

*Wm. Anker
Dublin*

PROCEEDINGS

OF THE

NATURAL HISTORY SOCIETY OF DUBLIN,

FOR THE

SESSIONS 1856-1859,

(INCLUSIVE.)

O Lord, how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches.—PSALM civ. 24.

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FRIDAY EVENING, MARCH 13, 1857.

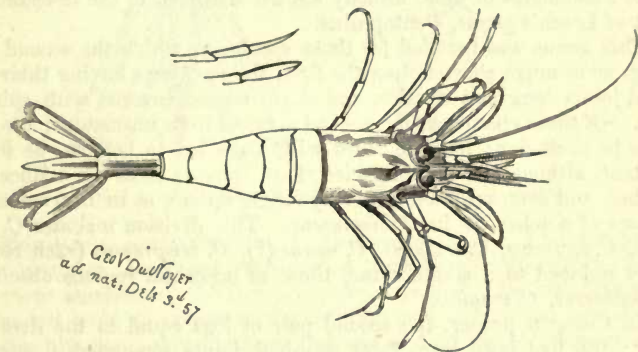
PROFESSOR W. H. HARVEY, M.D., M.R.I.A., in the Chair.

THE Minutes of the previous meeting having been read and signed,—

Mr. R. P. Williams exhibited a fine specimen of the Peregrine (*Falco peregrinus*), killed in the county of Meath, and presented to the Society by Henry Meredith, Esq., through George Annesley Pollock, Esq.

DR. J. R. KINAHAN read a paper—

ON A CRANGON NEW TO SCIENCE, WITH NOTICES OF OTHER NONDESCRIPT CRUSTACEA, AND OBSERVATIONS ON THE DISTRIBUTION OF THE CRUSTACEA PODOPHTHALMIA OF THE EASTERN, OR DUBLIN MARINE, DISTRICT OF IRELAND.



BEFORE proceeding, according to my promise at our last meeting, to describe this hitherto unnoticed Crangon, it will be necessary to review, in a cursory way, the species of this genus already described.

The genus Crangon is now generally restricted to those macrourous Crustacea in which the first pair of legs are subcheliform, that is to say, terminating in a movable hooked claw, articulated to the external angle of the extremity of the terminal joint of the leg, and folding down on a permanent fixed spine, arising from the internal angle of the same joint; the second pair of legs slender, minute, and didactyle, i. e. terminating in a regular-formed hand, with a movable finger; the remaining pairs of legs acuminate and monodactyle; the external maxillipeds subpediform; the internal antennæ inserted on a line above the external, and the eyes free. Thus excluding certain species, which are now grouped under the following genera:—*Argis* (*Kroyer*). [Eyes concealed beneath the carapace; fourth and fifth pair of legs dilated, natorial: (*C. Lar.*) (*Owen*).] *Sabinea* (*Owen*). [Second pair of legs very short, not cheliform: *C. septem carinatus* (*Sabine*).] *Paracrangon* (*Dana*). [Second pair of legs obsolete: *Paracrangon echinatus* (*Dana*).]

The species referred to this genus are as follow :—

Crangon vulgaris (<i>Fabr.</i>).	Crangon bispinosus (<i>Hailstone</i>).
„ fasciatus (<i>Risso</i>).	„ boreas (<i>Phipps</i>).
„ spinosus (<i>Leach</i>).	„ loricatus (<i>Risso</i>).
„ sculptus (<i>Bell</i>).	„ munitus (<i>Dana</i>).
„ trispinosus (<i>Hailstone</i>).	„ nanus (<i>Kroyer</i>).

Of which the first six are recorded as Irish, the first five having occurred in the eastern or Dublin district; to these must be added the species to be now described—*C. Allmanni* (*mih*).

