

BREEDING POPULATIONS OF THE OSPREY IN LOWER CALIFORNIA

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The American Osprey (*Pandion haleaëtus carolinensis*), according to Grinnell (1928:113), has long been considered a common resident along the Pacific coast and adjacent islands of Lower California. However, after spending April and May of 1936 afield in this area, the writer thinks it worthwhile at this time to bring our knowledge of the status of certain populations of the Osprey in this area up to date and to compare their present status with that of the recorded past. The period beginning with the turn of the century and extending to the present day has brought a marked reduction in the breeding population of the Osprey along the coast of southern California. This decrease in the breeding Ospreys has apparently also been taking place somewhat more slowly at certain points along the coast of Lower California.

My data were gathered in the course of a cruise aboard the twenty-three foot auxiliary sloop *Seven Seas* in company with Mr. M. W. Williams. An attempt was made to cover parts of the west coast and a number of the adjacent islands of the northern portion of Lower California (see fig. 25). The area covered is bounded on the north by the international boundary and on the south by Natividad Island. The latter is at latitude 27° 53', slightly south of Cedros Island. Since all points lie either close to or on the west coast of Lower California, latitude only is given in locating them.

The coast and islands of this portion of Lower California are characterized by rocky shores devoid of any fresh water supply and are frequently whipped by strong sea winds and resulting rough seas. Its only human inhabitants are scattered fishermen. It is an area usually omitted by those who wish to cruise in southern waters. Since previous writers have been thorough in their descriptions of the areas covered by this paper, little such descriptive information is included.

The areas will be considered in order from north to south as they were visited. The first area, which in past times maintained a considerable Osprey population, is the rocky coast line adjacent to Ensenada. This includes the Todos Santos Islands. A landing was not made on the Todos Santos Islands. However, on April 2, and again on May 26, a close approach to them was made as well as to the rocks adjacent to Banda Point. No Osprey was seen. The only indication that Ospreys had been present in the area was what appeared to be a bulky nest of sticks on one of the larger rocks near the west shore of Banda Point. Although the time spent in the immediate vicinity of this nest was less than half a day, we lay at anchor nearby in the shelter of Banda Point for four days during a storm.

It is interesting to note that in the summer of 1897 Kaeding (1905:134) reported the Osprey as "... common on ... Todos Santos ...". Howell (1912:189) states that between April 15 and 20, 1910, several dozen old nests were seen near the islands and along the adjacent coast. However, only one pair of Ospreys was observed. Van Denburgh (1924:70) writes that he saw no Ospreys at the Todos Santos Islands when he visited them from May 24 to 30, 1923. He cites Kaeding as having taken a set of eggs there on March 10, 1897.

Judging from the foregoing references the breeding population of Ospreys became much reduced between 1897 and 1910 and may have been entirely gone by 1923. Bancroft (1927b:194), however, states that the Ospreys "... are abundant from Ensenada Bay to Scammons ...". As this statement does not appear to be based on any specific observation, it should perhaps be ignored in view of other observations. I was on the lookout for Ospreys and expected that if any were in the area during the storm referred

to, they would have chosen the quiet water in the shelter of Banda Point for fishing. Since none was observed, I am inclined to believe that as a breeding species Ospreys have left the area.

