



## **A new species of *Amoria* J. E. Gray, 1855 (Gastropoda, Volutidae) from Western Australia**

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### **ABSTRACT**

**This paper presents a new species of *Amoria* J. E. Gray, 1855 from deep water of Western Australia, off the coast of Geraldton and Dongara. *Amoria paulcoxi* sp. nov. is characterised by the form of the protoconch, coloration, and pattern of five darker bands of flecks and dark spots below the sutures on later whorls. The new species is sharing similarities, such as the four columella plaits and outer lip formation, with other species in the genus. The three presently recognized subspecies of *Amoria damonii* J. E. Gray, 1864 are elevated to species level.**

Key words – Volutidae, *Amoria*, new species, Western Australia, deep water, taxonomy

### **INTRODUCTION**

Western Australian deep waters are generating renewed malacological taxonomic interest through the discovery of numerous new species (e.g. Bail & Limpus, 2014; Zheng et al. 2026). The use of remotely operated vehicles (ROVs) has enabled researchers to selectively search for novel taxa within an environmentally friendly framework that does not cause significant disruption to the benthic fauna that previous extraction methods had, such as trawling. Similarly, historical bycatch from octopus fishers has provided a rich source of



environmentally friendly collected material. Much of the current research work undertaken by the authors would not be possible if it was not for the generosity of these fishers who share their material free of charge and in doing so contribute greatly to the advance of deep water malacological research in Western Australia, an area of research that many of the state institutions have neglected.

Australian volutid studies have recently undergone a renaissance, with many species complexes being subjected to substantial revision (Zheng & Maxwell 2025a, b, c, 2026; Zheng et al. 2026). Much of this work has drawn on biogeographical distinctions, enabling a more nuanced understanding of radiation patterns, as demonstrated by studies from Queensland (Maxwell & Berschauer 2023). *Amoria* J. E. Gray, 1855 is a commonly encountered volute genus that has a large diversity in form and species within the waters of Western Australia. The genus currently contains 37 living and 2 fossil accepted species (MolluscaBase, 16 April 2026). The fauna of Western Australia has seen the introduction of several new *Amoria* species: *Amoria chaneyi* H. Morrison, 2012; *Amoria peterstimpsoni* T. Cossignani & Allary, 2019; *Amoria textilata* Y. Zheng & Maxwell, 2025. This paper adds to the growing number of species within *Amoria* that have recently been described from Western Australia.

## ABBREVIATIONS

BSRF BlueSky Research Foundation Collection, Cairns, Queensland  
DSC Drew Strickland Collection, Geraldton, Western Australia  
RWC Ray Walker Collection, Busselton, Western Australia  
WAM Western Australian Museum, Welshpool, Western Australia  
YZC Yao Zheng Collection, Perth, Western Australia  
L Length of the shell

## METHODS

This study uses shell morphological information to describe a new species. Genetic material (the shell) was available for this study, but the cost of undertaking that task was outside the funding scope of the authors.

## TAXONOMY

Superfamily Volutoidea Rafinesque, 1815  
Family Volutidae Rafinesque, 1815

Genus *Amoria* J. E. Gray, 1855

Type species *Voluta turneri* J. E. Gray, 1834, by subsequent designation Harris, 1897

***Amoria paulcoxi* sp. nov.**

(Pl. 1, Pl. 2 Fig. A, Pl. 3 Fig. A, Pl. 4. Fig. A)

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**Plate 1.** *Amora paulcoxi* sp. nov. Holotype, Geelvink Passage, off Geraldton, octopus traps, 50-55 m, L 59.6 mm (BSRF0041).

