

# Food and survival

The huge number of species, occupying so many niches in nature, utilise many different resources – there are not too many things that some beetle somewhere will not eat. In many cases, however, the diet of the larva is different from that of the adult.

Beetles can be grouped according to the food they eat. They may be carnivorous (meat eaters), phytophagous (plant eaters or herbivorous) or omnivorous (meat and plant eaters). There are many other sub-categories within these groups, according to the more specific food eaten by certain groups.

The plant-eating beetles are fussier than most – they often specialise on certain plants, sometimes even only on specific parts of the plants. Beetles in decaying tree trunks often depend on microscopic fungi in the timber, while others prefer very dry, thin branches of fallen trees.

The majority of herbivores eat fresh, green foliage but many live on dried plant

matter, including the many kinds of stored products of humans. Some plants that are otherwise poisonous are the most favoured foods for certain beetles – such as dry tobacco for the cigarette beetle, *Lasioderma serricorne* (Anobiidae). Nicotine is deadly for most insects, while the cigarette beetle can happily live on dry tobacco. Some minute beetles can thrive even in the hottest chilli and curry powders.

Carnivorous ground beetles (Carabidae) and rove beetles (Staphylinidae), as well as members of some other predatory families, will hunt and eat other arthropods and small animals such as earthworms, slugs and snails. Larger species can also tackle small vertebrate animals. For example, the Australian ground beetle *Catadromus latro* will prey on tiny frogs, while the predaceous diving beetles of the genus *Dytiscus* may tackle small fish, tadpoles and small water-newts.



The leaf beetles (Chrysomelidae) are gregarious plant eaters.



This ground beetle (Carabidae) is a worm-eating carnivore.