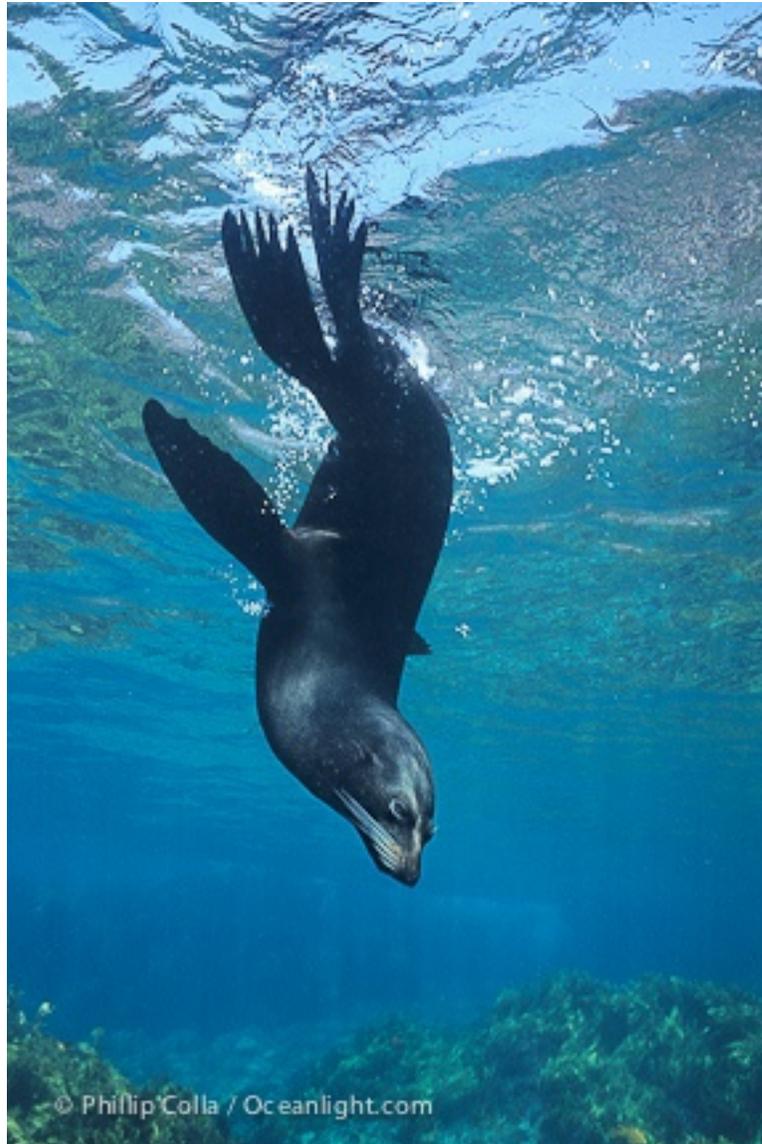


Isla Guadalupe's Regal Fur Seal



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and
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This article was originally published in Ocean Realm Magazine, one of a series of articles I contributed to Ocean Realm in the '90s. I have made about 15 trips to Guadalupe Island, all of them on the boat M/V Horizon and most of them with my friend and diving partner Harrison "Skip" Stubbs, Ph.D. with whom this article is authored.

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Perched alone on a rock, surveying his domain and resting in the morning sun, the Guadalupe fur seal bull is perhaps the most elegant of all pinnipeds. Only casually interested in our presence, he does not grow agitated and flee to the water as other species might when our skiff approaches. Sleeping on rocks around him are the females he has drawn to his territory, and splashing about in nearby tidepools are the coal-black pups born earlier this summer – next season's pups will be his. When raised up on his large foreflippers he resembles a sea lion, but



