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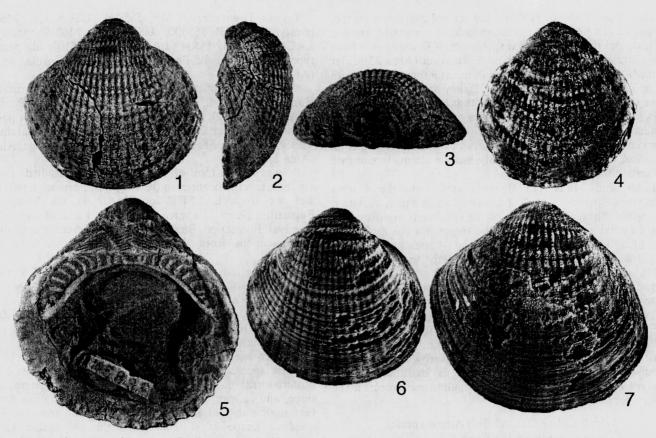


FIGURE 10—Glycymerita aleuta n. sp. Specimens coated with ammonium chloride. All ×1, except where otherwise noted. 1-3, holotype UCMP 555899, USGS loc. M6839, left valve: 1, lateral view; 2, anterior view; 3, beak view; 4, 5, paratype UCMP 555900, USGS loc. M6839, right valve: 4, lateral view; 5, interior view, ×1.5; 6, paratype LACMIP 13626, LACMIP loc. 25107, left valve, lateral view; 7, paratype LACMIP 13627, LACMIP loc. 25107, left valve.

specimens) to subquadrate (uncommon). Equivalved, nearly equilateral. Sculpture consisting of 48 to 60 ribs; six ribs per 10 mm of distance, measured parallel to length at medial part of valve approximately 40 mm ventral of beak. Ribs narrow (approximately 1-1.25 mm wide), inverted V-shaped tops, with narrow interspaces (0.25-0.5 mm). Radial striae rarely preserved. Anterodorsal and posterodorsal slopes with ribs. Beaks central, prominent, orthogyrate, incurved. Umbones moderately high inflated (single-valve convexity/height ratio = 0.34-0.53); posterodorsal slope sulcate. Cardinal area long and bearing up to five to six, chevron-shaped, symmetrical, commonly well-defined ligamental ridges/grooves. Hinge plate long and arched. Hinge bearing prominent taxodont teeth in two series, anterior series longer or both series approximately same length: up to13 teeth in anterior series and nine in posterior series. Mesial teeth near beak short, narrow, and vertical. Distal teeth strong, thick, angled to horizontal, straight to hook-shaped. Dimyarian, posterior muscle scar smaller and bearing small myophoric flange along anterior side. Interior shell margin with moderately strong and moderately narrow crenulations. Concentric growth lines innumerable; growth checks can be moderately common.

*Types.*—Of *Pectunculus veatchii* var. *major* Stanton, 1896, syntype USNM 157830, Martinez Formation, Lower Lake, Lake County, California.

Occurrence.—Upper Paleocene (Selandian and Thanetian, both = provincial "Martinez Stage"). NEAR THE DA-NIAN-SELANDIAN BOUNDARY: "Martinez Formation," vicinity of Lower Lake, Lake County, California (Area 13). SELANDIAN: Vine Hill Sandstone near Martinez, Contra Costa County, California (Area 16); San Francisquito Formation, Pinyon Ridge and Big Rock Creek, Los Angeles County, California (Area 25); Santa Susana Formation, Simi Hills, Ventura County, California (Area 26). THANETIAN: Lodo Formation, Silver Creek and Panoche Creek junction, Fresno County, California (Area 20).

Discussion.—A total of 248 specimens was studied. Preservation is good. Most specimens of G. (Glycymerita) major are quadrate forms. They are similar to the quadrate forms of G. banosensis but differ by having more symmetrically shaped shoulders, more numerous and more narrowly spaced ribs, no postero-ventral elongation of the valves, and less arched hinge plate.

Glycymerita major is similar to G. veatchii, but the former differs by having a smaller maximum size, less pronounced posterior angulation, less pronounced truncate postero-dorsal margin. In addition, G. major does not have individuals with either very narrow or very wide radial ribs. Glycymerita major resembles the earliest Eocene Glycymeris major meganosensis Clark and Woodford (1937, p. 86-87, pl. 14, figs. 4, 5; Moore, 1983, p. A53-A54, pl. 11, figs. 11, 12) from the Meganos Formation, Contra Costa County, northern California. Glycymerita major also resembles Glycymeris sagittata (Gabb, 1864), which is a very widespread Eocene species, with distribution from Far-Eastern Russia to Alaska and southward to San Diego, California (Squires, 1987). Examination of numerous species of both of these Eocene glycymeridids revealed that they are conspecific. Glycymerita major differs from them by having larger size, thicker shells, more inflated shell, radial ribs that are prominent rather than flattened,