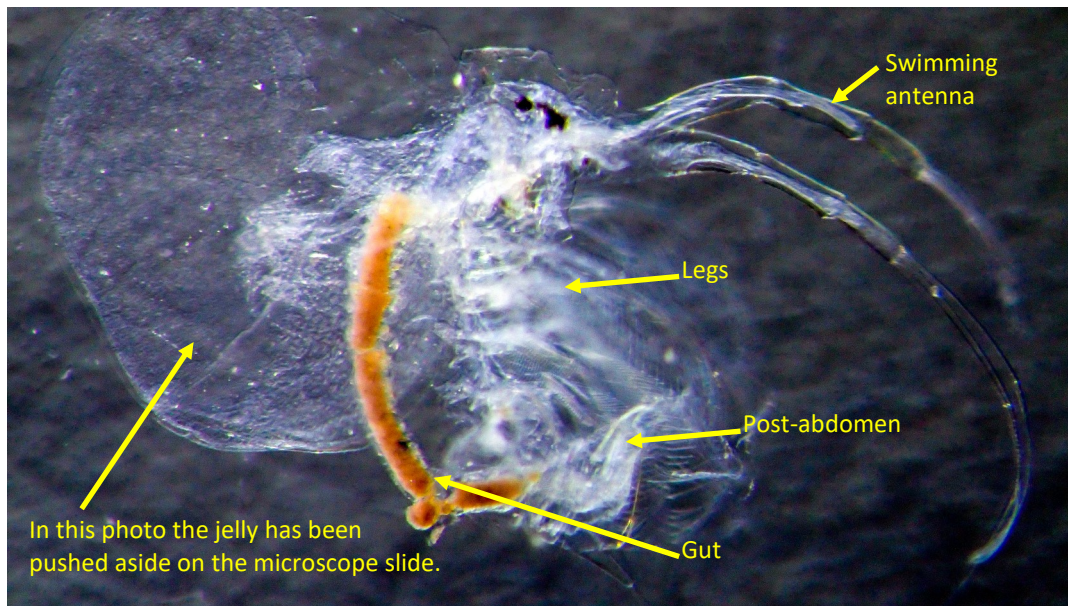


# FRESHWATER CLADOCERA

A simple photo guide to most of the families of Water Fleas in the British Isles

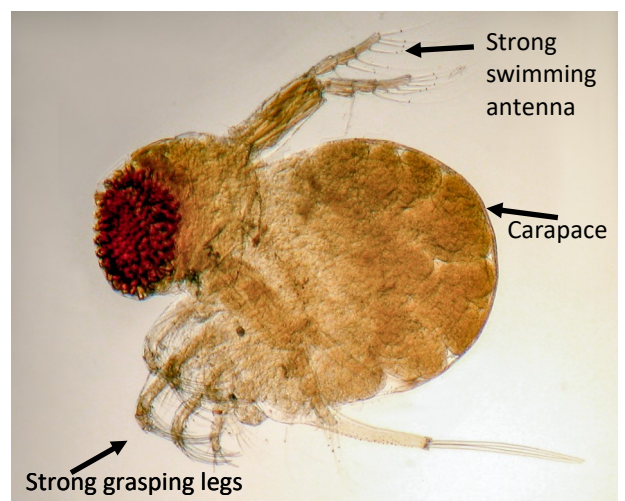
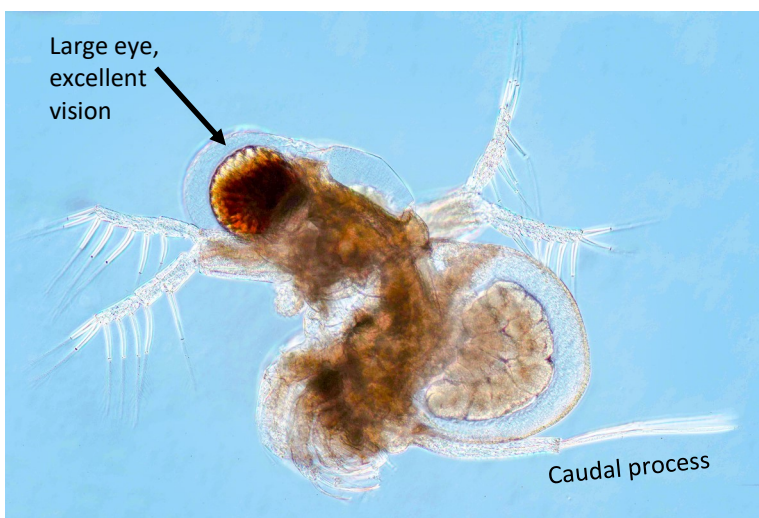
## Family 1 Holopedidae

