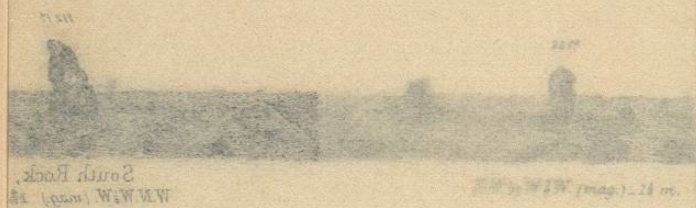
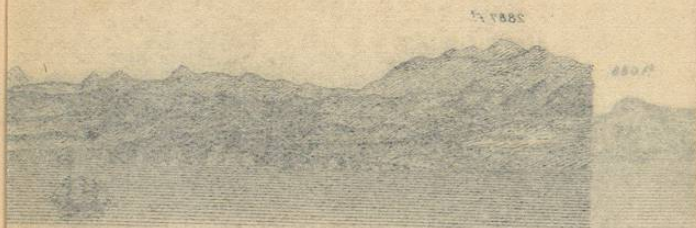


Island, from the Westward



Al



Cape P

PART II.

GULF OF CALIFORNIA—EAST COAST OF THE PENINSULA OF LOWER CALIFORNIA—GENERAL DESCRIPTION, WINDS, WEATHER, CURRENTS, &c.

The east coast of the peninsula of Lower California, bordering on the gulf, from Cape San Lucas to the mouth of the Colorado River, is, with few exceptions, high and precipitous, the mountains rising abruptly back of it. General description.

Off the coast there are numerous islands, a description of which will be given hereafter, with navigable channels between them and the main land.

The depth of water near the east or gulf coast of the peninsula is generally much greater than it is near the western or Pacific coast; but there are many places where vessels may anchor and find protection from the prevailing winds.

The coast and islands near it are generally barren, but there are some exceptions, among which are San Josef Island, and the vicinity of Loreto and Mulege, on the gulf coast, and the vicinity of San Lucas Bay and the Valley of San José del Cabo, at the southern extremity of the peninsula.

The prevailing winds in the Gulf of California, from November to May, are from the north-west; during the remainder of the year south-east winds prevail. In the upper portion of the gulf moderate north-west gales are frequently experienced during the months of December, January, and February. They generally last from two to three days. During the rainy season, or from May to November, south-easterly gales may be expected at any time in the lower part of the gulf. Occasionally (usually with an interval of several years between them) a local hurricane or cyclone, known as *El Cordonazo*, blows with great violence; these occur at about the end of the rainy season, always blowing from Winds.

El Cordonazo.

south-east to south-west, and are of short duration but tremendous force, and are accompanied by much lightning.

Weather.

During the greater part of the year the weather along the coast is fair and pleasant, the heat of the day during the summer months being made tolerable by the succeeding cool nights. The scarcity of rain is compensated for, in some measure, by frequent heavy dews. During the winter months the north-west winds passing over the snow-covered peaks of the Calamahue Mountains cause a quite low temperature in the northern part of the gulf.

Although the rainy season is said to be from May to November, but little rain falls during that period on the peninsula of Lower California, and the land is for the most part dry and hot. Unlike the eastern or Mexican coast of the gulf in this respect, the rains, except in the southern part of the peninsula, occur mostly in the winter months. Summer rains are almost unknown north of Carmen Island.

Extract from
work of M. Duflot
de Mofras.

The following, taken from the work (published in 1844) of M. Duflot de Mofras, attaché of the French legation at Mexico, may prove valuable to the navigator:

"The year is divided into the dry and rainy seasons, the changes of which occur at variable periods. During the dry season the weather is always fine, the winds blowing regularly during the day from north-west to west, following the direction of the coast; they are replaced at night by a light breeze off the land or by calms.

"The rainy season, which commences in June, is at first indicated by calms and light showers of rain. As the season advances the showers become heavier, and, instead of occurring only at night, they commence in the afternoon and terminate in very violent tempests, accompanied by thunder and lightning and violent winds from all points of the compass. This weather continues until the end of September, and it often happens that the season terminates with a violent hurricane, that usually occurs between the 1st and 5th of October, the feast days of St. Francis.

"These hurricanes, which always blow from SE. to SW., are of short duration, but are of such violence and raise such a tremendous sea that nothing can withstand them. They are known in the country as *Los Cordonazos de San Francisco*. A vessel surprised by them in a roadstead is liable to founder at her anchors, or, breaking from her

moorings, be driven ashore. At the approach of the cordonazo the offing should be run for, or, if obliged to remain in the roadstead, an anchorage should be chosen where it will be easy to get under way at the first sign of the tempest's striking."

Although usually occurring about the 1st of October, these tempests have been experienced as late as the 1st of November, a fact which it is well to remember.

The currents in the middle of the gulf set to the south-eastward; they are of very little strength and are greatly influenced by the tides. Along the western shore the current, when uninfluenced by the tide, sets to the north-westward, but is so slight as to be hardly perceptible. Off Cape San Lucas the current sets to the eastward. The *Narragansett* experienced quite a strong easterly current off the southern extremity of the peninsula. The tides ebb and flow regularly along the coast, but their strength and direction depend greatly on the prevailing wind; the tidal currents increase in strength toward the head of the gulf; at the mouth of the Colorado River they frequently run at a rate of 5 to 6 knots per hour.

