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### Changes In Wintering Crow Populations In Kansas

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American Crows (*Corvus brachyrhynchos*) have steadily increased since the mid 1970's according to the survey-wide yearly index of Christmas Bird Counts [CBC] (Sauer, Schwartz and Hoover, 1996). The purpose of this study was to describe the change in the number of crows in Kansas over the last 50 years.

#### Methods

Data were collected from CBCs published in the March issues of the Kansas Ornithological Society Bulletin from 1949-1997. CBC's frequently introduce several biases in analyzing data. Not all counties report every year and there are differences in the number of party-hours spent, habitat covered, weather and actual time of count (Podrebarac and Finck 1991, Young and Pate, 1995). My approach was to compare the mean number of crows in CBC counts before 1973 with 1973 and after. That year, 1973, represents the median year for CBCs in Kansas. Only 18 CBC sites contained 25 or more years of data that occurred before and after 1973. A Mann-Whitney U test was used to test the differences. To determine if the total party-hours affected the number crows counted, a correlation coefficient was calculated between the two for 13 years from 1985 to 1997 when the greatest variation in counts occurred.

#### Results and Discussion

A larger number of crows were seen in counts that occurred in the eastern half of the state than in the western when all the data were combined. This parallels what others had noted (Goodrich, 1945; Thompson and Ely, 1992). CBCs show numbers of crows began to increase in the mid 1970's and continued into the 1990's. Crows are conspicuous and not often missed. The number of crows counted did not correlate with the total party hours ( $r=0.08$ , 284 d.f.,  $t=1.55$ ,  $P > 0.05$ ).

Figure 2 compares the mean number of crows counted before and after 1973 for 18 CBC sites. In 15 of these sites, the number was greater after 1973 than before (Mann-Whitney U test,  $P < 0.05$ ). Wichita showed the greatest difference followed by Manhattan. In the Arkansas City and Quivira counts, the differences were not significant ( $z=0.79$ , 23 d.f.  $P > 0.05$  and  $z=1.55$ , 27 d.f.,  $P > 0.05$ ). In western and eastern Kansas, CBC's such as Olathe and Garden City, which exhibited low numbers of crows, showed little change in number of crows seen over the years. Several thousand crows appeared at 10 different CBC sites at irregular intervals (Table 1). These counts suggest that sometimes a large number of crows select a particular area but this can occur over a wide area and at irregular intervals.

The increase number of crows seen after 1973 is consistent with the increased population of crows seen nationwide (Sauer, Schwartz and Hoover, 1996). However, the particularly large number of crows seen in the Wichita area raises another possibility: The crows shifted the habitat that they used for winter roosts from rural to urban areas (Gilbert, 1992). A large increase in the number of crows began to occur in the cities of Wichita and Hutchinson during the late 1970's and early 1980's (Everhart et. al, 1981; Dave Razo,

Site	Number	Year
Ellinwood/Barton Co.	5,006	1964
Halstead/Newton	2,198	1964
Quivira	3,411	1974
Wichita	51,781	1983
Fosteria	2,500	1985
Wichita	10,000	1985
Wichita	15,000	1986
Wichita	13,920	1987
Wichita	11,983	1988
Emporia	2,893	1990
Wichita	23,452	1991
Wichita	12,280	1994
Topeka	2,960	1995
Manhattan	3,964	1996
Olsburg	4,360	1996
Wichita	100,000	1996
John Redmond	2,985	1997

Table 1 - A particularly large number of crows seen on Christmas Bird Counts

Reno County Health Department, pers. comm.). A similar pattern of increase in the number of crows occurred in smaller towns such as Newton (Dwight Platt, pers. comm.) and Lawrence (Richard Johnston, pers. comm.).

Further evidence of this shift is the decrease in the number of crows west of Wichita in south central Kansas. Hundreds of thousands to a million crows were reported in Stafford County and the surrounding area during mid 1940's to mid 1950's (Madson, 1976; Scott, 1974). Thousands of crows were still reported in this area during the 1960's and 1970's (Marvin Schwilling, pers. comm.). In the mid-1980's, only small numbers of crows were seen in CBCs done in this area.

A change in habitats also occurred during this time. Since the 1950's, many catalpa groves, typically used by crows for roosts, have been destroyed (Marvin Schwilling, pers. comm.). In contrast, the trees in urban areas have increased and matured. The crows may have adapted to the urban forests as roosting habitats. A further incentive for roosting in urban forests may have been reduced mortality. Survivorship of crows in some urban areas approached 95% (John Marzluff, pers. comm.).