A single species *Holopedium gibberum* which is easy to recognise as the whole animal is embedded in and covered by a mass of jelly and has no Carapace (or shell ). The swimming antennae are long and protrude through the jelly.



Animals with a caudal process (the long tail ) Polyphemidae & Leptodoridae

## Family 2 Polyphemidae

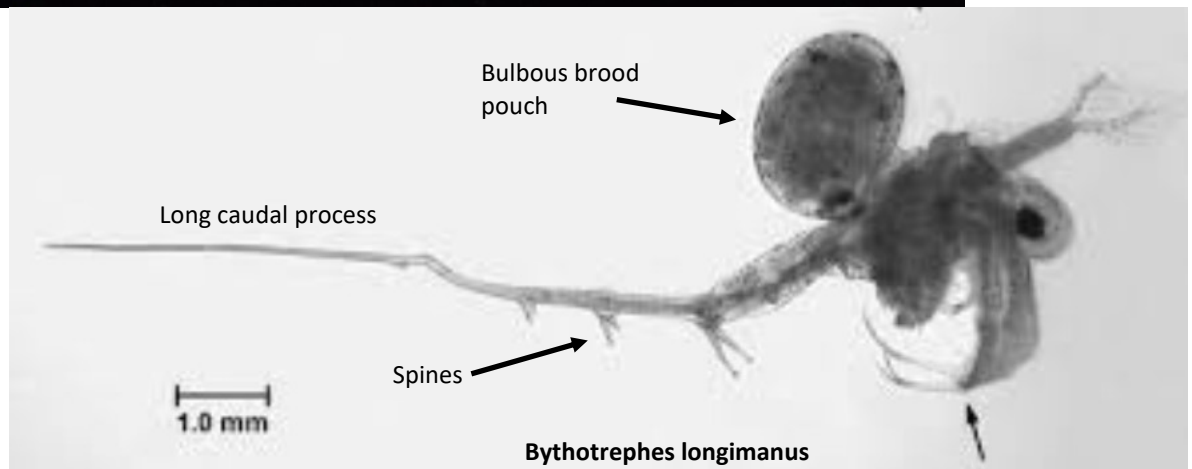


The most common of these animals is *Polyphemus pediculus*, a predatory water flea with excellent eyesight and a relatively shorter caudal process. This is the only UK species of Polyphemus.

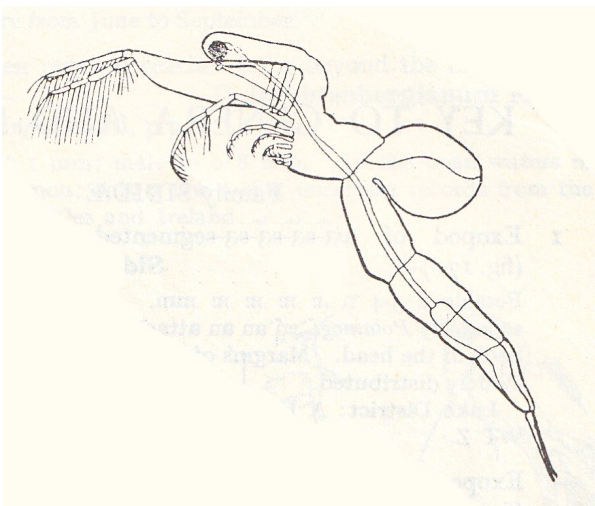
### Family 3 Cercopagidae

Two species of *Bythotrephes* form the Cercopagidae, they have a much longer caudal process, are colourless, quite transparent. And are found planktonic in lakes. Often called the Spiny Waterflea or Fishhook Waterflea