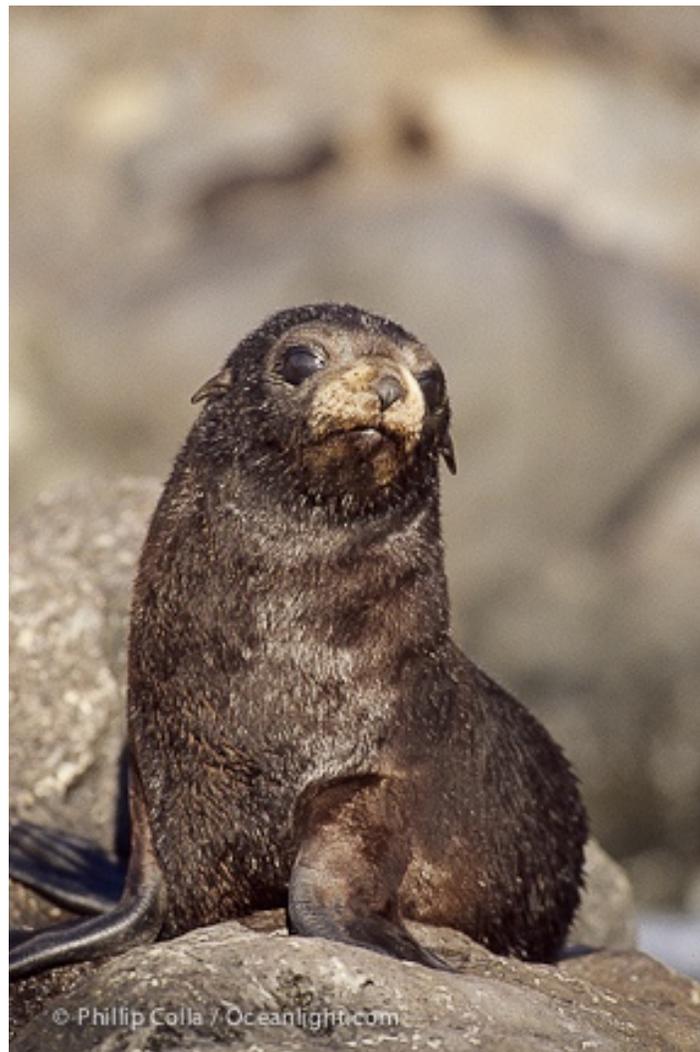
his long pointed muzzle, prominent ears and flattish head clearly distinguish him as an Arctocephalus. Wet from a morning swim, his fur is luxuriously shiny and will soon dry to a rich brown-black. A thick neck and lighter-colored guardhairs on his head have come with maturity and are not exhibited by the much smaller females. Occasionally he barks when a young male

exits the water close enough to present a challenge, causing the younger fur seal to quickly retreat. It is late September and the purpose of his territory is nearing an end, but for now he must make at least a token defense. Soon he will concentrate again on feeding, hunting squid and bony fish around the island and perhaps as far offshore as the Channel Islands to the north or Islas Cedros and San Benitos to the east. Today, though, he is master of this bit of coastline, and a noble and fitting symbol of Isla Guadalupe. His life is a drama that has been repeated for centuries but that is now seen only at Guadalupe, the last refuge of his kind. This fact is not lost upon us as we watch him. It is mornings such as this one, observing fur seals in a wild and lonely place, that bring us back to Guadalupe Island each year.



The recent history of *Arctocephalus townsendi* is both a sobering account of wanton killing and greed and an encouraging tale of resilience and recovery. Although it once numbered perhaps 200,000 across its 1500 mile range – from the Revilligedos and the Baja peninsula to California’s Channel Islands – the Guadalupe fur seal nearly passed into oblivion before being recognized by science. At one time, Guadalupe Island alone was home to probably 30,000 fur seals, so many that its western shore has long tracts of waterline lava rocks polished smooth by

centuries of hauling-out fur seals. With the onset of North Pacific whaling in the late 1700's, the seals' beautiful fur pelts – black outer fur over an underfur so dense that the seal's skin remains dry – became liabilities, and the seals were taken in vast numbers by Russian and Aleut hunters to adorn Chinese royalty and Parisian society. Scammon wrote of Cedros Island, near the Pacific coast of Baja California, that its “surrounding shores teemed with sealers, seal elephant and sea-otter hunters.” The greatest numbers of Guadalupe fur seals were taken before 1820, and by 1883 the seal was considered “commercially extinct.” In 1894 sealers located a group of 15 fur seals at Guadalupe Island – *all that were known to exist* – and killed every one. Three years



