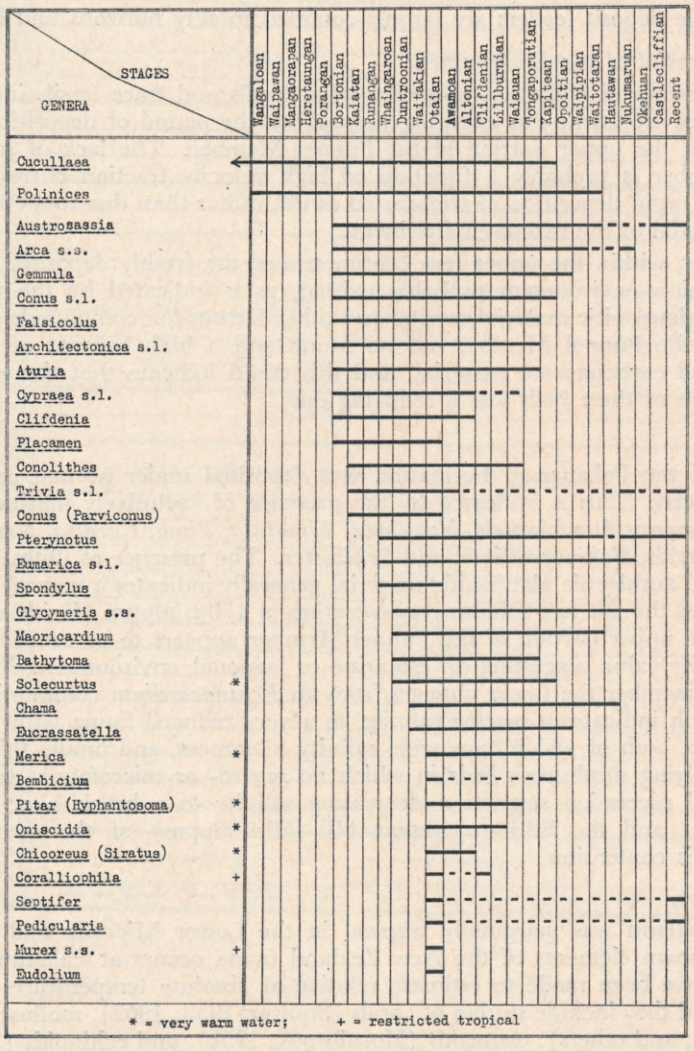
TABLE V.—Warm-water genera and their stratigraphic range (after Beu, 1966).



Trachyleberis clavigera and *Loxoconcha australis* are quite common in the Pakaurangi fauna and are at present restricted to areas of the North Queensland coast, New Caledonia, and the mid-Pacific islands. Stenothermal warm-water molluscs such as *Opella, Latirogona, Zeacuminia,* and many of the large pectinids, venerids, naticids, and volutids are endemic lower to middle Tertiary forms. Beu (1966) notes that . . . "The assemblage [at Pakaurangi] is by far the warmest known in New Zealand, but tropical genera are not abundant and the central tropical ornate Cymatiids, Cypraeids, Harpids, and Strombids are not known." Hermatypic corals are good temperature indicators, but only rare fragments are known from the Pakaurangi Formation in this area and in the coeval beds immediately south on Puketotara Peninsula (L. Carter, pers. comm.). They have also been recorded in strata of similar ages at Bushy Point, Hokianga, and Hicks Bay. Squires (1962) considers that the hermatypic genera (12) now known from the "Otaian" of Kaipara and Hokianga indicate that the reefs from which they were derived must have been of a substantial character. He has suggested that the assemblage can be correlated with