Key for Maine Stream Explorers Basic Macroinvertebrate Guide (4th Edition)

KEY #1

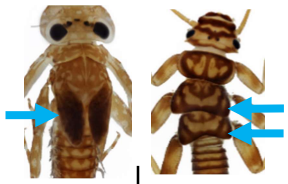
Start

- Segmented legs
  - 3 pairs of segmented legs (some may be hidden or broken off)
    - **Larvae** (never have wing pads)

    - Adult beetle with hard outer wing

Beetles
Pages 42

    - **Naiads** (older ones have wing pads)



      - 2 thin tails, 4 wing pads, no large gills on abdomen

Stoneflies
Pages 13-14

      - 2-3 thin tails, 2 wing pads, large gills on abdomen

Mayflies
Pages 22

      - 3 flat, paddle-shaped tails (gills) on rear end

Damselflies
Pages 34

      - No long tails but may have short spikes on rear end

Dragonflies
Pages 32

    - Dome shaped body with legs and head hidden underneath

Water Penny
Page 44

    - Series of filaments along the sides of the body

Dobsonfly and Alderfly
Page 31

    - No filaments along the sides of a hard body, no hooks on rear end

Beetles
Page 42

    - Some have hairy gills on belly. Some are green. Pair of hooks on rear end.

Caddisflies
Pages 26-30

    - Within case made out of sand or plant parts

Caddisflies
Pages 26

  - More than 3 pairs of segmented legs
    - Swims on its side, body is curled

Scud (Amphipod)
Page 49

    - Sprawling legs and no claws

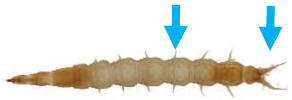
Sowbug (Isopod)
Page 49

    - 10 legs, front 2 are large claws

Crayfish (Decapod)
Page 45

Key to Macroinvertebrates for Maine Stream Explorers **KEY #2**

No segmented legs

- Body is like a grub
  - Large, exposed head capsule
    - Rear end is wider than front end and modified moutparts to filter water
      -
      - Blackfly
        Page 39
    - Rear end and front ends are of similar width
      -
      - Non-biting Midge
        Pages 40
  - Small head (may be retracted in body)
    - Fleshy filaments on side and two fleshy tails
      - 
      - Water snipe fly
        Page 36
    - No fleshy filaments on sides, various fleshy tails or protrusions on rear end depending on species
      -
      - Crane flies
        Page 37
    - No fleshy filaments on sides, no fleshy tails or protrusions on rear end
      -
      - Aquatic dance fly
        Page 38
- Body is like a thin or thick worm
  - Thin body without suckers (1-50 mm long)
    -
    - Aquatic Worms
      Page 50
  - Wide, thick body with suckers
    -
    - Leech
      Page 50
- Body with a hard shell
  - Conical shell
    -
    - Limpet
      Page 46
  - Various shaped shells without hardened trap-door covering opening
    -
    - Snails
      Page 47