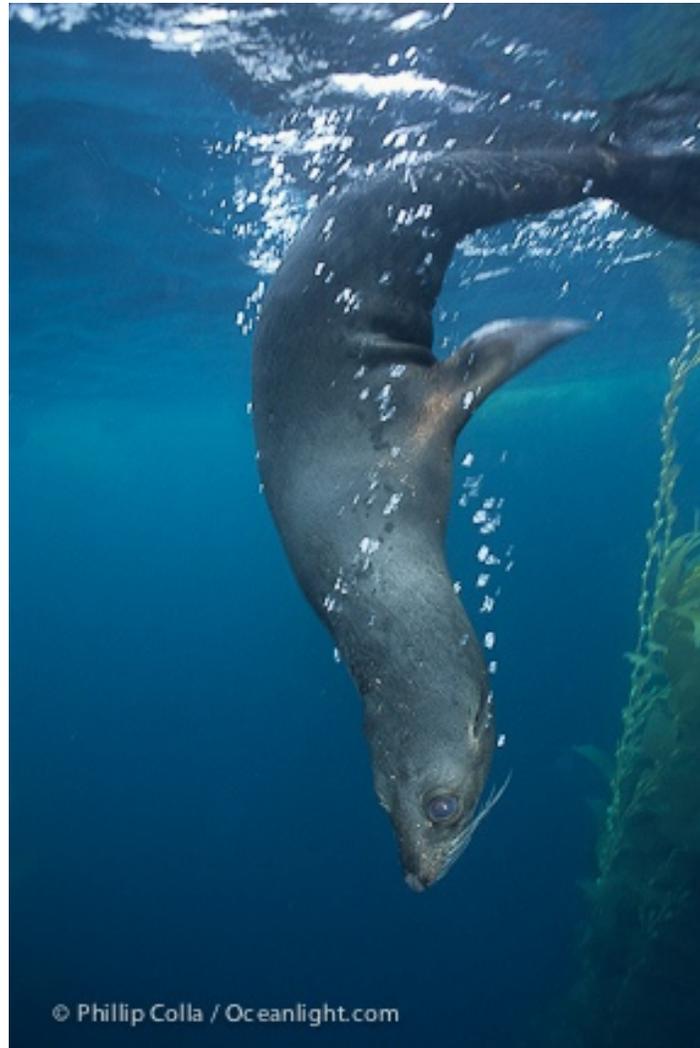
later, four weathered and broken skulls collected from the ruins of a once busy Guadalupe Island sealing station provided the description for a species “new to science,” but by then the Guadalupe fur seal was assumed to be gone forever.

We are diving a rocky point on the east side of Guadalupe Island where we have seen fur seals on past visits. The island's clear water brings our unusual surroundings into view: huge blocks of pale-gray granite, covered with occasional fanged blennies and large patches of gold low-lying kelp. A dozen fur seals glide back and forth, surfing beneath the swells that break on a shallow ledge in front of us. Fur seal twists and turns leave behind glistening trails of bubbles squeezed from their dense, layered coats. When the waves subside the seals raft together at the surface in their distinctive head-down manner, socializing among themselves. Every few minutes an adult male swims slowly along the periphery of the group, ushering back to the ledge a few curious juveniles that have approached us. Although it is September and the birthing and breeding season is over, he continues to patrol his territory. Like other male Guadalupe fur seals, he barks underwater to a degree we have not observed in other pinniped species, directing his barks at males resting at the far end of the ledge and occasionally at us as he passes near.



After the decline of the sealing industry, scientists frequently searched the islands off Baja and California for fur seals and northern elephant seals (*Mirounga angustirostris*). Like the fur seal,

the elephant seal occupied much of the Baja peninsula and west coast of the United States and its numbers were so depleted that by 1874 it was feared extinct. Every decade or so small groups of elephant seals were found; such discoveries sometimes caused a renewed interest in sealing. On one occasion at San Cristobal Bay an entire group of 16 – *all that were known to exist* – was killed to provide scientific specimens, since it was assumed they would be taken by sealers soon anyway. Nevertheless, by 1907 a small but growing population of elephant seals had established itself at Guadalupe Island and, although it was too late to save endemic species



such as the Guadalupe caracara, wren, towhee and flicker, the entire island was declared a wildlife sanctuary in 1922 by the Mexican government. From those who survived at Guadalupe Island, the elephant seal population has now recovered remarkably to occupy all of its former range, its numbers soaring to at least 120,000.

Recovery of the Guadalupe fur seal stands in sad contrast to that of its more successful cousin. For 30 years the fur seal was nowhere to be found, despite the many surveys throughout its old haunts that yielded sightings of elephant seals. Then in 1926 it made a surprising reappearance, but one that was brief and had tragic consequences. A fisherman named William Clover claimed to have observed fur seals at Guadalupe Island, and so was hired to return and take two adult males, which were displayed at the San Diego Zoo. This was hailed as a great development, especially since Clover had seen other fur seals at the island. But a rift quickly developed between the fisherman and the zoologists and Clover soon returned to the island, this time to kill the remaining fur seals. (He reportedly met his demise in a Panamanian bar, trying to market the pelts.) Several follow-up expeditions were mounted to search for remnants of the colony, to no avail, and the two fur seals died after a year in captivity.



