

broad disks in the spaces among the other kinds. Many of the species may be gathered from the shallow pools about the reefs. But with a native canoe, and a Feejee to paddle and dive, the scenes in the deeper waters may not only be enjoyed, but boat-loads of the beautiful corals be easily secured.

The Hawaiian Islands, in the North Pacific, between the latitudes 19° and 22° , are outside of the torrid zone of oceanic temperature, in the *subtorrid*, and the corals are consequently less luxuriant and much fewer in species. There are no Madreporæ, and but few of the *Astræa* and *Fungia* tribes; while there is a profusion of corals of the hardier genera, *Porites* and *Pocilliporæ*.

The genera of corals occurring in the East Indies and Red Sea are mainly the same as in the Central Pacific; and the same also occur on the coast of Zanzibar.

To the eastward of the Pacific coral islands, the Paumotus, which are within the limits of the torrid region, the variety of species and genera is large, but less so than to the westward. Special facts respecting this sea have not been obtained. The author's observations were confined to the groups of islands farther west, the department of corals having been in the hands of another during the earlier part of the cruise of the Government Expedition with which he was connected.

The Gulf of Panama and the neighbouring seas, north to the extremity of the California peninsula and south to Guayaquil, lie within the *torrid* region; but in the cooler part of it. The species have throughout a Pacific character, and nothing of the West Indian; but they are few in number, and are much restricted in genera. There are none, yet known, of the *Astræacea*, and no Madreporæ. Prof. Verrill, through the study of collections made by F. H. Bradley and others, has observed that there are, near Panama, a few species of *Porites* and *Dendrophylliæ*, a *Stephanaria* (near Pavonia), two species of *Pocilliporæ*, two of *Pavoniæ*, one of them very large and named *P. gigantea* V., several *Astrangids*, and a few other small species, besides a large variety under the *Gorgonia* tribe. At La Paz, on the California peninsula at the entrance