

Draft keys to the Water Bug families of Great Britain and Ireland

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Photographs by **A.A.Cook**

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All comments welcomed to kevrowley@live.co.uk

Based on **Nau, B.S.**, (2010) *Keys to Aquatic & Semi-aquatic Heteroptera*. Draft.

Habitat information from:

- **Denton, Jonty**, (2007), *Water Bugs and Beetles of Surrey*. Surrey Wildlife Atlas Project.
- **Southward, T.R.E., & Leston, D.**, (1959). *Land and Water bugs of the British Isles*. Warne, London.

Other key sources from:

- **Brooke, S., Nau, B., & Stanier, H.**, (2012), *Wildlife profiles: Water Bugs*. Wildlife Trust BCN.
- **Cook, A. A.**, (2015), *A review of the Hemiptera of Great Britain. The aquatic and semi-aquatic bugs*. Natural England commissioned report NECR188.
- **Eversham, B., & Prunier, F.**, (2003), *Identifying water bugs*. Wildlife Trust BCNP.
- **Jansson, A.**, (1986), *The Corixidae (Heteroptera) of Europe and some adjacent regions*. Acta Entomologica Fennica 47:1-94.
- **Merritt, R.**, (2006), *Atlas of the water beetles (coleoptera) and water bugs (Hemiptera) of Derbyshire, Nottinghamshire and South Yorkshire, 1993-2005*. Sorby Record Special Series, No.14.
- **Savage, A.A.**, (1989), *Adults of the British aquatic Hemiptera Heteroptera: a key with ecological notes*. Freshwater Biological Association Scientific Publication No.50.

For more information on species, habitat and distribution refer to www.aquaticbugs.com

ORDER: HEMIPTERA. SUB ORDER: HETEROPTERA

1a Antennae shorter than head and hidden beneath it so not visible from above. No silver water proof hairs underneath abdomen although hairs maybe present to trap air. Underwater species 2

Caution: In species with antennae these may be accidentally wrapped under the head out of sight.

NEPOMORPHA



NOTONECTIDAE



NEPIDAE



CORIXIDAE



NAUCORIDAE



PLEIDAE



APHELOCHERIDAE

1b Antennae clearly visible from above and longer than head. Aquatic or semi-aquatic, underside of thorax and abdomen covered in white or silver waterproof hairs. Water surface species..... 7

GERROMORPHA



GERRIDAE



HYDROMETRIDAE



MESOVELIIDAE



VELIIDAE:
Velia



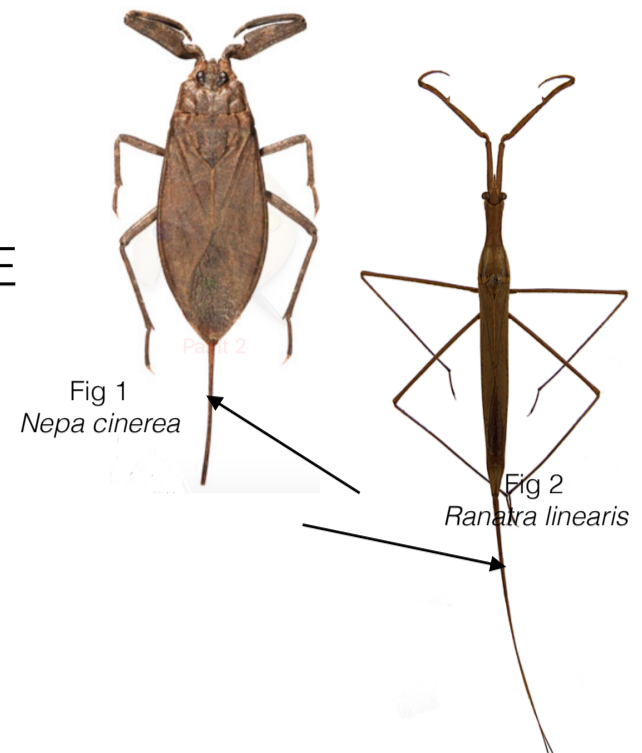
VELIIDAE:
Microvelia



HEBRIDAE

2a Abdomen with long spine like tail half or more as long as the abdomen (Fig 1 and 2). Bug large, greater than 15mm.....

