

THE
NATURAL HISTORY REVIEW:

VOLUME V.—1858.

PROCEEDINGS OF SOCIETIES:

CONTAINING

THE TRANSACTIONS OF

THE GEOLOGICAL SOCIETY OF DUBLIN;

THE DUBLIN NATURAL HISTORY SOCIETY;

THE DUBLIN UNIVERSITY ZOOLOGICAL & BOTANICAL ASSOCIATION;

AND

THE ROYAL IRISH ACADEMY.

With Twenty-four Lithographs (some Coloured), and Woodcuts.

LONDON:

WILLIAMS & NORGATE, HENRIETTA-ST., COVENT GARDEN.

DUBLIN: GEORGE HERBERT, 117, GRAFTON-ST.

EDINBURGH: WILLIAMS & NORGATE, SOUTH FREDERICK-ST.

1858.

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AND

QUARTERLY JOURNAL OF SCIENCE.

Proceedings of Societies.

GEOLOGICAL SOCIETY OF DUBLIN.

WEDNESDAY EVENING, NOVEMBER 11, 1857.

E. WRIGHT, LL. D., in the Chair.

MINUTES of last Meeting read and confirmed. Donations announced, and thanks voted.

The following gentlemen were proposed and seconded, and admitted as Members:—

John Ball Greene, Esq. (Resident Life Member), 108, Lower Bagot-street: proposed by Rev. Professor Haughton; seconded by Dr. Whitty.

John Hancock Haughton, Esq., Carlow (Non-resident Life Member): proposed by Rev. Professor Haughton; seconded by Professor Downing.

William Porter, Esq., B. A., 13, Charlemont Mall: proposed by Rev. Professor Haughton; seconded by Dr. Whitty.

Alexander Carte, Esq., M. D., Director of the Museum, Royal Dublin Society: proposed by Rev. Professor Haughton; seconded by F. J. Sidney, LL. D.

The proposed changes suggested by the Council in the By-Laws were then laid before the Society, viz. :—

Section III.—Paragraphs 1 and 2 to be replaced by the following :—

“1. The sum to be paid by each Member on admission, including his first year’s subscription, shall be, at his option, £2 or £5.

“2. If an admission fee of £2 be paid, the annual subscription is £1;

VOL. V.—PROC. SOC.

B

PROFESSOR KINAHAN, M. D., read a paper—

ON THE GENERA PHILOSCIA (LATREILLE); ITEA (KOCH); PHILOUGRIA (KINAHAN); COMPRISING DESCRIPTIONS OF NEW BRITISH SPECIES.

(WITH A PLATE.)

IN an "Analysis of the British Oniscoidea" read before Section D of the British Association, at their recent Meeting in this city, and afterwards published in your Transactions, reasons were given for re-establishing the genus *Philoscia* (Latreille), which M. Edwards, Dana, and others, are inclined to incorporate with the genus *Oniscus*. As first described, the genus included but one species, the *Oniscus muscorum* (Scopoli), *Oniscus sylvestris* (Fabricius). To-night I have to announce another species of the genus, which confirms me in the propriety of the establishment of this genus, as it agrees with *Phil. muscorum* in all those characters which led to the generic separation of that species from *Oniscus*.

The genus *Philoscia*, though established by Latreille, appears to have been unknown to all the German authors who have written on the group, with the exception of Zaddach, who gives a very fair description of it. H. Schæffer states:—"Philoscia: Up to this, but one figured species is known, namely, *O. muscorum* (Scopoli). Whether the species *O. sylvestris* here cited is properly referred here may be questioned; to me the genus and species is unknown." Milne Edwards contents himself with copying Leach's description of the species; while Lereboullet evidently has never seen the typical species, as he describes a well-marked species of *Oniscus* for it. This is singular, as the animal is one of the commonest of the group in Ireland and England, and, Zaddach states, also common in some parts of Germany.

The genus *Philoscia* and its relations were so fully discussed in my former paper, that it is unnecessary here to do more than briefly describe the species and genus.

Family.—PHILOSCIDÆ.

Genus 1.—PHILOSCIA (*Latreille*).