Leach and Risso divided the species then known into three genera—Crangon, Pontophilus, and Ægeon; of these the two latter have been, by modern systematists, rejected as founded on insufficient characters, and, therefore, not natural groups. There appear to be good grounds for this opinion as regards Ægeon; but it is probable that further study of the homologies of those already known will lead to the re-establishment of Leach's genus, Pontophilus.

This genus was founded for those species in which the second pair of legs were much shorter than the first, the foot-jaws having their terminal joints long and slender, and the carapace covered with spinous lines. Of these characters the second is found to be inconstant; the first liable to confusion; but the third will, I am led to believe, be found constant, although in some species these spinous lines are reduced in number, and even replaced either by single spines, as in *C. trispinosus*, or rows of notches, as in *C. bispinosus*. This division includes *C. spinosus*, *C. loricatus*, *C. sculptus*, *C. nanus* (?), *C. trispinosus* (each row of spines reduced to a single spine, those of branchial regions obsolete), *C. bispinosus*, *C. munitus*.

In Crangon proper, the second pair of legs equal to the first and third; the foot-jaws have their terminal joints somewhat shortened, and we find one median spine on gastric region, and the lateral spines, when present, inserted on the *branchial* region. Under this section are arranged *C. vulgaris*, *C. fasciatus*, *C. boreas* (?), and the new species, *C. Allmanni*. For the present it is, probably, best to unite these two groups, as Bell and M. Edwards have done, into one group, under the name of Crangon.

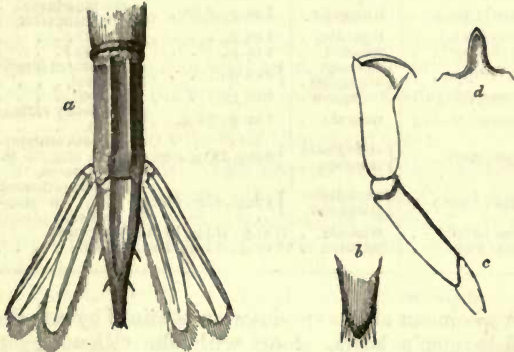
CRANGON ALLMANNI (*mih*).

C. Crangone vulgari affinis. Rostrum frontale brevie. Carapax lævis, spinis tribus armatus, una brevissima regione gastricâ medianâ, duæ regionibus branchialibus insitæ. Abdominis articulus sextus supra canaliculatus, ultimus supra-sulcatus, dentibus binis utrinque armatus, infra dentibus minutis prætextus. Pedum par primum subcheliforme, brachium læve et inerme. Maribus spinâ sternale brevissimâ, fæminis obsoletâ. Colore albus-cærulescens rufis et aureis punctis maculatus.

Habitat: "Zonam corallinam Maris Hibernici juxta 'Bray,' comitat: 'Wicklow.' Longit, unciaë tres."

CHANNEL-TAILED SHRIMP.

SPEC. CHAR.—Carapace smooth, excepting a small spine on the median line of gastric region, and one on each branchial; second pair of legs as long as third; sixth segment of abdomen deeply channelled above; channel continued as shallow sulcus on terminal segment; third joint of anterior pair of legs perfectly smooth; a minute spine between insertion of second pair of legs in males; in the female spine, obsolete.



a, tail; b, middle plate of ditto; c, anterior leg; d, rostrum.

This species is closely allied to *Crangon vulgaris*. The carapace is large, rounded, depressed; the rostral projection comparatively longer and more acuminate; the foot-jaws, antennæ acute, and natatory plates of the tail as in *C. vulgaris*; the anterior pair of legs also similar, but wanting the spine which adorns the arm of that species; the spiny armature of the sternum differs strikingly. In *C. Allmanni* there is only one very short spine between insertion of second pair of legs in the male; in females this is altogether wanting. In *C. vulgaris* I find two spines present, one anterior and long, and the other posterior and minute. Middle lamina of the tail is more blunted, and armed with numerous teeth at the extremity, in addition to the four lateral teeth.

The colour is bluish gray, dotted over with brown, red, and gold; length of specimens, from 1.5 to 3 inches.

