

Importance of Aquatic Insects in the World

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DESCRIPTION

There are several orders of aquatic insects including Collembola-springtails, Ephemeroptera-mayflies, Odonata-dragonflies and damselflies, Plecoptera-stoneflies, Megaloptera-alderflies, fishflies, and dobsonflies, Neuroptera-lacewings, Coleoptera-beetles, Hemiptera-true bugs (water striders, giant water bugs), Hymenoptera-ants (e.g. Polyrhachissokolova) and wasps, Diptera-flies and mosquitoes, Mecoptera-scorpionflies, Lepidoptera-moths, Trichoptera-caddisflies. Aquatic insect have significant interest by aquatic workers, dominance or abundance in fresh or marine water, their economic importance, their present lack of available information, importance in food chain and food web, outdoor recreation activities (mosquito, black flies, horseflies), pest of human and animals. The main habit of them are: shallow streams, rivers, springs, large rivers, shallow standing water, clear pools, running water, slow moving rivers, turbulent stream, fast water, ponds, oxidation lake, marshes, rice field, flood plains, pools, slimy pond ore, temporary pond, underside of stone, attach to plants, marine, underside of leaves, warm stream, trees, rocks, crevices, chalk stream, slow flow river, dray basin of temporary pool, flood plain, beach zone, woodland pools, underside of floating leaves, in soils, algae mate, saturated woods, stagnant water, dam, debris, artificial container, cistern, can, old tires, pools with organic contents, on plants, in accumulation of decaying materials, lake, drainage, canals.

Modes of existence

1. Skater: Skate on the surface of the water, and are more often found in calmer waters than streams. The Gerridae family or water bugs, pond skaters, water skippers, or Jesus bugs is an example.
2. Planktonic: Drift about in standing waters, like lakes and oceans, and usually cannot swim well enough to direct their movements.
3. Diver: Dive to feed or when alarmed and are found in lakes and other calm waters. Some beetles and true bugs are divers.
4. Swimmer: They can swim and may cling to surfaces like rocks in between of swimming. Many mayflies are swimmers. Backswimmer Notonectidae family is an example.
5. Clinger: They attach themselves to surfaces using suckers, claws, and silk. Many mayflies are clingers, as well as a number of true flies and caddisflies.

6. Sprawlers: Inhabit the surfaces of floating leaves or fine sediments, and must keep gills free of silt. Many mayflies are sprawlers, as well as dragonfly nymph.

7. Climbers: They live on plants or other submerged vegetation, and can climb up and down. Dragonflies are an example.

8. Burrowers: They live in sediments by burrowing in, or may construct sand grain tubes that are buried part way, or may eat their way into sediments or tunnel into a plant stem, leaf, or root (miners). Midges and some mayflies fit in this group.

9. Shredder: They have strong, sharp mouthparts that allow them to shred and chew live plants or decomposing fragments. These are common among true flies, caddisflies, and stoneflies.

10. Collector: They gather the very finest suspended matter in the water. To do this, they often sieve the water through rows of tiny hairs. These sieves of hairs may be displayed in fans on their heads (blackfly larvae) or on their forelegs (some mayflies). Some caddisflies and midges spin nets, and catch their food in them as the water flows through.

11. Scraper: Scrape the algae and diatoms off of surfaces of rocks and debris, using their mouthparts. Many mayflies, caddisflies, and true flies eat this way.

12. Piercer: These herbivores pierce plant tissues or cells and suck the fluids out. Some caddisflies do this, as well as many true bugs, or Hemiptera. You may have watched a weevil sucking plant juices through a tubular mouthpiece.

13. Predator (engulfer): Predators eat other living creatures. Some of these are engulfers; that is, they eat their prey whole or in parts. This is very common in stoneflies and dragonflies, as well as caddisflies. Others are piercers, which are like the herbivorous piercers except that they are eating live animal tissues.

14. Chewer (detritivore): The chew from different materials in the water.

15. Scavenger: Hydrous piceus (also known as Hydrophilus piceus), a species of water scavenger beetle.

16. Filterer: The filter different materials in the water.

17. Carnivore: Dragonfly nymph is a carnivore. Dragonfly as predator of mosquitoes.

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