***Bythotrephes longimanus*** & ***Bythotrephes cederstroemi*** are the only UK species



### Family 4 Leptodoridae

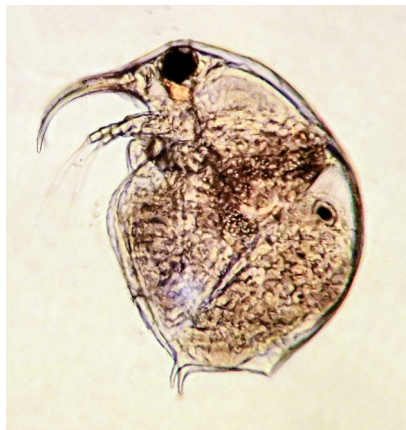


The family Leptodoridae also has a long caudal process. ***Leptodora kindti*** the only UK species is one of the most transparent animals in freshwater. Rare, planktonic in lakes & reservoirs. No photo, I've never found it!



Animals without a caudal process and with an obvious carapace (shell) in two parts which encloses the body.

### Family 5 Bosminidae

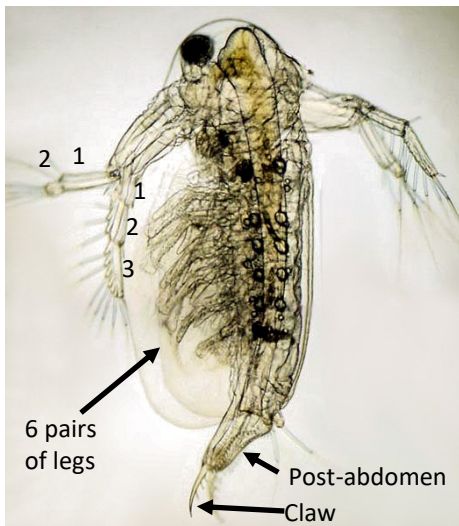


*Bosmina longirostris*

The Bosminidae are easily recognised by the curved trunk-like fixed antennule in front of the head. It carries a group of sensory setae half way along its length.

Possibly 3 UK species of which *Bosmina longirostris* is most likely to be found.

### Family 6 Sididae



Sididae have strong swimming antennae with 2 branches, one has 3 segments the other has 2. They have 15 or more setae on both branches of each antenna.

They have 6 pairs of legs, a simple gut with no loops and are relatively unpigmented.

Of the 3 UK species *Sida crystallina* is the most common.



*Moina brachiata*

### Family 7 Moinidae

The Moinidae can superficially resemble Daphniidae in that the two branches of the swimming antennae have 3 segments in one branch and 4 in the other.

However in Moinidae the head is large in comparison ( see family 8 Daphniidae) with no rostrum and the antennule is very large and obvious.

3 UK species, *Moina brachiata* and *Moina macrocopa* are relatively uncommon and it is uncertain if *Moina micrura* still exists in the British Isles.

## Family 8 Daphniidae

The Daphniidae have obvious swimming antennae with two branches having 3 segments in one branch and 4 in the other. In this they resemble several remaining families; Moinidae, Macrothricidae, Ilyocryptidae, Ophryoxidae and Acantholeberidae

In Daphniidae the head is small in comparison to Moinidae and the antennule is much smaller and may not be very obvious at all.

Except in Ceriodaphnia there is a rostrum projecting from the front of the head which carries the sensory antennules, although this may be small in some species. In Ceriodaphnia there is no rostrum and the sensory antennules are carried on a projecting spur.

With 25 UK species you are likely to find many waterfleas of the family Daphniidae but they are very variable and the photos below can only give a few typical examples.



