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**A GUIDE TO THE  
FAMILY CIRRATULIDAE  
INCLUDING A KEY TO  
ANTERIOR PORTIONS**

**UNICOMARINE LTD.**

**Version 1.00 (RT09)**

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## **Cirratulidae - Key to Anterior Portions**

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RT09 (Version 1.00)

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### **Introduction**

This is a key to those taxa recognised as occurring in British waters, after discussion with Susan Chambers, Peter Garwood, and Annette Woodham, who have also contributed to the key. Emphasis has been placed on features visible in front halves of animals (usually all that is available), with notes given on additional features, including those from the posterior, as confirmatory characters for some species. However, there are some splits for which posterior features are still necessary and these features are included in brackets in the key. It may be more useful to refer to these features first, if complete specimens are available. Please note also that many of the features used are subtle recognition features rather than absolute taxonomic features and that both routes should be followed where there is doubt. Comparison with reference material is always recommended when carrying out identifications. Brief notes on distribution and habitat have also been included, where possible.

In addition, some extra species from the literature (for Europe) are included, either as possibilities for our unnamed taxa, or as additional species with different key features given as indented "sub-keys" below the species which they most resemble. Taxa which are definitely known from British waters are in boldface in the main key, those which we have not yet found or recognised are in normal italics, usually in "sub-keys".

This key is tentative and subject to improvement. Any suggestions on easier ways to split certain species, records of species we have not found, or notice of flaws in the key would be very welcome.

For the purposes of RT09, taxa in boldface in this key will be regarded as the current check-list of British cirratulids.

## Family Cirratulidae

### Species List

#### Currently Recognisable British Taxa

These are the taxa recognised as having reliable British records, for the purposes of RT09. The generic names used below are those from the most recent published opinions. Some species will probably be moved to different genera in due course and these are listed with their generic names in inverted commas. Recognisable taxa which cannot yet be assigned to described species names are given letters, "A", "B" etc. This taxon list was compiled after a one day workshop with the following participants : Susan Chambers, Peter Garwood, Annette Woodham, Tim Worsfold.

*Cirratulus cirratus* (O.F. Muller, 1776)

*Cirratulus* "A" - includes *Cirratulus* #1 and *C. j* from test key

*Cirratulus juveniles* - includes 2 eyed juvs. of *C. cirratus* and eyeless regenerates

*Cirratulus* cf. *caudatus* Levinsen, 1893 - New addition to test key

*Cirriformia tentaculata* (Montagu, 1808)

*Protocirrinieris chrysoderma* (Claparede, 1868) - New addition to test key

*Caulleriella* cf. *bioculata* (Keferstein, 1862)

*Caulleriella* cf. *viridis* (Langerhans, 1880) - New addition; included in *C. bioculata* in test key

*Caulleriella alata* (Southern, 1914)

*Caulleriella* "A" - New addition to test key

"*Caulleriella*" *zetlandica* (McIntosh, 1911)

*Chaetozone gibber* Woodham & Chambers, 1994

*Chaetozone setosa* agg. Malmgren, 1867 - May be used to include types A to D

*Chaetozone setosa* ss. - = *Chaetozone setosa* agg. "A" of Christie; *Chaetozone* "B" of Chambers

*Chaetozone setosa* agg. "B" - of Christie; included in *Chaetozone* "A" of Chambers

*Chaetozone setosa* agg. "C" - of Christie; included in *Chaetozone* "A" of Chambers

*Chaetozone setosa* agg. "D" - New addition; = *Chaetozone* "C" of Chambers

*Tharyx killariensis* (Southern, 1914) - = *Tharyx* #1 in test key

*Tharyx* "A" - = *Caulleriella killariensis* in test key

*Aphelochaeta marioni* (Saint-Joseph, 1894) - May not be this species

*Aphelochaeta* "A" - = *Aphelochaeta* #1 in test key

*Aphelochaeta* "B" - = *Aphelochaeta* #3 in test key

*Monticellina dorsobranchialis* (Kirkegaard, 1959) - May not be this species

*Dodecaceria concharum* Oersted, 1843 - *Dodecaceria* may be left at generic level

*Dodecaceria fimbriata* Verrill, 1879 - *Dodecaceria* may be left at generic level

"*Tharyx*" *vivipara* Christie, 1984

#### Species of Uncertain Identity

These names from the literature may represent additional British species but their identity is unclear.

*Cirratulus borealis* Lamarck - Confused with *C. cirratus*

*Cirratulus incertus* McIntosh, 1923 - Confused with *C. cirratus*

*Cirriformia norvegica* (Quatrefages, 1865) - Confused with *C. tentaculata*

*Caulleriella caputesocis* (Saint-Joseph, 1894) - Nothing quite like the descriptions has been seen. Type specimen poor

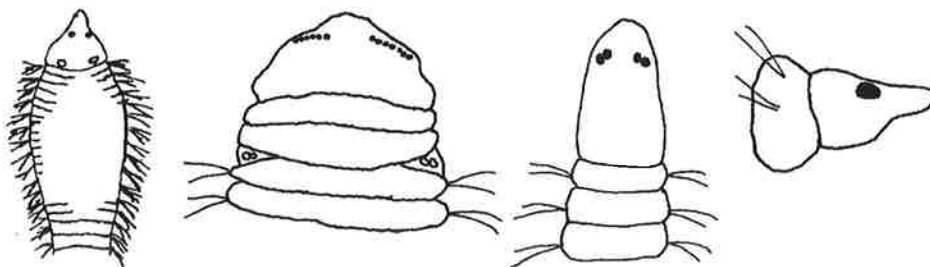
*Tharyx multibranchiis* (Grube, 1863) - Confused with *Aphelochaeta marioni*. Could be *Aphelochaeta* "A" or "B"

*Cirratulus filiformis* (Keferstein, 1862) - Confused with *Aphelochaeta marioni*. Could be *Aphelochaeta* "A" or "B"

"*Caulleriella*" *serrata* Eliason, 1962 - Nothing quite like the descriptions has been seen.)

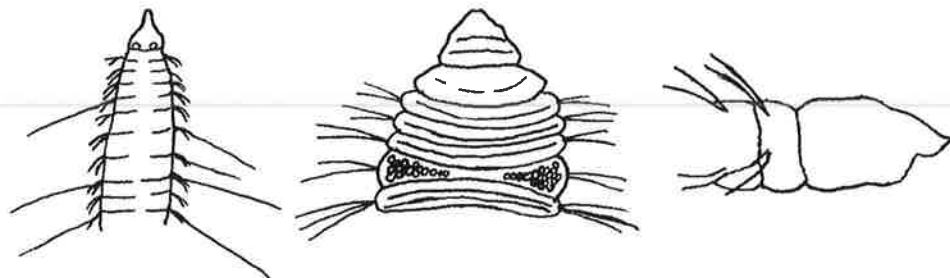
## Key

1. → Prostomium with eyes (faded eyes are allowed for in the key)



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- Prostomium without eyes.



.....10

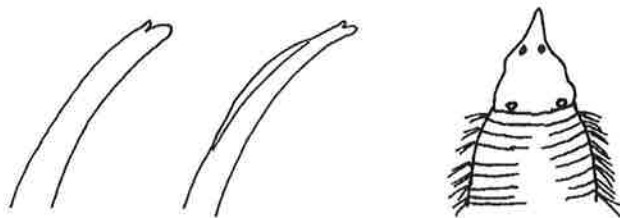
2. → Acicular chaetae in anterior (1st 5 chaetigers) as well as posterior parapodia.



.....3

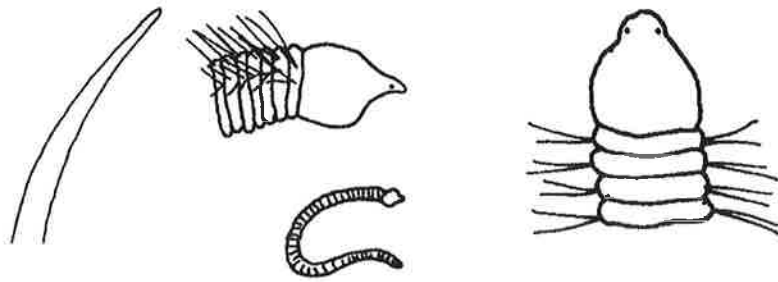
- Acicular chaetae absent from anterior parapodia, may or may not be present in posterior parapodia. ....6

3. → Acicular chaetae all strongly bidentate and strongly curved.  
 Prostomium distally pointed  
 Capillary chaetae short, less than 1/4 of body width.  
 Eyes fairly large, positioned about half way along length of prostomium.



.....4

- Acicular chaetae mainly unidentate. (A few may be faintly bidentate).  
 Prostomium distally broadly rounded.  
 Capillary chaetae about 1/2 of body width.  
 Eyes very small, positioned on front half of prostomium.



..... *Cirriiformia* (juv.)

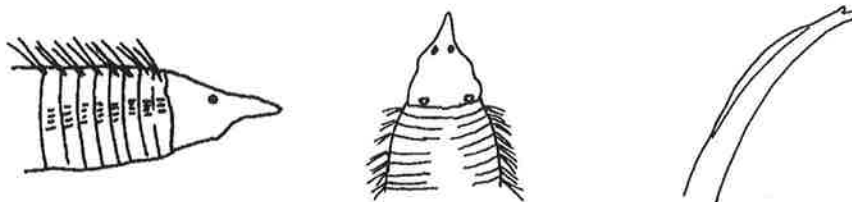
[Common in many habitats, ubiquitous in British waters]

- 4 → First two neuropodia with capillaries as long as those in notopodia (much shorter after the third chaetiger).  
 Bidentate chaetae without flange.  
 Bidentate chaetae start on third neuropodium.



..... 5

- All neuropodia with capillaries much shorter than those in notopodia, almost as short as bidentate chaetae and difficult to see.  
 Bidentate chaetae with narrow flange on convex side.  
 Bidentate chaetae start on first neuropodium.

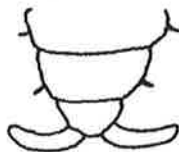


..... *Caulleriella alata* (Southern, 1914)

[Common subtidally in gravel, ubiquitous in British waters]

[Posterior angular in cross section with hooks in both rami.]

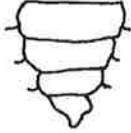
5. → Pygidium with a pair of anal cirri.



..... *Caulleriella bioculata* (Kieferstein, 1862)

[offshore mud, western British waters ?]

→ Pygidium without anal cirri.

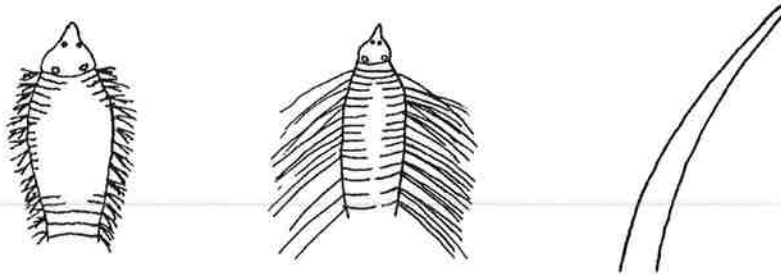


..... *Caulleriella* cf. *viridis* (Langerhans, 1880)

[Occasional subtidally in stony ground, southern British waters?]

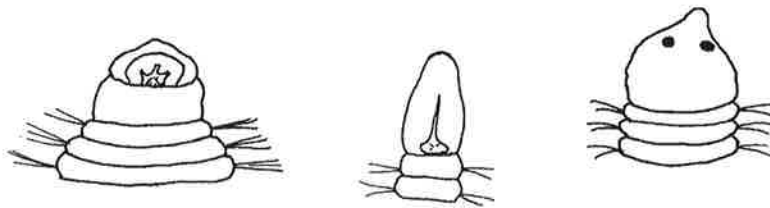
[Posterior angular in cross section with hooks in both rami.]

6. → Prostomium conical and distally pointed.  
(Acicular chaetae pointed).



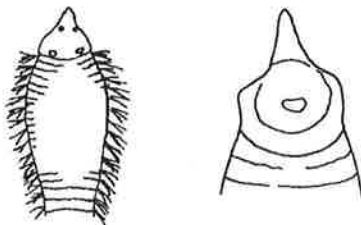
..... 7

→ Prostomium distally rounded and excavate ventrally.  
(Acicular chaetae blunt ended).



..... 8

7. → Thoracic capillaries fine, irregularly directed and shorter than body width.  
Thoracic region often strongly swollen dorsally, behind head, giving hump-backed appearance tapering rather abruptly towards mid body.

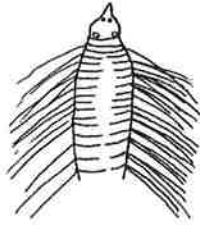


..... *Chaetozone gibber* Woodham & Chambers, 1994

[May be common subtidally in mud, southern British waters ?]

[Posterior with acicular spines in both rami; capillaries and awl-shaped chaetae.]

→ Thoracic capillaries fairly robust, directed backwards (usually in parallel) and longer than body width.  
 Thoracic region may be swollen dorsally, tapering gradually towards head and mid body.



..... *"Caulleriella" zetlandica* (McIntosh, 1911)  
 [Common subtidally in sand and gravel, ubiquitous in British waters]  
 [Posterior with acicular spines in neuropodia only; capillaries and awl-shaped chaetae.]

*Additional species from literature:*

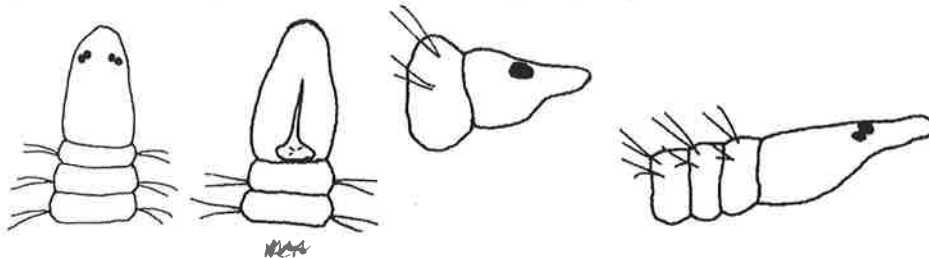
Hooks from chaetiger 10 in neuropodia.. *C. caputesocis* (Saint-Joseph, 1894)  
 Hooks absent. Capillaries very fine "*Tharyx*" *multibranchialis* (Grube, 1863)

8. → Prostomium only slightly flattened (anterior rounded in cross section).  
 Eyes placed dorsolaterally.



..... 9

→ Prostomium and anterior segments strongly flattened.  
 Eyes large, dorsally placed, one, or occasionally, two pairs.



..... *Cirratulus "A"*  
 [Occasional subtidally; ubiquitous in British waters ?]

Possibilities ..... *C. incertus* McIntosh, 1923

9. → Prostomium with two transverse rows of up to 8 eyes.



..... *Cirratulus cirratus* (O.F. Muller, 1776)  
 [Common intertidally in mud and rock crevices, northern British waters?]

*Species from literature:*

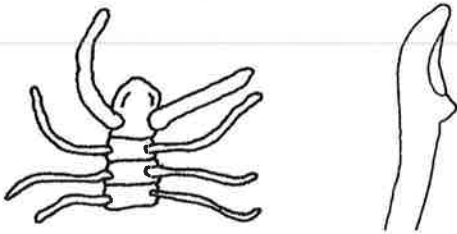
...2 gills per segment throughout .... *C. borealis* Lamarck

→ Prostomium with one pair of eyes, placed dorsolaterally.



..... *Cirratulus* juv.  
[Occasional subtidally]

10. → Acicular chaetae spoon-shaped, with or without conical projection.  
Palps and gills thick and sparse (fewer than 8 pairs).  
Prostomium broadly rounded, with large nuchal organs.



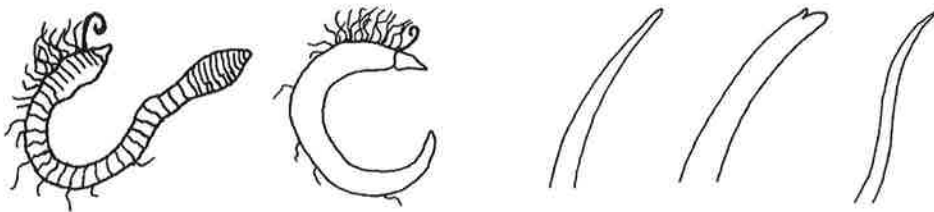
..... *Dodecaceria*  
[Occasional subtidally in gravel and stony ground, ubiquitous in British waters]

*Species from literature:*

Asexual and epitokous reproduction ..... *D. fimbriata* Verrill, 1879

Non-epitokous sexual reproduction ..... *D. concharum* Oersted, 1843

→ Acicular chaetae simple pointed, bidentate or absent.  
Gills thin and numerous (more than 8 pairs).  
Prostomium more or less conical, nuchal organs indistinct or absent.



..... 11

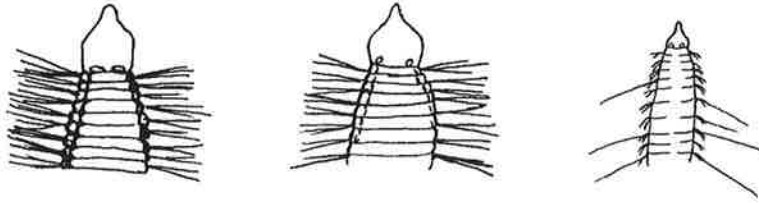
11. → More than one pair of feeding tentacles (here shown as round scars), placed after the first chaetiger (Difficult to see in some but not bipalpatate).



..... 12



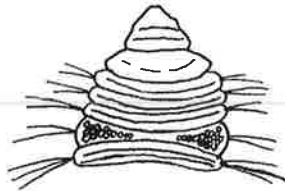
→ One pair of feeding tentacles (palps) on last achaetous segment.



..... 13

12. → Two rows of feeding tentacles placed dorsally on the 4th./5th. or 6th./7th. chaetiger.

Blunt unidentate acicular chaetae in anterior (1st. 10) and posterior parapodia.



..... *Cirriformia tentaculata* (Montagu, 1808)  
 [Common in many habitats, ubiquitous in British waters]  
 [Posterior angular in cross section.]

*Species from literature:*

Many feeding tentacles placed dorsally on the in an almost continuous band across segment.

Feeding tentacles on 6th / 7th chaetiger (on one segment only).

Distance between cirri and notopodia very small posteriorly

..... *C. tentaculata* (Montagu, 1808)

Few tentacular filaments in two separate rows.

Feeding tentacles on 4th / 5th chaetiger (on one segment only).

Distance between cirri and notopodia 2/3 of that between rami, posteriorly.

..... *C. norvegica* (Quatrefages, 1865/6)

Few tentacular filaments in two separate rows.

Feeding tentacles on 5th - 7th chaetiger (on more than one segment).

Distance between rami 2/3 of that between cirri and notopodia, posteriorly.

..... *Timarete filigera* (Delle Chiaje, 1841)

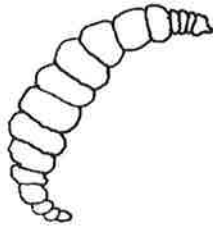
→ Feeding tentacles few, placed dorsally on more than one chaetiger (hard to see).

Acicular chaetae absent.



.....cf. *Protocirrinis chrysoderma* (Claparede, 1868)  
 [Subtidal; southwest ern British waters only ?]

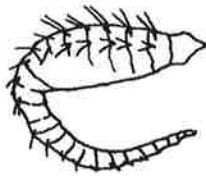
13. → Body relatively short and grub like, widest in centre, tapering gradually at head and tail.  
Head may show signs of regeneration.



..... *Cirratulus* juv.

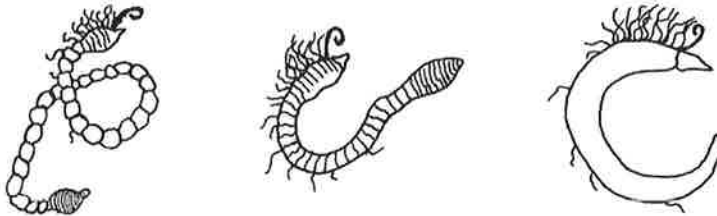
- Body may be variously shaped but not as described above.  
Head well proportioned ..... 14

14. - Body of characteristic shape. Expanded in thoracic region, abruptly tapering towards tail, which is narrow, slightly flattened and as long as the thorax. Tadpole-shaped.  
Worm short and usually complete in samples.



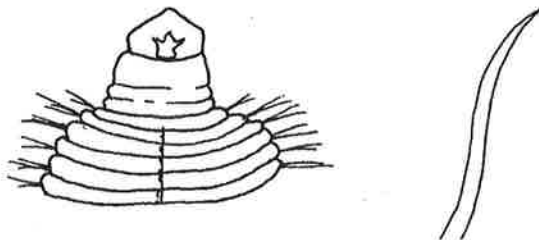
..... "*Tharyx*" *vivipara* Christie, 1984  
[Often common in estuarine mud, northeast.England only?]  
[Posterior with occasional blunt-tipped capillaries.]

- Body may be variously shaped but not as described above.  
Worm usually elongated, often missing tail in samples.



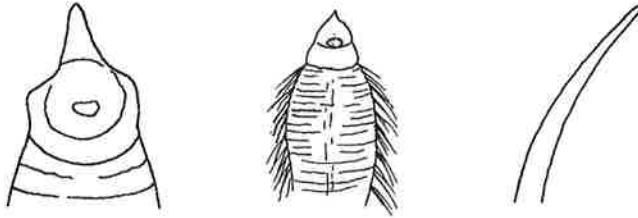
..... 15

15. → Prostomium broader than long, bluntish, rather flattened and excavate ventrally.  
Mid body [and posterior] with narrow, sinuous, unidentate acicular spines.



..... *Cirratulus* cf. *caudatus* Levinsen, 1893  
[Body often inflated anteriorly; glandular area often visible on achaetous segments]  
[Subtidal; northern British waters only ?]

→ Prostomium at least as long as broad, acutely or bluntly conical.  
 Acicular chaetae, regularly curved or absent.

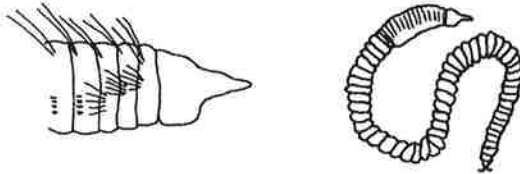


..... 16

16. → Acicular chaetae in anterior (1st 10 chaetigers) as well as posterior parapodia. .... 17

→ Acicular chaetae absent from anterior parapodia, may or may not be present in posterior parapodia. .... 18

17. → 1st. three neuropodia with capillaries as long as those in notopodia.  
 Bidentate chaetae start on fourth neuropodium.  
 Mid body segments may be very convex and "beaded".



..... *Cauleriella* "A"

[Northern British waters ?]

