

**A provisional update to the identification of UK  
Cirratulidae**

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**for**

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## **Introduction**

Ten years ago, Unicmarine circulated a preliminary key and guide to British cirratulids (Unicmarine, 2006), through the NMBAQC Scheme, with an aim to help standardise the identification and naming of cirratulids in macrofaunal samples and improve data comparability. Since that time, there have been several Scheme exercises involving cirratulids and problems remain. There has also been increased recognition of the need to publish workshop literature and to establish clearer guidelines for data standardisation. In addition, new observations have been made on cirratulids since circulation of the 1996 guide and new literature published.

This workshop document is a stage towards updates to cirratulid identification and recording protocols, due to be published in the future, through the NMBAQC Scheme. All contents are provisional and will be edited following further work and (hopefully) participant feedback, before any publication.

## **Cirratulid identification**

The 1996 guide included an illustrated dichotomous key using anterior portion features for splits and additional information (including posterior portion features) in brackets following each species. This was to allow front-ends to be identified, as a way of ensuring maximum data comparability between samples that might have been preserved/processed differently. I would still suggest that cirratulids can be identified from front-portions but have now included all features (including identification and ecology) in a tabular form.

The contents of the table circulated here are provisional and due for a substantial rewrite before publication. It would be best for those simply processing samples to use only the update notes below, along with the 1996 key and literature references in the table. I would, however, be grateful for comments on the format of the table and suggested changes.

## **Cirratulid distribution and habitat preference**

Notes on distribution and habitat are included in the table and also discussed below. Published distributions for cirratulids are generally inadequate, due to the need to publish taxonomic descriptions before detailed records become available. We have provided information from Unicmarine records, as well as published literature, in the table. There is also a detailed table including distribution records for different regions, using 'Um' to indicate a Unicmarine record for a particular region. Biologists from three other laboratories, with reasonable confidence in cirratulid identification have contributed to the table and their records are included with laboratory codes: Carol Milner and Lee Heaney, Scottish Environment Protection Agency (SEPA), Will Musk, Institute of Estuarine and Coastal Science, Hull (IECS) and Grant Rowe, Emu (Emu). I would be grateful for any volunteers to add to this table; I'll look at any specimens from outside the known (according to this table) distribution range and would be happy to look at other problem specimens also.

## Remaining issues

The species tables include updates to nomenclature and taxonomy from recent literature, though it is clear that much remains to be resolved. The following UK cirratulid list has notes on remaining issues and any comments that may help resolve problems would be greatly appreciated. I have had much useful advice from Mary E. Petersen (MEP; [mepetersen@maine.edu](mailto:mepetersen@maine.edu), Darling Marine Center, Walpole, Maine), who is currently reviewing some of the *Cirratulus* and *Dodecaceria*. Some of the bivalvate genera are under review by James Blake and Stacy Doner (ENSR, Woods Hole, Massachusetts), as well as by Susan Chambers (National Museum of Scotland).

### Provisional UK cirratulid list (names in bold appeared in the 1996 guide)

#### *Cirratulus borealis* Lamarck, 1818

A northern species that could have been confused with *C. cirratus*. Its distribution is unknown but the type locality is SW Greenland (south of the Arctic Circle). A small specimen (<1 cm) that appears to be this has been taken off W Norway. Any suspected specimens (2 gills on all segments, not just the most anterior ones) would be much appreciated (MEP). Not multibranchiate but unusual in having 2 branchiae (right and left) on all or nearly all segments to the end of the body (most cirratulids have 2 per segment on the anterior segments and thereafter few or none).

#### *Cirratulus caudatus* Levinsen, 1893

Missed from the Species Directory but recorded from Ireland in older literature. It seems fairly easily recognisable and is found in northern samples; it may be especially common near fish farms. MEP has drawings from Levinsen's syntypes and material from Danish waters. It is bitentaculate and may eventually change its generic position, also differing from other *Cirratulus* in lacking eyespots and having a tessellate cuticle. It can get quite large, and newly collected specimens are said to be a bright red-orange (MEP).

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

Has been confused with *C. incertus* and perhaps also *C. borealis* but the latter is not common in collections. The main differences from *C. incertus* are eyespot color (black, often running together; red, discrete in *C. incertus*), size and habitat (larger infaunal vs. smaller cryptofaunal), reproduction type (iteroparous, *i.e.*, adults can spawn repeatedly, with pale yellow eggs spawned in a jelly mass on stones vs. peach-colored eggs spawned by epitokes that die after spawning). There is also a difference in the shape of the prostomium: slightly more rounded in *C. cirratus*, more pointed in *C. incertus*. *C. incertus* also reproduces asexually by fragmentation, which *C. cirratus* does not; see figures of asexual regenerates in Petersen (1999). Body colour is often yellowish in *C. cirrata* but has never been seen to be so in *C. incertus*. *C. cirratus* may be less tolerant of lower salinity than *C. incertus*, as it has never been seen in Danish waters, where we (MEP) have never seen *Dodecaceria ater* either. Stephenson (1950a, b) describes the development of *C. cirratus* larvae and the spawning and epitoke of *C. incertus*, both of which were present in the tanks at Cullercoats (MEP).

