

DESCRIPTION OF THREE SPECIES OF *ELYSIA*
(OPISTHOBRANCHIA, SACOGLOSSA) FROM SOUTHERN INDIA.
WITH A DISCUSSION OF THE IDENTITY OF *E. GRANDIFOLIA*
KELAART, 1858

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Three species of the sacoglossan genus *Elysia* occur in PaIk Bay and Gulf of Mannar, southern India. Two are associated exclusively with algae of the genus *Caulerpa*; mainly *C. racemosa*; the third species occur on the alga *Bryopsis plumosa*. All three species are large, i.e. more than 3 cm long. In 1858 Kelaart described a large, green species of *Elysia* from Ceylon, *E. grandifolia*. The description was very brief, and the identity of this species has been discussed since then. Several large, green species of *Elysia* occur in the Indo-West Pacific region, e.g. *E. expansa* (O'Donoghue, 1924) and *E. tomentosa* Jensen, 1997, both of which occur on *Caulerpa* in Western Australia. *Elysia bennettiae* Thompson, 1973 occurs on *Chlorodesmis* in tropical Eastern Australia, *E. leucolegnote* Jensen, 1990 occurs on *Boodleopsis* in mangroves in Hongkong, and *E. yaeyamana* Baba, 1936 is found in Japan. Internal anatomy of most of these species is insufficiently described.

The Indian *Elysia* from *Bryopsis* is characterised by a distinct black marginal band on parapodia and tips of rhinophores, scattered black dots and white all over the body, a short pericardium with few, highly branched dorsal vessels, and small, narrow, finely serrulate radular teeth. The species from *Caulerpa* both have a long renal ridge from which most dorsal vessels arise. One species is highly papillose, the other almost smooth. The latter species has a black line along parapodial margins, black tips of rhinophores, and tiny black dots scattered over the body. The radular teeth of both species are large, blade-shaped with fine denticulations.

Comparisons with the original and later descriptions of large Indo-Pacific species of *Elysia* indicate that the papillose species from *Caulerpa* cannot be *E. grandifolia*; it is most likely

E. tomentosa, which occurs in similar habitats. Unfortunately the radular teeth of Kelaart's specimens have never been figured. O'Donoghue (1932) figured teeth of a species identified by him as *E. grandifolia*. These teeth are most similar to those of the smooth species from *Caulerpa*. Most publications, however, have identified species collected from *Bryopsis* with *E. grandifolia*, and it has been speculated that this species might be synonymous with the generally smaller *E. omata* (Swainson, 1840) [= *E. marginta* (Pease, 1871)]. This will also be discussed in the present paper.