

NORTH DAKOTA OOLOGISTS*

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From the vantage point of nearly a century later, the activities of early oologists may appear scandalous. Critics might well claim that oologists contributed to the decline of at least one sought-after species, the Ferruginous Hawk. Nevertheless the early oology records allow us the best available understanding of the numbers and distribution of certain species near the turn of the century. Such information complements and augments the previously published records that have been so carefully collected and mapped by Robert E. Stewart.²⁷

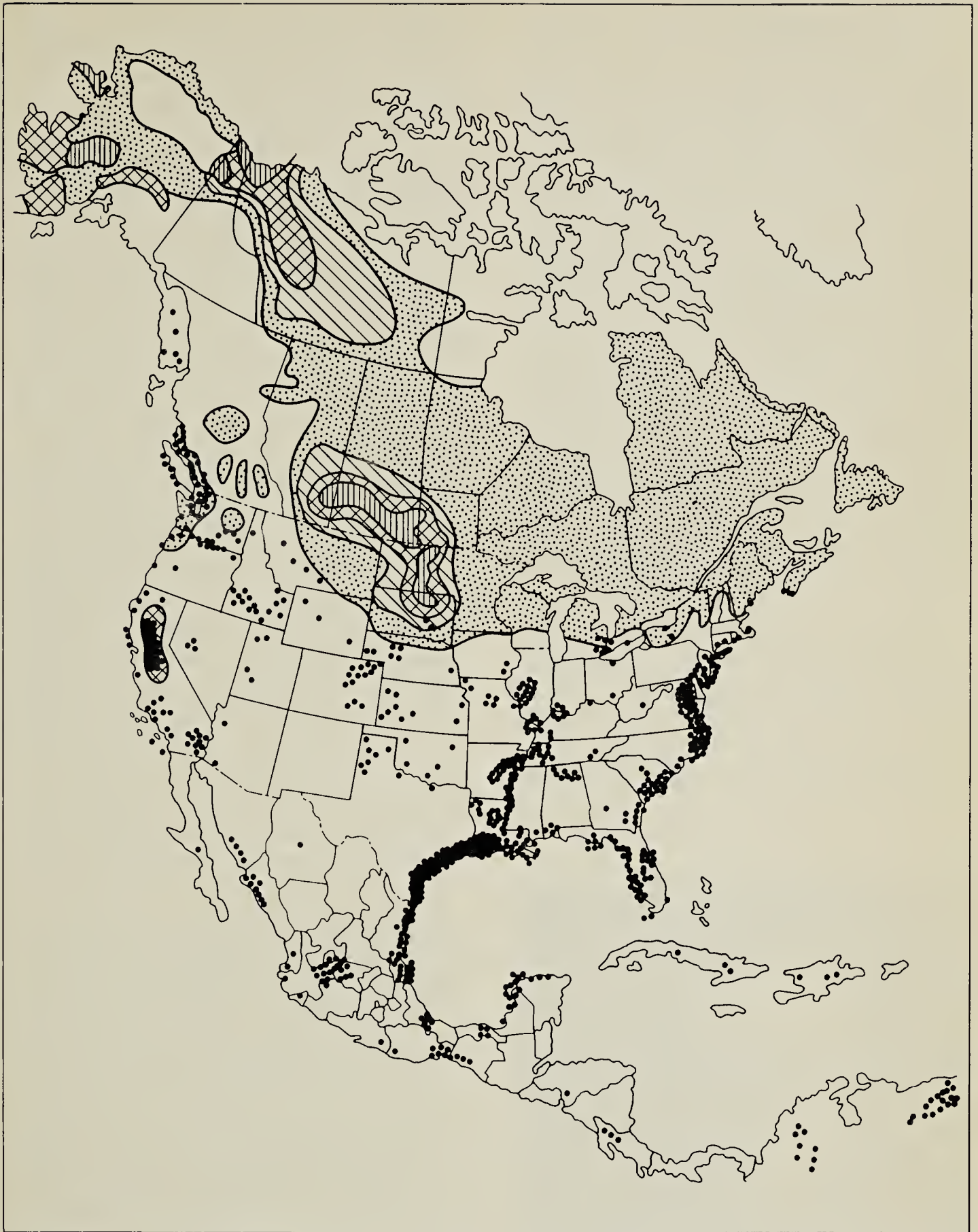
Our efforts have been concentrated chiefly, but not exclusively, on raptor distribution. Our best source of information has been the labels on data sets in many museums, particularly the Western Foundation of Vertebrate Zoology (WFVZ). We have augmented this by perusal of the published notes of a few oologists, by contact with their few remaining relatives, and from state historical records and old newspapers.

North Dakota oologists are of special interest for a number of reasons. Some visited Canada and collected eggs in southern Manitoba and Saskatchewan.³ Also, a portion of eastern North Dakota shares with Saskatchewan the same pot-hole - grassland ecology that even today supports one of the richest avifaunas, as exemplified by its persistence as the major area of waterfowl production in North America (Fig. 1).⁸ Though eastern North Dakota and southern Manitoba were settled about 10 years earlier than southeast-

ern Saskatchewan, these areas shared similar patterns of settlement and rapid conversion of grassland to grain production.

