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.

VOL. II.

DUBLIN:
PRINTED FOR THE SOCIETY,
BY M. H. GILL.
1860.

Palæmon serratus.—Very common.
P. squilla.—Very common.
P. Leachii.—Common in autumn.
Mysis vulgaris.—Common.

Besides these, numerous specimens of the genera Alauna, Bodotria, and Cuma have been met with. These genera, or at least Bodotria, are synonymous with *Scorpionura* of J. Vaughan Thompson, as may be seen by examination of the specimens under that name in his collection in the Royal Dublin Society's Museum.

Professor Kinahan next submitted the following—

NOTES ON THE FOREGOING PAPER, WITH A SUPPLEMENT TO HIS LIST OF DUBLIN CRUSTACEA.

The interesting paper just read contains several species not included in either of the papers on this subject which I have had the honour to submit to your Society during the present session. In order that our Transactions for this year may contain all that is known of the distribution of this family of Crustacea in Ireland, I have supplied the distribution of these species, taking the opportunity of adding, at the same time, a supplement of those eastern species (some of them of extreme interest, and one of *H. pusiola*, not previously here recorded), which have occurred to me since.

Although such a large number of Crustacea (sixty-three out of eighty-seven species) are recorded in this paper, yet, during a day's dredging in Galway Bay on the 27th of March last, when in company with Professor Melville, among twenty-two species which rewarded our labours, three occurred which had not been previously met with there by him, viz., *Portunus holsatus*, and *Pandalus annulicornis*, and a young specimen of *Portunus marmoreus*, a species hitherto unrecorded save in Birterbie Bay.

DISTRIBUTION OF SPECIES NOT INCLUDED IN DUBLIN LISTS.

References as in former paper—A. G. M., Professor Melville.

Achæus Cranchii.—The only Irish specimen on record, formerly in J. V. Thompson's collection, was lost previous to the transfer of that collection to the Royal Dublin Society.

Pisa tetraodon.—First discovered by W. M'Calla.

"I am the only person who as yet has found this species in Ireland; its habitat is within two miles of Roundstone, in a pool at about half tide-mark. As particular situations are distinguished by algæ growing in the pools, it may, therefore, be well to state the plants in that under consideration:—*Gelidium corneum*, *Polys. fruticosa*, and *Cystos. ericoides.* Owing to changes in the pools, I have not lately obtained this species; I have not found it in lobster-pots, and rarely under stones."—*Saunders' News-Letter*, January 9, 1845.

Xantho rivulosa.—I find I was in error in stating this crab had not occurred to M'Calla. At least, a card has lately turned up in the Royal Dublin Society's collection, labelled "*Xantho florida*, Roundstone," which was most probably part of the collection purchased from M'Calla; on this, undistinguished by any mark from numerous specimens of *X. florida*, is a fine male specimen of *X. rivulosa*, which must have escaped M'Calla's notice. It would then appear to be generally distributed along the south and western coast.

Hook Head (R.B.)—Valentia Island, Galway Bay (A.G.M.), Roundstone Bay (W. M'C.), Portrush (O. C.)

Portunus marmoreus.—Galway, Roundstone (W. M'C.)

Ebalia Bryerii.—Belfast (O. C.), Galway (A. G. M.), Roundstone (W. M'C.)

Ebalia Cranchii.—Belfast (O. C.), Portmarnock, Co. Dublin, *q. v.* (R. Ball), Roundstone Bay (W. T.)

Thia polita.

I had the pleasure of seeing this crab dug out of its sandy home, Professor Melville having kindly accompanied me to the station where, in 1850, he first met the species,—a fine female specimen, that now before your Society, was the only one met with. It bore the journey to Dublin in a small tin box packed in wet sand remarkably well, and has since been kept in a small vivarium.*

This crab has given rise to some discussion as to whom the priority of its discovery in Ireland is due. Having been lately looking over the back Transactions of this and other Societies, I find myself in a position to clear up much of the mystery of this "knotty" point. I hope, therefore, it will not be considered to be trifling with the time of the Society if I lay before them the results of these investigations.

Thia polita was first detected by that indefatigable collector, W. M'Calla, in Roundstone, in 1845; he failed in identifying it, as the following extract from a paper read by Dr. Charles Farran before your Society, January, 1845, proves:—

"This winter I have added two species, *Portunus marmoreus*, I have not been able to determine the genus of the other: one thing is certain, it is new to Britain, if not to science. The undetermined species was found in shallow water, at extreme low water-mark; I obtained five specimens. Having paid considerable attention to the Crustacea, I had no hesitation in writing to Dr. Scouler that I had been so fortunate as to have added a new genus to this department."—*Saunders' Newsletter*, January 9, 1845. (*Vide* also Report of Dublin Natural History Society for 1844–45, p. 17.)

The species was subsequently identified, and published by Professor Scouler, in a paper laid before this Society in January, 1846, as the following shows:—"Dr. Scouler then brought forward the dis-

* Still alive and healthy, although now three months in confinement—June 28, 1857.

covery of, and addition to, the British Crustacea of *Thia polita*. This remarkable and beautiful little crab was found near Roundstone, Connemara, by Mr. M'Calla, where it burrows in sand; only one species of the genus is described as European, and this discovery is an important addition to the Crustacea of Britain. A very fine female specimen was exhibited from the Museum of the Society; a smaller one, a male, is in the collection of the Dublin Society."—*Saunders' Newsletter*, January 9, 1846. *Vide* also Eighth Report of Dublin Natural History Society, page 8.