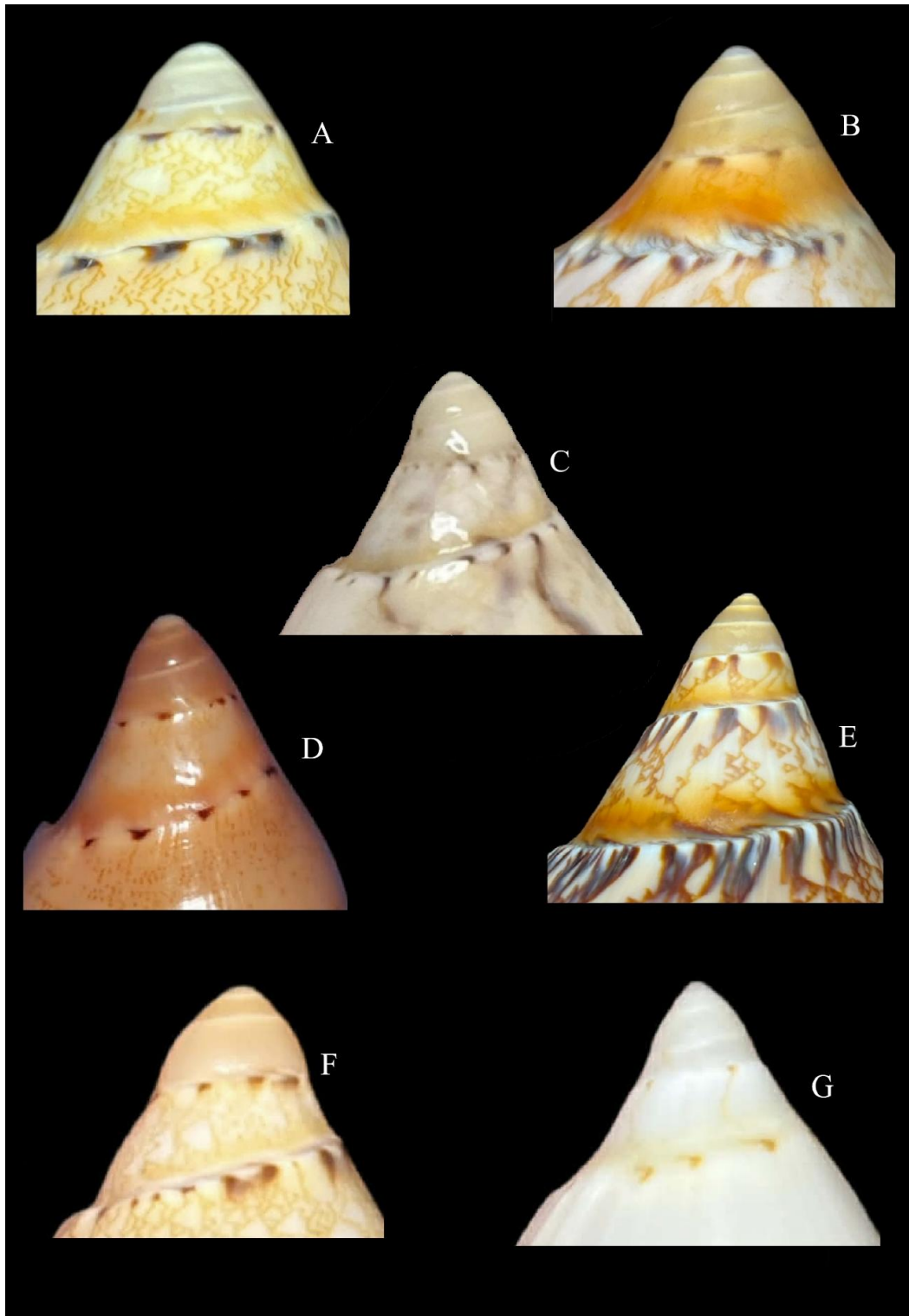


**Plate 2. Comparative plate of Western Australian *Amoria*, apexes.** A. *A. paulcoxi* sp. nov., paratype 1, west off Dongara, octopus traps, 50-60 m, L 59.2 mm (DSC). B. *A. reevii* (G. B. Sowerby II, 1864), Dampier Archipelago, 50-60 m, L 93.2 mm (YZC). C. *A. textilata* Y. Zheng & Maxwell, 2025, Ashmore Reef, Middle Lagoon, L 58.9 mm (WAM S51200). D. *A. chaneyi* H. Morrison, 2012, Coral Bay, 124 m, L 49.5 mm (RWC). E. *A. damonii* J. E. Gray, 1864, Port Hedland, L 119 mm (YZC).



**Description.** – Shell of medium size, ovately elongated and solid, with a length of 59–60 mm; protoconch smooth, flattened with four pale whorls, graduating from white to cream axially on whorls before the development of patterns of flecks on the two smooth teleoconch whorls which are almost straight; sutures shallow and pale with a preceding band of orange-yellow that developed out of the flecked whorl; a row of dark dashes just below the slightly stepped suture; body whorl smooth, widest near mid body, and covered in flecks that form five dark bands interspaced by bands with a reduction of fleck count; aperture with sharp lip joining below the suture; posterior canal shallow, anterior not extending past the base of body whorl; darker coloured interiorly becoming lighter towards the labrum with a dark band immediately below the labrum; columella distinct in upper aperture with slight toning of yellow orange posteriorly; having four distinct white plaits.

