

107.—PRESENT CONDITION OF THE CALIFORNIA GRAY WHALE FISHERY.**By CHARLES H. TOWNSEND.**

The California Gray Whale (*Rhachianectes glaucus* Cope) is the first species treated of in Capt. Charles M. Scammon's work on the Marine Mammals of the Northwestern Coast of North America, and his account testifies to its importance as an oil-producing cetacean in the estimation of the whalers of twenty years ago.

Although migrating to the arctic regions in summer, it was not usually molested in northern waters by civilized whalers, to whom the baleen-yielding bowheads and right-whales were of more value; but when it had repaired to its winter breeding resorts in the lagoons and bays of Lower California, the whalers, shut out from their arctic hunting-grounds, pursued it with great profit. From the fact of its being a species of rather limited range, unknown as far south as Panama, and unlike other whales, closely following the coast lines in its migrations, which subjected it to attacks from Eskimo and Indian whalers along shore as well as from the ships of white men, its numbers became much reduced, so that Captain Scammon, writing of it in 1874, predicted its speedy extinction.

The pursuit of the species in the lagoons of Lower California, where probably more than a score of vessels sought it annually, had already been abandoned as no longer profitable for ships, and numerous "shore stations" along the southern coast of Upper California had been established, from which small boats could be sent out to capture the gray whales during their annual migrations, which permitted of the business being continued so cheaply that it was still profitable, notwithstanding the reduced numbers of the whales.

For many years the gray whale has been undisturbed in its breeding haunts and appears to be in no danger of extinction as a species, notwithstanding the continuance of coast whaling. Its numbers certainly have not greatly increased, but recent experience with this whale leads me to the conclusion that the fear which has been expressed for the safety of the species is unfounded, and that it is in no immediate danger of extermination.

During several trips along the California coasts at various times from September, 1884, to January, 1886, I visited the shore whaling stations of Upper California as well as many of the lagoons of the Peninsula, and learned something of the business of coast whaling as it is carried on at the present time.

SHORE STATIONS.—Of the eleven whaling stations mentioned by Scammon as established along the coast ten or twelve years ago, only five remain—those at Monterey, San Simeon, San Luis Obispo, Point Conception, and San Diego.

Monterey.—The Monterey station is the oldest of these; and the charter of the Monterey Whaling Company, which I saw framed in the ancient stone building used as headquarters at that place, bore the date 1854. Gray whales then resorted to the shoal water along the north beach of Monterey Bay to roll in the sand as a relief from the barnacles and other parasites which infested them, and were easily secured, especially when half stranded at low tide; but the persistent persecution to which they were subjected drove them away, so that at the present time they must be sought far outside the bay. The seasons of 1885 and 1886 were especially dull at this station, owing in part to rough weather which prevented the boats from going out regularly, but chiefly to the wildness of the whales which were learning to shun the locality.

The "up season" at Monterey is now unproductive, as the whales keep well off shore when returning with their young. I was told at several stations that shore whaling began its decline with the general use of the bomb-gun and lance by inexperienced persons, so many animals having been wounded as to make them wary and in general more quiet in their movements, leading some of the whalers to a suspicion even of their "blowing" more cautiously.

The greater part of the oil yield at Monterey is derived from the humpback whales taken in summer, and it is probable that whaling would be abandoned at that station if the business depended upon the supply of gray whales. Monterey is in fact the only coast station where summer whaling can be carried on to any advantage. During the year 1862 the two companies then located there secured nearly 2,500 barrels of oil, the bulk of which was derived from the humpbacks, taken during the summer season, which lasts from September until December, the migration of the gray whales lasting from the latter date until February 15. So far as I observed, all the whalers there are Portuguese, whose manner of life is simple, and who appeared to make but little more than a plain living out of the business. There were eleven gray whales taken at Monterey in 1883, and twelve in 1884. Occasional finback and sulphur-bottom whales are secured there, so that with all the species obtainable there is still a fair yield of oil at that station.

San Simeon.—The San Simeon station was founded in 1864 by Joseph Clark, a Portuguese native of the Azores Islands, and has been kept in operation under his management ever since. Unlike Monterey, this station depends almost entirely for its business upon the gray whales, which pass southward with great regularity from December until February. The "up season," lasting until April, is also profitable at San Simeon, but the catch there consists chiefly of males, the females keeping farther off shore when passing northward with their young. During the last ten years Captain Clark has seen but one female accompanied by young in the vicinity of his station. At San Simeon, and all the whaling establishments situated south of it, females exceed the other sex in numbers during the "down run," and most of them contain well-

developed young. At this place and at San Luis Obispo, the nearest neighboring station, I saw four young whales lying on the beach, which had been taken from females killed in the vicinity during that season (December, 1885). Their average length was about 12 feet; the largest, which I sketched, being 17 feet long, and from an adult nearly 40 feet in length. They were probably within two weeks of the time of birth when the parent animals were killed. No use was made of these young whales, although they were coated with blubber 2 inches thick. Hump-back whales are scarce at San Simeon, where they were once common.

