

islands; and through all these regions no evidence was obtained of corals living at a greater depth than fifteen or twenty fathoms. Within the reefs west of Viti Lebu and Vanua Lebu, the anchor of the *Peacock* was dropped sixty times in water from twelve to twenty-four fathoms deep, and in no case struck among growing corals; it usually sunk into a muddy or sandy bottom. Patches of reef were encountered at times, but they were at a less depth than twelve fathoms. By means of a drag, occasionally dropped in the same channels, some fleshy *Alcyonia* and a few Hydroids were brought up, but no reef-forming species.

Outside of the reef of Upolu, corals were seen by the writer growing in twelve fathoms. Lieutenant Emmons brought up with a boat-anchor a large *Dendrophyllia* from a depth of fourteen and a half fathoms at the Feejees; and this species was afterwards found near the surface. But *Dendrophyllia*, it may be remembered, is one of the deep-water genera.

These facts, it may be said, are only negative, as the sounding-lead, especially in the manner it is thrown in surveys, would fail of giving decisive results. The character of a growing coral bed is so strongly marked in its uneven surface, its deep holes and many entangling stems, to the vexation of the surveyor, that in general the danger of mistake is small. But allowing uncertainty as great as supposed, there can be little doubt after so numerous observations over so extended regions of reefs.

The depth of the water in harbours and about shores where there is no coral, confirms the view here presented. At Upolu, the depth of the harbours varies generally from twelve to twenty fathoms. On the south side of this island, off Falealili, one hundred yards from the rocky shores, Lieutenant Perry found bare rocks in eighteen and nineteen fathoms, with no evidence of coral. There is no cause here which will explain the absence of coral, except the depth of water; for corals and coral reefs abound on most other parts of Upolu. Below Falelatai, of the same island, an equal depth was found, with no coral. Off the east cape of Falifa harbour, on the north