

MIGRATION AND VAGRANCY OF RED-NECKED GREBES IN
OKLAHOMA AND ADJACENT STATES

BY

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General distribution.

North American populations of the Red-necked Grebe (*Podiceps grisegena*) breed on interior lakes and ponds primarily from southwestern Ontario and northern Minnesota west and northwest through a broad zone of prairie, taiga and boreal forest to the western coast of Alaska. Their tendencies for east-west rather than north-south migration result in wintering concentrations off New England and Maritime coasts, and offshore from Washington through the Aleutians. Some north-south migration may occur on both coasts, but many stragglers of the North American race (*P.g. holbollii*) in museum collections have come from Greenland, with a few even farther east to Scotland and France (Palmer 1962). South of their breeding range, Red-necked Grebes are considered extremely rare in a wedge-shaped region from Nebraska southwest to Nevada and Arizona, and southeast to Mississippi and Alabama (DeSante and Pyle 1986).

First fully documented Oklahoma occurrence.

Early in the afternoon of 1 January 1992, Esther M. Key, Vic Bell and Judi Flannigan observed a dark gray grebe with a pale gray throat swimming alone in deep water off the west side of the Lake Hefner dam, Oklahoma City, Oklahoma County, Oklahoma. Later that afternoon, this bird was seen closer to shore and near four Horned Grebes (*P. auritus*). The yellow bill of the obviously larger grebe was then evident. After consulting with John G. Newell about field characteristics, Bell and Flannigan concluded that the bird was a Red-necked Grebe.

RED-NECKED GREBE



Figs. 1 & 2. Red-necked Grebe photographed 2 January 1992 at Lake Hefner, Oklahoma County, Oklahoma, by Joseph A. Grzybowski.

The following afternoon, at about 1515 hours, Joseph A. Grzybowski, unaware of the previous observation, happened upon a large grebe preening in company with a Pied-billed Grebe (*Podilymbus podiceps*) about 100 m from the Lake Hefner dam. He immediately identified the bird, photographed it, and then went to tell Newell of his find. About one-half hour later, they relocated the grebe closer to shore and studied it carefully. Grzybowski took additional pictures (see Figs. 1 & 2). This was the first fully supported Red-necked Grebe record for Oklahoma.

We suspect that this grebe was an immature bird because it had an indistinctly margined whitish throat patch and pale facial spots at the lower and posterior margins of the auricular region, rather than distinct whitish throat and facial crescent typical of adults (Palmer 1962). In addition, the bill was mostly a straw-yellow color; the dorsal half of the upper mandible was horn colored. This condition was more extensively yellow than expected in adults (Cramp and Simmons 1977). Palmer (1962) also indicated that immature birds have yellowish irises until their second summer; however, Grzybowski noted the eye of the bird he observed was dark, probably brown.

Lake Hefner was thoroughly searched the following day by several birders. However, the grebe could not be found again.

Other Oklahoma records.

We located 18 previous reports of potential Red-necked Grebe sightings for Oklahoma, all listed in Baumgartner and Baumgartner (1992). However, written descriptions of the birds were available for only three of these reports (Sutton [1982]; Oklahoma Bird Records Committee [OBRC] files).

One bird observed in McClain County and suspected by George M. Sutton to be a Red-necked Grebe was described by the observers, Grace Ray and Bertha Barnett, as having an "extremely long slender" (later comment "swan-like") "neck and long pointed yellow bill" (Sutton [1982]). However, this description suggests Western or Clark's Grebe (*Aechmophorus occidentalis* and *A. clarkii*, respectively). Two written documentations for 1985 and 1986 reports from Tulsa County were evaluated and found unacceptable by the OBRC. A fourth report of two (possibly three) birds observed at a distance on Lake Hefner 4 March 1960 noted them simply as large grebes, either Red-neckeds or Westerns (Sutton [1982]), and thus unidentified.

No descriptive documentations were available for the remaining 14 Oklahoma records which were primarily from northeastern Oklahoma (i.e., Bartlesville and Tulsa). Five of these observations were made in Osage County, four in Tulsa, two in Payne, and one each in Washington, Oklahoma and Canadian counties. Seven of them were of two or three birds each, and one of the March records was of two birds reported for an extended period from 15 March to 27 April 1952 in Oklahoma County.

Assessment procedure and reliability.

Although none of the previous Oklahoma records with written descriptions were acceptable (OBRC), Red-necked Grebes are not particularly difficult for many experienced observers to identify. Thus, it is possible that some of the undocumented records are authentic.

How can we decide which records are reliable? Observer credibility may be a useful criterion. However, assessments using only observer credibility are subjective, do not account for conditions of the observation, and can be biased by acquaintance, friendship, publication record, interpretation of skills, and skills of the interpreter. Identification skills of observers may change with time, or maintain inconsistencies for taxa of birds

unfamiliar to the observer. Even specimens can be misidentified (see below).