M'Calla himself also brought the discovery before one of the Evening Meetings of the Royal Dublin Society, held 28th of February, 1846. (*Vide* Proceedings, Royal Dublin Society, vol. lxxxiii., Appendix xv., p. cxiii.; and vol. lxxxii., Appendix v., p. xlv.) This last paper purports to have been read on the 10th of January, 1846, but must have been corrected subsequent to this date. Professor Scouler, furthermore, presented specimens to the British Museum, as appears by reference to their Catalogue published in 1847.

By some mischance or other, however, it escaped the notice of English naturalists, and when in 1850 Professor Melville, ignorant of its previous occurrence on our shores, met with the species in Galway, he, having first identified it from the description given by Milne Edwards, forwarded specimens to Professor Bell, by whom it was published as an addition to the British Fauna in the Supplement to his British Stalk-eyed Crustacea. Professor Melville himself was one of the first to point out the apparent injustice done to M'Calla.

The species, from my experience of it in confinement, is sluggish, but a determined animal feeder, destroying even large bivalves, Actiniæ and Palæmons, some 2 inches long; it is also apparently a night-feeder. Galway Bay, Roundstone (W. M'C.)

Munida Rondeletii.—Belfast (W. T.), Youghal (R. B.), Cove (J. V. T.), Galway (A. G. M.), Roundstone (?) (C. F.)

Crangon spinosus.—Cove (J. V. T.), Galway (A. G. M.)

Nika edulis.—Cove (J. V. T.), Roundstone (A. G. M.)

Athanas nitescens.—Lahinch (W. T.), Ballyvaughan (A. G. M.), Roundstone (W. M'C.)

Supplemental Dublin Species, pp. 80–87.

Pirimela denticulata.—Dalkey Sound, dredged a single female specimen, May, 1857, loaded with ova. After it had been kept in a tank for three weeks, the ova changed their colour from a bright salmon-red to a dirty brown: this change examination with the microscope showed to be dependent on the development of the zoes in the ova, their black eyes showing plainly through the integuments. I was unable at the time to examine them further; and the following day, to my great regret, I found that the ova were all shed, and the tank filled with zoes.

These were extremely active, tumbling about in all directions, swimming by alternately rolling up and unclosing their jointed bodies, and throwing complete summersaults; when they rested, it was on their

backs, the body supported on the dorsal spine. I do not know whether this is the normal position for them or not. The abdominal false feet were kept in perpetual motion.

In figure (Plate IX., Figs. 4, 5) they appear identical with zoes bred by J. V. Thompson from *Canc. pagurus* (Zoological Researches, Plate VIII., Fig. 1), as might have been expected from the close relationship of the genera; indeed, I am inclined to think that the zoes of the Brachyura, at least, will be found to be nearly undistinguishable, the apparent difference in the figures published arising from the difficulty of making perfect microscopic observations, arising from the transparency of the various parts. If we compare the figures here given with Thompson's figure of zoea of *Pinnotheres pisum* (Ent. Mag., vol. iii., p. 85; Bell's British Crustaceæ, p. 125), we will at once perceive their strong similarity. Although I examined twenty or thirty specimens of this zoe, I only succeeded twice in getting the lateral spines in full view: they are represented rather too long in my figures.

The spiny curvature was as follows:—Arising out of the centre of the carapace a long, curved horn; between the eyes a curved rostrum; on each branchial region a short scimitar-shaped horn; and lastly, a very short, slender, hollow horn, arising from the posterior edge of the carapace at its junction with the abdomen. Three fine hairs, also, are found arranged in a line along the median line of the carapace posteriorly.

The abdomen consists of five segments. The first, or that nearest the cephalo-thorax, with a protuberance about half-way down, and furnished with a hair (represented as a spine by the artist) at its inferior external angle; this joint is somewhat quadrilateral. The second, third, and fourth decrease gradually in size, and the terminal joint ends in a semilunar tail (Fig. 6, back view, magnified 350 diameters) furnished with six tubular spines, each distinctly articulated to a jointed peduncle; the edges of these spines are finely serrately ciliate, and the internal pairs furnished internally each with three hollow spines communicating with the cavity of the primary spine; a short spine is also found at the origin of each semilunar arm; a plate of very peculiar form arises from the articulation of the fourth and fifth joint posteriorly, and projects below the termination of the tail; in other particulars my specimens agree with J. V. Thompson's descriptions.

The circulation, as seen under a power of 350 diameters, is extremely curious: a closed (?) pulsatile vessel running down the back, with dilatations at each articulation; in this a regular flux and reflux of fluid might be seen, accompanied by dilatations and contractions of the dilated portions. Besides this, a regular circulation, whose course was not easy to make out, was to be seen passing along the sides and through the horns, and even into the three little hollow spines with which the caudal primary spines were furnished.

