

age, stretches forty miles north-north-west of Kaitaia. At the northern end of this neck of land is the rugged North Cape block, where a sequence of igneous and sedimentary units are found that range in age from Cretaceous to Recent. The stratigraphy of the eastern part of this block is the subject of this report (Fig. 1).

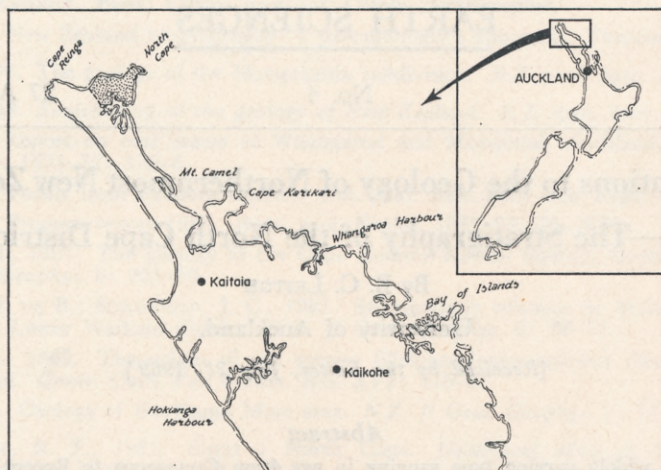


FIG. 1.—Locality map. The area shown in Fig. 2A is stippled.

PREVIOUS INVESTIGATIONS

The first recorded geological observations made in this region were those of Dieffenbach (1843), whose writings contain occasional references to the Tertiary rocks. Hector visited the area in 1866 and incorporated his findings in his 1869 map and in a note published in 1872. McKay (1894) presented a report accompanied by the first detailed geological map of the district, and Bell and Clarke undertook a brief reconnaissance of the geology in 1908 to corroborate the work they were undertaking in the Whangaroa Subdivision (Bell, 1909; Bell and Clarke, 1910).

Bartrum and Turner (1928) published the most authoritative account to date of the geology of northernmost New Zealand; their stratigraphic subdivision of the rocks is essentially the same as that recognised at present.

Short notes on specific aspects of the geology are those of Bartrum (1934) and Milligan (1961); other work has been concerned with the age (Hay, 1960; Bowen, 1965) and origin (Quennell and Hay, 1964) of the Cretaceous volcanics and with a regional study as part of the New Zealand 1: 250,000 mapping programme (Kear and Hay, 1961).

STRATIGRAPHY

A generalised stratigraphic column for the district is given in Table I and the distribution of the rocks is outlined on the geological map (Fig. 2A).

STRATIGRAPHIC NOMENCLATURE

The first local stratigraphic scheme for the North Cape district was tentatively put forward by Bell and Clarke (1910). The terms that they used are now considered to be those of time-stratigraphic nomenclature, and they were regarded as such by some later writers (Bartrum, 1934), although most of the original descriptions are those of rock units. Recent workers have generally changed the names from series to formation without attempting to formalise the terms or to examine their validity. In the present work some name changes were considered desirable