



MECOPTERA

Scorpionflies / Hangingflies

The name Mecoptera, derived from the Greek words "*meco*" meaning long and "*ptera*" meaning wings, refers to the shape of both the front and hind wings.

Classification	Life History & Ecology	Distribution
Physical Features		Economic Importance
Major Families	Fact File	Hot Links

Life History & Ecology:

The Mecoptera (scorpionflies) are a curious group of terrestrial insects that usually live in moist sylvan habitats. Both larvae and adults are omnivorous. Mostly, they feed upon decaying vegetation and dead (or dying) insects. Larvae generally remain in the soil; they have chewing mouthparts and resemble caterpillars (Lepidoptera) or white grubs (Coleoptera). Most adults have an elongated head with slender, chewing mouthparts near the tip of a stout beak. Front and hind wings are similar in shape (occasionally reduced in size or absent), and often mottled with patches of color. The common name of this order (scorpionfly) refers to the distinctive appearance of male genitalia in members of the family Panorpidae: the terminal segments are enlarged and held recurved over the abdomen like the tail of a scorpion. Despite its appearance, the scorpionfly's tail is quite harmless.

Hanging scorpionflies, family Bittacidae, are predators of small flying insects. Their legs, especially the tarsi, are unusually long and slender. At the tip of each leg there is a single opposable claw. The adults hang from vegetation with their front legs and catch small flying insects with their middle and hind legs. These scorpionflies, which bear a striking resemblance to crane flies (Diptera: Tipulidae), may have developed from the same ancestral lineage that also give rise to the caddisflies (order Trichoptera) and the true flies (order Diptera).

Distribution:

Present worldwide, but seldom common. Most abundant in humid temperate and subtropical climates.

	North America	Worldwide
Number of Families	5	9
Number of Species	68	~500

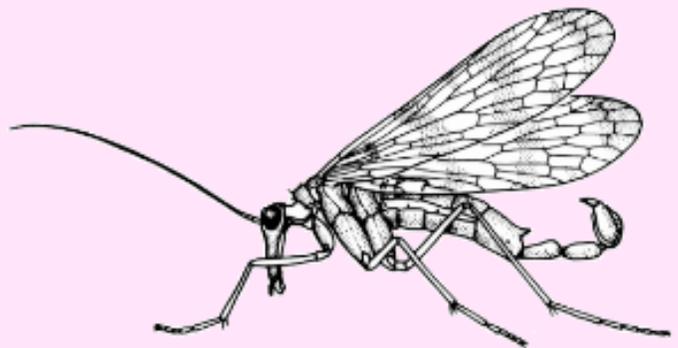
Classification:

Holometabola

complete development (egg, larva, pupa, adult)

Physical Features:

Immatures



Adults

1. Body eruciform (caterpillar-like) or scarabaeiform (grub-like)
2. Head capsule well-developed, with mandibulate mouthparts
3. Abdomen usually has 8 pairs of prolegs

1. Head elongate with slender mandibulate mouthparts
2. Front and hind wings narrow, elongate, and similar in size; crossveins numerous. Some species are secondarily wingless.
3. Tarsi 5-segmented
4. Males of some species have enlarged external genitalia held recurved over the abdomen like a scorpion's tail.

Economic Importance:

None of the scorpionflies are considered pests. Most species are not abundant enough to have much of an environmental impact.

Major Families:

- **Panorpidae** (common scorpionflies) -- Scavengers
- **Bittacidae** (hanging scorpionflies) -- Long legged predators

Fact File:

- Snow scorpionflies (family Boreidae) are adapted to cold climatic conditions. They often live on the surface of ice or snow, and may die if exposed to the heat from a human hand.
- Some female scorpionflies will accept a male suitor only if he brings her a gift of prey. Males occasionally mimic females in order to get a free meal!
- Scorpionflies have been known to rob freshly caught prey from spider webs.
- Hanging scorpionflies are the only predatory insects that catch prey with their hind legs.

Hot Links and Illustrations:

- [Gordon Ramel's Mecoptera Page](#)
- [Ecowatch Mecoptera Page](#)
- [Tree of Life Web Project - Mecoptera](#)
- [Discover Life - Mecoptera](#)

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Last Updated: 5 March 2005