

SYNOPSIS OF THE RECENT AND TERTIARY PSAMMOBIIDÆ OF  
NORTH AMERICA.

BY W. H. DALL.

Family PSAMMOBIIDÆ.

Genus PSAMMOBIA Lamarck.

(= *Psammobia* (Lam., 1818) Bowdich, 1822; + *Gari* (pars) Schumacher, 1817; + *Haplomochlia* Gistel, 1848 (fide Mörch, 1852). Not *Psammobia* Cossman, 1886).

Type *P. (Tellina) ferroënsis* Gmelin, 1792, = *T. gari* Lin., 1762, not of Lin., 1758. North European Seas.

Section *Psammobia* s. s.

1. *Psammobia* (sp. indet.).

880 fms. east of Tobago; U. S. Fish Commission. A worn fragment of undeterminable species.

Section *Grammatomya* Dall, 1897.

Wholly obliquely grooved, with no dorsal posterior area.

2. *Psammobia squamosa* Lam.

Virgin Islands (Krebs).

Subgenus GOBRÆUS Leach.

(= *Solen* Megerle, 1811, not Lin. 1758; + *Psammobia* Blainv., 1825, not (Lam., 1818) Bowdich, 1822; + *Sanguinolaria* Blainville, 1825, not Lamarck, 1799; + *Azor* Gray, 1851 (Brit. An., p. 51, not p. 62); + *Gobræus* (Leach MS.) Gray, 1852; + *Psammocola* sp., Blainv., 1825. Type *Psammobia vespertina* Lam. European Seas.

3. *Gobræus vaginatus* Reeve.

Charlotte Harbor, Florida (?).

4. *Gobræus circe* Mörch.

Tortola and St. Thomas, West Indies.

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5. *Gobræus maximus* Deshayes.

Panama to the Gulf of California.

6. *Gobræus regularis* Carpenter.

Gulf of California.

7. *Gobræus californicus* Conrad.

Sitka to San Diego, California, also Kamtchatka (Dall) and Japan.

8. *Gobræus fucatus* Hinds.

Magdalena Bay, Lower California.

9. *Gobræus edentulus* Gabb.

60 fms., San Pedro, California.

Genus **SANGUINOLARIA** Lamarek.

(= *Sanguinolaria* Lam., 1799, not Blainv., 1825, nor Desh., 1835; + *Aulus* (sp.) Oken, 1815, not Oken, 1821; + *Lobaria* Schum., 1817, not Muller, 1776; + *Hiatula* sp. Modeer, 1793).

Type *S. (Solen) sanguinolentus* Gmelin, Antilles.

Section *Sanguinolaria* s. s.1. *Sanguinolaria sanguinolenta* Gmelin.

Antilles to Brazil; Ceylon.

2. *Sanguinolaria tellinoides* A. Adams.

Gulf of California to Panama.

Section *Psammotella* Blainville.

(*Psammotelle* Blainv., 1826; + *Psammotella* Herrm., 1852).

3. *Sanguinolaria operculata* Gmelin.

Texas to Brazil. (Type species).

4. *Sanguinolaria hanleyi* Bertin.

Lower California to Panama.

5. *Sanguinolaria vitrea* Deshayes.

Texas to Colon.

Section *Nuttallia* Dall, 1897.

Inequivalve, suborbicular.

6. *Sanguinolaria nuttallii* Conrad.

Southern California and Japan. (Type species).

Genus **AMPHICHÆNA** Philippi.

(= *Amphichæna* Phil., 1847, not H. & A. Ads., 1856; + *Amphidona* Mörch, 1858). Sole species known.

1. *Amphichæna kindermannii* Phil.

Mazatlan.

Genus **HETERODONAX** Mörch.

(= *Heterodonax* Mörch, 1853; + *Arcopagia* Orb., 1863, not Brown ex Leach MS., 1827).

1. *Heterodonax bimaculata* Lin.

Florida to Brazil on the Atlantic; San Diego, California, to Panama, on the Pacific Coast.

Genus **ASAPHIS** Modeer.

