

CHANGING PATTERNS OF CORVIDAE ON THE PRAIRIES

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Few groups of birds on the prairies have shown such pronounced changes over the last two centuries as have the *Corvidae*. Considered to be among the most intelligent bird species, it is interesting to note how they have adapted to changing conditions.

In the days of the buffalo, the raven was common and the magpie was widely distributed. With settlement, the magpie disappeared for 10 to 40 years, while the raven vanished and the crow increased. The main resurgence of the magpie was within my memory, for five summers of field work near Yorkton in the 1940's failed to locate a single nest, and as late as 1950 one could be out all day on a Christmas Bird Count at Yorkton with only a single magpie sighting. Even more recently, all three species have adapted to city life.

Prior to 1875, ravens were present throughout the breeding season across the present prairie provinces, extending down into the Dakotas. Stewart³³ has summarized the North Dakota breeding season records, of May, Maximilian, Audubon and Harris, Cooper, and Grinnell, from 1823 through 1874, chiefly along the Missouri River. Stewart ascribed the disappearance of the raven at the end of the century to the widespread use of poisons and baited traps, but did not mention the disappearance of the buffalo, whose carcasses provided the scavenging ravens with carrion.

Records by Richardson, Hood and Drummond in the 1820's³⁰ and by Blakiston in the late 1850's,^{3 4} indicate that the raven was then commoner than the crow at Carlton and Cumberland. "All the year, common, pounds" was the notation for the raven by the Franklin expedition men, while "Summer, in flocks" was the corresponding entry for the crow. Blakiston found the raven "very

generally distributed . . . most numerous on the buffalo plains of the west" and studied a roost of over 50 birds near Carlton in winter. On an overland trip from Carlton to near the present site of Dinsmore,¹⁶ Blakiston found several nests of the raven and no nests of the crow. Indeed, the crow was so rare that Blakiston was "never fortunate enough to obtain a specimen."

The Earl of Southesk³² on July 6, 1858 recorded an empty raven nest near the present site of Craven in the Qu'Appelle Valley. Macoun,³⁵ in his trips of 1872, 1879 and 1880, found the raven to be "frequent on the western plains," while the crow was "common on the western plains," possibly indicating more equal numbers of the two species than may have existed 50 years earlier.

After the buffalo declined, and as the first settlers appeared, the raven was no longer a breeding bird, though for some years it came south regularly in winter. Perhaps the last summer sighting was by Raine²⁹ on June 16, 1893 at Rush Lake.

When John Gunn settled at Good Spirit Lake in 1888, the raven was quite common each winter for about 10 years.¹⁵ By the time Laurence B. Potter²⁶ settled at Eastend in 1901, the raven was virtually gone; he saw three in the next 15 years and then no more.

Coues,⁸ in his travels with the U.S. Northern Boundary Commission in 1873 and 1874, found crows were "not very common . . . though I saw a good many along the Souris river A nest containing five eggs, with the female parent, was secured on the Quaking Ash (Poplar) River, June 26, 1874." In 1882-84, Ernest Thompson (Seton)³⁵ similarly considered the two crow nests he found worthy of description in detail, and said it was only "common," hence much less





frequent than those species he listed as "abundant" or "very abundant."

The omnivorous crow adapted very rapidly to the increasing numbers of white men — traders, ranchers and then farmers. As early as 1885, George Guernsey³⁵ considered the crow to be common, his highest ranking of frequency, at Fort Qu'Appelle; and Spreadborough in 1892 considered them numerous at Indian Head, with a nest in a willow on May 6. By 1895, Spreadborough said they were "found in pairs nearly all over Saskatchewan . . . wherever there was wood . . . common at Crane Lake, Medicine Hat, Cypress Hills, Moose Jaw, and around Old Wives Lake and creek, also at Wood Mountain . . . May 8th, 1894, examined a number of nests at Medicine Hat, but found only one egg; a few were breeding at Crane Lake, June 12th; found a nest with four young ones; at the east end of Cypress Hills a few pairs were breeding the last week in June." Also in 1885, Loring¹⁷ found the crow abundant at Wingard, and Edward Arnold¹ near Fort Qu'Appelle saw crows "flying around in all directions with eggs in their bills."

Although they now qualified as "common", crows had not yet achieved a fraction of their present numbers. A. C. Bent,² in his 1905 and 1906 visits to the Maple Creek area, saw only a few pairs of crows, mostly near Crane Lake, finding two nests the first year and three the second. As late as 1922, C. G. Harrold¹² saw only half a dozen pairs of crows at Old Wives Lake.

The explanation is simple. Because of annual prairie fires, there were very few trees. Indeed, when the settlers arrived, there were only a few shrubs around the wet margins of sloughs and occasional trees in protected river valleys. When the Houstons settled at Tyvan in 1903, crows occurred, but were not common because they lacked nesting sites anywhere nearby for many years; their numbers increased later.²⁴ H. H. Pittman,²⁵ who first visited Wauchope in 1905 and 1907, and then settled there in 1913, reported how the crows

increased in southeastern Saskatchewan, which after the turn of the century, "since the choking of the prairie fires, is rapidly becoming covered with little groups of trees, or bluffs, and in those the crows nest plentifully." L. B. Potter²⁶ recorded that crows increased continuously in the Cypress Hills from his arrival in 1901 until about 1930.

Simultaneously, further north the settlers began to make clearings in the poplar and mixed forest, and to plant crops. The resulting diversity allowed such areas to support an increased crow population.

