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Sarah E. Rehme

*Nebraska Game and Parks Commission*

Thomas E. Labeledz

*University of Nebraska State Museum, tlabeldz1@unl.edu*

Janis Paseka

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**FIRST NEBRASKA RECORD FOR THE ROYAL TERN  
(*Sterna maxima*) AND A REVIEW OF REGIONAL RECORDS**

Sarah E. Rehme<sup>1</sup>, Thomas E. Labedz<sup>2</sup>, Don and Janis Paseka<sup>3</sup>

<sup>1</sup> Nebraska Game and Parks Commission  
2200 N. 33rd St.  
Lincoln, NE 68583  
Current address: 244 Hardin Hall  
University of Nebraska  
Lincoln, NE 68583-0984  
srehme@bigred.unl.edu

<sup>2</sup> University of Nebraska State Museum  
W-436 Nebraska Hall  
Lincoln, NE 68588-0514  
tlabedz1@unl.edu

<sup>3</sup> 1585 County Rd. 14 Blvd.  
Ames, NE 68621  
paseka76@gmail.com



Photo 1. Taken 8 Sep 2007 at Lake North, Platte Co., Nebraska, by Janis Paseka.

On the afternoon of 8 Sept 2007, Don and Janis Paseka discovered a large tern on the causeway that separates Lake North from Lake Babcock, north of Columbus, Platte County, Nebraska. The causeway consists of a road next to Lake North and a low cement wall next to Lake Babcock. They observed the tern at approximately 1630 CDT standing on the low wall, on the west side of the causeway. The tern remained standing on the wall as they drove to within 15 feet and photographed it. The tern was standing with its wings drooping (Photo 1), and the fact that it allowed such a close approach indicated that it was in some distress, although there were no obvious injuries. The Caspian Tern (*Sterna caspia*) is the expected large tern species in Nebraska, but it was soon apparent from the white forehead, black crest, and the size and color of the bill that this was not a Caspian, but a Royal Tern (*Sterna maxima*). After the initial sighting on 8 Sep 2007, the bird was observed and photographed on 9 Sep by multiple observers (NEbirds 2007). The bird was observed by Sarah Rehme on 9 Sep to be dragging its wings on the ground and stumbling, but it was still able to fly. This is the first documented occurrence of a Royal Tern in Nebraska (Sharpe et al. 2001).

#### SIGHTING DETAILS

The tern was found dead at about 1330h, 10 Sept by William Flack. The carcass was salvaged by Rehme at 1500h on the same day under authorization of the Nebraska Game and Parks Commission. The carcass was donated to the University of Nebraska State Museum (UNSM). The specimen was prepared as a round skin, spread wing, and partial skeleton by Thomas Labeledz and added to the research collection as ZM-18317 (Photo 3). Ectoparasites were retained from the carcass and



Photo 2. Taken 9 Sep 2007 at Lake North, Platte Co., Nebraska, by Sarah Rehme.

delivered to the UNSM Division of Parasitology (HWML-48693). Examination during preparation revealed the bird to be an adult female in definitive basic plumage with average linear measurements, compared with adult female *Sterna maxima maxima* measurements given by Buckley and Buckley 2002. The tern was underweight at 282.2 grams. An adult female *S. m. maxima* generally weighs between 300-585 grams (Malling, Olsen, and Larsson 1995).

The bird's cause of death was unclear. Labeledz saw no indication as to the cause of the low weight (i.e., no intestinal blockage) or subsequent death. Starvation was indicated by lack of fat on the specimen, reduced muscle mass, and lack of oil in the uropygial gland, but Labeledz did not consider the bird completely emaciated. It is possible the bird succumbed to hypothermia, as low temperatures for 8, 9, and 10 Sept were 54, 53, and 49 degrees Fahrenheit, respectively. Temperatures on 9 and 10 Sept did not exceed 64 degrees Fahrenheit. The total precipitation for 9 Sept was 0.37 in. and 1.22 in. for 10 Sept, and wind gusts were as high as 15 m.p.h. on 9 Sept (Curtis 2008). The lungs and heart appeared healthy. The stomach contained very minor amounts of digested food including fish bones, two of which were retained and in identification compared favorably with dorsal fin rays of sunfish (*Perciformes: Centrarchidae*).

#### INLAND OCCURRENCES

*Sterna maxima maxima*, the New World subspecies of Royal Tern, is strictly coastal in distribution (Buckley and Buckley 2002). Rare inland from coastal states, a handful of mid-continent records exists. One healthy bird was observed 1 Jan 1989 at Lake Hefner and Kid's Lake, Oklahoma City, Oklahoma, among Ring-billed Gulls (*Larus delawarensis*). The bird was last sighted 19 Jan 1989 (Newell and Newell 1989). Another Great Plains Record is an adult observed at Neenoshe Reservoir in Kiowa County, Colorado, 15-16 July 1997. The bird was among Long-billed Curlews (*Numenius americanus*), Marbled Godwits (*Limosa fedoa*), Forster's Terns (*Sterna forsteri*), and Ring-billed Gulls (Nelson 1999). An alternate-plumaged adult was videotaped 17 June 2004 at Big Johnson Reservoir in El Paso County, Colorado (Semo 2008). Iowa's first Royal Tern was seen at Lake Rathbun in Appanoose County 20 Aug-14 Sept 2005 (Dinsmore and Gilliam 2005). Other regional inland records are listed in Table 1. The 1986 Arkansas specimen (Table 1) was also female and is retained in the zoological collections at the University of Arkansas even though the university's museum no longer exists. The specimen was believed to have been shot (James et al. 1994).

