

## FAUNA

## CURIOUS COSSIDS

by Bob Huston

**H**AVE you ever noticed black cockatoos ripping away at the bark on eucalypt trees and wondered why, when normally the birds would be more interested in the eucalypt fruit? The answer is possibly that they are hunting for the larvae of cossid moths. The larvae are a well-known bush tucker delicacy we more familiarly know as witchetty grubs.

Exploring your local bushland can reward you with a multitude of wonderful surprises, as discovered by Murray and Sandy Kay (*Land for Wildlife*) when they chanced upon a magnificent cossid moth. To chance upon this heaviest of Australian moths is not an exaggeration by any means – the moths' camouflage is so near to perfect it is almost impossible to find them. Unfortunately for Sandy and Murray, this particular specimen was not alive when they found it lying on an open patch of ground.

Cossid moths, which belong to the family Cossidae, are known by a variety of common names, including wood moths, Christmas moths and goat moths. They are quite huge in comparison to other moths, having large fat bodies and a wingspan of up to 240mm.

Male moths find females by detecting the pheromone (scent) released by the females. After mating, the female cossid moths, like many females of the insect world, have the arduous task of laying an enormous number of eggs (up to 18,000) onto food plants or into woody crevices. The larvae begin feasting as soon as they emerge, boring tunnels through wood. Some species of cossid moth



*A cossid moth demonstrating the effectiveness of its camouflage against the bark of a tree.*

*Photo courtesy of Bob Huston.*

tunnel into wattle roots (wattle moths) while others eat into the trunks of various eucalypts (wood or goat moths). They will continue eating and tunnelling through wood until they reach maturity, which can take as long as five years, and pupate into an adult moth.

Before pupating, the larva makes an exit hole in its tunnel to the outside world, and plugs it with fibrous material and silk. After pupating, the pupa pushes this plug out of the tunnel as it emerges, before undergoing the final moult into an adult moth. Once emerged, the new moth must vibrate its wings for a moment to ensure that the wing

muscles are at a high enough temperature to enable flight. The moths are most likely to be seen flying by observers just after the first rains of winter. Adult moths do not feed. Their main function is to find a mate and breed, soon after which they die.

Cossid moths have a host of natural enemies at all stages of their lives, such that a great number fall prey to predators, parasites and disease. Thus only a small number of the thousands of eggs laid by the female cossid survive to maturity, and an even smaller number live long enough to find a mate and breed.

Adult cossid moths are preyed upon by birds such as tawny frogmouths. Birds as small as the red wattlebird have been observed wrestling with cossid moths, eventually killing them and then trying to consume such a large meal.

The cossid moth larvae provide excellent nourishment for mites, spiders, wasps, other animals and especially birds. Carnaby's black cockatoo is occasionally seen sitting in a tree with its head tilted toward the trunk. Though comical to observe, it is thought that these birds are listening for the movement of cossid moth larvae beneath the bark, or perhaps trying to have a closer look at the trunk for visible signs of larvae activity. Once evidence of larvae has been found, the birds will rip away at the bark of the tree (see *Bush Detective*, WW vol2no1) to expose the tasty morsels, and then feast on them with relish!

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