[Pygidium has a pair of anal cirri]

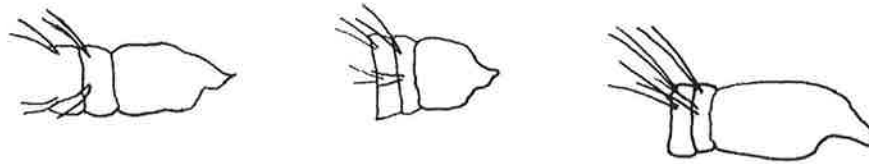
→ Capillaries of neuropodia much shorter than those of notopodia in all, or all but first two chaetigers.  
 Bidentate chaetae start on first or third neuropodium.  
 Segments short and not "beaded" ..... 3

18. → Prostomium elongated and sharply conical.  
 In lateral view, distance from mouth to tip of prostomium about equal to that from mouth to first neuropodium <sup>in length</sup>  
 Anterior chaetigers generally similar to those of mid body region.  
 (Posterior acicular chaetae are stout unidentate spines, sometimes arranged in rings around abdomen).

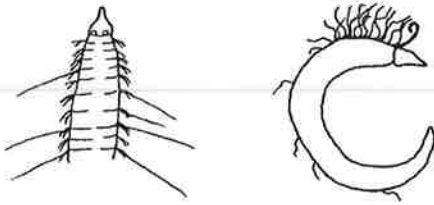


..... 19

→ Prostomium relatively short, sharply or obtusely conical.  
 In lateral view, distance from mouth to tip of prostomium much less than that from mouth to first neuropodium.  
 Anterior chaetigers markedly shorter than those behind and swollen to form a distinct thorax.  
 (Posterior acicular chaetae knob-tipped, serrated or absent).



- .....22
19. → Anterior capillaries (excluding natatory chaetae) robust, flattened and regularly curved backwards; shorter than body width.  
 Worms widest in mid body.



..... *Chaetozone setosa* agg. Malmgren, 1867  
 [Common in many habitats, ubiquitous in British waters]  
 [Posterior with rings of alternating spines and capillaries.]

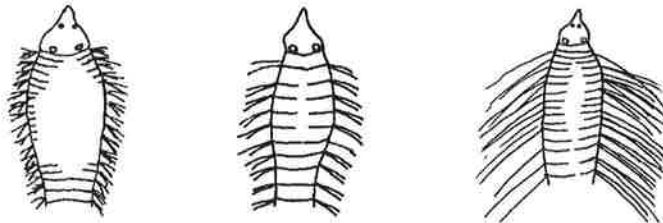
*Species types from literature:*

Palps on last achaetous segment, in front of 1st pair of gills.  
 ..... type "A" (*C. setosa* ss.)  
 [Posterior rounded in cross-section, with almost continuous rings of spines.]

Palps on last achaetous segment, alongside 1st pair of gills  
 ..... type "B"  
 [Posterior strongly flattened in cross-section, with discrete rows of spines.]

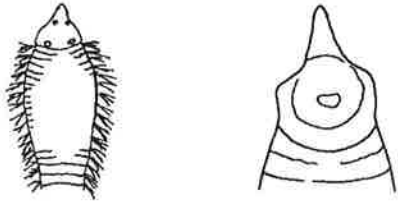
Palps on chaetiger 1, alongside 1st pair of gills  
 ..... type "C"  
 [Posterior slightly flattened in cross-section, with discrete rows of spines.]

→ Anterior capillaries long, or short and fine  
 Worms widest in thoracic region.



.....20

20. → Anterior capillaries fine, irregularly directed and shorter than body width.  
Anterior segments very short and poorly defined dorsally.



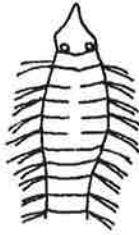
.....*Chaetozone gibber* Woodham & Chambers, 1994  
[May be common subtidally in mud, southern British waters?]  
[Posterior with acicular spines in both rami; capillaries and awl-shaped chaetae.]

- Anterior capillaries robust, directed in parallel, as long as body width.



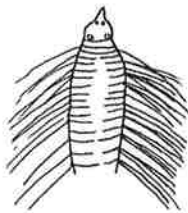
.....21

21. → Anterior segments relatively long, well defined dorsally.



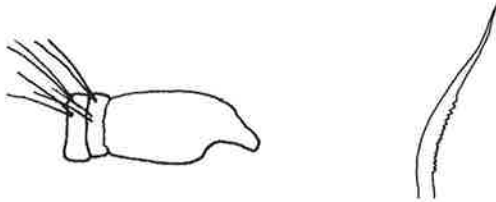
.....*Chaetozone "D"*  
[Offshore form, northern British waters?]  
[Posterior with acicular spines in both rami, alternating with capillaries.  
.....Concertina-like appearance to posterior segments. Mid body region very long.]

- Anterior segments short and poorly defined dorsally.



....."*Caulleriella*" *zetlandica* (McIntosh, 1911)  
[Common subtidally in sand and gravel, ubiquitous in British waters]  
.....[Posterior with acicular spines in neuropodia only; capillaries and awl-shaped chaetae.]

22. → Prostomium elongated and flexible, with a rounded end, usually downturned  
 Rows of gills gradually converge to form a single mid dorsal line, behind thorax.



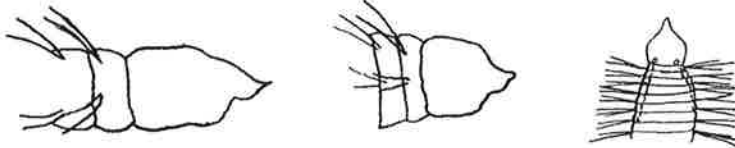
.....*Monticellina* cf. *dorsobranchialis* (Kirkegaard, 1959)  
 [Often common in subtidal mud, western British waters?]  
 [Posterior with serrated capillaries.]

*Species from literature*

Short body with serrated and pseudocompound chaetae.

..... "*Caulleriella*" *serrata* Eliason, 1962

- Prostomium regularly conical or with a pointed tip, usually straight.  
 Rows of gills always totally separate.



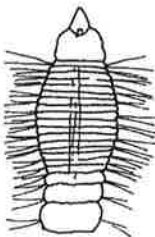
.....23

23. → Anterior capillaries pale and fine, directed backwards.  
 Anterior segments poorly defined ventrally.  
 In thoracic region, body dorsoventrally flattened or only weakly expanded.  
 Prostomium sharply pointed at tip.  
 (Posterior with knob-tipped acicular chaetae).



.....24

- Anterior capillaries robust, directed laterally.  
 Anterior segments well defined ventrally.  
 In thoracic region, body rounded in cross section and strongly expanded.  
 Prostomium pointed or rather bluntly conical.  
 (Posterior with capillaries only; acicular chaetae absent).



.....25

24. → Achaetous segments long (distance from mouth to first chaetiger greater than depth (dorsal to ventral) of achaetous segments.  
 Body elongated and rounded in cross section throughout.  
 Mid body segments often as long as wide.



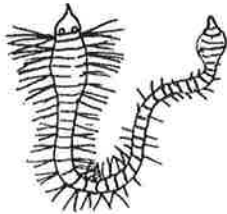
..... *Tharyx killariensis* (Southern, 1914)  
 [Occasional in subtidal mixed sediments ? ubiquitous in British waters?]  
 [Posterior tapered, with long, knob-tipped or faintly bidentate chaetae.]

- Achaetous segments short (distance from mouth to first chaetiger about equal to depth (dorsal to ventral) of achaetous segments.  
 Body generally short, may be dorsoventrally flattened in thoracic region.  
 Mid body segments rarely as long as wide.



..... *Tharyx "A"*  
 [Often common in estuarine mud, southern British waters?]  
 [Posterior dorsoventrally flattened, with short, knob-tipped or faintly bidentate chaetae.]

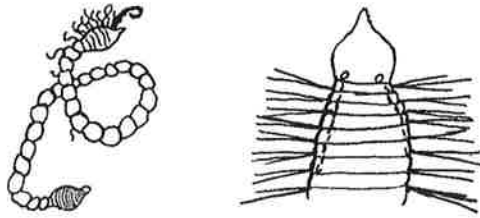
25. → Prostomium finely pointed at tip.  
 Animals small and fine.  
 Body often colourless with greenish tinge and dark gut.



..... *Aphelochaeta "B"*  
 [Found in shallow marine muds ? western British waters?]  
 [Posterior slightly swollen, fine capillaries only.]

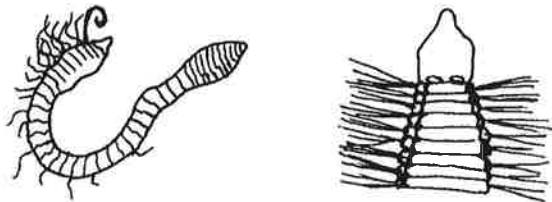
- Prostomium obtusely conical.  
 Animals generally large and coarse.  
 Body colour dark brown with darker gut.....26

26. → Mid body segments elongated (as long as width), beaded and delicate.  
 Palps rounded in cross section and generally widely separated.  
 Groove between dorsum and notopodia slight.



..... *Aphelochaeta marioni* (Saint-Joseph, 1894)  
 [Common in estuarine mud, ubiquitous in British waters?]  
 [Posterior often swollen and globe-like, short capillaries only.]

- Mid body segments only slightly more elongated and delicate than those anteriorly.  
 Palps thick, oval in cross section and generally close together.  
 Groove between dorsum and notopodia distinct.



..... *Aphelochaeta* "A"  
 [Occasional in subtidal gravel, ubiquitous in British waters?]  
 [Posterior slightly swollen, short capillaries only.]

Possibilities : ..... *Aphelochaeta filiformis* (Keferstein, 1862)  
 ..... "*Tharyx*" *macintoshi* (Southern, 1914)



## Questionnaire

We are always looking for more information on little known and difficult species and would be particularly grateful for feedback on the following points :

1. Have you found *Cirratulus cirratus* (adults) from south of the Humber or Solway ?
2. Have you ever found any of the following : *Cirratulus* "A", *Cirratulus* cf. *caudatus*, *Protocirrinieris chrysoderma*, *Caulleriella bioculata*, *Caulleriella* cf. *viridis*, *Caulleriella* "A", *Aphelochaeta* "A", *Aphelochaeta* "B" ?
3. Do you separate *Chaetozone setosa* agg. into types A to D ?
4. Have you ever found *Tharyx* "A" (= *Caulleriella killariensis* in test key) from north of the Bristol Channel or Tyne ?
5. Have you ever found *Monticellina dorsobranchialis* from off the north or east coasts ?
6. Have you found *Aphelochaeta marioni* from Scotland ?
7. Have you ever found "*Tharyx*" *vivipara* from Scotland, the west coast or from south of the Humber ?
8. Have you ever found *Chaetozone gibber* from Scotland or the east coast ?
9. Have you ever recorded any of the following : *Cirratulus borealis*, *Cirratulus incertus*, *Cirriiformia norvegica*, *Caulleriella caputesocis*, *Tharyx multibranchiis*, *Tharyx mcintoshii*, *Cirratulus filiformis*, *Caulleriella serrata* ?
10. Have you seen any other cirratulid not included in the key or seen anything which does not fit the key?
11. Have you found any problems with the key, or do you have any suggestions ?



## Family Cirratulidae

Body cylindrical. Prostomium conical or blunt; peristomium fused with at least two segments. Parapodia reduced; slender filiform or clavate branchiae present on at least some setigers. All setae simple including capillaries and curved or excavate hooks (Fauchald, 1977).

### Genera

Listed in chronological order

#### *Cirratulus* Lamarck, 1801

Type species : *Lumbricus cirratus* O.F. Muller, 1776. 25 spp. (Fauchald, 1977).

Cirratulids without palps; tentacular cirri present on one segment only; anteriormost branchiae present from the same segment. Chaetae include capillaries and acicular spines, which are usually entire distally (Fauchald, 1977). Wedge-shaped (not conical) prostomium. Two or more dorsal tentacles on one anterior segment as well as gills. Capillary and sigmoid chaetae (Petersen, 1991).

#### *Cirrhineris* Blainville, 1818

Indeterminable (Fd).

#### *Dodecaceria* Orsted, 1843

Type species : *D. concharum* Orsted, 1843. 16 spp. (Fauchald, 1977).

Palps present. Branchiae present on a few segments, filiform or clavate. Anterior setigers with capillary chaetae, median and posterior ones also with excavate stout spines. Posterior part of body often flattened and expanded (Fauchald, 1977).

#### *Heterocirrus* Grube, 1855

Type species : *H. saxicola* = *Dodecaceria*. *Heterocirrus* Saint-Joseph, 1894 = *Caulleriella* and, in part, *Tharyx* (Fauchald, 1977). Defined as having capillaries and acicular chaetae by Caullery and Mesnil, 1898.

#### *Naraganseta* Leidy, 1855

= *Dodecaceria* (Fauchald, 1977).

#### *Audouinia* Quatrefages, 1865

= *Cirriformia* (Fauchald, 1977).

#### *Timarete* Kinberg, 1866

Type species : *Cirratulus anchylochaetus* Schmarda, 1861. 8 spp. (Fauchald, 1977); 3 spp. (Peterse, 1991)

Palps absent. Tentacular cirri present on at least two anterior setigers. Branchiae present from the same segment as the first tentacular cirri. Chaetae include notopodial capillaries and, anteriorly, neuropodial capillaries. Posterior neuropodia with gently curved spines (Fauchald, 1977). Wedge-shaped prostomium. Dorsal tentacles on several anterior segments after first gills. Mid body gills arising well above notopodia. Capillary and sigmoid chaetae (Petersen, 1991).

#### *Promenia* Kinberg, 1866

= *Cirratulus* (Fd).

*Labranda* Kinberg, 1866

= *Cirriformia* (Fd).

*Archidice* Kinberg, 1866

= *Cirratulus* (Fd).

*Chaetozone* Malmgren, 1867

Type species : *C. setosa* Malmgren, 1867; from Spitzbergen. 19 spp. (Fauchald, 1977).

Spines in almost complete rings around posterior (Caullery & Mesnil, 1898; Chamberlin, 1919); with entire tips (Hartman, 1961). Paired palps inserted dorsally anterior to, or at the first chaetiger. Chaetae include capillaries and distally entire, curved spines (Fauchald, 1977).

*Mesocirrineris* Czerniavsky, 1881

= *Caulleriella* (Fd).

*Protocirrineris* Czerniavsky

Prostomium bluntly conical to wedge-shaped. Dorsal tentacles few, on several anterior segments after setiger 1. Gills with or without subdistal pads, first present on segments with dorsal tentacles. Chaetae all fine capillaries (Petersen, 1991).

*Tharyx* Webster and Benedict, 1887

Type species : *T. acutus* Webster and Benedict, 1887; from Maine. 22 spp. (Fauchald, 1977); 5 spp. in genus as redefined (Blake, 1991).

Capillary chaetae only (Caullery & Mesnil, 1898; Chamberlin, 1919). Palps present anterior to or at the first setiger. All chaetae slender, mostly capillary and smooth, but sometimes with serrated cutting edges (Fauchald, 1977). Prostomium conical, peristomium elongate, with pair of grooved palps arising anterior to setiger 1. First pair of branchiae frequently on peristomial segment, arising immediately posterior to palps. Abdominal segments not beadlike. Chaetae include simple capillaries and acicular spines with irregular knobbed tips. Knobs sometimes with shallow nothes but never with distinct teeth (Blake, 1991).

*Cirratulispio* McIntosh, 1911

= *Cirratulus* or *Chaetozone* ?? (Fauchald, 1977).

*Ambo* Chamberlin, 1918

= *Timarete* ? (Fauchald, 1977).

*Caulleriella* Chamberlin, 1919

Type species : *Cirratulus viridis* Langerhans, 1880; from Madeira (Woodham & Chambers, 1994).

*Cirratulus bioculatus* Keferstein, 1862; from France (Fauchald, 1977). 16 spp. (Fauchald, 1977).

Acicular chaetae with bidentate or unidentate tips, in both rami (Chamberlin, 1919); with bifid tips (Hartman, 1961). Paired palps inserted dorsally anterior to, or at the first chaetiger. Chaetae include capillaries and distally bidentate or multidentate, curved spines (Fauchald, 1977).

***Pseudocirratulus* Augener, 1922**

Type species : *P. kingstonensis* Augener, 1922. 1 sp. (Fauchald, 1977).

Palps absent. Cirri and branchiae present on most segments. Two achaetous anterior segments present. Chaetae all gently curved, entire spines or hooks (Fauchald, 1977).

***Cirriformia* Hartman, 1936**

Type species : *Terebella tentaculata* Montagu, 1808. 26 spp. (Fauchald, 1977).

Cirratulids without palps; tentacular cirri present on one segment only; anteriormost branchiae present anterior to the tentacular cirri. Chaetae include capillaries and curved, distally entire acicular spines (Fauchald, 1977). Feeding tentacles originate from an achaetous segment which has been pushed back dorsally to cover some anterior chaetigers (Day).

***Pentacirrus* Wesenberg-Lund, 1958**

= *Timarete* (Fd).

***Monticellina* Laubier, 1961**

Type species : *M. heterochaeta* Laubier, 1961; from Mediterranean France. 6 spp. (Blake, 1991). = *Tharyx* (Fauchald, 1977). Prostomium long, sometimes pointed. Peristomium elongated to short, with palps usually arising anterior to setiger 1. Middle body segments frequently bead-like. Setae including capillaries with distinct sawtooth (denticulate) edge (Blake, 1991).

***Aphelochaeta* Blake, 1991**

Type species : *Tharyx monilaris* Hartman, 1960; 10 spp. (Blake, 1991)

Prostomium conical, peristomium elongate, with pair of grooved palps arising either on or anterior to setiger 1. Abdominal segments frequently beaded in appearance. Chaetae all simple capillaries, lacking distinct denticulations or sawtooth edge. Posterior end frequently expanded (Blake, 1991).

## **Species Lists**

### **Available Names**

***Cirratulus cirratus*** (O.F. Muller, 1776)

Cunningham & Ramage, 1888; Fauvel, 1916; McIntosh, 1911; Southern, 1914; McIntosh, 1915; Fauvel, 1927; Howson, 1984

*Cirratulus medusa* Quatrefages, 1865

syn. of *cirratus* (F)

*Cirrhineris blainvillii* Quatrefages, 1865

syn. of *cirratus* (F)

*Promenia jucunda* Kinberg, 1857-1910

syn. of *cirratus* (F)

*Promenia fulgida* Ehlers, 1897

syn. of *cirratus* (F)

***Cirratulus borealis*** Lamarck - North Sea

Johnston, 1865; Keferstein, 1862

syn. of *cirratus* (F)

Petersen, 1991

*Cirratulus incertus* McIntosh, 1923 - **Shetland**  
Petersen, 1991

*Cirratulus bioculatus* McIntosh, 1911 - **Shetland**  
McIntosh, 1915  
renamed *incertus* (McIntosh, 1923)

*Cirratulus caudatus* Levinsen, 1893 - **Kattegat**  
McIntosh, 1915.

*Chaetozone dunmanni* McIntosh, 1911 - **Ireland**  
syn. of *caudatus* (Levinsen; McIntosh, 1922?)

*Cirratulus tentaculatus* Montagu, 1808 - **Devon ?**  
Cunningham & Ramage, 1888; McIntosh, 1911; 1915  
*Audouinia tentaculata* Saint-Joseph, 1894; Fauvel, 1927  
*Cirriiformia tentaculata* Howson, 1984

*Cirratulus lamarcki* Audouin & Milne-Edwards (non Grube), 1834  
*Audouinia lamarcki* Quatrefages, 1865  
syn. of *tentaculata* (F)

*Audouinia crassa* Quatrefages, 1865  
syn. of *tentaculata* (F)

*Cirratulus borealis* Lamarck : Rathke, 1843  
*Audouinia norvegica* Quatrefages 1865  
*Cirratulus norvegicus* Grube, 1870; 1872; Southern, 1914  
syn. of *tentaculata* (F; George, 1963)

***Cirriiformia norvegica***

*Cirratulus filigerus* Delle Chiaje, 1841  
*Audouinia filigera* Claparede, 1868; Lo Bianco, 1893; McIntosh, 1911; Fauvel, 1916; 1927  
***Timarete filigera*** Petersen, 1991

*Cirratulus lamarckii* Grube (non Audouin & Milne-Edwards), 1840  
syn. of *filigera* (F)

*Cirratulus chiajei* Marenzeller, 1887  
McIntosh, 1922; 1923  
syn. of *filigera* (F)

*Cirratulus chrysoderma* Claparede, 1868  
Lo Bianco, 1893; Rioja, 1917; Fauvel, 1927  
***Protocirrinieris chrysoderma*** Petersen, 1991

*Cirratulus bioculatus* Keferstein, 1862 - **France**  
*Cirrhineris bioculatus* Quatrefages, 1865  
*Heterocirrus bioculatus* Fauvel, 1925; 1927  
***Caulleriella bioculata*** Chamberlin, 1919; Howson, 1987

*Heterocirrus flavoviridis* Saint-Joseph, 1894 - **Dinard, France**  
Augener, 1918; Chamberlin, 1919  
syn. of *bioculata* (F)

*Cirratulus viridis* Langerhans, 1880 - **Madeira**  
*Heterocirrus viridis* Caullery & Mesnil 1898

*Chaetozone viridis* Southern, 1914  
syn. of *bioculata* (F)  
***Caulleriella viridis* Chamberlin, 1919**

*Chaetozone alata* Southern, 1914 - **Ireland**  
Chamberlin, 1919; McIntosh, 1923  
*Heterocirrus alatus* Fauvel, 1927  
***Caulleriella alata* Howson, 1987**

*Heterocirrus caputesocis* Saint-Joseph, 1894 - **Dinard, France**  
Caullery & Mesnil, 1808; Chamberlin, 1919; Rioja, 1917; Fauvel, 1927  
***Caulleriella caputesocis* Howson, 1987; Woodham & Chambers, 1994**

*Chaetozone zetlandica* McIntosh, 1911 - **Shetland**  
Southern, 1914; Chamberlin, 1919  
*Heterocirrus zetlandicus* Fauvel, 1927  
***Caulleriella zetlandica* Day, 1976; Howson, 1987; Woodham & Chambers, 1994**

***Chaetozone gibber* Woodham & Chambers, 1994 - Kent**

***Chaetozone setosa* Malmgren, 1867 - Spitzbergen**  
Theel, 1879; Cunningham & Ramage, 1888; McIntosh, 1915; Chamberlin, 1919; Fauvel, 1922; 1927;  
Lechapt, 1983; Christie, 1985; Howson, 1987

*Chaetozone macrophthalma* Langerhans, 1880; Chamberlin, 1919 - **Madeira**

*Chaetozone carpenteri* McIntosh, 1911 - **Algeria**  
syn. of *setosa* (F)

*Chaetozone whiteavesi* McIntosh, 1911 - **St. Lawrence**

*Chaetozone killariensis* Southern, 1914 - **Ireland**  
Chamberlin, 1919; McIntosh, 1923  
*Heterocirrus killariensis* Fauvel, 1927  
*Caulleriella killariensis* Howson, 1987  
***Tharyx killariensis* Blake, 1991**

***Tharyx acutus* Webster & Benedict, 1887 - Maine**  
Blake, 1991

***Tharyx kirkegaardi* Blake, 1991 - off Cape Hatteras**

*Heterocirrus marioni* Saint-Joseph, 1894 - **Dinard, France**  
Chamberlin, 1919  
*Tharyx marioni* Caullery & Mesnil, 1898; Fauvel, 1927; Howson, 1987  
***Aphelochaeta marioni* Blake, 1991**

***Cirratulus filiformis* Keferstein, 1862; Saint-Joseph, 1894; Fauvel; 1901; 1927**

*Cirratulus norvegicus* McIntosh (non Quatrefages), 1911  
= *mcintoshii* (S)  
syn. of *filiformis* (F)

*Cirratulus tessellatus* McIntosh, 1911 - **Algeria**  
syn. of *filiformis* (F)

*Cirratulus mcintoshii* Southern, 1914 - **Drobak, Norway ?**  
syn. of *filiformis* (F)

*Tharyx mcintoshi* Eliason, 1962; Howson, 1987

*Cirratulus tenuisetis* Grube

*Cirratulus dorsobranchialis* Kirkegard, 1959 - **Angola**

*Monticellina dorsobranchialis* Blake, 1991

*Monticellina heterochaeta* Laubier, 1960 - **Mediterranean France**

syn. of *dorsobranchialis* (Blake, 1991)

*Monticellina baptistae* Blake, 1991 - **Georges Bank**

*Dodecaceria concharum* Oersted, 1843

Saint-Joseph, 1808; Caullery & Mesnil, 1898; McIntosh, 1922; Fauvel, 1927; Howson, 1987

*Heterocirrus ater* Quatrefages, 1865

*Dodecaceria ater* McIntosh, 1911

syn. of *concharum* (F)

*Heterocirrus saxicola* Grube, 1855

syn. of *concharum* (F)

*Heterocirrus fimbriatus* Verrill, 1879 - **Bay of Fundy**

syn. of *concharum* (F)

*Dodecaceria fimbriata* Gibson, 1977

*Dodecaceria caulleryi* Dehorne, 1933 - **Portel, France**

Howson, 1987

syn. of *fimbriata* (Gibson, 1977)

*Heterocirrus gravieri* McIntosh, 1911 - **Cadiz**

syn. of *concharum* (F)

*Terebella ostreae* Dalyell, 1853

syn. of *concharum* (F)

*Nereis sextentaculata* Delle Chiaje, 1828

syn. of *concharum* (F)

*Dodecaceria diceria* Hartman, 1951

Gibson, 1996

*Heterocirrus multibranchiis* Grube, 1863; Chamberlin, 1919 - **Mediterranean**

*Tharyx multibranchiis* Caullery & Mesnil, 1898; Fauvel, 1927; Howson, 1987

*Tharyx vivipara* Christie, 1984 - **Northumberland**

Howson, 1984

*Tharyx retierei* Lechapt, 1994 - **Morocco**

*Caulleriella serrata* Eliason, 1962 - **Skagerrak**

*Aonis vittata* Grube



## Species Descriptions

*Cirratulus cirratus* (O.F.Muller, 1776)

### Description

**Size :** Length, 30 - 120 mm; width 1.5 - 3 mm (F).

**Colour :** Orange-yellow, red, brownish, tentacles and gills red or yellow (F).

**Head shape :** Obtusely conical prostomium, wide at base, with two oblique rows of 4 - 8 black eyes in adults. Two achaetous segments behind peristomium, often biannulated dorsally (F).