Telson (cingulum ultimum) coxis perparvulis. Pleopoda (pedes spurii) posteriora nuda, ad telson marginem exteriorem articulata, basis quadrilateralis; *Ischium* trigonum, satis appendiculatum, nudum, lobus accessorius triangularis. Antennæ internæ 3-articulatæ. Antenn. extern. basis rotundatus, non lobatus; filamentum 3-articulatum. Abdominis cingulum coxæ parvæ. Carapacis frons nec medianè nec lateralitèr lobatus.

1.—*Philoscia muscorum* (*Latreille*).

Corpore læve, nitido, splendido. Fronte paululum medio arcuato. Telson late-triangulari, apice acuminato, lateribus rectis. Pleopodis posterioribus; *Ischio*, falciformi; Appendice ischii dimidio longitudinem vix superante.

Sub musco lapidibusque ubique abundantissime, etiam ad littus marinum.

2.—*Philoscia Couchii*, n. s.

Corpore læve, splendido. Fronte recto. Telson lineare-triangulari; apice obtuse-truncato, setis validis armato; lateribus paululum excavatis. Pleopodis posterioribus; Ischio falciformi-subulato. Appendice vix $\frac{1}{4}$ ischii longitudinem æquante.

Sub lapidibus algisque marcescentibus ad maris marginem ad "Talland Cove," juxta Polperro, Cornwall, Angliam hæc species a me reperta fuit. Viro clarissimo Jonathan Couch, F. L. S., qui de animalibus marinis regionis Cornubiensis cognoscendis optime meruit, dicatam esse velim.

PHILOSCIA.

Body flattened; no lateral or median lobes to carapace; internal antennæ three-jointed. Peduncle of external antennæ rounded, unlobed. Tige three-jointed. Posterior pleopods (last pair of false feet) attached to exterior margin of telson, uncovered. Peduncle (basis) quadrilateral. Ischium trigonal, and, as well as accessory appendage, uncovered.

Species 1.—*Philoscia muscorum* (Latreille).

Body smooth and shining; head transversely elliptical, arched in front; no true lateral or median lobes; internal antennæ inconspicuous; external antennæ densely hairy; abdomen much narrower than cephalothorax; telson (last ring) broadly triangular; apex acute; posterior pleopods (abdominal false feet); Ischium trigonal, spinous along edges. Accessory appendages more than half length of ischium, and nearly attaining to its summit.

Colour: fulvous, with dark black patches and white blotches. A pale salmon-coloured variety is not uncommon. Habitat: dry places, under leaves, stones, moss; also near sea-shore very common.

Habits: runs rapidly; seeks sunshine; does not roll into a ball; feigns death.

Localities: Dublin, Wicklow, Meath, Wexford, Cork, Waterford, Tyrone, and probably all over Ireland. England—Middlesex, Essex, Kent, Plymouth, Devonshire not so common, Cornwall, Polperro, &c.

Species 2.—*Philoscia Couchii* (Mihi) n. s. Plate XXIII., Fig. 4.

Body smooth, elliptical; head somewhat rounded, nearly straight across front; beneath orbits a small lobe, arising from superior margin of antennal ring. Internal antennæ inconspicuous; external antennæ hairy; tige long and narrow. Abdomen narrower than cephalothorax. Telson (last ring) narrow, linearly triangular; apex rounded, and fringed with stiff bristles; sides excavate. Posterior pleopods (last pair abdominal feet); ischium elongate, falciform, subulate. Accessory appendage scarcely one-fourth the length of ischium; in other respects as *Philoscia muscorum*.

Colour: lead gray, uniform to the naked eye.

Habitat: under stones, and amid decaying sea-weed at high-water mark; local.

Habits: runs with great agility; does not roll.

Locality: Tolland Cove, Cornwall, 1858.

I have named it after Jonathan Couch, M. D., F. L. S., the well-known illustrator of Cornish zoology.

The only species I can at all find described which comes near my *Philoscia Couchii* are two figured in Dana's great work as Onisci: one, *O. nigrescens*, from New Zealand; the other, *O. pubescens*, from South America. Dana evidently was unacquainted with the genus (as I have before shown) as distinct from Oniscus.

