

gray mudstone. Most of the specimens are poorly preserved and consist of unabraded fragments. Important associated fossils include the colonial coral *Astrocoenia*? and a large internal mold of the gastropod *Velates californicus*?

The fossiliferous lens at locality 1342 is interpreted to represent a storm deposit in a middle to outer shelf environment, in the sense used by Bottjer and Jablonski (1988). The distance of transport was not great for some of the specimens.

Microfossil samples collected by the author from 6 m below and 2 m above locality 1342 yielded rare and poorly preserved calcareous nannofossils suggestive of the late Paleocene *Discoaster multiradiatus* (CP8) Zone of Okada and Bukry (1980) (M. V. Filewicz, personal commun.).

An additional specimen of *F. susanensis* was obtained from the UCMP collection of Santa Susana Formation macrofossils. The specimen (paratype, UCMP 38569) is from locality UCMP 3792, which is the type locality of the gastropod *Velates californicus*. Also at this locality are moderately large complete internal molds of the bivalve *Miltha*?. This locality, which is mistakenly shown as locality UCMP 3732 by Nelson (1925, Pl. 61), is just upsection and in the immediate vicinity of locality CSUN 1342. Attempts by the author to find locality UCMP 3792 were unsuccessful because the locality is now covered by slope wash.

Fimbria pacifica n. sp. is more widespread than *F. susanensis* n. sp. Four specimens of *F. pacifica* were found between 96 and 145 m above the bottom of a measured section of the Bateque Formation, Baja California Sur, Mexico (Figure 1), at locality CSUN 1220b. The geologic details of this locality and immediate vicinity have been described in Squires and Demetron (1989, 1990). The locality is in very fine-grained sandstone interbedded with fossiliferous lenses containing slightly transported shallow-marine stromatolites, coralline algae, miliolid and discocyclinid foraminifers, pharetronid sponges (Squires and Demetron, 1989), colonial corals, branching cheilostome bryozoans, thick-shelled gastropods and bivalves, spatangoids, and sea-urchin spines. Colonial corals and the gastropod *Velates perversus* are particularly abundant. The strata are middle early Eocene ("Capay Stage") in age (Squires and Demetron, 1990).

One specimen of *Fimbria pacifica* n. sp. was found in the lower part of the Juncal Formation, Whitaker Peak area, Los Angeles County, southern California (Figure 1), at locality CSUN 830. The geologic details of this locality have been described in Squires (1987). The locality is one of many channel-lag storm accumulations of slightly transported fossils in transition-zone siltstone that formed in shelf-like depths. Important associated fossils at this locality are *Velates perversus* and *Miltha packi*. This part of the Juncal Formation is middle early Eocene ("Capay Stage") in age (Squires, 1987).

Ten specimens of *Fimbria pacifica* n. sp. were found in an unnamed unit, Agua Caliente Canyon, central Santa Ynez Mountains, Santa Barbara County, southern California (Figure 1), at three closely spaced localities (UCLA 6593, 7192, and 7193). These localities plot on Dibblee's (1966, 1986) geologic maps in his "unnamed" strata of Late Cretaceous age. No detailed geologic work has been done on these particular strata. The localities are in fossiliferous lenses in silty sandstone. Fossils are molds and casts and, except for one complete specimen of *Fimbria*, are fragmental. Important associated fossils are *Pycnodonte* (*Phygraea*) sp. and *Spondylus* sp. Based on the presence of specimens of *Fimbria pacifica* n. sp., which is found elsewhere only in middle lower Eocene ("Capay Stage") strata, these localities are assigned to the middle lower Eocene. These *Fimbria*-bearing strata should be mapped as the basal part of the Juncal Formation or, possibly, as the Sierra Blanca Limestone, which directly underlies the Juncal Formation in this region.

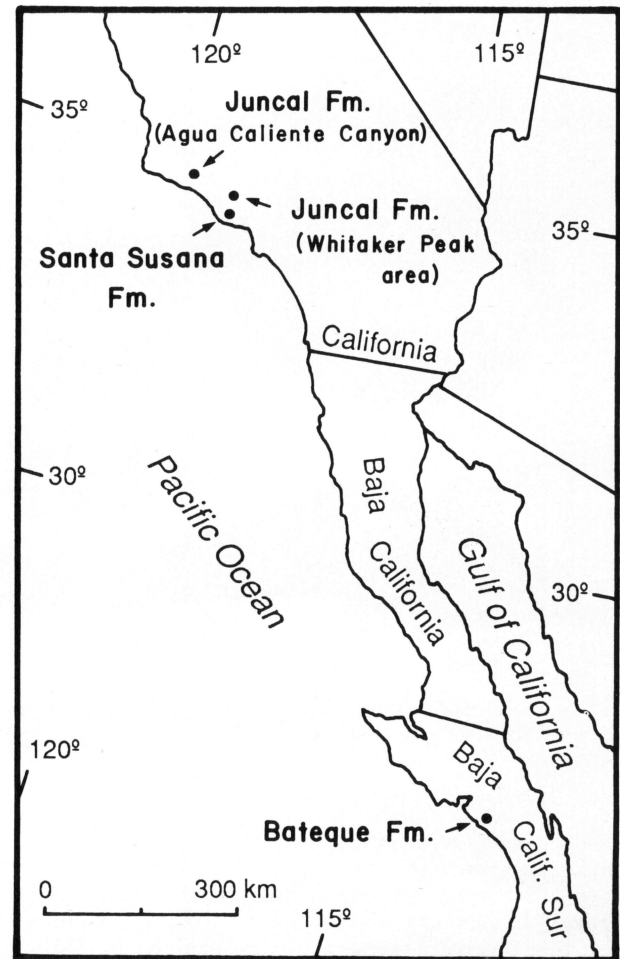


FIGURE 1—Stratigraphic occurrences of the new Paleogene fimbriids from the Pacific coast of southwestern North America.

SPECIES PREVIOUSLY ASSIGNED TO, BUT NOT BELONGING TO, *FIMBRIA*

- Corbis peninsularis* Anderson and Hanna (1935, p. 31, Pl. 10, fig. 1). Upper Cretaceous, midway between Ensenada and San Quintin, Baja California, Mexico. Work in progress by Saul (personal commun.) shows that this species, which has an ovate shape and no radial ribs, belongs in genus *Calva*.
- Fimbria* n. sp. Dawson (1978, p. 54–55, Pl. 1, figs. 15–17). Upper Cretaceous, Cabrillo Formation, Point Loma, San Diego, San Diego County, southern California. The elongate shell, very fine cancellate ornamentation, and dentition are similar to the tellinid *Palaeomoera dyskritos* Dailey and Popenoe (1966, p. 18–19, Pl. 5, figs. 1, 2, 5) from the Upper Cretaceous Jalama Formation, Santa Barbara County, southern California.
- Corbis mclellani* Hanna (1927, p. 283–284, Pl. 37, figs. 3–6). Middle Eocene, lower La Jolla Group, San Diego County, southern California. The very small size, subtrigonal shape, concave anterior dorsal margin, widely spaced commarginal ribs with very closely spaced radial striae, and dentition are characteristic of the cardiniid *Tellidorella*. *Tellidorella interlacina* Dockery (1982, p. 69, Pl. 20, figs. 9–10), from the lower Oligocene of Mississippi, is strikingly similar to Hanna's species.
- Corbis washingtoniana* Clark (1925, p. 90, Pl. 20, figs. 1–4, Pl. 21, figs. 1, 2; Weaver, 1943, p. 152–153, Pl. 37, figs. 1–3; Durham, 1944, p. 144). Upper Eocene, Marrowstone Shale,