San Luis Obispo.—The San Luis Obispo station has been in constant operation for many years. The season of 1885 was rather unprofitable there, several large whales which were killed having sunk too far off shore to be brought in, or the buoys, marking their position until they should float by decomposition, having been lost sight of. Three were secured late in the season.

Point Conception and San Diego.—The Point Conception and the San Diego stations, like the preceding, have been kept in profitable operation ever since their establishment, the former securing eleven and the latter eight gray whales during the past season. The San Pedro station is now abandoned, the force gathered there in 1884 now being employed at Point Conception.

PRESENT NUMBERS.—The following table, showing the numbers of gray whales taken on the southern coast of California during the past three seasons (167), is made from information furnished me by Mr. Clark and other whalers now in the business:

Stations.	1883-'84.	1884-'85.	1885-'86.
Monterey	11	12	5
San Simeon	11	15	14
San Luis Obispo	6	4	3
Point Conception	25	18	11
San Pedro (abandoned in 1884)		13	
San Diego	5	6	8
Total	58	68	41

Stormy weather on the coast had the effect of lowering the annual catch in 1885-'86.

At the San Simeon station in December, 1885, I could see whales blowing almost every hour during the day. From the elevated "look-out," or observation station, on shore an extensive stretch of ocean could be examined with the telescope. During my stay, and for a short time afterward, covering a period of fully a month, Mr. Clark counted forty whales passing southward. Many of these were too far off shore to be pursued by the three boats that were daily cruising outside during the season, and a few may have been other species than gray whales, but counting the forty whales actually seen in December and doubling that number to include those that passed at night during the same period, we have eighty whales per month easily accounted for. Doubling

this number again to include those which pass within sight of the look-out station in January (for the "down season" lasts two months), we have one hundred and sixty whales as the number that may readily be seen at the present time from one point alone during the "down season." What proportion this number bears to the number passing off shore would be hard to say, but it is certainly less than half, since the whales near the coast are mostly females seeking bays and lagoons in which to bring forth their young, which would leave the males and young whales unaccounted for.

These safe and obviously low estimates, and the above table showing the actual catch during the past three seasons, afford a very fair showing for a species so scarce in 1880 that only one individual could be captured, and indicate a tendency towards its re-establishment while unmolested in its breeding resorts.

FOOD, YOUNG, PARASITES, AND HABITS.—The opinion of the men with whom I talked is that it does not feed to any great extent outside of its arctic habitat. It is certainly much thinner on the northward than on the southward run, a male that would yield 30 or more barrels of oil in the down season yielding less than 25 two months later. Whalers admit their ignorance of what constitutes the food of this animal, and can find nothing in its stomach during the breeding season.

The young *Rhachianectes* just before birth has a narrow, irregular, longitudinal ridge along the posterior part of the back, which I did not observe in the adult. It extends from about opposite the vent to the flukes and is interrupted in many places. This ridge probably corresponds to the series of transverse ridges along the back of the adult as described by Scammon. Although the young whales which I saw on the beach at San Simeon had been dead but a short time and were but slightly decomposed, the baleen was so loosely attached that it had slipped from its place in the jaws. It was not frayed and ragged on the inner surface as in that of the adult.

The adults usually have many barnacles deeply imbedded in the skin. The specimens I preserved have been identified by Mr. W. H. Dall as *Cryptolepas rhachianecti*. Numerous specimens of the whale-louse (*Cyamus*) were also seen.

While cruising among the lagoons of Lower California in 1884, searching for sea-elephants, I heard many stories told by the natives of the ferocity of the female gray whales when attacked in their breeding places—stories amply attested by the number of graves of ill-fated whalers one meets with all along these desolate shores. When her young had been killed, the female, actuated apparently by motives of revenge, attacked boat after boat, demolishing it and scattering and drowning its occupants. This dangerous character gained for the animal its common name of "devil fish," and that fatalities were of frequent occurrence may be emphasized by the statement that in the vicinity of the now deserted lagoons a leading feature in the landscape is the solitary grave with its conspicuous fence of weather-worn whale-ribs.

THE CHASE.—There are usually high observation stands at the shore stations of Upper California, from which a sharp lookout is kept. When the spouting of a whale is distinguished, the observer signals its position to the boats cruising off-shore, by means of a large flag, to which they reply by dipping the peak of the mainsail.

When near enough to the whale, a lance, with line attached, is fired into it from a heavy harpoon-gun mounted on the bow of the boat. It is finally killed by an explosive bomb-lance fired from a bomb-lance gun held to the shoulder, and is towed ashore after much hard rowing.

Mr. Clark, of San Simeon, recently took from a gray whale one of his own harpoons which he had fired into the animal two years before, the exposed portion of the instrument being rusted to the slimness of a pipe-stem, contrasting strongly with the bright and sound part protected by the flesh and blubber.

