

Lighthouse DIGEST



Coal

Race Point Lighthouse

Rescue at Sea

Stranger Attacks Lighthouse Keepers





The light tower at Isla de Guadalupe is adjacent to the remains of a prison, an old church and a pair of dilapidated shacks used as temporary shelter by fishermen and research scientists.



A boat anchors on Prison Bay, just offshore from the location of the light tower on Isla de Guadalupe.

<u>Lighthouse</u> of the Sharks

Michael Salvarezza Christopher P. Weaver Great White Sharks are the underwater world's true apex predator. This 14-foot Great White Shark came to inspect the divers.

The light tower at Guadalupe Island stands 36

The light tower at Guadalupe Island stands 36 feet tall. The tower marks the location of much of the shark diving activity on the island.

The open ocean can be a lonely, forbidding place. Sometimes, in periods of calm, the water is tranquil and traveling over the seemingly endless expanses of water can be an indescribably beautiful experience. At other times, when the winds howl and the ocean roils, the experience can be quite terrifying. In times such as these, lighthouses and other aides to navigation provide comfort and much needed assistance to harried mariners attempting to navigate the tempestuous ocean.

Mexico's Guadalupe Island is a remote, volcanic rock protruding from the ocean depths 150 miles off the Pacific coast of Mexico, about 250 miles south of the border city of Tijuana. Consisting of a chain of high mountain ridges reaching heights of 4257 feet and measuring 98 square miles (22 miles long and 7 miles wide at its widest point), Guadalupe island is a formidable island in these stretches of water. However, despite its size, there are no permanent settlements on this island. It is a desolate looking place.

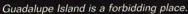
We journeyed to this island in search of Great White Sharks. Our objective was to observe these massive predators from the safety of shark diving cages and to photograph them in their natural element. After 22 hours of cruising south from San Diego, we spotted the dome shaped island jutting up from the horizon and peeking out from a shroud of grey clouds. As the boat approached, we immediately gained a sense

of the wild nature of Guadalupe: waves crashed against the rocky shore on the northernmost point of the island, a strong wind blew from the west and a stream of clouds, created from the rapid ascent of warm air along the steep slopes of the island, tumbled off the highest peaks and across the open Pacific. Even with the din of the boat engines, we could hear the raucous barking of the resident populations of Northern Elephant seals and Guadalupe Fur Seals as we motored towards the safe anchorage of Prison Beach.

Guadalupe Island has both a troubled and distinctive history. The island, once home to lush stands of Guadalupe Pine Trees, cypress and palm, along with dense coverings of tussock grasses, is now almost completely denuded of vegetation. Goats, introduced to the island by Russian whalers and sealers in the 19th century as a source of provisions during their extended voyages, multiplied unchecked and eliminated virtually all of the island's plant life. As a consequence, natural pools of fresh water, formed from condensation from fog on plants and grasses; dried up and the island assumed its present arid and rocky state. Today, efforts have been successful in eradicating virtually all of these goats and the regeneration of the island's natural plant life has begun.

Guadalupe Island became the last refuge of the Guadalupe Island Fur Seal, hunted mercilessly to the brink of extinction in the 19th century. This species was actually







The Light Tower on Isla de Guadalupe.

considered extinct until 1926, when some individuals were found on this island. Today, the species is fully protected under Mexican law and the island of Guadalupe has been considered a pinniped sanctuary since 1975. An estimated 6000 individuals are estimated to exist at the present time.

Northern Elephant Seals also inhabit this island. Similarly decimated by early hunters, a small population found refuge here and managed to survive, in part because the island was designated a Mexican Nature Preserve in 1925. Had small pockets of these animals not found refuge here, scientists believe they would most certainly have been completely exterminated by the ruthless hunting of the time.

Our anchorage at Prison Beach on the eastern side of the island afforded us protection from the prevailing winds and associated swells from the west. Prison Beach is named after a Mexican federal prison that once existed at this spot, the sole prisoner sent here after an affair with the wife of the Mexican President in the mid-1800s. The ruins of this prison, and a church that was built alongside of it, can be seen in the rocky bluffs along the shore. Today, the only inhabitants are small groups of marine mammals and occasional research scientists and fisherman who use the dilapidated shacks that have also been constructed along this beach for a rather dubious shelter. However, our interest was piqued by a light tower that also exists here.

Located about 1.5 miles south of Punta del Norte, this metal light tower stands about 36 feet high and supports a working light. Flashing in a pattern of two flashes followed by a long pause, the light provides a welcome beacon in the inky darkness of night in this lonely stretch of Pacific Ocean. On clear nights, with a dazzling canopy of stars and the bright light of a full moon, the silhouette of the island's profile can be readily seen across the water but on dark, cloudy or stormy nights, the island is invisible. This light provides the only warning that a steep, rocky island is present; the waters alongside this

island are deep and the drop-off from the island's shores dramatic. Just a few hundred yards offshore, the water is some 300 feet deep and nearby, the waters drop to over 12,000 feet. Indeed, in the early 1960s, Project Mohole involved experimental deep water drilling in this water. The depth of 12,000 feet was approximately 30 times the then existing drilling record.

There is a second light, also atop a metal tower in a cove on the western side of the island, which also stands about 36 feet high. This anchorage is not as frequently utilized since it lies exposed to the prevailing western swell and wind but the light provides important navigational assistance.

Our expedition to dive with Great White Sharks was a success: we witnessed the underwater behavior of 7 different individual sharks over the course of 3 days of diving. These sharks ranged in size from 12 feet to 15 feet in length and they weighed about 3,000 pounds. Massive, impressive, formidable animals, they are the true apex predator in this section of ocean. While these sharks feed on large, ocean going fish such as tuna, they come to this island to feed on the seals that live here. Indeed, we witnessed the dramatic, and swift, killing of a large Elephant Seal by a 14 foot Great White Shark in the early hours of dusk one night after completing a successful day of underwater photography.

Underwater, the sharks appear as large as city buses, swimming slowly and with an air of confidence. The most striking aspect to these perfectly formed creatures is their girth...these are not the sleek, torpedo shaped sharks we have seen in other parts of the world. Rather, they are hefty and their girth is a testament to their power. When striking at prey, they are swift and the slashing and tearing they do to their prey is most impressive. The jaws are filled with dozens of triangular teeth, arrayed in a nightmarish pattern optimized for the efficient cutting of flesh.

The sharks would often descend to deeper water at night and the diving operations would then be suspended. Enveloped by

darkness, with an infinite ceiling of stars above, the sounds of nighttime at Guadalupe Island consisted of the gentle lapping of water against the ship's hull and the occasional bark of a seal from the beach. It was on nights such as these, as we contemplated the danger below in the form of one of nature's most perfect predators, that the flashing light of the nearby light tower, a small, tenuous link to civilization and safety some 150 miles away, would provide reassurance and comfort. For decades, this light has flashed over the waters of the Pacific Ocean, announcing to all that pass by that an island exists here, one of mystery and wonder and of danger. For there are sharks in these waters, great predators of the deep, and they are often hungry. This is truly the lighthouse of the sharks. 1



A diver inside the cage.



Lowering the shark cage into the water.