

A NEW EDENTULOUS CETACEAN WITH SHORT, ARCHED ROSTRUM FROM
LATE OLIGOCENE ROCKS OF SANTA BARBARA COUNTY, CALIFORNIA

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A partial skeleton of a whale approximately 4 m long was collected from the Vaqueros Formation in foothills north of Goleta, California by G. H. Miller. Included is a partial rear skull with both squamosals, basi-, supra- and exoccipitals, periotics, an auditory bulla, supraorbital portion of frontal, parts of both maxillae, fragment of premaxilla, large ventrally curved mandibular ramus, seven free cervicals, 14+ dorsal vertebrae, scapula, ulna, radius and three phalanges. The specimen is *ca* Arikareean / Latest Oligocene in age.

The new species and genus of edentulous cetacean had a short, arched rostrum, a moderately long, flexible neck, and relatively large flippers. The skull is .52 m wide across the zygomatic processes of the squamosals. It is smaller than the smallest of the living rorquals, the Minke whale *Balaenoptera acutorostrata*.

The posterior end of the skull has a large, dorsally squared-off supraoccipital shield similar to some primitive mysticetes. The zygomatic process of the squamosal is large and dorsoanteriorly directed. The glenoid fossa faces ventrally more than anteriorly. The periotic has a flattened promontorium and anterior process, and a long posterior process wedged into the squamosal as in living mysticetes and unlike archaeocetes. The skull has a short, dorsoventrally curved rostrum, a wide supraorbital process of the frontal, and relatively few foramina and grooves on the palate. The auditory bulla is triangular, relatively thin, and has a relatively small involucrum - all features unlike living mysticetes but found in archaeocetes. The axis, but not the atlas, closely resembles that of archaeocetes. Some other superficial similarities are to *Cetotheriopsis* and *Caperea*. The posterior portion of the endocranial cavity shows the Masses annexes of Gervais, the posterior choroid plexus for a retial mass and other features found in *Llanocetus* and in living mysticetes. The specimen of Miller's whale has a wide mixture of archaeocete and mysticete cranial and postcranial anatomical characters.