

## NOTEWORTHY WATERBIRD RECORDS IN THE DELTA OF THE RÍO COLORADO, MEXICO, 2002

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**ABSTRACT:** Surveys of the Río Colorado delta in summer 2002 revealed abandonment of one large heronry but the existence of another large and several small, inconspicuous heronries previously nonexistent or undetected. Most notable among these mixed-species colonies were two nests of the Tricolored Heron and two fledglings of the Reddish Egret, representing considerable northward extensions of these species' breeding ranges.

The waterbirds of the Mexican portion of the Río Colorado delta are relatively well known (see Patten et al. 2001), especially those breeding on Isla Montague and at the Cerro Prieto evaporation ponds (Peresbarbosa and Mellink 2001, and references therein; Molina and Garrett 2001). During the 2002 breeding season, however, while collecting samples for a study of trophic relationships in this region, we made some noteworthy observations of breeding waterbirds and of some nonbreeding species for which few records exist.

We visited the delta region 4–6 March, 15–19 April, 29 April–3 May, 2–5 June, 12 June, 24–26 July, 30–31 July, and 8 September. Additionally, on 24 April, using a Beechcraft twin-engine airplane to fly over the delta's major watercourses (Río Hardy, Río Colorado, Canal Pescaderos) and the Ciénega de Santa Clara, we conducted an aerial survey for rookeries. On 30 July 2002, we inspected the large heronry on an islet in the middle of an agricultural drain reported by Mora (1989, 1991, 1992, 1997) near Colonia Venustiano Carranza, hereafter called the "Carranza heronry." The drain channel beneath the heronry was dry, and the shrubby tamarisks (*Tamarix ramosissima*) on which the herons had nested were charred from a recent fire. There were no signs of herons at this place, nor in nearby large patches of tamarisk that seemed suitable as breeding habitat. A farmer (Roberto Viridiola) indicated that the heronry was active as of 2000.

### SPECIES ACCOUNTS

#### Breeders

Great Blue Heron (*Ardea herodias*). This species is considered a common breeding resident (Patten et al. 2001, Wilbur 1987), with nesting in northeastern Baja California known only from Cerro Prieto and Isla Montague. A large Athel Tamarisk (*Tamarix aphylla*) near the Río Hardy (32° 12.601' N, 115° 15.511' W) held five recently abandoned nests, below which were remains of a small and a half-grown Great Blue Heron.

Great Egret (*Egretta alba*). This species is considered a common local breeding resident (Patten et al. 2001), with nesting known from the Cerro Prieto evaporation ponds (Molina and Garret 2001) and the former Carranza heronry (Mora 1992, 1997). In 2002 we found this species breeding at three additional locations. On 29

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April several Great Egrets were observed in the top of a large Fremont Cottonwood (*Populus fremontii*) near Ejido Cucapá Indígena (32° 17.347' N, 115° 18.457' W), with one pair building a nest. On 24 July, one of eight nests in this cottonwood was occupied by a Great Egret. Four nests were of Snowy Egrets (*E. thula*), and three were of unknown species.

We found the second colony on 26 July in the canopy of several large Fremont Cottonwoods along the Río Hardy, next to a semi-abandoned farm house in Colonia Muñoz (32° 12.375' N, 115° 16.148' W). It included about 20 nests of the Great Egret, some with small to large chicks. Several adult Great Egrets were observed feeding in the nearby river.

The third colony, of 10 nests in large Fremont Cottonwoods, was found 26 July near Ejido Oaxaca (32° 19.418' N, 115° 10.834' W). These birds were adjacent to a larger mixed heronry (hereafter called the "Oaxaca heronry") composed of Snowy Egrets, Tricolored Herons (*E. tricolor*), Cattle Egrets (*Bubulcus ibis*), and Black-crowned Night-Herons (*Nycticorax nycticorax*). The colony contained chicks of various sizes. On 31 July, several large eucalyptus trees (*Eucalyptus* spp.) by an abandoned farmhouse 2.8 km from this heronry (32° 20.468' N, 115° 09.477' W) were used as a roost by Great Egrets as well as Black-crowned Night-Herons. In addition to guano, nuptial plumes of this egret littered the ground, suggesting it was a post-breeding molting roost. At this time, very few Great Egrets remained at the Oaxaca heronry (compared with the number of nests), and it seems likely that birds from this colony were the occupants of this roost, as there was no other Great Egret colony nearby. On 8 September there were no Great Egrets at the Oaxaca heronry.