Even to the eye of someone accustomed to finding them, a coastline hosting a colony of Guadalupe fur seals often looks like nothing more than a barren, waveworn volcanic shore. Usually the seals are heard before they are seen: thin wailings of fur seal pups and occasional yelps of bulls and mothers, overlaying a constant wash of surf. Eventually we see a few,

scattered among slick black boulders, on ledges and in shadowy waterline caves, where their dark fur is perfect camouflage. To avoid land predators when hauling out, and to avoid overheating, tropical and subtropical fur seals often inhabit remote islands with cliffs and large rocks. In early summer bulls come ashore and establish territories among the rocks in anticipation of the arrival of females, who give birth on shore in June and July and may mate as soon as seven days afterward. Mating is polygynous, in which a single bull mates with numerous females. Unusual among pinnipeds, receptive females may actually encourage the male to mate with nips to his neck and body. Bulls defend their territory most vigorously ashore, and for as long as four months bite and snarl at rival males who invade their space. Below the water's



*surface the defense seems less intense. We have observed wariness but no fighting as bulls meet along the underwater boundaries of their adjoining territories. Mothers periodically depart the colony for several days at a time to hunt at sea, leaving their pups hidden among rocks or in groups playing in tidepools. In contrast to California sea lions (*Zalophus californianus*) which share body heat by forming dense groups, Guadalupe fur seal females tend to spread out among the rocks and ledges.*

Twenty-one years would follow Clover's exploits before another Guadalupe fur seal was seen. In 1949, while walking along a beach on San Nicholas Island observing California sea lions and

elephant seals, UCLA professor George Bartholomew encountered a strange pinniped, the likes of which he had not seen before. Not until the animal had slowly left the beach and swam off did he realize it was the first Guadalupe fur seal observed in more than two decades – a species twice considered extinct by science! Met with skepticism from his peers, he returned to San Nicholas a month later and obtained the proof he needed: photographs of a lone male Guadalupe fur seal, probably the same one he had seen on his first visit. Motivated by the encounter, the



next year Bartholomew and Dr. Carl Hubbs organized a two week trip to Guadalupe Island to look for more fur seals but they found none, and scientists soon began to fear that the lone San Nicholas bull was the last of his kind.

These fears were laid to rest four years later. Hubbs had not given up hope that *Arctocephalus townsendi* lived on. On the final day of another scientific voyage to Guadalupe Island, after convincing the captain to loan him a skiff for an impromptu patrol of the shoreline, Hubbs was

elated to find 14 Guadalupe fur seals on rocks and in caves. Aside from the thrill of making a rediscovery of a species whose existence was still tenuous at best, Hubbs was especially excited about seeing pups in the group. Finally, a tiny but apparently thriving group of fur seals had been found at the island for which they were named! Visits in 1955 and 1956 documented increasing numbers of fur seals at the island, and by 1967 they would be seen in small groups with encouraging regularity as far north as San Miguel Island and occasionally beyond Point



Conception. Guadalupe Island was declared a pinniped sanctuary in 1975, giving added protection to the fur seals, sea lions and elephant seals that breed and live there.

Our trips to Guadalupe Island always end with a visit to a small cove at the foot of spectacular granite and chalk cliffs, near the north end of the island. A small colony of fur seals is usually in attendance here, rafting at the surface in the calm shallows. The fur seals are politely inquisitive of divers that visit their home and as much as a thirty-minute introduction may be required before the seals venture close enough for a photograph. This is fitting, since in almost every way a fur seal's behavior seems more regal and aloof than that of its cousin, the California sea lion. The introduction allows both groups, divers and seals, to calmly observe and become truly comfortable with the other's presence. Such a raft of fur seals bobbing