Antrim (W. T.), Dublin, Dingle (W. Andrews), Lahinch (W. T.), Galway (A. G. M.), Roundstone (W. M'C.)

Ebalia Pennantii.—Bray, May, 1857, Scallop bed. The late Robert Ball, LL. D., showed me a specimen from Dalkey.

Belfast (O. C.), Dublin, Cork (C. C. S., J. V. T.), Galway (A. G. M.), Roundstone (W. M'C.)

Pagurus lævis.—What I take to be this species has occurred to me both in Dalkey and also at Bray; it differs from *P. Hyndmanni* chiefly in the comparative length of chelæ.

Portaferry (W. T.), Dublin (?), Galway (A. G. M.)

Galathea nexa.—A small species, which I take to be this, occurs pretty plentifully in Dalkey Sound and Bray, in 12–30 fathoms; it spawns in March, April, and May.

As contrasted with *Galathea squamifera,* the following points call for notice:—

Rostrum short, furnished with *four* flattened, hollowed teeth on each side; the hindmost pair situated on the orbit. (In *Gal. squamifera, five* spines, the hindmost two as *G. nexa*). Anterior pair of legs narrowed, elongate, covered with a few tubercles, terminating, for the most part, in a single spine; some, however, pass into denticulate squamæ: these tubercles are arranged on the hands in *nearly parallel longitudinal lines,* contrasting with the densely squamiferous anterior limbs of *G. squamifera.* The hands are *narrow and elongate, the fingers nearly parallel,* finely denticulate, scarcely hairy, terminating in a fine nail; they are slightly spinous on the exterior. External foot-jaws, second joint equalling third. The description of *G. nexa,* in Bell, is so succinct that I am not quite sure whether this may not be a nondescript species.

Antrim (W. T.), Dublin (?)

Palinurus vulgaris.—Although rare, there can be no doubt this species has occurred in Dalkey Sound, and of large size.

Astacus fluviatilis. — Once, at least, in Bray River; common in streams about Maynooth, and also formerly taken in the Liffey. I have seen specimens from the following counties:—Longford, Cavan, Tipperary, Kildare, Dublin, Kilkenny, Meath. It is probably to be found nearly all through Ireland.

Crangon fasciatus.—Of this rare species I met with specimens at Sandycove, in the sandy pools, in a zostera bank at extreme low water. Spawns in May. Every one of my specimens shows the broad black band most distinctly.

Dublin, Bray (R. B.), Galway (A. G. M.)

Hippolyte varians.—This species occurs in great numbers in the sand-pools among the zostera banks at Sandycove, near Kingstown; spawns in May. The specimens vary remarkably and beautifully in colour: pink, red, salmon, emerald-green, cobalt-blue, gray, chocolate-brown, opal white, are among the prevailing tints; the ova of a chocolate brown.

It is remarkably sensitive of handling; in no case could I succeed in keeping it for over forty-eight hours in a tank, although specimens of *Crangon fasciatus* and *Mysis chameleon,* from the same locality, lived with me for days. A volume might be written on the forms of the beak

of this species. I have figured (Plate X.) the best-marked varieties, which occurred in the following proportions:—

Plate X., Fig. 1.—*a*, Normal type; rostrum nearly straight; apex bidentate, directed upwards, upper tooth shortest; below two teeth, the anterior much posterior to the upper tooth of apex; proportional frequency of occurrence, 63 per cent.

Fig. 2.—*b*, Rostrum straight; apex tridentate, teeth directed forwards, upper and lower teeth nearly equal in length; below, one tooth only; proportional frequency, 25 per cent.

Fig. 3.—*c*, Rostrum strongly curved upwards, scimitar-shaped; apex tridentate, upper tooth slightly longer than lower; below, a single tooth; proportion, 8 per cent. N. B. The whole animal is much slenderer than the normal type: query, *a species?*

Fig. 4.—*d*, Rostrum straight; apex broadly truncated, directed forwards, quadridentate, apical teeth very minute; below, two teeth; proportion, 2 per cent.

Fig. 6.—*e*, Rostrum straight; apex acuminate, *simple*, directed upwards; rostrum with two teeth below. One specimen out of 300 examined.

Fig. 5.—*f*, Rostrum straight; apex bifid; rostrum with *three* teeth below, viz., one beneath apex and two closely approximated in the broadest portion of the rostrum. One specimen.

All these specimens, in addition, have the basal superior tooth (characteristic of the species). Another curious form had the the rostrum very much curved upwards, apex simple, and teeth below absent. These all were from the same pools, in company with the next species, *Mysis chameleon*, *Carcinus mænas*, *Cancer pagurus*, and that strange edriophthalmous Crustacea, *Apseudes talpa*, its first record, I believe, on the Irish coasts.

For distribution, see Paper read in April.

H. Cranchii (Plate X., Figs. 7 and 8).—In the same pools with last, but rarer; in spawn in May; spawn of a chocolate-brown colour; varieties with three and four teeth on the rostrum occur.