It is less obvious why crows more recently have settled in residential areas of our cities, though it may relate in part to a rather recent reticence to use firearms, even BB guns, within the city. During our first six years in Saskatoon, it was an annual ritual to drive into the country in late March to seek the first crow of the year. Occasionally a flock would fly overhead or a few would perch in trees by the river bank, but in the past five years, there has been no need for a trip into the country, for crows stake out their territory on our residential street and caw loudly at our window in March. The invasion of residential streets by breeding crows has occurred over the last ten years. The first nest record for University Drive was in 1968 and by 1970 the Saskatoon bird record cards, as reported in *Saskatoon Bird Review* and then in *Saskatoon Field Notes*, began to report crows in residential areas throughout May and June for the first time.

Somewhat earlier, in the 1950's, and somewhat further north, at Prince Albert¹⁷ and Nipawin, ravens became "citified," losing their fear of man and appearing throughout the winter on city streets. Maurice Street³⁴ reported that about 1953, ravens "began to enter Nipawin in search of garbage scraps or any other tidbit . . . as many as 40 ravens have been observed near the depot awaiting their breakfast. As many as a dozen or more have been seen at one time perched on telephone or power poles along First



Common Crow

F. W. Lahrman

Avenue, Nipawin's main thoroughfare. From the poles, they fly down to the street in search of food, walking about and only reluctantly moving out of the way of traffic — pedestrians or cars."

The magpie has perhaps the most interesting story of all. Andrew Graham's extensive natural history observations from Hudson's Bay, 1767-1791,³⁸ stated that magpies "are plenty in the interior part of the country... our people meet with them inland at all seasons." In 1822, at the Red River Colony, now Winnipeg, Rev. John West³⁷ listed the magpie as one of only three winter birds "and that but seldom." In the same decade, Richardson³⁰ recorded it as "plentiful in the interior prairie lands of America... only stray individuals passing to the eastward of... Lake Winnipeg."

As the buffalo retreated further west, the magpie retreated as well. Blakiston³⁴ in 1858 found it a resident during the entire year on the

Saskatchewan, but only "occasionally observed" at Carlton; while H. Y. Hind¹⁴ that year found it very numerous in the thin woods fringing the lakes near Fort Qu'Appelle. In 1873, A. R. C. Selwyn³¹ found "a good many" along the North Saskatchewan from Fort Pitt to the present site of Langham.

Peter and Pascal Dumont and Matthew Cook told Frank L. Farley¹⁰ how the magpies were numerous near Camrose, Alberta, during the buffalo days "when flocks would follow the hunting parties and live on the refuse of the hunt," but they disappeared from that area in the early 1880's. C. W. Nash told Ernest E. Thompson (Seton)³⁵ that until about 1870, magpies occurred in the Spruce Woods 20 to 30 miles west of Portage la Prairie. By 1875-1883, the magpie was very common only to the west of the Touchwood Hills and not seen east of Fort Ellice.²⁰

When John Gunn settled at Good Spirit Lake in 1887, magpies were



Black-billed Magpie

Gary W. Seif

common for the first ten years, then practically disappeared.¹⁵ In 1891, Walter Raine²⁸ was told that magpies occurred at Moose Jaw, but he saw none during his first two visits to Saskatchewan, and found no nests.

By the turn of the century, magpies were restricted to the foothills of the Rockies and the Cypress Hills. Laurence B. Potter²⁶ found them common enough at Eastend from 1901 to 1904, but then they disappeared for six years. This is confirmed by A. C. Bent's studies² of 1905 and 1906 near Maple Creek, where none were seen during two successive summers, though an unused nest from a previous year was found.

Potter noted a gradual increase after the magpie returned to the southeastern slopes of the Cypress Hills in 1910. Meanwhile the forerunners of the Alberta resurgence reached Lacombe in 1911¹¹ and spread to Belvedere,

northwest of Edmonton, by 1919.¹³

The annual reports of the Saskatchewan Game Commissioner told how magpies became noticeably more common in the winter of 1922-23, when Robert Perrin of Maple Creek shot 26. In the following year they increased at Maple Creek, Laura Lestock, Whitewood and Oxbow.

S. Humphry¹⁹ reported that the first pair appeared at Unity in 1926, that they bred in 1931 and were common by 1932. They appeared at Sheho in 1926,²³ with step-like increases in 1933 and again in 1949. They appeared at Percival in 1939 and were common after 1934 (E. M. Callin, pers. comm.). They were first seen at Nipawin in 1930, with the first nest found by Maurice G. Street in 1935.¹⁷ W. E. C. Todd's Carnegie Museum expedition³⁶ of 1932 to central Saskatchewan found them local at Elbow. The two years of major magpie increase at Wauchope were 1939 and

1949, and at Yorkton, 1951 and 1958. They reached La Ronge in 1958 (John Finch, fide M. Ross Lein), and that year all 32 Christmas Bird Counts recorded magpies. Since then magpies have remained as a very common or abundant bird throughout Saskatchewan, reaching even the most remote settlements of the far north.²²

The movement into the streets of Saskatoon has occurred only in the past 10 years. Whereas previously a magpie might wander into our yard several times a year, since the fall of 1972 they have been almost daily visitors, and for four years the crow and the magpie have become the most conspicuous species to be seen and heard in the half-mile walk from my home to the University campus. Robert Lister tells me that magpies have similarly become year-round species in residential areas of Edmonton within the past 10 years.

The appearance of Merlins as a nesting species within residential areas of Saskatoon in the past five or six years has been possible because of the availability of crow and magpie nests for them to nest in. When one considers the destruction of eggs and young of smaller birds carried out by crows and magpies, it will be appreciated that the changing numbers of these species have far-ranging effects.

This material could not have been gathered without the help of my wife, Mary.

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Common Raven

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