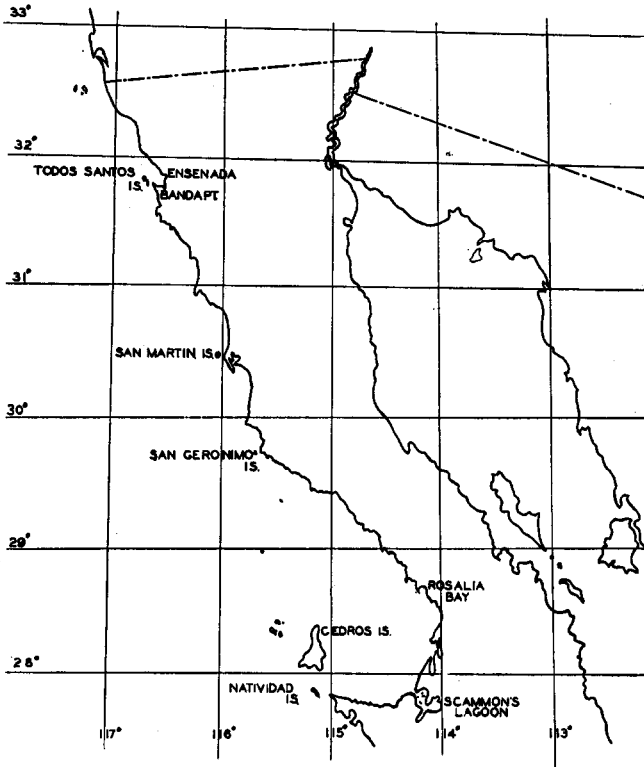


Fig. 25. Localities in Lower California referred to in connection with the breeding population of Ospreys.

San Martín Island (latitude $30^{\circ} 29'$) was once the stronghold of a large nesting population of Ospreys. Although no exact statements were found pertaining to the Osprey population in early times, the following remark by Kaeding (1897:109) would indicate that it was large. He says of the Osprey nests: "There being no trees they nest on the ground every hundred yards or so." Kaeding (1905:134) later reported the Osprey as "common on San Martín . . ."

The Osprey population of San Martín was still high two seasons after Howell (1912:187) remarked on the evident reduction in the Osprey population of the Todos Santos area. This is brought out by Willett's statement (1913:22) that he found the Osprey ". . . breeding abundantly on San Martín . . ." when he visited the island on April 12, 1913. San Martín is approximately 100 miles south of the Todos Santos Islands. Wright (1913:210), who visited the island on July 5, 1913, states "there are about thirty pairs breeding on this island. We counted thirty-five nests."

When I visited San Martín on April 5, 1946, I found conditions very different from those previously reported. Three pairs of Ospreys were nesting on the island. One pair had their nest on the north side of the island near the base of the smaller of two cinder

cones, one pair on the west side, and the third pair on the south slope. The pair on the north slope was building a nest, although there was a large unused one near by. This apparently very ancient structure contained one addled egg. The nest of the pair on the west slope had two young about two weeks old and one addled egg. The nest of the third pair had a single egg which appeared to be in a state of advanced incubation. The Ospreys frequently fished about the kelp beds not far from our anchorage. The species of fish identified in their talons on two occasions was the halfmoon (*Medialuna californensis*).

San Geronimo (latitude 29° 47') is a small island nearly three-quarters of a mile long. Streets (1877:16) published the first note concerning the Osprey here that I am able to find. He says of it: "One specimen. We observed a number of old nests on this island built in the absence of trees, upon high points of rock." Kaeding (1905:7) reported that in the summer of 1897 it was common and breeding. Willett (1913:15) reported that "one pair were seen . . ." in April of 1912.

Although I hiked over the entire island, I found no remnants of nests that could have belonged to an Osprey. Thus, they have apparently long been absent as breeders on the island of San Geronimo. We spent three days, April 12 to 14, there. In this time no Ospreys were seen.

At Santa Rosalía Bay (latitude 28° 38'), on the mainland, a pair of Ospreys was observed on April 17. The birds fished in the surf and at times maintained an almost stationary position aloft in the strong prevailing wind. Although they were watched for about half an hour with field glasses, no nest could be located. Nor could one be found on the following day when a trip ashore was made. These were the only Ospreys up to this point observed on the mainland, even though we had run close to shore most of the way down the coast. Rowley (1935:164) recorded a recently occupied nest near San Xavier on Santa Rosalía Bay. Apparently a pair is resident in this area.

Scammon's Lagoon appears to be one place in which a considerable nesting population of Ospreys still maintains itself. Scammon's Lagoon is largely uncharted. The expansive shallow water areas covering the sand flats afford the Ospreys many ideal fishing areas. Within the lagoon there are at least five small islands, of which we visited four. Several uncomfortable and potentially dangerous experiences in running afoul of the sand flats and strong tidal currents discouraged a more complete exploration of this interesting lagoon. However, I believe that we saw the whole nesting Osprey population of the area.