H. pusiola (*Kroÿer*) (Plate IX., Fig. 2, *a*, *b*, *c*; and Plate X., Figs. 9, 10).—I first met this species, in 1854, in Dalkey Sound, when I laid it aside as a variety of *H. Cranchii*. The constancy of its characters have since caused me to alter this opinion, and, not finding it described in any of the English or French authorities, I was led to describe it as new, under the name of *H. Andrewsii*. Since then, however, a paper of Kroyer's on the Hippolytes of the North, published in the "Royal Danish Society's Transactions," has come into my hands, in which I find a species described as *H. pusiola*, which I must look on as identical with that under consideration: I, therefore, feel compelled to adopt Kroyer's name, for the present, or until better informed on the subject.

The species is known to the English naturalists, by whom it is looked on as—that zoological convenience—a "mere variety" of *H. Cranchii;*

but the characters which mark it out are so constant and trenchant, that I feel no hesitation in asserting its claims to *specific* distinction, and most probably it will be found to be one of our best-marked northern types, as I have not seen any specimens of it in southern or western collections, and the only notice I find of it in English works is by Dr. Howden, Scotland.

HIPPOLYTE PUSIOLA (*Kroyer*).

Rostrum short, curved upwards; *apex acuminate*, 3–4 dentate above; below unarmed; a strong tooth arising from carapace immediately over eye; median plate of tail 4 pairs of spines; wrist of second pair of legs 4-jointed.

The whole animal is much larger and more truncate than *H. Cranchii;* the rostrum narrower; apex slightly curved upwards, simple; the rostrum armed with 3–4 curved teeth above; external antenna as long as the entire body; the antennal scale rounded at its inner superior extremity; the lateral tooth terminal and its peduncle strongly toothed externally; internal antennæ hairy, the inferior external angle of the articulation prolonged into a curved scimitar-shaped lobe, the superior angle prolonged into a tooth; second and third articulations also toothed; anterior feet slightly shorter than antennal scale, stout.

Second pair of feet,—wrists made up of four articulations, the total number in the whole limb being eleven, including the hand; the first, second, and third very short and somewhat triangular; the fourth, fifth, and sixth long, slender, and equal among themselves; seventh, slightly shorter, cylindrical, slender, a few scattered hairs over its external surface; eighth and ninth very short, scarcely conjoined equalling seventh, equal and globular; tenth, equalling seventh. A strong tooth over each eye at base of rostrum, and a small tooth over origin of antennæ.

Colour, rose-pink or green, though there is much variety in this; one specimen (a female), taken in May, was coloured as follows:—Carapace, a transparent clear pink, with which the emerald-green masses of extruded ova contrasted most vividly, tail and segments of legs being banded with white and rose colour. Another specimen was even more vividly coloured:—Carapace clear cobalt-blue, through which the emerald-green masses of ova shone, the remainder of the body a clear pink; the legs prettily banded with a darker red.

It has only occurred to me in comparatively deeper water, as at Bray and in Dalkey, where it is frequent in the lobster and crab pots. Of its distribution nothing is known: it has been recorded in Scotland by Dr. Howden, from Frith of Forth and Orkney.

The characters of the rostrum and carapace; second pair of legs, median plate of tail; size; and difference of locality separate it markedly from *H. Cranchii* (*vide* Plate X., Figs. 7, 8, 9, 10, and Plate IX., Figs. 2A, 2B).

Palæmon squilla.—Extremely common in rock-pools, especially among *Enteromorpha intestinalis.* In ova in May, April, and June. Of one remarkable form of this species (?) I have figured the beak (Plate X., Figs. 11, 12, 13, 14); it is invariably much smaller than the normal

type, and frequents pools which are less frequently visited by the tides. In colour and other characteristics I find such a close accordance, I must look on the characters drawn from the beak as not of specific importance, the only other difference being in the comparative weakness of the didactyle hands. The following are the varieties in the number of teeth of the rostrum met with:—Apex bidentate, above 7–10, below 2–4; apex simple, above 7–9, below 2–3; the commonest form being 7 or 8 above, apex bidentated, and 3 below.

Belfast (W. T.), Dublin, Galway; doubtless confounded with *P. serratus* in lists.

P. Leachii.—I have seen no authentic Dublin specimens of this species; all those shown me either preceding species, or *P. varians.* I have collected specimens in Galway, and Professor Melville showed me numerous specimens collected there by him. The specimen thus named in J. V. Thompson's collection is not this species, but the variety (?) of *P. squilla,* described above.

Dublin (?), Galway.

Mysis chameleon.—Much commoner than I formerly stated; very abundant in sand-pools; in ova in March, April, and May. The ova are easily hatched, and the young are similar to the parent when extruded.

Before concluding, it may be interesting to compare the relative distribution of the genera and species in the east and west, when we arrive at the following results, excluding from our comparison those strange forms, Bodotria, Alauna, &c.

BRACHYURA.

Common to both districts, ...	23	
Unrecorded in east, made up as follows:—Achæus, *Pisa,* Maia, *Xantho* (3?), Portunus (2), Ebalia (?), *Thia.* Those genera peculiarly typical italicized, .	10	
Unrecorded in west, ...	0	
Brachyuri,	—	33

ANOMOURA.

Common to both, ...	11	
Unrecorded in east, viz., Pagurus (1), *Munida* (?), .	2	
Unrecorded in west, viz., Pagurus (1), Galathea (1),	2	
Anomoura,	—	15

MACROURA.