*Cirratulus incertus* McIntosh, 1916

Many records of *C. cirratus* may be this species, especially in area with low salinity (see above).

*Cirratulus* "A"

Not yet identified. Possibly juvenile.

*Cirratulus* sp.

There is a yellowish *Cirratulus* with red eyes that needs further work (MEP).

*Cirriformia tentaculata* (Montagu, 1808)

There is probably only one British *Cirriformia*. *C. norvegica* (Quatrefages, 1865) is a juvenile *C. tentaculata*, according to Clark (1963) but may be a *Timarete* (MEP); though we've seen a few that could be different and *C. semicineta* (Ehlers, 1905) appears in the ERMS list, possibly a Mediterranean species.

*Protocirrinieris chrysoderma* (Claparède, 1868)

This name remains provisional for the sp found in UK estuaries: fairly short with long capillaries and a dark gut stripe. It does not fit Fauvel's description perfectly. It's listed twice in ERMS, under different genera.

*Caulleriella bioculata* (Keferstein, 1862)

We could be using this for several spp.; forms with hooks from 3 are found in both mud and gravel; true *C. bioculata* has bilobed pygidium but tails often missing in preserved material.

*Caulleriella alata* (Southern, 1914)

Easily recognisable from other taxa but possibly a complex (subtle variations seen in colour and pygidium shape). Common in gravel

*Caulleriella serrata* Eliason, 1962

I've never seen anything like this but it could turn up in deeper water. Not a typical *Caulleriella*. Has anyone seen this?

*Caulleriella parva* Gillandt, 1979

I don't think I've seen this but it could be a typical species of holdfasts or in shells bored by spionids or *Dodecaceria*; it's yellow with red eyes (MEP). Has anyone seen this?

*Caulleriella viridis* (Langerhans, 1880)

May include *C. flavoviridis* St. Joseph. Could be included with our *C. bioculata* records but no confirmed distribution outside Madeira. Has anyone seen this?

*Caulleriella* "A"

Nothing like this in literature I've seen. Known from offshore mud.

***Caulleriella "B"***

May be similar to Doner/Blake? (in press) sp. Very long pointed prostomium long thin body, hooks from about 10; shallow gravel; western. Has anyone seen it? – all specimens should be kept.

***Chaetozone caputesocis* (St. Joseph, 1894)**

Moved to *Chaetozone* by Petersen (1999); name commonly used but I've seen nothing like the descriptions unless it's a juvenile *Cirratulus* with palps miscounted. Some references may have been *C. gibber* but no eyed cirratulids common on mudflats. This is a small species with very curved chaetae (MEP): Has anyone ever called anything by this name?

***Chaetozone christiei* Chambers, 2000**

This corresponds to 'Type B' in the 1996 guide (and Christie, 1985). Some we thought like 'Type C' were identified as *C. christiei* by S. Chambers. This is the commonest *Chaetozone*, in shallow sediments and ubiquitous. Does anyone have definite 'Type C'?

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

Fairly easily recognisable. It's distribution is now known to extend from the south and west coasts to Scotland and around the east coast of Scotland and south to north east England (*i.e.* everywhere except SE England North Sea coast – has anyone found it there?)

***Chaetozone jubata* Chambers & Woodham, 2003**

A recently described deep sea species. Deep samples (>200m) have more undescribed species, not covered here.

***Chaetozone setosa* Malmgren, 1867**

The current (Chambers, 2000) definition may still be a complex. It's found in mud at moderate depths; probably not in the south east.

***Chaetozone vivipara* (Christie, 1984)**

Moved to *Chaetozone* by Petersen (1999). Fairly recognisable. Lives in same habitat as *Tharyx* 'Type A' (estuarine mud) but not found with it. Has anyone ever found them together? Found in Northern Ireland as well as NE England. Does anyone have access to Scottish estuarine mud cirratulids?

***Chaetozone zetlandica* (McIntosh, 1911)**

Effectively moved back to *Chaetozone* (from *Caulleriella*) by Blake (1996). Fairly recognisable (by Chambers' paper). Ubiquitous in shallow mixed sediments and muddy sand.

