

A PICTURE KEY TO MAYFLY, STONEFLY AND CADDISFLY FAMILIES

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The common names used in this key e.g., "flathead mayfly," "green stonefly," or "common net-spinner" are taken from McCafferty: *Aquatic Entomology*, © 1981 Boston: Jones and Bartlett Publishers. Be aware that common names for aquatic "bugs" may vary from region to region, and even from person to person. The scientific names, which do not vary, appear next to the common names.

Mayflies (Order Ephemeroptera)



Flatheaded Mayflies
Family Heptageniidae
Scraper
up to 3/4" *

body flattened
(from Cummins)

filtering hairs
on forelegs

Brushlegged Mayflies
Family Oligoneuriidae
Filtering Collector
up to 1/2" *



tusks curve
up and out



Common Burrowers
Family Ephemeridae
Gathering Collector
1/2"-1 1/4" *

*sizes do not include tails

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Mayflies (Order Ephemeroptera)



Pronggills
Family Leptophlebiidae
Gathering Collector
up to 5/8" *

gills forked, double,
or with finger-like
projections



gills oval,
plate-like



body
round
in cross
section
(from Cummins)

Small Minnow Mayflies
Family Baetidae
Gathering Collector
up to 1/2" *



gills on
abdominal
segment 2
overlapping

Small Squaregills
Family Caenidae
Gathering Collector
up to 3/8" *



gills begin on abdominal
segment 3; gills lacking on
segments 1 & 2

Spiny Crawlers
Family Ephemerellidae
Gathering Collector
up to 5/8" *

*sizes do not include tails

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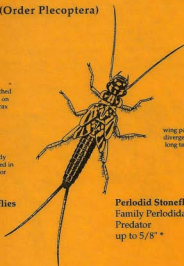
Stoneflies (Order Plecoptera)



branched
gills on
thorax

body
mottled in
color

Common Stoneflies
Family Perlidae
Predator
1/2"-1 1/2" *



wing pads
divergent
long tails

Perlodid Stoneflies
Family Perlodidae
Predator
up to 5/8" *



wing pads parallel

tails usually
shorter than
abdomen

Green Stoneflies
Family Chloroperlidae
Predator
up to 1/2" *



branched gills on
thorax and
abdominal
segments 1-3
body dark brown

Giant Stoneflies
Family Pteronarcyidae
Shredder
1/2"-2" *

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Stoneflies (Order Plecoptera)

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Nemourid Broadbacks
Family Nemouridae
Shredder
up to 1/2" *



Taeniopterygid Broadbacks
Family Taeniopterygidae
Shredder
up to 1/2" *



Slender Winter Stoneflies
Family Capniidae
Shredder
up to 1/4" *

groove on underside of abdomen



Roachlike Stoneflies
Family Peltoperlidae
Shredder
up to 5/8" *

*sizes do not include tails
(all drawings from McCafferty: Aquatic Entomology, unless otherwise noted)

Caddisflies (Order Trichoptera)



Common Netspinners
Family Hydropsychidae
Filtering Collector
up to 1 1/4"



(Merritt & Cummins)
Fingemet Caddisflies
Family Philopotamidae
Filtering Collector
up to 1/2"



(Merritt & Cummins)
Nettube Caddisflies
Family Psychomyiidae
Filtering Collector
up to 1/2"



(Merritt & Cummins)
Trumpetnet Caddisflies



Tubemaking Caddisflies
Both: Family Polycentropodidae
Filtering Collector
up to 1"

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Caddisflies (Order Trichoptera)

1 dorsal plate
no humps



Freelifving Caddisflies
Family Rhyacophilidae
Predator
up to 1"

to distinguish freelifving caddisflies from net-spinners that have been dislodged from their nets: freelifving caddisflies have a long, small head that is narrower than the thorax; their body is often bright green; the head of net-spinners is as wide as the thorax.

has conspicuous antenna



2 dorsal plates, no humps



Humpleless Case Makers
Family Brachycentridae
Filtering Collector
up to 1/2"



Longhorned Case Makers
Family Leptoceridae
Gathering Collector
up to 5/8"

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Caddisflies (Order Trichoptera)



Micro Caddisflies
Family Hydroptilidae
Scraper
up to 1/4"



1 dorsal plate

dorsal plate on
end of abdomen



dorsal plate

anal pectegs

Saddlecase Makers
Family Glossosomatidae
Scraper
up to 1/2"



body very
rounded



Snailcase Makers
Family Helicopsychidae
Scraper
up to 1/2"



dorsal hump

lateral hump



Strongcase Makers
Family Odontoceridae
Scraper
up to 1 1/4"

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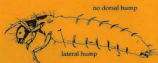
Caddisflies (Order Trichoptera)



Northern Case Makers
Family Limnephilidae
Scraper (if case mineral)
Shredder (if case organic)
up to 1 1/4"



Giant Case Makers
Family Phryganeidae
Shredder
up to 1 1/2"



Lepidostomatid Case Makers
Family Lepidostomatidae
Shredder
up to 1/2"

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