

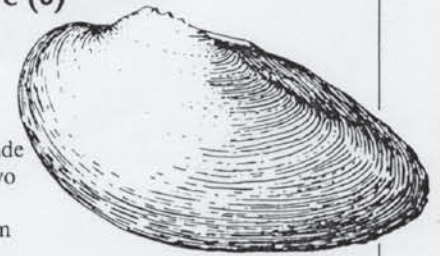
# IDENTIFICATION SHEET

The following animals and plants are used in this survey as a way of indicating water quality. Each has been given a 'value' depending on their requirements (this is noted in brackets after the species name). A high value means they require good quality water. A star (★) means they are particularly useful as indicator species.



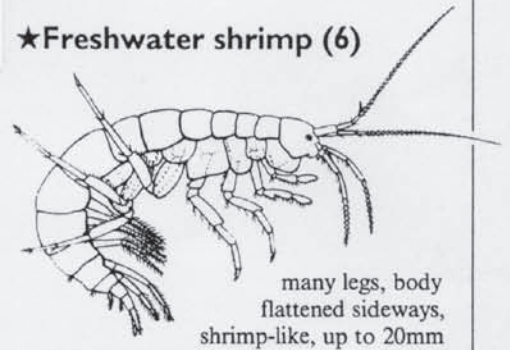
## Large freshwater bivalve (6)

shell made up of two halves, over 4cm



Only large bivalves indicate quite good quality water.

## ★Freshwater shrimp (6)

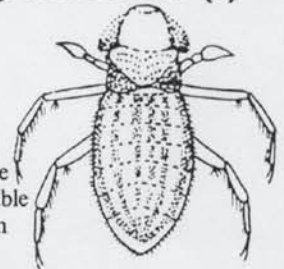


many legs, body flattened sideways, shrimp-like, up to 20mm

A very active swimmer, swimming on its side, and often in pairs. You may get hundreds in your sample if the water is fairly clean and running. They may be absent in water of high acidity because of lack of calcium to build the exoskeleton.

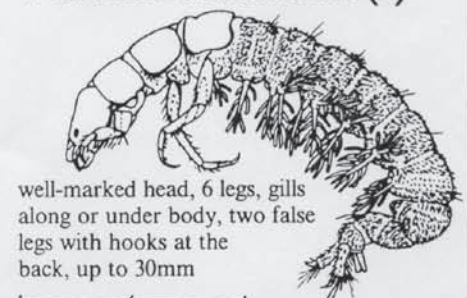
## Water bugs and beetles (5)

6 legs, hard (wing) case over most of the body, size variable but up to 30mm or more



Bugs and beetles prefer slow water particularly when there are lots of plants. Bugs usually have a triangular head with a pointed beak, sometimes folded underneath (water boatman, pond skaters, water scorpions). Beetles have chewing-type mouths. Beetle larvae have short antennae and no gills on the body and look like 'mini-prehistoric animals'. They do not count as an extra group as they are still beetles!

## ★Caseless caddis larvae (5)

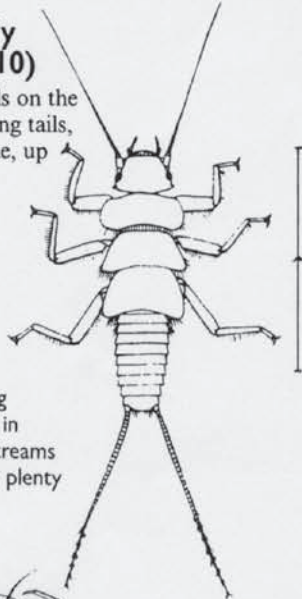


well-marked head, 6 legs, gills along or under body, two false legs with hooks at the back, up to 30mm

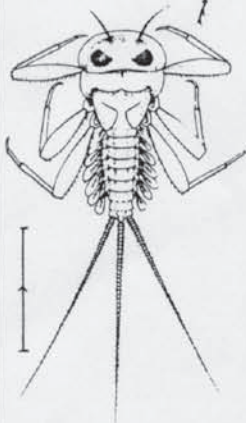
Like cased caddis but without the case!

## ★Stonefly nymph (10)

6 legs, no gills on the body, two long tails, long antennae, up to 30mm



Large crawling insects found in clean stony streams when there is plenty of oxygen.



## ★Flattened mayfly nymph (10)

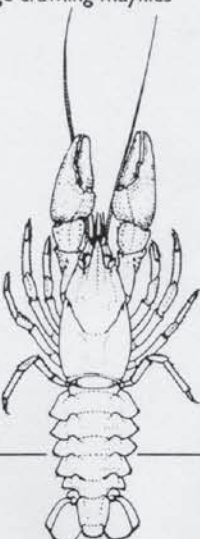
6 legs, gills on the body, three tails, flattened body and legs, up to 16mm

Crawling insects found in similar conditions to stoneflies. Not all mayflies are clean water indicators, but flat or large crawling mayflies are.

## Crayfish (8)

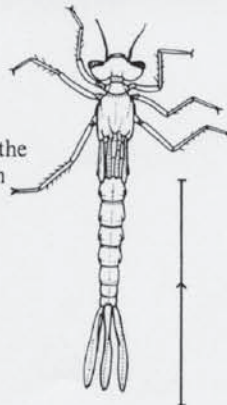
more than 6 legs, lobster-like with large pincers, up to 10cm

Can't really be mistaken for anything else. They live in stony streams, hiding in crevices. They will probably evade the net so should be looked for separately by turning over stones.



## Damselfly nymph (8)

6 legs, no gills on the body, 3 tails which are plate-like, up to 30mm



Like clean water but avoid fast currents so may be missed as they will be in deeper waters. Similar to mayfly nymphs but no gills down the body. They swim with sideways movements of the body. You may also find dragonfly nymphs which are shorter and fatter, with short projections rather than tails.

## ★Cased caddis larva (7)



6 legs, cylindrical or flattened case made up of leaf fragments, twigs, sand or small stones, up to 50mm

Most are crawlers but a few are swimmers. They are found in most types of stream bed where the water is of fairly good quality.

## Freshwater limpet (6)



triangular, conical shell, limpet-like, up to 20mm

Found attached to larger stones or rocks so may be missed from scuffle samples. They indicate water of fairly good quality.