TESSEROPORA PILSBRY (CIRRIPEDIA, THORACICA) FROM THE PLIOCENE OF THE GULF OF CALIFORNIA

BY

VICTOR A. ZULLO 1)

Department of Geology, California Academy of Sciences, San Francisco, California 94118, U.S.A.

INTRODUCTION

The subgenus Tesseropora Pilsbray, 1916, encompasses those species of *Tetraclita* Schumacher, 1817, that possess but a single row of parietal tubes as full-grown adults. The type species, *T. rosea* (Krauss) has been reported from South Africa and southeastern Australia. The three other extant members of this subgenus are considered subspecies of *Tetraclita wireni* Nilsson-Cantell. The typical subspecies is reported from Sumatra and Palao Islands, the subspecies *pacific a* Pilsbry from Wake Island and the Marshall Islands, and the subspecies *africana* Nilsson-Cantell from Dar-es-Salaam, Tanzania. Pilsbry (1916: 260) considered *T. i.r.reli* Alessandri from the Oligocene (Tongrian) of Italy to be a Tesseropora closely related to *Tetraclita rosea*.

Henry (1957: 36) raised *T. wireni pacifica* to specific rank and re-assigned it to the typical subgenus *Tetraclita*. The latter change was based on the tendency of the parietal septa to divide near the outer margin of the shell, thus forming one or two series of small secondary tubes. However, this same tendency is also observable in certain crowded specimens of *T. rosea* donated by Dr. Elizabeth Pope, of the Australian Museum, Sydney, from New South Wales. Thus it would appear that the definition of *Tesseropora* may require further analysis, but at present it does seem that the above-mentioned taxa do constitute a group apart from typical *Tetraclita*.

Two specimens of a four-plated barnacle apparently related to *Tesseropora* were collected by Prof. J. Wyatt Durham, University of California, Berkeley during the 1940 E. W. Scripps Cruise to the Gulf of California. The specimens, deposited in the University of California Museum of Paleontology (UCMP loc. A-3590), are from middle or upper Pliocene rocks at the south end of Angel de la Guarda Island in the Gulf of California (vide Durham, 1950: 139). The larger of the two specimens (holotype UCMP 14999) yielded two scuta and a major fragment of one tergum. The smaller (paratype UCMP 15000) also con-

tained opercular valves, but the induration of the enclosing sediment prevented their extraction with ordinary methods. Although the material is thus meager, the unique character of the specimens and their possible bearing on considerations of the significance of Tesseropora appear to warrant the following description.

_Tetraclita (_?Tesseropora_) unisemita_ sp. nov. (pl. I figs. 1-10)

Description. — Measurements of holotype UCMP no. 14999: height of shell, 17.3 mm; carinorostral diameter of base, 17.5 mm; carinorostral diameter of orifice, about 4 mm.

Shell of four compartmental plates (figs. 1, 2), high conic, bent rostrally, with small, diamond shaped orifice; sutures between compartmental plates distinct; radii very narrow, with well developed primary and less distinct secondary denticles on sutural edges; exterior of compartmental plates smooth, except near orifice where erosion has exposed the solidly filled parietal tubes, to give a ribbed appearance to the shell; parietal tubes large, rectangular, in single row, transversely septate near base of shell, and solidly filled in upper half (fig. 8); an occasional secondary septum extends inwardly between the primary parietal septa, but does not reach the inner lamella; interior of compartmental plates below sheath sharply ribbed (fig. 10), the ribs corresponding to parietal septa; sheath well developed, about one-half length of plate, with free lower edge; basis (fig. 9) calcareous, thick, strongly articulated with shell, with numerous, large, transversely septate tubes.

Scutum (figs. 3-5) higher than broad, slightly concave externally, unstriated, with low, inconspicuous growth ridges; articular ridge prominent, reflexed, nearly two-thirds length of tergal margin, terminating in slightly dependent point; articular furrow narrow, covered by articular ridge; adductor ridge short, centrally located and not confluent with articular ridge, with a deep, narrow space below lower edge; adductor pit large, shallow; lateral depressor pit large, moderately deep, not removed from basal margin; depressor muscle crests absent from either basitergal or basioccludent angles; occludent margin reflexed, slightly concave, with numerous, small, oblique teeth of equal size.

Fragment of tergum (figs. 6, 7) lacks apex and basicalarinal margin; tergum narrow, with long, curved, parallel-sided spur removed its own width from the basiscutal angle; spur furrow partially covered by infolding of sides, but open throughout length; articular ridge erect, low, not covering broad articular furrow; lateral depressor crests present.

Discussion. — _Tetraclita unisemita_ sp. nov. differs from all other species of the genus in lacking depressor muscle crests on the scutum, and in possessing a narrow, elongate tergal spur with an infolded spur furrow. Internal parietal ribs are also present in _T. wireni pacifica_, and their absence in other species of _Tetraclita_ reflects the lack of a definite series of parietal septa and a well developed...