Peristomium as long as first 3 or 4 segments (D). Broader than in *C. tentaculata*, hoof shaped, with a slight notch in the centre (McIntosh).

**Body form :** Elongated, cylindrical. Segments (75 - 130) fairly long and tumid (F). Segments two or three times as long as broad (D); more clearly defined than in *C. tentaculata* (McIntosh).

Segment length up to 1/6 of width anteriorly, about 1/3 of width in mid body (UM). Deep groove ventrally, from the first chaetiger to the tail. Forth segment, first chsetiger, has a smaller parapod than the following segments and has two minute tufts of bristles. The parapodia are more prominent than in *C. tentaculata* and the rami closer together (McIntosh).

**Chaetae :** Capillary chaetae in both rami of all parapodia. Short, fine, sigmoid (Wst). Capillaries simple, flattened and tapering, with extremely slender points. Neuropodial capillaries shorter, some with broader tips than in notopodia. Notochaetae slightly dilate from the base to the middle of the shaft, then taper gradually to a very fine, hair-like tip. The front edge of each is minutely and regularly spinose in a distal direction (McIntosh). Capillaries up to half of body width anteriorly, 1/4 of body width in mid body (UM).

Acicular sines, unidentate and slightly curved (F); dilate a little from the base to a point above the middle, where there is a slight forward curve, then a slight backward bend occurs, then a forward curve to form the hook at the tip. This projects through a neatly rounded aperture in the cuticle and is fairly sharp where undamaged. Those in notopodia, posteriorly, are paler, more slender and less curved than those in neuropodia (McIntosh). Hooks dark and just under half length of capillaries (UM). In the neuropodia, 2 - 4, large and long (WSt), from setiger 10 - 12 (F); 1 in 13th neuropodium; 3 in the 16th; 4 in the 30th (McIntosh). 1 - 2 in neuropodia (F). In the notopodia, 1 - 2, short and fine (WSt), from setiger 20 - 23 (F); 1, slender and sharply pointed, in the 29th; (McIntosh).

**Palps :** Channelled tentacular filaments, a little wider than the gills, inserted on the front side of the 1st setiger in two groups of 2 - 8 (F). Numerous, in a row (D). Fourth chaetiger with a series of proportionately large, filiform branchial cirri arranged in two lateral tufts, each of seven or eight cirri, orange, with blood vessels, bulkier than in *C. tentaculata* (McIntosh).

**Gills :** From 1st. setiger, almost at posterior end. Inserted a little above the notopodia at a very variable distance, at first small, then equal to the distance between rami, then greater (F). Stout (D). The first 14 or 15 chaetigers have gills, further back there are occasional gills, the posterior is without gills (McIntosh).

**Pygidium :** Anus small, subdorsal (F). Anus crenulate, with dorsal papilla (McIntosh).

### Diagrams

Specimen from the Tees, TY 1.1 (ex. R. Proudfoot).

**Distribution**

North Sea, Channel, Atlantic, Arctic, (worldwide) (F); Arctic to Madeira and Canaries; eastern North America (S); Northern Britain (UM).

**Habitat**

Shallow water, in mud filling rock crevices, in muddy sand and dredges (F); Shore species (Wsk); under stones, almost up to HWM, prefers some mud, sometimes in *Laminaria* holdfasts, young specimens dredged. To 20 m (S); shallow mixed sediments (UM). Intertidal mud and crevices, young from algal holdfasts (PG).

**Biology**

Mature at least from June to September, young specimens found in spring (Southern, 1914).

**Notes**

Juveniles can look very different. We have a few, some complete.

**Type Locality****Literature**

P1408 in MCS. Included in workshop keys and table.

Cunningham & Ramage, 1888, p. 643, pl. XXXVIII, fig. 9, XXXIX, fig. 9; Fauvel, 1916, p. 447, pl. VII, fig. 12; McIntosh, 1915, p. 249, pl. XCI, fig. 2; Fauvel, 1927; Hartmann-Schroder, Day, Ushakov, Southern. *C. borealis* Johnston, 1865, p. 210, fig. 37; Keferstein, 1862, p. 120, pl. X, fig. 19 - 22. *C. medusa* Quatrefages, 1865, I, p. 455. *Cirrhineris blainvillii* Quatrefages, 1865, I, p. 463. *Promenia jucunda* Kinberg, 1857 - 1910, p. 64, pl. XXV, fig. 2. *P. fulgida* Ehlers, 1897, p. 114, pl. VII, fig. 174, 176.

*Cirratulus cirratus* (O.F. Muller, 1776)

Cunningham & Ramage, 1888; Fauvel, 1916; McIntosh, 1911; Southern, 1914; **McIntosh, 1915; Fauvel, 1927**; Howson, 1987

*Cirratulus medusa* Quatrefages, 1865

**Notes**

Synonym of *C. cirratus* (F).

*Cirrhineris blainvillii* Quatrefages, 1865

**Notes**

Synonym of *C. cirratus* (F).

*Promenia jucunda* Kinberg, 1857-1910

**Notes**

Synonym of *C. cirratus* (F).

*Promenia fulgida* Ehlers, 1897

**Notes**

Synonym of *C. cirratus* (F).

*Cirratulus borealis* Lamarck

**Notes**

Distinct from *C. cirratus*. Differs in having two branchiae per segment throughout, rather than just anteriorly (Petersen, 1991).

Johnston, 1865; Keferstein, 1868. Synonym of *C. cirratus* (F). Petersen, 1991

*Cirratulus incertus* McIntosh, 1923

**Description**

**Size :** Length, 15 mm; width 1 mm (McIntosh, 1923).

**Colour :**

**Head shape :** 2 eyes. Less of a basal constriction than in *C. cirratus* (McIntosh, 1923).

**Body form :** About 55 segments. Segments about 1/3 as long as wide at front and mid body, shorter to rear (McIntosh, 1923).

**Chaetae :** Capillaries in all notopodia. They are very long at the front, finely tapered with a slight curve at the tip; shorter behind but similarly shaped (McIntosh, 1923). Capillaries in neuropodia have short cylindrical shafts, which expand into knife-blade-like tips, finely tapered at the tip. About five anteriorly (McIntosh, 1923).

Hooks in notopodia and neuropodia, they are at first accompanied by "bristles", they are similar in shape to those of *C. cirratus* (McIntosh, 1923).

**Palps :** "Cirri from 4th segment are of great length, probably reaching beyond the tail in life" (McIntosh, 1923).

**Gills :**

**Pygidium :** Similar to *C. cirratus*, the ventral papilla being the more prominent (McIntosh, 1923).

**Distribution**

**Habitat**

**Biology**

Shows asexual regeneration (Petersen, 1991).

**Notes**

"This is the Danish species keying out to *C. cirratus*. Misinterpretation of asexual regenerates has led to needless and misleading descriptions of new taxa" (Petersen, 1991).

**Type Locality**

Shetland

**Literature**

McIntosh, 1915 (as *bioculatus*); 1923; Petersen, 1991.

*Cirratulus incertus* **McIntosh, 1923**

Petersen, 1991

*Cirratulus bioculatus* McIntosh (non Keferstein, 1862), 1911

**Notes**

Described by McIntosh, 1915. Renamed *C. incertus* (McIntosh, 1923). Synonym of *C. incertus*.

*Cirratulus* #1 "Flatheads"

**Description**

**Size :** Length, 5 - 20 mm (UM)

**Colour :** White to yellowish.

**Head shape** : Rounded prostomium, flattened dorsoventrally. One or two pairs of large black eyes, (UM).

**Body form** : Rather short. dorsoventrally flattened. Segments fairly long.

**Chaetae** : Capillaries in both rami of all parapodia (UM).  
Acicular chaetae unidentate, curved, from 7 -8 in neuropodia (UM). Acicular spines long and slender (Wsk).

**Palps** : One pair, from head / setiger 1 boundary (Wsk).

**Gills** : Thicker than palps (PG)

**Pygidium** :

#### **Distribution**

Throughout Britain (UM).

#### **Habitat**

Offshore species (Wsk).

#### **Biology**

#### **Notes**

Unnamed taxon recognised at UM. Probably juvenile *Cirratulus* but not like typical *C. cirratus* in appearance. We have a few, some complete. Also equals the offshore species of PG etc. Could be *C. incertus* ??

#### **Literature**

*Cirratulus* sp. in workshop keys. *Cirratulus* j. in test key.

### *Cirratulus caudatus* Levinsen, 1893

#### **Description**

**Size** : Length, to 50 mm (McIntosh, 1915).

**Colour** : Pale greyish white to bluish, may be translucent (UM).

**Head shape** : Snout forming a blunt cone, with slight lateral furrows. Mouth large with a crescentic groove and two lateral lips. Peristomium and two following segments without chaetae (McIntosh, 1915). Raised glandular area on anterior achaetous segments (PG).

**Body form** : Body widens to the eighth or ninth chaetiger and then abruptly dilates into an ovoid enlargement of ten segments, when it contracts. About 50 well defined segments, of single annulations. Parapodia form lateral ridges with notopodia and neuropodia and a minute, flat median papilla (McIntosh, 1915).

**Chaetae** : Capillaries in notopodia long; capillaries in neuropodia shorter. A stouter series starts at the 30th chaetiger, in which capillaries have a double curvature of the shaft and a finely tapered tip, the neuropodia apparently preceeding the notopodia (McIntosh, 1915).

Posteriorly are elongated hooks, with straight, finely striated shafts with a slight bend forwards at the upper part and then gently curve forwards to sharp tips. The striations end at about the middle of the tips (McIntosh, 1915). They start from about chaetiger 30 in neuropodia, a little later in notopodia (PG).

**Palps :** Third segment with a pair of tentacles (McIntosh, 1915).

**Gills :** Not seen beyond 12th segment (McIntosh, 1915).

**Pygidium :**

**Distribution**

Kattegat, Ireland (McIntosh, 1915). West of Scotland (UM), northeast coast and north North Sea, subtidal (PG).

**Habitat**

**Biology**

**Notes**

Our specimens seem to fit this species fairly well.

**Type Locality**

Kattegat

**Literature**

Not in MCS. McIntosh, 1915; note after workshop key.

*Cirratulus caudatus* Levinsen, 1893

**McIntosh, 1915.**

*Chaetozone dunmanni* McIntosh, 1911

**Notes**

Described from Dunmannus Bay, Ireland. Synonym of *Cirratulus caudatus* (Levinsen; McIntosh, 1922?).

*Cirriformia tentaculata* (Montagu, 1808)

**Description**

**Size :** Length, 150 - 230 mm; width, 4 - 5 mm (McIntosh, 1911; F).

**Colour :** Orange-yellow or reddish brown or greenish bronze, gills and tentacular filaments red (F); brown, greenish-brown, yellow, juveniles sometimes colourless (UM). There may be some pigment on the prostomium, simulating eyes. Vertical lines of dark pigment in the sulci at segment junctions, from the fourth segment back (McIntosh, 1911).

**Head shape :** Obtusely conical prostomium, wide at base, without eyes in adults but with pigment spots. Two achaetous segments behind peristomium, often biannulated (F). On each side, a short distance from the tip, an oblique depression slopes outwards and backwards. From where they meet, a ridge runs forwards to the tip of the snout. Ventrally, a deep groove leads backwards to the mouth, which is bounded posteriorly by a thick transverse lip. The peristomium is narrower than two achaetous segments, which have transverse wrinkles (McIntosh, 1911).

**Body form :** Cylindrical, becoming more angular in cross section towards rear and may be a little flattened ventrally. Fairly robust and of equal thickness but tapering at head and tail and sometimes thinner and more delicate in the median segments. Segments (over 300) very short and fairly well defined along most of body but median setigers may be longer and less clearly divided (F). Posterior region angular in cross section (F). The first chaetiger is broader than its successors (McIntosh, 1911)

**Chaetae :** Capillary chaetae in both rami of all parapodia (F). They are pale yellow and their length is 1/3 of the body width anteriorly, 1/4 posteriorly (UM). They have stout shafts and long, flattened, tapering tips, with a narrow border of spines directed distally (McIntosh, 1911). Acicular sines reddish (UM), unidentate and slightly curved (F), neuropodial hooks, large, sigmoid, with a rounded point (WSt); notopodial hooks, slight, straight, simple pointed (WSt), in both rami of all but the first few setigers (F). 2 - 3 in neuropodia, which are larger and darker than those in the notopodia (4 - 5), and start further forwards (F). Hooks slender at front, more robust later. The necks curve backwards then forwards at the tips (McIntosh). Acicular spines slightly bidentate in juveniles (UM). Neuropodial hooks start between the 45th and 65th chaetiger, notopodial hooks start between the 90th and 95th chaetigers (McIntosh, 1911).

**Palps :** Numerous tentacular filaments in two groups in transverse bands on an elevated ridge lying dorsally over the 5th to 6th setigers (McIntosh, 1911); On the 6th or 7th setiger, rarely at the 4th to 5th (F). The ridge is crescentic in front, straight behind. There are at least 20 tentacles in the cluster (McIntosh, 1911).

**Gills :** From 1st. setiger, on all but last few segments. Inserted a little above and behind the notopodia at a distance clearly less than that between the rami (F). They continue to about the 35th setiger from the tail and those in mid body are thickest (McIntosh, 1911).

**Pygidium :** Anus subterminal in an elongated dorsal groove. Pygidium rounded (F). Small process, like a rudimentary cirrus, may be present in mid ventral line (McIntosh, 1911).

#### **Diagrams**

Specimen from Essex, LabRef 9312-04452, URC 1041.

#### **Distribution**

North Sea, Irish Sea, Atlantic (F), worldwide (D), British Isles, France, Skagerrak, North Sea (Southern), throughout Britain (UM).

#### **Habitat**

Shallow water, in black mud to muddy sand and under stones (F). Sand of *Zostera* beds, sand and mud between stones, occasionally in clean sand near rocks (Southern, 1914), mixed sediments (UM).

#### **Biology**

Mature in June (Southern, 1914).

#### **Notes**

This could be a species complex and juveniles can look very different. We have lots, adults and juveniles, some complete.

#### **Type Locality**

Devon ?

#### **Literature**

P1414 in MCS. Included in workshop key and table (6 spp. ?), Day, Ushakov. *Cirratulus tentaculatus* Cunningham & Ramage, 1888, p. 646, pl. XXVIII - XXIX, fig. 10 (F); Southern, 1914; McIntosh, 1915, p. 242 (F). *C. lamarcki* Audouin & Milne-Edwards (non Grube), 1834, p. 271, pl. VII, fig. 4 (F). *Audouinia lamarcki* Quatrefages, 1865 I, p. 460 (F). *A. crassa* Quatrefages, 1865 I, p. 461. *A. tentaculata* Saint-Joseph, 1894, p. 48, pl. III, fig. 55 - 57 (F); Fauvel, 1927, p. 91, fig. 32. *Cirratulus tentaculatus* Montagu, 1808. Cunningham & Ramage, 1888; McIntosh, 1911; 1915; Southern, 1914. *Audouinia tentaculata* Saint-Joseph, 1894; Fauvel, 1927. *Cirriiformia tentaculata* Howson, 1984

*Cirratulus lamarcki* Audouin & Milne-Edwards (non Grube), 1834

**Notes**

*Audouinia lamarcki* Quatrefages, 1865. Synonym of *C. tentaculata* (F).

*Audouinia crassa* Quatrefages, 1865

**Notes**

Synonym of *C. tentaculata* (F).

*Cirriiformia norvegica* (Quatrefages, 1865)

**Description**

**Size** : Length, 35 - 40 mm (Southern, 1914).

**Colour** : Dark pigment on ventral side of head and anterior region and lateral region of prostomium near nuchal organs (Southern, 1914).

**Head shape** : Prostomium followed by three achaetous segments. The first is slightly elevated dorsally (Southern, 1914).

**Body form** : Rounded dorsally, flattened ventrally, with a shallow median groove. Widest and thickest between 30th and 40th segments and tapers gradually towards both ends. 130 - 140 segments. In anterior region distance between gills and notochaetae much less than distance between dorsal and ventral chaetae, increasing to posterior. Distance between rami decreases from front to back. After segment 20 ratio between these spaces is constant, cirri to notochaetae two thirds distance between rami (Southern, 1914).

**Chaetae** : Longest capillaries very slender, with flattened serrate blades. Shorter capillaries half as long but as wide as longest. On lower margin of notopodia and upper margin of neuropodia are 2 to 3 very slender, short smooth chaetae. 13 capillaries in 10th notopodium, 15 in neuropodium. Notopodial capillaries longer than neurochaetae (Southern, 1914).

Curved hooks from 21st neuropodia and 35th - 41st notopodia. Hooks are slightly thicker, shorter and more strongly curved in neuropodia. In 75th parapod, 3 - 4 capillaries and 2 - 3 hooks in notopodium; 3 capillaries and 3 hooks in neuropodium. Posteriorly there are 1 - 2 capillaries and 2 - 3 hooks in each division. Size difference between dorsal and ventral hooks of posterior parapodia not so great as in *C. tentaculata* (Southern, 1914).

**Palps** : Tentacular filaments on fourth setiger. Nine or ten pairs forming an oblique band on both sides and leaving a broad median area bare (Southern, 1914).

**Gills** : Third post oral segment with a pair on posterolateral margin (Southern, 1914).

**Pygidium** : Anus large and funnel shaped, with crenulate margin and rounded ventral papilla (Southern, 1914).

**Distribution**

Norway to N. France (Southern, 1914).

**Habitat**

Lithothamnion and kelp holdfasts (Southern, 1914).

**Biology**

Mature specimens found in August (Southern, 1914).

### Notes

Possibly represents juveniles of *C. tentaculata* (George, 1963) but he omitted one of the distinguishing features from his discussion (ie. the distance between the gills and the notopodia). Note after workshop key. Synonymised with *C. tentaculata* in Fauvel.

### Type Locality

Norway ?

### Literature

Not in MCS. *Audouinia norvegica* Quatrefages 1865, I p. 460 (F). *Cirratulus norvegicus* Southern, 1914, p. 107, pl. XI, fig. 26 (with notes on nomenclature).

*Cirratulus borealis* Lamarck : Rathke, 1843

*Audouinia norvegica* Quatrefages 1865

*Cirratulus norvegicus* Grube, 1870; 1872; Southern, 1914

syn. of *tentaculata* (F; George, 1963)

*Timarete filigera* (Delle Chiaje, 1841)

### Description

**Size :** Length, 200 - 250 mm; width, 5 - 6 mm (F).

**Colour :** Orange-yellow or reddish, gills and tentacular filaments red, sometimes white rings (F).

**Head shape :** Obtusely conical prostomium, wide at base, without eyes in adults but with pigment spots. Two achaetous segments behind peristomium, often biannulated (F).

**Body form :** Attenuated at ends. Convex dorsally, flattened ventrally. Segments (over 300) very short (F).

**Chaetae :** Capillary chaetae in both rami of all parapodia, though sometimes absent from posterior neuropodia. Slightly flattened (Wst). Proportionately larger than in *C. tentaculata* (McIntosh, 1911).

Acicular spines, unidentate and slightly curved (F). Notopodial spines, short, fine pointed; neuropodial spines, large, pointed (Wst). Spines in both rami of all but the first few setigers (F). Notopodia with 3 - 5; neuropodia with 1 - 2 (Wst); from setiger 12 (D); from setiger 37 to 41 (McIntosh). 1 - 2 in neuropodia, which are larger and darker than those in the notopodia, which have 3 - 5 (F). Spines larger and darker than those of *C. tentaculata*, and starting further forwards ? (S); from setiger 19 - 30 (McIntosh, 1911). Spines are slightly less curved towards the tip than in *C. tentaculata* (McIntosh, 1911).

**Palps :** Numerous tentacular filaments in two groups in transverse bands at the 4th or 5th setiger, sometimes at the 5th to 6th. Difficult to tell where they start (McIntosh, 1911)

**Gills :** From 1st. setiger, on all but last few segments. Inserted above the notopodia at a distance equal to or greater than that between the rami. They are inserted in front of the notopodia (McIntosh, 1911).

**Pygidium :** Small and rounded (F).

### Distribution

Mediterranean, Atlantic, (worldwide) (F).

### Habitat

Shallow water and coastal in mud, muddy sand and under stones (F).



## Biology

### Notes

Not very clear. Probably not British.

