

Tairua. Third, the extensive and important area of auriferous country that from the northern inner part of the Whangamata Harbour extends south and south-west to Waihi and Waitekauri. The area of andesitic rocks on the east coast, between Boat Harbour and the neck of sandhills between the estuary of the Tairua and the sea, though separate and apart from it, may be regarded as part of the second area into which, for purposes of description, the group is here divided.

The northern area, which includes the typical name-giving locality, exhibits a series of rocks that consist mainly of volcanic ejectamenta that in greater part consist of fine or coarser breccias associated with ash and tufa beds that give evidence of having, within limited areas, been laid down under water, in marshes, lagoons, or lakes of limited extent; and sometimes, but very rarely, conglomerates, consisting of volcanic material, have been formed.

*Coromandel Area.*—The first or Coromandel area of the Kapanga group commences in the north at Stony Bay, and, like the Thames-Tokatea group, has at the northern extremity but a limited breadth of exposure, and like that is at first confined to the lower slopes of the eastern side of the main range. Gradually, as they are followed southward, the breadth of their exposure increases, and they rise towards the west on to the main range, till abreast of the head of Cabbage Bay these rocks cover up the slates and form the highest peaks of the main water-divide. In this part they also reach to the sea in Waikawau Bay, and are exposed over a width east and west of about three miles and a half. The slate area lying to the north-west of the head of Kennedy Bay causes a sudden restriction of the breadth of exposure on the east side, and the presence of rocks belonging to the Beeson's Island group, south of Cabbage Bay and east of the Umangawha River, reduces for a time the breadth over which the Kapanga rocks are exposed to about two miles, but within this narrower exposure they occupy the higher part of the main range. They continue along the higher part of the range south to the Triumph Mine, and for the first time reach the western shore line at Paparoa. Gradually descending the western slope of the Tokatea Range along the boundary-line already indicated as separating them from the rocks of the Thames-Tokatea group, the east boundary of the Kapanga group runs along the lower slopes of the Success Range, and for a short distance along the margin of the Kapanga Flat, south of which it is again continued along the lower slopes of the ridge of hills that to the westward flanks the Tiki Range, and finally follows the course of the Waiau River to the saddle leading into the Manaia watershed.

From Paparoa to the peninsula between Kikowhakarere Bay and Coromandel Harbour these rocks reach to and continue on the coast-line uninterruptedly till overlain in the eastern end of the peninsula indicated by rocks belonging to the Beeson's Island group, which, however, is but for a short distance.

On the shore of Coromandel Harbour these rocks appear wherever this is not backed by alluvial flats, which to a considerable extent is the case in the low grounds of Kapanga Flat and the alluvial stretch inland of the mouth of the Waiau River. The Kapanga rocks, however, underlie the alluvial deposits of the low grounds from Kevin's Point to Preece's Point, and beyond this to the Coromandel-Thames Road, at the eastern border of the slate area commencing on the south side of Coromandel Harbour. Thence the boundary runs south-south-east into the upper part of the Manaia watershed, beyond which these rocks have not been traced, and where they, as shown on the map, end somewhat abruptly, their extension in this direction not having been carefully defined. Everywhere these rocks form broken hilly country, more particularly between the main range and the sea coast from Paparoa to Coromandel.

Solid crystalline rocks are met with in the Cabbage Bay district towards the western margin of the area, and between Kikowhakarere Bay and the next to the north, and at the western base of Dacre's Hill; in Scotty's Hill, within the Kapanga Claim, and in the hills between the Kapanga Mine and Kikowhakarere Bay; in Preece's Point Peninsula and at the foot of the Tiki spur. These are mostly dark-grey augite andesites, but light-grey rocks of a more felspathic type are found in the Kathleen Crown Claim. These latter, however, appear to be dyke-rocks, and should be regarded as belonging to the period of the Beeson's Island group. On the eastern slope of the Cabbage Bay Range, in the low level of the Bay View Mine, are thick bands of crystallised felspar rock that have been mistaken for limestone, while on the opposite western slope of the range dark augitic andesites are met with close down to the junction of these rocks with the slates.

While such rocks are not of infrequent occurrence, the great bulk and characteristic rocks of the group consist of coarser material than is usually met with in the Thames-Tokatea group. This may be light-grey or greenish in colour; sometimes it is dark-green and contains large boulders of augite andesite, as, for instance, on the road from Cabbage Bay to Port Charles. The breccia beds are usually of moderately fine grain and grey in colour on the Cabbage Bay Range, as is also the case on the northern end of the Tokatea Range. On the coast-line at Paparoa the breccias showing in the sea-cliffs are of a coarse description, blocks more than 2 ft. in diameter being of common occurrence. On the southern headland of the next bay to the south they are of a finer description, and over a considerable breadth may be described as a stratified tufaceous sandstone. On both sides of Kikowhakarere Bay moderately coarse breccias are seen, and in Dacre's Hill the material of the breccias increases in size till it is nearly as coarse as at Paparoa. These coarse breccias extend through the Blagrove Claim to the hill-slopes descending to the Kapanga near the Upper Township. Moderately fine-grained breccias and ash beds are, however, the prevailing rock from Preece's Point northwards, and this it is that is usually considered the most favourable for the occurrence of quartz reefs carrying gold. South of the mouth of the Waiau River the rocks are of a varying grain, often coarse breccias of dark colour, and do not very closely resemble the rocks of the typical locality. Tufaceous sedimentary beds and traces of coal occur at several localities.

In the Waiau Valley thin streaks of coal occur with tufaceous clays associated with conglomerates formed of rolled fragments of volcanic rock, the whole resting on slate. These might be regarded as the oldest and lowest beds belonging to the group, but this is doubtful, as other rocks of a different type are also found resting on the Thames-Tokatea rocks, or the slates farther