

SOURCES

1. Theyer and Hammond (1974), LaBrecque and others (1977)
2. Berggren and others (1985)
3. Blow (1969), Srinivasan and Kennett (1981), Keller (1983)
4. Martini (1971)
5. Bukry (1973, 1975), Okada and Bukry (1980)
6. Nigrini (1971), Riedel and Sanfilippo (1978)
7. Barron (1981, 1986)
8. Blake (in press), Warren (1980), Miller (1987)
9. Poore, Barron, and Addicott (1981)
10. Woodburne (1987)
11. Sarna-Wojcicki and Meyer, unpublished data (person. commun., 1990).
12. Haq and others (1987), adjusted to fit this time scale

REFERENCES

Barron, J.A., 1981, Late Cenozoic diatom biostratigraphy and paleoceanography of the middle-latitude eastern North Pacific, Deep Sea Drilling Project Leg 63, in Yeats, R.L., and Haq, B.U., eds., Initial reports of the Deep Sea Drilling Project: Washington, D.C., U.S. Government Printing Office, v. 63, p. 507-538.

_____, 1986, Updated diatom biostratigraphy for the Monterey Formation of California, in Casey, R.E., and Barron, J.E., eds., Siliceous microfossil and microplankton studies of the Monterey Formation and modern analogs: Los Angeles, Pacific Section, SEPM, v. 45, p. 105-119.

_____, 1989, The late Cenozoic stratigraphic record and hiatuses of the northeast Pacific; results from the Deep Sea Drilling Project [Chapter 15], in Winterer, E. L. Hussong, D.M., and Decker, R.W., eds., The eastern Pacific Ocean and Hawaii: Boulder, Colo., GSA, The Geology of North America, v. N, p. 311-322.

Berggren, W.A., Kent, D.V., Flynn, J.J., and Van Couvering, J.A., 1985, Cenozoic geochronology: GSA Bull., v. 96, p. 1407-1418.

Blake, G., in press, American Association of Petroleum Geologists Memoir.

Blow, W.H., 1969, Late middle Eocene to Recent planktonic foraminiferal biostratigraphy, in Bronnimann, R., and Renz, H.H., eds., Proceedings of the First International Conference on Planktonic Microfossils, Geneva, 1967, v. 1, Leiden, The Netherlands, E.J. Brill, p. 199-421.

Bukry, D., 1973, Low-latitude coccolith biostratigraphic zonation, in Edgar, N.T., and Saunders, J.B., eds., Initial reports of the Deep Sea Drilling Projects: Washington, D.C., U.S. Government Printing Office, v. 15, p. 685-703.

_____, 1975, Coccolith and silicoflagellate stratigraphy, northwestern Pacific Ocean, Deep Sea Drilling Project Leg 32, in Larson, R.L., and Moberly, eds., Initial reports of the Deep Sea Drilling Project: Washington, D.C., U.S. Government Printing Office, v. 32, p. 677-701.

Keller, G., 1983, The Paleogene/Neogene boundary in the equatorial Pacific Ocean, in Gelati, R., and Steininger, F., eds., In search of the Paleogene/Neogene boundary stratotype: Revista Italiana de Paleontologia e Stratigraphia: v. 89, pt. 2, no. 4, p. 529-555.

Haq, B.U., Hardenbol, Jan, and Vail, P.R., 1987, The new chronostratigraphic basis of Cenozoic and Mesozoic sea level cycles, in Ross, C.A., and Haman, D., eds., Timing and depositional history of eustatic sequences: constraints on seismic stratigraphy: Cushman Found. Foram. Res., Special Publ. 24, p. 7-13.

La Brecque, J.L., Kent, D.V., and Cande, S.C., 1977, Revised magnetic polarity time scale for the Late Cretaceous and Cenozoic time: Geology, v. 5, p. 330-335.

Martini, E., 1971, Standard Tertiary and Quaternary calcareous nannoplankton zonation, in Farinacci, A., ed., Proceedings of the Second Planktonic Conference: Roma, Edizioni Tecnoscienza, p. 739-785.

Miller, T.L., 1987, Early Neogene coccolith biostratigraphy of R.M. Kleinpell's original stratotype section-Reliz Canyon, Monterey County, California [abs.]: Abstract volume, 4th International Congress on Neogene Stratigraphy, July 29-31, 1987, Berkeley, California, p. 77-78.

Nigrini, C., 1971, Radiolarian zones in the Quaternary of the equatorial Pacific Ocean, in Funnell, B.M., and Riedel, W.R., eds., Micropaleontology of oceans: Cambridge, Cambridge Univ. Press, p. 443-461.

Okada, H., and Brkry, D., 1980, Supplementary modification and introduction of code numbers to the low-latitude coccolith biostratigraphic zonation [Bukry, 1973, 1975]: Marine Micropaleontology, v. 5, p. 321-325.