**Holotype.** – Western Australia, Geelvink Passage, off Geraldton, octopus traps, 50–55 m, H 59.6 mm (BSRF0041).

**Paratype.** – Paratype 1, Western Australia, west of Dongara, octopus traps, 50–60 m, H 59.2 mm (DSC).

**Type locality.** – Western Australia, Geelvink Passage, off Geraldton.

**Distribution.** – Known from off the central Western Australian coast at depths of 50–60 m.

**Etymology.** – Named in honour of the renowned fisher Paul Cox of Geraldton, who obtained this material some years ago, and which is now coming to light in old collections.

**Comparison.** – *Amoria paulcoxi* differs from the other members of this genus in the shape of the protoconch, which is much blunted than others, as opposed to *A. chaneyi* H. Morrison, 2012 (Pl. 2 Fig. D, Pl. 3 Fig. D; Pl. 4 Fig. D), *A. damonii* J. E. Gray, 1864 (Pl. 2 Fig. E, Pl. 3 Fig. B; Pl. 4 Fig. B), and *A. whitworthi* Bail & Limpus, 2001 (Pl. 2 Fig. H, Pl. 3 Fig. F; Pl. 4 Fig. F) which are more acute. The protoconch of *A. praetexta* (Reeve, 1849), *A. textilata* Y. Zheng & Maxwell, 2025 (Pl. 2 Fig. C, Pl. 3 Fig. H; Pl. 4 Fig. H) and *A. reevii* (G. B. Sowerby II, 1864) (Pl. 2 Fig. B, Pl. 3 Fig. C; Pl. 4 Fig. C) are mamillated in form. The slightly stepped suture of *A. paulcoxi* differs from the distinctly stepped *A. damonii* and *A. praetexta*, nor is the suture as smooth as in *A. chaneyi* and *A. whitworthi*. The pattern of the *A. paulcoxi* clearly differentiates it from others *Amoria*, the darker mottled pattern of *A. damonii*, or the paleness of *A. whitworthi*. The pattern of the body whorl of *A. paulcoxi* with its flecks is not dissimilar to *A. reevii*; with the new species differing in the banding and in the colour of the teleoconch lacking the deep red-orange of *A. reevii* that dominates the penultimate whorl; nor does it have the distinctive convex penultimate whorl of that species. The form of the anterior sinus in *A. paulcoxi* does not have acuteness in the outer lip found in *A. chaneyi* or *A. textilata*.

**Remarks.** – The *Amoria damonii* species group is regarded to consist of three subspecies by Bail & Limpus (1996, 2001). These are: *A. damonii damonii* J. E. Gray, 1864; *A. damonii ludbrookae* Bail & Limpus, 1996; *A. damonii reevii* (G. B. Sowerby II, 1864). They are still regarded as subspecies by MolluscaBase (2026). Based on the morphological differences and known geographical distributions, they are here regarded to be separate species. Both the



subspecies *damonii* and *ludbrookae* have overlapping distributions in northern Australia (Bail & Limpus, 1996: 3), so a clear indication they are two different valid species.

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**Plate 3. Comparative plate of Western Australian *Amoria*, ventral views.** A. *A. paulcoxi* sp. nov., paratype 1, west of Dongara, octopus traps, 50-60 m, L 59.2 mm (DSC). B. *A. damonii* J. E. Gray, 1864, Port Hedland, 119 mm (YZC). C. *A. reevii* (G. B. Sowerby II, 1864), Dampier Archipelago, 50-60 m, L 93.2 mm (YZC). D. *A. chaneyi* H. Morrison, 2012, Coral Bay, 124 m, L 49.5 mm (RWC). E. *A. whitworthi* Bail & Limpus, 2001, Coral Bay, 50-60 m, L 48.8 mm (YZC). F. *A. praetexta* (Reeve, 1849), Exmouth Gulf, Bundegi Beach, 43 mm (YZC). G. *A. textilata* Y. Zheng & Maxwell, 2025, Middle Lagoon, Ashmore Reef, 58.9 mm (WAM S51200).