***Chaetozone "D"***

Quite distinctive; broad thoracic region; long bent capillary chaetae in front with fairly long segments; very long beaded mid body. Please note that this form often has eyes (not seen in material described for the 1996 guide. Found in northern mud samples in fairly deep water. Under investigation by S. Chambers

*Tharyx acutus* Webster & Benedict, 1887

No published records for UK but similar to our *Tharyx* 'Type A' and could be a provisional name for it; depth range given by Blake (1991) seems unlikely. 'Type A' seems restricted to estuarine mud in the south. Has anyone seen it in Scotland, or with *C. vivipara*? Would participants prefer to continue using letter type names or begin using a published name that could change?

*Tharyx killariensis* (Southern, 1914)

Swellings listed by Blake (1991) not always apparent; some variation in colour/shape; notopodial hooks not always present (Southern, 1914); could still be a complex. Frequent in a range of subtidal sediments.

*Aphelochaeta filiformis* (Keferstein, 1862)

Descriptions don't seem to fit any I've seen but *Aphelochaeta* need more attention. Mentioned in Petersen (1999): some material from northern France had the papillate pharynx extruded and otherwise in good agreement with the original description. Has anyone used this name?

*Aphelochaeta glandaria* Blake, 1996

This American (west coast) species is very similar to some of our 'Type A' and Blake (1996) states he's seen similar worms in northern Europe. Should we provisionally use the name?

*Aphelochaeta marioni* (St. Joseph, 1894)

The worm commonly called *A. marioni* in UK is almost certainly not this (e.g. Blake, 1996); the name may apply to one of the 'Type A' forms. However, the figures given by Hartmann-Schröder are in good agreement with a specimen identified by St. Joseph. He was probably looking at more than one species when he wrote the description, as the chaeta he shows is that of a *Monticellina*, which may have been *M. heterochaeta* (if it has blue oocytes, it probably is). The specimen that I (MEP) received for examination was a true *Aphelochaeta*, without any modified spines, so the original sample probably had more than one species. It's probably less confusing to continue with our present system until we have a definite name for the well-known worm (estuarine with a swollen tail; it can be separated by its palps being much further forward than in 'Type A').

*Aphelochaeta mcintoshi* (Southern, 1914)

Similar to some 'Type A' but described as usually having proboscis everted (unusual for a cirratulid). Do you call anything by this name?

*Aphelochaeta monilaris* (Hartman, 1960)

A west coast American species that is similar to some *A. marioni*. McIntyre's specimens have a short, distinct "thorax" thereafter with segments rapidly becoming larger and rounder. I have not seen a complete specimen, but I suspect the species may have a slightly inflated posterior region (MEP); see Petersen (1999) Fig. 1, far right.

***Aphelochaeta* "A"**

General term for offshore *Aphelochaeta* with palps close to chaetiger 1. There are probably several spp involved, including 'MEP nsp' below.

***Aphelochaeta* "B"**

The taxon described in the 1996 guide as above does not now seem consistent enough to use – refer to *A. 'marioni'*.

***Aphelochaeta* "C"**

This name should now be used for *Aphelochaeta* with eyes.

In the 1996 guide '*Aphelochaeta multibranchis* (Grube, 1863) was used. However that species has spines so is not an *Aphelochaeta*. The sigmoid spines never become long and prominent; they do not develop gradually, with some capillaries slowly becoming wider and wider but appear suddenly without any transitional forms preceding them; on the lectotype, they suddenly appear on chaetiger 10, with 4 short, strongly hooked sigmoid spines appearing between the capillaries, with a capillary outer most at both ends; farther back the neuropodia have up to 6-7 (8?) spines. It is from the Adriatic. I have not seen it in any northern European material (MEP).

***Aphelochaeta* "MEP n.sp."**

This is a small cryptofaunal worm with large eggs found in holdfasts, found at least up to Iceland. See (Petersen, 1999 for figure); it is awaiting description.

***Monticellina annulosa* (Hartman, 1965)**

Possibly present in UK but *M. heterochaeta* is the most likely (MEP). There might be more than 1 *Monticellina* in UK waters; some are large and dark red-brown, while others are smaller with a pale body and dark gut.

***Monticellina heterochaeta* Laubier, 1960**

3 Atlantic *Monticellina* were combined under *M. dorsobranchialis* (Kirkegaard, 1959) by Blake (1991) but they are likely to be re-split (Blake, 1996). True *M. dorsobranchialis* is probably not found in the UK. *M. heterochaeta* is the most likely British sp (MEP). Should we leave them at genus for now?

