

NOTES ON PELECANIFORMES IN NEVADA

C. S. Lawson

Six species of Pelecaniformes occur or have occurred in Nevada. Two, White Pelican (*Pelecanus erythrorhynchos*) and Double-crested Cormorant (*Phalacrocorax auritus*) are common, have been well noted in the literature and will not be discussed here. Of the remaining four, Brown Pelican (*Pelecanus occidentalis*), Blue-footed Booby (*Sula nebouxii*), Brown Booby (*Sula leucogaster*), and Magnificent Frigatebird (*Fregata magnificens*) only the Brown Pelican and Magnificent Frigatebird appear in the literature on Nevada birds. The occurrence of the Blue-footed Booby and Brown Booby in Nevada has been discovered only recently, their occurrence being briefly noted in American Birds (Monson 1972a).

There are no specimen records of these four species from Nevada. Photographic documentation has been obtained of the Brown Pelican and Blue-footed Booby. Sketches were made of the Brown Booby at the time of the initial sighting. The original color transparencies and sketches are deposited in the University of Nevada Museum of Biology, University of Nevada, Reno, Reno, Nevada. With the exception of the suspect 1934 record of the Brown Pelican in Churchill County near Stillwater, Nevada (Linsdale 1936), all records of occurrence for these four species are from Lakes Mead and Mohave, Clark County, in southern Nevada.

McCaskie (1970) discusses the normal range, probable points of origin, probable factors causing dispersal from normal range, seasonal distribution, age ratios of birds recorded, and survival in relation to available food of these species in the interior southwestern United States.

BROWN PELICAN

On 13 September 1971 I discovered an immature Brown Pelican at Las Vegas Bay, Lake Mead. This individual was resting in the water, preening, approximately one hundred yards east of Las Vegas Wash Marina. About ten minutes after discovery, it took flight and was observed diving three times within fifty yards of shore. An extensive series of photographs was taken.

Between 13 September and 30 September, the last date seen, presumably this same individual was observed and photographed at the same location by eleven observers on six occasions. The accompanying

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photograph (Figure 1) was taken at Las Vegas Bay on 30 September. This is the first documented record for Nevada.

An error appears in the literature regarding records of occurrence in Clark County. Austin and Bradley (1971) incorrectly cite two observations of the White Pelican by Smiley (1937) in the Lake Mead area as being Brown Pelicans. McCaskie (1970) correctly cites the three previously published sight records for Nevada.

Reports of thirty-six sightings were examined. These include eight obvious and eight probable descriptions of White Pelican. The 1934 record near Stillwater, Nevada (Linsdale 1936) contained very little detail and was not considered.

To date, there have been nineteen sightings involving forty-one individuals. Except for the doubtful May record all sightings have occurred during the four month period between June and mid-October. The number of sightings occurring in each month is June – two, July – one, August – two, September – twelve, and October – two. Seventeen sightings involving thirty-nine individuals were of immature birds. The remaining two records of sightings contained sufficient detail for identification but did not clearly indicate age.



Figure 1. An immature Brown Pelican (*Pelecanus occidentalis*) at Lake Mead, Clark County, Nevada 30 September 1971. Dorsal View.

Photo by C.S. Lawson.

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BLUE-FOOTED BOOBY

On 27 August 1971, about 13:00, Belinda Hellings, Sally Lawson and I discovered an immature Blue-footed Booby resting in the water about seventy-five yards offshore in Las Vegas Bay, Lake Mead. An extensive series of photographs was taken of the bird in the water and in flight.

Returning 28 August to secure more photographs, I discovered a second immature individual with the first. The birds were photographed together in flight. On 16 October three individuals were observed by M. Vincent Mowbray, John Koch and Glade Koch at the same location. The third individual was apparently a second year bird as it was more extensively white on the head and lower back.

All three birds were observed diving on several occasions. Dives were usually made into the more shallow portions of the lake, primarily near the shore. Several dives were made into areas containing vegetation growing from the water. Most dives observed were from twenty-five to thirty-five feet altitude and almost always at shallow angles of descent. However, one photograph was obtained of the second year bird in a vertical dive.



Figure 2. Two immature Blue-footed Boobies (*Sula nebouxii*) at Lake Mead, Clark County, Nevada 3 November 1971. Though the color slide shows blue legs and feet, the dark heads indicate the birds have not yet attained adult plumage.

Photo by C.S. Lawson.

