

patches about their shores, although affording long lines of coast for their growth. In the China Seas there are numerous shoals, banks, and island reefs of coral. Moreover, shore reefs occur about Loochoo, and the islands between it and Formosa. But the whole eastern coast of China appears to be without coral. Quelpaert's Island, south of Corea, in  $34^{\circ}$  N., is described as having coral about it; and this has been confirmed by late information.

Why should the reefs of the East India Archipelago be so limited in extent, and large parts be almost destitute, notwithstanding their situation in the warmest seas of the ocean and in the most favourable region for tropical productions? We are not prepared for a full answer to this inquiry; for it would demand a thorough knowledge of the shores, as well as of the currents, and of the former and present condition of volcanic fires. From personal observation we may reply satisfactorily as far as regards part of the southern half of the east coast of Sumatra. This coast is low and sandy, or muddy, and thus affords the most unfavourable place for zoöphytes. A strong current sweeps through the Straits of Banka, which keeps the water muddy, and the shores in constant change. The same cause may operate on the coasts of other islands, but we cannot say to what extent.

The East Indies have been remarkable for their volcanoes, exceeding, for the area, every other part of the world; and this fact must have had influence on the formation of coral reefs, though there are not data for fixing the extent of the influence. Of the thousand vents which have been in action, several still make themselves felt over wide areas. The Sooloo Islands are about one hundred in number, and nearly all are pointed with volcanic cones; and while some have the broken declivities that are marks of age, others have regular slopes, as if but just now extinguished; a dozen of these cones may sometimes be seen on a single island. These volcanic peaks often rise out of the sea, as if their formation had begun with a submarine eruption. In a region so extensively and so recently igneous, the coral polyps would have found little chance for growth, until