

**A Simple Key to the Adult Mayflies of Eastern US Streams:  
Those of Major Interest to Trout Fishers**

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This key should cover nearly all of the mayfly genera that fly fishers encounter on trout streams east of the Great Plains. Species identifications are not covered, although they are mentioned. This is called a "dichotomous key." The user is given two alternative choices, starting with pair 1a and 1b, and each with one or more visible features of the mayfly. The user then must pick the best fit between those two choices in order to make the identification or move to the next indicated numbered pair of choices. Keys such as this are like traveling up a stream and choosing which tributary to follow; you cannot switch forks without returning to the decision point. The dun or spinner must be either in hand or close enough to see the characters mentioned in the key. Good quality photographs are also helpful for later identification and reference. Body color is not often used, as most species have great variation. Simple visible characters are used. Magnification of the insect sometimes helps; using "Flip-Focals," for example, will be more than enough in all cases. The common names suggested are only a partial list of those used by trout fishers. In recent years, scientists have revised the scientific names of some of these insects by dividing or renaming one genus into one or more others; thus, some names in the key may not be familiar to some users. Some genera cannot be separated without using hard-to-see characters and are left in the key as groups of genera (4a, 6a, 6b, 10a, & 11a). Genera marked with asterisks (\*) are uncommon.

KEY (follow the numbers to next pair of choices)

- 1a. Mayfly has 2 tails and not all white with marginally functional legs (ensure one tail of 3 is not broken at base)..... go to 2
- 1b. Mayfly has 3 tails or is all white with 2 tails & weak legs . . . . . go to 7
- 2a. Front legs dark, other 4 legs pale . . . . . *Isonychia* (Slate-winged Drake)
- 2b. All pairs of legs the same general coloration—no contrast. . . . . 3
- 3a. Very large, body often more than 1.25" long; wings dark & mottled; body dark brownish..... *Hexagenia* (Great Leadwing Drake)
- 3b. Body usually much less than 1" long; wings & body not as above . . . . . 4
- 4a. Hind wing, if present, minute..... *Baetis* or *Acentrella*\* (Blue-Winged Olives)
- 4b. Hind wings moderately large (~ ¼ size of forewings)..... 5
- 5a. Wings plain, no markings even along front edges..... *Epeorus* (Quill Gordon, etc.)
- 5b. Wings well marked with dark veins or small blotches, at least on fore-edge..... 6
- 6a. Legs without markings..... *Heptagenia* or *Leucrocuta*\* (Little Yellow Quills, Golden Dun, Pale Evening Dun, etc.)
- 6b. Legs with markings . . . . . *Stenonema* (March Brown, Grey Fox, Cahills)  
[New generic names for some species formerly placed in genus *Stenonema*:  
*Maccaffertium* & *Stenacron*]

- 7a. Body tiny (<¼") and chunky; no hind wings..... 8
- 7b. Body not chunky, usually longer than ¼"; hind wings visible..... 9
- 8a. Body and abdomen dark grayish, black or olive . . . . . *Tricorythodes* (Tricos)
- 8b. Body pale cream (thorax may be darker cream) . . . . . *Caenis* (Tiny Sulphurs)
- 9a. Wings plain, no contrasting markings anywhere; body usually ½" or less long . . . . . 10
- 9b. Wings blotched or with some contrasting veins; body usually longer than ¾"..... 12
- 10a. Hind wing football shaped with no angulation along front edge . . . . . *Paraleptophlebia* or *Leptophlebia*\* (Little Mahogany Dun, Blue Quill or Dun, Black Quill, etc.)
- 10b. Hind wing oval with distinct angulation ('dog leg') along front edge..... 11
- 11a. Body distinctly olive . . . . . *Drunella* or *Attenella* (Blue-winged Olives)
- 11b. Body not olive . . . . . *Ephemerella* (Sulphurs, Pale Morning/Evening Duns, Hendricksons, etc.)
- 12a. Fore wing with large & small blotches and many smaller markings; body well marked . . . . . *Ephemerella* (Green Drake, Yellow Drake, & Brown Drake)
- 12b. Fore wings without large blotch, only cross veins marked or barely visible; body unmarked or poorly marked . . . . . 13
- 13a. Mayfly white; hatches only after sunset in large numbers; legs barely functional . . . . . *Ephoron* (White Fly female; male has 2 tails)
- 13b. Mayfly cream colored; may hatch afternoons until dark in small, rarely modest, numbers; well developed legs. . . . . *Anthopotamus* (formerly *Potomanthus*; Golden Drake, Cream Variant)

There are other uncommon genera or species that might be encountered that may exhibit the same features as their more common cousins and may erroneously fit the above key. Such mayflies might be of local interest to trout for a few weeks. Mayflies found only in lakes or in western States and Canada are not covered in this key.

A fine-mesh landing net for catch and release will work to capture mayflies on the water or in the air. If the mayfly is on the water, hold the net with one edge just under the surface and let the drift bring the dun or spinner into the netting. Do not swipe at a small mayfly on the water, as it may be mashed into (or through) the netting and become unidentifiable.

I welcome any suggestions for improving this key.

References

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