

## SUBLITTORAL FEATURES.

A shallow platform that has a minimum width of 4 kilometers extends along the shore line of the Artibonite Plain. The 20-fathom line at the outer edge of the platform is indented off Gonaïves Bay, but the head of this indentation is 11 kilometers from the head of the bay. The outer edge of the platform extends almost due southward from the head of this indentation to Pointe Diable, and the platform gradually narrows southward.

## MONTAGNES DU TROU D'EAU.

## NAME AND EXTENT.

The mountains on the north side of the Cul-de-Sac Plain and Étang Saumâtre are here called the Montagnes du Trou d'Eau. The name is derived from Morne Trou d'Eau, a conspicuous peak northeast of Thomazeau.

The Montagnes du Trou d'Eau lie between the Artibonite Valley and the Cul-de-Sac Plain, but near the Dominican border they merge into the eastward extension of the Montagnes Noires, forming the Sierra de Neiba of the Dominican Republic. From the Dominican border the Montagnes du Trou d'Eau trend about N. 70° W., but as they approach the sea their trend changes to N. 50° W., and although the mountains are continuous this part of the range is known as the Chaîne des Mateux. The length of the Montagnes du Trou d'Eau is about 50 kilometers. Their maximum width at the eastern end is 18 kilometers, but along the road from Port-au-Prince to Mirebalais their width is 8 kilometers.

## SURFACE FEATURES.

## EASTERN PART.

From the Dominican border westward to Morne Trou d'Eau the surface rock is limestone. Basaltic volcanic rocks, which underlie the limestone, are exposed in some of the deep ravines on the north and south slopes of the mountains. Near Morne Trou d'Eau the mountains form a single range, the crest of which is close to the southern margin, overlooking the Cul-de-Sac Plain. Farther east the mountains are wider and are not clearly aligned in ranges.

Rounded spurs project from the mountains down to the edge of the plain, but the upper slopes are more rugged. Deep ravines gash the mountain front, but no through-flowing surface streams enter the plain from these mountains. Morne Trou d'Eau, which has an altitude of 1,385 meters above sea level as determined trigonometrically by the Service des Levés Topographiques, is the highest peak on the south side of the mountains. As seen from the plain its crest is rounded, but cliffy slopes lead down to a deep ravine, which severs it from the mountains

farther east. The trail from Thomazeau to Cornillon crosses the divide at the head of this ravine at an altitude of 820 meters above sea level.

The most striking surface features of the mountains northeast of Morne Trou d'Eau are due to solution of the limestone and to underground drainage. The village of Cornillon stands in a deep, narrow, flat-floored valley that has no surface outlet. At Cornillon the valley trends about N. 70° W. The valley drains eastward and westward toward the village, and during the rainy season surface water collects on the residual clay that forms the valley floor. The walls of the valley are steep and are scarred by cliffs. From the crest of the ridge on the south side of the valley a similar but wider depression that has no surface outlet is visible on the north side of the ridge that towers above Étang Saumâtre. The trail from Cornillon to St.-Pierre passes along the north side of another narrow depression that has no surface outlet. The floor of this depression is pitted by small basins, which probably coincide with the course of an underground stream. Near St.-Pierre and to the north, toward Savanette, the valleys are wide and the ridges more subdued. Cornillon has an altitude of 925 meters above sea level. Morne Napipe, the crest of a prominent ridge northwest of St.-Pierre, rises to an altitude of 1,520 meters above sea level, as determined trigonometrically by the Service des Levés Topographiques.

The trail from Cornillon to Mirebalais ascends a steep slope of bare, jagged limestone to the crest of a spur and crosses the divide at an altitude of 1,150 meters above sea level. At an altitude of 800 meters above sea level it plunges down a steep dip slope of limestone onto a gently sloping spur of folded detrital rocks that leads down into the valley of Rivière Gascoyne. This spur and similar spurs to the east and west are much more intricately dissected than the main mountain mass. The spurs are separated by deep ravines that contain running water.

#### WESTERN PART.

From Morne Trou d'Eau westward to the eastern end of the Chaîne des Mateux the Montagnes du Trou d'Eau comprise a single narrow range that is not so high as the mountains farther east. The road from Port-au-Prince to Mirebalais approaches the mountains along a ravine but in a short distance leaves the ravine and ascends the steep slope of Morne à Cabrits to an altitude of 620 meters above sea level. It then descends into the same ravine at Fond-Diable. The steep grade on Morne à Cabrits might be avoided by constructing a road along the ravine, but the lower part of the ravine is very narrow and steep-walled. Morne Terre-Rouge, the crest of the range north of Fond-Diable, has an altitude of 880 meters above sea level, as determined trigonometrically by the Service des Levés Topographiques. Morne des Crochus, whose altitude is 1,170 meters, is the highest peak in the western part of the Montagnes du Trou d'Eau.

## DRAINAGE.

The Montagnes du Trou d'Eau are deficient in surface streams. The underground drainage in the eastern part is described on page 390. In the western part surface drainage is more clearly established, and deep ravines, which are dry during most of the year, drain northward and southward from the crest. Parts of the courses of these ravines are parallel to the strike of the rocks.

## CHAÎNE DES MATEUX.

## NAME AND EXTENT.

The mountains that extend southeastward from St.-Marc toward the Cul-de-Sac Plain are here called the Chaîne des Mateux, from the name generally given to their central part. As the mountains approach the Cul-de-Sac Plain their trend veers eastward, and beyond this turn the range is called the Montagnes du Trou d'Eau. The Chaîne des Mateux lies between the Artibonite Plain and the St.-Marc Canal. Its length is 75 kilometers and its average width 20 kilometers.

## GENERAL FEATURES.

The trend of the mountain mass and of many of the surface features is about N. 50° W., parallel to the structural trend. Limestones are the surface rocks in the interior mountains, and younger limestone and detrital rocks underlie foothills on the flanks of the range. Basaltic volcanic rocks are exposed on the north slope of the mountains near Saut d'Eau.

The hills inclosing St.-Marc Bay, which may be called the Mornes de St.-Marc, and the narrow coastal plain at l'Arcahaie are included in the Chaîne des Mateux, but as they have entirely different features they are described under separate headings.

## LAND FEATURES.

## CHAÎNE DES MATEUX PROPER.

The Chaîne des Mateux proper has an average altitude of 1,200 to 1,300 meters above sea level. Morne Batiste, the highest summit, rises to an estimated altitude of 1,575 meters above sea level. The chain includes several ranges and many isolated mountains. Rivière Mont Rouis flows almost due westward across the northern part of the chain and divides it into two ranges. The mountains on the north side of Rivière Mont Rouis overlooking the Artibonite Plain are frequently called the Montagnes des Verrettes. The valley of Rivière Mont Rouis is very deep and its slopes are broken by high cliffs. The mountains slope abruptly northeastward to the Artibonite Plain and southwestward to