Annals and Magazine of Natural History: Series 4
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/tnah10

XXXI.—Descriptions of some new species of Annelida from Kerguelen's Island

W.C. M'Intosh

Published online: 15 Oct 2009.

To cite this article: W.C. M'Intosh (1876) XXXI.—Descriptions of some new species of Annelida from Kerguelen's Island , Annals and Magazine of Natural History: Series 4, 17:100, 318-323, DOI: 10.1080/00222937608681956

To link to this article: http://dx.doi.org/10.1080/00222937608681956

1837. *Polyzonium germanicum*, Brandt, ibidem, t. viii. p. 378.
1839. *Liosoma roseum*, Motschoulsky, Bull. de Moscou, p. 44, tab. i.
1840. *Polyzonium germanicum*, Brandt, Bull. Scientif. vii. p. 527.
1841. —— *germanicum*, Brandt, Recueil de Mém. cet. p. 50.
1844. —— ,, Gervais, Ann. Sci. Nat. 3me sér., t. ii. Zoologie, p. 72, tab. 5. fig. 12.
1844. *Platyulus Audouinianus*, C. Koch, Deutschl. Crust., Myriap. & Arachn. 40, 17.
1847. *Polyzonium germanicum*, Gervais, Hist. Nat. des Ins. Aptères, t. iv. p. 204.
1851. —— *germanicum*, Menge, Neueste Schriften der Naturforsch. Gesellsch. in Danzig, p. 7.
1863. —— *germanicum*, C. Koch, Die Myriapoden, Bd. i. p. 89, fig. 77.
1866. —— ,, v. Porath, Sveriges Myriap., Ordn. Diplopoda, p. 34.
1870. —— *germanicum*, Meinert, Naturhist. Tidsskrift, 3de Række, Bind vi. p. 461.
1871. —— *germanicum*, Stuxberg, Œfvers. K.Vet. Akad. n. s. Förhandl., årg. 27 (1870), p. 914.

Corpus depressum, convexiusculum, glabrum; caput parvum, cordiforme, rostro piloso fere quadruplo breviore quam antennis; oculi ocellis 1, 2 vel 3, haud procul pone antennas siti, postice divergentes; antennæ articulis brevibus compositæ, longitudine dimidiam corporis latitudinem haud assequentes; segmentum primum lateribus longe productis; segmenta omnia lævia, glabra, parte postica levissime aciculata; foramina repugnatoria, primo pari excepto, procul pone suturam transversam sita; valvulæ anales convexiusculæ, marginatæ, læves, glabræ. Numerus segmentorum 43–47 (40–50). Color dorsi flavus vel fulvus, interdum vittis transversis obscurioribus, ventris pallidior. Longitudo 12–18 m. m.

Hab. circa flumen Jenissej ad pagos Vorogova (60° 55′), Nischnij Inbatskoj (63° 50′), Baklanovskij (64° 25′), Goroschinskoj (66° 17′).

XXXI.—*Descriptions of some new Species of Annelida from Kerguelen's Island.* By W. C. M'Intosh.

This collection was made by the British Transit-of-Venus Expedition, and consists of seven species, representing five families, one of which, however, is Nemertean. Six appear to be new. Like the Polyzoa and Cœlenterata, described by Professors Busk and Allman, they were procured by a grapple in the Laminarian region, under a depth of 10 fathoms. The Rev. A. E. Eaton (Naturalist to the Expedition) states that the shore was somewhat unfavourable for collecting between tide-marks, as it consisted for the most part of ledges of rock without loose boulders, or of a coarse and barren shingle. The mean temperature of the water between tide-marks was 36° F.

Mr. Eaton found the same paucity of Annelida in the littoral region at Spitzbergen.

The tubicolar forms and Polynoidæ occurred on the roots of *Macrocystis*, and some of the young Nereids in the usual silken tubes on the fronds of *Delesseria*. None of the Annelids were found under stones.

Family **Polynoidæ**.

Genus HERMADION, Kinberg.

Hermadion longicirratus, Kbg.*

This form seems to be identical with Kinberg's species from York Bay, Straits of Magellan, though the scales and bristles differ slightly from the published figures—the former being densely covered with minute spinulose papillæ, and the latter showing dorsally a less expanded distal region, with a close series of oblique rows of spines. The tip in some is slightly dilated. The ventral bristles, again, have the curve of the terminal hook pronounced, while the spinous region is rather narrow and short. All the bristles are of a deep brownish yellow hue. The antennæ, tentacular cirri, and dorsal cirri have a filiform tip attached to a bulbous region, the latter and the rest of the cirrus beneath being furnished with small clavate papillæ. Much more minute clavate papillæ occur on the palpi. The brownish scales generally have a few whitish touches: the first is circular, the succeeding reniform, and the posterior elongated from before backward. It is a large and broad form, one specimen being about $2\frac{1}{4}$ inches long.

