# A REVISION OF AUSTRALIAN CANCELLARIIDAE (GASTROPODA: MOLLUSCA)

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## SUMMARY

A description is given and comparisons made, with both Recent and some Tertiary fossil species, of all known Recent species in the family Cancellariidae from Australian waters. Two species (1 new subsp., *Cancellaria* (*Merica*) *melanostoma westralis*) are included in *Cancellaria* (*Merica*), 1 in *C.* (*Nevia*), 8 (1 new, *Cancellaria* (*Sydaphera*) *panamuna*) in *C.* (*Sydaphera*), 3 (1 new, *Fusiaphera dampierensis*) in *Fusiaphera*, 13 (3 new, *Trigonostoma diamantina*, *Trigonostoma iota* and *Trigonostoma tessella*) in *Trigonostoma*, 1 in *Admetula*, 3 (1 new, *Gergovia haswelli*) in *Gergovia*, 3 (1 new, *Inglisella nympha*) in *Inglisella*, 2 in *Pepta*, 1 in *Vercomaris* (new), 1 in *Bonellitia*, and 1 (new, *Zeadmete kulanda*) in *Zeadmete*.

## INTRODUCTION

### Order NEOGASTROPODA

The origin and evolution of the Neogastropoda has been well covered by Ponder (1973), who assigns to the superfamily Cancellariacea (Synonym Nematoglossa Olsson, 1970) the families Cancellariidae and Paladmetidae, an extinct group lacking columella folds.

### Family CANCELLARIIDAE

The family Cancellariidae falls within the order Neogastropoda in most respects, the main anatomical difference being in the radula, which as Olsson (1970) states is unique, and differs fundamentally from those of other named taxa. The cancellariids have a single row of elongated blade-like teeth (Barnard, 1958: Graham, 1966) each an aggregate of "rectangular tubes which form a canal system which transverses the whole length of the radular filaments" (Olsson, 1970).

It is not known how the Cancellariidae feed, although Olsson suggests that they may feed on micro-organisms, these being transported down the minute tubes that make up each tooth.

All species possess columella plaits in common with several other families included in the order, except some classified by Cossmann (1899) in a subfamily Admetinae. Most of these are from deep to very deep water, lacking in colour, and devoid of plaits or showing only one or two vestigial remains.

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