(= *Asaphis* Modeer, 1793; + *Capsa* Lam., 1801, not Lam., 1799; + *Capsula* Schum., 1817, not Sby., 1857; + *Psammocola* (pars) Blainv., 1825; + *Isarcha* Gistel, 1848, *vide* Mörch, 1852; + *Sanguinolaria* Desh., 1835, not Lam., 1799; + *Pliorhytis* Conrad, 1863).

Type *Asaphis (Venus) deflorata* Linn. Indo-Pacific.

1. *Asaphis coccinea* Martyn, 1784.

Charlotte Harbor, Florida, to Brazil.

(*Heteroglypta* von Martens, 1880, will form a section of *Asaphis*, characterized by divaricate sculpture. Type *Psammobia contraria* Desh., Isle Bourbon).

Genus **TAGELUS** Gray.

(= *Tagelus* Gray, 1847; + *Siliquaria* Schum., 1817, not Lam., 1801; + *Solecurtus* Orb., 1853, not of Blainv., 1825; + *Cultellus* sp., Conrad, 1845; + *Mesopleura* Conrad, 1867; + *Tagelus* Fischer, 1887; + *Psammosolen* Hupé, 1848, not Bronn, 1831).

Type *T. (Solen) gibbus* Spengler, 1794.

Section *Tagelus* ss.1. *Tagelus gibbus* Spengler.

Cape Cod to Brazil, and coast of West Africa.

2. *Tagelus violascens* Carpenter.

Gulf of California to Nicaragua.

3. *Tagelus californianus* Conrad.

San Pedro, California, to Lower California.

4. *Tagelus affinis* C. B. Adams.

Sta. Barbara to Panama.

Section *Mesopleura* Conrad.5. *Tagelus divisus* Spengler.

Cape Cod to Venezuela.

6. *Tagelus politus* Carpenter.

San Pedro to Panama.

7. *Tagelus subteres* Conrad.

Southern California to Lower California.

## FOSSIL SPECIES OF THE TERTIARY.

## Eocene.

*Psammobia* (*Gobræus*) *ozarkana* Harris. Chickasawan.*Psammobia* (*Garum*) *filosa* Conrad. Claibornian.*Psammobia* (*Garum*) *claibornensis* Dall. Claibornian.*Psammobia* (*Gobræus*) *blainvillei* (Lea). Claibornian.*Psammobia* (*Gobræus*) *hornii* (Gabb). Tejon.*Psammobia* (*Gobræus*) *papyria* Conrad. Jacksonian, Vicksburgian and Chipolan.*Psammobia* (*Gobræus*) *lutea* Conrad. Vicksburgian.

## Miocene.

*Asaphis centenaria* Conrad. Chesapeake.

## Pliocene.

*Psammobia* (*Gobræus*) *wagneri* Dall. Caloosahatchie and Waccamaw beds.*Psammobia* (*Gobræus*) *edentula* (Gabb). Californian.*Tagelus gibbus* Spengler. Caloosahatchie beds, and also Pleistocene of South Carolina.*Tagelus divisus* Spengler. Caloosahatchie beds, and also Pleistocene of South Carolina.The other North American fossil species referred to *Psammobia*, *Psammocola*, *Sanguinolaria*, *Solecurtus*, *Siliquaria*, etc., belong in other genera or are synonyms of the cited species.

## SYNONYMS AND CORRECTIONS.

*Capsa deflorata* Orb. = *Asaphis coccinea* (Mart.) Mörch.*Cultellus californianus* Conrad, = *Tagelus californianus*.*Cultellus caribæus* Conrad, 1845, = *Macha* sp.*Cultellus subteres* Conrad, = *Tagelus subteres*.*Leguminaria floridana* Conrad, = *Tagelus divisus* Spgl.*Mesopleura bidentata* Conrad, = *Tagelus divisus*.*Petricola centenaria* Conrad, = *Asaphis centenaria*.*Psammobia affinis* C. B. Adams, = *Heterodonax bimaculata*.*Psammobia biradiata* C. B. Adams, = *Heterodonax bimaculata*.*Psammobia casta* (Desh.) Reeve, = *Macoma cognata* C. B. Ads.*Psammobia cayennensis* Lam., = *Macoma constricta*.

