

What makes a beetle?

The answer to this question is, at least partly, in their scientific name, Coleoptera, meaning ‘sheath wings’. Beetles are supposed to have two pairs of wings, although in some groups the second pair is absent. Characteristically, their first pair of hardened or leathery wings, called elytra, form a kind of a sheath which, when folded meet in a straight line on the middle of the back, covering the membranous hind wings. Not all beetles have hind wings, but the ‘sheath’ wings are almost always present, although sometimes in a reduced form. These wings do not assist locomotion but sometimes serve as

stabilisers or rudders during flight. They also protect the membranous hind wings when at rest, and form the roof to a cavity above the body which controls gaseous exchange, water retention and thermoregulation. The females of a few species are wingless, looking more like larvae.

Beetles have chewing mouthparts. However, the appearance of these can differ a great deal, depending on the kind of food the beetles live on. Some beetles have modified mouths to take in specific foods and some adults don’t eat at all – their mouths are practically non-functioning.



A *Trigonodera* (Rhipiphoridae) beetle with open wings as it takes off. It uses its second pair of wings only for locomotion.