

Records of Sternini from the Valley of México

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Se describe la anidación en 2005 de *Sterna nilotica* en el Distrito Federal y se documentan los primeros registros de *S. anaethetus*, *S. caspia* y *S. antillarum* en la misma entidad.

The Parque Ecológico Xochimilco (PEX) is a protected area of c.230 ha in the south-east of Mexico City, immediately adjacent to the city's principal ring road (19°17'N 99°06'W). The reserve was created c.13 years ago from rough grazing land in part of what was a huge wetland a few hundred years ago. It presently comprises a shallow reed-bordered lake of 70 ha, grassland, canals, ponds and recreational areas. Native trees (*Salix bonplandiana* and *Taxodium mucronatum*) were planted around the lake and along many of the canals, and some have now reached heights of 10 m or more. In recent years more than 100 bird species have been regularly recorded and the reserve now harbours breeding populations of Pied-billed Grebe *Podilymbus podiceps*, Eared Grebe *Podiceps nigricollis*, Mexican Duck *Anas platyrhynchos diazi*, Cinnamon Teal *A. cyanoptera*, Ruddy Duck *Oxyura jamaicensis*, American Coot *Fulica americana*, Common Moorhen *Gallinula chloropus*, Killdeer *Charadrius vociferus*, American Avocet *Recurvirostra americana* and Black-necked Stilt *Himantopus himantopus* as well as migrant waders, and wintering populations of American White Pelican *Pelecanus erythrorhynchos* and many other waterfowl. Water levels fluctuate considerably year-round, being generally highest in late summer/autumn and lowest prior to the spring rains, when many shingle and mud islands appear in the lake. The only member of the Sterninae to occur regularly at this site, and indeed in the Valley of México, is Black Tern *Chlidonias niger*, but Forster's Tern *S. forsteri* and Royal Tern *Sterna maxima* have been recorded once or twice during the last 20 years at or near this site⁵.

Observations

No visits were made to the site during the first half of May 2005, but Gull-billed Terns *Sterna nilotica* were first recorded there on 19 May, when two were hawking over the lake. One landed on a large shingle bank c.100 m offshore, where it displayed to a third bird crouched, apparently on a nest, amongst the stones. By 26 May, two pairs were behaving as if incubating on the same shingle bank, with an additional two birds in regular attendance, and on 9 June it appeared that the adults were bringing food to one of the presumed nests. However, no young were seen until 23 June, when

fledglings were visible amongst the stones, vigorously exercising their wings. By this date, because of heavy rainfall during the month, water levels had risen sharply and most of the shingle bank was submerged, leaving the young more exposed. On 30 June, two fully fledged juveniles had left the shingle bank for a higher island c.200 m to the south. Two adults were in attendance but the other pair had abandoned the area. Both adults and juveniles had left the area when it was surveyed again on 13 July. The nesting site is illustrated in Fig. 1. This species has recently been reported breeding in small numbers (up to 10–12 pairs) at lakes in the bed of the now largely dry Lake Texcoco, between Mexico City and Texcoco, in the state of México (P. Ramírez & E. Cortez pers. comm.). In general, there are two clutches, the first in March and a second in June. On 4 May 2005, MG observed territorial display and a bird carrying food to its mate at a nest; the terns had disputed their breeding site with a Black-necked Stilt (Fig. 2). The site where the birds bred is quite similar to that in Xochimilco, but in Texcoco water flow is well controlled and permits a more or less constant water level throughout the year. Gull-billed Terns nest at inland sites in Florida and Texas¹ and breed regularly at freshwater lakes in the Palearctic⁶, but are not definitely known to nest in the interior of Mexico³. It is unknown whether the Xochimilco birds were of the subspecies *aranaea*, a strictly coastal nester in the Gulf of Mexico or *vanrossemi* of the Pacific coast, which has also bred slightly inland at the Salton Sea².

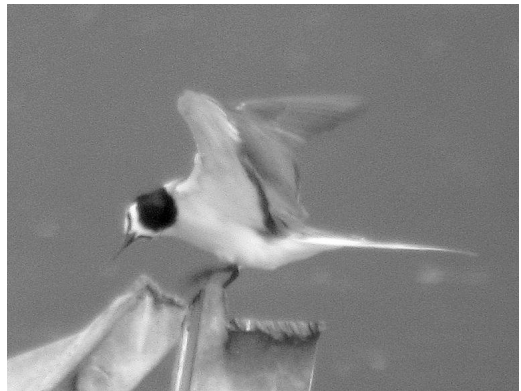
On 10 August 2005, AMH & RGW were surveying the lake at PEX when they noticed a dark tern hawking at c.200 m range. Identification was uncertain until the bird landed on a small island c.150 m away and they were able to view it with a 32× telescope. It was obviously an adult Bridled Tern *Sterna anaethetus* in alternate plumage. The observers had no camera and an attempt to photograph the bird next day failed, but on 12–13th HGS & MG took a series of photographs (Figs. 3–4) that clearly show the contrast between the black crown and sooty-grey back and wings, the narrow white superciliary extending just behind the eye, and white outer tail feathers which distinguish the species from Sooty Tern *S. fuscata*. The site was not visited on 14th and the bird had