In the new species the frontal border of carapace is carried well forward, and passes down to the antennæ, the superior antennal ring having its margin produced into a minute lobe beneath the orbit. This species fully proves the judiciousness of the separation of *Philoscia* from *Oniscus*.

In the same paper I also proposed the foundation of a new genus, *Philougria*, for the reception of a small Oniscoid, which is extremely common, but which, undescribed in this country, was also apparently undescribed on the Continent; at the time I stated my suspicions that the genus *Itea* of Koch had been misdescribed; but, owing to want of proper figures, I did not feel justified in identifying my specimens, to which I gave the name of *Philougria celer*, with the *Itea riparia* of Koch, for I found the genus described by Koch as having only one joint in the tige of the antennæ, and even Zaddach, who has noted and corrected this error, and has given an admirably accurate description of two species, used such terms as these:—"Antennæ interiores magis etiam diminuta quam in *Philoscia* ex uno modo articulo constare videntur:" a description which any one who examines the description of *Philougria rosea* of this present paper will find to be most incorrect; the antennæ in that species projecting so far beyond the front as to be visible to the unassisted eye from above.

During the past summer I was fortunate enough to meet with two other species of the same genus, which are identical with two out of the four species already described as *Itea* by Koch and Zaddach; and by help of these it appears to me that we are justified in assuming that both Zaddach and Koch erred in regard to the characters of the internal antennæ. The genus *Itea* being, then, inaccurately described, and furthermore the name having been long ago appropriated to a well-known genus of plants by Linnæus, I would suggest that the generic name suggested by me last year should still stand, and the name *Itea* be altogether erased from the carcinological lists; the only species of it which does not come into the present genus being the *Itea crassicornis* of Koch, which is seemingly a *Platyarthrus* of Brandt. The examination of the two additional species obliges me to modify some of the minor characters of the genus, as published in my analysis, and the abolition of the generic term *Itea* necessitates the substitution of *Philougridæ* for *Iteadæ* as the name of the family. This, as it now stands, includes *Trichoniscus* (*Brandt*), should this genus prove distinct.

Family.—PHILOUGRIDÆ.

Genus 1.—TRICHONISCUS (*Brandt*).Genus 2.—PHILOUGRIA (*Kinahan*).ITEA (*Koch*) (in part).

Telson coxæ perparvulæ. Pleopoda posteriora nuda, in sinu marginis exterioris telson articulata; basis triangularis; ischium appendiculatum, trigone-subulatum; lobus accessorius satis magnus. Antenn. extern. 3 articulatae. Antenn. extern. pedunculum non lobatum; filamentum subulatum, 5 articulatum læve, filo abeuns. Cingulum abdominis coxæ, primi parvæ, 2di, 3tii, 4ti, 5tique lineares. Carapacis frons nec medianè nec lateralitè lobatus. Antennarum superiorum cingulum infra oculos lobo abeuns. (*Ph. riparia*, *Ph. rosea*, *Ph. vivida*.)

1.—*Philougria riparia* (*Koch*, *sp.*) Plate XXIII., Fig. 1.

Corpore lævi, splendido, elliptico. Antenn. intern. parvulis inconspicuis. Antennis externis ut *genus*. Telson supra pleopod. posterior. maxime excavato, truncato-triangulari, *apice emarginato*.

Sub musco, frondibus, lapidibusque ubique in locis madidis totam per Hiberniam et Angliam, hæc species, dispersa esse, videtur, rarius in Comitatus meridionalibus.

Longitudo, .15 unc.

2.—*Philougria vivida* (*Koch*, *sp.*).

Corpore lævi, splendido, *ovali*. Telson truncatè-triangulari; apice pæne recto, *superne profunde sulcato*, non emarginato.

Colore: fusco subtilissime albide-maculato.

Sub musco, lapidibusque in collibus ad "Portlaw, Com. Waterford," Hiberniam, non rare inveniam.

Longitudo, .25 unc.

3.—*Philougria rosea* (*Koch*, *sp.*).

Corpore scabro, tuberculato. Oculis minutis. Antennis internis, conspicuis, ante frontem extendentibus. Abdominis cingulis, 1mo, 2do, 3tioque, granulatis; 4to, 5toque lævibus. Telson lateribus excavatis, apice truncato, recto; cæteris ut *Phil. riparia*.

