

# Key to Larvae of British Stoneflies (Plecoptera)

J. M. Elliott

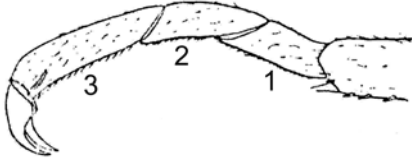


## Family level identification

Examine tarsus (3 segments next to claws of leg) of hind leg. This is best achieved by removing the hind leg and mounting it flat on a slide with covering slip

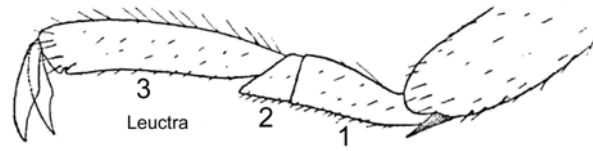
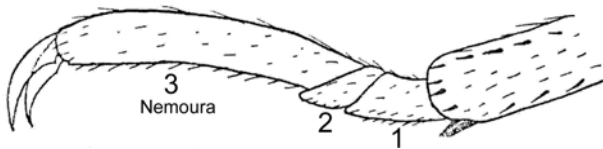
- Each segment longer than preceding:

See family: **TAENIOPTERYGIDAE**



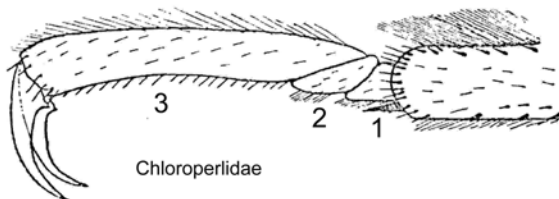
- Second segment shorter than first and third:

See herbivorous families: **NEMOURIDAE, LEUCTRIDAE, CAPNIIDAE**



- Third segment much longer than first and second:

See carnivorous families: **PERLIDAE, CHLOROPERLIDAE, PERLODIDAE**



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## Genus/species level identification

### TAENIOPTERYGIDAE

- 3 segmented filamentous gills at base of each leg
- No gills

*Taeniopteryx nebulosa*

*Rhabdiopteryx acuminata* or  
*Brachyptera* (2 spp.)

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### Herbivorous families: NEMOURIDAE, LEUCTRIDAE, CAPNIIDAE

**NEMOURIDAE** (4 genera): When hind leg stretched back alongside abdomen, leg over-reaches tip of abdomen. Stout nymphs with wing pads set obliquely to the body.

- Two bunches of gills present at throat (1 each side) in 2 genera;

- 3 sausage-shaped gills in each bunch
- 5-8 filamentous gills in each bunch

*Protonemura* (3 spp.)

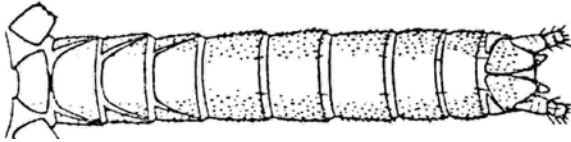
*Amphinemura* (2 spp.)

- No gills

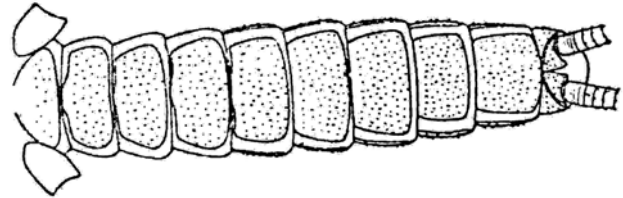
*Nemoura* (5 spp.) and *Nemurella picteti*

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**LEUCTRIDAE, CAPNIIDAE:** Cylindrical elongate nymphs with wing pads set parallel to body. Hind leg does not reach tip of abdomen.

**LEUCTRIDAE** (all genus *Leuctra*, 6 spp.): abdominal segments 1- 4 only are divided into separate dorsal and ventral plates, other segments with continuous plate around body. Paraprocts longer than wide.



**CAPNIIDAE** (all genus *Capnia*, 3 spp.): abdominal segments 1-9 divided into separate dorsal and ventral plates (tergum and sternum). Paraprocts wider than long

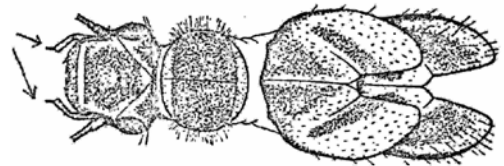


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**Carnivorous families: PERLIDAE, CHLOROPERLIDAE, PERLODIDAE**

**PERLIDAE** (2 genera): tufts of gills on thorax near base of legs. **Examine dorsal plate on thorax over 1st pair of legs (pronotum):**

- width more than twice length, (last dorsal plate on abdomen dark) ***Dinocras cephalotes***
- width less than twice length, (last abdominal plate yellow) ***Perla bipunctata***

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**CHLOROPERLIDAE** (all genus *Chloroperla*, (2 spp.): long and thin (often green or yellow). Last segment of palp reduced Crescent-shaped wing pads



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**PERLODIDAE** (4 genera, *Perlodes* (1 sp), *Isoperla* (2 spp), *Diura* (1 sp), *Isogenus* (1 sp)): none of characters given above for PERLIDAE and CHLOROPERLIDAE. Move hind leg to side and examine side of abdomen:

- Abdominal segments 1-4 divided into separate dorsal and ventral plates



*Perlodes* is found in stony rivers and streams

***Perlodes microcephala***

- Only abdominal segments 1 and 2 divided into separate plates, and plates on other segments form complete rings around abdomen; *Isoperla*, *Diura* and *Isogenus*



- the body is thickly covered with black hairs

***Isoperla***

*Isoperla* is very common in stony rivers and streams. (*I. grammatica* is common whereas *I. obscura* possibly extinct)

- body is sparsely covered with hairs in *Diura* and *Isogenus*  
***Diura bicaudata* and *Isogenus nubecula***

*Isogenus* is rare and the only recent record is from the Welsh Dee. *Diura* is found in stony streams above 1,000ft and on stony lake shores