



Teacher Information:

- Grade Level: 6 - 12
- Lesson time: 45 minutes - 1 hour
- Materials Needed: Dichotomous Keys to Aquatic Organisms
- DRBA ID Tub of Bugs Powerpoint - Includes eight aquatic insect examples to identify in class using a dichotomous key.
- Students may work in pairs/teams or singles to identify organisms.
- Objectives: Students will investigate and understand that adaptations support an organism's survival in an ecosystem; student will investigate and understand that ecosystems and organisms are dynamic and change over time; student will investigate and understand that relationships exist between ecosystem dynamics and human activity. **SOL: 6.8; 6.9; LS.7; LS.8; LS.9; LS.11; BIO.6; BIO.7; BIO.8**
- Students should include name and order to identify each organism.
- Use in combination with DRBA's Tub of Bugs Full Length Educational Video

Bugs in my water?!

Identifying Aquatic Organisms
(Stream Macroinvertebrates) with a
Dichotomous key





Example 1



Example 1 Answer: Crayfish: Order Decapoda





Female Crayfish with eggs





Example 2



Example 2 Answer: Hellgrammite: Order Megaloptera



**Adult Hellgrammite:
Dobson Fly**

Male pictured





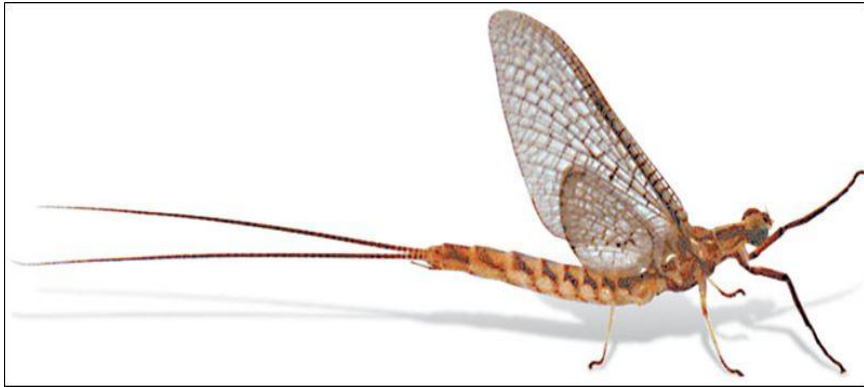
Example 3

Note: Three "tails"



Example 3 Answer: Mayfly: Order Ephemeroptera

Adult Mayfly



Mayfly Hatch





Mayfly Hatch



Example 4



**Example 4 Answer: Water Penny:
Order Coleoptera**

Adult Water Penny Beetle





Example 5



**Example 5 Answer: Crane Fly:
Order Diptera**

Adult Crane Fly





Example 6

Note: Two "tails"



Example 6 Answer:
Stonefly:
Order Plecoptera

Adult Stonefly





Example 7



Example 7 Answer:
Caddisfly: Trichoptera





Adult Caddisfly



Example 8



Example 8 Answer: Gilled Snail: Gastropoda