### Acknowledgments

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**1999 REPORT OF THE KANSAS BIRD RECORDS COMMITTEE** — This report summarizes the activities of the Committee for the calendar year 1999, as well as any decisions pending from previous years. The Committee received fifty-four observation reports in 1999, recording the occurrence of 52 different birds. Forty records were circulated. One record is still undergoing review. All reports submitted, whether circulated to the committee or not, are archived in the University of Kansas Museum of Natural History.

Record submissions are assigned a sequential number in the order in which they are received, with the year of receipt as a prefix. Not all submissions that receive a number are circulated. Birds are listed in phylogenetic order under each of two categories: Records Accepted and Records Rejected. Taxonomy and nomenclature follow the American Ornithologists' Union Check-list of North American Birds (Seventh edition, 1998).

After the common and scientific name follows the KBRC record number; the number of individuals seen, with age or plumage notes; date(s) of observation; locality, including county; observer(s), with those documenting the record listed first; supporting physical evidence, if any, received by the Committee; and finally, comments and notes on changes in the species' status on the KOS checklist. Rejected records have the observers names omitted and a brief explanation as to the reason for rejection.

### RECORDS ACCEPTED

- Reddish Egret (*Egretta rufescens*), 99-40, 1 subadult, Sept. 22, 1999, Pool 3B, Cheyenne Bottoms (Barton County), Rich Kostecke. **First state record, added to the state checklist with hypothetical status.**
- White Ibis (*Eudocimus albus*), 99-35, 1 juvenile, July 29, 1999, Nature Conservancy property near Cheyenne Bottoms (Barton County), Mike Rader, Ted Cable. Most Kansas records for this species occur in mid- to late summer, and this one certainly conforms to that trend.
- Glossy Ibis (*Plegadis falcinellus*), 99-12, 1 adult in breeding plumage, April 7 to April 9, 1999, wetland near Lawrence Airport (Douglas County), Galen Pittman, photos by Lloyd Moore. This is the 9th record for this species in the state.

