

**SUNSET CLAMS and SANGUINS**  
**Family: PSAMMOBIIDAE**

*Asaphis violascens* (Forsskål in Niebuhr, 1775)  
*Gari elongata* (Lamarck, 1818)  
*Gari maculosa* (Lamarck, 1818)  
*Gari occidens* (Gmelin, 1791)  
*Gari sibogai* Prashad, 1932  
*Gari togata* (Deshayes, 1855)  
*Gari truncata* (Linnaeus, 1767)  
*Hiatula diphos* (Linnaeus, 1771)

**Reported by other workers  
and not included in this catalogue**

*Hiatula lunulata* (Deshayes, 1855)  
Natural History Museum Rotterdam  
picture pages, from Ahungalla, 26 mm.  
NMR 100655

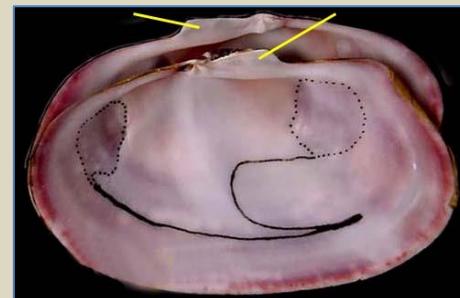
Shells thin, some thicker, mostly elongated oval-shaped, gaping at both ends. The valves are unequal, being slightly bent behind. The umbones small, more or less central. Exterior smooth or with sculpture that is concentric or radial, sometimes only over the posterior slope. Periostracum generally thick and horny, peeling off easily. The ligament is external and prominent, being attached to projecting plates called nymphs. The hinge has 1 or 2 small cardinal teeth, lateral teeth absent. The shell interior is porcellaneous with two muscle scars of unequal shape. The pallial sinus is deep. Cruciform muscle scars are present though often obscure.

Sunset clams burrow in soft sediments and lie below the surface at an angle, their siphons reaching the sea-bed. They are deposit or suspension feeders.



One or two small cardinal teeth in each valve.

Dorsal view of valves showing the external ligament (arrowed) and twisted rear.



Interior of valves showing muscle scars and pallial sinus. Arrowed are the nymphs that support the external ligament.



### Asaphis

 <p><b>Asaphis violascens</b> Actual size 48 x 33.5mm</p> <p>MF768: Trincomalee, Yard Cove, exposed at low tide on muddy sand.</p>	 <p><b>Asaphis violascens</b> Actual size 31.78 x 22.54mm</p> <p>MF653: Kayankerni, Thennadi Bay, beached single valve.</p>	<p>Also, MF806: Vakarai, Sallitivu, beached, r/v, 68 x 50 mm. Bleached, weathered.</p>
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#### **Asaphis violascens** Violet asaphis

Checklist 2012 as *Asaphis dichotoma*, a synonym. Kirtisinghe, 1978 as *A. dichotoma*.

Only single valves in the collection. Broadly ovate shell, inflated. Umbo low, in front of midline. Long, sloping posterior dorsal joining obliquely truncated posterior. Anterior dorsal shorter, slightly concave, rounded anterior. Well-rounded ventral. Ligament external, on a purple-stained nymph that is not erect like other genera of same family and easily overlooked. Two projecting cardinal teeth, the rear one stronger and bifid, no laterals. Muscle scars equal, pallial sinus small, wide, rounded, no appreciable confluent portion. External lattice sculpture: radial ribs that may fork in the younger parts, crossed by concentric grooves. The ribs are thick and nodulous on the posterior slope, rounded and compacted over the median part, becoming narrower and flatter and in the most anterior parts so flat that sculpture appears as concentric ridges crossed by radial grooves. External colour purplish-pink with purple on the umbo. Interior blushed with orange-pink.

- Poutiers, 1998 p. 307; Kirtisinghe, 1978 p. 38 as *A. dichotoma*; De Bruyne, 2003.

