

DECLINE IN UPLAND SANDPIPER POPULATIONS: HISTORY AND INTERPRETATIONS

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The Upland Sandpiper, a quintessential species of North American grasslands, was once common, and in some places abundant. How numerous was it on the Canadian prairies and elsewhere? How has it fared since Roberts reported the "sad tale of the wanton destruction of a valuable and once abundant bird that resulted in its almost complete extermination."⁴⁹

A more intriguing question has no obvious answer. Of the two waders that faced extirpation, why was the Upland Sandpiper and not the Eskimo Curlew the species to survive, when the breeding grounds of the curlew were remote and presumably subject to fewer harmful influences than those of the Upland Sandpiper?

Although most evidence is anecdotal, early explorers and naturalists have left us some useful information concerning the initial abundance of the Upland Sandpiper. For example, they used descriptive terms such as "very abundant", "extremely abundant", and "exceedingly abundant", to indicate high population densities at the very top of the rough numbers ranking. Such descriptions were so consistent that it is difficult to accuse any one observer of exaggeration (Table 1).

Early observers did not provide absolute numbers of birds observed. Yet a few precious observations provided information concerning numbers per unit distance or related the prevalence of Upland Sandpipers to that of other species. On Simcoe Island in Lake Ontario near Kingston in 1897-1898, Upland Sandpipers were as common as Eastern Meadowlarks, with 20 pairs in 3 km.⁴⁷ Two of the most useful reports are from J.A.

Allen and Elliott Coues, both of whom visited North Dakota in 1873. "Very common ... east of the Yellowstone, ... outnumbers all the other Grallae [Suborder Charadrii] together."² Thus, Upland Sandpipers outnumbered other sandpipers, plovers, godwits, curlews, phalaropes, avocet and willet, all combined. "We can scarcely cross a piece of prairie, or travel a mile along the roads anywhere, without seeing it. ... I have often seen a dozen or twenty overhead at once, all from a little spot only a few acres in extent."¹⁹ Near Wauchope, in southeastern Saskatchewan, in the 1880s, ". . . a bird could be flushed every hundred yards or so almost anywhere."⁴⁵ At Tregarva, north of Regina, in the first decade or two after 1900, Norman Clarke reported a pair every 3 km.⁶ In 1892 at Red Deer, Alberta, "this sandpiper and the Western Meadowlark were about in the same numbers."²²

Initially, ranching was fully compatible with the Upland Sandpiper, as noted by Cooke.¹⁷ Before most of the original grassland was broken the Upland Sandpiper had nested over the entire state of South Dakota.⁴⁴ Loss of habitat from the breaking of native grassland by the steel plow caused an immediate decline in numbers in the first decade after settlement. Roberts reported a sudden decline in southern Minnesota between 1895 and 1900; for example, he found the species "present everywhere" in Jackson and Pipestone counties in southwestern Minnesota in 1893, but "largely gone" in 1899.⁴⁹ In both Minnesota and Alberta (see below), the timing of the population declines at the very end of the nineteenth century implicates conversion of grassland habitat as a primary factor in this decline.

Table 1: Abundance in selected regions of North America, progressing to west and north

LOCATION	DATE	EARLY STATUS	SOURCE
Michigan	19th century	abundant	Barrows 1912 ⁴
Wisconsin	1850-1870	abundant	Hoy 1852 ³² Kumlein & Hollister 1903 ³⁸
s. Minnesota	1870	exceedingly abundant	Roberts 1936 ⁴⁹
Iowa, Minnesota	1870s	very abundant	Krider 1879 ³⁷
N. Dakota, Cando	1890-1896	abundant	Judd 1917 ³⁶
S. Dakota, Ft. Sisseton	1878	very abundant	McChesney 1879 ⁴¹
w. N. Dakota, e. Montana	1873	very common	Allen 1874 ²
Nebraska	1877	exceedingly abundant	Aughey 1878 ³
Kansas	1880s	abundant	Goss 1886 ²⁹
Colorado, e. Rocky Mts.	1893-1900	breeds abundantly	Cooke 1897 ¹⁶
s. Manitoba, Red River	1873	extremely abundant	Coues 1878 ²⁰
Manitoba, Carberry	1882	extremely abundant	Seton 1909 ⁵¹
Manitoba, Treesbank	1882	very plentiful	Criddle 1929 ²¹
Manitoba, Carberry	1883	breeds abundantly	Christy 1885 ¹⁵
Manitoba, Shoal Lakes	1917	very common	Taverner 1919 ⁵³
Saskatchewan, Prince Albert, Kinistino	1895-1900	exceedingly abundant	Coubeaux 1900 ¹⁸
s. Canadian prairies	to 1900	abundant	Macoun 1900 ⁴⁰
Alberta, Red Deer	1892	abundant	Farley 1932 ²²



