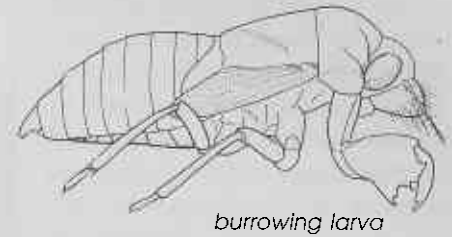


FAUNA

CICADAS



Sandgrinder
Arenopsaltria fullo



burrowing larva

SUMMER days in a hot climate - what sound defines it? Surf on the beach? The soft call of a Peaceful Dove? No, all over the world, it is the incessant, day-long, rasping call of cicadas which defines summer! Deafening and unmelodious, for some people the noise contributes to the process which used to be called "going troppo"!

But what are cicadas? They are a world-wide family of insects, with some 250 species found in Australia, principally in the tropics and down the east coast - Cairns is the centre of diversity. They vary in size, the Tick-tock, which is common around Perth, has a wingspan of about 4cm; the Sandgrinder, which sounds like a buzz-saw in coastal plain sandy banksia woodlands, is 6cm across, while the Golden Drummer which deafens Carnarvon's residents at certain times of year, has a wingspan of 8cm. The insects lance into a branch to feed on the sap, and many other insects, including ants, often take advantage of the overspill.

Female cicadas make a series of small tears in the bark of a twig and lay an egg into each hollow. When the larvae hatch, they drop to the ground and burrow down to find a root where they can feed on sap - remaining underground and increasing in size, often for years. One American species has been known to spend 17 years in this underground stage! But eventually, the final stage nymph breaks through to the surface and climbs up a tree,

or a fence post or something, fixes its claws into the bark and sheds its skin. The outer shell often remains hanging there for months.

Different species of cicada have different calls. The sound is made by two vibrating drum-like membranes called timbals, held in the abdomen, which in some species is almost hollow, so acting as an amplifying air-chamber. Why do they make the noise? Probably it is for sexual attraction, but in some species, both males and females drum. Perhaps it also deters predators? It can certainly deter humans! John Lort Stokes, when exploring the Bonaparte Archipelago in the Beagle in 1838, noted that "...the trees swarmed with large locusts [cicadas - Ed], quite deafening us with their shrill buzzing noise." Even Shakespeare has Falstaff mention the noise as a "damnable iteration" - though whether Shakespeare himself would ever have heard it is doubtful.

Cicadas' five eyes give them excellent vision, but they do not react to all sounds. The French entomologist and essayist, Henri Fabre, once experimented by borrowing the "local artillery", guns which were fired on feast-days in the village. He had them crammed with powder and exploded beneath a cicada-filled tree. The resultant bang considerably disturbed the village's human inhabitants, but the cicadas continued their drumming without a pause or a change in

rhythm! Quite a resounding experiment!

Like most of Australia's insects, we know little about the specific natural history of most cicadas, so that every observation made will contribute to our understanding. How long does the nymph spend underground? Which plant roots do they prefer? What is their effect on the plants? Which birds eat them? The parasitic fungus *Cordyceps* (sometimes called a vegetable caterpillar) is often found growing from the mummified body of a cicada grub, as well as of other soil-dwelling insect larvae. How important is this in regulating numbers? Have cicadas increased in numbers since the grub-eating marsupials such as bandicoots and potoroos have decreased?

Have you any information that can add to our slender store of knowledge?

In the meantime, cicadas are a sign of home! WA poet Randolph Stow uses their sound to typify his 'country':

"So far, so sweet, I know I shall one day love them,

the warchants of cicadas trill in my caverns"

Love them or hate them, in many parts of WA the one thing you can't do to cicadas is ignore them!

Penny Hussey

Ref: "Australian Cicadas"
M.S.Moulds. 1990. NSW University Press.