- Surf Scoter (*Melanitta perspicillata*), 99-43, 2 adult females, Nov. 11, 1999, Milford Lake (Geary County), Chuck Otte.
- Black Scoter (*Melanitta nigra*), 99-02, 1 Female, November 26, 1998, Alma Sewage Ponds (Wabauwsee County), Dan LaShelle, Dan Gish.
- Osprey (*Pandion haliaetus*), 99-26, 1 adult, June 7, 1999, marina on Milford Lake (Geary County), Jeff Keating. Previous record late date for this bird in spring was June 6.
- Mew Gull (*Larus canus*), 99-03, 1 adult, Feb. 6, 1999, Tuttle Creek Reservoir outlet tubes (Riley County), Guy Smith. This is the 6th record for this species in the state.
- Mew Gull (*Larus canus*), 99-04, 1 adult, Feb. 7, 1999, Tuttle Creek Reservoir outlet tubes (Riley County), Lloyd Moore, Galen Pittman, Glenn Koontz, Tracy Wohl. These observers flocked to the site of Guy Smith's observation of 2/6/1999 (KBRC #99-03 above), and found a Mew Gull. But the descriptions of the birds indicated that this is a different individual than KBRC #99-04, so it was accepted as a separate record. This is the 7th record for this species in the state.
- Lesser Black-backed Gull (*Larus fuscus*), 99-08, 1 adult, Mar. 11, 1999, Douglas/Jefferson County landfill (Douglas County), Mark Robbins, Jim Rivers. Also documented by Alexis Powell in a separate report. This is the 7th record for this species in the state.
- Lesser Black-backed Gull (*Larus fuscus*), 99-42, 1 in first basic plumage, Oct. 3, 1999, face of dam on Perry Lake (Jefferson County), Mick McHugh. This is the 8th record for this species in the state.
- Greater Black-backed Gull (*Larus marinus*), 99-49, 1 in 3rd basic plumage, Dec. 26, 1999, Cheyenne Bottoms (Barton County), Galen Pittman. This is the 6th record for this species in the state.
- Eurasian Collared-Dove (*Streptopelia decaocto*), 99-16, up to 5 adults, various dates from 1997 to 1999, residential area in Girard (Crawford County), Martha Price, Robert Mangile, Mary Ann Lepoglow, Ronnie O'Toole. Video and accompanying audio record helped to corroborate this identification. This is the 3rd accepted record for this species in the state. Additionally, this report would indicate that the species has been in the southeastern corner of the state since at least 1997.
- Eurasian Collared-Dove (*Streptopelia decaocto*), 99-34, 1 adult, March 29 through April 2, 1999, Ivy Drive, North Newton (Harvey County), Gregg Friesen, Dwight Platt, Bob Regier. The bird was observed calling, and sitting on a nest. This is the 4th record for this species in the state.
- White-winged Dove (*Zenaida asiatica*), 99-13, 1 probable adult male, April 3, 1999, backyard of residence in Emporia (Lyons County), Marvin Schwilling, Phil Taunton, Myrna Taunton.
- White-winged Dove (*Zenaida asiatica*), 99-17, 1 adult, May 4, 1999, Cimarron National Grassland (Morton County), Dan Mulhern, Jerry Horak.
- Black-chinned Hummingbird (*Archilochus alexandri*), 99-44, 1 adult male, Oct. 6, 1999 through Oct. 8, 1999, Nelson Environmental Study Area (Jefferson County), Galen Pittman, Jon Eggen. This is the 6th record for this species for the state, and only the second report that did not originate from the southwest corner.
- Eastern Phoebe (*Sayornis phoebe*), 99-48, 1 adult in basic plumage, Dec. 29, 1999, Lone Star Lake (Douglas County), Phil Wedge, Margaret Wedge. A rare winter record for this species; the previous late date was November 19 and the previous early date was February 28.
- Vermilion Flycatcher (*Pyrocephalus rubinus*), 99-24, 1 adult female, May 8, 1999, Cimarron National Grassland (Morton County), Jeff Chynoweth.
- Cassin's Kingbird (*Tyrannus vociferans*), 99-18, 1 adult in alternate plumage, May 4, 1999, Cimarron National Grassland, Middle Spring (Morton County), Dan Mulhern, Jerry Horak.
- Cassin's Vireo (*Vireo cassinii*), 99-37, 1 adult, Sept. 11, 1999, near the Cimarron River (Morton County), Mick McHugh, Lisa Edwards, Galen Pittman, Sebastian Patti.
- Fish Crow (*Corvus ossifragus*), 99-30, 2 individuals, May 2, 1999, downtown Coffeyville (Montgomery County), Galen Pittman. This is the 7th record for this species in the state.
- Fish Crow (*Corvus ossifragus*), 99-31, 3 or 4 individuals, May 2, 1999, Little Caney River (Chautauqua County), Galen Pittman. This is the 8th record for this species in the state.
- Tree Swallow (*Tachycineta bicolor*), 99-46, 1 unknown, Dec. 18, 1999, River Pond below Tuttle Reservoir (Pottawatomie County), Ted Cable, Pat Freeman, Doris Burnett, Bob Broyles, Paul Weidhaas, Chod Hedinger. A rare winter sighting of this insectivorous species, which commonly winters along the Gulf Coast.
- Virginia's Warbler (*Vermivora virginiae*), 99-29, 1 adult male, July 8, 1999, Estes Draw, Ft. Riley (Geary County), Amy McAndrews, Zoey Meissner. These reporters, operating a mist-netting station on Ft. Riley, originally identified this bird as a Nashville Warbler (*Vermivora ruficapilla*), which would also be highly unusual in mid-summer. But careful measurements of the crown patch (usually concealed) and description of the chest, belly and undertail color pattern indicated that this was a Virginia's Warbler. This is the 12th record for the species in the state, one of the easternmost reports for the state, and a very unusual record for mid-summer.