***Dodecaceria concharum* Oersted, 1843**

Gibson (1979) used the name *D. fimbriata* (Verrill, 1879) for this species but that species is probably not found in the UK (MEP). *D. caulleryi* Dehorne, 1933 is a junior synonym of *D. concharum*. This species is more tolerant of lower salinity than the following. It reproduces asexually by fragmentation (and eventually by epitokes) and has nuchal organs that are flat patches of cilia (George & Petersen 1991). Those of *D. ater* and the Mediterranean *D. saxicola* (Grube, 1863) are slit-like and easy to see under a good stereo microscope (Fig. 1 in Petersen, 1999). If you can see nuchal slits, you do not have *D. concharum*, where the nuchal organs are not conspicuous and not easy to see. There are also usually signs of asexual reproduction, which would eliminate the parthenogenetic species with the slitlike nuchal organs. Does anyone identify *Dodecaceria* with confidence?

***Dodecaceria ater* (Quatrefages, 1866)**

This species was called *D. concharum* Oersted, 1843 by Gibson (1979). A subtidal marine species. *D. saxicola* (Grube, 1855) may be the senior synonym of *D. ater*, but until we get more information it is easier to keep them separate. It is much more difficult to re-separate species (MEP).

***Dodecaceria diceria* Hartman, 1951**

The species conforming to the description from the North Sea may not be this (MEP).



## Literature

This is not an exhaustive list but includes key references. Those given in boldface have been added since the 1996 guide. I have Petersen (1999) as a PDF, which I can email on request.

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**Table 1. Distribution of cirratulids in UK waters**

Region		Offshore Atlantic	Offshore North Sea	Shetland	E Scotland	NE England	SE England	Channel / SW England	Wales	NW England	W Scotland	N Ireland
Unicomarine Coverage		Poor	Poor	Poor	Poor	Moderate	Good	Moderate	Poor	Moderate	Poor	Moderate
Genus	species	(deeper than 200m)	(over 50km from coast)		(south from JohnOGroats)	(north from Bridlington)	(Bridlington to Dover)	(Dover to Welsh border)			(including Orkney and north coast)	
<i>Cirratulus</i>	<i>cirratulus</i> agg.	-	Emu	-	Um,SEPA	Um	Emu,IECS	Emu	IECS	-	SEPA	Um,Emu
<i>Cirratulus</i>	<i>caudatus</i>	Um	Emu	Um	IECS	Emu	-	-	-	-	Um,SEPA	-
<i>Cirratulus</i>	"A"	-	-	-	-	-	-	-	-	-	-	-
<i>Cirriformia</i>	<i>tentaculata</i>	-	-	-	Um,SEPA	Um,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu	Um	Um,SEPA	Um,Emu
<i>Protocirrinieris</i>	<i>chrysoderma</i>	-	-	-	-	Um	Um,Emu,IECS	Um,Emu,IECS	-	-	-	-
<i>Caulleriella</i>	<i>bioculata</i>	-	Um,Emu	-	-	-	-	Um,Emu,IECS	Um,Emu	-	-	Um
<i>Caulleriella</i>	<i>alata</i>	-	Um,Emu	SEPA	Um,SEPA	-	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,IECS	Um,SEPA	Um,Emu
<i>Caulleriella</i>	"A"	Um	Um,Emu	-	-	-	-	-	-	-	-	Um
<i>Caulleriella</i>	"B"	-	Emu	-	-	-	-	Um,Emu	-	-	Um	-
<i>Caulleriella</i>	<i>viridis</i>	-	-	-	-	-	-	-	IECS?	-	-	-
<i>Chaetozone</i>	<i>zelandica</i>	-	Emu	-	Um,SEPA,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Um	Um,SEPA,IECS	Um,Emu
<i>Chaetozone</i>	<i>gibber</i>	-	-	-	Um,SEPA	Emu,IECS	-	Um,Emu,IECS	Um,Emu,IECS	-	SEPA	-
<i>Chaetozone</i>	<i>setosa</i>	Um	Um,Emu	-	IECS	Um,Emu,IECS	Emu,IECS	Emu,IECS	-	Um,Emu	IECS	Emu
<i>Chaetozone</i>	<i>christiei</i>	-	Um,Emu	-	Um,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Um	-	Um
<i>Chaetozone</i>	<i>vivipara</i>	-	-	-	-	Um,IECS	-	-	-	-	-	Um,Emu
<i>Chaetozone</i>	"D"	Um	Um	-	-	-	-	-	-	-	SEPA,IECS	Um
<i>Tharyx</i>	<i>killariensis</i>	-	Um,Emu	SEPA	Um,SEPA,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Um	Um,SEPA,IECS	Um,Emu
<i>Tharyx</i>	"A"	-	-	-	SEPA	IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	-	-	Um
<i>Aphelochaeta</i>	<i>marioni</i>	-	-	-	Um,SEPA	Um	Um,Emu,IECS	Um,Emu,IECS	Um,IECS	Um	Um,SEPA	Um,Emu
<i>Aphelochaeta</i>	"A"	Um	Um,Emu	-	IECS	Um,Emu,IECS	Um,Emu,IECS	Um,Emu,IECS	Emu,IECS	Um	IECS	Um
<i>Aphelochaeta</i>	"C"	-	-	-	SEPA	-	-	Um	Um	-	SEPA	Um
<i>Monticellina</i>		Um	-	-	SEPA	-	-	Um,Emu,IECS	Um,Emu,IECS	Um,Emu	SEPA,IECS	Um,Emu
<i>Dodecaceria</i>	<i>concharum</i>	-	-	SEPA	SEPA	-	-	Emu	-	-	SEPA	-
<i>Dodecaceria</i>	<i>ater</i>	-	Um	-	Um,IECS	-	Um,IECS	Um,IECS	Um	Um	Um	Um

