

## ***Pyrgopsella* (Cirripedia: Balanomorpha: Pyrgomatidae) is not a sponge-inhabiting barnacle**

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### **Abstract**

A new species of coral-inhabiting barnacle, *Pyrgopsella youngi*, is described. It was found in a colony of the coral *Symphyllia radians* Milne Edwards & Haime, 1849 from Sulawesi, Indonesia. The barnacles were suspended in the coral tissue and were easily detached. A unique feature of *Pyrgopsella* is its membranous basis; in *P. youngi* the calcareous basis is reduced to a vestige by which the barnacle is attached to the coral. *Pyrgopsella* has been regarded as a genus of sponge-inhabiting barnacle, thus unique in the otherwise coral-associated family Pyrgomatidae, but our findings confirm that this genus too comprises coral-inhabiting barnacles. We propose a new genus, *Pyrgospongia*, to accommodate the sponge-inhabiting barnacle originally described as *Pyrgopsella stellula* Rosell, 1973. The relationships of both *Pyrgopsella* and *Pyrgospongia* within the Pyrgomatidae are discussed.

**Key words:** Barnacles; Pyrgomatidae; Corals; *Pyrgopsella*; *Pyrgospongia*

### **Introduction**

Coral-inhabiting barnacles of the family Pyrgomatidae are obligatory symbionts of scleractinian corals, hydrocorals and sponges. The shell of these barnacles is composed of either four or two calcareous wall plates or a unified calcareous shell wall and a basis. The shell wall is flat to low conical and projects above the host coral's surface. The basis is usually cup-shaped or tubular, tapering and usually embedded deeply in the coral skeleton. The presence of a fully calcified basis is one of the dominant features of the pyrgomatids, except in *Pyrgopsella* (the unique genus of the tribe Pyrgopsellini), with a nearly entirely membranous basis, and the members of the tribe Hoekini, in which the wall is separated from the calcified part of the basis by a narrow membranous zone.

Gravel (1906; 1907) found in the collections of the Indian Museum in Calcutta three specimens of a pyrgomatid barnacle, dredged from a depth of 90 m in the Andaman