### Type Locality

### References

Not in MCS, included in workshop table (as *C. filigera*); Day. *Audouinia filigera* Claparede, 1868, p. 267, pl. XXIII, fig. 3; Fauvel, 1927 (with a note that it is closely related to *A. tentaculata* and may be only a warm water form). *Cirratulus filigerus* Delle Chiaje, 1841, vol III, p. 85, pl. XCI, fig. 1. *C. chiajei* Marenzeller, 1887, p. 18. *C. Lamarckii* Grube (non Aud. - Edw.), 1840, p. 70. *Cirratulus filigerus* Delle Chiaje, 1841. *Audouinia filigera* Claparede, 1868; Lo Bianco, 1893; McIntosh, 1911; Fauvel, 1916; 1927. *Timarete filigera* Petersen, 1991

*Cirratulus lamarckii* Grube (non Audouin & Milne-Edwards), 1840

### Notes

Synonym of *C. filigera* (F).

*Cirratulus chiajei* Marenzeller, 1887

### Notes

McIntosh, 1922; 1923. Synonym of *C. filigera* (F).

*Protocirrinensis chrysoderma* (Claparede, 1868)

## Description

**Size** : Length, 20 - 25 mm; width 0.5 mm (F).

**Colour** : Greenish brown, transparent posterior. Golden yellow granules in the teguments (F).

**Head shape** : Bluntly conical with two indistinct eyes (D).

**Body form** : Elongated, thin and flexible with 150 segments (F). Slender, segments much broader than long (D). Expanded anterior ends gradually tapering towards the tail (PG).

**Chaetae** : Capillaries in both rami of all parapodia (F); long (D).  
No acicular chaetae (F).

**Palps** : 2 - 3 (F) or 4 (D) pairs of tentacular filaments on the first segment with gills, ie. 4th to 5th setiger (F), or 7th (D).

**Gills** : From setiger 4 - 5 (same as filaments), variable in number and usually absent from posterior half of body (F); Fairly stout and arising closer to notosetae than distance between rami (D).

**Pygidium** : Papilliform, with ventral anus (F).

### Distribution

Mediterranean (F); Cornwall (P.G.)

### Habitat

Shallow water, in mud between barnacles and ascidians or seagrass (F). Subtidal (PG).

**Notes**

Seems quite distinct. P.G. has a few. Identity of these specimens not certain. They don't fit the descriptions perfectly.

**Type Locality****Literature**

Not in MCS, included in workshop table, Fauvel, Day,  
*Cirratulus chrysoderma* Claparede, 1868  
Lo Bianco, 1893; Rioja, 1917; Fauvel, 1927  
*Protocirrinieris chrysoderma* Petersen, 1991

***Caulleriella bioculata* (Keferstein, 1862)****Description**

**Size :** Length : 10 - 40 mm; width : 0.5 - 1 mm (F).

**Colour :** Teguments greenish yellow, colour lost in alcohol, yellow or brown granules (F).

**Head shape :** Prostomium ellipsoidal, quite long. 2 eyes (may be diffuse), much larger in epitokes (F). Peristomium a little expanded dorsally, 2 following segments may be heart-shaped, biannulated on the sides (F).

**Body form :** Cylindrical; 80 to 140 setigers (F).

**Chaetae :** Capillaries in first two neuropodia long, thin, flanged and very finely pectinate at ends (F). No capillaries in later neuropodia (F). Capillaries present in all notopodia (F). Epitokes have natatory chaetae (F).

Bidentate hooks with one tooth smaller than the other, without flange, from the 3rd neuropodium and from the 6th - 9th notopodium (F); not so in Irish Sea material (PG); 1 - 3 per bundle (F).

**Palps :** 1 pair, longer and wider than gills; inserted towards the top on the front end of setiger 1 (F). Long and grooved (D).

**Gills :** From setiger 1, quite fragile and numerous but becoming rare in posterior portion of body (F); extending to mid body (Wst); long and grooved (D).

**Pygidium :**

**Diagrams****Distribution**

Channel, France, Atlantic (F); Irish Sea (Mackie et al. - PG).

**Habitat**

In *Lithothamnion* and kelp holdfasts and in old shells and dredges (F).

**Notes**

See under *C. alata*. Also confusion with *C. viridis*, which was combined with *C. bioculata* in Fauvel. Fauvel's descriptions and comments refer, in part, to *C. viridis* but are left in the description here.

**Type Locality**

France

### Literature

P1395 in MCS. Included in workshop keys and table, Fauvel (as *Heterocirrus*), Garwood, Hartmann-Schroder, Day.

*Cirratulus bioculatus* Keferstein, 1862

*Cirrhineris bioculatus* Quatrefages, 1865

*Heterocirrus bioculatus* Fauvel, 1925; 1927

*Caulleriella bioculata* Chamberlin, 1919; Howson, 1987

### *Heterocirrus flavoviridis* Saint-Joseph, 1894

#### Description

**Size** : Length : 11.5 mm; width 0.36 mm (St. Joseph, 1894).

**Colour** : Pale green or golden yellow. Yellow colour in granules in corpuscles in skin. Often both colours mixed in the same animal (St. Joseph, 1894).

**Head shape** : Very similar to that of *C. caputesocis*, with 2 eyes (St. Joseph, 1894). Peristomium long, biannulated? (Langerhans, 1880).

**Body form** : 86 setigers (St. Joseph, 1896).

**Chaetae** : The two first chaetigers have 5 capillaries in each ramus.

Bidentate hooks start on the third neuropodium, 5 per ramus and from the 13th notopodium, small capillaries accompanying them (St. Joseph, 1894). Hooks clearly visible through stereomicroscope (UM).

**Palps** : 1 pair, long, spiralled with ciliated groove, on the segment following the peristomium (= last achaetous segment, St. Joseph, 1894).

**Gills** : From alongside and above palps, finer than palps, on many segments (St. Joseph, 1894).

**Pygidium** : With five cirri ventrally (St. Joseph, 1894).

#### Diagrams

#### Distribution

#### Habitat

In dredged shells, less common than *C. caputesocis*. (St. Joseph, 1894).

#### Notes

Similar to *C. viridis* and *C. bioculata* but different positions of palps and hooks (St. Joseph, 1894).

May be a synonym of *C. viridis*, in otherwise, our "*C. viridis*" are probably this species.

#### Type Locality

Described from Dinard, France.

#### Literature

Augener, 1918; Chamberlin, 1919

Synonym of *H. viridis* (McIntosh, 1915)

Synonym of *H. bioculata* (F).

*Caulleriella viridis* (Langerhans, 1880)

**Description**

**Size :** Length : 10 mm (Langerhans, 1880); about 12 mm (McIntosh, 1915).

**Colour :** Green (Langerhans, 1880); greenish or yellowish, blackish in preserved material (McIntosh, 1915) dark brown (UM).

**Head shape :** Prostomium with 2 eyes (Langerhans, 1880), more or less acute but flattened. Nuchal organ on each side a little behind the eye Two achaetous segments behind prostomium (McIntosh, 1915). Peristomium long, biannulated? (Langerhans, 1880).

**Body form :** 50 setigers (Langerhans, 1880); 50 - 86 segments, thickest anteriorly, tapering only a little to the snout and gradually from the anterior region to the tip of the slender tail (McIntosh, 1915). Anterior segments short, robust, well defined and angular in cross section (UM). Mid body segments longer, with length about 1/6 of width, less well defined and more fragile than those of thoracic and tail regions (UM).

**Chaetae :** Anterior capillaries curve backwards, longest anteriorly and soon become short (McIntosh, 1915). Pale yellow, bent back, length 1/4 to 1/2 of body width (UM). Mid body capillaries very short and unclear (UM).

Bidentate hooks with a large and not very acute main fang, a spike above it, a slightly curved shaft with an enlargement at the shoulder (McIntosh, 1915); with long, prominent shafts reaching back one tooth smaller than the other, without flange, from the 3rd - 4th neuropodium and from the 7th - 15th notopodium, up to 8 per bundle, small capillaries accompanying them (Langerhans, 1880). At the thirteenth, four of the five capillaries disappear and two hooks as in the neuropodia accompany the single capillary to the posterior (St. Joseph, 1896). Hooks clearly visible through stereomicroscope (UM).

**Palps :** 1 pair, long, thick and grooved, on setiger 1 (Langerhans, 1880) on second achaetous segment (that behind peristomium) (McIntosh, 1915).

**Gills :** From setiger 1, shorter than palps, reaching to end of body but becoming scarcer to rear (Langerhans, 1880), placed below palps on last achaetous segment then numerous on each side giving a woolly appearance (McIntosh, 1915).

**Pygidium :** Anus terminal (McIntosh, 1915). Without anal cirri (UM).

**Diagrams**

Specimen from off the Isle of Wight, LabRef 8442, URC 7477.

**Distribution**

Channel, France, S.W. Ireland, Madeira, east coast of U.S.A. ? (Southern, 1914); southern (McIntosh, 1915); off S.E. Isle of Wight (UM).

**Habitat**

In *Lithothamnion* and kelp holdfasts and in old shells and dredges (F). In shallow water stony ground (UM).

**Notes**

See under *C. alata*. Confusion with *C. bioculata*, they are combined in Fauvel. We have a few adults, provisionally referred to this species, some complete but missing palps & gills.

**Type Locality**

Madeira

## Literature

Southern (as *Chaetozone*).

*Cirratulus viridis* Langerhans, 1880

*Heterocirrus viridis* Caullery & Mesnil 1898

*Chaetozone viridis* Southern, 1914

syn. of *bioculata* (F)

*Caulleriella viridis* Chamberlin, 1919

*Caulleriella alata* (Southern, 1914)

## Description

**Size :** 10 - 12 mm. (S, F, G); 25mm? (UM).

**Colour :** Brownish gray (Southern, 1914; F); lilac to purplish (UM).

**Head shape :** Conical, pointed prostomium. 2 eyes, dark (Southern, 1914), often rather pale and indistinct (UM). Two achaetous segments behind peristomium (Southern, 1914).

**Body form :** Cylindrical, becoming more angular in cross section towards rear (UM). Fairly robust and of uniform thickness but tapering at head and tail (F). 100 - 110 segments (F), short and fairly well defined along whole of body (UM). Very slender and uniform in width, tapering only slightly at each end (Southern, 1914). Anterior segments well defined, short, angular in cross section, similar in mid body, robust (UM).

**Chaetae :** Capillary chaetae in all notopodia (mostly short after ca. setiger 20) (Southern, 1914). Some are long, cylindrical and unflattened; others shorter, flattened and very thin along one edge (Southern, 1914). Anterior notopodia with 4 - 6 capillaries, 2 or 3 in mid to posterior notopodia, 1 or two fine capillaries in neuropodia (Southern, 1914). Capillaries accompanying hooks often absent (Southern, 1914). Anterior capillaries thin, pale, regularly bent backwards; length about 1/4 of body width (UM). Mid body capillaries very short and unclear (UM). A few long, fine natatory chaetae may be present in mid body parapodia (UM).

Hooks are bidentate, with a delicate, narrow flange or wing on the convex side and are boldly curved (Southern, 1914). The shaft is constricted where it emerges (Southern, 1914). They are present in all neuropodia - 5 to 7 anteriorly, 3 to 5 posteriorly; in notopodia from about setiger 21, 1 or 2 in mid notopodia, 3 posteriorly (Southern, 1914). Hooks increase in size to rear (Southern, 1914). Dorsal chaetae in each bundle slightly thicker than ventral ones (Southern, 1914). Hooks clearly visible through stereomicroscope (UM).

**Palps :** 1 pair, thick, inserted on last achaetous segment (F); very large, up to 2 mm long (Southern, 1914).

**Gills :** From 1st setiger (F); 3 mm long (Southern, 1914).

**Pygidium :** ?

## Diagrams

Specimen from off the Isle of Wight, LabRef 8481, URC 7604.

## Distribution

Ireland (Southern, 1914, F); in all British waters (UM).

## Habitat

Laminaria holdfasts and caught in surface tow-net at night (Southern, 1914). Mostly in shallow gravels (UM).

### Notes

Probably OK, but size and colour different from that given in Fauvel, and he says *C. bioculata* may occasionally have hooks earlier than usual. We have lots, including complete specimens and juveniles.

### Type Locality

? Blacksod Bay, Ireland. In *Laminaria* roots.

### Literature

P1394 in MCS. Included in workshop keys and table, Fauvel (as *Heterocirrus*), Hartmann-Schroder, Ushakov, Southern (as *Chaetozone*).

*Chaetozone alata* Southern, 1914

Chamberlin, 1919; McIntosh, 1923

*Heterocirrus alatus* Fauvel, 1927

*Caulleriella alata* Howson, 1987

## *Caulleriella* "A"

### Description

**Size** : Length up to about 15 mm; width about 0.5 mm (UM).

**Colour** : Unknown

**Head shape** : Conical, pointed prostomium. Without eyes.

**Body form** : Elongated, cylindrical to slightly dorsoventrally flattened; of uniform thickness almost throughout but tapering at head and tail (F). First 15 to 20 segments rather short but in mid body and posterior they are up to 1/3 as long as wide. Segments are fairly well defined along whole of body and are strongly convex after chaetiger 20. Posterior quarter may be quite strongly dorsoventrally flattened, with a pronounced, broad dorsal groove (UM).

**Chaetae** : Capillary chaetae in all notopodia but mostly short after ca. setiger 20 and capillaries accompanying hooks may be absent in some posterior segments. Anterior capillaries thin, pale, regularly bent backwards; length about 1/4 of body width. Mid body capillaries very short and unclear. Capillaries in first three neuropodia are the same length as those in the anterior notopodia. The distance between rami becomes rapidly greater between chaetigers 1 and 4, with the line of notopodia straight, that of neuropodia descending (UM).

Hooks are bidentate, with a delicate, narrow flange or wing on the convex side and are strongly curved. They are present in neuropodia from chaetiger 4; in notopodia from about chaetiger 15 or 20 and continuing to end of tail. Hooks clearly visible through stereomicroscope, posteriorly (UM).

**Palps** : 1 pair, inserted on last achaetous segment (UM).

**Gills** : From 1st setiger ? (UM).

**Pygidium** : Bears two anal cirri, which are about as long as the mid body segments (UM).

### Diagrams

Specimen from the northern North Sea (ex. A. Woodham).

### Distribution

Northern North Sea (A. Woodham).

### Habitat

**Notes**

Clearly distinct. Needs more literature work to see if its a new species. So far only from A. Woodham's collection.

**Type Locality****Literature**

*Caulleriella caputesocis* (Saint-Joseph, 1894)

**Description**

**Size :** Length, 15 - 17 mm; width, 1 mm (F).

**Colour :** Yellowish brown (F).

**Head shape :** Prostomium shaped like a pike snout, a little flattened at the front (F). 2 large black eyes. Peristomium elongated and followed by a second achaetous segment, hardly distinct (F).

**Body form :** Cylindrical, thin (F).

**Chaetae :** Capillaries in both rami of all parapodia (F). Hollowed serrated posterior acicular and spinulose flattened capillaries (WSt). Long, fine, natatory chaetae (1 - 5 per bundle) in notopodia of epitokes (F).

Acicular chaetae from setiger 10 - 12 in the neuropodia and in the last few notopodia (F). They are unidentate, or very feebly bidentate at the tip (F); red pointed (WSt); without flange (HS).

**Palps :** 1 pair broad, with ciliated groove, inserted on top of achaetous segment, from last achaetous anterior segment (G).

**Gills :** Gills from setiger 1, on all but the last 14 - 26 setigers (F).

**Pygidium :** With ventral cirri (F).

**Distribution**

Channel, Atlantic (F).

**Habitat**

Coastal dredges (F).

**Notes**

Drawing (Petersen?) does not match description in Fauvel very well. We don't have much information. We don't have anything quite like this but see *Aphelochaeta* #1 and *Cirratulus* #1. Woodham & Chambers (1994) noted that the type was in poor condition and that it was of an indeterminable species.

**Type Locality**

Dinard, France

**Literature**

P1396 in MCS. Excluded from workshop key, included in workshop table, Fauvel (as *Heterocirrus*), drawing by M. Petersen?, Garwood, Hartmann-Schroder.

*Heterocirrus caputesocis* Saint-Joseph, 1894

Caullery & Mesnil, 1808; Chamberlin, 1919; Rioja, 1917; Fauvel, 1927

*Caulleriella caputesocis* Howson, 1987; Woodham & Chambers, 1994

*Caulleriella zetlandica* (McIntosh, 1911)

**Description**

**Size :** Length 4 - 44 mm (Southern, 1914).

**Colour :** ? (F); white or pale yellow, gut sometimes showing dark (UM).

**Head shape :** Prostomium pointed, expanded posteriorly, 2 reddish-brown eyes, partly soluble in alcohol (Southern, 1914).

**Body form :** Cylindrical, a little expanded anteriorly, more or less flattened posteriorly. 36 - 150 short, similar segments. Posterior strongly flattened (not always apparent in all growth stages) (Southern, 1914). Anterior segments moderately well defined; short. Ventral groove visible (UM).

**Chaetae :** Capillaries in both rami of all parapodia, some long, thin and cylindrical, others short, flattened and geniculate (Southern, 1914). Anterior capillaries thin, pale yellow, darker than in *C. gibber* and wider at the base; longer than body width and often reddish at base. Mid body capillaries slightly shorter (UM).

No acicular chaetae in notopodia. Those in neuropodia start at setiger 15 - 25. Weakly bidentate in juveniles, rounded at ends in adults. Neuropodia with 6-7 hooks (Southern, 1914). 18 - 25 chaetae in each bundle posteriorly (Southern, 1914).

**Palps :** 2 channelled palps inserted on last achaetous segment (Southern, 1914).

**Gills :** From setiger 1, positioned at posterior side. 1st just above palps (Southern, 1914).

**Diagrams**

Specimen Banff, Scotland, LabRef 7205, URC 5447.

**Distribution**

Shetlands, Ireland (Southern, 1914). All around Britain (UM).

**Habitat**

Shallow water in clean sand, dredged at about 200m, caught in tow net at night (Southern, 1914). LWM to shallow water in mixed sediments (UM).

**Notes**

Probably OK. We have lots, many in good condition, including juveniles.

**Type Locality**

St. Magnus Bay, Shetland. Dredged in 100 fthms.

**Literature**

P1398 in MCS. Included in workshop keys (generic position uncertain) and table, Fauvel (as *Heterocirrus*), Day, Southern (as *Chaetozone*).

*Chaetozone zetlandica* McIntosh, 1911

Southern, 1914; Chamberlin, 1919

*Heterocirrus zetlandicus* Fauvel, 1927

*Caulleriella zetlandica* Day, 1976; Howson, 1987; **Woodham & Chambers, 1994**



*Chaetozone gibber* Woodham & Chambers, 1994

**Description**

**Size :** Length up to 20 mm (Woodham & Chambers, 1994).

**Colour :** Creamy white in alcohol (Woodham & Chambers, 1994).

**Head shape :** Prostomium conical with acutely pointed tip. Pair of subdermal eyes, round to elongate, near lateral posterior margins, shallow nuchal groove below and behind each eye. Mouth ventral. Peristomium achaetous, smooth, partially divided into 3 annuli (Woodham & Chambers, 1994).

**Body form :** Body surfaces smooth. Dorsal surface swollen between about chaetigers 7 - 30. Ventral surfaces flattened with a longitudinal groove. About 200 segments, broad, short and crowded in anterior region, becoming narrower and longer posteriorly without intersegmental constrictions. Posterior region bluntly tapered, dorsoventrally compressed, with sides flattened to give angular cross section (Woodham & Chambers, 1994).

Anterior segments very narrow; well defined ventrally. Mid body fragile; segments about 1/6 of width, poorly defined (UM).

**Chaetae :** Slender capillaries in both rami of all parapodia. Stout, awl-shaped capillaries in notopodia between segments 40 and 90 (Woodham & Chambers, 1994). Capillaries, thin, pale yellow, about 1/4 to 1/3 of body width anteriorly (UM).

Unidentate acicular spines in notopodia from mid body (90 - 100) to end and in neuropodia from front (50 - 80) to end. Number of spine in each ramus increasing posteriorly from 1 - 4. In posterior, spines and capillaries, 4 of each, alternating with each other. Chaetal rows well separated, spines not forming rings around segments (Woodham & Chambers, 1994).

**Palps :** Pair of grooved palps originating from dorsal surface of posterior annulus, about 1/3 of body length (Woodham & Chambers, 1994).

**Gills :** 1st pair from immediately behind palps, on 1st chaetiger. A pair of gills above each notopodium in anterior, less frequent in mid body, absent posteriorly. Filaments simple, cylindrical, smooth, of variable length to about 2 mm., longest and thickest in front (Woodham & Chambers, 1994).

**Pygidium :** With small ventral lobe (Woodham & Chambers, 1994).

**Diagrams**

Specimen from Lyme Bay, Channel, LabRef 9406-05049, URC 4605.

**Distribution**

Mostly from South west (UM); South coast (Woodham & Chambers, 1994).

**Habitat**

Shallow water, mud (UM).

**Notes**

Probably OK. We have a few, some complete.

**Type Locality**

Off Folkeston, Kent, U.K. Very fine silt to medium sand. 3.5 - 20.5 m. (Woodham & Chambers, 1994).

**Literature**

Not in MCS. Described and included in some workshop keys and lists as *Chaetozone* nsp. before official description.

*Chaetozone gibber* Woodham & Chambers, 1994

*Chaetozone setosa* agg. Malmgren, 1867

**Description**

**Size :** Length, 20 - 25 mm, width 2 mm (F).

**Colour :** Greyish or brownish in alcohol (F); pale brown, yellow or colourless (UM).

**Head shape :** Prostomium conical, pointed without eyes. Peristomium and two achaetous segments biannulated (F).

**Body form :** Elongated, cylindrical, attenuated at extremities. 70 - 90 segments (F). Anterior segments short, poorly defined dorsally and ventrally, better defined laterally. Mid body segments well defined and longer than anterior (UM).

**Chaetae :** Capillaries on both rami of all parapodia. Notochaetae very long and fine. Neurochaetae shorter, acuminate (F). Non-natatory capillaries strongly flattened, golden yellow, bent back with length about half of body width. Natatory chaetae very thin with length up to twice body width (UM).

Posteriorly, unidentate acicular spines in both rami (F), sigmoid, from setiger 1 in neuropodia, from 3 in notopodia (WSt); in linear series, forming almost complete rings (F). Most ventral hooks weakly bidentate in last five or less neuropodia of juveniles (Christie).

**Palps :** 2 very long, broad, fragile, channelled palps inserted at front of first setiger (F).

**Gills :** From setiger 1 on a fairly large number of segments, missing from posterior (F).

**Pygidium :** Conical, dorsal anus (D).

**Distribution**

North Sea, Atlantic, Mediterranean, Arctic (F); cosmopolitan (Fauchald, 1972); all round Britain (UM).

**Habitat**

Dredged on clay or muddy bottoms. (F) Intertidal and shallow water to 4436 m. Most types of bottom except rock and gravel (Christie, 1985; UM).