Snowy Egret (*Egretta thula*). This common local resident (Patten et al. 2001) nests on Isla Montague and at Cerro Prieto and nested in the defunct Carranza heronry (Mora 1992, 1998). On 24 July we recorded at least four Snowy Egret nests with large young near Ejido Cucapá Indígena, and on 26 July we observed 15 to 20 adults incubating at the Oaxaca heronry, with one nest containing two young. On 8 September, only three adults and one juvenile remained at the Oaxaca heronry.

Tricolored Heron (*Egretta tricolor*). On 26 and 31 July, we found two pairs nesting within the Oaxaca heronry. The nests were hidden deep in tamarisk and contained three eggs and at least two chicks, respectively. This species had not been recorded breeding in the area before, although it was known as a summer vagrant (Patten et al. 2001). There is, however, a record of its probably breeding at the Salton Sea (Howell and Pyle 1997). The closest known regular breeding localities are in southern Sonora (Russell and Monson 1998) and central Baja California (Wilbur 1987). The species was absent from this colony on 8 September.

Reddish Egret (*Egretta rufescens*). The behavior of birds at Estero del Chayo, Isla Montague, on 4 and 12 June suggested breeding, but we could not locate a nest. On 4 June an adult appeared to sit on a nest (the topography precluded us from assessing this definitively), but we later confirmed only a Snowy Egret nest there. On 25 July we found two adult Reddish Egrets with two fairly large young in this area. This observation suggests that Bancroft (1927:42) might have been correct when stating "I have good reason to believe it nests in the Delta region." In recent years the species has not been recorded nesting in the delta of the Río Colorado (Patten et al. 2001, Peresbarbosa and Mellink 2001), and the closest regular breeding locality is Isla San Luis (Bancroft 1927, van Rossem 1926; E. Mellink field data), 190 km south of Isla Montague. Two to three pairs of nesting Reddish Egrets at Isla Todos Santos, at roughly the same latitude as Isla Montague but on the Pacific side of the peninsula, from 1999 to 2002 (Palacios and Mellink 2000, Erickson et al. in press) suggest that the species may be expanding its range northward on both coasts of Baja California. In addition to our Isla Montague observation, we observed an adult Reddish Egret feeding in the Río Hardy (32° 07.190' N, 115° 14.461' W) on 26 July.

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Cattle Egret (*Bubulcus ibis*). Patten et al. (2001) considered this species a common breeding resident that colonized northeastern Baja California in the mid-1960s. It had been breeding at the Carranza heronry since 1972 (Mora 1989). On 26 July the Oaxaca heronry included 500–1000 pairs of Cattle Egrets. The nests, in tamarisk, contained from eggs to large chicks. Several Turkey Vultures (*Cathartes aura*) perched on nearby Fremont Cottonwoods presumably feasted on the carcasses of many young birds that fell out of the nests (although pigs were slaughtered at a nearby ranch, potentially providing additional food for the vultures). On 8 September only a few nests, some with small chicks, remained active. At this time, many juveniles and some adults were at the colony site.

Black-crowned Night-Heron (*Nycticorax nycticorax*). This species is a common resident of Valle de Mexicali, with nesting known only from Isla Montague (Wilbur 1987, Patten et al. 2001). On 16 and 29 April and 1 May, we saw Black-crowned Night-Herons fly from two nests high in a 10-m tamarisk located adjacent to Canal Pescaderos (32° 11.423' N, 115° 13.154' W). We found remains of several crayfish (*Procambarus* sp.) on the ground below, and on 26 July we climbed the tree and examined the four nests at the top. Three looked as if they had been abandoned for some time, but the fourth, although empty, was in good shape. The only individual we saw on this date flushed from somewhere near that nest.

On 13 and 14 June we observed two pairs near Cerro Prieto's main heronries in pond V3 on the northeastern side of the geothermal complex (Molina and Garrett 2001). A rudimentary nest of no more than a dozen sticks was present in an Iodine Bush (*Allenrolfea occidentalis*); on 24 July this nest contained a half-grown chick.