*Daphnia longispina*



*Daphnia pulex*



*Simocephalus vetulus*



*Scapholeberis mucronata*

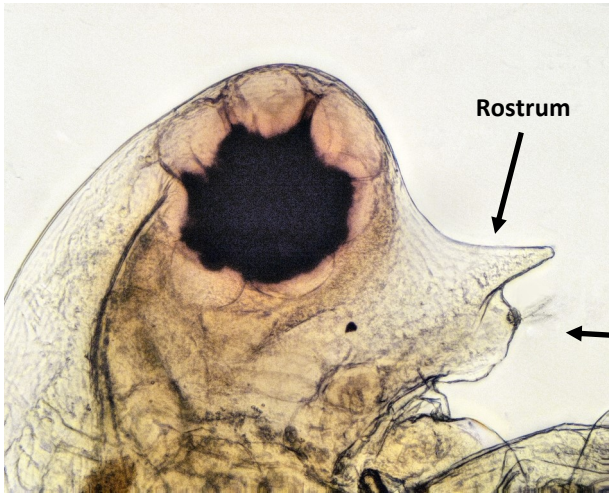


*Ceriodaphnia reticulata*



## Family 8 Daphniidae (continued)

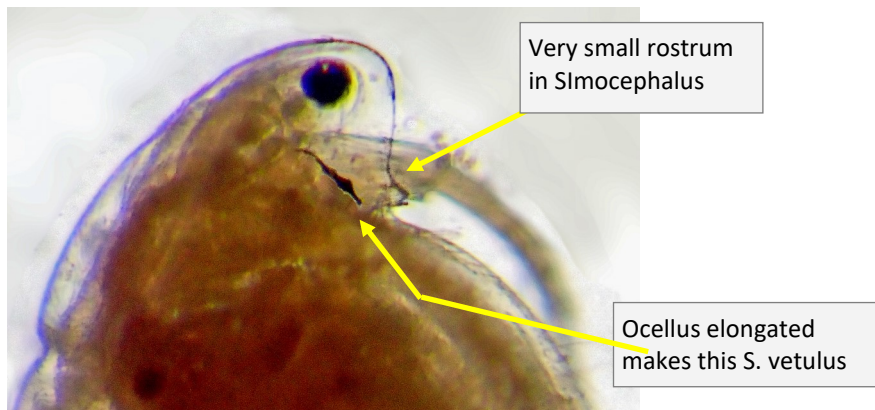
The existence, size & shape of a rostrum is important in Daphniidae