- Virginia's Warbler (*Vermivora virginiae*), 99-39, 1 adult female, Sept. 4, 1999, Scout Camp (Morton County), Robert Fisher. Unlike KBRC #99-29 above, this bird occurred in a region of the state a bit closer to the normal breeding range, but most previous records for this species have been in the spring. 13th state record.
- Black-throated Gray Warbler (*Dendroica nigrescens*), 99-41, 1 adult, Oct. 16 and 17, 1999, pasture pond outflow (Harvey County), Carolyn Schwab, Bob Dester. A late fall record, and an unusually easterly sighting for this western warbler.
- Pine Warbler (*Dendroica pinus*), 99-47, 1 in winter plumage, Dec. 18, 1999, Pfeil Creek (Riley County), Ted Cable, Fred Freeman.
- Prairie Warbler (*Dendroica discolor*), 99-14, 1 adult male, April 20, 1999, residential area in Topeka (Shawnee County), Dan Gish.
- Prairie Warbler (*Dendroica discolor*), 99-28, 1 adult male, June 6, 1999, Horsethief Canyon, Kanopolis Park (Ellsworth County), Chris Smith, Alexandra Latham.
- Hooded Warbler (*Wilsonia citrina*), 99-15, 1 subadult female, April 30, 1999, hedgerow, east edge of Kinsley (Edwards County), Mick McHugh, Chris Hobbs, Sebastian Patti, Galen Pittman.
- Rufous-crowned Sparrow (*Aimophila ruficeps*), 99-25, 1 unknown/adult, May 29, 1999, observation overlook, Tuttle Creek Dam (Riley County), Rick Schmid, Betty Grenon, Mark Armstrong, Judy Troutman, Terry Swirczek, Howard and Sue Mattix, Don Maas, Neil Falzgraf, Georgianne Meyers. A birding group from Nebraska found this bird, which was also seen June 6, 1999 by Lowell Johnson, who sent in a separate report. Micro-habitat at this site is similar to that associated with the species in the southwestern US, but this is an unusually north-eastern location.

#### RECORDS NOT ACCEPTED

- Mute Swan (*Cygnus olor*), 99-09, 1 adult, March 21, 1999, Evans Creek arm of Perry Lake (Jefferson County). Origin of this individual is unknown. This species is commonly kept in captivity, and there are several waterfowl fanciers in the Perry Lake area who keep Mute Swans.
- Spoonbill Sandpiper (*Eurynorhynchus pygmeus*), 99-50, 1 in basic plumage, April 27, 1999, Cheyenne Bottoms (Barton County). Identification questionable. Unfortunately corroborating details were either not present or were not noted by the observer at the time of the sighting. This species would be an exceptional rarity anywhere in the lower 48 states. Records for this Asian species are known from Alaska and British Columbia; there is only one inland North American record (Alberta).
- Eurasian Collared-Dove (*Streptopelia decaocto*), 99-10, 1 adult, March 28, 1999, feeder near Valley Falls, KS (Jefferson County). Identification questionable. Vocalizations were not heard, and description did not eliminate Ringed Turtle-Dove (*Streptopelia risoria*).
- Western Screech-Owl (*Otus kennicottii*), 99-38, 1 unknown, Sept. 4, 1999, Wilburton Crossing (Morton County). Identification questionable. The bird was not seen, but was heard only. An Eastern Screech-Owl was seen in the same location a day later by the same group, and a "western-sounding" call was heard, and then traced to an Eastern Screech-owl (*Otus asio*), a week later in the same location.
- Ringed Kingfisher (*Ceryle torquata*), 99-36, 1 male/adult, Aug. 14, 1999, Cheyenne Bottoms (Barton County). Identification questionable. Details of size and plumage did not rule out Belted Kingfisher (*Ceryle alcyon*).
- Cassin's Vireo (*Vireo cassinii*), 99-23, 1 adult, May 7, 1999, south side of Tuttle Creek River Pond (Pottawatomie County). Identification questionable. After two rounds of discussion and voting, this record was not accepted because the description did not solidly eliminate Blue-headed Vireo (*Vireo solitarius*).
- Yellow Wagtail (*Motacilla flava*), 99-45, family group of seven birds, date of sighting not reported (presumably summer of 1998), rural area west of Topeka (Shawnee County). Identification questionable. Photographs submitted with the report indicated that these birds were probably Western Kingbirds (*Tyrannus verticalis*); written description was consistent with that alternative and more likely identification. There are no confirmed reports of Yellow Wagtail in the interior of North America; one sight record exists for Alabama. There are no breeding records anywhere in the US outside of Alaska.
- Bachman's Sparrow (*Aimophila aestivalis*), 99-27, 2 adult, May 28, 1999, Bronco Road, (Chautauqua County). Identification questionable. Description of bird song and bird plumage did not sufficiently rule out other species, and the habitat did not seem suitable for this bird.

Members of the committee voting on these records: Pete Janzen; David Seibel, chair; David Rintoul, secretary; Mike Rader; Tom Flowers; Richard Rucker; Mick McHugh; Sebastian Patti - alternate, and Bob Gress - alternate.