



A new sclerite-free genus and species of Clavulariidae (Coelenterata: Octocorallia)

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This short communication describing only a single new taxon is necessary to facilitate further research publications by Neil Blackstone & Austin Parrin (Northern Illinois University) and colleagues. Neil and Austin have found the new species to be an ideal experimental animal that is fast-growing and extremely easy to maintain in laboratory aquaria (Parrin *et al.* 2010). [NTM = Museum & Art Gallery of the Northern Territory, PO Box 4646, Darwin, NT 0801, Australia].

Clavulariidae Hickson, 1894

Clavulariinae Roxas, 1933

Phenganax, n. gen.

Diagnosis: Clavulariinae with an encrusting, stoloniferous habit. Polyps erect, separate from each other, upper part retractile into basal part, not into stolon. Stolons and basal part of polyps covered in a thin cuticle. Sclerites absent; zooxanthellae present. Distribution tropical. **Type species:** *Phenganax parrini*, n. sp., by original designation and monotypy. **Etymology:** utilising the transliterated Greek words *phengos*, meaning light, and *anax*, meaning master or king (see “Aquarium notes” below). Gender neuter. *Cervera* López-González *et al.*, 1995, is the only stoloniferous genus with comparable features to the new taxon. It has the same basic colony form, but it lacks zooxanthellae, has a cryptic, temperate habitat, and a very different DNA profile.

Molecular data: DNA sequences from two mitochondrial coding regions, cytochrome oxidase I and the octocoral-specific mut-S homolog (GenBank accessions GQ342412 and GQ342490), were compared to reference sequences from 81 octocoral genera representing 28 of 47 families, including eight genera of Clavulariidae and three other families of stoloniferans (Acrossotidae, Coelogorgiidae, Tubiporidae). Phylogenetic analyses support a sister relationship between *Phenganax parrini*, n. g., n. sp., and *Acrossota amboinensis* (Acrossotidae), although the genetic distance separating them is comparable to that among other stoloniferan genera that have been placed in different families or sub-families. Family Clavulariidae is highly polyphyletic (McFadden *et al.* 2006), and *Phenganax*, n. gen., belongs to a clade that is phylogenetically distant from the morphologically similar *Cervera* (GenBank accessions JN620804 and JN620805).

Phenganax parrini, n. gen, n. sp.

Figs 1–2

?*Clavularia reptans*, *sensu* Thomson & Henderson 1906: 403.

clavulariid sp. A., Parrin *et al.* 2010: 113–120.

Material examined: Holotype, NTM C015597, Bali, Indonesia, Daniel Knop via a German importer, kept in an aquarium for only a short time, 2009. Paratypes: NTM C015598, origin unknown, aquarium raised, Austin Parrin & Neil Blackstone via a US importer, 2009; NTM C015599, same data except 2006.

Description: The holotype has a stoloniferous mode of growth and encrusts many parts of a fragment of dead, finely branched scleractinian coral (*Acropora* sp.). In the aspect shown in Fig. 1A, it measures 45 mm between the arrowhead-labels.