*Daphnia obtusa*



*Ceriodaphnia reticulata*



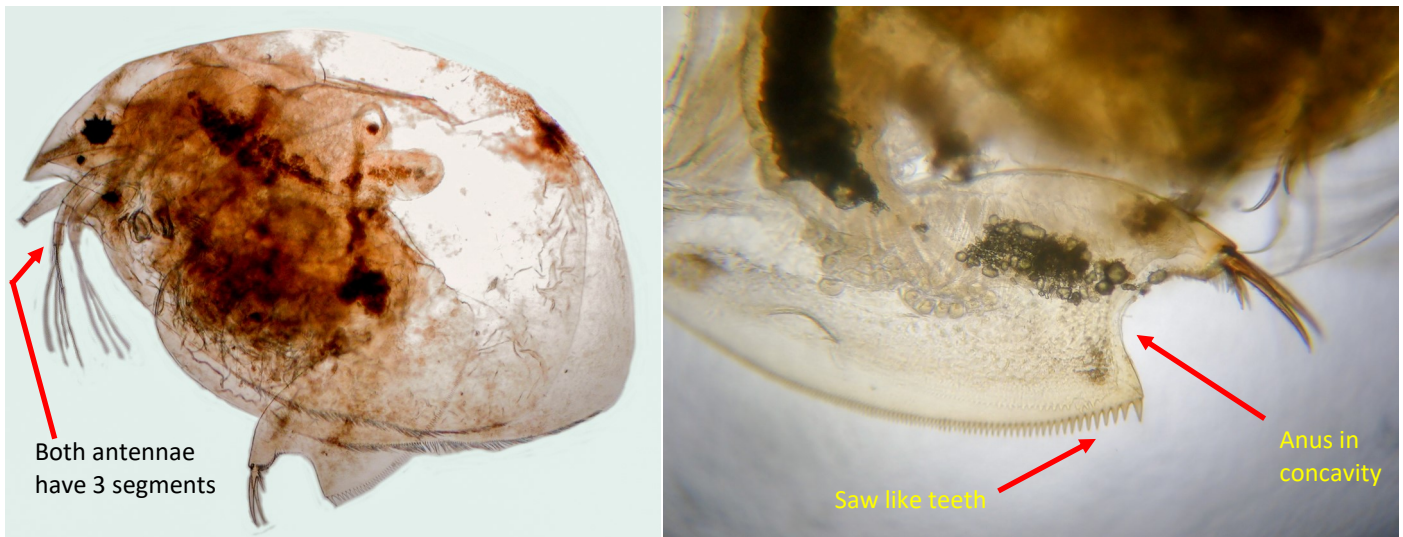
*Simocephalus vetulus*

Some identification features to look for to key out *Daphnia obtusa*





## Family 9 Eurycercidae



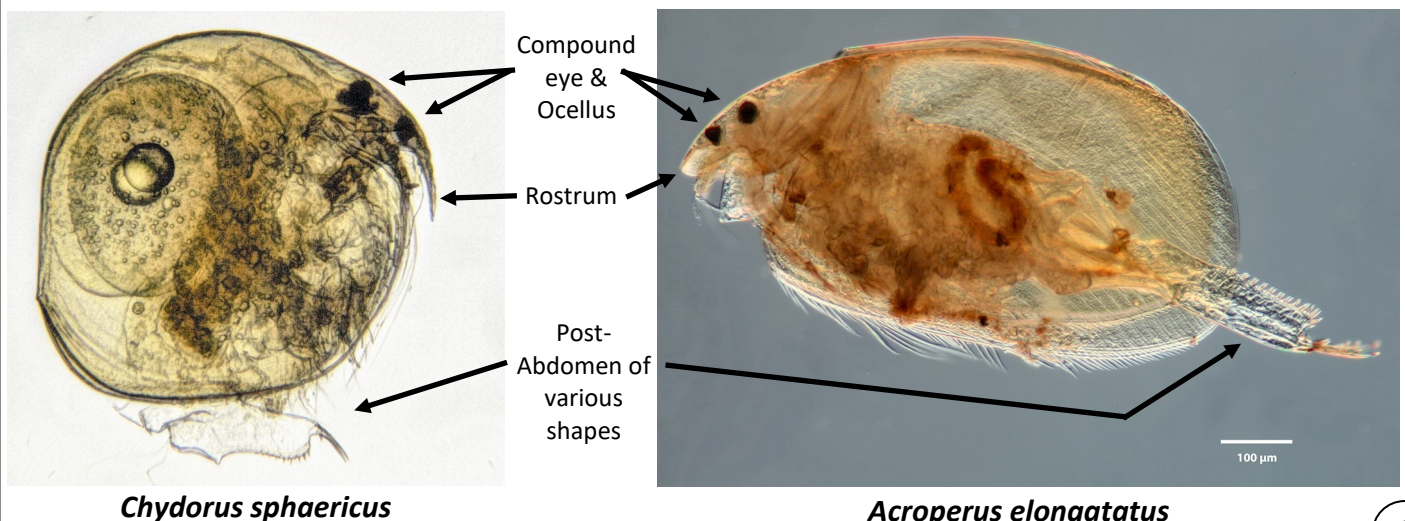
The Eurycercidae have only 2 UK members, *Eurycerus lamellatus* & *Eurycerus glacialis*.

*Eurycerus lamellatus* is the most likely to be found in most parts of the UK as *E. glacialis* is a relict species only likely to be found in the far north, places like the Orkneys and Shetland. In *E. lamellatus*, like the Chydoridae, both branches of the swimming antennae have 3 segments. Both species have a long row of regular saw like teeth along the lower margin of the post abdomen (tail) and the gut terminates in a concave anus opening. Eurycercidae are therefore easy to identify to family though the differences between the two species can be more difficult to be certain of, if you are in an area with both.