Currents.

According to J. Ross Browne, "Nearly every species and variety of edible fish found in the waters of the Mediterranean, or on the coasts of Europe, the West Indies, Atlantic North America, or Chili, are found in the waters of Lower California in greater abundance than elsewhere. Their numbers are not only incredible, but many of them are of extraordinary beauty and brilliancy of color. The missionary and discovery writers bear invariable testimony to this feature of the animal life of California.

Fish.

"*Sword-fish* of immense size are found in the waters of the gulf; they have been known to attack vessels and leave their swords in the timbers.

"A singular fish found in these waters is the *boeops ochione*, or bull's-eye; it seems to be a species of sun-fish and has only *one* large eye, about the size of a bullock's, set in the center of the upper part of the body.

"*Sharks* of several species abound in every bay and harbor; among them are the thresher and the hammer-headed shark. Some of the sharks of the upper gulf waters are said to be as large as middling-sized California whales and to weigh over 1,000 pounds. They are called *Tiburones*

and reach a length of 30 feet; they are very ferocious and are much dreaded by pearl-divers, boatmen, and fishermen.

Manta raya.

"The *Manta raya*, a species of ray, is an immense brute of enormous strength, cunning and ferocity, and is more the terror of the pearl-divers than any other creature of the sea."

When at anchor off La Paz, one of these monsters was captured after hard work for hours in harpooning and lancing it. During the struggle it exhibited enormous strength, pulling a boat fully manned after it at immense speed.

It measured 17 feet in width, 11 feet in length, exclusive of tail (which was armed with a spine), and over 3 feet in thickness at the middle. Its mouth, armed with formidable jaws (no teeth), measured 26 inches across, occupying the space between two singularly-shaped flaps, projecting from its head like horns. Its weight was estimated at 3,000 pounds. It seems identical with the horned ray, sometimes called a *sea devil*, of the Mediterranean.

Octopod.

Another inhabitant of these waters is the Octopod, or great squid (devil-fish), a gigantic mollusk, that is found in the rocky cavities along the shore, particularly in localities sheltered from the surf, where it lies quietly among the seaweeds watching for its prey. Its arms, which are furnished with flat disks or suckers, are from 10 to 20 feet in length. With these arms it seizes, envelopes, and smothers its prey, which it afterwards devours at its leisure with its sharp, formidable bill.

Red water.

A very curious phenomenon in the waters of the gulf is the existence of extensive patches of red-colored water. This was noted by the earliest Spanish navigators, who at one time named the gulf "El Mar Vermejo," the vermilion sea. It is believed that the first investigation and description of this phenomenon was by Assistant Surgeon Thomas H. Streets, U. S. N., of the U. S. S. *Narragansett*, in 1875. (See *American Naturalist*, February, 1878.) He makes a distinction between the vermilion patches of the mouth of the gulf and the brick-colored and corrosive waters of certain portions of the upper gulf. The former he assigns to the presence of countless numbers of *ciliate infusoria* suspended some distance *below the surface* of the water; the latter to the presence of great numbers of *flagellate infusorium*, the common *noctiluca miliaris*, floating *on the surface* of the water, giving it a milky red color.

CHAPTER I.

THE COAST AND ISLANDS FROM CAPE SAN LUCAS TO THE NORTHERN END OF SAN JOSEF ISLAND, INCLUDING SAN JOSEF CHANNEL.

Cabeza Ballena is a perpendicular rocky point of dark lead color from 50 to 75 feet high, with numerous detached rocks lying off it. Immediately back of the point a range of hills, one of the spurs of the Sierra de la Victoria, rises to a height of over 1,000 feet. A rocky formation, the same as that of Cabeza Ballena, extends 2 miles to the westward of it, where it joins the steep sand beach of San Lucas Bay, which has already been described.

From Cabeza Ballena the coast for 4 miles to the north-eastward is generally rocky and of moderate height; thence it recedes somewhat, and for a distance of 2½ miles is low and sandy, sloping gradually to a mountain range a short distance inland, called the Sierra de San Lazaro. Near the south-western end of this sand beach are an arroyo and several ranches. After passing the strip of sand the coast is of rocky formation as far as Palmia Point. Near the point and within half a mile of the beach is the Cerro Colorado, 502 feet high, and of *red sandstone*. It is an excellent landmark, being the only formation of the kind between Cape San Lucas and San José Bay.

Palmia Point is the south-western extremity of San José Bay, and is a low, bluff, rocky point, with numerous detached rocks close to. It is backed, at a distance of 3 cables from the point, by a mound 353 feet high. The soundings off this part of the coast showed over 100 fathoms at a distance of 1½ miles.

San José del Cabo Bay is an open bay formed by an indentation in the coast line between Palmia and Gorda Points. The shore of the bay consists of steep sand beaches, with rocky patches at either end, that toward Palmia Point being the most extensive. A short distance inland are mod-