OTHER SPECIES.—The catch of other whales in 1884 and 1885 was as follows:

Stations.	Right-whale.	Hump-back.	Sulphur-bottom.
Monterey		17	7
San Simeon	3		
Point Conception	1		
San Diego	1		

Occasional finback whales are taken at the coast stations, but their appearance is very irregular. Sperm-whales are of still rarer occurrence, but one was captured at Carmel Bay in 1875, which yielded 53 barrels of oil. Whale-oil prepared at the coast stations is worth about 25 cents per gallon.* At this low price, whaling for the gray whale must be carried on inexpensively from coast stations to support those engaged in it, and it is unlikely that a return to ship whaling in Lower California would be found profitable at the present time.

WASHINGTON, D. C., November 10, 1886.

EXPLANATION OF THE PLATES.

PLATE VI.—*Rhachianectes glaucus* Cope. California Gray Whale. Fœtus, 17 feet long, taken from an adult about 40 feet long, San Simeon Bay, California, December 25, 1885. Specimen inclined a little to the right side and slightly imbedded in the sand. (From a sketch by Charles H. Townsend.)

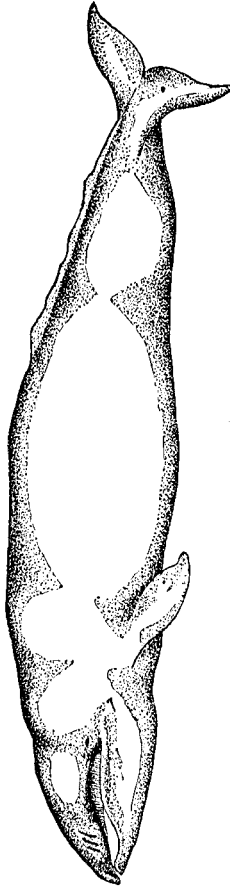
PLATE VII.—*Rhachianectes glaucus* Cope. California Gray Whale. Fœtus, 17 feet long. (From sketches by Charles H. Townsend.)

FIG. 1.—Head, from above. LL, lower lip. T, tongue.

FIG. 2.—Lower jaw, from below, showing the deep longitudinal furrows.

FIG. 3.—Flukes, from above.

* Arctic oil generally brings a few cents more in the market.



California Gray Whale, *Rhachitanectes glaucus* Cope.

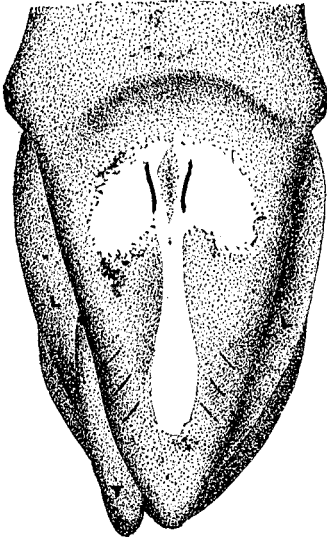


Fig. 1.

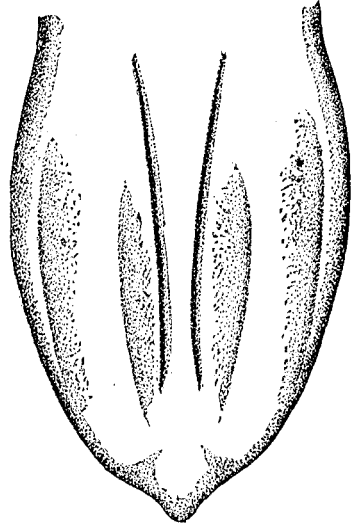


Fig. 2.

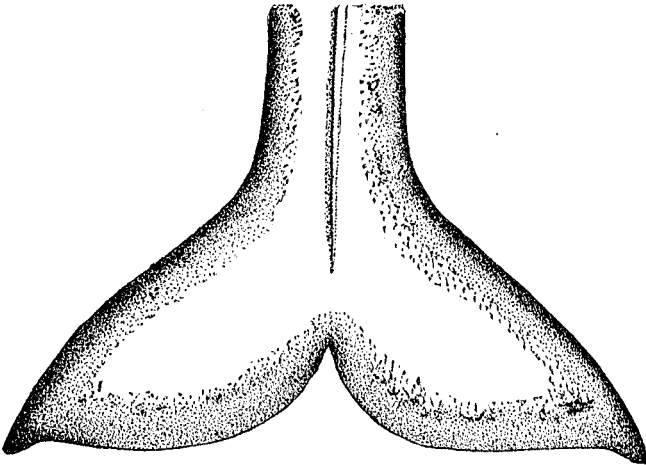


Fig. 3.

Head, lower jaw, and flukes of California Gray Whale, *Rhachianectes glaucus* Cope.