### Gari

 <p><b>Gari elongata</b> Actual size up to 54.4 x 15.3 x 10mm</p> <p>MF767: Trincomalee, Yard Cove, exposed at low tide. Empty shells abundant. White, with varying degrees of purple rays. Few with persistent periostracum remnants.</p>	 <p>Two shells showing variable patterning</p> <p>Dorsal view of upper shell</p> <p><b>Gari elongata</b> Actual size up to 54.4 x 15.3 x 10mm</p>	 <p><b>Gari elongata</b> Actual size 69 x 35 x 23mm</p> <p>MF147: Trincomalee, empty, by diving.</p>
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**Gari elongata**  
Actual size 53 x 34 x 18mm

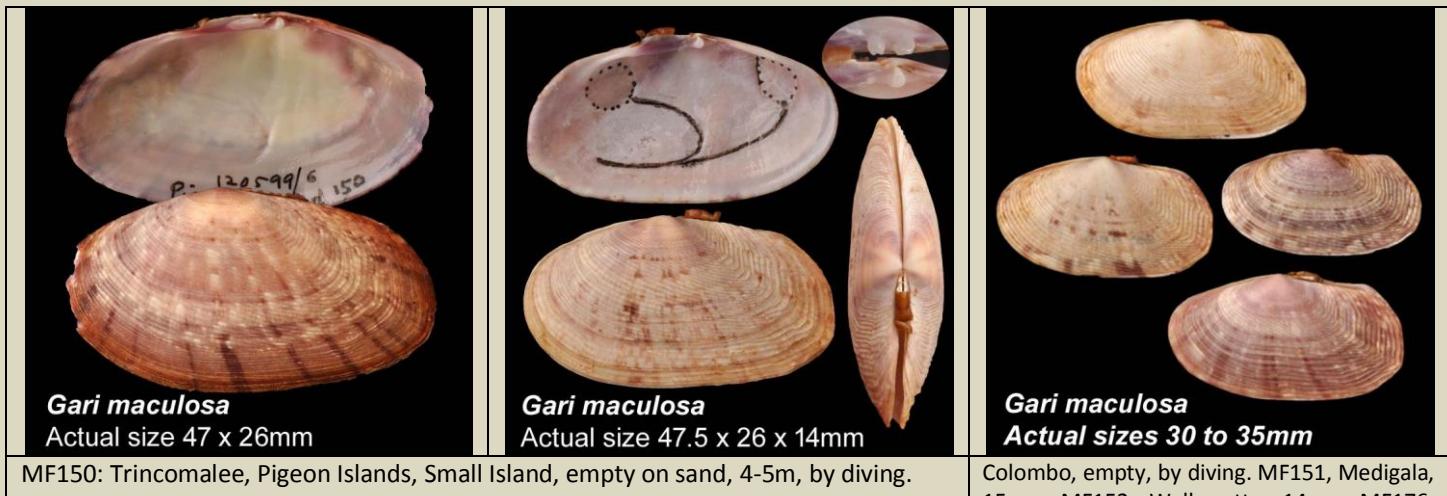
Koggala, Koggala lake, muddy shallows, empty, by wading.

MF822: Puttalam lagoon, mud bottom, some distance from the shore. Live collected by a fisherman for eating. 60 x 30 x 17 - 80 x 40 x 23.5 mm. Coll. Shamila Corea, NARA.

**Gari elongata** Elongate sunset clam

Shell elongate oval, umbones in front of midline, inflated, gaping front and behind. Umbo low, ligament external on a nymph. Dorsal margins sloping down, anterior narrowly rounded, posterior obliquely truncate. A rounded keel passes from umbo to broadly rounded postero-ventral angle. Interior porcellaneous, cardinal teeth peg-like, r/v2, l/v1, lateral teeth absent. Pallial sinus deep, rectangular, reaching level of umbo or beyond, the terminal inferior limb confluent with pallial line. Sculpture of uneven concentric growth lines, particularly rough behind the keel. Colour whitish with variable purple rays and concentric bands. Interior whitish, the purple rays showing through. Periostracum blackish, tending to peel off from the older areas.