Since there are apparently no official names for the small islands we visited, I will use those names which are in common usage among the fishermen who occasionally visit this lagoon. These names were passed on to us by six such fishermen whom we found stranded without transportation, living on one of the islands of the lagoon. The largest of these islands, Shell Island, is surfaced almost entirely by pecten shells (*Pecten circularis*). It was inhabited by the largest colony of Ospreys in the lagoon. It was also used as a camping place by the Mexican fishermen. The breeding pairs of Ospreys on the island numbered sixteen. The sixteen nests ranged in construction from a slight hollow in the flat shell-covered sand, scantily lined with bits of marine algae, to massive towers of sticks close to five feet in height. Some of these more massive structures were supported in part by scrubby bushes but the bulk of their weight rested on the ground. A number of additional old nests were not in use.

The condition of the generation of Ospreys of 1946 in the last week of April and the first week in May ranged from fresh eggs through eggs in all stages of incubation to young in all stages. The several oldest birds of the season could frequently be seen

careening about on short flights in the almost perpetual and gusty wind. After these short excursions the young birds tried to return to their own nests. Sometimes their slight endurance coupled with the strong wind made several rest landings and repeated attempts necessary before they got back home. Up to the time we left Scammon's on May 7, no young was observed to attempt to fish.

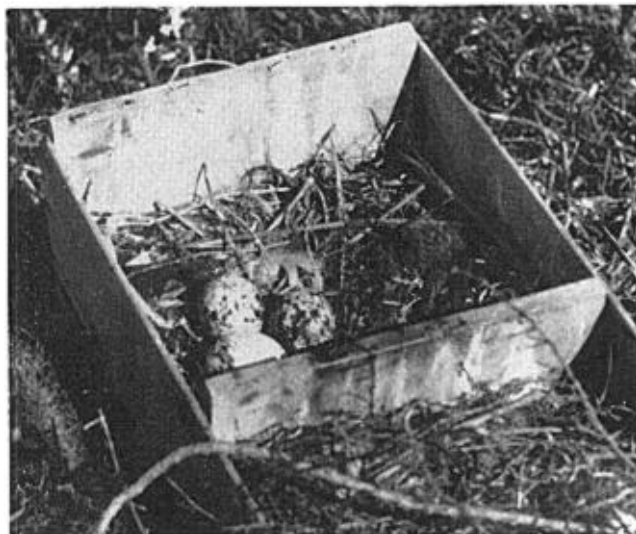


Fig. 26. Osprey nest at Scammon's Lagoon, Lower California, April 21, 1946.

Box Island, so named by the Mexicans because a number of fruit boxes have washed ashore there, has the next largest colony of nesting Ospreys. When visited on April 21, the colony consisted of ten pairs of Ospreys occupying nests. As at Shell Island some nests held fresh eggs, others stages of young up to those fully feathered. One unusual nest was placed in an old fruit crate (see fig. 26).

The third island, Nest Island, is the smallest of the four we visited. It is probably named for an Osprey nest which is placed on an old log on the island. Bancroft (1927: 53) notes in reference to this log: "According to tradition that runs back fully a century, there has been a nest on it kept up and occupied." On May 1 this nest contained three well feathered young Ospreys. Although two other pairs of Ospreys were seen about this small island, neither had a nest there.

Rock Island, as its name implies, is a rocky sandstone outcrop. It projects above the water in an area of rapid tidal currents. Evidence of its Osprey colony remains only in the delapidated form of seven old nests. Because of the size of several of the nests, it would seem that they were used for a number of years before they were deserted. Judging from their condition, which was still fairly good, they probably have not been deserted for many years. The probable cause for the desertion of the island by the Ospreys is the presence of coyotes. These animals may have reached the island by being washed ashore there by rapid currents. Evidence indicated that food is very scarce on the island. A coyote foot path skirts the entire shore line. It was well worn and the many fresh footprints indicated that it was in constant use. Although we were unable to see any individuals, the testimony offered by the Mexicans and the tracks convinced

us that they were coyotes. Several scats gathered along the trail proved to consist of sea weed, sandy mud, and fish bones.

The Osprey population of Scammon's Lagoon in the breeding season of 1946, by a count of the occupied nests, totaled twenty-seven pairs. Bancroft (1927a:54) makes no specific mention of the number of nests found. He refers only to placement of the "dozen or more nests . . . found . . ."

The Osprey population of Cedros Island (latitude 28° 10') was, because of lack of time, largely neglected. Stops along its shore were made only at places which were poorly suited to occupation by Ospreys because of the presence of many fishing boats. Although several nests were observed through field glasses on the cliffs north of Cedros Village, only one appeared to be occupied.