Young Upland Sandpiper

Photo by G. J. Smith

Another major factor in the initial decline of the Upland Sandpiper was the unmanaged and unregulated harvest for food, during spring and fall migration, during the summer, and on its “wintering” grounds in Argentina. “... one of the most luscious morsels to delight the epicurean palate,” it was “destroyed by hundreds of thousands” and thus “nearly extirpated from the land.”²⁶ Coues also reported that it was “A prime game bird, wild and difficult to secure, best hunted from a carriage, and capital for the table ... tender and well-flavored.”¹⁹ When the late Fred Langstaff (pers. comm.) settled on a farm in the Wallace district northeast of present Yorkton, Saskatchewan, in 1892, Upland Sandpipers were one of the most plentiful birds, and in spring and summer were a food source for newly-arrived settlers. Specific localities are rarely mentioned, but at least 152 Upland Sandpipers were shot on one small sandy prairie at the northern edge of Minneapolis, 27 July - 13 August 1874.⁴⁹ In April 1899, one man in southern Louisiana shot 117 in one day.¹⁷ At Rock County in north-central Nebraska “they used to be shot for market straight through the nesting season.”⁵ In 1890, two game dealers in Boston received over 9000 Upland Sandpipers for sale.³⁹ At that time, they fetched a high price, “\$1.25 a dozen on the

St. Louis market,”⁵⁵ a price roughly comparable to that of Passenger Pigeons 10 to 20 years earlier.⁵⁰

“About 1880, when the supply of Passenger Pigeons began to fall ... the destruction of the Upland Plover began in earnest. The price increased. In the spring migration the birds were met by a horde of market gunners, shot, packed in barrels and shipped to the cities. There are tales of special refrigerator cars sent out to the prairie regions ... [to] ship plover and curlews by the carload to the Chicago market.”²⁵ According to Oberholser, 1870 through 1900 were the years of “rampant market hunting” in Texas.⁴³ In Wisconsin, it was “little molested until it became generally known that it was one of our best table birds, and consequently brought a good price in the city markets. ... slaughtered both spring and fall in great numbers ... abominable practice of hunting with dogs for market ... has been to a great extent stopped, but entirely too late to save more than a remnant.”³⁸ In 1923, two men shot 68 Upland Sandpipers in one hour on the prairie a few miles south of Fort Worth, Texas. Their automobile engine never stopped and their gun barrels got hot.³⁰ Perhaps the claim by Buhnerkempe and Westemeier¹¹ of a North America recovery

in numbers beginning immediately after passage of the Migratory Birds Convention Act in 1916 was somewhat premature. However, there was an appreciable recovery in Texas by the 1930s.⁴³

In southern Saskatchewan, the eggs themselves were a delicacy, "often gathered for food in the same manner as lapwing plover eggs are in England."⁴⁸ During the 1880s near Wauchope, Saskatchewan, Upland Sandpipers were "so plentiful that they were regularly eaten by the early settlers and their eggs collected for the table. ... their edible qualities are equal to those of the famous 'Plovers' eggs' of the English markets."⁴⁵ Although the Upland Sandpiper is hardly one-tenth the mass of the Sharp-tailed Grouse, Thompson-Seton claimed that its eggs are equally large.⁵⁴

Hunting pressure was also heavy on their "wintering grounds" on the pampas of Argentina. Our best information is from William Henry Hudson (1922), British naturalist and author, who was born near Buenos Aires in 1841 and remained on the pampas until 1874. Hudson said the Upland Sandpiper was "most abundant on the great level pampas where I had my home ... one of the most frequently heard sounds on the pampas. ... they were solitary, sprinkled evenly over the entire country so that when out for a day on horseback I would flush one from the grass every few minutes ... I have spent whole weeks on horseback from dawn to dark without being for a day out of sight or sound of the bird." By 1920, "this sound ... is heard no more ... now on the list of the "next candidates for extinction." He indicated that this "incalculable destruction" had come about since the 1870s.³³

Alexander Wetmore visited Argentina during the winter of 1920-21; among epicures there, the Upland Sandpiper had "inherited in part the name and reputation of the Eskimo Curlew and is sought constantly by gunners to supply that demand. The few that survive frequent the large estancias where they are secure ..." During late February and early March of 1921, Wetmore was amazed to find them still "a regular item on the bill of fare in the better class hotels and restaurants in the city of Buenos Aires" even though they were by then "difficult to secure as few were offered

for sale." The birds were "so scarce that they were secured only by those gunners familiar with places where the Upland Plover alighted when in migration."⁵⁶ In Colombia, the Upland Sandpiper was not protected by law until 1940.¹

