

# Pleurobranchaea maculata (Quoy & Gaimard, 1832)

AWBP : 282, pl. 51 No. 3; M&M : pl, 11 No. 81 (as *Pleurobranchaea novaezealandiae*); Willan 1975; Willan 1982; Ottaway 1977b

## DESCRIPTION:

Distinguished from the other New Zealand pleurobranchs by the absence of a shell, the smaller extent of the mantle and its fusion with the foot in front and the wide separation of the rhinophores.

Animal large and smooth to the touch, but covered with minute puckers and folds. Colour pale grey, densely patterned with meandering broken lines of dark greyish-brown. Foot projects a considerable distance behind the mantle. Radula with a central tooth, and about 40 to 50 laterals most of which have an accessory spike. Jaws composed of numerous, small rounded or polygonal, interlocking elements all of which bear small denticles along their anterior margin. *Pleurobranchaea granulosa* is another synonym in New Zealand literature.

SIZE: 100 mm

HABITAT: The most catholic of all opisthobranchs regarding habitat. *P. maculata* occurs on all substrates from silt of harbours to rocky substrates of open coasts.

It is even known from diatomaceous oozes on the continental slope.

RANGE: Throughout New Zealand. Depth range - intertidal to at least 250 metres. Elsewhere *P. maculata* is widespread in temperate waters of the Indian and Pacific Oceans.

## BIOLOGY & ECOLOGY:

Described by Cheeseman (1878) as *P. novaezealandiae* (and illustrated by Miss E. Cheeseman in the well known colour drawing--reproduced by Powell (1979 in plate 11 No.8)), this species has been satisfactorily identified by one of us (R.C.W.) with Quoy & Gaimard's original *P. maculata*. Willan (1975) has given a full account of its anatomy and ecology.

*Pleurobranchaea maculata* has been found to be an opportunistic feeder on soft-bodied invertebrates, especially sea anemones and mobile annelids and molluscs. Willan (1975) conducted experiments on food attractiveness and preference, and found the anemones *Anthopleura aureoradiata*, *Isactinia olivacea* and *Anthothoe albocincta* to be preferred in that order. On the basis of laboratory experiments, Ottaway (1977b) concluded *P. maculata* might be determining the lower limit for growth of the anemone *Actinia tenebrosa* by eating all those individuals that occur below E.L.W.N. level.