**Notes**

This is a species complex, which has been divided into types A, B and C by Christie (1985). Workshop keys also use types A - C, defined differently to those of Christie. Christie's definitions have been employed below. Christie states that forms B and C do not have natatory chaetae. I have consistently recognised forms only from abdomen structure and all forms seem to have natatory chaetae. Species complex can be recognised easily, distinctions between forms are more difficult. There are probably other segregates, as yet undescribed. We usually call them *Chaetozone setosa* agg. We have lots from all over, some in good condition.

**Type Locality**

Spitzbergen

### Literature

P1403 in MCS. Included in workshop keys and table, Fauvel, Garwood, Day, Ushakov, Southern. Probably a species complex, which has been divided into types A, B and C by Christie (1985). Workshop keys also use types A - C. We usually call them *Chaetozone setosa* agg.

*Chaetozone setosa* Malmgren, 1867

Theel, 1879; Cunningham & Ramage, 1888; McIntosh, 1915; Chamberlin, 1919; Fauvel, 1922; 1927; Lechapt, 1983; Christie, 1985; Howson, 1987

### *Chaetozone macrophthalma* Langerhans, 1880

#### Notes

Described from Madeira.  
Chamberlin, 1919

### *Chaetozone carpenteri* McIntosh, 1911

#### Notes

Described from Algeria. Synonym of *C. setosa* (F).

### *Chaetozone whiteavesi* McIntosh, 1911

#### Notes

Described from the St. Lawrence River, Canada.

### *Chaetozone "A"* (= *C. setosa* seg.)

### Description

**Size :**

**Colour :**

**Head shape :**

**Body form :** Deep constrictions between successive posterior segments, concertina-like appearance.

**Chaetae :** Notopodia of anterior and mid segments with very long fine capillaries (natatory) in specimens over 7 mm.

Almost continuous rings of spines, alternating with capillary chaetae, no clear space between rami.

**Palps :** Emerge from asetous buccal segment in front of 1st gill pair.

**Gills :** 1st pair emerges from asetous buccal segment just behind palps. Clear space between gills and notopodia.

### Diagrams

Specimen from Cumbria, LabRef 9307-04030, URC 3962.

### Distribution

Northumberland (Christie, 1985); all around Britain (UM).

### Habitat

Fine sandy mud, sheltered, 80 m (Christie, 1985); offshore mud (UM).

### Notes

Corresponds to type A of Christie, type B in workshop keys? May be the true *C. setosa*. Fairly easy to recognise but see below. We don't have that many, some complete.

### *Chaetozone "B"*

#### **Description**

**Size :**

**Colour :**

**Head shape :**

**Body form :** Abdominal region more flattened than in C.

**Chaetae :** Notopodia distinct from neuropodia posteriorly with fewer acicular spines per segment than in A.

**Palps :** From buccal segment alongside 1st gills, just above them.

**Gills :** 1st pair on buccal segment, just below palps, no space between notopodia and gills.

#### **Diagrams**

Specimen from Northumberland, LabRef 4079, URC 6293.

**Distribution :** Holy Island, Northumberland (Christie, 1985); (B/C) from all around Britain (UM).

**Habitat :** Silty sand, sheltered. Intertidal (Christie, 1985); (B/C) from many habitats (UM).

#### **Notes**

Corresponds to type B of Christie, type A in workshop keys? I can't split this from C, and they sometimes have natatory chaetae, if you split on abdomen shape. We have lots (of B/C), some complete.

### *Chaetozone "C"*

#### **Description**

**Size :**

**Colour :**

**Head shape :**

**Body form :** Abdominal region more flattened than in A, but less so than in B.

**Chaetae :** Notopodia distinct from neuropodia posteriorly with fewer acicular spines per segment than in A.

**Palps :** Placed between 1st gills and 1st setiger.

**Gills :** 1st pair in front of palps, no space between notopodia and gills.

**Distribution :** Newton, Northumberland (Christie, 1985); (B/C) from all around Britain (UM).

**Habitat :** Clean sand, sheltered. Intertidal (Christie, 1985); (B/C) from many habitats (UM).

#### **Notes**

Corresponds to type C of Christie, included in type A in workshop keys? I can't split this from B, and they sometimes have natatory chaetae, if you split on abdomen shape. We have lots (of B/C), some complete.

*Chaetozone "D"*

**Description**

**Size :** Length up to about 30 mm; width about 1 mm in mid body (UM).

**Colour :** Unknown.

**Head shape :** Prostomium sharply pointed. No eyes (UM).

**Body form :** Body very elongated, especially in mid body region. Thoracic region expanded, rather strongly tapering towards head and mid body. Abdominal region with concertina-like appearance. Segmentation well defined throughout with mid body segments almost as long as wide. Thoracic segments much shorter but longer and more rounded than those of forms A to C. (UM).

**Chaetae :** Length of anterior non-natatory capillaries over half of body width, much longer than those of forms A to C and less strongly curved. (UM).

Notopodia and neuropodia close together, posteriorly. 9 to 10 acicular spines per ramus, mostly alternating with capillaries. (UM).

**Palps :** Emerge from aseptuous buccal segment in front of 1st gill pair. (UM).

**Gills :** 1st pair emerges from aseptuous buccal segment just behind palps. Clear space between gills and notopodia. (UM).

**Distribution :** Northern and central North Sea (A.W.).

**Habitat :** Offshore mud (A.W.).

**Notes**

Corresponds to type C in workshop handouts.

*Tharyx killariensis* (Southern, 1914)

**Description**

**Size :** Length, 11 mm (Southern, 1914); usually about 5 - 10 mm (UM).

**Colour :** Unknown (S; F); Yellowish brown, white head and tail, gut moderately clear (UM).

**Head shape :** Conical, pointed prostomium, without eyes (Southern, 1914). Prostomium elongate conical, sharply pointed. Achaetous segments poorly defined, elongated (UM).

**Body form :** Expanded and a little flattened anteriorly. Widest in anterior third, tapering rapidly towards the head and very gradually towards the tail. In the anterior region the dorsal surface is flatter than the ventral and the segments are very narrow. Further back the segments are longer and the body more rounded in section. 84 setigers (Southern, 1914). Cylindrical, fairly elongated. Segments fairly short at the front, becoming longer (length to half of width) and fragile posteriorly. Tail slightly swollen or narrowly tapering (UM).

**Chaetae :** Capillaries in both rami of all but last few parapodia. Long and short capillaries alternating in each bundle. They are sigmoid with a cylindrical shaft, flattened blade and a distinct curve at the junction between shaft and blade. Dorsal capillaries longer than ventrals. Longest capillaries, in upper parts of parapodia, about 0.75 mm to 1 mm at about setigers 20 - 30. 5 - 7 setae per bundle anteriorly; 6 - 8 in mid region (Southern, 1914). Long and short

capillaries in both rami of all parapodia. Longest with length about 1/3 of body width. Natatory chaetae with length about 1 1/2 times body width may also be present (UM).

Acicular chaetae, resemble short capillaries, except that tip is curved and bifid. The points diverge at a wide angle (Southern, 1914). Acicular chaetae irregularly knob-tipped in syntypes (Blake, 1991); superficially resembling broken capillaries (Wsk). They start from setiger 40 - 56 in neuropodia and from about setiger 61 in notopodia. The uppermost neuropodial hook is larger and broader than the others (Southern, 1914). Notopodial hooks long, neuropodial hooks short (Wsk). In notopodia there are 2 hooks in upper part, the outer one the largest. In neuropodia, 2 or 3 hooks, the lowest the shortest. Near tail, all neurochaetae may be hooks. Arrangement depends on size and age of worms. Some have hooks in last 13 - 14 neuropodia but none in notopodia (Southern, 1914). Long and short knob tipped chaetae posteriorly (UM).

**Palps** : 1 pair, on last achaetous segment (Southern, 1914).

**Gills** : First pair just below palps, others inserted above notopodia (Southern, 1914). First pair after last aseptigerous segment (HS).

**Pygidium** : Anus dorsal with a ventral lobe beneath (Southern, 1914).

#### **Diagrams**

Specimen from off the Llyn Peninsula, Wales, LabRef 8845, URC 8465.

#### **Distribution**

Killary, Ireland (S); throughout Britain (Banff, Southwold, I. of Wight, Lyme Bay, N. Wales, Liverpool Bay) (UM).

#### **Habitat**

Rich black mud at bottom of harbour, ca. 15 m (Southern, 1914). Shallow water, offshore mud, gravels etc (UM).

#### **Biology**

#### **Notes**

Blake looked at syntypes & decided it had knob chaetae. It may be (UM) that knob-tipped chaetae are simply worn bidentate chaetae of the widely spaced teeth variety, as described by Southern. These have classic knob tipped chaetae and are longer and narrower than *Tharyx* "A". We have a few, some complete.

#### **Literature**

P1397 in MCS. Included in workshop keys (sometimes as *Tharyx*) and table, Fauvel (as *Heterocirrus*), Hartmann-Schroder. Moved to *Tharyx* by Blake (1991), Southern (as *Chaetozone*),

*Chaetozone killariensis* Southern, 1914

Chamberlin, 1919; McIntosh, 1923

*Heterocirrus killariensis* Fauvel, 1927

*Caulleriella killariensis* Howson, 1987

*Tharyx killariensis* Blake, 1991

### *Tharyx* "A"

#### **Description**

**Size** : Length, usually about 5 - 10 mm (UM).

**Colour** : Pale, usually with brown gut showing as mid body stripe; sometimes also with brown surface pigment (UM).

**Head shape** : Prostomium sharply pointed, without eyes (UM).

**Body form :** In large specimens expanded and flattened anteriorly, cylindrical in juveniles. Usually narrowing slightly in mid body, where segments are longer and the body more rounded in section. However, some specimens may be short and broad, widest in mid body. Anterior segments moderately well defined and fairly short. Mid body segments fragile, their length about 1/4 of body width. Tail usually moderately expanded and flattened, less so in small specimens (UM).

**Chaetae :** Capillaries very pale, thin, length nearly equal to body width anteriorly, a little longer in mid body (UM).  
Fairly short knob-tipped chaetae, usually with little evidence of bidentate tip, posterior parapodia. They have stout, curved shafts, tapering fairly strongly towards the neck of the knob-tip (UM).

**Palps :** 1 pair, on last achaetous segment (UM).

**Gills :** Numerous in thoracic region (UM).

**Pygidium :**

#### Diagrams

Specimen from Essex, LabRef 9401-04529, URC 1322.

#### Distribution

Estuaries in Southern Britain (we may not have sampled suitable habitats in Scotland) (UM).

#### Habitat

Muddy, shallow bottoms, mainly estuarine (UM).

#### Notes

We have lots of these, with variation in size and form, some good specimens.

#### *Tharyx acutus* Webster & Benedict, 1887

#### Notes

Described from Maine.  
Blake, 1991

#### *Tharyx kirkegaardi* Blake, 1991

#### Notes

Described from off Cape Hatteras.

#### *Aphelochaeta marioni* (Saint-Joseph, 1894)

#### Description

**Size :** Length, 35 - 100 mm; width, 0.6 - 1 mm (St-Joseph, 1894; F).

**Colour :** Reddish brown, colouring alcohol reddish violet. Greenish eggs (St-Joseph, 1894; F).

**Head shape :** Prostomium a blunt cone without eyes. 2 achaetous segments following prostomium, less distinct than the others (St-Joseph, 1894; F).

**Body form :** Very long and filiform. Over 200 segments (St-Joseph, 1894; F). Posterior region swollen, globe-like (Wsk). Swollen anteriorly and tapered at both ends. Anterior segments short, about three times as wide as long (F). Anterior segments well defined and of moderate length. Mid body segments fragile, well defined and rounded, of equal length and width (UM).

**Chaetae :** Capillaries in both rami of all parapodia. Notopodial chaetae are fine and as long as the body width. Neurochaetae are of similar length to notochaetae anteriorly but further back (after 16th - 20th setiger) are shorter and wider and a little curved (St-Joseph, 1894; F). Anterior

capillaries robust, irregularly directed, length up to 2/3 of body width, flattened at base (UM). Posterior capillaries similar but sparse, pale and a little shorter (UM).

**Palps** : 2 very long, broad, channelled palps, rolled in a spiral and inserted on front side of 1st setiger (F).

**Gills** : Long, from setiger 1, on quite a large number of segments, missing from the posterior region (F). Arising immediately above notosetae throughout (D).

**Pygidium** : Conical. Anus dorsal with five rounded lobes (St-Joseph, 1894; F).

#### **Diagrams**

Specimen from the Humber, LabRef 8561, URC 7970.

#### **Distribution**

Channel (F), Southern Britain, have not looked at suitable habitats in Scotland (UM).

#### **Habitat**

Quite rare in dredges, some found in a pelagic tow net (St-Joseph, 1894). Shallow water in Lithothamnion and in rock crevices, also in dredges and pelagic (F); intertidal and shallow subtidal estuarine mud, usually where there is some grit or peat (UM).

#### **Biology**

Intestine with *Opalina lineata* (St-Joseph, 1894).

#### **Notes**

General consensus is fairly consistent, this name is usually (not always) used for the estuarine form. Original description doesn't ring true. This may not be the correct name for the familiar species. There are other species of *Aphelochaeta* in British waters. We have lots, some complete. Very similar to *T. multibranchiis* but without eyes and with a longer tail (St-Joseph, 1894).

#### **Type Locality**

Dinard, France

#### **Literature**

P1424 in MCS (as *Tharyx*). Included in workshop key and table, Fauvel (as *Tharyx*), Garwood (as *Tharyx* - "intertidal records may be one species, not two"), Hartmann-Schroder (as *Tharyx*), Day (as *Tharyx*).

*Heterocirrus marioni* Saint-Joseph, 1894

Chamberlin, 1919

*Tharyx marioni* Caullery & Mesnil, 1898; Fauvel, 1927; Howson, 1987

*Aphelochaeta marioni* Blake, 1991

*Aphelochaeta filiformis* (Keferstein, 1862)

#### **Description**

**Size** : Length, 30 - 40 mm (F); to 50 mm (D); 20 - 50 mm (McIntosh, 1911). Width, 0.5 - 1 mm (F).

**Colour** : Brownish yellow or greenish, colourless in alcohol (F). Dark pigment characterises the anterior dorsal region and also occurs along the posterior lip of the gaping mouth (McIntosh, 1911).

**Head shape** : Prostomium obtuse or a sharp elongated cone (F); pointed (D); without eyes (F). Peristomium swollen (D) Two achetous, subequal, segments following peristomium. The second more or less heart-shaped in dorsal view, and overlapping the third (F). Head is a small blunt cone, sometimes constricted posteriorly (McIntosh, 1911).



When the button shaped proboscis is extruded, as in most specimens, it projects upwards and forwards, or, in complete extrusion, upwards (McIntosh, 1911).

**Body form :** Long, thin, filiform, rounded (in cross section). 150 segments (F); front segments closely arranged, less so to rear (McIntosh, 1911). Flattened anteriorly and somewhat rounded posteriorly. Abruptly tapered anteriorly, much less so posteriorly. Ventral surface flattened, sometimes with a median ridge and two lateral elevations. Anterior notopodia approach each other and in some are raised so that the spaces between the lateral lines at the base of the parapodia are narrow in front and gradually widen backwards (McIntosh, 1911).

**Chaetae :** Capillary chaetae, flat (WSt), slender (D), in both rami, notopodial longer than neuropodia (F). All parapodia the same, each ramus having a tuft of translucent, pale yellow capillaries. The tips are slightly flattened at the rather narrow base and tapering to delicate hair-like tips.

Notopodia are longest and narrowest all along the body. They increase in length towards the middle of the body and remain long posteriorly (McIntosh, 1911).

No acicular chaetae (F).

**Palps :** 1 - 2 pairs of tentacular filaments, a little wider than the gills, inserted at front end of 1st setiger (F). 2 short lappets interposed between the converging lateral lines of the parapodia, nearly opposite chaetiger 1 (McIntosh, 1911).

**Gills :** From setiger 1 at posterior end. Arise just above notopodia throughout (D). A series of long, slender gills project from the dorsal edge of more than 20 of the front parapodia, with traces in many behind these (McIntosh, 1911).

**Pygidium :** Triangular with subterminal dorsal anus, folded (F). Pouting, button-shaped vent, produced ventrally into a process with a median fissure and a fillet on each side (McIntosh, 1911).

#### **Distribution**

Channel, North Sea, Algeria ? (F). Norway (McIntosh, 1911).

#### **Habitat**

In *Lithothamnion*, rock crevices and dredges (F).

#### **Biology**

Well developed eggs in July, Norway (McIntosh, 1911).

#### **Notes**

A bit unclear, probably an *Aphelochaeta*. This could be our *Aphelochaeta* "A". Comments by McIntosh (1911) refer to his "*Cirratulus norvegicus*", which is *C. mcintoshi* of Southern, (1914).

#### **Type Locality**

#### **Literature**

Not in MCS. Included in workshop table (as *Cirratulus*).

*Cirratulus filiformis* Keferstein, 1862, p. 122, pl. X, fig. 28 - 31; Saint-Joseph, 1894, p. 47; Fauvel, 1901, p. 78; Fauvel, 1927; Garwood, Hartmann-Schroder, Day. *C. norvegicus* McIntosh (non Quatrefages), 1911, p. 171, pl. VII, fig. 12. *C. mcintoshi* Southern, 1914, p. 110. *Cirratulus tessellatus* ? McIntosh, 1911, p. 162, pl. VI, fig. 3.

*Cirratulus filiformis* Keferstein, 1862; Saint-Joseph, 1894; Fauvel; 1901; 1927; Eliason, 1962.

*Cirratulus norvegicus* McIntosh (non Quatrefages), 1911

#### **Notes**

Renamed *C. mcintoshi* by Southern (1914). Probably a synonym of *C. filiformis* (F).

*Cirratulus tessellatus* McIntosh, 191

**Notes**

Described from Algeria. Probably a synonym of *C. filiformis* (F).

*Tharyx mcintoshi* (Southern, 1914)

**Notes**

Southern's new name for *C. norvegicus* of McIntosh. Probably a synonym of *C. filiformis*.

Type dredged off Drobak, Christiana Fjord, in 30 - 100 fthms. ? Also, S.W. Ireland 10 - 22 m, on mud and in tow net (S).

P1425 in MCS. Southern (as *Cirratulus*).

*Cirratulus mcintoshi* Southern, 1914

syn. of *filiformis* (F)

*Tharyx mcintoshi* Eliason, 1962; Howson, 1987

*Cirratulus tenuisetis* Grube

**Notes**

A species without acicular chaetae mentioned as part of a complex of uncertain identity (S). Probably an *Aphelochaeta*.

*Aphelochaeta* "A"

**Description**

**Size** : Length up to about 40 mm ? (UM).

**Colour** : Yellowish brown to dark brown to purplish (UM).

**Head shape** : Bluntly conical prostomium. No eyes (UM).

**Body form** : Cylindrical and elongated, fragile. Expanded thoracic region. Tail moderately expanded. Segments fairly short, becoming longer in middle of worm. Anterior segments well defined, less so dorsally, and of moderate length. Mid body segments rounded, fragile, well defined, length about 1/4 of width (UM). Thoracic parapodia forming lateral ridges with distinct furrows above them (PG).

**Chaetae** : Long (length up to body width) and short capillaries in both rami of all parapodia. They are pale yellow and robust (UM).

**Palps** : Two thick stumps, oval in cross section, on last achaetous segment. Usually close together (UM).

**Gills** : On most of body (UM).

**Pygidium** :

**Diagrams**

Specimen from Lyme Bay, Channel, LabRef 9004, URC 8861.

**Distribution**

Ubiquitous ? (UM; PG).

**Habitat**

Subtidal, shallow water, gravels (UM).

**Biology**

**Notes**

These are large, bipalpatate, without acicular chaetae. Possibilities include *Tharyx macintoshi*, and *Aphelochaeta filiformis*. We have a few, some complete.

***Aphelochaeta "B"*****Description**

**Size :** Length up to about 10 mm ? (UM).

**Colour :** Colourless to pale yellow, may have a greenish tinge (UM).

**Head shape :** Sharply conical prostomium. No eyes (UM).

**Body form :** Cylindrical and elongated, fragile. Very slightly expanded thoracic region. Tail slightly expanded. Segments fairly short, becoming longer in middle of worm, not quite beaded, or as long as width. Anterior segments well defined, less so dorsally, and of moderate length. Mid body segments rounded, fragile, well defined (UM).

**Chaetae :** Long (length up to body width) and short capillaries in both rami of all parapodia. They are pale and fine(UM). Fan out rather than remaining in discrete bunches (PG).

**Palps :** Two round stumps, on last achaetous segment (UM).

**Gills :** On most of body ? (UM).

**Pygidium :**

**Diagrams****Distribution**

Western ? eg. Tremadoc Bay, Wales (UM).

**Habitat**

Subtidal, shallow muds (UM).

**Biology****Notes**

These are close to *A. marioni* and may be just aberrant juveniles.

***Monticellina dorsobranchialis* (Kirkegaard, 1959)****Description**

**Size :** Length, 16 - 20mm; length, 0.5 - 1.0 mm - Georges Bank (Blake, 1991); length, 35 mm; width, 0.5 mm - W. Africa (Blake, 1991).

**Colour :** Pale to dark brown, or purplish (UM).

**Head shape :** Prostomium bluntly conical (Blake, 1991), sharply conical (D), without eyes (Blake, 1991). Peristomium greatly elongated, without pseudosegmentation (Blake, 1991); triannulated (D).

**Body form :** Long and thin, abdominal segments coiled in preservation (Blake, 1991). Thorax expanded in middle, with prominent dorsal groove (Blake, 1991), fusiform area from setiger 1 to about setiger 20 (D). Parapodia elevated here, with notopodia directly dorsal. Abdominal segments longer than wide, sometimes becoming weakly moniliform. Posterior only weakly expanded. 105 - 120 segments. Mucus tube adhering to worm after preservation (Blake, 1991). Anterior segments short, posterior ones about as long as broad (D). Posterior region swollen, globe - like (WSk). Anterior segments moderately well defined, about 1/8 of width. In mid body segments are fragile, rounded and of about equal length and width (UM).

**Chaetae :** Capillaries in both rami of all parapodia, with smooth margins in thoracic region, with sawtoothed edge in abdominal region, more distinctly toothed in mid abdomen than posteriorly (Blake, 1991). Inferior capillaries in a ramus with less distinct dentition (Blake, 1991). All saw edged (D). Crenulated chaetae start at the same setiger (12th) in both rami and are the same as the smooth chaetae but for the teeth (Laubier - *M. heterochaeta*). Anterior capillaries are nearly as long as body width, thin and very pale (UM). Mid body capillaries about half as long as body width, thin but with wide base (UM).

**Palps :** From front of setiger 1 (Blake, 1991). 1 pair, large, caducous, grooved, from junction of third annulus and 1st setiger (D).

**Gills :** From setiger 1, in slope of dorsal groove (Blake, 1991). Very slender, arise from mid dorsal line behind groove (D).

**Pygidium :** Terminally pointed (Blake, 1991).

#### **Diagrams**

Specimen from Tremadoc Bay, Wales, LabRef 8677, URC 7922.

#### **Distribution**

U.S. East coast, Mediterranean to Angola, N.E. South America (Blake, 1991), west coasts of Britain (UM).

#### **Habitat**

Fine silty sediments; 20 - 2150 m (Blake, 1991), Subtidal mud (UM).