Shooting and plowing of grassland were not the only reasons for the population decline in southeastern Saskatchewan. Pittman (1947) offered two additional explanations. The disproportionate increase in numbers of the American Crow with settlement contributed to depredation of Upland Sandpiper eggs and nestlings. And increased grazing by cattle and horses, increased numbers of grasshoppers, and intermittent drought, all diminished the protective grass cover on pastures.⁴⁵

At Red Deer, Alberta, the Upland Sandpiper "decreased at an alarming rate" after Farley's arrival in 1892 and by 1931, Farley knew of only a single pair in the entire Red Deer - Camrose area.²² During the first decade of the twentieth century, Upland Sandpipers had gone from "abundant" to "not common" at Prince Albert.²³ Although still common at Wauchope about 1917, the species was obviously decreasing, and by 1946 Pittman found it had "completely disappeared from many places where I used to find them."⁴⁵ On grassy meadows north of Sheho the Upland Sandpiper suffered more than any other bird species from breaking of the land. It disappeared from the Sheho area entirely about 1927, reappeared in smaller numbers in 1939, but became scarce again after 1960.⁴²

In 1917, when A.C. Bent visited the Quill Lakes, Saskatchewan, the Upland Sandpiper seemed to be adapting itself to the new conditions and nesting in cultivated fields.⁷ Yet in 1929, Bradshaw saw only a single pair at Quill Lakes, the first he had seen anywhere in southern Saskatchewan since 1925, in spite of extensive travel as game commissioner.⁹

Shooting has ceased in North America, but perhaps not fully in South America. Grasslands continue to fall to the plow, in part because mechanical rock pickers allow breaking of stony land previously not

economical to farm. More recently, mowing machines have taken a frightful toll; Bolster (1990) witnessed two chicks killed by haying operations during two days, and presumed that all the young of eight broods perished, since he saw no young thereafter. Bolster suspected that the relatively new arrival in Colorado, the raccoon, may have been an additional factor.⁸ Similarly, the marked increase in the Red Fox in Saskatchewan since 1960, is a potential but unstudied factor.^{24,35}

The current breeding distribution of the Upland Sandpiper reflects availability of open grassland habitat. The center of densest distribution is in North and South Dakota, where in selected areas Breeding Bird Surveys may encounter 50 to 60 individuals during 50 stops along a 39 km route.⁴⁶ The most accurate random sampling method applied to an entire state is for North Dakota, where Igl and Johnson (pers. comm.) estimated a population of 235,195 Upland Sandpipers in the state in 1992 (Confidence Interval 165,684 to 306,705).³⁴ In 1967, maximum density in two biotic stratas in North Dakota reached 20 pairs per square mile (2.6 km²).⁵²

In most other parts of their North American range, there are now only token numbers of Upland Sandpipers present. In Ontario, beginning in the early 19th century, this species benefitted as forests were first cleared and replaced by pastures.¹² In the eastern United States, housing development in recent decades has driven them from former breeding sites such as the Hempstead Plains on Long Island, leaving them restricted mainly to airports, including the John F. Kennedy airport.²⁸ Confirmation that habitat is in short supply in the northeastern United States comes from its listing as endangered in five of these states, as threatened in four, and as special concern in one.²⁷ A very few individuals persist in the western and mountain states. There is similar sparing use of high meadows in mountainous areas such as the Yukon. Peatlands in Quebec were used by 11 pairs.¹³

On the Canadian prairies, this species becomes less common as one proceeds westward. Hales perceptively noted that "the more bare and open prairies of southern

Alberta and south-western Saskatchewan do not attract it."³¹ My personal observation is that appreciably fewer Upland Sandpipers are now present than during my boyhood 50 years ago. Some support for my perception is provided by the quantitative Breeding Bird Survey in Canada, 1966-1996. This shows downward trends of over 2% per year in grassland, and of 3.2% in parkland ("mixedwood plains"), but numbers are so small on most routes that this downward trend is not statistically significant.¹⁴ They have fared somewhat better in the United States, where there has been a statistically significant increase of 1.2% per year in Upland Sandpiper sightings on the survey routes, 1966- 1994.¹⁰

If our Canadian prairies are to maintain reasonable population levels of this distinctive species with its attractive whistle, we must preserve our remaining grasslands.

Acknowledgments

I thank Larry D. Igl, Northern Prairie Science Center, Jamestown, N.D., and Robert W. Nero, Manitoba Dept. of Natural Resources, Winnipeg, MB, for expert criticism.

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