Common to both, ...	11	
Unrecorded in east, viz., Crangon (2), *Alphæus, Nika, Athanas,* Palæmon (1), Hippolyte (1), . .	7	
Unrecorded in west, viz., Hippolyte (1), Crangon (2), Palæmon, ...	4	
Macroura,	—	22
Stomapoda, common to both, ...	2	
Omitted in above list, ...	8	
	—	10
Total *Crustacea podophthalmia,*		80

The Irish species unnoticed in these lists are—

Inachus leptocheirus.

Belfast (O. C.), Clifden (W. T.)

Xantho tuberculata, Polybius Henslowii, Pinnotheres pinnæ.—Obtained once in the south.

Gebia deltura, Callianassa subterranea, Calocaris Mac Andreæ.—Obtained once in the north.

Pasiphæa sivado.—A single specimen in Dublin Bay.

Careful research will, doubtless, disturb these conclusions slightly; and I am sure that many unrecorded species, especially among the Anomoura and Macroura, yet remain to reward the labourer in these prolific fields of watery research.

In conclusion, with regard to the provisional species recorded in my last paper, as I suspected, *Porcellana priocheles* appears to be one of the young states of *P. longicornis; Pagurus Eblanensis* I strongly suspect is the true *P. Ulidianus* of W. Thompson; and *Portunus carcinoides* (Plate IX., Fig. 3, *a*, *b*, *c*) is a good species; it comes very close, however, to Otto's *P. infractus*, which is included by Bell among the synonyms of *P. longipes*, Risso, from which the trilobed front and length of legs would separate my specimen.

I would also correct an error in my description of *C. Allmanni* (pp. 81, 82), in describing the arm of that species as smooth in many specimens: it is distinctly spined.

After the conclusion of Dr. Kinahan's paper, the Chairman declared Alexander Henry Haliday, Esq., F. L. S., M. R. I. A., duly elected an Ordinary Member.

The meeting was then adjourned till May.

FRIDAY EVENING, MAY 1, 1857.

Charles P. Croker, M. D., M. R. I. A., V. P., in the Chair.

The Minutes having been read and confirmed,—

Mr. W. Andrews read the following—

NOTES ON THE ORNITHOLOGY OF THE COUNTY OF KERRY.

It has always been my opinion, that the zoology of the western portions of this country, embracing the whole range from north to south, had yet to be developed, and that it may be said that scarcely two-thirds of the species have as yet been recorded. Our knowledge of the marine zoology of the western coasts is still very imperfect, especially as regards the deep-water species. Thus, it were an interesting inquiry to trace the peculiarity of habits of those species which, though common on our shores, and animals of the most delicate and fragile texture, are yet found of frequent occurrence in deep-water soundings.

My chief business this evening is with reference to notes on the birds of this country that are considered "occasional or very rare visi-

tants." These expressions frequently appear in works on British ornithology, and I am satisfied must be considered as owing to the want of proper information, arising from a lack of observation throughout each season of the year, and especially from ignorance of the characteristics and habits of birds in the immature states.

There are several of the gentry whose tastes lead them to make collections of the birds of their immediate neighbourhood, and others who occasionally note occurrences that appear singular or strange to them; but still there is a general dearth of knowledge of seasonal records throughout the country. The collections of my friend, R. Chute, Esq., of Chute Hall, near Tralee, testify, by the great amount of interesting objects he has obtained, what individual zeal can accomplish. The sub-alpine districts of Kerry, with their numerous lakes, estuaries, extensive marshes, and wooded glens, still afford ample fields for observation; and we shall yet learn, through well-directed and continued observations, that the records of—" must only be considered of extremely rare occurrence," should be, " by no means uncommon."

Thus, the immature Iceland Gull (*Larus Islandicus*), I am sure, is, at certain seasons, frequent on the west coast. It has been shot near Tralee, and the immature bird has been seen in numbers.

In the Transactions of this Society are recorded the immense flocks of the Greater Shearwater (*Puffinus major*) seen in Dingle Bay, and also notes of the Bridled and Brunnich's Guillemots (*Uria lacrymans* and *Brunnichii*), having been observed breeding on the Tiraght Rock. The former bird, with the eggs, have been obtained at the entrance of the Shannon, by Henry Burton, Esq., of Carrigaholt Castle. The King Eider Duck (*Somateria spectabilis*), and several rare species of Tringa, have also been captured in Kerry.

The Martinique Gallinule (*Gallinula Martinico*), which was captured in the living state in a drain at Clehane, Brandon, county of Kerry, was at first by Mr. W. Thompson supposed to be, and described as, the Sicilian Gallinule (*Porphyrio hyacinthinus*), from the supposed impossibility of a bird of the United States of America being met with in Ireland. An examination of its characters satisfied me it must be the Martinique Gallinule, and I wrote so to Mr. W. Thompson, who afterwards admitted that my views were correct.

The Dusky Petrel (*Puffinus obscurus*), a bird of Australia, was also obtained alive off Valentia Island, and was exhibited in this Society in 1854.