#### **Notes**

*Monticellina* concept clear, species confused. Descriptions by Blake and Day do not fully agree. It would be unlikely for the same species to occur over the given (Blake's) distribution. We have a few, very few complete.

#### **Type Locality**

Bay of Lobito, Angola; 27 m.

#### **Literature**

Not in MCS. Included in workshop keys, Day (as *Tharyx*), **Blake, 1991** (*M. heterochaeta* - Mediterranean - lumped into *M. dorsobranchialis* - West African).

*Cirratulus dorsobranchialis* Kirkegard, 1959

*Monticellina dorsobranchialis* Blake, 1991

*Monticellina heterochaeta* Laubier, 1960

**Notes**

Described from Banyuls-sur-mer, Mediterranean France. Synonymised with *M. dorsobranchialis* (Blake, 1991) but will probably turn out to be distinct. May also be distinct from the British *Monticellina*.

*Monticellina baptistae* Blake, 1991

**Notes**

Described from Georges Bank, N.W. Atlantic.

*Dodecaceria concharum* Oersted, 1843

**Description**

**Size** : Length, 20 - 60 mm; width, 2 - 3 mm (F).

**Colour** : Brownish green or blackish at back. Greenish yellow pigment soluble in alcohol (F).

**Head shape** : Prostomium small, blunt, cylindricoconical, without eyes in adults but with 2 oblique nuchal slits (F). Nuchal organs long and slit like (Gibson, 1978; 1996). Peristomium long and straight, almost triannulated ventrally (F).

**Body form** : Cylindrical, short and thick, spatulate posteriorly. 45 - 80 setigers (F).

**Chaetae** : Capillaries slightly dilated at ends with a long, finely pectinated flange in the first 6 - 7 setigers. Dorsal capillaries longer and finer than the ventrals. Capillaries becoming rarer towards rear (F).

In later parapodia, spoon shaped acicular chaetae are found in both rami, accompanied by finer hooked chaetae. In juveniles these are replaced by the large capillaries. Dorsal acicular chaetae are thinner than the ventrals (F). The hooks are without a secondary tooth (Caullery & Mesnil, 1898; Gibson, 1996). This protruberance varies in size in all species (Gibson, 1978).

**Palps** : 1 pair of strong, broad, channelled palps in spirals at posterior side of peristomium (F).

**Gills** : 1st pair much finer than palps situated above and a little behind them. Gills on first 3 - 4 (rarely 5) setigers (F).

**Pygidium** : Anus subdorsal with 5 lobes, the two ventral ones largest, rounded, separated by an indentation (F).

**Diagrams**

Specimen from near Dundee, Scotland, LabRef 8221, URC 8363.

**Distribution**

North Sea, Channel, Atlantic, Mediterranean (F). Throughout British waters (Gibson, 1996).

**Habitat**

Shallow water in dredges, amongst *Lithothamnion*, old tubes and shells (F). Fully saline conditions only. Littoral to 60m (Gibson, 1996).

**Biology**

Reproduces parthenogenetically in atokous form (Gibson, 1978).

In the atokous condition species have the following characteristics. In the presegmental head region is a subterminal ventral mouth and a pair of nuchal organs. The first segment is achaetous and bears a pair of grooved tentacles above which is a pair of filiform branchial cirri. The following anterior chaetose segments each have at least one pair of dorsal branchial cirri. The body is approximately cylindrical with the posterior region becoming slightly dorso-ventrally flattened (Gibson, 1978).

The chaetae are capillary and simple or acicular with a subterminal spoon-shaped depression which may have a slight proximal protruberance (Gibson, 1978).  
Fresh individuals vary from brown to greeny black and there is usually a prominent dorsal serpentine blood vessel running along the anterior region of the body (Gibson, 1978).  
All species inhabit laterally flattened, flask-shaped burrows which have a single opening in which the head and anus lie. Species form dense colonies in, as a rule, a calcareous substratum and are found either in intertidal rock pools, or subtidally (Gibson, 1978).

#### Notes

There does not seem to be a firm distinction between *Dodecaceria* spp. except with reference to reproductive biology.

#### Type Locality

#### Literature

P1420 in MCS. Included in workshop keys, Fauvel (3 forms described - see under *D. fimbriata*), Garwood, Ushakov.

*Dodecaceria concharum* Oersted, 1843

Saint-Joseph, 1808; Caullery & Mesnil, 1898; McIntosh, 1922; Fauvel, 1927; Howson, 1987; Gibson, 1978.

#### *Heterocirrus ater* Quatrefages, 1865

#### Notes

*Dodecaceria ater* McIntosh, 1911

Synonym of *D. concharum* (F) but McIntosh gives differences.

#### *Heterocirrus saxicola* Grube, 1855

#### Notes

synonym of *D. concharum* (F).

#### *Heterocirrus gravieri* McIntosh, 1911

#### Notes

Described from Cadiz, Spain. Synonym of *D. concharum* (F).

#### *Terebella ostreae* Dalyell, 1853

#### Notes

Synonym of *D. concharum* (F).

#### *Nereis sextentaculata* Delle Chiaje, 1828

#### Notes

Synonym of *D. concharum* (F).

#### *Dodecaceria fimbriata* Verrill, 1879

#### Description

**Size :**

**Colour :** Yellow

**Head shape :** 2 large eyes (F). Nuchal organs unlike *D. concharum*, small and oval (Gibson, 1978); oval to rod-shaped (Gibson, 1996).

**Body form :** Shorter (than type A), thinner (F).

**Chaetae :** Long, fine natatory chaetae in mid parapodia, longer in notopodia (F).  
Dorsal hooked chaetae absent from all but last 10 to 12 notopodia. Ventral hooked chaetae restricted to front and back neuropodia. They have a characteristic lateral tooth (F); tooth at proximal edge of depression (Gibson, 1996).

**Palps :** Reduced to 2 small stumps or absent (F).

**Gills :** Shorter (than in type A) (F).

**Pygidium :**

#### **Distribution**

Much rarer than form A (F). Throughout Britain, though possibly absent from far southwest. More tolerant of reduced salinity than *D. concharum* (Gibson, 1996).

#### **Habitat**

#### **Biology**

Reproduces asexually by fragmentation and sexually by epitokes (Gibson, 1978). Always parasitised by *Gonospora longissima*. Large yellow eggs (F).

Certain species have epitokes which are essentially the same as the atokes. The differences are there is a large pair of orange to red eyes and the body is more darkly pigmented and has long capillary swimming chaetae which have replaced the acicular chaetae of the atoke (Gibson, 1978).

The existence of asexual reproduction is deduced from recently produced fragments of individuals in field samples (Dehorne, 1933). The regenerated regions are distinguished from the original region or fragment by its lighter pigmentation. There are three types of individual : those regenerated from the original anterior region, posterior or pygidial region and one or more segments from the central region of the body. A fourth type of asexually produced individual not showing signs of regeneration is derived from the autotomised regenerate of the single segmental fragments. This individual is indistinguishable from prefragmentary individuals (Gibson, 1978).

All species inhabit laterally flattened, flask-shaped burrows which have a single opening in which the head and anus lie. Species form dense colonies in, as a rule, a calcareous substratum and are found either in intertidal rock pools, or subtidally (Gibson, 1978).

#### **Notes**

There does not seem to be a firm distinction between *Dodecaceria* spp. except with reference to reproductive biology. Our *Dodecaceria* are ambiguous, some have both types of hooks.

#### **Type Locality**

Bay of Fundy, Newfoundland.

#### **Literature**

Not in MCS. Included in workshop keys. Gibson, 1978, 1979. Fauvel (as form B - swimming epitoke, but atokous stage mentioned - of *D. concharum*)?

*Heterocirrus fimbriatus* Verrill, 1879

syn. of *concharum* (F)

*Dodecaceria fimbriata* Gibson, 1978; 1979.

*Dodecaceria caulleryi* Dehorne, 1933

**Notes**

There does not seem to be a firm distinction between *Dodecaceria* spp. except with reference to reproductive biology. Gibson (1978) synonymised this with the American *D. fimbriata* and could find no difference between them. Type Locality - Portel, France.

P1419 in MCS. Gibson, 1978, 1979. Garwood.

*Dodecaceria caulleryi* Dehorne, 1933

Howson, 1987

Synonym of *D. fimbriata* (Gibson, 1978).

*Dodecaceria diceria* Hartman, 1951

**Description**

**Size :**

**Colour :**

**Head shape :** Nuchal organs intermediate between those of *D. concharum* and *D. fimbriata*.

**Body form :**

**Chaetae :** Spoon-shaped, hooked chaetae without proximal tooth but with proximal edge of depression serrated. This can only be seen with oil immersion (Gibson, 1996).

**Palps :**

**Gills :**

**Distribution**

Northern North Sea (Gibson, 1996).

**Habitat**

100 - 200 m. (Gibson, 1996)

**Biology**

Asexual reproduction as in *D. fimbriata*. One epitoke found (Gibson, 1996)

Certain species have epitokes which are essentially the same as the atokes. The differences are there is a large pair of orange to red eyes and the body is more darkly pigmented and has long capillary swimming chaetae which have replaced the acicular chaetae of the atoke (Gibson, 1978).

The existence of asexual reproduction is deduced from recently produced fragments of individuals in field samples (Dehorne, 1933). The regenerated regions are distinguished from the original region or fragment by its lighter pigmentation. There are three types of individual : those regenerated from the original anterior region, posterior or pygidial region and one or more segments from the central region of the body. A fourth type of asexually produced individual not showing signs of regeneration is derived from the autotomised regenerate of the single segmental fragments. This individual is indistinguishable from prefragmentary individuals (Gibson, 1978).

All species inhabit laterally flattened, flask-shaped burrows which have a single opening in which the head and anus lie. Species form dense colonies in, as a rule, a calcareous substratum and are found either in intertidal rock pools, or subtidally (Gibson, 1978).

**Notes**



**Type Locality**

Off the Florida Keys.

**Literature**

*Dodecaceria diceria* Hartman, 1951

Gibson, 1996

***Dodecaceria* "Form C" (of Fauvel)****Description**

**Size :**

**Colour :** Yellowish (F).

**Head shape :** 2 large red eyes (F).

**Body form :** Mucus glands well developed (F).

**Chaetae :** Hooked chaetae as in type a, in all but mid notopodia, where replaced by natatory chaetae (F).

**Palps :** Persisting (F).

**Gills :**

**Distribution**

Extremely rare (F).

**Habitat**

In *Lithothamnion*, with type a. (F).

**Biology**

Sedentary epitoke (but atokous form mentioned) (F).

Certain species have epitokes which are essentially the same as the atokes. The differences are there is a large pair of orange to red eyes and the body is more darkly pigmented and has long capillary swimming chaetae which have replaced the acicular chaetae of the atoke (Gibson, 1978).

The existence of asexual reproduction is deduced from recently produced fragments of individuals in field samples (Dehorne, 1933). The regenerated regions are distinguished from the original region or fragment by its lighter pigmentation. There are three types of individual : those regenerated from the original anterior region, posterior or pygidial region and one or more segments from the central region of the body. A fourth type of asexually produced individual not showing signs of regeneration is derived from the autotomised regenerate of the single segmental fragments. This individual is indistinguishable from prefragmentary individuals (Gibson, 1978).

All species inhabit laterally flattened, flask-shaped burrows which have a single opening in which the head and anus lie. Species form dense colonies in, as a rule, a calcareous substratum and are found either in intertidal rock pools, or subtidally (Gibson, 1978).

**Literature**

Fauvel, 1927.

*Tharyx multibranchiis* (Grube, 1863)

**Description**

**Size :** Length, 9mm; width, 0.7 mm (F).

**Colour :** Pale pink in alcohol (F), reddish brown (Wst).

**Head shape :** Prostomium a blunt cone with 2 small, black, oval eyes. Peristomium very long (F).

**Body form :** Vermiform, a little expanded in middle. More than 65 segments (F). Posterior region only slightly swollen (Wsk).

**Chaetae :** Capillaries in both rami of all parapodia. Notopochaetae (3 - 6), very fine. Neurochaetae a little broader and in posterior segments shorter and slightly bent at ends (F).

**Palps :** 2 very long, broad, channelled palps, rolled in a spiral. Inserted on 3rd anterior achaetous segment (G).

**Gills :** Thin, a little shorter than the palps, from the 1st to the 12th setigers, rare after then (F).

**Pygidium :**

**Distribution**

Adriatic (F).

**Notes**

A bit unclear. We have found nothing like this. Probably an *Aphelochaeta* (if valid) but not specifically transferred by Blake and left alone, here, until its identity is clear. A.W. has some which may be this species, which seem to fit *Aphelochaeta*.

**Type Locality**

Mediterranean

**Literature**

P1426 in MCS. Included in workshop keys (As *Aphelochaeta*) and table (3 spp.), Fauvel, Garwood ("offshore records may refer to a *Caulleriella*"), Hartmann-Schroder.

*Heterocirrus multibranchiis* Grube, 1863; Chamberlin, 1919

*Tharyx multibranchiis* Caullery & Mesnil, 1898; **Fauvel, 1927**; Howson, 1987

*Tharyx vivipara* Christie, 1984

**Description**

**Size :** Length, 8.5 - 15 mm; width, 1.0 mm (Christie, 1984).

**Colour :** Pale brown, yellow or colourless (UM).

**Head shape :** Prostomium small, acutely pointed, without eyes. 3 achaetous segments, including peristomium (Christie, 1984).

**Body form :** Short and spindle shaped, broadest in middle and tapers anteriorly and posteriorly, pygidial segments not inflated. Segmentation visible laterally but dorsal surface inflated and smooth. Anterior and posterior segments short and narrow, middle segments longer and wider (Christie, 1984). Anterior segments well defined laterally but not dorsally or ventrally, length about 1/6 of width. Mid body segments moderately well defined, length about 1/4 of width (UM).

**Chaetae** : Short capillaries, slender with finely tapering tips, in both rami of all parapodia. Same length in both rami. Posterior parapodia with some thicker capillaries with abruptly tapering tips. Anteriorly 6 - 8 chaetae in each ramus, 3 - 6 posteriorly (Christie, 1984). Chaetae pale yellow, irregularly directed, length about 2/3 of body width (UM).

**Palps** : 1 pair from posterior margin of segment 3, relatively short, rarely exceeding 1/2 body length (Christie, 1984).

**Gills** : From segment 4 (setiger 1), along whole of body. Attached directly above notopodial ridge, never more than one pair per segment (Christie, 1984).

**Pygidium** : Short and round with dorsal anus and small ventral lip (Christie).

#### **Diagrams**

Specimen from the Humber, LabRef 8562, URC 7962.

#### **Distribution**

Northumberland to Humber (Christie, 1984; UM).

#### **Habitat**

Sublittoral, 1 - 13 m, in soft silt and silty sand. Salinities from 24.4 - 34.3 (Christie, 1984); also lower shore (UM).

#### **Biology**

Viviparous, developing embryos visible beneath thin skin, sometimes ruptured, in mature specimens (Christie, 1984).

#### **Notes**

Probably OK. We have quite a lot, most are complete. Generic position uncertain. It was not specifically transferred to *Aphelochaeta* by Blake (1991) and shows features atypical of that genus.

#### **Type Locality**

Tyne estuary, U.K. Silty sand. 3.5 - 7 m.

#### **Literature**

P1427 in MCS. Included in workshop keys (as *Aphelochaeta*, generic position uncertain), Christie, 1984.

*Tharyx vivipara* Christie, 1984

Howson, 1984

#### *Tharyx retierei* Lechapt, 1994

#### **Notes**

Described from Morocco. Not a typical *Tharyx*. Has aristate and pseudocompound chaetae.

Lechapt, 1994.

#### *Caulleriella serrata* Eliason, 1962

#### **Description**

**Size** : Length, 4 - 5 mm (Eliason, 1962).

**Colour** : "Simple pointed dark brown granulations on anterior, (edges?) of first segments yellowish grey (Wst)". Pigment present dorsally on head and anterior segments and ventrally on last few segments (Eliason, 1962).

**Head shape** : No eyes (Eliason, 1962).

**Body form** : Rather short and broad; 40 - 45 chaetigers (Eliason, 1962).

**Chaetae** : Capillary chaetae in both rami of all parapodia (WSt).  
Acicular bifid (WSt). Acicular chaetae subdistally dentate, distally unidentate, capillary (HS).  
Arstate (bayonet) chaetae present, with a thick base giving rise to a long curved spur, with denticulations over a short part of the concave side. These are present in both rami of mid body and posterior segments. Pseudocompound, serrated chaetae are also reported (Eliason, 1962).

**Palps** : 1 pair on segment before first setiger (Eliason, 1962).

**Gills** : From 2nd setiger, restricted to front part of animal (Eliason, 1962; HS).

**Pygidium** : Anus dorsal with ventral lobe (WSt).

**Distribution**

Skagerrak (Eliason, 1962).

**Habitat**

295 m. (Eliason, 1962).

**Notes**

Hard to translate description, Eliason, HS and workshop table do not agree. Generic position needs review. We have seen nothing like it.

**Type Locality**

Skagerrak (Eliason, 1962).

**Literature**

Not in MCS. Included in workshop table (3 spp.), Hartmann-Schroder, Eliason (genus uncertain).  
*Caulleriella serrata* Eliason, 1962.

*Aonis vittata* Grube

**Notes**

A name mentioned by McIntosh as a British cirratulid. I can find no other reference to it.

**Abbreviations used in Descriptions**

D : Day, 1967

F : Fauvel, 1927

PG : Peter Garwood, pers. comm.

SC : Susan Chambers, pers. comm.

AW : Annette Woodham, pers. comm.

UM : Unicmarine, observations.

Wsk : Workshop key

Wst : Workshop table

## Literature

**N.B.** : References given in boldface after species descriptions contain the most detailed descriptions of the species.

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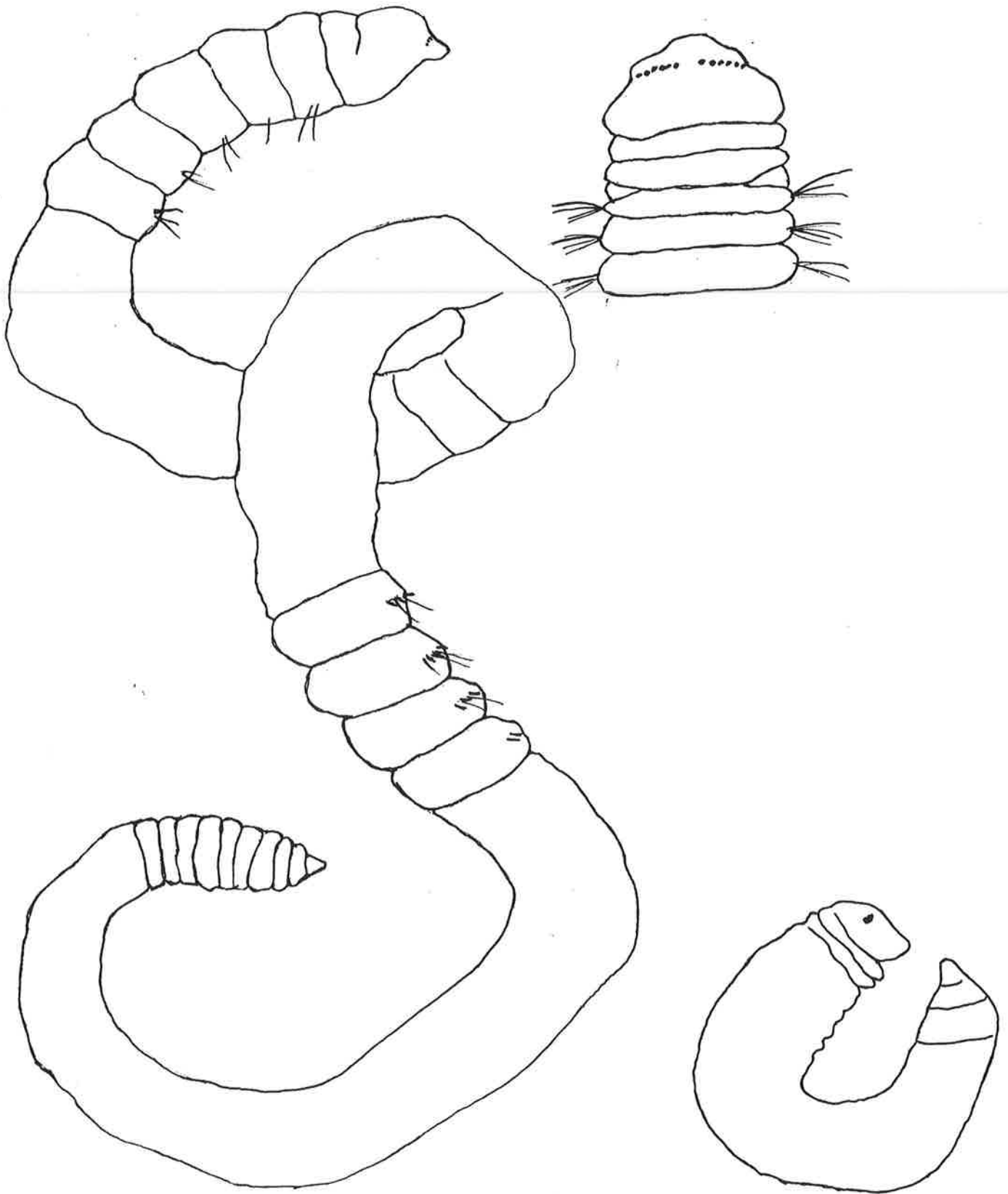
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*Cirratulus cirratus* (O.F. Muller, 1776)