- Poutiers, 1998 p. 308; Fernando, 1977 p. 51 as *G. variegata* (Wood);  
idscaro, Worldwide Seashells Collection.



**Gari maculosa**  
Actual size 47 x 26mm

**Gari maculosa**  
Actual size 47.5 x 26 x 14mm

**Gari maculosa**  
Actual sizes 30 to 35mm

MF150: Trincomalee, Pigeon Islands, Small Island, empty on sand, 4-5m, by diving.

Colombo, empty, by diving. MF151, Medigala, 15 m; MF152: Wellawatte, 14 m; MF176: Degal Meda, 23 m.

**Gari maculosa** Spotted gari

Shell elongate oval, compressed, with external ligament, anterior and posterior gape. Umbo in front of midline, anterior short and broadly rounded. Postero-dorsal straight, sloping in large shells, horizontal in small, angulated junction with posterior margin that consists of two angulated straight segments. Postero-ventral angle obtuse, not drawn-out. A wide, shallow keel is present from the umbo to the postero-ventral angle. Interior glossy, white, the exterior colour often showing through. Two cardinal teeth r/v, one l/v, all strong, bulbous, bifid, no laterals. Large oval pallial sinus, confluent ventral segment. Sculpture of oblique incised lines anteriorly, merging with coarse growth lines posteriorly. Shells coloured off-white, cream or purple, umbones blushed with purple or not, variable discontinuous brown radial rays. Periostracum thin, brownish.

- Kira, 1962 p. 170 Pl 60 #6; Abbott & Dance, 1982 p. 347. Siddiqui et al, 2007 p. 311; idscaro, Worldwide Seashells Collection.



### **Gari occidens**

Checklist 2012 as *Gari* sp. 1

Shell oval with posterior wider than anterior, low umbo in front of midline, external ligament over large nymphs, moderately inflated. Anterior and posterior gape, twisted behind, the right valve flatter. The dorsal margins gently sloping down, anterior narrowly rounded, posterior obliquely truncate, obtusely rounded postero-ventral angle. Ventral margin gently rounded. No appreciable keel. Interior porcellaneous, cardinal teeth 2 on the right and one on the left. Large rectangular pallial sinus with confluent terminal ventral segment, the anterior border not reaching the level of the umbo. Cruciate muscle scars not discernible. No sculpture apart from growth lines. External colour violet with darker concentric bands and lines crossed by white rays, the umbral area purplish mottled with white. Interior white, the external colour showing through, the margin pink-violet. Periostracal remnants thick, dark brown.

- NMR image of shell from Trincomalee, Uppuveli; idscaro, Worldwide Seashells Collection.