Many bird species had contended with human enemies even before the arrival of the white man. Dr. W.J. Hoffman, a surgeon with the United States Army at Grand River military post on the Missouri River immediately south of the present North Dakota boundary, who had looked forward to making an egg collection in the spring of 1873, tells how he was thwarted by the young Indians living on the surrounding Grand River Agency: "Few nests were found during my stay, and the scarcity no doubt depends upon the rascality of the young Sioux. These boys can be found at nearly all hours of the day, scouring the underbrush in all directions in search of eggs and birds. They are always armed with blunt arrows and bows, and know, too, how to use them effectually."¹⁸ On his return from the Yellowstone Expedition, Hoffman spent September 1881 at Fort Berthold, about 75 miles northwest of Bismarck. Here the Indian boys "went out in small parties armed with bows and blunt arrows" to kill Vesper Sparrows. "They usually form a circle around the growth of weeds where the birds alight, gradually crawling in toward a common centre, firing at every specimen that may chance to fall within range. The number killed by any one individual is indicated by notches cut in the outer edge of the bow. The birds are secured by a string tied around the waist."¹⁹

*Third in a series of articles on oologists of the northern great plains.



BREEDING DENSITY - BIRDS
PER 1000 ha



1-19



60-115



20-59



116 PLUS

WINTER DENSITY.
• ONE DOT EQUALS
25 000 BIRDS

Figure 1. Breeding density of ducks in terms of birds per 1000 hectares. The heaviest densities are in southern Saskatchewan and eastern North Dakota. From Boyd, H., 1983. Intensive regulation of duck hunting in North America, its purpose and achievements. Occasional paper #50, Canadian Wildlife Service.

Perhaps the earliest field oologist in North Dakota was Captain Benjamin Franklin Goss, who collected in the Coteau Hills of northwestern North Dakota in 1880.¹⁷ His observations on the nesting of the Swainson's and Ferruginous Hawks were quoted by Captain Bendire in 1892. Goss found four Ferruginous nests on hillsides, bulky and rather poorly finished, and constructed of bones, turf and dry grasses. Within the nests were bleached buffalo ribs, "all pointing to the center like the spokes of a wheel." Other bones in the same arrangement were found without any nest material; Goss believed that these represented locations where annual prairie fires had burned the sticks and grasses in the nest, leaving only the bones.⁴

Interest in oology in North Dakota centred on the Benson - Ramsay County areas around Devil's Lake, a town which was incorporated in 1887. The lake of the same name was in 1870, before settlement, part of a series of shallow, alkaline lakes which covered about 110 square miles.^{2 10} Here were the breeding grounds for myriads of waterfowl. In adjacent unbroken grassland, nests of Ferruginous and Swainson's Hawks were common.

The early collectors in the area, nearly all of whom had an interest in both taxidermy and oology, and who often collected the female from the nest for identification, included Gerard A. Abbott,¹ A.C. Bent,⁵ Louis B. Bishop,⁷ Edwin S. Bryant,⁹ J.R. Craigue, Alfred H. Eastgate,^{15 16} Herbert K. Job,²⁰ Fred Maltby,²¹ W. Mummery, P.B. Peabody,²² Ernest S. Rolfe,^{25 25} Edward Stebbins,¹² and W. Snyder. Some came great distances: Bent and Job from Massachusetts, Bryant from Phoenix, New York, and Maltby from Kansas City. Even though the abundant birdlife made trips profitable, there were risks. William R. Brown from Wisconsin, for example, drowned while collecting at Sweetwater Lake,

north of Devil's Lake, on 7 May 1895 (1894?), and only a bag of bird skins and an overturned boat led his three fellow collectors to his body.⁹

Eastgate first lived at Grand Forks, where he collected 640 eggs of 71 species in 1892, then travelled 100 miles on snowshoes to collect Great Horned Owl eggs in the early spring of 1893.¹⁵ His marriage that Christmas did not restrict his activities; he took his bride on their delayed honeymoon from 3 May 1894, collecting eggs at Stump Lake, east of Devil's Lake, until 16 June when he injured his arm, quit collecting, and took up farming on the spot.¹⁶ He continued taxidermy, and accompanied Louis B. Bishop to the Turtle Mountain in 1905,⁷ and Bishop and A.C. Bent on their 1906 collecting trip to southwestern Saskatchewan. Eastgate's set of Ferruginous Hawk eggs taken on 3 May 1894 is in the WFVZ. In the same repository are 12 raptor sets collected in the Devil's Lake area: 3 of Swainson's Hawk taken by Mummery in 1895, and 9 sets of Swainson's and Ferruginous Hawk eggs taken by Bryant and Craigue in 1897.