The channelled abdomen distinguishes it from *C. vulgaris*, *fasciatus*, and *nanus*. The absence of sculpture on the abdomen, and of spinous lines on the carapace, and the presence of the median spine, separate it from *C. spinosus*, *sculptus*, *loricatus*, *nanus*, *munitus*, and *bispinosus*, irrespective of other distinctive characters of less importance, as being more or less comparative. The external characters of the shrimps would enable us to separate them easily into various artificial groups, according to arrangement of the spines in carapace, smoothness of abdomen, shape of rostrum, &c.

The following analysis gives the external characters of the various species as far as known. The species in italics are not British.

[M. g. = median gastric region ; l. g. = lateral gastric ; br. = branchial.]

	Rostrum.	Spines on Carapace.	Segments of Abdomen.	Arm.
<i>Crangon vulgaris</i> (<i>Fabr.</i>) . .	triangular, .	1 m. g., 2 br. . . .	smooth,	spined.
„ <i>Allmanni</i> (<i>Kin.</i>) . .	triangular, .	1 m. g., 2 br. . . .	6th bicarinated, . .	smooth.
„ <i>fasciatus</i> (<i>Riss.</i>) . .	truncate, .	1 m. g.,	7th channelled, . .	spined ?
„ <i>nanus</i> (<i>Kroyer</i>) . .	rounded, .	2 m. g.,	smooth,	smooth.
„ <i>boreas</i> (<i>Phipps</i>) . .	{ obtusely triangular .	{ 3 m. g.,	{ sculptured bicari- nated,	{
„ <i>bispinosus</i> (<i>Hailst.</i>) . .	triangular .	2 m. g.,	smooth,	?
„ <i>trispinosus</i> (<i>Hailst.</i>) . .	truncate, .	1 m. g., 2 l. g., . .	obsoletely carina- ted,	smooth.
„ <i>sculptus</i> (<i>Bell</i>) . .	{ emarginate truncate, .	{ 3 m.g., 16 l.g., 6 br.	3rd—5th sculptur- ed; 6th, 7th bi- carinated,	smooth.
„ <i>spinosus</i> (<i>Leach</i>) . .	{ truncately triangular, .	{ 4 m.g., 8 l.g., 4 br.	3rd, 4th carinated; 5th, 7th chan- nelled,	smooth.
„ <i>loricatus</i> (<i>Riss.</i>) . .	truncate, .	7? m.g., 14 l.g., 14 br.,	sculptured.	
„ <i>munitus</i> (<i>Dana.</i>) . .	rounded, .	2 m. g., 2 l. g., 2 br.,	smooth,	smooth ?

The first specimens of this species were obtained by me, Dec. 7, 1856. from the fishermen's boats, along with the following other Crustacea:—*C. vulgaris* (?), *C. sculptus*, *Hippolyte varians*, *H. Thompsoni*, *H. Cranchii* (?), *Pagurus Hyndmanni*, *P. Cuanensis*, *Eurynome aspera*, and many zoophytes, inhabitants of the coralline zone. On a subsequent occasion, in February, I dredged the species in 30 fathoms of water, along with the following Echinoderms:—*Ophiocoma neglecta*, *rosula*, *bellis*, *granulata*; *Uraster glacialis*, in great abundance; *U. violacea*, *rubens*, rare; *Echinocyamus pusillus*, *Cucumaria Hyndmanni*. The specimen of *C. Allmanni* then obtained was in ova.

In characterizing this interesting new species, I have united to it the name of one of our Irish naturalists, whose labours in every branch of Irish zoology may be appreciated from the frequent occurrence of his name in the late William Thompson's "Notes on Irish Natural History," and by the monographs published by himself in the Annals and Transactions of many learned societies,—Professor George J. Allman, now of Edinburgh, late Professor of Botany in our own University, and the discoverer of *Polybius Henslowii* on Irish shores.