Colore miniaceo-rubro, albido suffuso, aut albo. Longitudo, .15 unc.

In horto, cellariisque, ad Plymouth, Com. Devon, Angliam, amicus meus Car. Spence Bate, F. L. S., hanc speciem observavit, ubi etiam non rarius egomet inveni.

PHILOUGRIA (*Kinahan*), *Itea* (*Koch*, in part).

Body flattened; no lateral or median lobes to the front; internal antennæ three-jointed; external antennæ, second articulation rounded, unlobed; tige subulate, five-jointed, smooth; posterior pleopods completely uncovered, articulated in a notch at posterior margin of telson. Peduncle (basis) triangular, appendiculate; Ischium trigonal, smooth,

generally terminating in a set of filaments. Accessory appendage well marked.

1.—*Philougria riparia* (Koch, sp.). Plate XXIII., Fig. 1.

Synonyms: *Itea riparia* (Koch), *Itea laevis* (?) (Zaddach), *Philougria celer* (Kinahan, olim).

Body smooth and shining, elliptical; head oval; antennal plate attaining to frontal line, its external angles produced as small lobes beneath the orbits; internal antennæ small and inconspicuous; external antennæ of moderate length, carried folded at an angle. Telson deeply excavate over insertion of posterior pleopods, medianly produced, truncately triangular, deeply emarginate.

Length, .15 inch.

Colour: uniform claret-brown; under the lens, most exquisitely marbled with white.

Habits: runs with great agility; buries itself deep in the earth; very impatient of drought; feigns death, but does not even semi-roll. I have found it with ova and young in the months of February to November.

Habitat: very moist places, among decaying vegetable matter, at roots of trees; under moss everywhere.

Localities: Dublin (Wexford, Cork, Kerry, E. P. W.), Tyrone; Waterford; Portlaw, rather rare; Kilkenny; Wicklow; Queen's County. England:—London; Kent; Plymouth, not so common; Polperro, Cornwall, not uncommon.

The young (?) specimens have the head slightly scabrous. A number of fine hairs (visible under an inch glass) are scattered over the rings.

The elliptical outline of the entire animal, its smaller size, the characters of the telson and of the skin (Plate XXIII., Fig. 1 f), which here is without pits, distinguish it from *Ph. vivida*, with which it might be confounded.

2.—*Philougria vivida* (Koch, sp.).

Syn.—*Itea vivida* (Koch), *Itea nana* (Koch (?), Junior). Plate XXIII., Fig. 2.

Body smooth, shining, oval. Telson truncately triangular; the apex nearly straight, deeply furrowed above, but not emarginate. Posterior pleopods and ischium trigono-subulate.

Colour: Claret-brown; under the lens, marbled with white.

Length: .25 inch.

Habits: runs with great agility; does not bury itself; less impatient of moisture than *Ph. riparia*.

Habitat: under stones and amidst moss on the high grounds.

Locality: hills and high ground, about Portlaw, county of Waterford, where I met this species in great abundance in March, 1858, even in the midst of snow.

The superior size and the robust rotundity of this species distin-

guish it at a glance from *Phil. riparia*. Other characteristics are afforded by the form of the telson, which is only seemingly emarginate at the tip; and by the integument, which in this species is covered with a series of small pits (Plate XXIII., Fig. 2 f). The habits and favourite localities of the two are very distinct.

Koch founded the species on specimens brought from Vienna by M. Jenisson; the exact locality unknown. *Itea nana*, which appears to differ only in colour, was from the same collection.

PHILOUGRIA ROSEA (*Koch*). Plate XXIII., Fig. 3.

Synonym:—*Itea rosea* (*Koch*).

Body, except posterior abdominal rings, tuberculated; eyes very small, black, and conspicuous; internal antennæ very conspicuous, extending beyond front; lateral angles of antennal ring strongly marked beneath orbits; telson plane above, apex rounded, with four (?) strong bristles; external antennæ hairy; cephalo-thoracic rings and head coarsely granulated, the granules each bearing a bristle; abdominal rings, first to third granulated; fourth, fifth, and telson smooth.