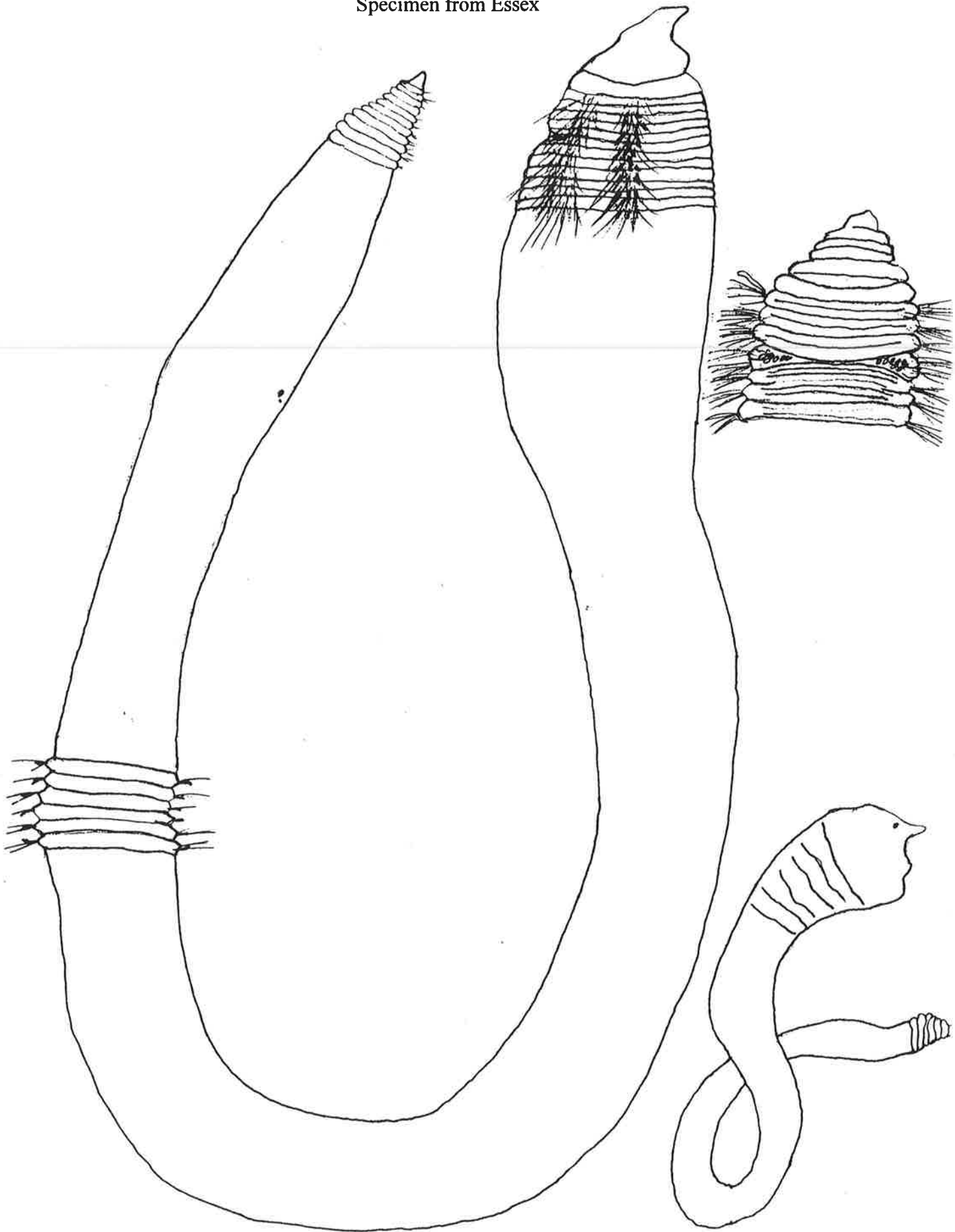
Specimen from the Tees





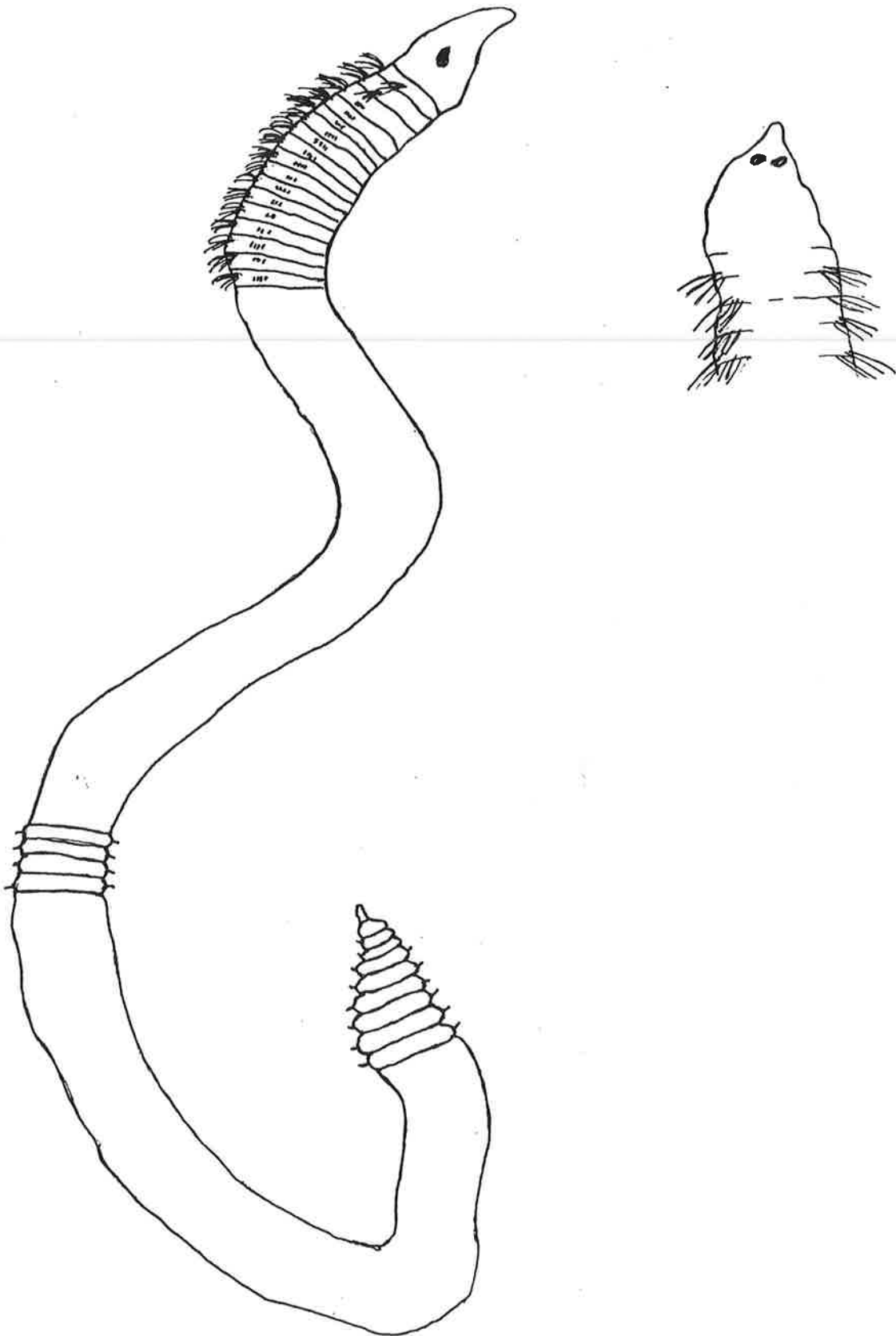
*Cirriformia* cf. *tentaculata* (Montagu, 1808)

Specimen from Essex



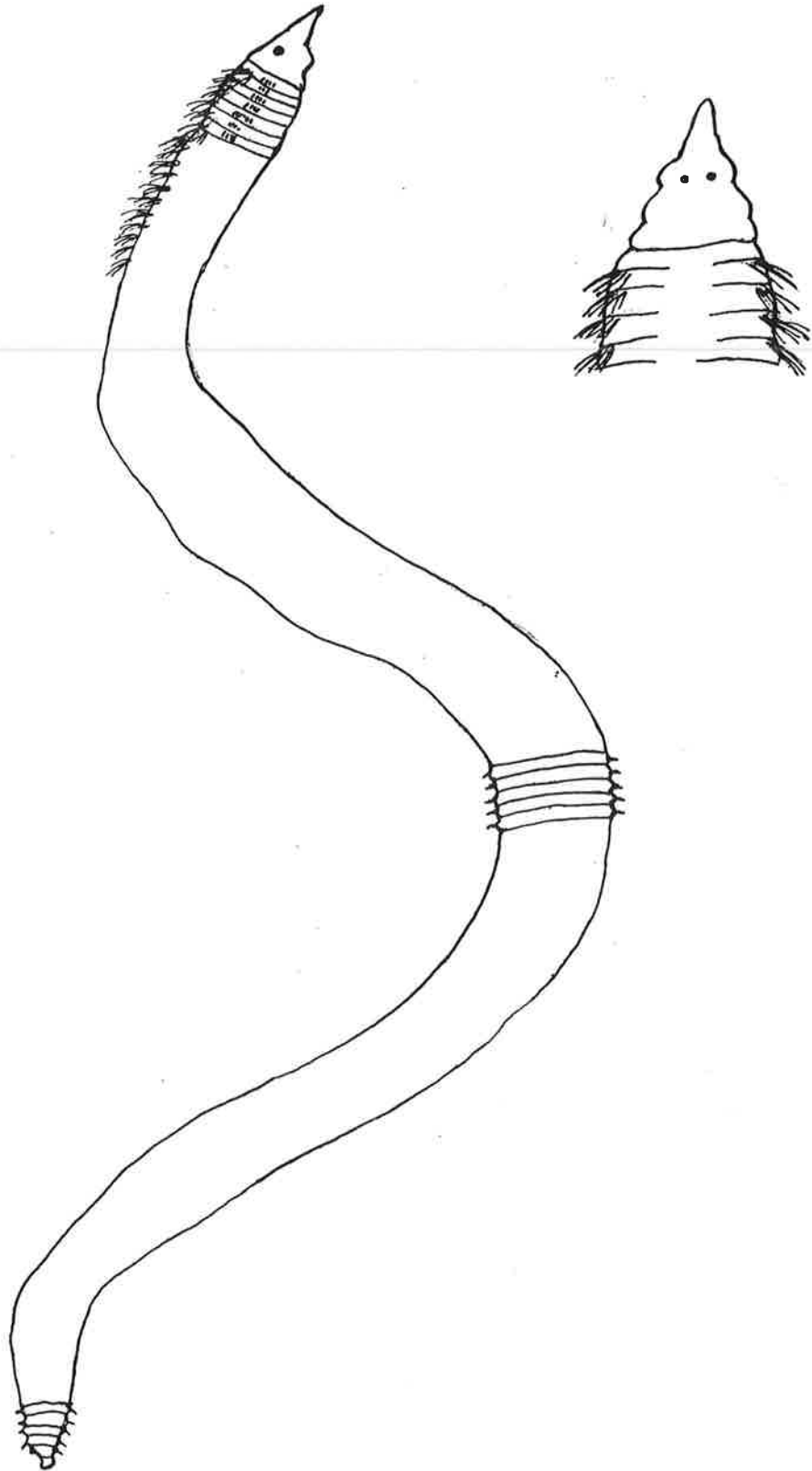
*Caulleriella* cf. *viridis* (Keferstein, 1880)

Specimen from off the Isle of Wight, Channel



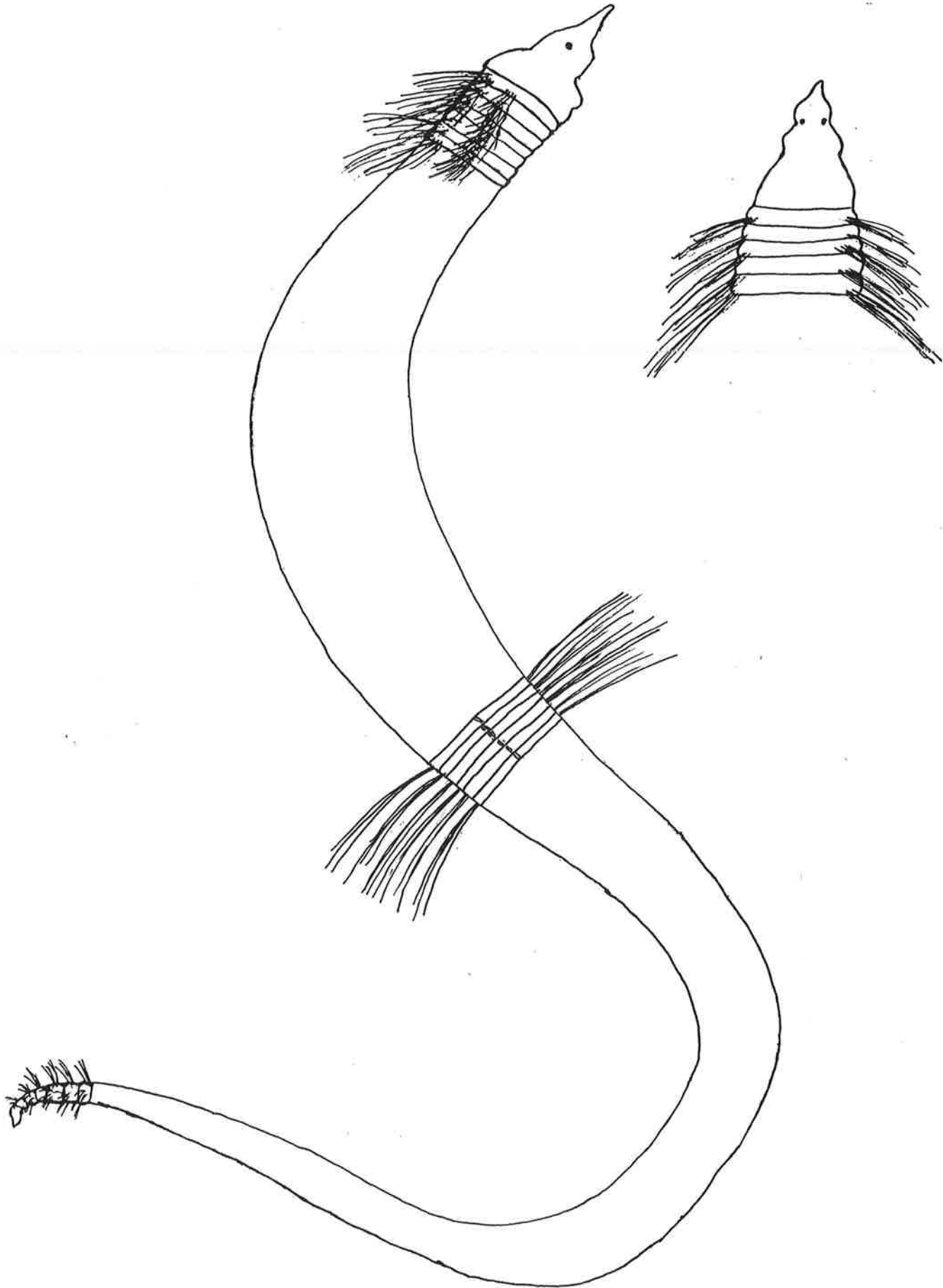
*Caulleriella alata* (Southern, 1914)

Specimen from off the Isle of Wight, Channel



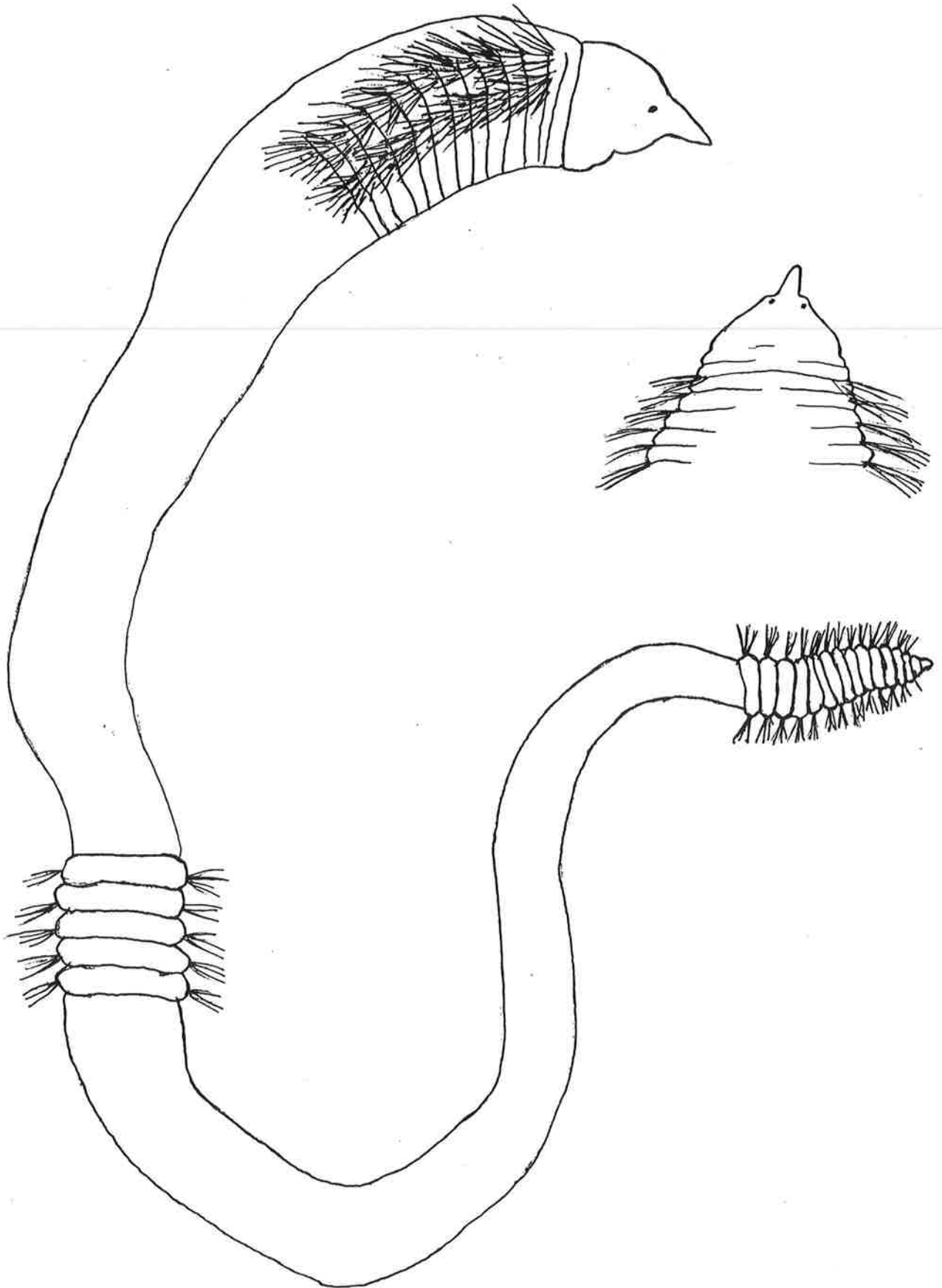
*"Caulleriella" zetlandica* (McIntosh, 1911)

Specimen from Banff, Scotland



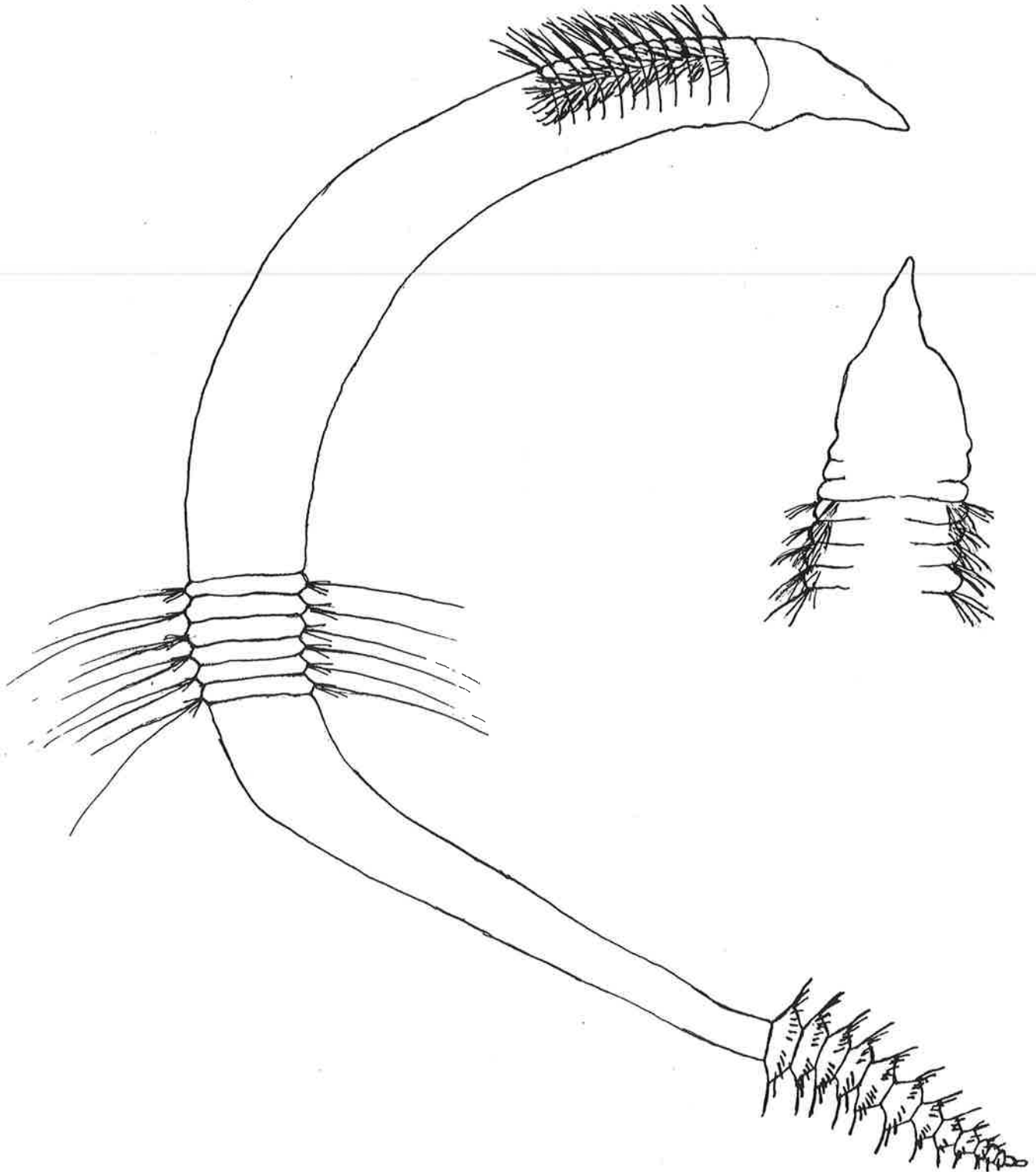
*Chaetozone gibber* Woodham & Chambers, 1994