Another approach to assessing records of Red-necked Grebes for Oklahoma is to evaluate the concordance of patterns that emerge from these data with those for observations from surrounding states. Assumptions inherent in this approach are that: (1) records represent a random sample of actual occurrences; (2) misidentifications are of low frequency and also occur randomly, or are clear outliers to emerging patterns; and (3) patterns in authentic records from adjacent states reflecting biological phenomena will enhance those from Oklahoma and will stand out above the potential misidentification "noise" in the data. In evaluating these data, we also need to consider if these assumptions themselves are valid, including the potential that universal or seasonal misidentifications are creating the patterns.

Records for surrounding states were obtained from the following sources: Colorado (Andrews and Righter 1992); Nebraska (Rosche 1982; Johnsgard 1986; Bray *et al.* 1986; Nebraska Ornithologists' Union Records Committee [NOURC] files); Kansas (Thompson and Ely 1989; Ely, pers. comm.); Missouri (Robbins and Easterla 1991; *Am. Birds* 46:95); Arkansas (James and Neal 1986); Louisiana (Lowery 1974; *Am. Birds* 30:478, 31:339, 32:739, 33:779, 37:651); Texas (Texas Bird Records Committee [TBRC] files; *Am. Birds* 46:287), and New Mexico (Hubbard, pers. comm.).

Among 177 records in this set, only four verified specimens exist, one each from Colorado, Kansas, Louisiana, and Nebraska. A second specimen from Nebraska originally identified as a Red-necked Grebe was found to be a Horned Grebe (Swenk 1933). A specimen from Young County, Texas, collected between 1884 and 1890 could not be located, leaving this record undocumented according to TBRC standards. Another unavailable specimen collected in western Missouri in 1854 was considered suspect by Robbins and Easterla (1991).

Of 99 records tallied for Nebraska, Kansas, Oklahoma and Texas, only 17 with acceptable documentation (including two specimens) could be located (Bray *et al.* 1986; Ely, pers. comm.; Labeledz, pers. comm.; Padelford, pers. comm.; OBRC; TBRC). Eleven records were found unacceptable: one from Nebraska, four from Oklahoma and six from Texas (some random exclusion also occurred for reports outside of this set; Ely, pers. comm.; Newell, pers. comm.). Two Texas documentations were still under review by the TBRC. One published Texas record was withdrawn by a reliable observer who made the observation. This left 68 records for which we could locate no descriptive information. Standards applied to records from other states were not presented, though Robbins and Easterla (1991) did specify that ten fall and spring records for Missouri were "definite."

Comparisons of patterns between Oklahoma and surrounding states.

The frequency by month of occurrence for 165 Red-necked Grebe records from Oklahoma and surrounding states is given in Table 1. Known unacceptable records (eleven) were excluded. Except for those from Colorado which may represent birds following the edge of a regular migration route, records are organized into approximate latitudinal groups. Texas records were divided among three regions: (a) northern Texas (including northcentral Texas, Texas panhandle, and Lubbock area), (b) southern interior Texas (including the Trans-Pecos, Edwards Plateau, and lower Rio Grande Valley), and (c) coastal Texas. Coastal records from Louisiana were also treated separately.

Colorado (with 40) and Texas (with 41) had the highest frequencies of records among

of increasing numbers of observers and continuously improving field guides. Typically, the distribution of observations correlates with the distribution of active birding groups in and near metropolitan areas.

Coincidentally with our January 1992 observation were additional reports of Red-necked Grebes during the fall and winter of 1991-92 in other southern states where it is very rare. One each was noted in Florida, Alabama, Texas, Arizona, and New Mexico, four in Mississippi and two in Missouri (*Am. Birds* 46: 95, 255, 275, 287, 295, 298). Two reports of four birds also came from Kansas (*Am. Birds* 46:113). A population pulse may have occurred in this species as an "impressive" 12,882 Red-necked Grebes were tallied from 1 August to 15 November 1991 at Whitefish Point Bird Observatory on Lake Superior (*Am. Birds* 46:90).

Seasonal patterns of occurrence.

Seven Oklahoma observations were reported for the period from 12 October to 3 November, one each 17 and 20 December, two from February, and three in March. Our documented record occurred in January. Fall reports for New Mexico, northern Texas and Arkansas ranged from 17 September to 5-6 December (mostly from 11 October), and overlap those for Oklahoma entirely. A slightly lower frequency of records from mid-December through March (Table 1) indicates that some grebes may winter in this latitudinal area, and that vagrants can also occur during spring.

The monthly frequencies of records for the most northerly latitudinal group of states (Nebraska, Kansas and Missouri; Table 1) differ significantly from the previous set (G-test of independence; $G=18.79$, $df=8$, $P<0.05$; Sokal and Rohlf 1969) primarily in the very low number of winter records. Fall migrants appear slightly earlier in Nebraska (earliest date 26 September) and Kansas (27 September) and linger into early December. Records for Colorado (Table 1) show a very similar distribution of occurrences ($G=8.82$, $df=8$, $P>0.05$) to this northern group.