Can anyone add to this?

**Table 2. Provisional UK shallow water (<200m) cirratulid list with habitat information**

Genus	Species	Authority	Original genus	Other Synonyms	Listed			Description	Figure	Type locality	UK distribution	Habitat	Depth
					ERMS	NEAT	SD						
<i>Cirratulus</i>	<i>borealis</i> #	Lamarck, 1818	<i>Cirratulus</i>							S Greenland	?	?	shallow - moderate
<i>Cirratulus</i>	<i>caudatus</i>	Levinson, 1893	<i>Cirratulus</i>										shallow - moderate
<i>Cirratulus</i>	<i>cirratulus</i>	(O.F. Muller, 1776)	<i>Cirranulus</i>										shallow - moderate
<i>Cirratulus</i>	<i>incertus</i> #	McIntosh, 1916	<i>Cirratulus</i>										shallow - moderate
<i>Cirratulus</i>	"A" #												shallow - moderate
<i>Cirratulus</i>	<i>sp</i> #												shallow - moderate
<i>Cirratulus</i>	<i>lentaculata</i>	(Montagu, 1808)											shallow - moderate
<i>Prinacirratulus</i>	<i>chrysozona</i>	(Claparede, 1868)	<i>Cirratulus</i>										shallow - moderate
<i>Caulerliella</i>	<i>bioculata</i>	(Kieferstein, 1862)	<i>Heterocirrus</i>	<i>Heterocirrus bioculatus</i>									shallow - moderate
<i>Caulerliella</i>	<i>alata</i>	(Southern, 1914)	<i>Chaetozone</i>	<i>Heterocirrus alatus</i>									shallow - moderate
<i>Caulerliella</i>	<i>serrata</i> #	Eliason, 1962	<i>Caulerliella</i>	<i>Aphelocheata</i>									shallow - moderate
<i>Caulerliella</i>	<i>parva</i> #	Gilland, 1979	<i>Caulerliella</i>	<i>C. bioculata parva</i>									shallow - moderate
<i>Caulerliella</i>	<i>viridis</i>	(Langerhans, 1880)	<i>Cirratulus</i>										shallow - moderate
<i>Caulerliella</i>	"A"												shallow - moderate
<i>Caulerliella</i>	"B" #												shallow - moderate
<i>Chaetozone</i>	<i>caputesoci</i>	(St. Joseph, 1894)	<i>Heterocirrus</i>	<i>Caulerliella</i>									shallow - moderate
<i>Chaetozone</i>	<i>christie</i> #	Chambers, 2000	<i>Chaetozone</i>										shallow - moderate
<i>Chaetozone</i>	<i>gibber</i>	Woodham & Chambers, 1994	<i>Chaetozone</i>										shallow - moderate
<i>Chaetozone</i>	<i>tubata</i> #	Chambers & Woodham, 2003	<i>Chaetozone</i>										shallow - moderate
<i>Chaetozone</i>	<i>setosa</i> #	Malmgren, 1867	<i>Chaetozone</i>										shallow - moderate
<i>Chaetozone</i>	<i>vivipara</i> #	(Christie, 1984)	<i>Tharyx</i>	<i>Aphelocheata</i>									shallow - moderate
<i>Chaetozone</i>	<i>zelandica</i> #	(McIntosh, 1911)	<i>Caulerliella</i>										shallow - moderate
<i>Chaetozone</i>	"C"	(Christie, 1985)											shallow - moderate
<i>Chaetozone</i>	"D" #												shallow - moderate
<i>Tharyx</i>	<i>killariensis</i>	(Southern, 1914)		<i>Caulerliella</i>									shallow - moderate
<i>Tharyx</i>	"A" ( <i>cf. acutus</i> )#												shallow - moderate
<i>Aphelocheata</i>	<i>filiformis</i>	(Kieferstein, 1862)	<i>Cirratulus</i>										shallow - moderate
<i>Aphelocheata</i>	<i>cf. glandaria</i> #	Blake, 1996	<i>Aphelocheata</i>										shallow - moderate
<i>Aphelocheata</i>	<i>marioni</i>	(St. Joseph, 1894)	<i>Heterocirrus</i>	<i>Tharyx</i>									shallow - moderate
<i>Aphelocheata</i>	<i>mcintoshii</i>	(Southern, 1914)		<i>"Cirratulus norvegicus" in McIntosh</i>									shallow - moderate
<i>Aphelocheata</i>	<i>cf. monilariis</i> #	(Hartman, 1960)	<i>Tharyx</i>	<i>Tharyx</i>									shallow - moderate
<i>Aphelocheata</i>	<i>multibranchiis</i> #	(Grube, 1863)	<i>Tharyx</i>	<i>Tharyx</i> ; a <i>Chaetozone</i> ? - MP									shallow - moderate
<i>Aphelocheata</i>	"A"												shallow - moderate
<i>Aphelocheata</i>	"MEP n.sp." #												shallow - moderate
<i>Monticellina</i>	<i>cf. annulosa</i> #	(Hartman, 1965)	<i>Tharyx</i>										shallow - moderate
<i>Monticellina</i>	<i>cf. heterochaeta</i> #	Laubier, 1960	<i>Monticellina</i>										shallow - moderate
<i>Dodecaceria</i>	<i>concharum</i>	Oersted, 1843	<i>Dodecaceria</i>	<i>D. fimbriata</i> of Gibson									shallow - moderate
<i>Dodecaceria</i>	<i>ater</i>	(Quatrefages, 1866)		<i>D. concharum</i> of Gibson; may = <i>D. saxicola</i>									shallow - moderate
<i>Dodecaceria</i>	<i>cf. diceria</i>	Hartman, 1951	<i>Dodecaceria</i>										shallow - moderate

