

**CARDIOLUCINA** Sacco, 1901

Sacco, 1901: 89 (June)



Type species *Cardium agassizi* Michelotti, 1839.  
Original designation. Miocene, southern Europe.

**Synonym** *Bellucina* Dall, 1901 (August), type species  
*Lucina eucozmia* Dall, 1901

Shells small (length to 20 mm), sub-circular, inflated to sub-spherical, robust. Sculpture of radial ribs crossed by commarginal lamellae that are often fluted. Lunule heart-shaped, can be deeply impressed. Hinge plate thick, teeth prominent, two cardinal teeth and anterior and posterior lateral teeth in both valves. Anterior adductor scar short, slightly detached from pallial line. Inner shell margin denticulate.

*Cardiolucina* is one of the most speciose of lucinid genera with sixteen known species, mainly from the Indo-West Pacific and recorded from intertidal to bathyal depths.

**Description of type species**

**Cardiolucina agassizi.** **Shape** small L to 7 mm, sub-circular, moderately inflated, posterior margin quadrate

with deep posterior sulcus. **Colour** white. **Sculpture** of numerous commarginal lamellae crossed by radial, rounded ribs with narrow interspaces; commarginal lamellae are variable in thickness and width of interspaces. **Lunule** heart-shaped, small and shallow. **Ligament** long set in shallow groove. **Hinge** right valve with a cardinal tooth and posterior and anterior lateral teeth, left valve with two prominent cardinal teeth and large anterior and posterior lateral teeth. **Muscle scars** anterior adductor muscle scar short, slightly detached from pallial line, posterior scar ovate. Pallial line narrow and continuous. **Shell margin** ventrally coarsely crenulate but finer posteriorly and anteriorly.

In Miocene samples the commarginal sculpture is rather variable, from separated, thin lamellae to clusters of thicker lamellae producing a rugose ornament. Similar variability of commarginal sculpture is seen in the living species *C. crassilirata* and *C. semperiana*.

Protoconchs of five living species from the Philippines ranged in size from 161  $\mu\text{m}$  to 272  $\mu\text{m}$  with P2 a narrow rim (Glover & Taylor 2016).

RIGHT

Figure 85. *Cardiolucina* species**Type species of genus**

a–d. *Cardiolucina agassizi* (Michelotti, 1839). Mid Miocene, St Jean de Marsacq, France (MNHN). a. L 4.8 mm. b. L 5.7 mm, c. 9.7 m, d. 4.5 mm.

**Atlantic species**

e. *C. lamothei* (Dautzenburg, 1913) West Africa, Iles de Los, Conakry, Guinea (NMW.1955.158 02168), L 3.5 mm. f. *C. rehderi* (Britton, 1972) Paratype, off Brazil (USNM 712451), L 5.0 mm.

**Indo-West Pacific species**

g. *Cardiolucina australopilula* Taylor & Glover, 1997. Denham, Shark Bay, Western Australia (NHMUK), L 14.1 mm. h. *C. australopilula* dorsal view, holotype (WAM 110-96) Houtman Abrolhos Islands, L 12.8 mm. i. *C. civica* (Yokoyama, 1927) Panglao, 2005 stn CP 2348, Philippines, 196–216 m (MNHN-IM-2016-1690), L 8.3 mm. j. *C. crassilirata* (Tate 1886) Westernport, Victoria, Australia (NHMUK 1963200), L 8.4 mm. k. *C. eucozmia* (Dall, 1901) Port Essington, Northern Territory, Australia (NHMUK 1963194/1 lectotype of *Lucina pisum* Reeve, 1850), L 8.8 mm. l. *C. macassari* (Prashad, 1932) Singapore (NHMUK 1963552), L 3.9 mm. m. *C. pisiformis* (Thiele, 1930) Bandicoot Bay, Barrow Island, Western Australia (WAM 268-94), L 3.2 mm. n. *C. quadrata* (Prashad, 1932) Panglao 2005, stn CP 2388, Philippines 762 m (MNHN-IM-2016-1631), L 11.9 mm. o, p. *C. rugosa* (Hedley, 1909) Panglao 2004, Philippines stn T6, (MNHN-IM-2016-1736), o. L 3.3 mm. p. right valve, L 2.8 mm.