Along with the species recorded above were specimens in abundance of a *Pagurus* apparently specifically distinct from, though much resembling the immature specimens of *P. Bernhardus*, but differing in being in spawn much earlier in the year, and in its locality. This supposed species occurs all over Dublin Bay, in 20–40 fathoms of water, but is most common at Bray, where it is constantly brought ashore in the wheel-pots. It almost always is found inhabiting the shells of either *Natica nitida* or *Turitella communis*.

I hope before the close of your session to submit to your Society a

monograph of the Irish species of this genus, at present in preparation, and, therefore, will not now notice it further than as follows:—

PAGURUS EBLANENSIS (mih) (? BERNHARDUS).

Resembling young of *P. Bernhardus*. Hands more regularly globular, very granular; a raised denticulate line marking exterior edge; terminal extremities of posterior pairs of legs scarcely twisted; colour, reddish-white; legs prettily banded with reddish pink.

Among the Crustacea obtained at Dalkey Sound, I find specimens of a very remarkable form of Porcellana, exhibiting peculiarities hitherto undescribed, and which appear specific, the same form having occurred to me at Rush. It seems as well to notice it; and I propose, should it prove distinct, to call it *Porcellana priocheles (mih)* (πειων χηλη).

SERRATE-CLAWED PORCELAIN CRAB.

Allied to *P. longicornis*. The anterior pairs of legs nearly equal; both hands furrowed, scabrous; exterior edges finely but distinctly serrated denticulate in arm, with ternal margin produced; broken up into lobes; front produced, finely denticulate, indistinctly four-lobed; sides of carapace armed with a number of teeth (?).

Colour: Pale-red, with blotches and patches of white.

Habitat: Rush; Dalkey Sound.

I have great doubt whether this is not merely a young form of *P. longicornis*.

In conclusion, I have to lay before your Society a list of species obtained on the Dublin coasts, additional to those noted by me in a paper on the "Crustacea of Valentia Island" (p. 62), as in that paper it only contains those noted by myself, with a single exception. Several more species have occurred. The references used are the same as in my previous paper, and I have omitted the species there noticed.

LIST OF SPECIES.

W. T., Thompson's Irish Fauna; J. V. T., J. V. Thompson's Collection; C. C. S., Catalogue of Cork Fauna; O. C., Ordnance Survey Collection; W. M' C., collected by Wm. M'Calla. The localities uninitialled are on my own authority.

Stenorrhynchus phalangium.—Common laminarian to coralline zones; sometimes thrown ashore; specimens dredged in deep water agree with the details of a form described by Wm. Thompson as a form of *St. tenuirostris*.

Belfast (W. T.), Dublin, Cove (J. V. T.), Dingle (W. Andrews, Esq.), Galway, Killeries (W. T.).

Inachus dorynchus.—Not uncommon; Malahide, Dalkey, same range as last.

Belfast (O. C.), Dublin, Galway, Roundstone (W. M' C.).

Inachus Dorsettensis.—Rarer than *I. dorynchus*.

Belfast (W. T.), Dublin Bay, Cove (C. C. S.), Roundstone (W. M' C.), Killeries (W. T.).

Eurynome aspera.—Rare; Bray, 25 fathoms.

Belfast (W. T.), Malahide (Dr. Lloyd), Cove (C. C. S.), Dingle (W. Andrews), Roundstone (W. M'C.).

Pilumnus hirtellus.—Rare; occasionally washed ashore. A fine specimen thus obtained on North Bull by V. W. Macnally, Esq., 1856; South Bull, 1857. Dalkey, rock-pools.

Carnlough, Antrim (O. C.), Dublin Bay, Youghal (W. T.), Court-macsherry (Professor G. J. Allman), Lahinch (W. T.), Roundstone (W. M'C.).

Portumnus variegatus.—Merrion strand, common after easterly gales.

