## CONTRASTS IN NATURE)))))))))

EXTREMES of climate are not usually found placed side by side. If you have a hot and dry desert restricted to vegetation that loves arid country, you do not find a cold and intensely wet dense forest within five miles of it, on the same plane. Such contrasts do not exist horizontally, but they do exist vertically. If your five miles of travel be upward and not merely horizontal or sideways, you can enter at noon a climate diametrically opposite to the climate you quitted at dawn. In few cases is this fact illustrated so amazingly as in the Cloud Forest of the San Juancito mountains, in tropical Honduras, Central America.

The Cloud Forest looks directly down a hot, arid valley as remote (in climate) from the Cloud Forest as the Equator is from the Pole.

From the cold shade of a forest ledge the traveller looks down a steep canyon side "to an arid land of acacias and cacti." In the evening "the temperature drops into the low forties-can this be the tropics in July?" And higher up in the Cloud Forest it is still colder.

The quoted sentences are from C. Brooke Worth's article in "Bird Lore" on his Honduras wanderings. The clouds of the Cloud Forest are formed, in intense wetness, on the mountain ridges where meet the air-currents of two oceans-the Pacific and the Atlantic, or the Caribbean branch of the Atlantic. masses of vapour are condensed, drenching the jungle with cold torrents of water, or penetrating the saturated jungle-depths as an even more frigid fog. My shoes squish on the rotting floor of the jungle. Gushing streams spring from the ground as from a sponge, to cascade down the mountain and evaporate in the desert below." For, however much the Cloud Forest above drinks from the atmosphere, the desert below remains hot and thirsty. So near, and vet so different!

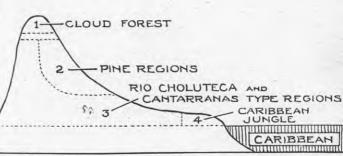
The "mass of verdure" in the Cloud Forest is thus described: "Everything grew on top of everything else, one tree or plant pulling down the other and constantly sending up new shoots which scrambled over the wreckage of that which had fallen."

PACIFIC

Now compare this with a passage from our famous New Zealand botanist Cockayne: "The New Zealand forest as a whole differs greatly from nearly all forests of the Temperate Zones, in so much as it comes into the same class as that type of tropical lands known as rain forest. ... That complex of conditions induced by the forest itself is manifest in the life-forms-shrubs which, in the open, would be rounded and symmetrical, or extremely dense, put forth long, slender stems; and saplings have often much reduced branches and long main stems, or they may mimic scrambling leaves. In short, the forest exhibits extreme luxuriance of growth, and Nature, as it were, runs riot."

In those last seven words the late Dr. Cockayne sums up the vegetative vitality of our rain-forest, and shows that it compares in principle, if not in detail, with the riot of Nature in the Cloud Forest of San Juancito. Therefore much of what C. Brooke Worth writes in "Bird Lore" will appeal to a New Zealand reader, although we cannot look down from our mountain ledges on "arid land of acacias and cacti." But we can look down from our rainforest on many rich contrasts offered by the lower lands. We can look upward, too, and note the contrasts of the tussock lands and the mountain meadows. Our Cloud Forests - for cloud is a thing to which New Zealand mountains are well accustomed, both below the bushline and above-are rich and wonderful, as Cockayne has shown.

But how many New Zealanders read Cockayne; and who shall take up Cockayne's work of instruction?



ZONAL DISTINCTIONS IN HONDURAS. The lower belt of the cloud forest may be subdivided into a region of second growth. Notice the much steeper gradient and lack of coastal jungles on the Pacific side.