Hab. Swain's Bay and Royal Sound, Kerguelen's Island (*Eaton*); York Bay, Strait of Magellan (*Kinberg*).

Genus EUPOLYNOË, M'I.

Eupolynoë mollis, n. sp.

This species superficially resembles *Alentia gelatinosa*, Sars, though a close examination shows many points of difference, and leaves a general impression that the form is intermediate in character between the latter and such types as *Harmothoë imbricata*, L.

The head is proportionally larger, and does not exhibit the nuchal process so characteristic of *A. gelatinosa*; and instead of the closely approximated pair of large eyes on each side, the lateral pairs are widely separated, a large one occupying the anterior prominence and a small one being situated at the posterior border. Moreover they nearly constitute a square,

* Fregatten Eugen. Resa &c. p. 22, tav. vi. fig. 33.

whereas in *A. gelatinosa* they lie in the processes of a V. The tentacle is absent; but its basal segment is very large in comparison with the antennæ and tentacular cirri. In *A. gelatinosa* they do not differ much.

The scales appear to be fifteen on each side, and they are nearly as soft as those of *A. gelatinosa*, which they further resemble (though smaller) in shape and smoothness. With regard to the latter, however, a high power shows that there is a limited area, near the outer and anterior border, covered with distinct papillæ. The dorsal cirrus has a very slight enlargement below the tapering tip (as in *A. gelatinosa*); but, in addition, it has a few minute clavate papillæ. The latter also occur on the ventral cirri.

The feet are as distinctly marked as in *Alentia*; but there is a much greater disproportion between the dorsal and ventral bristles, both of which are pale. The dorsal fascicle consists of a short series of somewhat translucent bristles with distinct spinous rows (almost as well marked as in *Evarne*), and gently tapering to a smooth portion at the tip. The long ventral bristles, again, consist of two groups, more evidently separated than in *Alentia* or *Eupolynoë anticostiensis*. The superior tuft arises behind the spine, and is composed dorsally of slender bristles with very elongated and delicately tapered spinous regions, ending in minutely bifid tips like those in *Eupolynoë anticostiensis**. A gradual change ensues toward the lower bristles (of this tuft), which have a stouter shaft, a shorter spinous region, and a strong hook with a secondary process at the tip. The bristles of the next series have still stronger shafts, shorter spinous regions; and the hook at the tip increases in size, while the secondary process diminishes. Inferiorly, again, there is a tendency to repeat the elongated spinous region and slender forked tip of the upper series.

There are nine papillæ on the dorsal border of the extruded proboscis, and the same number on the ventral surface. A filiform cirrus occurs under each inferior maxilla.

Hab. Royal Sound, Kerguelen's Island (*Eaton*).

Family **Nereidæ**.

Genus Nereis, L.

Nereis Eatoni, n. sp.

This species somewhat resembles *Nereis Dumerilii*, Aud. & Ed. The head has four large eyes, the anterior pair being somewhat ovoid and by far the larger. When turned back-

* Ann. & Mag. Nat. Hist. ser. 4, vol. xiii. p. 265, pl. x. f. 3.

ward the long tentacular cirri reach to the fourteenth segment. The maxillæ have about eight distinct teeth behind the point. The paragnathi form, near each maxilla, five long rows and four shorter; and there are besides several interrupted transverse rows between the former on the ventral surface. All are composed of denticulate horny processes of microscopic size. The anterior feet have blunt processes; their cirri are shorter; and the bristles have on the whole shorter tips than in *N. Dumerilii*. The articulating end of the shaft in the latter organs has also a somewhat wider pit for the terminal process. At the twenty-fifth foot the superior lingula is rather larger than in *N. Dumerilii*, and the outline of the other processes also differs. Toward the posterior extremity (*e. g.* the sixtieth foot), again, the superior lingula forms a very prominent elongated process, which is much thicker and less pointed than in the British form; and it also differs from *N. polyodonta*, Schmarda, in this respect.

Hab. Royal Sound, Kerguelen's Island (*Eaton*).

Family **Terebellidæ**.

Genus Amphitrite, O. F. Müller.

Amphitrite kerguelenensis, n. sp.

