherto described species of the genus, *P. orbicularis*. Several specimens were captured; and

their motions, while in a bottle of sea-water, were noticed to be extremely lively.

EXPLANATION OF THE PLATES.

PLATE XVIII.

- |  |   |       |
|--|---|-------|
| Fig. 1. <i>Bairdia fulva</i> , seen from the left side.                    | } | × 60. |
| Fig. 2. The same, seen from above.   |   |       |
| Fig. 3. The same, seen from below.   |   |       |
| Fig. 4. The same, seen from the front.                                     |   |       |
| Fig. 5. <i>Cypridopsis obesa</i> (female), seen from the left side.        |   |       |
| Fig. 6. The same, seen from below.   |   |       |
| Fig. 7. The same, seen from the front.                                     |   |       |
| Fig. 8. <i>Linnicythere Sancti-Patricii</i> (female), seen from left side. |   |       |
| Fig. 9. The same, seen from above.   |   |       |
| Fig. 10. The same, seen from below.  |   |       |
| Fig. 11. The same, seen from the front.                                    |   |       |

PLATE XIX.

- |   |   |       |   |       |
|---|---|-------|---|-------|
| Fig. 1. <i>Cythere porcellanea</i> (female), seen from the left side. | } | × 60. |   |       |
| Fig. 2. The same, seen from below.                                    |   |       |   |       |
| Fig. 3. The same (male), seen from the left side.                     |   |       |   |       |
| Fig. 4. The same, seen from below.                                    |   |       |   |       |
| Fig. 5. <i>Cythere Macallana</i> (female), seen from the left side.   |   |       |   |       |
| Fig. 6. The same, seen from above.                                    |   |       |   |       |
| Fig. 7. The same, seen from below.                                    |   |       |   |       |
| Fig. 8. The same (male), seen from the left side.                     |   |       |   |       |
| Fig. 9. The same, seen from below.                                    |   |       |   |       |
| Fig. 10. <i>Cythere pellucida</i> (female), seen from the left side.  |   |       | } | × 40. |
| Fig. 11. The same, seen from below.                                   |   |       |   |       |
| Fig. 12. The same (male), seen from the left side.                    | } | × 60. |   |       |
| Fig. 13. <i>Cythere cicatricosa</i> , seen from the left side.        |   |       |   |       |
| Fig. 14. The same, seen from above.                                   | } | × 40. |   |       |
| Fig. 15. <i>Cythere castanea</i> (female), seen from the left side.   |   |       |   |       |
| Fig. 16. The same, seen from above.                                   |   |       |   |       |
| Fig. 17. The same (male), seen from the left side.                    |   |       |   |       |
| Fig. 18. The same, seen from above.                                   |   |       |   |       |

PLATE XX.

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|--|---|-------|
| Fig. 1. <i>Cythere pulchella</i> (male), seen from the left side.                        | } | × 60. |
| Fig. 2. The same, seen from above.   |   |       |
| Fig. 3. The same, seen from the front.   |   |       |
| Fig. 4. <i>Aglaia complanata</i> , seen from the left side.                              |   |       |
| Fig. 5. The same, seen from above.   |   |       |
| Fig. 6. <i>Cytheropteron rectum</i> (male?), seen from the left side.                    |   |       |
| Fig. 7. The same, seen from below.   |   |       |
| Fig. 8. The same, seen from behind.  |   |       |
| Fig. 9. <i>Cytheridea cornea</i> , seen from the left side.                              |   |       |
| Fig. 10. The same, seen from above.  |   |       |
| Fig. 11. <i>Sclerochilus gracilis</i> , seen from the left side.                         |   |       |
| Fig. 12. The same, seen from above.  |   |       |
| Fig. 13. <i>Cytherura flavescens</i> , seen from the left side.                          |   |       |
| Fig. 14. The same, seen from below.  |   |       |
| Fig. 15. <i>Sclerochilus contortus</i> , var. <i>abbreviatus</i> , seen from right side. |   |       |
| Fig. 16. The same, seen from above.  |   |       |

## PLATE XXI.

- Fig. 1.* *Cythere gibbosa* (female?), seen from the left side. }  
*Fig. 2.* The same, seen from above. } × 60.  
*Fig. 3.* The same, seen from the front. }  
*Fig. 4.* *Limnocythere Sancti-Patricii*; abdomen of female (?): *a*, abdomen; }  
*b*, postabdominal ramus (?); *c*, copulative organs (?). } × 210.  
*Fig. 5.* *Polycopse compressa*, seen from the left side. }  
*Fig. 6.* The same, seen from above. } × 60.  
*Fig. 7.* The same, seen from behind. }  
*Fig. 8.* The same, right valve, from inside, showing hinge-joint }  
 and serrulated margin. }  
*Fig. 9.* The same, superior antenna. }  
*Fig. 10.* The same, inferior antenna. } × 210.  
*Fig. 11.* The same, postabdominal ramus. }  
*Fig. 12.* *Eucythere declivis*, var. *prava* (female), seen from left side. }  
*Fig. 13.* The same, seen from above. } × 40.  
*Fig. 14.* The same (male), seen from the left side. }

## PLATE XXII.

- Fig. 1.* *Ophianophus annulosus*, fragment of ray, dredged in Birterbuy Bay; natural size.  
*Fig. 2.* The same, disk, seen from above, with one ray; a little larger than natural size.  
*Fig. 3.* The same, base of a ray, with portion of disk, seen from below: *a*, madre-pore-plate; *b b*, smaller, and *c c*, larger mouth-papillæ.  
*Fig. 4.* The same, portion of ray, seen from below, denuded of spines.  
*Fig. 5.* The same, from above.  
*Fig. 6.* The same, transverse section of ray near the middle: *a*, outer, *b*, inner foot-papillæ. (Figs. 2-6 after Sars.)  
*Fig. 7.* *Erunguia stilipes*, upper antenna, × 84.  
*Fig. 8.* The same, lower antenna, × 84.  
*Fig. 9.* The same, maxilliped, × 210.  
*Fig. 10.* The same, first gnathopod, × 84.  
*Fig. 11.* The same, second gnathopod, × 84.  
*Fig. 12.* The same, last segments of body, showing telson and uropod, × 84.

XLVI.—Notes on some recent Mediterranean Species of Brachiopoda. By THOMAS DAVIDSON, F.R.S., F.G.S., &c.

WHILE I was recently at Nice, it was suggested by our distinguished naturalist Mr. J. G. Jeffreys that I should carefully examine the original specimens of the Mediterranean species of Brachiopoda described by Antonio Risso\*, in order to clear away some uncertainty still prevailing with reference to the correct identification and specific value of that author's species. Risso's knowledge of the Mollusca, both recent and fossil, was considerably inferior to his amount of information regarding

\* Histoire Naturelle des principales Productions de l'Europe Méridionale, et particulièrement de celles des Environs de Nice et des Alpes Maritimes, vol. iv. 1826.