- Psammobia cerina* C. B. Adams, = *Macoma cerina*.  
*Psammobia constricta* Lam., = *Macoma constricta*.  
*Psammobia declivis* Turton, = *Tagelus gibbus* Spengler.  
*Psammobia decora* Hinds, = *Sanguinolaria nuttallii* Conrad.  
*Psammobia lusoria* Say, = *Macoma lusoria*.  
*Psammobia pacifica* Conrad, = *Heterodonax bimaculata*.  
*Psammobia purpureo-maculata* C. B. Adams, = *Heterodonax bimaculata*.  
*Psammobia rosea* Deshayes, = *Sanguinolaria sanguinolenta*.  
*Psammobia rugosa* Sby., = *Asaphis coccinea*.  
*Psammobia rubroradiata* Cpr., (1863), = *P. californica* Conrad,  
(Proc. Acad. Nat. Sci. Phila., 1848, p. 121).  
*Psammobia tæniata* Turton, = *Tagelus divisus*.  
*Psammocola lucinoides* H. C. Lea, = ? *Diplodonta* sp.  
*Psammocola pleiocena* T. & H., = *Asaphis centenaria*.  
*Psammocola regia* H. C. Lea, = *Asaphis centenaria*.  
*Psammocola rugosa* Blainv., = *Asaphis coccinea*.  
*Sanguinolaria californiana* Conrad, = *Macoma* sp.  
*Sanguinolaria fusca* Say, = *Macoma fusca*.  
*Sanguinolaria miniata* Gould, = *S. tellinoides* A. Ads.  
*Sanguinolaria ovalis* (Desh.) Reeve, = *S. tellinoides* junior.  
*Sanguinolaria purpurea* (Desh.) Reeve, = *S. tellinoides*.  
*Sanguinolaria rufescens* Chemn., = *S. operculata* Gmel.  
*Siliquaria caribæa* Holmes, = *Tagelus gibbus*.  
*Siliquaria carolinensis* Conrad, = *Tagelus* sp. indet.  
*Siliquaria edentula* Gabb, = *Psammobia edentula*.  
*Siliquaria equalis* Conrad, = *Tagelus* sp.  
*Siliquaria gibba* A. Adams, = *Tagelus gibbus*.  
*Siliquaria notata* Schumacher, = *Tagelus gibbus*.  
*Solecortus angulatus* Sby., = *Tagelus gibbus*.  
*Solecortus bidens* Forbes & Hanley, = *Tagelus divisus*.  
*Solecortus californianus* Carpenter, = *Tagelus californianus*.  
*Solecortus caribæus* Blainville, = *Tagelus gibbus*.  
*Solecortus centralis* Sowerby, = *Tagelus gibbus*.  
*Solecortus cylindricus* Sowerby, = *Tagelus affinis*.  
*Solecortus fragilis* Conrad, = *Tagelus divisus*.  
*Solecortus subteres* Emmons, = *Siliquaria equalis* Conrad.  
*Solecortus subteres* Conrad, = *Tagelus subteres*.  
*Solecortus violascens* Sowerby, = *Tagelus violascens* Cpr.  
*Solen adansonii* Bosc, = *Tagelus guineensis*.

*Solen bidens* Chemnitz, = *Tagelus divisus*.

*Solen carpenteri* Dunker, = *Tagelus divisus*.

*Solen centralis* Say, = *Tagelus divisus*.

*Solen fragilis* Pulteney, = *Tagelus divisus*.

*Tellina fucata* Hinds, = *Psammobia fucata*.

*Tellina fucata* Gould, = *Strigilla fucata*.

*Tellina rufescens* Chemnitz, = *Sanguinolaria operculata* Gmel.

*Tellina rufescens* Roemer, = *Sanguinolaria hanleyi* Bertin.

*Tellina semiplanata* Spengler, = *Sanguinolaria operculata* Gmelin.

*Tellina vicina* C. B. Adams, = *Heterodonax bimaculata*.