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Sally Lawson and I explored each cove of Las Vegas Bay by boat on 3 November in an effort to locate resting sites being utilized by these birds. These efforts were successful and all three birds were photographed. The accompanying photograph (Figure 2) was taken on that date.

Twenty-five sightings were made from 27 August 1971 to 23 January 1972. All three birds were last observed on 22 December and the last individual sighting was on 23 January 1972 (Monson, 1972b). This is the first record for Nevada.

BROWN BOOBY

On 27 August 1971, about 08:30, Karl Lawson and I discovered an immature Brown Booby diving about seventy-five yards offshore in Las Vegas Bay, Lake Mead. After diving several times the bird alighted in the water about one hundred yards offshore and began to preen. Using a Bausch and Lomb 15x60 telescope, we observed the bird for almost twenty minutes. A sketch was made and the following description obtained:

The bill was large, heavy, pointed and appeared to be dark grayish. The head, neck, throat, upper chest, remiges, lesser, middle, greater coverts, back and tail were very dark brown. The lower chest, stomach, sides, flanks, undertail coverts and wing linings were dark grayish-brown. The legs and feet were not seen.

We had just completed making the sketch and notes when an adult Brown Booby appeared and also began to dive. The bird dived five times and, once, approached to within twenty-five yards of shore. It then passed from view beyond a point of land. A sketch was made and the following description obtained:

The bill was pale yellow, large heavy and pointed. The head was dark brown with some whitish feathers on the forehead. The neck, throat, upper chest, remiges, lesser, middle, greater coverts, back and tail were very dark brown. The lower chest, stomach, sides, flanks, undertail coverts and wing linings were pure white with a very sharp line of demarcation between the dark brown of the upper chest and the white of the lower chest. The legs and feet were pale yellow.

The whitish feathers on the forehead indicate the Gulf of California race *S. l. brewsteri*. Dives by both birds were almost vertical and into water about seventy feet deep from altitudes of twenty-five to fifty feet.

Both birds were later seen by four other observers. A total of ten sightings were made between 27 August and 5 December. Both birds were observed together on all but three occasions. Figure 3 is a replica of the sketches.

Most sightings occurred 27 August – 5 September during the Labor Day holiday period. Recreational boating use of Lake Mead during this

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last summer holiday is always very heavy. This heavy boating activity apparently disturbed the birds as they were observed farther out on the main body of the lake on each subsequent occasion. They were observed to break off dives as power boats and water skiers passed beneath them. They could not be found in Las Vegas Bay 3 November when each cove was explored by boat. They were last seen 5 December in the more protected waters of Las Vegas Bay after a severe frontal system accompanied by high winds passed through this area. All efforts to obtain photographs were unsuccessful.

Compared to the Blue-footed Booby, the low number of Brown Booby sightings is attributed to the inaccessibility of the main body of the lake by either road or small boat. Extensive boating and water skiing would exert greater pressure on the Brown Booby, which fed in deeper waters, than on the Blue-footed Booby which fed along the shoreline where boating would be dangerous. The Brown Booby could be expected to move to the main body of the lake where boating is not heavy and feeding would be relatively undisturbed. This is the first record for Nevada.

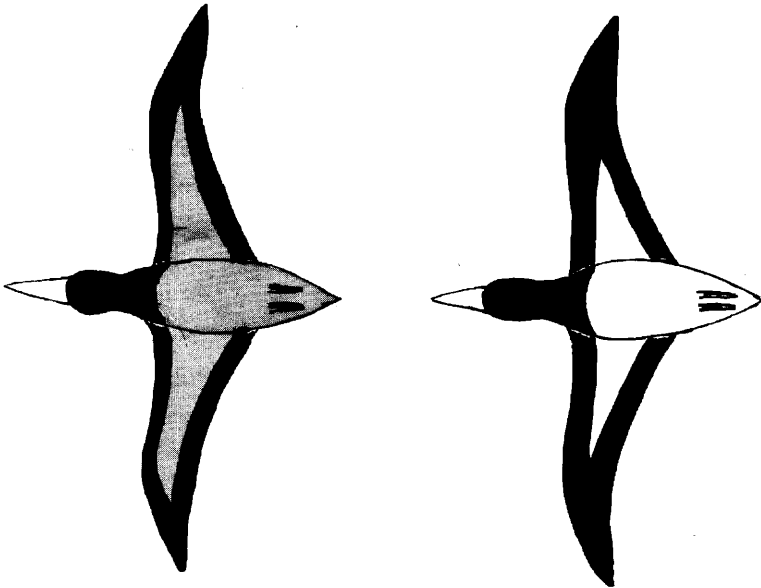


Figure 3. Replica of sketches made of two Brown Boobies (*Sula leucogaster*) 27 August 1971 at Lake Mead, Clark County, Nevada. Immature left, adult right.

