

deep, is an islet 3 or 4 miles in diameter and only about 100 feet high; there is a narrow border of buffs along the northern shore, thus forming an exception to the other islands, which are mountainous and rise in successive slopes to the culminating point near the centre. Here the vegetation largely consists of bush and scrubby trees 8 to 15 feet high, with many agaves on the sandy southern end.

South-east of Maria Madre, and separated by a shallow channel 8 miles wide, is Maria Magdalena, roughly triangular in outline, and 7 or 8 miles across, rising in the centre to an altitude of about 1500 feet; south-east again lies Maria Cleofa, the last of the group. In shape it is irregularly rounded, and about 3 miles in diameter; the altitude is apparently much less than 1320 feet, as recorded on the charts. The channel between the two last named islands is about 12 miles wide and much deeper than the others. Maria Magdalena and Maria Cleofa have a central mountainous elevation from which cañons descend in all directions to the sea.

The north-eastern points of both islands are low, flat, sandy areas of limited extent, while the western faces are rocky and precipitous. Permanent fresh water is very scarce on all the islands.

When visited near the end of the long dry season in May 1897, most of the herbaceous plants were withered. The general appearance of the vegetation was, however, the same as in similar situations on the mainland. The most noticeable plants were Spanish cedar (*Cedrela*), 3 species of wild fig, 2 of *Pithecolobium*, 5 of *Solanum*, 2 of *Ipomœa*, a *Passiflora*, Cassias, Euphorbias, a large *Agave*, a large *Cereus*, and 2 *Opuntias*.

The following is a summary of the species of animals and plants known from the Tres Marias in 1897, as quoted by Mr. Nelson:—Land mammals, 11 (7 peculiar); birds, 83 (24 peculiar); reptiles, 18 (1 peculiar); freshwater fish, 2; freshwater shrimp, 1; land molluscs, 6; plants, 136 (12 peculiar). Two species of bats found by Forrer were not met with by Mr. Nelson, and he was of opinion that both were stragglers from the mainland.

The relative situation of this group of islands, all with narrow, shallow channels between them, shows conclusively that at one time they formed a single island at least 45 or 50 miles long, and at a still earlier stage they must have been connected with the mainland. One of the strongest proofs of this former connection is shown by the correspondence between the fauna and flora. The breaking down of the original island into several smaller ones and the continuous encroachment of the sea appear to indicate that the subsidence is still in progress. The mainland in Tepic near the coast was within a comparatively recent period the scene of great volcanic activity, and the Tres Marias Islands bear evidence of having undergone various oscillations, while the marine deposits of Maria Madre are further indications of the recent change.