Finally, about 10 nests were occupied by adult Black-crowned Night-Herons at the Oaxaca heronry on 26 and 31 July. Most were in tamarisk, but at least one was in a Honey Mesquite (*Prosopis glandulosa*). One nest contained three eggs, and there was a dead chick of this species in the canopy of a Date Palm (*Phoenix dactylifera*). On 8 September we failed to find the species at this site.

American Avocet (*Recurvirostra americana*). Incubating adults of this species had been observed in Cerro Prieto in 2000 and 2001 (Molina and Garrett 2001), and on 30 April we found a nest with four eggs. On 13 June two nests had eggs, while two other nests with incubating adults could not be examined.

Caspian Tern (*Sterna caspia*). This tern is fairly common year round in northeastern Baja California, with nesting confirmed only at Cerro Prieto (Molina and Garrett 2001, Patten et al. 2001). On 4 May 1994 several individuals exhibited nest-defense behavior on a chernier (subfossil shell deposit) by the lighthouse on Isla Montague (Mellink and E. Palacios pers. obs.), but it was suspected that these birds' nests had been flushed away by high tides the day before. On 12 June 2002 we counted 83 nests on Isla Montague, 33 with one egg, 46 with two eggs, three with one egg and one pseudoegg, and one with one chick. On 26 July, some Caspian Terns were still on eggs, but there were also several chicks, small and large. The colony was at the end of a large chernier 3 km northwest of the lighthouse (31° 41.797' N, 114° 44.810' W). There was a Royal Tern (*Sterna maxima*) colony near the Caspian Tern colony, and Black Skimmers (*Rynchops niger*) nested in large numbers throughout the area. We also observed a few nests of the Gull-billed Tern (*Sterna nilotica*) and one of the Laughing Gull (*Larus atricilla*) near the Caspian Tern nests.

### Nonbreeders

Wood Stork (*Mycteria americana*). The only recent records of this species in the area are of up to ten at Campo Thy-Thy 27–28 August 1994 and nine at Terrenos Indios 7 September 1995 (Ruiz-Campos and Rodríguez-Meraz 1997). On 30 July we recorded 36 individuals, mostly second-year birds, but also three juveniles and at least

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one adult, in a tributary to the Río Hardy (32° 13.221' N, 114° 12.499' W). This count is notable because such numbers have not been equaled at the Salton Sea since the mid 1990s (Patten et al. in press).

Mallard (*Anas platyrhynchos*). This is an uncommon winter visitor with only one previous summer record (Patten et al. 2001). On 31 July, four females were in Canal Pescaderos near El Caimán (32° 12.462' N, 115° 12.590' W).

### DISCUSSION

The observations we made during 2002, in addition to providing new information on the species recorded, point out several issues. Contrary to our expectation, heronries were scarce in the Mexican portion of the Río Colorado delta. Those we report on here were very inconspicuous, and there is a good chance that some small heronries remained undetected. Thus, in addition to the large heronries already known at Cerro Prieto and Isla Montague, small heronries scattered throughout the delta may also contribute significantly to conservation of various native species in the area. The stability or volatility of these small colonies from year to year remains unknown.

The forming of the large heronry near Colonia Carranza in 1972 (Mora 1989), and its disappearance in 2000 (this work), are a reminder that heronries are dynamic and subject to catastrophes. The fate of the birds that composed it is unknown and cannot be assessed. These birds did not merely move to the Oaxaca heronry, as local residents affirmed that this colony has existed for many years (although not earlier than 1988; Mora 1991).

Our records of nesting Caspian Terns, Reddish Egrets, and Tricolored Herons also reflect the dynamism of waterbird colonies. These cases may be different, though, as Caspian Terns seem to nest on Isla Montague during certain years, but the ardeids might represent range expansions (if they remain breeding in the area).

Clearly, knowledge of the waterbirds in this region is far from complete, and further surveys are needed. This is especially true for the eastern section of the delta, which has been particularly neglected by ornithologists. Exhaustive ground surveying and interviews with local people seem to be superior to aerial surveys for detecting heronries in the Río Colorado Delta because the small size and inconspicuousness of many colonies preclude their detection from the air (the large Oaxaca heronry was outside the track of our flight). In addition to a one-time survey, monitoring of the colonies would provide data for understanding the dynamics of waterbird colonies in this area and would increase our ability to develop appropriate conservation schemes.

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