

6-2013

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Wayne J. Mollhoff

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Mollhoff, Wayne J., "Status of Black-billed Magpie in Nebraska" (2013). *Nebraska Bird Review*. 1320.  
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## Status of Black-billed Magpie in Nebraska

Wayne J. Mollhoff  
Ashland, NE  
wmollhoff@netscape.net

Black-billed Magpie is currently listed as a species of least concern by the International Union for Conservation of Nature (IUCN) (<http://www.birdlife.org/datazone/speciesfactsheet.php?id=5745>); however, it has been in abrupt decline in Nebraska with no evidence that it is beginning to recover. A comparison of data gathered by volunteer observers of the two Nebraska Breeding Bird Atlas Projects shows the extent of this decline. In the first atlas project, the species was found in 153 of the 443 blocks surveyed. It was reported in 60 counties and found east to Dakota, Dodge, and Jefferson counties. Forty-four nests were reported during the first project. Volunteers spent 5803 observer hours during the first project (Mollhoff 2001). In the second atlas project, the species was found in only 36 of the same 443 blocks surveyed in the first project. It was reported in only 31 counties and found east to Cedar, Stanton, and Nuckolls counties. Five nests were reported during the second project. Volunteers spent 9214 hours in the second project, an increase of 59% over that spent in the first project.

The decline is on-going, as magpie numbers are still dropping and sites where they were found early in the second atlas project seem vacant now. The most recent BBS data for the state shows a 6.8% drop annually over the past decade (Sauer et al. 2012). There appear to be at least two causes for this decline. The initial decline began at the end of the first atlas project and went unnoticed at the time. It began after the introduction of famphur (also known by its trade name Warbex), an insecticide introduced to control parasitic warble flies (*Hypoderma* sp.)

in cattle. Die-offs of both magpies and hawks were soon documented (Henny et al. 1985). The impact on magpies in the state was probably gradual at first. The second decline began in 2002 with the arrival of the mosquito-borne West Nile virus ([http://diseasemaps.usgs.gov/wnv\\_historical.html](http://diseasemaps.usgs.gov/wnv_historical.html)). It hit the Corvidae family (crows, jays & magpies) especially hard, but as birders soon reported, it also affected chickadees, hawks, owls and other species as well. The closely-related Yellow-billed Magpie declined by 42% in California from 2004-2006 in the western U.S., which was attributed to West Nile virus (Crosbie et al. 2008). In one study 100% of Black-billed Magpies infected with West Nile virus died (McLean 2006). The magpies in Nebraska currently appear to be broken up into isolated pockets and susceptible to all the usual factors that contribute to extinction of such pockets: lack of gene flow, in-breeding, local weather or habitat disasters, etc. (Quammen 1996).

Historically, the species was found across much of the state, but declined with the advance of European settlement until it was found only in western Nebraska (Bruner et al. 1904). It gradually recovered and spread eastward to re-occupy its former range by the time of the first atlas project (Mollhoff 2001). Whether, or how soon, it can recover from the current threats remains to be seen.

#### Literature Cited

- Bruner L, Wolcott RH, Swenk MH. 1904. A preliminary review of the birds of Nebraska. Omaha (NE): Klopp and Bartlett.
- Crosbie SP, Koenig WD, Reisen WK, Kramer VL, Marcus L, Carney R, Pandolfino E, Bolen GM, Crosbie LR, Bell DA, Ernest HB. 2008. Early impact of West Nile virus on the yellow-billed magpie (*Pica nuttalli*). *Auk* 125:542-550.
- Henny CJ, Blus LJ, Kolbe EJ, Fitzner RE. 1985. Organophosphate insecticide (famphur) topically applied to cattle kills magpies and hawks. *The Journal of Wildlife Management* 49:648-658.
- McLean RG. 2006. West Nile virus in North American Birds. *Ornithological Monographs* 60:44-64.
- Mollhoff WJ. 2001. The Nebraska breeding bird atlas, 1984-1989. Nebraska Ornithologists' Union, Occasional Papers, No. 7 and Nebraska Technical Series No. 20, Lincoln (NE): Nebraska Game and Parks Commission.
- Quammen D. 1996. *The song of the dodo: island biogeography in an age of extinctions*. New York (NY): Scribner.
- Sauer J, Hines J, Fallon J, Pardieck K, Ziolkowski D Jr., Link W. 2012. (Online) The North American Breeding Bird Survey, results and analysis 1966-2011. Version 07.03.2013. USGS Patuxent Wildlife Research Center, Laurel (MD).