# represents taxa changed or added since previous guide

Table 3. Provisional cirratulid identification table (UK shallow water <200m)

Genus	Species	Size (mm)	Chaetigers	Protocirrus	Peritremes	Mouth	'Thoracic' region	'Abdominal' region	Tail	Pygidium	Colour	Eyes	Capillary (Notochaeta)	Capillary (Nemochaeta)	Notochaeta	Anterior Nemochaeta	Anterior Nemochaeta	Pulps	1st Cirri	2nd Cirri	Cirri end				
<i>Cirratulus</i>	<i>hirsutus</i>					excavate anteriorly						many				from mid body	short, unidentate	from mid body	short, unidentate			2 on 4th segments			
<i>Cirratulus</i>	<i>conditus</i>			short		excavate anteriorly	expanded	narrower than thorax	slightly longer than in thorax	slightly tapered		black, in rows that run together	fairly short	fairly short	not seen		from mid body	short, unidentate	from mid body	short, unidentate		1 pr on ch 5	ch 12?		
<i>Cirratulus</i>	<i>virgatus</i>	12x3		short		excavate anteriorly	uniform width	slightly longer than in thorax	slightly tapered		yellowish in life		fairly short	fairly short	not seen		from mid body	short, unidentate	from mid body	short, unidentate			scattered only, particularly		
<i>Cirratulus</i>	<i>incertus</i>			short		excavate anteriorly	uniform width	slightly longer than in thorax	slightly tapered		blackish, greenish	red, discrete	fairly short	fairly short			from mid body	short, unidentate	from mid body	short, unidentate			scattered only, particularly		
<i>Cirratulus</i>	"A"			flattened		excavate anteriorly	uniform width	slightly longer than in thorax	slightly tapered		colorless?	2	fairly short	fairly short			from mid body	short, unidentate	from mid body	short, unidentate			scattered only, particularly		
<i>Cirratulus</i>	<i>sp.</i>					excavate anteriorly	uniform width	slightly longer than in thorax	slightly tapered		yellowish in life	red, discrete	fairly short	fairly short			from mid body	short, unidentate	from mid body	short, unidentate			scattered only, particularly		
<i>Cirratulus</i>	<i>antennatus</i>			short		excavate anteriorly	uniform width	slightly longer than in thorax	slightly tapered		grey or yellowish	some as adult very small in juveniles	fairly short	fairly short	not seen		from mid body	short, unidentate	from mid body	short, unidentate					
<i>Protocirratulus</i>	<i>chrysoderma</i>	25 x 0.5	150	slightly conical		weakly expanded	weakly expanded	narrower than thorax	slightly tapered		papilla; some ventral	brownish with dark gut	fairly long in thorax	fairly long in thorax			some	some	some	some			2-3 per. ch 4 & 5		
<i>Cambrivella</i>	<i>foveolata</i>	40 x 1	140	pointed		round	almost uniform width	slightly longer than in thorax	slightly tapered		dark, brownish	2	fairly short	fairly short	not seen		from mid body	curved, bifid	from ch 3	curved, bifid					
<i>Cambrivella</i>	<i>alata</i>	12	110	pointed		round	almost uniform width	slightly longer than in thorax	slightly tapered		purple to pale lilac; or yellowish	2	fairly short	fairly short	rare		1-1, from 21	curved, bifid, wing on posterior margin	5-7, from 1	curved, bifid, wing on posterior margin			peritremes	occupy pulps	
<i>Cambrivella</i>	<i>acronotus</i>										brilliant yellow	2, small, red													
<i>Cambrivella</i>	<i>parvif</i>																								
<i>Cambrivella</i>	<i>viridis</i>			pointed			almost uniform width	slightly longer than in thorax	slightly tapered		green in life	2	fairly short	fairly short	not seen		from mid body	curved, bifid	from 3	curved, bifid			peritremes	alongside pulps	
<i>Cambrivella</i>	"6"			pointed		round	expanded	long & thin; beaded	slightly longer than in thorax	slightly tapered	blackish, elongate distally rounded lobes	colorless?	some	fairly short	fairly short	not seen		from mid body	curved, bifid	from 4	curved, bifid				