NEPIDAE
2 Species



2b Abdomen without spikelike tail. Bug smaller, less than 15mm..... 3

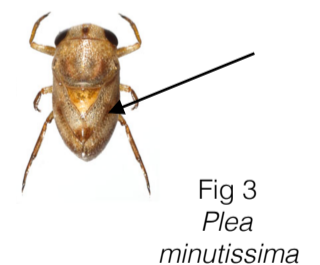
3a Hemelytra angled steeply down from the midline and underside flat, giving a triangular cross section. front and middle legs similar. Swim upside down..... 4

3b Hemelytra flat, front legs modified and different to mid legs. Swims with elytra near the surface 5

4a Tiny, L < 2.3mm. No membrane, forewings densely punctured (Fig 3), hind tarsus with long claws, no swimming hairs.

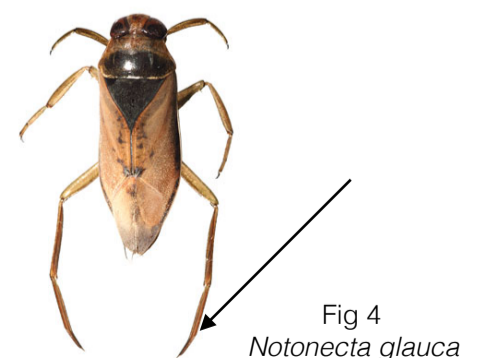
PLEIDAE
1 Species
Plea minutissima

On submerged water plants in still water.



4b Large, L = 14mm, membrane present, forewings not densely punctured, hind tarsus without distinct claws, densely fringed with long swimming hairs (Fig 4).....

NOTONECTIDAE
4 Species



5a Rostrum merges with the face, triangular, not segmented. (Fig 6) Head overlaps front of pronotum. Front tarsus a single segment and flat in males (Fig 5). Length 1.9 to 13mm.....

CORIXIDAE
34 Species

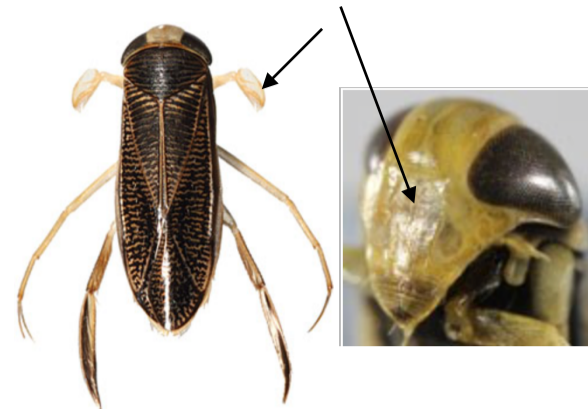


Fig 5
Sigara falleni

Fig 6
Sigara nigrolineata

5b Rostrum free and segmented. Head not overlapping front of pronotum, Front tarsi either 2 segments or absent.....

6

6a Abdomen rounded and entirely matt above. Usually wings under developed and abdomen normally exposed (Fig 7). Head elongate, rostrum very long, outline of foreparts discontinuous. Legs simple, no fringe or swimming hairs. L = 9mm.

APHELOCHERIDAE
1 Species
Aphelocheirus aestivalis

Usually in fast-flowing water, under stones or in weed beds

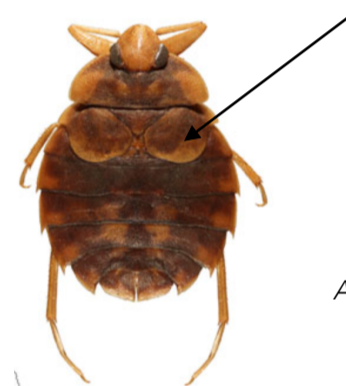


Fig 7
Aphelocheirus aestivalis

6b Larger flat and abdomen more oval, at least partly shiny above, wings cover abdomen, head broad (=2x head length), outline of head, eyes, pronotum a smooth curve (Fig 8). Front legs pincer like, femur expanded, hind tibia and tarsus densely fringed with swimming hairs.....