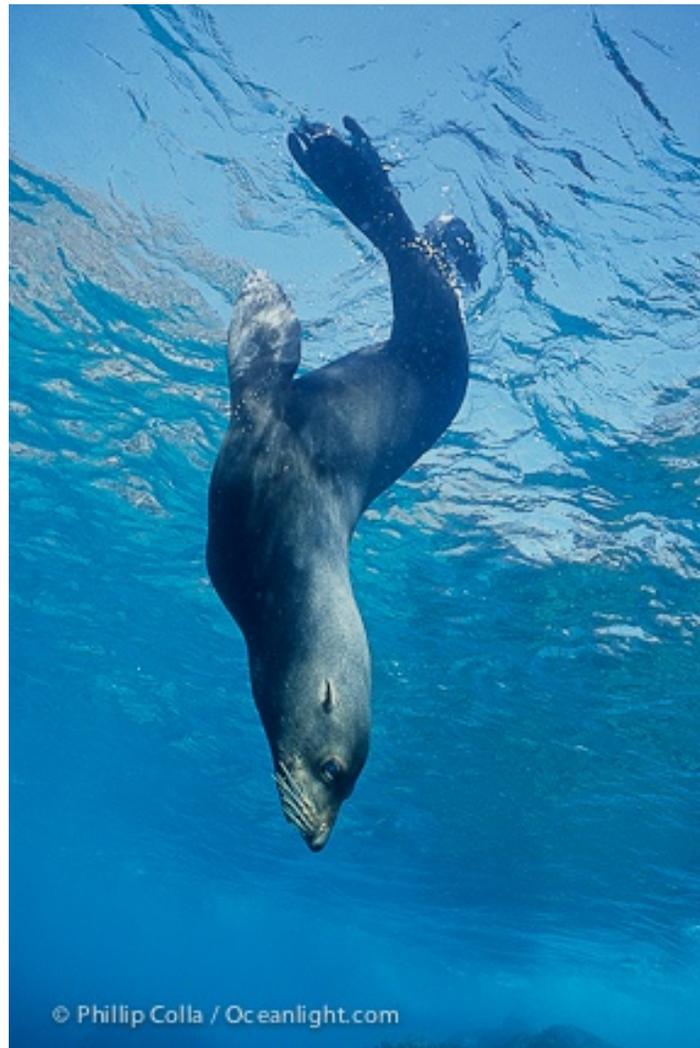
upside-down at the surface, fore flippers held close to the body and hind flippers flopping lazily out of the water, is a curious sight. We have dove among Northern and Galapagos fur seals (Callorhinus ursinus, Arctocephalus galapagoensis) and have seen those species adopt this head-down pose as well, and we suspect that it may be a natural resting position for fur seals that share their waters with large sharks. Less than a mile away is a large sandy beach that in winter months becomes a breeding site for elephant seals. The few Mexican fisherman who have visited our boat seem astonished that we willingly enter these waters, and their tales of patrolling white sharks taking young elephant seals just yards from the beach gives new meaning to our dives. Spearfishermen have been attacked and killed at Guadalupe, and white



sharks are seen around the island with regularity. Nevertheless, Guadalupe's fur seals are so elegant and entertaining that it is difficult to be worried about anything when in their presence, and for the moment we forget about what might swim in the shadows offshore.

Population estimates developed by Juan Pablo Gallo-Reynoso suggest that between 1983 and 1993 the Guadalupe Island population of fur seals increased almost five-fold to 7400. While such a rate of growth is a positive sign, the absolute numbers are small in comparison to both the fur seals' pre-hunting population and the resurgence of the elephant seal, which shares much of the same historical breeding habitat and range as the fur seal and which also found refuge at

Guadalupe Island. Both species experienced potentially severe genetic bottlenecks around the turn of the century. For elephant seals this has meant an extreme reduction in genetic variability, so much so that scientists suspect perhaps only 10 individuals may have survived the hunting. But results of a recent study by Giacomo Bernardi and his colleagues at UC Santa Cruz indicate otherwise for the Guadalupe fur seal. Genetic samples collected from several breeding rookeries at Guadalupe Island show that the fur seal does not suffer from the same degree of genetic homogeneity that afflicts the elephant seal population. Unlike the elephant seal, which hauls out on visible and accessible beaches, the Guadalupe fur seal lives in caves and among large rocks where its dark fur provides excellent camouflage. These fortunate traits probably led to small diverse groups of fur seals avoiding detection and has allowed the fur seal to outlast the sealers with enough genetic variability that its prospects for survival, hopefully, are good.



During the last two hundred years the Guadalupe fur seal was twice thought to be extinct, yet managed somehow to avoid extermination and crippling genetic degradation as its population declined at the hands of persistent sealers. The few that survived did so at a haven far from humankind, a wild and robust island embraced by the open Pacific. While its numbers remain small, they are growing and should continue to do so with the protection of the Mexican government.

Will the Guadalupe fur seal recover to claim its former range? We think so, and hopefully in our lifetimes. In September 1997, we were surprised to observe Guadalupe fur seals, including pups, alongside elephant seals and sea lions at Islas San Benitos, 120 miles to the east of Guadalupe. This was exceptional for us, since we never thought we would dive among them in a giant kelp forest, which Guadalupe does not have but which the Benitos have in abundance. Will they establish a permanent rookery there, increasing their breeding range and prospects for survival? We will return in 1998 to find out.