

4 m.y. long may be indicated possibly with moderate depth waters for most of this time. The molluscan faunas suggesting moderate depth waters are more than 4 km south of the present Silverado Canyon, but to the north in the vicinity of the present Fremont Canyon, large late Campanian pachydiscid ammonites suggest water depths not shallower than those of the deeper shelf.

REFERENCES

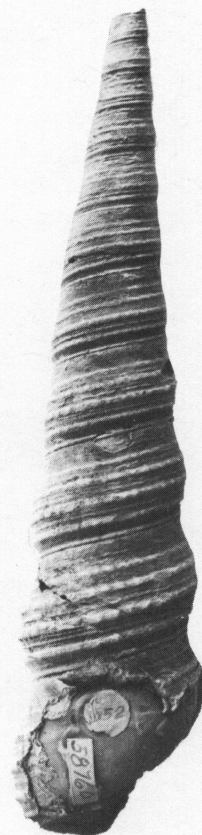
- JONES, D. L., SLITER, W. V., & POPENOE, W. P., 1978, Mid-Cretaceous (Albian to Turonian) biostratigraphy of Northern California. *Mus. d'Hist. Nat. Nice, Ann.*, v. IV-1976, p. XXII.1-XXII.13, 2 pl., 7 figs., 1 table.
- KOLLMANN, H. A., 1967, Die Gattung *Trochactaeon* in der osalpinen Oberkreide. Zur Phylogenie der Actaeonellidae. *Naturh. Mus. Wien, Ann.*, v. 71, p. 199-261, 9 taf., 7 abb.
- MATSUMOTO, Tatsuro, 1959, Zonation of the Upper Cretaceous in Japan. *Kyushu Univ. Mem. Fac. Sci., Ser. D, Geology*, v. 9, p. 55-93, pl. 6-11.
- _____, 1960, Upper Cretaceous ammonites of California, Pt. III. *Kyushu Univ. Fac. Sci. Mem., Ser. D, Geology, Sp. v. 2*, 204 p., 2 pl., 20 text-fig.
- MORTON, P. K., 1974, Geology and engineering geologic aspects of the south half of the Cañada Gobernadora Quadrangle, Orange County, California. *Calif. Div. Mines and Geology, Spec. Rept. 111*, 30 p., 1 pl., 2 figs.
- OBRAĐOVICH, J. D., & COBBAN, W. A., 1976, A time-scale for the Late Cretaceous of the Western Interior of North America. *Geol. Assoc. Canada, Spec. Paper 13*, p. 31-54.
- POPENOE, W. P., 1937, Upper Cretaceous Mollusca from Southern California. *Jour. Paleontology*, v. 11, p. 379-402, pl. 45-49.
- _____, 1942, Upper Cretaceous formations and faunas of Southern California. *Amer. Assoc. Petrol. Geol. Bull.*, v. 26, p. 162-187, 4 text-fig.
- SAUL, L. R., & POPENOE, W. P., 1962, *Meekia*, enigmatic Cretaceous pelecypod genus. *Univ. Calif. Pub. Geol. Sci.*, v. 40, p. 289-344, 6 pl.
- SAUL, L. R., 1974, Described or figured West Coast species of *Cymbophora*. *Jour. Paleontology*, v. 48, p. 1068-1095, 3 pl., 7 text-fig.
- _____, 1978, The North Pacific Cretaceous trigoniid genus *Yaadia*. *Univ. Calif. Publ. Geol. Sci.*, v. 119, 65 p., 12 pl., 20 text-fig., 12 tables.
- _____, in press, *Turritella* zonation across the Cretaceous-Tertiary boundary. *Univ. Calif. Publ. Geol. Sci.*
- STENZEL, H. B., 1971, Oysters. *Treatise on invertebrate paleontology*, Pt. N, Mollusca 6 (3), Bivalvia, R. C. Moore [ed.], p. N953-N1224, 153 fig.
- TANABE, Kazushige, 1979, Paleocological analysis of ammonoid assemblages in the Turonian *Seaphites* facies of Hokkaido, Japan. *Palaeontology*, v. 22, p. 609-630, 10 text-fig.



Turritella packardi
MERRIAM, 1941 x1.75
Early Campanian
A species, small in size,
that has been found only
low in the upper third of
the Holz Shale

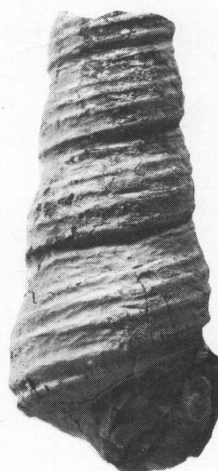


Turritella chicoensis
n. subsp. x2
Early Campanian
The common-to abundant
turritella in the upper
(but not uppermost) Holz
Shale



Turritella chicoensis
pscaderoensis ARNOLD,
1908 x1

Late Campanian
The subspecies associated with
Metaplacenticeras cf. *M. paci-*
ficum; common-to abundant at
several localities in the
Pleasants Member



Turritella chicoensis
GABB, 1864 x1
Mid Campanian
The species common-to abundant
in the uppermost Holz
Shale (lower Schulz Member of
Bottjer, Colburn, & Cooper,
this volume)