The Bohemian Waxwing (*Bombycilla garrula*) has several times been noticed in Kerry. A very beautiful specimen is in the Museum of the Society, taken near Miltown, county of Kerry, and presented through the kindness of one of the Members, Joseph Anderson, Esq.

You have already had recorded the Membranaceous Duck (*Malacorynchus membranaceus*), which was shot in Castlemaine Bay, where six were observed together, and supposed by the sportsman to have been teal. It has been remarked, that this bird " could not have occurred in

Kerry except as one escaped from confinement." I believe in no British collection has this species existed but in that of the late Earl of Derby, and I have been informed that none were lost from that collection. It might just as well be imagined that the Great Spotted Cuckoo (*Cuculus glandarius*) and the Belted Kingfisher (*Alcedo alcyon*) were escapes from confinement.

The two very fine specimens of the Crane (*Grus cinerea*) which are in our Museum, were shot the same season in this county, one of them near Ballinskelligs Bay, county of Kerry, out of a flock of five. It was sent to me by my esteemed friend, the late Maurice O'Connell, Esq., of Derrynane Abbey, supposing it to be the Great American Heron (*Ardea Herodias*), which, with the exception of its great size, is similar to the Common Heron of Europe. The former bird averages 4 ft. 7 in. in height, and weighs 7 lbs., while the latter but 3 ft. 3 in., and weighing 4 lbs. *Ardea Herodias* frequents the gloomy solitudes of the tallest cedar swamps of New Jersey; the Common Heron (*A. cinerea*) is not an inhabitant of the United States. The extreme length of the crane obtained in Kerry was 4 ft. 7 in., and its weight was 12 lbs. Mr. O'Connell was led to suppose the bird American from numerous incidents he had noticed: he was an admirable shot and sportsman, and a great admirer of the writings of "glorious old White of Selborne," as he termed him.

Thus in one of his numerous communications he remarks with regard to the woodcocks:—

"My observations lead me to suppose that we have two immigrations—one from the northern parts of Europe, the other from America. I have shot what certainly appeared to be two varieties, if not distinct species: one much smaller than the ordinary woodcock, more of a rufous colour, and destitute of the varied markings which distinguish the latter. I have met male and female of both kinds, and have shot both kinds late in the season when paired, each with a mate of its own description. A friend who was with me in the winter of 1840 (Captain Broderick, 34th Regt.), and who had just returned from Canada, where he had shot many dozen braces of woodcocks, was at first incredulous as to the fact of the immigration from America. On going out with me it happened that the first couple of birds we flushed were of the smaller kind. We met them at some hundred yards' distance from each other, and at an interval of a quarter of an hour on an open mountain, where we had a full opportunity of observing them. He appeared surprised on seeing the first; but when the second rose he turned to me and said, 'You are right—these are exactly the American birds, wherever they came from.' Unfortunately we did not get shots at either of these birds, and killed but one of the kind after, as the day became bad; but he admitted, on examining that closely, that it was, as he called it, 'a Yankee bird.'"

The American woodcock differs much in size from that of Europe, the male bird scarcely averaging six ounces, and the female eight ounces; while the European birds exceed twelve ounces. The lower parts and

breast of the European woodcock are marked with large spots and zig-zag transverse lines and bars of black on a pale dull yellow and gray ground. These marks are altogether absent in the American bird, whose colour on the breast is bright ferruginous; the back and scapulars are of a lighter colour, and not so deeply marked. The small specimen which is now exhibited was obtained from Nova Scotia.

One of the Mr. O'Connells, of Grena, near Killarney, informed me that some years since he had seen nailed on a door by one of the game-keepers a jay, identical with the American blue jay (*Garrulus cristatus*).

In the month of June, 1855, when for a few days at Killarney, I met on the grounds of the Lakeview Hotel a man with a young bird of the spotted eagle (*Aquila nævia*). I was anxious to obtain it, but he said that he had promised it for sale to a gentleman whose return he was waiting from boating on the lake; his price was £1. On the following morning he called to leave the bird with me; but both at the Hotel and at Mr. Boylan's (Lord Kenmare's steward), in whose charge he wished to leave it, it was refused, as I was absent. I could obtain no trace of the bird, as the man had to return to his home westward in the Reeks, in which part of the country, in a mountain towards Cahirciveen, he had taken the bird from the nest. Its much smaller size, and the peculiar spotted markings which characterize the young state and bird of the first year left no doubt on my mind as to the species.

The Mergansers have been noticed to remain in Kerry throughout the year; and the Scaup Duck (*Anas marila*), with the eggs and the young, has been taken in an inland lake.

The bird which I now present to the Society, the Horned or Sclavonian Grebe (*Podiceps cornutus*, *P. obscurus*, in the young state), and which, in Thompson's Birds of Ireland, is quoted—"can be positively announced only as an occasional visitant," was lately obtained at the mouth of one of the streams near Lough Caragh, county of Kerry, where, no doubt, others will be met.