Inland sightings of strictly coastal birds often occur following hurricane and tropical storm activity. The Nebraska Royal Tern may have been driven inland by the same weather system that brought a frigatebird (*Fregata* sp.), photographed 28 Aug 2007, to the Norfolk, Nebraska, area (Silcock 2007) and a female Magnificent Frigatebird (*Fregata magnificens*) to Spirit Lake, Iowa, on 2-3 Sept 2007 (Dinsmore and Gilliam 2008). The following storm activity occurred during the weeks preceding the sighting of the Nebraska Royal Tern: Hurricane Dean made landfall on the Yucatan Peninsula 21 Aug, Tropical Storm Erin made landfall in Texas as a tropical depression 16 Aug, Hurricane Felix made landfall in Nicaragua 4 Sep, and Tropical Storm Gabrielle made landfall in South Carolina 9 Sept (AccuWeather.com 2007).

Date	State	County	Notes	Reference
5 Sep 1965	Wisconsin	Outagamie		Gorney (2008 )
7 Sep 1985	Illinois	Cook		Bohlen (1989)
18 Jun- 15 Jul 1985	Wisconsin	Manitowoc	1st state record, among Common and Caspian Terns	Soule (1986) and Peterson (1986)
14-15 Jun 1986	Arkansas	Lonoke	Specimen 88-51-1 at UA Museum	James, et al. (1994)
6 Jul 1986	Wisconsin	Manitowoc		Sontag (1987)
13 Jul 1988	Illinois	Cook		Bohlen (1989)
2-3 Aug 1988	Wisconsin	Milwaukee	Milwaukee Coast Guard Impoundment	Peterson (1989)
19 Jan 1989	Oklahoma	Oklahoma	See text	Newell and Newell (1989)
18 Jun 1993	Illinois	Cook		Gorney (2008)
20-21 Jul 1995	Ohio	Lorain	With gulls and terns in harbor	BIRDCNTR Archives (1995)
29 Jun 1996	Indiana	LaPorte	Photos on file with Indiana Bird Records Committee	Bruner (1997)
15-16 July 1997	Colorado	Kiowa	1st state record, see text	Nelson (1999)
22 May-15 Jun 1999	Indiana	LaPorte	Video on file with Indiana Bird Records Committee	Bruner (2000)
13 Aug 2002	Arkansas	Miller	3 birds	Arkansas Audubon Society (2004)
17-23 June 2004	Colorado	El Paso	Video on file with Colorado Field Ornithologists	Semo (2008)
20-21 Aug 2005	Iowa	Appanoose	1st state record; see text	Dinsmore and Gilliam (2005)
1 Sep 2005	Tennessee	Shelby	Hurricane Katrina generated	FreeLists.org/TN-bird (2005)
25 Sep 2005	Arkansas	Ouachita	Probably hurricane generated	Arkansas Audubon Society (2004)

Table 1. Sightings of Royal Tern from the central United States.

While hurricane or tropical storm activity may have contributed to the appearance of the Royal Tern in Nebraska, other regional observations appear not to be linked with these types of weather systems. No hurricane activity occurred near the time of the 1989 Oklahoma record, but Newell and Newell stated, "The weather was cold that day with strong winds and icy conditions." (1989). In the dates preceding the 1985 Illinois sighting, Hurricane Elena (category 3) made landfall in Mississippi 2 Sept 1985. Hurricane Danny, a category 1 from 18-20 July, could have led to the 1997 Colorado sighting (NOAA Coastal Services Center 2007), but Nelson reported an "absence of wind" (1999). The 2005 Tennessee sighting is believed to have been brought about by Hurricane Katrina, which made landfall in Louisiana as a category 3 on 29 Aug 2005 (NOAA Coastal Services Center 2007). No other significant hurricane activity was found around the dates of the other sightings listed in Table 1.

### CONCLUSIONS

The Royal Tern discovered at Lake North in 2007 represents the first documented record for Nebraska and is the northernmost record for the Great Plains. It is unlikely that it will ever be known what circumstances, or combination of circumstances, contributed to the occurrence and subsequent death of this Royal Tern in Platte County, Nebraska. We speculate that weather systems in the Gulf of Mexico may have played a role. Perhaps an ailment caused disorientation and contributed to the bird's dispersal. We were unable to pinpoint an exact cause of death. Pending approval by the Nebraska Ornithologists' Union Records Committee, this species will be added to the Nebraska Official List.



Photo 3. Taken 26 Sep 2007 by Sarah E. Rehme.

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