



Appendix 1.

Geographic description of the Gulf of California seamounts

From Loreto Bay southwards to the Bay of La Paz there are at least 11 underwater peaks and promontories sufficiently removed from the coastline as to be considered true seamounts. Most of them are entirely submerged and are not visible from the surface; a few emerge forming islets and rocky outcrops. Geologically, the latter are practically identical to the submerged seamounts, only differing in the presence of a small rocky tip. It is likely that as sea levels descended during Pleistocene glaciations many of the seamounts that are currently submerged were also partially emerged forming similar rocky islets. Following the line of the coast from Carmen Island in Loreto Bay to Cerralvo Island south of the Bay of La Paz, the seamounts form the following list:

1. *Bajo El Cochi (or Bajo de Punta Baja; 25°45'N, 111°11'W)*. Located some 4 nautical miles south Punta Baja, the southernmost tip of Carmen Island, and some 4 miles east of Isla Danzante; these banks lie, in their shallowest part, some 10 meters below the surface and descend rapidly towards Danzante Channel and towards the Gulf's deep basin east of Carmen Island.
2. *Bajo La Reinita (or Islotes Las Galeras; 25°45'N, 111°03'W)*. The Las Galeras islets emerge from the deep seabottom and break the Gulf's surface some three nautical miles north of Isla Montserrat; and some three miles farther north the La Reinita banks are found. Separated from the Baja mainland by a channel more than 250

The coastal corridor of Baja California Sur
(Nautical Chart 21014 "Cabo San Lazaro to Cabo
San Lucas and Southern Part of Golfo de
California", Defense Mapping Agency, Bethesda,
Maryland, USA, 1984).

meters deep, the bottom relief of La Reinita descends abruptly eastwards into the depths of the El Carmen basin.

3. *Bajo norte de Catalana* (25°46'N, 110°47'W). In a manner similar to La Reinita banks, the northern tip of Isla Catalana shows a series of islets and rocky reefs that rise from the sea bottom north of the island, continuing underwater the geologic promontory of the island itself. A mile north this chain ends in a seamount that descends westwards towards the Montserrat Channel, and eastwards into the depths of the Carmen Basin.

4. *Bajo San Marcial* or *Bajo sur de Catalana* (25°31'N, 110°46'W). Located ca. eight nautical south of Isla Catalana, this rocky bank reaches 20 meters below the Gulf surface. At a depth of 80 meters the slope of its steep rocky basaltic crest becomes less inclined and changes gradually into a sedimentary slope that descends gradually eastwards towards the deeps of the Gulf of California or westwards towards the San Marcial Channel that separates the seamount from the peninsular mainland.

5. *Bajo Las Ánimas* (25°07'N, 110°31'W). The Las Ánimas islet emerges as a large basalt promontory some six nautical miles northeast of Punta Colorada, in San José Island. The steep basaltic rock formation plunges around 100 meters deep, where it expands into a sandy incline that descends gradually to 300 meters, from where it descends steeply again towards the deep of the Gulf.

6. *Bajo San Dieguito* and *El Rifle* (25°12'N, 110°42'W). The San Dieguito banks lie, in their shallowest part, 5–10 meters under the water surface some two nautical miles southeast of San Dieguito Island. El Rifle is a rocky projection of San Diego Island that runs in a southwest direction forming a long line of shallow rocks, 1–2 meters deep. Both banks rapidly lose steepness in their slopes, transforming the rocky banks into a sandy bottom that descends westwards towards the San José channel, and eastwards towards the deep Gulf basin.

7. *Bajos de Punta Calabozo* (25°06'N, 110°42'W). Some three nautical miles southwest of the San Diego banks, the shallows of Punta Calabozo are, more than a true seamount, a northwards submarine extension of the large formation of Isla San José. The ridge of rocks reaches 20 meters below the surface and extends two miles north, gradually sloping westwards towards the San José channel and the peninsula, and eastwards towards the Gulf.

8. *Bajo Marisla* (24°42'N, 110°18'W). Marisla lies some 10 miles northeast of Los Islotes, the northernmost point of Isla Espiritu Santo. With a pronounced relief, the shallowest part of this seamount reaches 15 meters, and descends abruptly to over 400 meters deep along a sheer escarpment of basaltic rock.

9. *Bajo El Charro* (24°42'N, 110°10'W). Around eight nautical miles northeast of Marisla, the El Charro seamount lies 60–80 meters deep, away from the reach of SCUBA diving. For this reason, it is one of the least explored and more poorly known seamounts of the region.

10. *Arrecife Las Focas* and *Bajo La Reina* (24°26'N, 109°58'W). Formed in a manner very similar to the Bajos de Calabozo, Las Focas is an extension of Isla Cerralvo. Continuing the longitudinal southeast–northwest axis of the island, the Las Focas reef reaches the surface some four miles northwest of the island's northern tip. La Reina, a fully submerged seamount some 20 meters deep follows along the geologic chain a few miles northwest.

11. *Bajo Cerralvo* (24°29'N, 109°51'W). Situated some six nautical miles northeast of La Reina, and separated from Cerralvo Island by a deep ocean basin, Bajo Cerralvo is the last seamount of this corridor. Of considerable extent, some two to three miles in diameter, the relief of this underwater plateau —essentially unexplored— seems to be one of rounded contours without steep slopes or pronounced escarpments.