Through Europe this has the widest range of all the Grebes; but it has been considered as extremely rare in the British Isles. The markings are very perfect in this specimen; but the dark frill and the bright chestnut-coloured feathers or horns, which characterize the species, are not shown except in the breeding season. It is distinguished by its bright chestnut rufous-coloured neck, and by the rufous-coloured marks passing from the base of the bill to and through the eye to the occiput. This at once distinguishes it from the rare species, the Eared Grebe, *P. auritus*, which has not the rufous-coloured neck; the markings of the bill are also characteristic, the bill of *P. cornutus* being black, tipped with yellow, and the lower mandible marked with yellow, the belly silvery, and of a soft, silky texture.

Mr. J. B. Doyle remarked on the extreme interest of these observations. He thought it evident that, if we had more certain records of this kind, many birds at present marked in our list as rare stragglers

would be found to be more frequent visitors, especially in the west. There were many gentlemen resident in that part of Ireland who possessed interesting collections of birds captured in that district. He might mention one. In the collection of Edward Burton Eyre, of Clifden, the following rare birds, all captured about the Burren, were to be seen:—The Glossy Ibis (*Ibis falcinellus*), Bohemian Waxwing (*B. garrula*), Siskin (*Carduelis spinus*), Sabine's Snipe (*G. Sabini*). He had himself had the good fortune to have seen alive the specimen of the Martinique Gallinule to which Mr. Andrews referred, and there could be no doubt as to the circumstances connected with its capture. It was found alive, but exhausted, in Brandon, in a creek, but died not long after its capture.

The Rev. Professor Haughton brought forward a motion by which a new class of Members, to be called Associates, should be formed (*vide* end of Transactions). Undergraduates of the University to be especially eligible for this class of Membership. The Associates to have privileges of Members, to be resident in or about Dublin, and to be elected by a vote of the Society, on the previous recommendation of Council. The subscription for this class to be limited to 5*s.* a year, to cover expenses.

This was seconded by Dr. G. B. Owens, and, after having been fully discussed, was passed unanimously.

By a resolution of the Society it was also determined that Corresponding Members, paying 5*s.* annually in advance to the Treasurer, should be entitled to the Monthly Report of the Society's meetings, and a copy of the Society's Proceedings.

After due ballot, Edward Hamilton, M. D., 8, Stephen's-green, was declared duly elected an Ordinary Member.

The meeting then adjourned till June.

FRIDAY EVENING, JUNE 12, 1857.

PROFESSOR W. H. HARVEY, M.D., M.R.I.A., F.L.S., President, in the Chair.

The Minutes having been read and signed,—

PROFESSOR KINAHAN read some notes—

ON A REMARKABLE VARIETY OF TRICHOMANES RADICANS (KILLARNEY FERN).

THE form of this beautiful and well-known fern, which I lay before your Society to-night, was first brought under my notice by Mr. John Bain, the Curator of the University Botanic Gardens, and is peculiarly interesting, as affording an example, among the "Muscoid" ferns, of that form of monstrosity which is met with rather commonly in some genera of our native ferns, and for which I proposed the name of Laciniatum in a paper read before your Society in 1853. The departure from the normal form consists, as there stated, in a depauperation of the membranous portions of the frond, the more vascular portions remaining

unaltered, and the frond being in consequence generally either scalloped at its edges, or reduced to a linear condition. The fructification is generally absent in this form.

The causes or conditions which give rise to it are extremely obscure. In Scolopendrium it is generally most prevalent in plants from a dry station, but in Trichomanes I find it prevails in plants from the very wettest localities; for, since my attention was called to the form, I found, on examining a case of ferns, put up four years ago, that plants from a station of this kind, which I had then laid aside as young plants, have preserved their characters unchanged up to the present, nor do they show any appearance of fructification, though plants in the same case and from the same localities are loaded with fruit. These characters are permanent.

The plants exhibited were obtained by Professor Harvey some years back at Killarney, and have preserved their characters unchanged ever since. I may add, before concluding, that a careful examination of this fern, in its Killarney stations, has led me to conclude that the plants there are, so to speak, drawn up, and that the fact of the difference between them and those from Waterford and Glouin Caragh, as regards fructification and form of frond, are altogether dependent on a law which prevails among the ferns, that when the membranous portion of a frond is developed more than normally, it is so at the expense of the fructification. I may also add, that an examination of the Valentia Island station of this fern has convinced me that the plant has been introduced there.

The Chairman read a communication—

ON LONICERA XYLOSTEUM, AN ADDITION TO THE IRISH FLORA.

That well-known garden plant, which has been recorded as yet in only a few stations in England, *Lonicera xylosteum*, was found in 1852, in an undoubtedly wild state, at a great distance from cultivation, on the Kippard Mountain, in a copse near the Cabhole, about six miles from Mountmellick, by Mr. John Jessop, who forwarded this notice of its discovery.

Professor Kinahan read the following letter from Mr. G. V. Du Noyer, M. R. I. A., Associate Member:—

ON A REMARKABLE FORM OF ECHINUS LIVIDUS.

"*Dingle, Tralee, May* 21, 1857.

"My dear Kinahan,—The rough outline on the opposite page may give you some idea of an Echinus I found the other day on the rocks among seaweed, at the Coastguard station, Minard. I have taken possession of it, and intend giving it to the Natural History Society. As well as my memory serves me, I have not before remarked an Echinus of this particular shape; many of the creatures are four or five inches across, and proportionally high.

"Yours sincerely,

"George V. Du Noyer."