## Family 10 Chydoridae

The Chydoridae are very similar to the Eurycercidae and many old books group both families as Chydoridae. All have swimming antennae with both branches 3 segmented and these antennae are partly hidden under a long, curved rostrum. Chydoridae do not have the same long row of regular saw like teeth along the post abdomen, although different teeth may be present and the gut does not end in a deep concavity.

With 42 UK species you are likely to find many waterfleas of the family Chydoridae but they are very variable and the photos below can only give a few typical examples.



*Chydorus sphaericus*

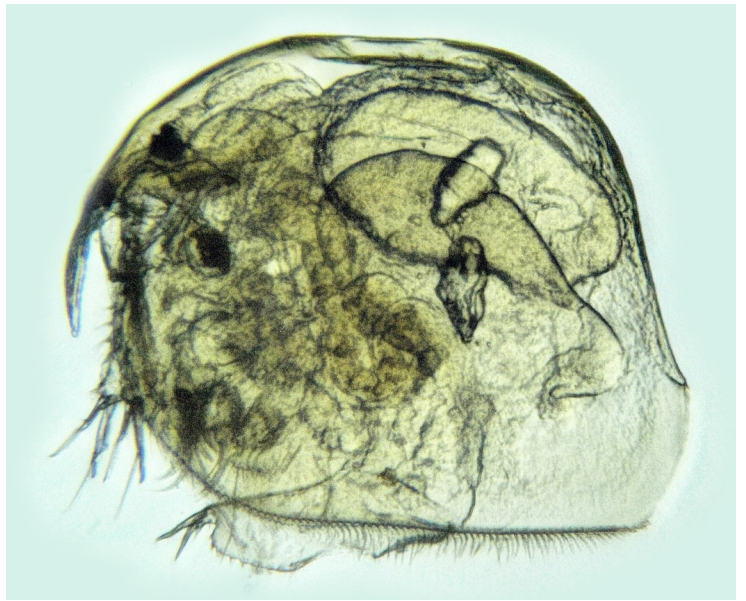
*Acroperus elongatus*



## Family 10 Chydoridae (continued)



*Pleuroxus truncatus*



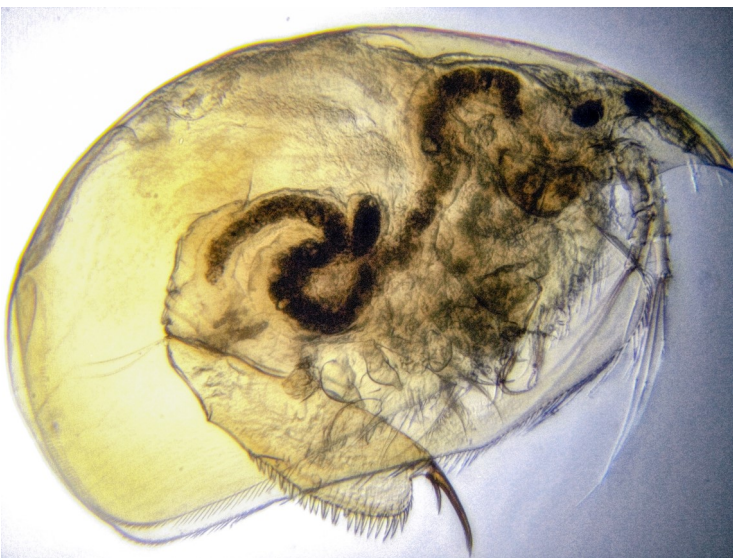
*Pleuroxus aduncus*



*Pleuroxus trigonellus*



*Disparalona rostrata*



*Alona affinis*



*Alona quadrangularis*

Families 11, 12, 13 & 14 still to add:

Macrothricidae, Ilyocryptidae, Ophryoxidae and Acantholeberidae