Natividad Island (latitude 27° 53') lies about twelve miles south of Cedros Village. Two nests were visible from our anchorage at the south-eastern end of the island. Two pairs of Ospreys were constantly in the vicinity. However, the nest to which I climbed showed no signs of recent use. The birds showed concern in the vicinity of the other nest whenever I approached it, but I was not able to ascertain whether or not it was in use. Lamb (1927:70) writes of his visit to Natividad: "For a hawk this bird is common on the Island. I know of eight nests within half a mile walk of camp." He continues with a description of the nests saying that they were on the ground and easily accessible, except for those on outlying rocks. Since much of the island is covered by cactus, except at the end near our anchorage and the only landing place, it was probably in this area that Lamb made his observations. The evidence indicates that the Osprey population has dropped here.

The following are offered as possible reasons for the apparent reduction of Ospreys along the coast of Lower California and adjacent islands during the past few decades. The probable elimination of one colony by coyotes in Scammon's Lagoon has already been mentioned. Several other specific instances of Osprey destruction were observed. These occurrences were directly the result of men in the area. On San Martín Island I conversed with one of the Mexican fishermen who was camped there. When I attempted to bring out useful bits of information concerning birds, he volunteered that when the baby "eagles" on the other side of the island got a little bigger he was going to eat them. In a second instance I observed the stranded fishermen in Scammon's Lagoon using Osprey eggs in their cooking. They said they had tried several of the "eagle squabs" and had found them very poor. This type of destruction, although on a small scale, does reduce the Osprey population.

The most devastating type of persecution is, however, that which the Ospreys suffer at the hands of commercial fishermen, mostly Americans. While anchored near Cedros, men aboard a fishing boat were observed to shoot at both the bulky Osprey nests on the cliffs and at the birds as they flew in from fishing. On Natividad Island rifle slugs were taken from the rocks within a few inches of an Osprey nest. The Osprey lays but few eggs, usually only two or three. Young Ospreys remain in the nest for a period of approximately eight weeks. This, added to the twenty-eight day incubation period (Bent, 1937:361), means that for a period of twelve weeks the Osprey family may easily be destroyed while on or near the nest. This fact, considered in view of the many fishing boats that frequent most areas suitable to Osprey nesting, obviously results in an appreciable mortality.

Although men are responsible for the death of many Ospreys, a statement made by Howell (1912:189) may indicate that other factors are to be sought. Of the disappearance of the Osprey from the Ensenada area he says, "I cannot account for this in any

way, for the old nests prove that they were abundant at no distant date, and they are now subject to no more persecution than ten or even fifty years ago, as most of this stretch of coast is not only uninhabited but almost unvisited." It is thus indicated that more information relating to the Osprey in this area might be valuable in understanding population decrease. It is also interesting to note that the Ospreys have apparently decreased in numbers more markedly in the northern part of the area studied than in the more southern part. The fact that men have become more numerous in the area in the period considered in this paper, should, in itself, have little bearing on the population of Ospreys in the area. It is common knowledge that Ospreys continue to nest in areas frequented by many people if the birds are given complete protection. C. S. Allen (1892:314) described an Osprey nest that was placed near the front gate and within fifty yards of an occupied house.

SUMMARY

The Osprey population along the north coast of Lower California has fallen markedly in the past thirty to forty years. San Martín Island is a notable instance: In 1913 about thirty pairs nested there whereas in 1946 the nesting population consisted of three pairs. This appears to be generally true except for the colonies at Scammon's Lagoon. For this area no specific past records were found in the literature. On one small island in Scammon's Lagoon the population appears to have been "cleaned out" by coyotes within the last few years.

The Osprey lays few eggs, usually only two or three, and has a very long period of vulnerability while it is nesting. Because of these facts the nesting Osprey is likely to suffer greatly if its enemies are present during the breeding season. The presence of men in the Ospreys' nesting area does not necessarily mean that the area becomes useless to the Osprey. However, in the area studied man appears to be the most important enemy of the Osprey. Evidences for this statement are as follows: (1) Bullets were dug from a rock near a nest. (2) Fishermen were observed target-practicing at Ospreys and their nests. (3) Fishermen who needed food used the Osprey eggs in cooking and ate some of the Osprey "squabs."

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