<i>Cambrivella</i>	"7"			very elongate - pointed			long & thin; almost uniform width	slightly longer than in thorax	slightly tapered		pale yellowish	2	fairly short	fairly short	not seen										
<i>Chaetoceros</i>	<i>capitatus</i>	17 x 1	55	short conical			conical tip																		
<i>Chaetoceros</i>	<i>oblongus</i>	12x1	110	narrowly pointed		partially divided into 3 small	widens to mid body	apices	downventrally flattened	rounded flattened leaf like lobe; apex dorsal	colorless to yellowish	none	short, recurved and shaped in front & mid body	short, recurved and shaped in front & mid body	2-3 times longer than capillaries, from c.20 to end c.50		alternate with capillaries; clear dorsal and ventral gaps between parapodia, from c.50	alternate with capillaries; clear dorsal and ventral gaps between parapodia, from c.30	peritremes	Per, almost alongside pulps			less in mid body, absent particularly		
<i>Chaetoceros</i>	<i>puber</i>	20	700	acutely pointed		partially divided into 3 small	widens to mid body	apices	swollen between chs 7-30 to form hump back	apices becoming narrower and longer	small ventral lobe	colorless to yellowish	2, often faded	fine and slender on all; oval-shaped between 40-90	slender on all; oval-shaped between 40-90		alternate with capillaries; from 90/100 to end 1-4	alternate with capillaries; from 50/80 to end	peritremes	1st ch, immediately post to pulps					
<i>Chaetoceros</i>	<i>puberif</i>			pointed			widens to mid body	apices	deep constrictions between segments; rounded cross section	small ventral lobe	colorless to yellowish	none	short, recurved and shaped in front & mid body	short, recurved and shaped in front & mid body											
<i>Chaetoceros</i>	<i>ornatus</i>	20x1	83	narrowly pointed		partially divided into 3 small	widens to mid body	apices	deep constrictions between segments; rounded cross section	very small, flat rounded ventral lobe; dorsal apex	colorless to yellowish	none	short, recurved and shaped in front & mid body	short, recurved and shaped in front & mid body	4-6 times as long as capillaries, from c.20-70		alternate with capillaries; almost continuous ring from c.50	alternate with capillaries; almost continuous ring from c.40	peritremes	Per, behind pulps	1st ch, dorsal to notopodia		less in mid body, absent particularly		
<i>Chaetoceros</i>	<i>irregularif</i>	8 x 1	44	pointed		3 small	widens to mid body	apices	very short, tapering	short, round, ventral lip; dorsal apex	colorless to yellowish	None	short	short, same length as notochaeta			posteriormost chs of small specimens, alternating with capillaries	very fine	very fine			post edge of 1st ch	ch 1	ch 2	to end
<i>Chaetoceros</i>	<i>reticulatif</i>	24 x 1	154	acutely pointed		partially divided into 3 small	widens to mid body	apices	slightly tapered, downventrally flattened, oval cross section	small ventral human-like lobe	colorless to yellowish	2, sometimes faded	slender on all; medium oval-shaped in mid body	medium oval-shaped in mid body			none	none	posteriorly	unicellate (bifid in jaws)	peritremes	1st ch, immediately post to pulps	above heteropodid lobes	less in mid body and post.	
<i>Chaetoceros</i>	"C"			pointed			widens to mid body	apices	deep constrictions between segments; rounded cross section	slightly flattened downventrally			short, recurved and shaped in front & mid body	short, recurved and shaped in front & mid body			alternate with capillaries; clear dorsal and ventral gaps between parapodia	alternate with capillaries; clear dorsal and ventral gaps between parapodia	unicellate	1st ch					
<i>Chaetoceros</i>	"D"			pointed			expanded	elongate, may be beaded			colorless to yellowish	2, often faded	long, recurved and shaped in thorax	long, recurved and shaped in thorax			alternate with capillaries; almost continuous ring	alternate with capillaries; almost continuous ring	unicellate						