The specimen referred to was exhibited; its most remarkable characters were: the base, pentangular in outline; the summit, instead of being flattened, as in all the typical forms of *Echinus lividus*, is produced to a point, so that its height nearly equals its transverse diameter. The arrangement of the pores and tubercles of the *ambulacral plates* are identical with that in specimens of *E. lividus* from Valentia Island, but the *ovarian plates* and *nucleus* differ from those of *Echinus lividus*, and are, on the other hand, identical with the form of these parts in *Echinus sphæra;* in fact, in many of its characters this specimen is intermediate between these two species.

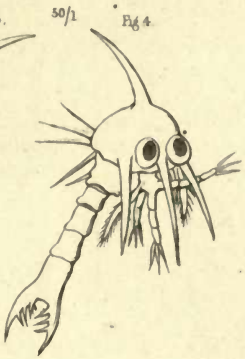
The specimen sent up unfortunately wants the spines, so that it is doubtful whether it may not be a species distinct from either *E. lividus* or *E. sphæra*. An *Echinus lividus*, pentangular in form, is recorded in Forbes's "British Starfishes," page 168, but no details are given, and the pentangular *E. sphæra* is well known.

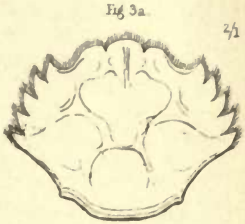
Professor Kinahan also exhibited a very fine living specimen of the spiny crossfish, *Uraster glacialis* (Link.), from Dalkey Sound, which had been sent to him by D. J. Corrigan, M. D., M. R. I. A. This specimen was remarkable for its colour, the species is common in Dublin Bay, in from 10–30 fathoms; its occurrence there was first recorded from a specimen presented to this Society by Dr. Corrigan in 1853. There is a very remarkable variety (?) of *Uraster rubens*, which occurs abundantly when dredging on the Kish Bank, which may be mistaken for this species, and which suggests the question whether two species have not been confounded under the name of *Uraster glacialis* in our lists. The characters of the papillæ around the spines at once marks out the true *U. glacialis;* in the variety spoken of the spines are perfectly naked, whilst in *U. glacialis* they are surrounded by a fleshy mass, crowded at its summit with numerous small spinules.

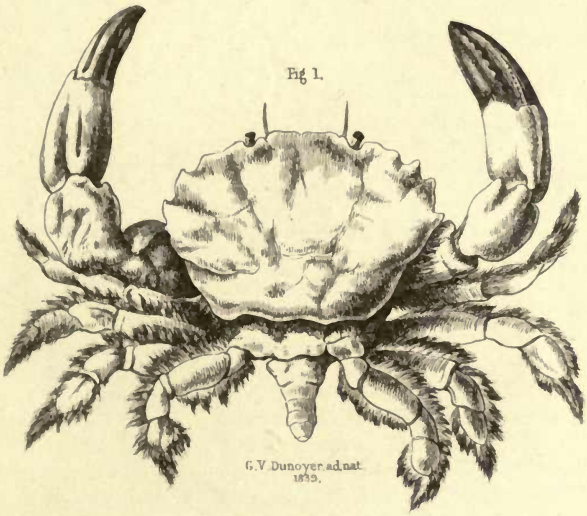
The Chairman, under the new rules, declared the following duly elected:—

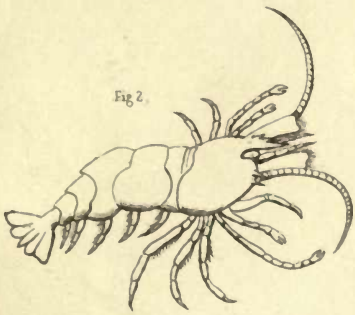
Joseph Rees Greene, Associate Member.
William Kennedy, Limerick, Corresponding Member.
W. Lecky, Valentia, Corresponding Member.

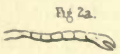
The Session was then declared closed, and the Society adjourned till November.

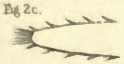




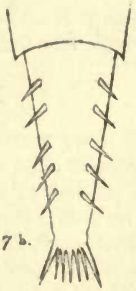


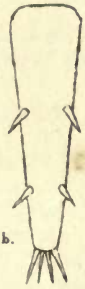


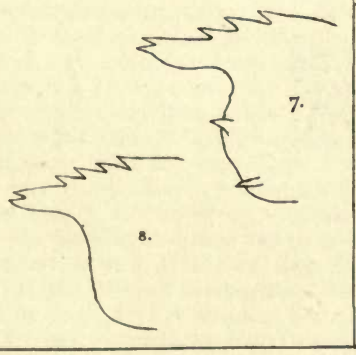


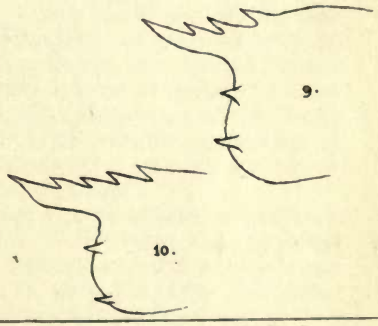


Forster & Cº Dublin









R. ad nat.