A large form with seventeen setigerous tubercles. The cephalic region shows four lobes, viz. the ventral anterior lobe, a large process in front and beneath the first branchia, a fan-shaped lobe, and finally a large fold running from the root of the last branchia downward. The long branchiæ spring from three short trunks on each side. There is a prominent papilla below each setigerous tubercle in the first six segments, and in addition a similar process below the second branchia. The ventral scutes appear to be twelve. The hooks somewhat resemble those of *A. affinis*, Mgrn., but differ in the anterior curvature. The colour of one specimen was purplish brown.

The species forms a heavy tube of fine mud, lined by a thin chitinous secretion; and, from the flattening of the ventral surface, it would appear to lie on the bottom.

Hab. Royal Sound, Kerguelen's Island (*Eaton*).

Genus Neottis, Malmgren.

Neottis antarctica, n. sp.

A very large member of the family, differing from *Thelepus* in having three groups of branchiæ on each side, and from

Grymæa by the fact that the bristle-tufts commence on the third segment, and also by the structure of the hooks. The cephalic lobe is furnished with numerous ocular specks. The bristles resemble those of *Thelepus*, as also do the hooks, which are borne on a thin lateral lamella marked by a band of dark pigment. A single process only appears in profile above the large tooth of the hook. The brownish body is peculiarly streaked posteriorly by pale transverse lines.

The animal constructs a large chitinous tube of a dark brownish colour, on which Polyzoa, Zoophytes, and Algæ flourish.

Hab. No. 3, Kerguelen's Island (*Eaton*).

Family **Serpulidæ.**

Genus SERPULA, L.

Serpula ——?

The softened specimen resembles *S. vermicularis*, L., in external appearance; but the operculum is undeveloped. The branchiæ appear to be about forty in number on each side. The anterior hooks are larger than in *S. vermicularis*, and form a triangle of quite a different shape. The uncini along the edge of the organ are seven or eight in number, the inferior, as usual, surpassing the rest in size. The posterior hooks present the same structure, and are accompanied by the brush-shaped bristles as in *S. vermicularis*.

The tube resembles that of the latter, even to the double funnels so often seen in front.

The absence of the operculum prevents further definition.

Hab. Swain's Bay, Kerguelen's Island (*Eaton*).

Order **NEMERTINEA.**

Suborder ANOPLA.

Family **Lineidæ.**

Genus LINEUS, Sowerby.

Lineus corrugatus, n. sp.

Body (in spirit) flattened, rather abruptly pointed anteriorly, and more gradually posteriorly. The œsophageal region is marked externally by a series of prominent and somewhat regular rugæ, which sweep from the mouth dorsally and ventrally; so that the dorsal view recalls that observed in *Arion ater*.

Colour dark olive throughout, with the exception of a white band, which crosses the anterior border of the snout, and passes backward to the posterior third of the lateral fissure, where it bends dorsally and terminates.

The special characters are the very large mouth, with the prominent rugæ, which show that the animal probably possesses unusual powers of œsophageal protrusion—a supposition borne out by the great development of the external circular muscular fibres and the succeeding longitudinal coat of the organ. The internal glandular lining is also very firm. The outer layers of the proboscis correspond with the type in the Lineidæ; but the internal longitudinal layer is largely developed.

Hab. Swain's Bay, Kerguelen's Island (*Eaton*).

XXXII.—*Extinct* Lemurina.

By William Henry Flower, F.R.S.

The animals commonly known as Lemurs, from the island of Madagascar, and certain nearly related species from the African continent and the southern parts of Asia, constitute a well-defined group of mammals, which were formerly associated with the Monkeys in the Linnean order *Primates*, and the Cuvierian *Quadrumana*, forming in the latter the third main division *Strepsirrhina* (Geoff. St.-Hilaire). As more complete knowledge of their organization has been gradually attained, the interval which separates them structurally from the Monkeys has become continually more evident; and since they cannot be placed within the limits of any of the previously constituted orders, it has been considered advisable by some naturalists to increase the ordinal divisions in their behalf, and to allow them to take rank as a distinct group, related to the Primates on the one hand, and to the Carnivora and Insectivora on the other *.

The disputed zoological position of the Lemurs, and the great importance which has been attached to them by some zoologists, such as Haeckel, who regard them as the direct transition between the lower and higher mammals, and as survivors of a

* For the arguments in favour of this view see Alphonse Milne-Edwards, "Observations sur quelques points de l'embryologie des Lémuriens et sur les affinités zoologiques de ces animaux," Ann. des Sciences Nat. Oct. 1871; and P. Gervais, "Encéphale des Lémures," Journ. de Zoologie, t. i. p. 7. For those for retaining them among the Primates, see Mivart "On *Lepilemur* and *Chirogaleus*, and on the Zoological Rank of the Lemuroidea," Proc. Zool. Soc. 1873, p. 484.