Table 3. Provisional cirratulid identification table (UK shallow water <200m)

Genus	Species	Size (mm)	Chaetigers	Protonema	Paritism	Month	'Thoracic' region	'Abdominal' region	Tail	Pygidium	Colour	Eyes	Capillary Notochaetae	Capillary Neurochaetae	Notostyle chaetae	Anterior Notochaetae	Anterior Neurochaetae	Palps	1st GBs	2nd GBs	GBs end		
<i>Tharyx</i>	<i>hillebrandii</i>	11	84	pointed		round	expanded; ventrolateral swelling on posterior margin	elongate; may be beaded; rounded cross section	weakly expanded	ventral lobe	brownish or pale; may have darker gut	none	become longer to rear	shorter than antiochaetae; absent in far posterior		from 61; variable; may be absent	1-2 curved, bifid/ knob-tipped	from 56; variable	2-3 curved, bifid/ knob-tipped	1st imm. post to palp; int. to chl		above chaetae	
<i>Tharyx</i>	"A" (cf <i>acuta</i> )#			pointed		round	expanded; dorsally flattened	narrower than thorax	expanded; dorsally flattened		brownish with dark gut	none; rarely 2	fairly short	fairly short				knob-tipped			1-27; from margin of chl (ch)		
<i>Aphelocharta</i>	<i>Hilpinus</i>	40 x 1	150	thickly conical		3 small, 2nd least-shaped	papillate			bimargate	brown/yellow or greenish live	none				none	none	none	none	none	1-27; from margin of chl (ch)	to end	
<i>Aphelocharta</i>	<i>of plumbum</i>			thickly conical			round									none	none	none	none	none			
<i>Aphelocharta</i>	<i>marconi</i>	70 x 9 R	286	thickly conical			round	narrow; elongate	strongly expanded	5 lobes below	red/brown	none	straight, fin. as long as the width of the body	microscopically as antiochaetae; shorter & wider from 16/20		none	none	none	none	1st ch	just below palps	above chl 2 notopodia	gradually reducing towards end
<i>Aphelocharta</i>	<i>acrostich</i>	10 x 10	100	small, blunt cone			protruded	not much tapered	rounded	pointing bottom shaped vent						none	none	none	none	1st ch	opposite 1st antopodia	more than 20; trace behind	
<i>Aphelocharta</i>	<i>of novae</i>			thickly conical			expanded	elongate	strongly expanded			none				none	none	none	none				
<i>Aphelocharta</i>	<i>multinervosa</i>	9 x 0.7	65+	thickly conical			expanded				dark reddish brown; may have darker gut	2				none	none	spines				caudal	
<i>Aphelocharta</i>	"A"			thickly conical			expanded	narrower than thorax	expanded			none	fairly long, straight	fairly long, straight		none	none	none	none				
<i>Aphelocharta</i>	"ABP" (sp. N)	Small		thickly conical			expanded					none	fairly long, straight	fairly long, straight		none	none	none	none				
<i>Monostylis</i>	<i>of annulata</i>			thickly conical	elongate		weakly expanded	elongate; weakly beaded	weakly expanded			none	dorsally placed; antiochaetae; especially mid body	dorsally placed; antiochaetae; especially mid body		none	none	none	none	ant edge of chl		in slope of groove	
<i>Monostylis</i>	<i>of hirsuta</i>			thickly conical	elongate	round	weakly expanded; dorsal process	elongate; weakly beaded	weakly expanded		dark reddish brown; may have darker gut	none	dorsally placed; antiochaetae; especially mid body	dorsally placed; antiochaetae; especially mid body		none	none	none	none	ant edge of chl		in slope of groove	
<i>Dialicoma</i>	<i>conchum</i>			thick			weakly expanded	short	short									spoon-shaped		thick, fewer than 8 pairs	thick, fewer than 8 pairs	thick, fewer than 8 pairs	
<i>Dialicoma</i>	<i>ster</i>			thick			weakly expanded	short	short		dark reddish brown							spoon-shaped		thick, fewer than 8 pairs	thick, fewer than 8 pairs	thick, fewer than 8 pairs	
<i>Dialicoma</i>	<i>of ducis</i>			thick				short	short									spoon-shaped		thick, fewer than 8 pairs	thick, fewer than 8 pairs	thick, fewer than 8 pairs	

# represents taxa changed or added since previous guide

