



FIGURE 10—*Glycymerita aleuta* n. sp. Specimens coated with ammonium chloride. All $\times 1$, 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, $\times 1.5$; 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, orthograte, 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 to 13 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 DANIAN-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,