

BACK BOX

The Cooloola monster gains a relative

In 1977, Dr David Rentz arrived in Australia to take up his new position as Curator of Orthoptera (the order of insects containing, for example, grasshoppers and crickets) within the CSIRO Division of Entomology, Canberra. Shortly afterwards, Mr Ted Dahms of the Queensland Museum presented him with a small parcel and a note saying 'Here's something to introduce you to the Australian fauna'.

The 5-cm insect inside the parcel was so unlike any he had seen before, at first Dr Rentz thought it was a cleverly assembled fraud. But on closer examination he decided that the extraordinary cricket-like creature — later dubbed the 'Cooloola monster' — was genuine.

However, its vestigial wings, minute antennae, and legs modified for digging made it incompatible with any family of Orthoptera known.

The male insect had been caught in a 'pitfall' ground trap in the rainforest of Cooloola National Park near Gympie, Qld, by Dr V. Davies of the Queensland Museum.

Its discovery, and the recognition by Dr Rentz that it differed from members of all known families of the order Orthoptera, led to frantic searching for additional specimens. Eventually a few more individuals — mostly males



The Cooloola monster.



This female of the new species was brought to the surface to be photographed.

— were found on Fraser Island and in other coastal sand areas in subtropical southern Queensland.

For the most part, the monsters are subterranean creatures in sandy, moist soils. While the females apparently stay underground all their lives, the males come out of the ground at night, particularly in wet weather. They 'stomp' around with a curious gait,

quite unlike that of other cricket-like insects.

The female has an even more bizarre appearance than her mate: she is totally wingless, her abdomen looks grossly inflated, and she has shorter and stouter legs, with specially adapted 'spurs' for digging.

After studying a number of specimens in detail, Dr Rentz named the insect *Cooloola propator* and

classified it as a new family on its own — Cooloolidae. It became the first addition to the order Orthoptera at the family level for 75 years.

Then, in October 1980, Dr Geoff Monteith of the Queensland Museum — who had helped in earlier searches for 'Cooloola monsters' — was camping on the Blackdown Tablelands near Dingo, west of Rockhampton, Qld. One wet evening, he was about to retire for the night in his tent when he saw an insect similar to *C. propator*, but much smaller, 'stomping' past.

Dr Rentz later confirmed that the smaller insect was indeed related to *C. propator*. Subsequently, he and his colleagues from the Queensland Museum collected and examined a further ten specimens from the Dingo area.

The new species feeds on living prey such as insect larvae and, perhaps, earthworms. It is subterranean and lives in sand along the edges of creeks. Dr Rentz is describing it in detail now, and has classified it as the second member of the genus *Cooloola*.

Leigh Lehane

A new family of ensiferous Orthoptera from the coastal sands of south-east Queensland. D. C. F. Rentz. *Memoirs of the Queensland Museum*, 1980, 20, 49–63.