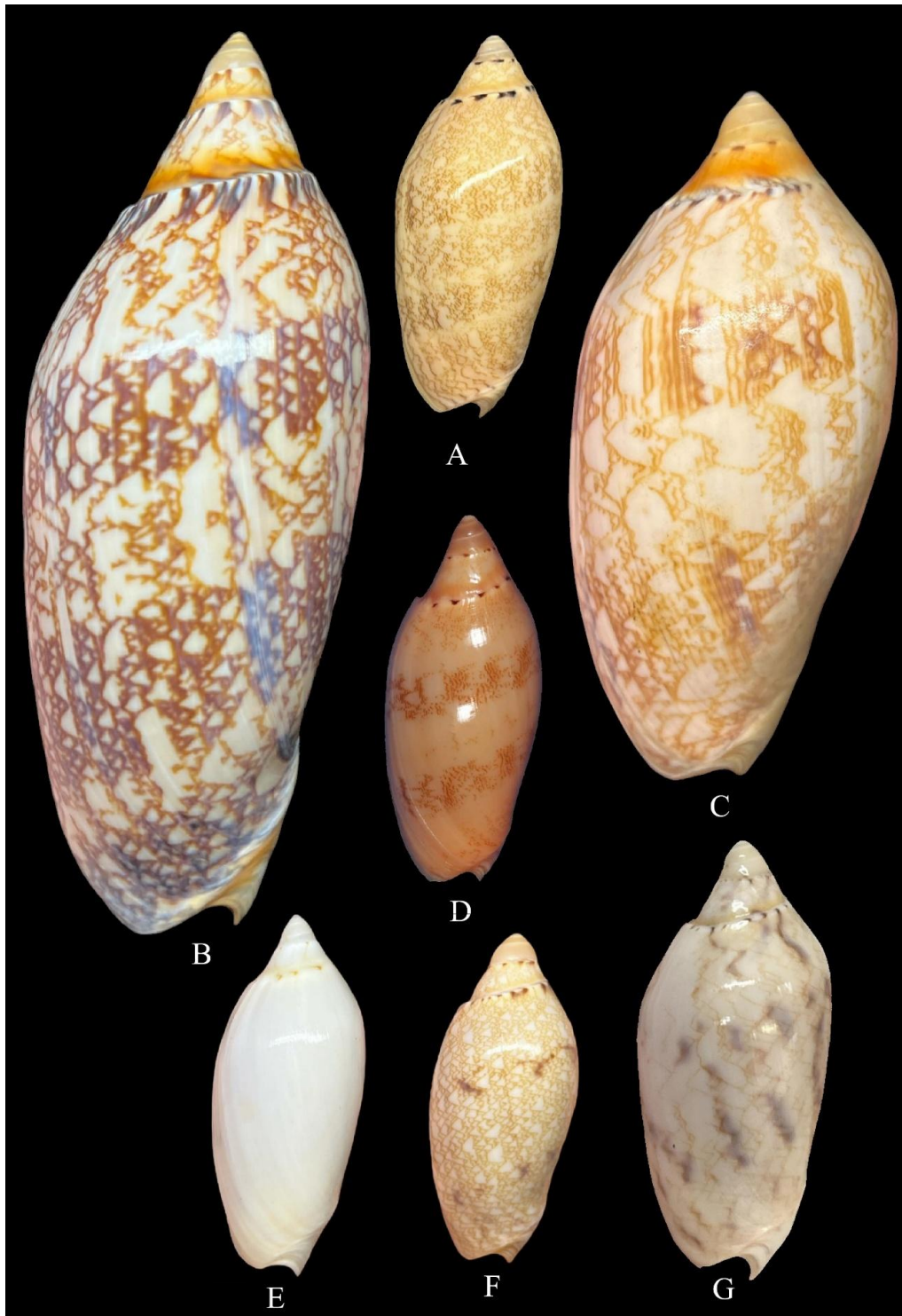


**Plate 4. Comparative plate of Western Australian *Amoria*, dorsal views.** A. *A. paulcoxi* sp. nov., paratype 1, west of Dongara, octopus traps, 50-60 m, L 59.2 mm (DSC). B. *A. damonii* J. E. Gray, 1864, Port Hedland, 119 mm (YZC). C. *A. reevii* (G. B. Sowerby II, 1864), Dampier Archipelago, 50-60 m, L 93.2 mm (YZC). D. *A. chaneyi* H. Morrison, 2012, Coral Bay, 124 m, L 49.5 mm (RWC). E. *A. whitworthi* Bail & Limpus, 2001, Coral Bay, 50-60 m, L 48.8 mm (YZC). F. *A. praetexta* (Reeve, 1849), Exmouth Gulf, Bundegi Beach, 43 mm (YZC). G. *A. textilata* Y. Zheng & Maxwell, 2025, Ashmore Reef, Middle Lagoon, 58.9 mm (WAM S51200).