

## An Arctic Tern (*Sterna paradisaea*) at Great Lakes Naval Training Center

On 3 June 2000, Mike Madsen, Jeff Sanders, Al Stokic, and I were standing on the edge of the beach in the Great Lakes harbor, at the point where the sandy spit comes closest to what is normally a small island. Because of the low water level this year, the island was now connected to the beach by an expanse of wet sand. Many Common Terns (*Sterna hirundo*) were flying, engaging in courting displays, and carrying fish to others perched on the island sand. Among the Commons were also Forster's (*Sterna forsteri*) and Caspian (*Sterna caspia*) Terns.

As we watched, a tern flew over making the higher, thinner call of an Arctic Tern (*Sterna paradisaea*). I looked up, expecting to see another Common Tern with a strange call, but the bird had a shorter-necked, longer-tailed appearance in flight. It flew several circles over the water of the harbor and approached the sandy spit and island. It had a lighter, more buoyant flight than that the Common Terns nearby. It called again, making the same thin, higher-pitched sound unlike the deeper, raspy calls of the Commons, and then it landed out of view behind some grass on the other (south) side of the "island." My curiosity was piqued further when Jeff Sanders called to me and asked if I had seen "that tern with the long tail." We moved in to find the bird.

As we rounded the west side of the island, we got an open view of the terns perched on the south side. There were eight to ten medium-sized terns, mostly Commons. A pair of Commons was copulating. Several others were carrying fish and calling. I saw one tern sitting by itself, about 5-6 feet away from two Commons, and was able to get my telescope on it from a distance which, as we moved closer, ranged from 60 to 90 feet.

The subject had a gray back, with uniform gray on the wings, including the primary extension and a pearl gray breast, flanks, and belly. The side of the face where it met the neck was off-white, contrasting with both the black crown and nape as well as the gray neck and breast. This patch extended toward the throat, but seemed to end there. The overall effect was a horizontal white patch that contrasted with the breast and head, and which was confined to the lower face and side of the neck. The wing tips did not extend beyond the tail, but were shorter than the tail. The color of the folded primaries was gray, and did not particularly contrast with the gray back and coverts. The bill was a deep, blood red, lacking any black or other dark markings. The legs were pinkish red. The bill was notably darker and redder than the orange-red bills of the nearby Commons, and all of the Commons and Forster's which we saw had some amount of dark marking on their bills. The bill of the subject seemed somewhat smaller than the

Commons, but the bird was not close enough to really get a definitive feeling about comparative size of bills.

As we watched, the bird started to walk, then run, toward the nearby Commons, at which point I was able to see that it was clearly shorter legged than the Commons. The bird appeared shorter-necked, more delicate, and smaller than the Commons.

About this time, a jogger came running along the edge of the water on the island and put all of the terns into the air. With the sun in good position behind us, we got excellent views of the subject in flight. We saw that the under wings were completely white except for a very fine, uniform, and distinct blackish terminal bar on the trailing edge of the outer primaries, but that did not extend to the inner primaries. The Common and Forster's nearby had irregular, thicker, and more extensive dark trailing edges on their under wings. The leading edge of the outer primary had no black at all and, as seen from the underside, was paler than the dark trailing edge of the primaries. The upper wing was uniformly pearly gray, lacking the black leading edge of the Commons or the white outer primaries of the Forster's nearby. There was no contrast at all on the dorsal surface of the wing.

In flight, the tail was much longer in proportion to the body profile than the Common or Forster's, and it was more deeply forked. The bird flew around several times over our heads, then headed out into Lake Michigan and did not return.

We discussed what we had observed, and agreed that the bird was an Arctic Tern. Roseate (*Sterna dougalli*) was eliminated based on upper and lower wing characteristics, breast color (no rosy tones at this season) and the lack of a white breast or belly. Roseate also has an all-white under wing except for a dark leading edge on the outer primary, and lacks a dark trailing edge to the outer primaries. Forster's was eliminated based on breast color, the upper and under wing differences, tail with a shallower fork and not as long as the subject, plus the observed differences in beak size, shape, and color.

Common Tern, which we agreed was the most likely competing possibility, was eliminated based on under and upper wing differences, the subject's shorter legs, bill length, proportions and color, and the white "whisker area" on the side of the face, in addition to the differences in flight characteristics and profile. Taken in combination, all marks led to Arctic Tern.

When I returned home, I played a tape of Arctic Terns, which I had recorded in Churchill, Manitoba, in June 1997, and the voice was identical to the calls I heard at Great Lakes.