The 21 coastal records from Louisiana and Texas show a distinctive pattern and span the period from 25 November to 24 March (mostly December), with exceptions on 1 September and 4 May. These records imply arrival of small numbers of Red-necked Grebes to Gulf Coast wintering grounds by late November and December. Ignoring outliers, the seasonal distribution of coastal records was significantly different from that of the Oklahoma latitudinal group ($G=16.09$, $df=6$, $P<0.05$) primarily in the near absence of October and November records. When combining the few interior southern Texas and Louisiana records with those of the coastal records (at similar latitudes), however, comparisons of seasonal distributions with the Oklahoma group were not significantly different ($G=11.19$, $df=6$, $P>0.05$).

The timing of fall movements, and wintering on salt waters are consistent with those given by Palmer (1962) for both Atlantic and Pacific wintering birds. An extensive postbreeding and/or failed breeding dispersal also takes place which leads to the appearance of birds at Atlantic coastal locations beginning in August. While unsupported September records appear as outliers in the Oklahoma and Texas latitudinal zones, they may represent grebes of this dispersal group.

Some birds may linger on inland lakes until they freeze, resulting in some interior records during December and January along normal migration routes (Palmer 1962). Red-necked Grebes have also appeared at inland locations in western Pennsylvania and western New York beginning in February (Todd 1940, Eaton 1981), possibly as early migrants. Both of these movement potentials may account for some of the

vagrancy records during mid to late winter in the southern Great Plains.

Some progression of spring migration that peaks during March in northern Texas and Oklahoma and mid-March through April in Missouri and Nebraska appears in these data. This timing is consistent with that of migrations from the Atlantic Coasts through the Great Lakes region (Palmer 1962).

Concluding comments.

An assuring aspect to the display of records given here is that they share a pattern with that already known for the timing of Red-necked Grebe migrations, potential lingering on inland lakes, and wintering on salt waters. The records show latitudinal progressions of birds through the region during fall and spring migration periods and winter. Red-necked Grebes appear most likely to occur in Oklahoma from late October through early December, with vagrancy through March. Our documented January occurrence does verify that vagrancy in this period can occur.

However, a seasonal bias in reliability could render the present interpretation fallacious. This could occur if global misidentifications are more likely for a limited period of time, as when molt and plumage patterns in other grebe species create problems for naive and inexperienced observers. Observations of grebes at long distances on large reservoirs where size can be misinterpreted may also lead to errors in identification. Given that only 17 of 28 records from Nebraska, Kansas, Oklahoma and Texas with at least some descriptive documentation were found acceptable, it is likely that some undocumented records are unreliable. Evaluations of observations for extreme dates are even more problematic. Thus, documentations of future observations will prove useful for an understanding of Red-necked Grebe migration and distribution in the southern Plains Region.

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1701 LENOX, NORMAN, OK 73069 (JAG), 518 VAN BUREN AVENUE NW, PIEDMONT, OK 73078 (FMK), 505 EAST KERR, MIDWEST CITY, OKLAHOMA 73110 (VB), AND 518 WEST LOCKHEED DRIVE, MIDWEST CITY, OKLAHOMA 73110 (JF). 14 OCTOBER 1992.

COMMON BLACK-HEADED GULL AND LITTLE GULL IN OKLAHOMA

BY JAMES H. WITHGOTT

From 1 February to 5 April 1992, numerous observers viewed and photographed two Common Black-headed Gulls (*Larus ridibundus*) and at least two (possibly three) Little Gulls (*L. minutus*) at three different reservoirs in Oklahoma. Both species are very rarely encountered in the state.

The Common Black-headed Gull has bred in Newfoundland in recent years and winter records are increasing in frequency throughout North America (Grant, P.J., 1986, Gulls, a guide to identification, Buteo Books, Vermillion, South Dakota, p. 30). Since 1982, there have been nine reports for the Common Black-headed Gull in the four-state region of Texas, Oklahoma, Arkansas, and Missouri. Six of these were since 1990 (*Am. Birds* 1982-1992). For Oklahoma, there are two previous but not wholly acceptable records, both from the Great Salt Plains National Wildlife Refuge in Alfalfa County, northwestern Oklahoma. On 1 January 1947, a single bird was reported by Seth H. Lowe which George M. Sutton, after studying details of the record, believed to have been a Franklin's Gull (*L. pipixcan*) identified earlier there that had retained its breeding plumage. An immature bird with head "a mixture of white and brownish" was photographed at the refuge on 8 April 1966 by Howard W. and Dottie Goard, but the picture is not in focus and the legs are light (Sutton, [1982], Sutton summaries of bird records, Oklahoma Mus. Nat. Hist., Univ. Oklahoma, Norman).

At 0950 on 1 February 1992, as I was preparing to leave the Fort Gibson Reservoir Dam in Cherokee County, Oklahoma, the warning horn blasted and water began