NAUCORIDAE
2 Species



Fig 8
Ilyocoris cimicoides

7a Head very elongate, head length = 10x head width, with eyes half way along (Fig 9). Legs extremely thin and weak.....

HYDROMETRIDAE
2 Species

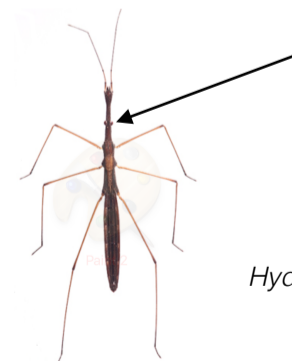


Fig 9
Hydrometra stagnorum

7b Head length < 2x head width. Eyes near the rear of the head. Legs stronger.....

8

8a Tiny when full grown, Less than 2mm.....9

8b Larger, More than 3mm.....10

Caution: Some nymph's can be small, ensure you are dealing with adults.

9a Antennae 5 segments (Fig 10), claws attached at apex of front tarsus.....

HEBRIDAE
2 Species

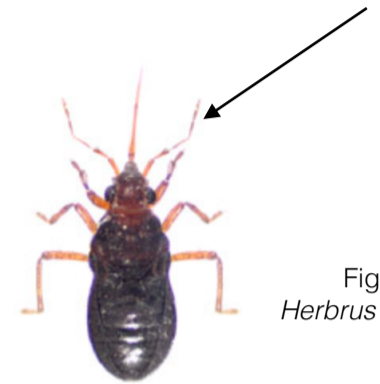


Fig 10
Herbrus ruficeps

9b Antennae 4 segments (Fig 11), claws of front tarsus attached well before the apex.....

VELIIDAE: Microvelia
4 Species

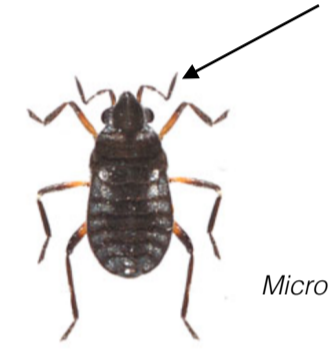


Fig 11
Microvelia reticulata

10a Hind femur long, longer than the apex of abdomen, mid legs nearer hind legs than front legs (Fig 12). Larger than 6mm.....

GERRIDAE
9 Species

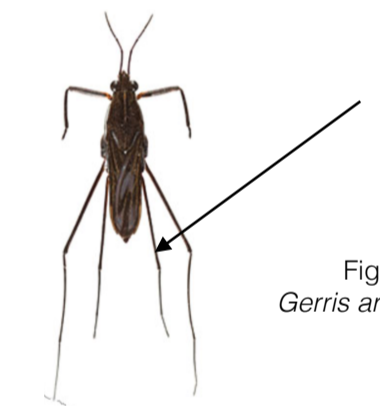


Fig 12
Gerris argentatus

10b Hind femur shorter not reaching apex of abdomen, legs equispaced.....11

11a Mid and hind coxae attached to outer edge of thorax (Fig 13). usually wingless so you can see the orange windows. Length = 6.5mm.....

VELIIDAE: Velia
2 Species

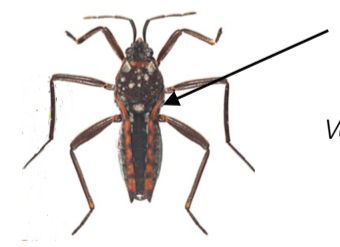


Fig 13
Velia caprai

11b All coxae between edge of thorax and midline, abdomen greenish, dark markings. Claws of front tarsi sub-apical. Length = 3.3mm (Fig 14).....

MESOVELIIDAE
1 Species
Mesovelia furcata



Fig 14
Mesovelia furcata

Well established ponds and lakes on floating leaves of water plants