

hemiclausula, *Pleurotoma turrifera*, *Scalaria funiculus*, *Trochus cineroides*, *Astarte obliquata*, *Tellina Benedeni*, which are all extinct. A few land and fresh-water mollusks have been met with in the deposit, including *Ancylus lacustris*, *Helix hispida*, *Limnæa palustris*, *Paludina media*, *Planorbis complanatus*, *Pupa muscorum*, *Succinea putris*, and *Corbicula fluminalis*.

Norwich Crag (Fluvio-marine or Mammaliferous Crag).—As above stated, it is impossible to draw any sharp line between the Red and the Norwich Crag. They

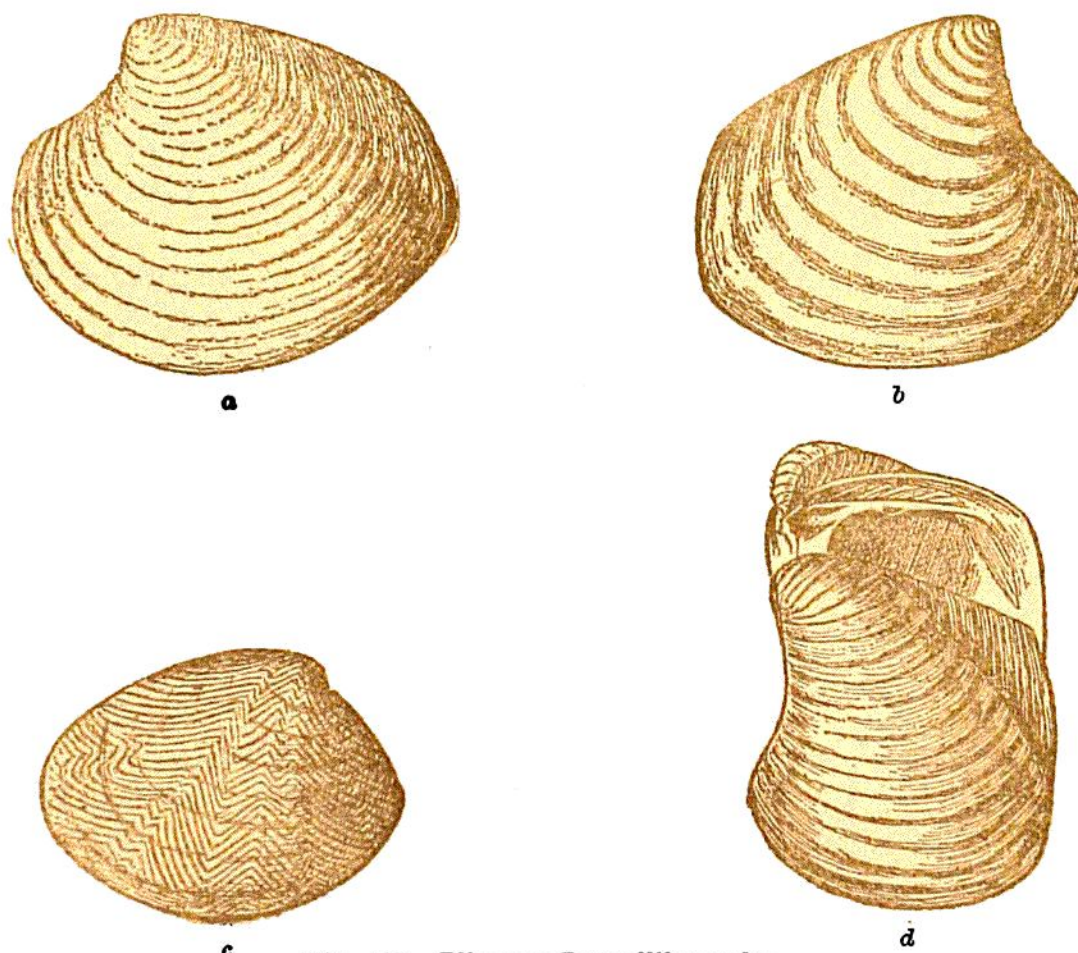


Fig. 449.—Pliocene Lamellibranchs.

*a*, *Astarte borealis*, Chemn. (living northern species); *b*, *Astarte Omalii*, Laj. (extinct); *c*, *Nucula Cobboldie*, Sow. (extinct); *d*, *Congeria subglobosa*, Partsch. (extinct) (3).

probably represent varying local conditions of sedimentation rather than different ages of deposit. The Norwich Crag consists of a few feet of shelly sand and gravel, containing, so far as known, 134 species of shells, of which 16 per cent are extinct. About 20 of the species are land or fresh-water shells. The name of "Mammaliferous" was given from the large number of bones, chiefly of extinct species of elephant, recovered from this deposit. The mammalian remains comprise both land and marine forms. Of the former are *Lutra*