
BOOK REVIEW

Insects as Predators

by T. R. New

New South Wales University Press, 1990

Reviewed by Peter McQuillan

Predatory insects, such as ladybirds, are those which hunt and kill other insects for food. This engaging book by Tim New, a reputed insect ecologist, is about their biology and diversity and makes accessible a large amount of information gleaned from the vast literature on this topic. Predation is a key process in the functioning and regulation of most ecosystems and has been subject to considerable study, much of which is summarised in this book.

Within Tasmania it is possible to observe both bizarre and familiar examples. Dragonflies, which feed on aquatic animals when nymphs, leave the water to become an good example of an efficient solitary predator: alert, manoeuvrable, with excellent vision, legs modified for capturing prey in the air and strong mandibles. Ants, on the other hand, are social, hunt co-operatively and hence find and subdue a wider range of prey. But ants themselves can fall victim to the voracious ant-lion, the larva of a delicate lacewing which excavates treacherous steep-sided funnels in sand beneath which it lurks awaiting a victim which it sucks dry. Worthy of special note is the cave-dwelling Tasmanian glow-worm, *Arachnocampa tasmaniensis*, the larva of a fungus-gnat, which attracts small insects to its brightly lit body to become entangled in sticky threads hanging from the cave roof.

Chapters 1-3 introduce the topic of predation and reviews the various types of insects which make their living as predators. Chapters 4-7 discuss aspects of the ecology of predators and the predation process including foraging strategies, selection and capture of prey, and cannibalism which is widespread. Since predators are so common and efficient the need to avoid being eaten is of paramount importance to many insects. Chapter 8 reviews some interesting defence strategies employed by potential prey to outwit their predators. The book concludes with a chapter on *applied predation* highlighting the use of predatory insects in biological control programmes which help offset the need for pesticides.