<p><b>Gari sibogai</b> Actual size 35 x 16.3 x 8mm</p>	<p>MF149: Negombo, empty on sand bottom, 15 m, by diving. Two shells.</p>	<p><b>Gari sibogai</b> Siboga gari Shells slender, elongate-oval, compressed, gaping anterior and posterior. Umbo behind midline, antero-dorsal margin sloping down to a narrowly rounded anterior, postero-dorsal margin slightly excavated, sloping down to a smoothly rounded junction with the truncate, steeply sloping posterior margin. The postero-ventral angle nearly a right angle, receiving a low keel from the beak. Dentition and pallial sinus similar to <i>G. maculosa</i>. Shell glossy, sculpture of fine concentric growth lines only, more marked posteriorly behind the keel. Periostracum thin, yellowish. External colour light pink and white concentric bands with pink rays. The umbo white with two pink wedges either side. Interior glossy, white, external colour showing through.</p> <p>- Habe, 1964 p. 197 Pl 61 #3.</p>
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<p><b>Gari togata</b> Actual size 62.55 x 40.24mm</p>	<p>MF577: Kayankerni, Thennadi Bay, beached single valve.</p>	<p><b>Gari togata</b> Coutesan sunset clam Bleached left valve with external calcium salt deposits. Shell oval, small umbo in front of midline, the posterior markedly flexed. The antero- and postero-dorsal margins sloping down. Anterior narrowly rounded, posterior broadly rounded confluent with the convex ventral margin. Interior porcellaneous, prominent nymph, the dentition obliterated. Large pallial sinus just reaching the level of the umbo, confluent terminal segment. Sculpture of rough concentric growth lines. - Poutiers, 1998 p. 309. "Deep burrowing in thick muddy substrates of sheltered mangrove swamps, seagrass meadows or mud flats..." Distribution: "tropical Western Pacific Ocean - from Indonesia to W. Polynesia; north to China and south to New South Wales and New Caledonia." WoRMS verified, no image. Internet images are from Indonesian shells, white in colour with a thick brown periostracum. No images in NMR. Not mentioned in available Indian books.</p>
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 <p><b>Gari truncata</b> Actual size 43.45 x 22.06mm</p>	<p>MF651: Kayankerni, Thennadi Bay, buried single valves, 2-3m, by diving.</p> <p><b>Gari truncata</b> Lined gari</p> <p>Only single valves in the collection.</p> <p>Shells elongate-oval, compressed. Umbo about central, antero-dorsal sloping down to narrowly rounded anterior. Postero-dorsal sloping down to angulated junction with truncate posterior margin. Postero-ventral angle obtuse, not drawn-out, receiving a wide, shallow keel from the umbo. Interior glossy. Dentition and pallial sinus similar to <i>G. maculosa</i>. Sculpture of fine, fairly regular oblique incised lines anteriorly that change direction sharply to parallel the ventral margin. The junction of the change in direction lies along a shallow but distinct groove from the beak to a point on the ventral margin anterior to the postero-ventral angle. Shells thin, translucent, glossy, off-white with a pinkish tinge. The periostracum is absent.</p> <p>This shell resembles <i>G. sibogai</i> in shape but is grooved vs. smooth. It differs from <i>G. maculosa</i> in being slenderer and with a sharp demarcation of the changing angle of the incised lines vs. smooth junction.</p> <p>- Poutiers, 1998 p. 311.</p>
<p>Also, 26.0 x 13.38; 36.15 x 19.0 mm</p>	
<b>Hiatula</b>	
 <p><b>Hiatula diphos</b> Actual size 125 x 52mm</p>	 <p><b>Hiatula diphos</b> Actual size 118 x 54mm</p>
<p>MF374: Kalpitiya, beached single valves, no location data. Coll. by Upali Mallikarachchi.</p>	
<p>Also, MF777: Vanathavillu, Karativu, Serakkuli, fishing trash. Single valve 130 x 60 mm. Encrusted with calcium salts, tiny barnacles.</p>	
<p><b>Hiatula diphos</b> Diphos sanguin</p>	
<p>Checklist 2012 as <i>Soletellina diphos</i></p>	
<p>Only single valves in the collection.</p>	
<p>Shell elliptical, moderately compressed, umbones small, beaks anterior, ligament external on a nymph. Dorsal margin nearly straight, anterior broadly rounded, posterior tapering to a narrowly rounded postero-ventral angle formed by the steeply sloping posterior and the rounded ventral margins. A rounded keel runs from the umbo to the postero-ventral angle. Interior porcellaneous, dentition obscured by weathering. Unequal muscle scars, the anterior narrow, linear the posterior rounded. Large pallial sinus extending well in front of the umbo, long inferior limb confluent with the pallial line. Cruciate muscle scars present. Sculpture of coarse growth lines, periostracal remnants dark brown. Exterior and interior coloured purple with faint narrow white rays radiating from the umbo.</p>	
<p>- Poutiers, 1998 p. 310 as <i>Soletellina diphos</i> (Linnaeus, 1771), a synonym; Kirtisinghe, 1978 p. 40 as <i>Pharaonella</i> sp., a mis-identification.</p>	

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Natural History Museum Rotterdam. NMR Picture pages available at: <http://www.nmr-pics.nl/>

Worldwide Seashells Collection: [http://www.idscaro.net/sci/01\\_coll/plates/bival/pl\\_psammobiidae\\_1.htm](http://www.idscaro.net/sci/01_coll/plates/bival/pl_psammobiidae_1.htm)

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