Portrush (W. T.), Dublin Bay (omitted in southern lists), Roundstone (W. M'C.), Killala Bay (W. T.).

Pinnotheres pisum.—Common in Mytili and Modioli from deep water.

Belfast (W. T.), Dublin, Cove (J. V. T.), Galway (Prof. Melville).

Atecyclus heterodon.—Rare. Merrion, under stones, 1854, young specimens.

Co. Donegal (O. C.), Portmarnock (R. B.), Dublin, Dingle (Wm. Andrews, Esq.).

Corystes Cassivelaunus.—Sandy beaches after gales; common.

Belfast (W. T.), Dublin, Cork (C. C. S.), Dingle Bay, 25 fathoms (W. Andrews, Esq.), Roundstone (W. M'C.).

The remainder of the species to be noted appear to have been neglected. Information regarding their distribution is much wanted.

Pagurus Bernhardus, var. *Eblanensis* (*mih*i); (? species).—Dalkey, 15–30 fathoms; Bray, 25 fathoms.

P. Prideauxii (?).—What appears to be this species occurs, though rarely, along with *P. Bernhardus*, in whelk-pots at Dalkey and Bray; also drift-weed, Merrion strand, in shells of *Buccinum undatum*, *Fusus propinquus* and *islandicus*, *Trochus magus*, &c.

Strangford Lough (W. T.), Dublin Bay.

P. Cuanensis.—Dalkey Sound, 10–15 fathoms, rare; Bray, 15–30 fathoms, much more common. Shells in which it occurs coated with *Halichondria suberea*?

Portaferry (W. T.), Cork, as *P. erinaceus** (J. V. T.), Dublin, Galway (Prof. Melville).

P. Hyndmanni.—Dalkey Sound, common; Bray, ditto; Merrion strand, very rare (W. V. Macnally, Esq.). Occurs generally in *clean* shells of *Trochus tumidus* and *Montagui* and *Nassa incrassata*. In spawn in February.

Portaferry (W. T.), Dublin Bay.

P. Thompsoni.—Same localities as last; much rarer. In spawn in March.

Belfast (W. T.), Dublin.

* The specimen thus marked is in the collection of the Royal Dublin Society. It is too much damaged to judge of its identity. W. Thompson pronounced it identical with the species described by him as above.

- Galathea strigosa*.—Dalkey, whelk-pots; rare.
 Belfast (O. C.), Dublin Bay, Cork (J. V. T.), Giant's Causeway (W. T.).
- G. nexa*.—Merrion strand, 1854; a single specimen, Bray.
 Antrim (W. T.), Dublin (Robert Ball); a most puzzling species.
- Porcellana longicornis*, var. *priocheles (mihi)* (? species).—Dalkey Sound; Rush.
- Nephrops Norvegicus*.—Dublin Bay.
 Belfast (W. T.), Dublin Bay, Galway, Roundstone (W. M'C.).
- Crangon vulgaris*.—In pools; small in size. Merrion strand, Malahide, Bray. In spawn in February.
 Belfast (W. T.), Dublin, Youghal (W. T.), Galway, 1857.
- C. sculptus*.—25 fathoms, Bray, rare.
 Dublin, South Isle of Arran (Prof. Melville).
- C. trispinosus*.—Of this species, hitherto unnoticed as Irish, there are specimens among a number of minute Crustacea, obtained by Dr. Ball and Prof. E. Forbes, off the Skerries, in 5 fathoms of water, in 1845.
- C. Allmanni (mihi)*.—Bray, 25 fathoms. Spawns in February.
- Hippolyte varians*.—Dalkey Sound, Bray, Merrion strand, in drift-weed, rare.
 Belfast (W. T.), Dublin, Cork (C. C. S.), west coast, 84 fathoms (W. Andrews, Esq.), Clew Bay (W. T.).
- H. Cranchii*.—With last, than which it appears more common; some specimens have the apex of the rostrum simple (? species).
 Dublin, Cork (C. C. S. and J. V. T.), Galway (Prof. Melville).
- H. Thompsoni*.—Same localities as last; rare.
 North-west coast (W. T.), Dublin.
- Pandalus annulicornis*.—Very common in rock-pools, and every depth to 30 fathoms.
 Co. Down (W. T.), Dublin, Ardmore, Tiraght Rock, west coast, 84 fathoms (W. Andrews, Esq.), Galway, 1857, Killeries (W. T.).
- Palæmon varians*.—Apparently rare, but probably only unnoticed.
 Merrion strand, in sand-pools.
 Belfast (W. T.), Dublin.
- Mysis chameleon*.—Merrion strand, on drift-weed, rare. Malahide, 5 fathoms; Dalkey.
 Belfast (W. T.), Dublin, Cork (J. V. T.), West Coast (W. T.).
- M. vulgaris*.—Merrion strand, pools, abundant.
 Belfast (W. T.), Dublin, Cork (J. V. T.), Lahinch (W. T.).