Figure 1. Gull-billed Tern *Sterna nilotica* at nest, PEX (Manuel Grosselet)



Figure 2. Gull-billed Tern *Sterna nilotica* display behaviour, Texcoco, 4 May 2005 (Manuel Grosselet)



Figures 3 and 4. Bridled Tern *Sterna anaethetus*, PEX, August 2005 (Manuel Grosselet)



Figure 5. Caspian Tern *Sterna caspia*, PEX, 15 August 2005 (Héctor Gómez de Silva)

gone by 15 August. The occurrence of this strictly marine species over 300 km from its nearest breeding site on the White Friar Rocks, off Zihuatanejo, in Guerrero¹ is remarkable. There appears to be only one previously published inland

record in North America, a sight record in Arkansas¹. No unusual meteorological conditions existed in the Pacific during the period immediately prior to the bird's discovery on 10 August. However, the site had not been visited for c.2 weeks and during the second half of July there had been two hurricanes in the Gulf of Mexico, raising the possibility that the bird was actually of Caribbean provenance.

Whilst searching for *S. anaethetus* on 15 August, three large terns were observed flying over the lake and occasionally plunge-diving; they were readily identified as Caspian Terns *Sterna caspia*. Two spent some time roosting on the shingle bank where *S. nilotica* had nested and several photographs were taken (Fig. 5). The birds were not seen on 18th when the site was next visited. The species breeds widely in the interior of North America and the winter range is mapped as including the Transverse Volcanic Belt where it is uncommon to rare and local³. Caspian Tern has been recorded a very few times in winter during the last 20 years from deeper lakes in the state of

México, and more regularly from wetlands in the highlands of Jalisco at the western end of the Volcanic Belt⁴ (S. N. G. Howell pers. comm.), but none of the authors of this paper with an accumulated total of over 80 years birding in Mexico City are aware of any other records of this species in the Valley of México, and it must be a vagrant to this area.

During the morning of 31 August 2005, RGW observed 15 Black Terns feeding over the lake at PEX, this being the largest grouping of this species ever observed in the Distrito Federal. In close proximity, but not actually accompanying this flock was a smaller tern with much faster wingbeats and continually plunge-diving. At its closest approach to the observer it was clearly identifiable as a Least Tern *Sterna antillarum* in alternate plumage. Although visible for more than ten minutes before the bird flew off down the lake, it never alighted and photography was impossible. A small number of Black Terns was present next day, but this bird was not seen again. The endangered race *S. antillarum athalassos* nests in the interior of North America, but there are no published inland records in Mexico of the commoner nominate race *antillarum* of the Gulf coast, or of *browni* which nests sparingly on the Pacific coast of Guerrero². However, Least Tern has been recorded in August in the Valley of Oaxaca (MG pers. obs.). Again, no remarkable weather conditions were noted either on the Pacific coast or in the immediate vicinity of the east coast of Mexico, but Hurricane Katrina had passed through the northern part of the Gulf of Mexico two days previously.

References

1. American Ornithologists' Union (1998) *Check-list of North American birds*. Seventh edn. Washington DC: American Ornithologists' Union.
2. Gochfeld, M. & Burger, J. (1996) Family Sternidae (terns). In: del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) *Handbook of the birds of the world*, 3. Barcelona: Lynx Edicions.
3. Howell, S. N. G. & Webb, S. (1995) *A guide to the birds of Mexico and northern Central America*. Oxford: Oxford University Press, Oxford.
4. Williams, S. O. (1982) Black Skimmers on the Mexican Plateau. *Amer. Birds* 36: 255–257.
5. Wilson, R. G. & Ceballos-Lascuráin, H. (1993) *The birds of Mexico City*. Second edn. Burlington, ON: BBC Printing & Graphics Ltd.
6. Witherby, H. F., Jourdain, F. C. R., Ticehurst, N. F. & Tucker, B. W. (1958) *The handbook of British birds*, 5. London, UK: H. F. & G. Witherby.

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