Specimen from Lyme Bay, Channel



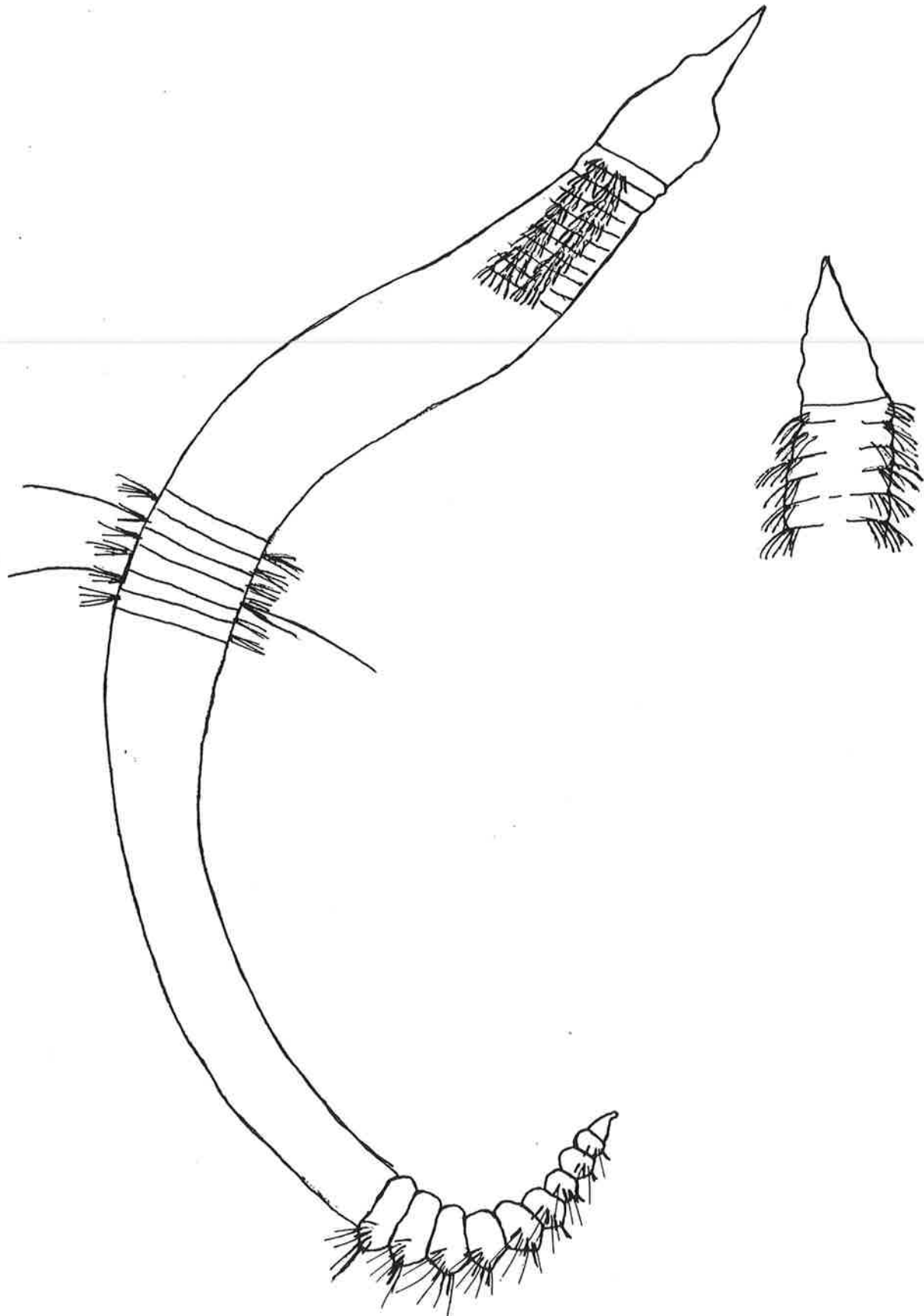
*Chaetozone setosa* ss. Malmgren, 1867 (= Type "A")

Specimen from Cumbria



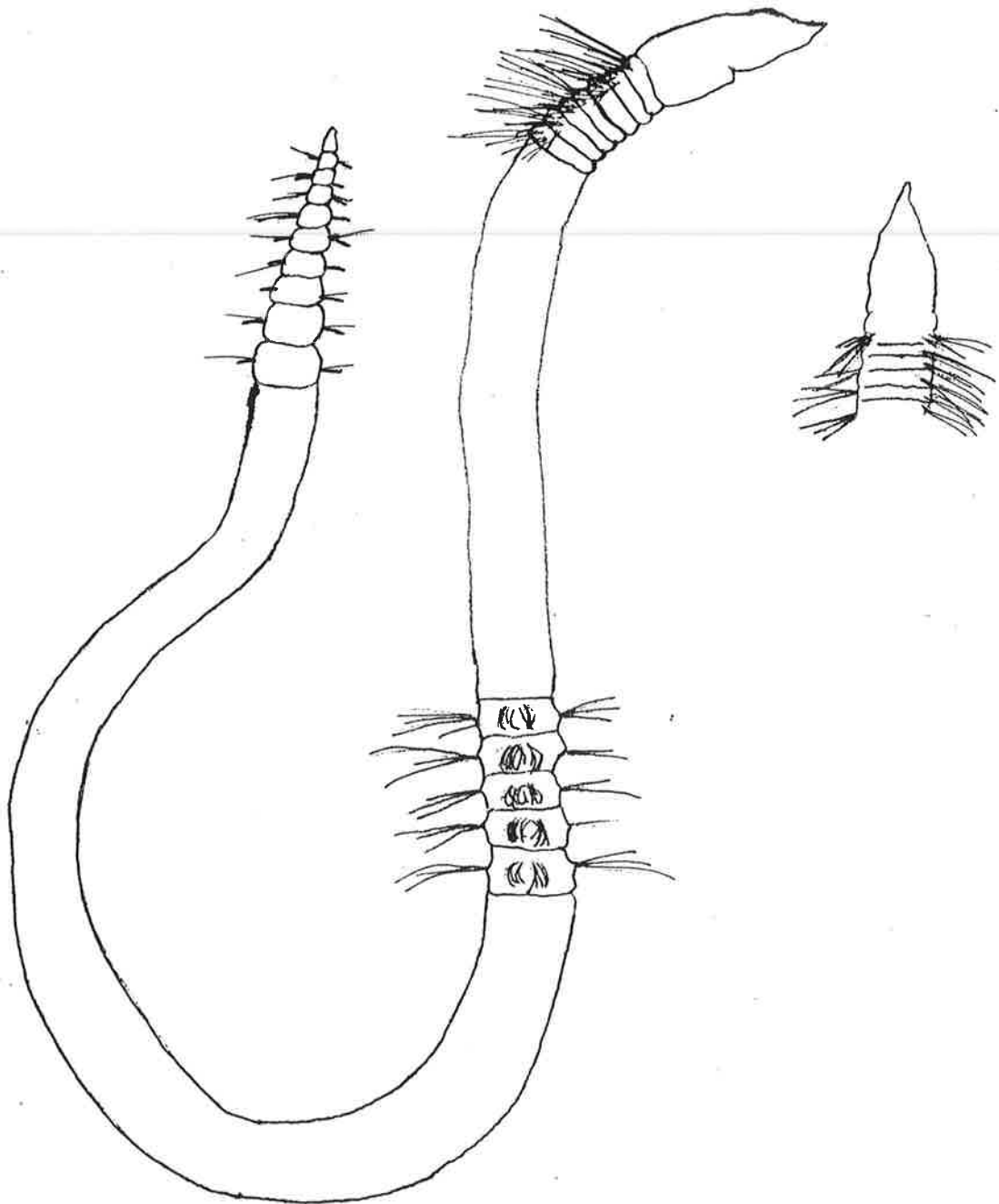
*Chaetozone setosa* agg. Malmgren, 1867 (Type "B/C")

Specimen from Northumberland



*Tharyx killariensis* (Southern, 1914)

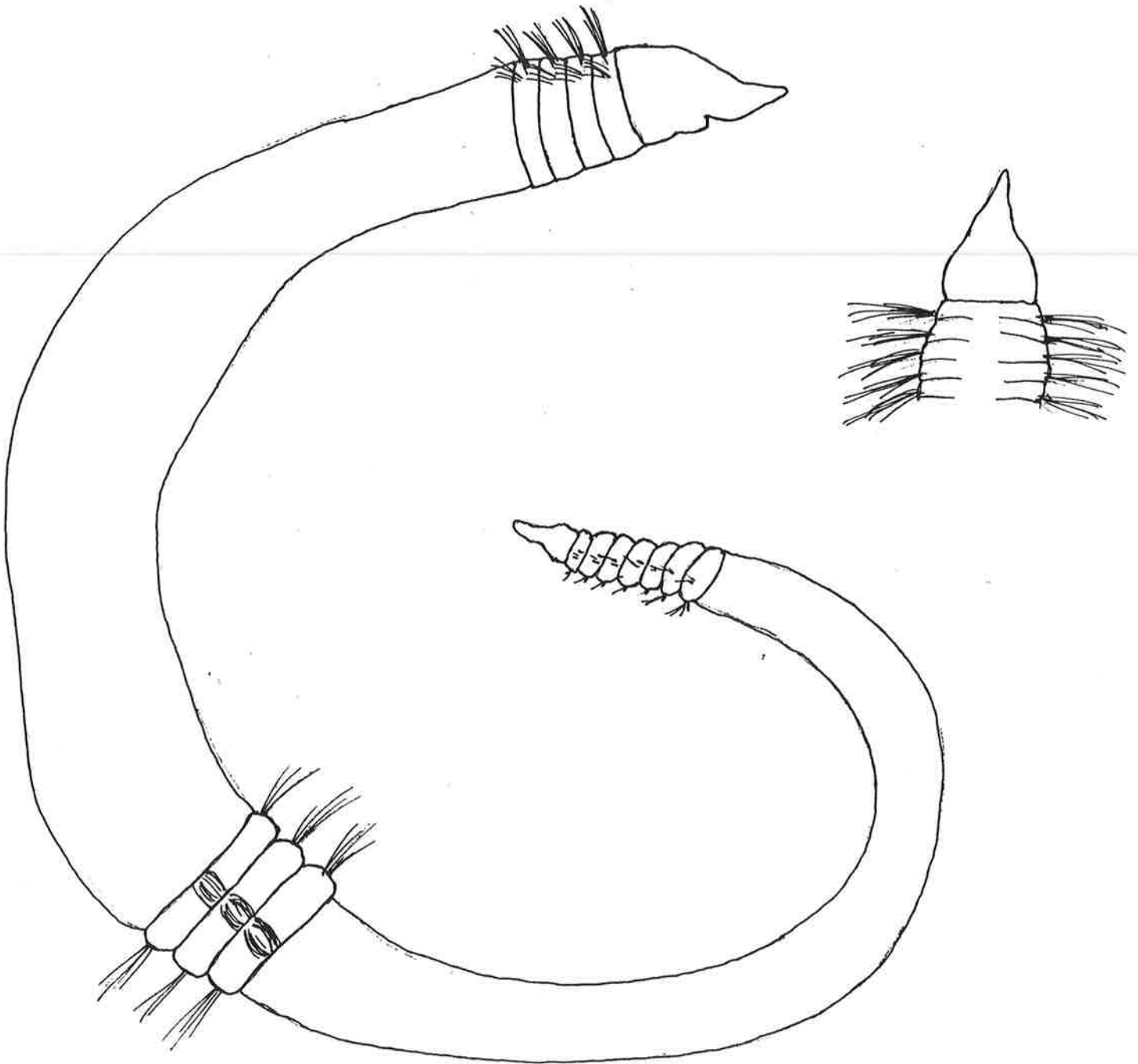
Specimen from the Llyn Peninsula, Wales





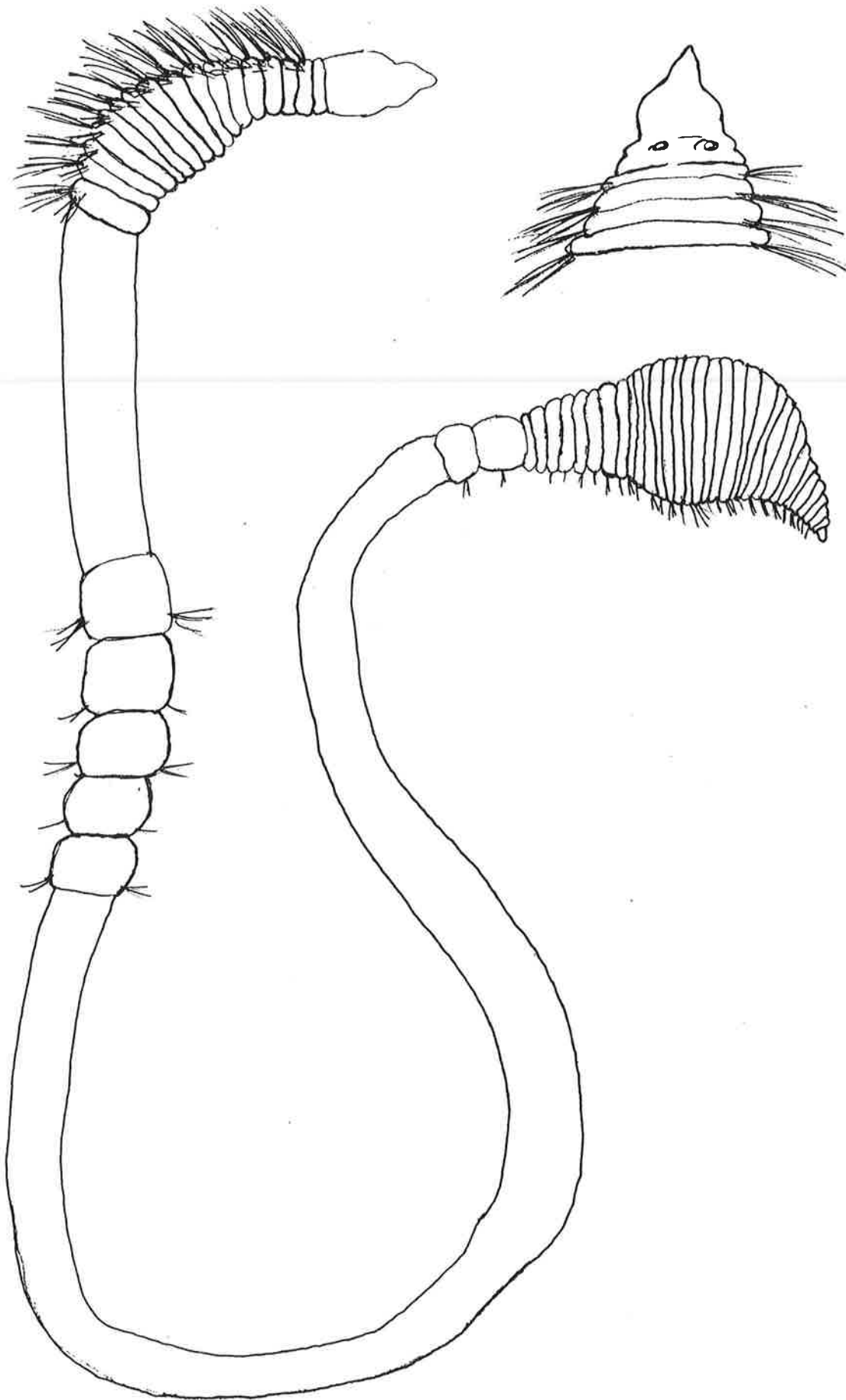
*Tharyx* "A"

Specimen from Essex



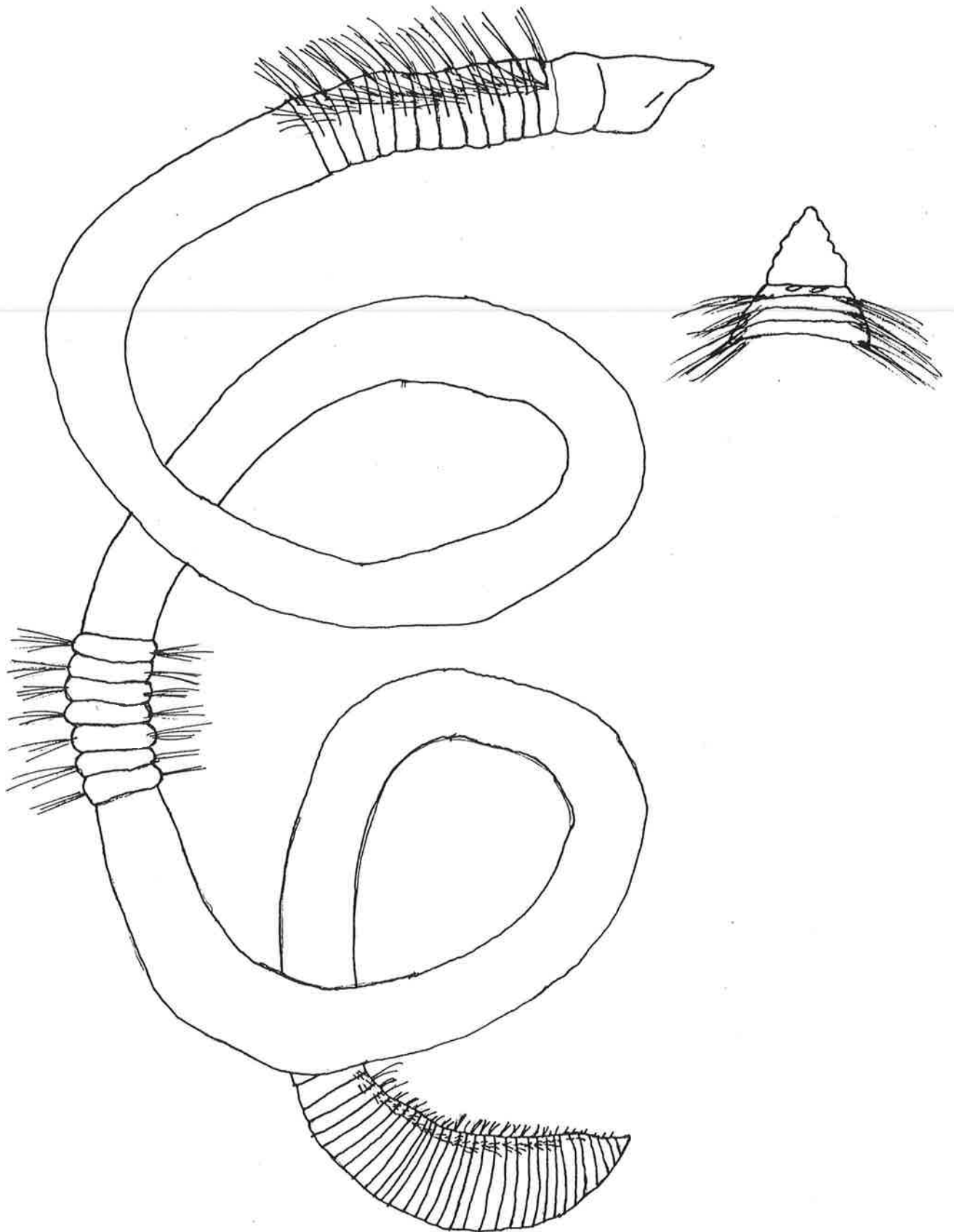
*Aphelochaeta* cf. *marioni* (Saint-Joseph, 1894)

Specimen from the Humber



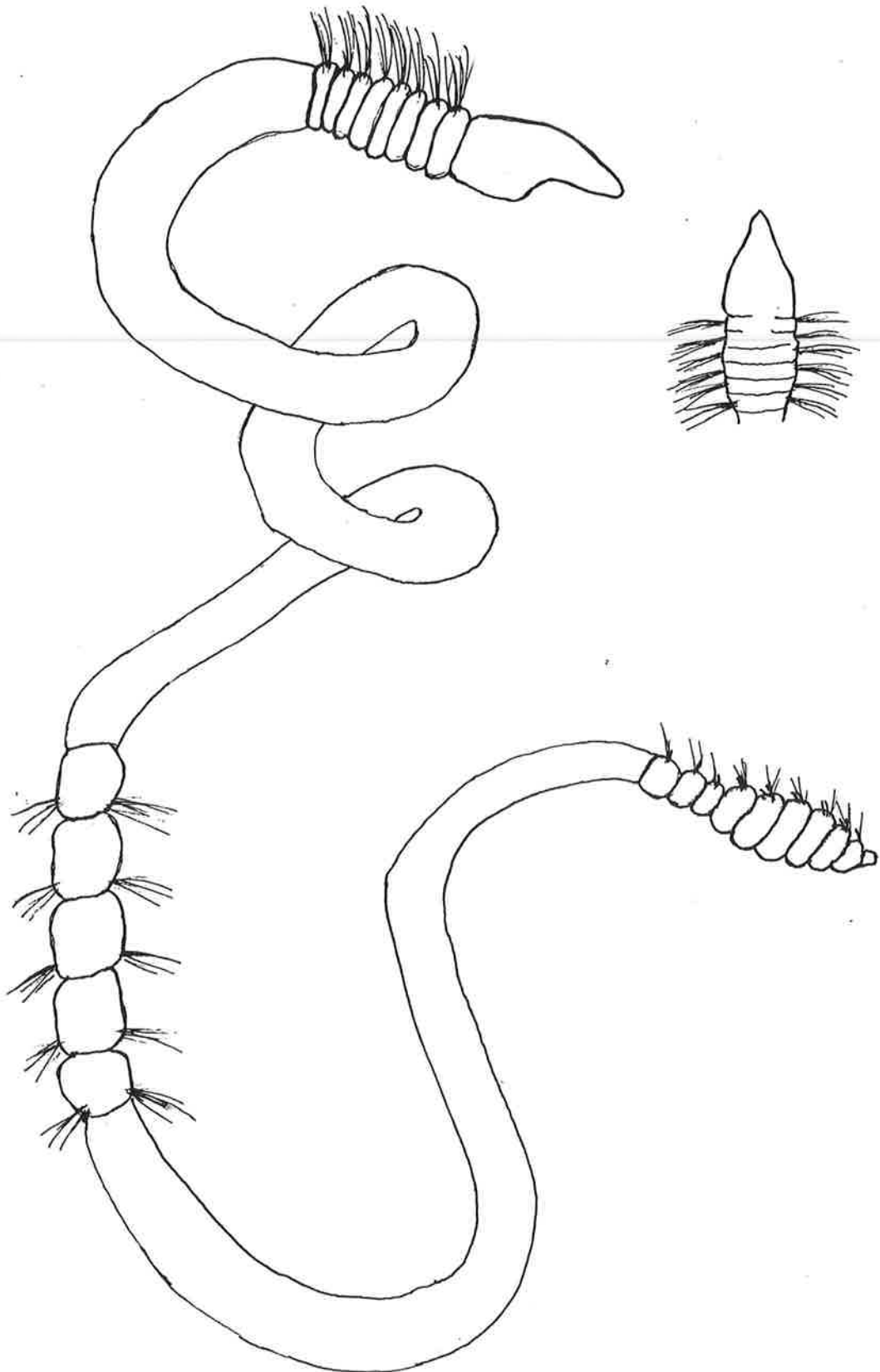
*Aphelochaeta "A"*

Specimen from Lyme Bay, Channel



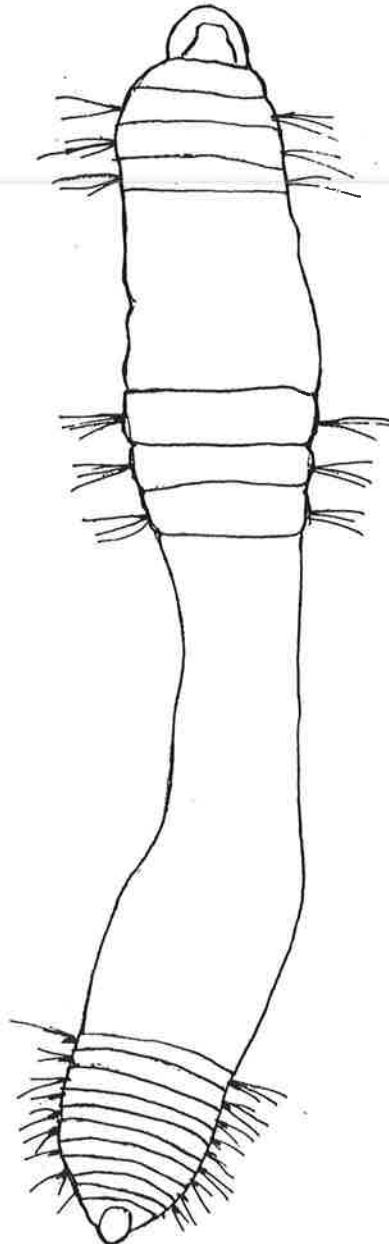
*Monticellina dorsobranchialis* (Kirkegaard, 1959)

Specimen from Tremadoc Bay, Wales



*Dodecaceria*

Specimen from near Dundee, Scotland



*"Tharyx" vivipara* Christie, 1984

Specimen from the Humber