From this list it appears that the Crustacea are fully as well represented on the eastern as on the western shores. Want of sufficiently detailed observations prevent any more particular conclusions being drawn; but, though I have omitted one or two species, such as *Ebalia Pennantii* and *Cranchii*, *Crangon fasciatus*, *Palæmon Leachii*, &c., of which Dublin specimens are extant, the list is a fair average one of the district, and exhibits the remarkable absence of the South British and Southern types, and a great predominance of Celtic and European, just as might be ex-

pected from the position of Dublin, half-way between Ardglass Head and Carnsore Point, between which two points the true eastern marine district of Ireland lies, the great southern province prevailing below the latter point. The new Crangon most probably belongs to either the Celtic or British types, as otherwise the absence from British lists of this conspicuous species is not very creditable to the observative powers of our collectors.

Numerous examples of the several species described illustrated these remarks.

Rev. Professor Haughton corroborated from observation Dr. Kinahan's surmise with regard to Carnsore Point. The shells to the south are very distinct in their types, from those occurring even a very short distance north of this point.

DR. WILLIAM FRAZER next submitted the following, as the result of his investigations regarding the Fungi presented at the former meeting by G. V. Du Noyer, Esq., from Major O'Connor, and which he had been requested to examine and report on.

REMARKS UPON SPECIMENS OF FUNGI, OBTAINED ADHERING TO OLD TREES
UNDER A BOG NEAR TRALEE.

THESE specimens of fungi were, I understand, obtained adhering to oak timber which lay upon gravelly clay, and was covered by about thirteen feet of bog.

They are evidently specimens of "Polypori," a class of fungi characterized by the presence of innumerable "subrotund pores separated by their dissepiments, and having the hymenium concrete with the substance of the pileus;" and I have also no difficulty in referring them to the second subdivision of this class, namely, those furnished with minute, subrotund (not angular), pores. That they were "stemless and perennial," their numerous layers of growth, the results of successive seasons of development, amply demonstrated. Thus, out of forty-five species of Polyporus described in the Flora Britannica, I am restricted to about thirteen, to which only do these specimens present any analogy, and of these I have little difficulty in deciding that they most closely resemble *P. igniarius*, or the hard Amadou, of which I exhibit a specimen which had been growing for some years past on an old decaying plum tree, and although at first sight it appears to be very different in external form from the specimens from Tralee, I am pretty certain, at least, as to their close relationship. The difference between them in form is easily explained by the mode of attachment and development in both cases. The recent ones adhering to a great trunk, and creeping along its side in successive waves of growth; and the older ones closely resembling in shape a "horse-hoof," to which Mr. Berkely compares them, and which was probably due to their more erect growth on a fallen log of timber. The detection of undoubted remains of fungi in a semi-fossilized state is, I believe, extremely rare, and I am disposed to think that the fact is, as has been stated by Lindley, not to be so much attributed to their positive