Sketches by C.S. Lawson.

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MAGNIFICENT FRIGATEBIRD

Baldwin (1947) reported sighting an individual of this species in Eldorado Canyon about thirty-five miles below Hoover Dam. On 3 September 1971 Art Johnson of the National Park Service observed a female Magnificent Frigatebird soaring above Davis Dam, Lake Mohave. Mr. Johnson was a new resident to Nevada at that time having been reassigned to this area from Key West, Florida. In Florida Mr. Johnson became very familiar with this species and was surprised to see the species here in the desert southwest. His description was clearly that of a female of this species. This is apparently the second record for Nevada.

DISCUSSION

Efforts to observe and study these four species of Pelecaniformes in Nevada are difficult at best. This is true even in known flight years. In such years they are found in the Salton Sea area of southern California and move inland along the Colorado River.

Lake Mohave is 67.5 miles long; Lake Mead is 115 miles long with over 550 miles of shoreline. Both lakes have very limited road networks approaching their respective shores and each has literally hundreds of isolated coves. In known flight years these birds could go unnoticed in Nevada unless parties of observers explored the coves of each lake by boat during late summer and early fall.

Food conditions in these fresh water lakes are excellent. Both contain a forage fish, Threadfin Shad (*Dorosoma petenense*) in enormous concentrations. Prolific spawners, Threadfin Shad attain six to eight inches in length as an adult. Breeding in early summer, peak populations coincide with post breeding wandering of these Pelecaniformes.

Feeding forays by Striped Bass (*Roccus saxatilis*), voracious feeders, force schools of shad to the surface and often leave numbers of dead and dying fish on the surface. This is particularly true of Lake Mohave where the population of Striped Bass is larger and more well established than that of Lake Mead.

The pelican and both species of booby were observed diving into schools of shad on several occasions. These shad also attract gulls and terns. Presumably, the Magnificent Frigatebird would be attracted by feeding gulls and terns and by dying fish on the water surface.

From the sightings available for analysis it is obvious that the Brown Pelican occurs frequently though in small numbers. However, the number of Brown Pelican sightings reported may reflect the fact that

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most of the public would recognize a pelican whereas few would recognize either species of booby or the Magnificent Frigatebird without prior birding experience. These four species should be looked for during late summer and early fall.

SUMMARY

The occurrence of the Brown Pelican, Blue-footed Booby, Brown Booby and Magnificent Frigatebird in Nevada is briefly discussed. The availability of food for all species is discussed. The Brown Pelican is a rare but regular visitant to Nevada during late summer and early fall. Most sightings occur during the month of September. There are no unquestionable sightings prior to June and no records after mid-October. All records indicating age are of immature birds. The literature is corrected regarding the occurrence of the Brown Pelican in Clark County. The first records of the Blue-footed Booby and Brown Booby in Nevada are reported. Comments are made on the possible influence of boating activity in relation to feeding habits of the Brown Booby in Nevada. These two species can be expected in southern Nevada when they are also present in the lower Colorado River basin or the Salton Sea area of southern California. A second sighting of the Magnificent Frigatebird in Nevada is reported.

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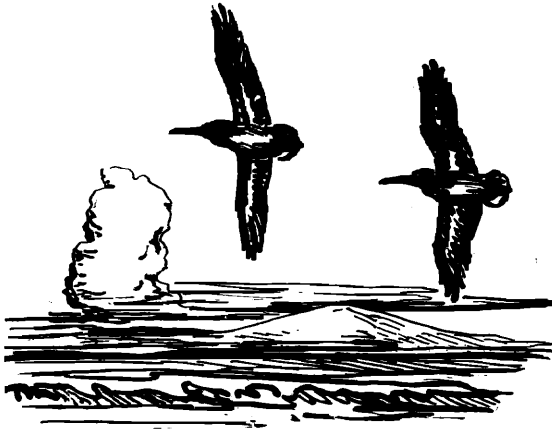
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Sketch by Tim Manolis