Colour: clear minium-rose, with white dots, and a white stripe down the median line, or a dead white with a dark median line.

Length .15 inch.

Habits much the same as the rest of the group; seems to be more humid in its haunts; does not roll; feigns death; and is not quite as active as either of the other species.

Habitat: in damp places, in gardens and courts, and in dark cellars (the pure white variety).

Localities: the first specimen of this species I saw was taken at Plymouth by my friend C. Spence Bate, F. L. S., in his cellar. On a further search there and in his court-yard I found the species abundantly. I never met it elsewhere.

For the drawings of this and the other species I am indebted to my friend Charles Spence Bate, F. L. S.

Koch states that the species is not common in Germany. *Itea Mengii*, of Zaddach, which at one time I was inclined to look on as this species, I am now rather inclined to identify with specimens which I have obtained in Donnybrook, and which, though differing from *Ph. riparia* in the following points—head scabrous; cephalo-thoracic rings covered with rough granulations, abdomen nearly same width as cephalo-thorax; telson not emarginate; colour, white, with dark stripes—I still hesitate to separate from that species of which I suspect they are the young state.

The only terms used in this Paper, additional to those in the Analysis, are—*telson* (last abdominal ring), and *posterior pleopoda* (last pair of appendages), both of which I have adopted from Spence Bate's Report on the British Amphipoda, at the same time wishing to guard myself from being supposed to have adopted the idea that there are three primary divisions of the crustacean body, viz., kephalon (head), pereion (thorax), pleon (abdomen). I cannot satisfy myself that in the type Crustacea of

twenty-one rings we have more than two primary divisions, viz., fourteen anterior rings (cephalo-thorax), seven posterior rings (abdomen). In some genera and groups we find (as Amphipoda) the first of these split up secondarily into two parts, and here it doubtless is convenient to name each of the parts. Used in this subordinate sense, the terms head, cephalon (or what I conceive means the same thing), *carapace* (as correctly used), and pereion, or thorax, may be used. Abdomen and pleon are confessedly identical—the only objection to the former term being, that it has been used to express an organ among the Vertebrata, an objection which, perhaps, after all does not signify much. The appendages of the segments, however, much need distinctive names, and there can be no objection to those suggested in the Report alluded to. Telson, in the same manner, appears to be an organ which is constant in its relations, and a most important one, specifically speaking, among the Isopoda.

I would suggest the following alterations in the sequence of the families of Oniscoidea as given in the Analysis:—

Tylidæ, Actæcidæ, Porcellionidæ, Oniscidæ, Philoscidæ (Philoscia, Scyphax), Philougridæ, Titanethidæ (Titanethes, Styloniscus, Ligidium), Ligidæ.

DESCRIPTION OF PLATE XXIII.

- Fig. 1. *Philougria riparia* magnified:—1 *b*, posterior pleopod; 1 *f*, microscopic appearance of integument.
 Fig. 2. *Phil. vivida*:—2 *d*, posterior pleopod; 2 *c*, inferior view of antennæ; 1 *e* and 2 *e*, internal antenna; 2 *f*, integument.
 Fig. 3. *Phil. rosea*:—3 *b*, telson and posterior pleopod; 3 *c*, inferior view of head; 3 *f*, integument.
 Fig. 4. *Philoscia Couchii*:—4 *b*, telson and posterior pleopod; 4 *d*, posterior pleopod.

The President declared the following gentlemen duly elected:—

HONORARY MEMBER.—Charles Spence Bate, F. L. S., Plymouth.

CORRESPONDING MEMBER.—James Martin, M. D., Portlaw.

ASSOCIATE MEMBER.—Robert Ball, Esq., T. C. D.

ORDINARY MEMBERS.—John M'Ilwaine, Esq., Dublin; M. Weld O'Connor, Esq., Dublin; Robert Samuel Reeves, Esq., Dublin.

The Meeting then adjourned to the month of June.

FRIDAY EVENING, JUNE 4, 1858.

CHARLES P. CROKER, M. D., M. R. I. A., VICE-PRESIDENT, in the Chair.

THE previous Minutes having been read and signed,—

MR. J. B. DOYLE read the following paper—