Poore, R.Z., Barron, J.A., and Addicott, W.O., 1981, Biochronology of the northern Pacific Miocene: Proceedings of IGCP 114 International Workshop on Pacific Neogene Biostratigraphy, 6th International Working Group Meeting, November 25-29, 1981, Osaka, Osaka Museum of Natural History, p. 91-98.

Riedel, W.R., and Sanfilippo, A., 1978, Stratigraphy and evolution of tropical Cenozoic radiolarians: Micropaleontology, v. 24, no. 1, p. 61-96.

Srinivasan, M.S., and Kennett, J.P., 1981, Neogene planktonic foraminiferal biostratigraphy an evolution; equatorial to subarctic South Pacific: Marine Micropaleontology, v. 6, p. 499-533.

Theyer, F., and Hammond, S.R., 1974, Paleomagnetic polarity sequence and radiolarian zones, Brunhes to Epoch 20: Earth and Planetary Science Letters, v. 22, p. 307-319.

Warren, A.D., 1980, Calcareous nannoplankton biostratigraphy of Cenozoic marine stages in California, in Kleinpell, R.M., the Miocene stratigraphy of California revisited: AAPG Studies in Geology, no. 11, p. 60-69.

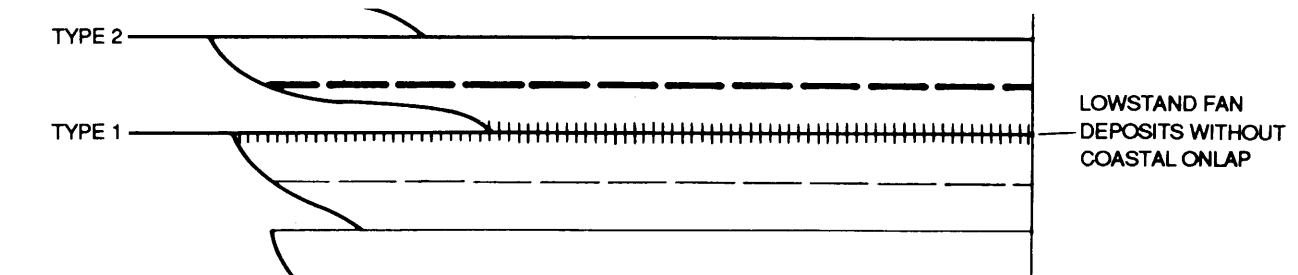
Woodburne, M.O., 1987, A prospectus of the North American mammal ages, in Woodburne, M.O., ed., Cenozoic mammals of North America: Berkeley, Univ. Calif. Press, p.285-290.

Note: This chart was designed to aid inter-basin correlation of Neogene strata for a current large-scale geologic mapping effort in southern California. It was assembled from published (or in press) information and is, of course, subject to change as new information becomes available.

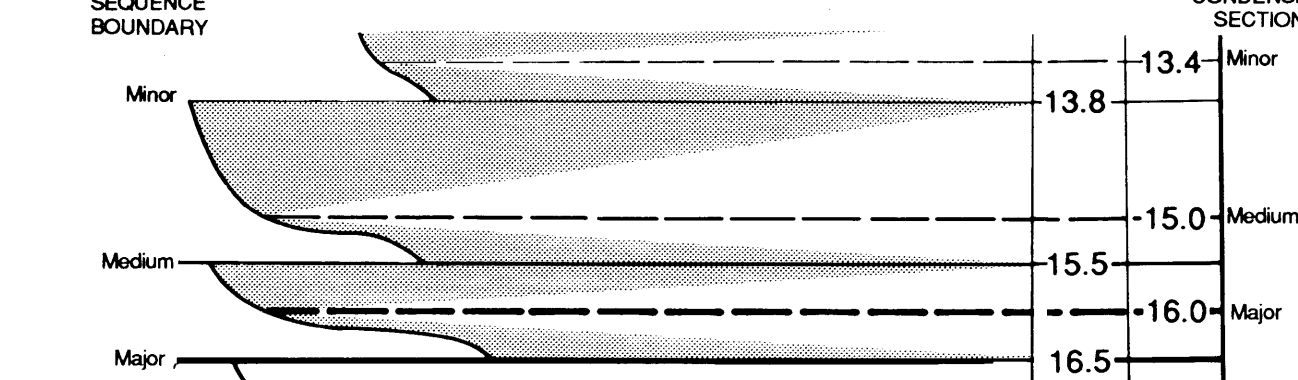
The standard tropical plankton zones are tied to the magnetostратigraphy (Barron, 1989). The benthic foraminiferal stages and the North American Mammal Ages are tied to the isotopic time scale; California molluscan stages are tied to the benthic foraminiferal stages. The sequence stratigraphy of Haq and others (1987) may have no applicability to the Neogene of tectonically active southern California, but was included for possible correlation with passive-margin Neogene sequences.

EXPLANATION

SEQUENCE BOUNDARY TYPES



KEY TO RELATIVE MAGNITUDE



NEOGENE TIME SCALE

Compiled by J. A. Bartow
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