Eugene S. Rolfe, an attorney at Minnewaukan, opened the first bank in Benson County in 1884 and was a member of the Constitutional Convention that wrote North Dakota's constitution in 1889. Although oology was only a hobby with him, he was the most energetic oologist of the Devil's Lake group. Among his 17 published notes are 3 that tell of his experiences finding raptor nests in the 1890s, documenting their rapid decline as land was ploughed. In 1896, Rolfe found 25 active Ferruginous nests with eggs within an area 40 miles long and 8 to 15 miles wide.²⁵ He also noted bleached buffalo ribs in most nests, even though the buffalo had disappeared more than 20 years earlier. Though most nests were on steep slopes, one was on top of a strawstack and another on the straw roof of an abandoned stable.

The next year he had one Ferruginous nest on a huge boulder in the center of what had been a buffalo wallow, and one nest on the ground on almost-level prairie.²⁶ Of 21 Ferruginous nests for which there are 1896-1901 data slips in WFVZ, only partially overlapping with the above account, 13 nests were on the ground on hillsides, 3 were on stony knobs or boulders, 1 on a haystack, and only 4 in trees (3 in Box Elders and 1 in an elm, none more than 11 feet above the ground).

By 1898, Rolfe noted that the Ferruginous Hawk had been pretty well driven away by the "rapid settlement of the country," and he was forced to move one county west (Pierce County) for 5 of his 9 nests in 1897-1900. Nevertheless, in his last year of serious collecting, 1901, he managed to take 9 Ferruginous sets within Benson County. Rolfe moved to Eugene, Oregon, in 1905 and died in Portland in 1934.

Benson County was also a favourite nesting site for rails. Fred Maltby was the fourth man in North America to find a nest of the Yellow Rail, and the first to find appreciable numbers of its nests. Maltby located 8 nests in the first 2 years, 1899 and 1900, though he trampled on 3 nests in the process.²¹ P.B. Peabody came from Minnesota in following years, though only twice did Peabody find more than one Yellow Rail nest in a single year.²² The results of the pioneer studies of these 2 men were quoted extensively by Bent.⁶ In 1903, Maltby collected one Ferruginous egg set in Benson County and 3 in Pierce County; these proved, with one exception, to be the last in this once-ideal habitat through 1975.

As the Ferruginous Hawk virtually disappeared from the Devil's lake area, oologists devoted their attention to the "Mouse River loop" farther west and north. The oologists of Antler, a village of about 200 people, at the end of the

railroad and less than 2 miles south of the Canadian boundary (not to be confused with the even smaller Antler in Saskatchewan, 40 miles to the north), amassed several of the largest and most representative raptor egg collections in North America.

J.D. Currie, another attorney, began the egg-collecting tradition in Antler as we know from his newspaper article in the 2 July 1905 *Antler American*. Currie warned farmers that their practice of shooting hawks could lead to the "disappearance of these beautiful and beneficial birds from the area." Currie argued that the harm caused, if such hawks should occasionally take a chicken, would be more than offset by the benefit gained from their control of ground squirrel numbers. In spite of this concern, Currie, like Rolfe, continued to collect birds' eggs and skins, collecting eggs from at least 7 Ferruginous nests in 1907 alone. He seems to have ceased collecting in 1908, and in 1911 he moved to Westhope, a larger town east of Antler.



Figure 2. George L. Davy of Antler, N.D.

David Ogg, a carpenter from Paisley, Ontario, settled in Antler in 1906. Most of his collection appears to have been destroyed or lost, although he was said to have the largest egg collection in North Dakota.¹³ However, three of Ogg's Ferruginous egg sets, collected just across the border in Manitoba, represent the only fully documented nests, with locality and dates, available as evidence of past nesting of this species in Manitoba. David Ogg died on 18 October 1928 at the age of 62 years.¹³

Ogg instilled his interest in oology in his son-in-law George L. Davy, and in his friend George A. Withey. Jessie Ogg Davy was Antler's postmistress from 1919 to 1923, and her husband George was the mail clerk (Fig. 2). George Davy's interests are best known from the two short papers he published in *Oologist*, one of which dealt with his 1929 visits to Ferruginous nests within the Mouse River loop, formed by the incursion of the Souris River into the United States.¹⁴ That year he collected 13 sets of Ferru-

ginous eggs, left the eggs at 2 more nests, and found another 6 pairs which failed, 2 due to burning of the straw-stack on which the nest was placed. In 1934, Davy was visited by a wealthy patent lawyer and oologist, P.B. Philipp from New York. With Davy's help, Philipp was able to collect 39 sets of eggs of 20 species, 10 of which were new to his extensive collection, in the last 8 days of May.²³ Philipp later donated his egg collection to the American Museum of Natural History, together with sufficient funds to allow the hiring of Dean Amadon, who developed into one of the world's foremost raptor biologists. During the last half of the 1930s, Davy worked as a railway mail clerk on the Antler-Rugby branch of the Great Northern Railroad, but collected no more eggs prior to his death in 1955 at age 75 years.

George A. Withey, a Canadian from Leamington, Ontario, was the engineer on the Antler-Rugby line of the Great Northern Railroad from 1904 until his retirement in 1931 (Figs. 3,4). Together with his sons, George C. Withey (Fig.

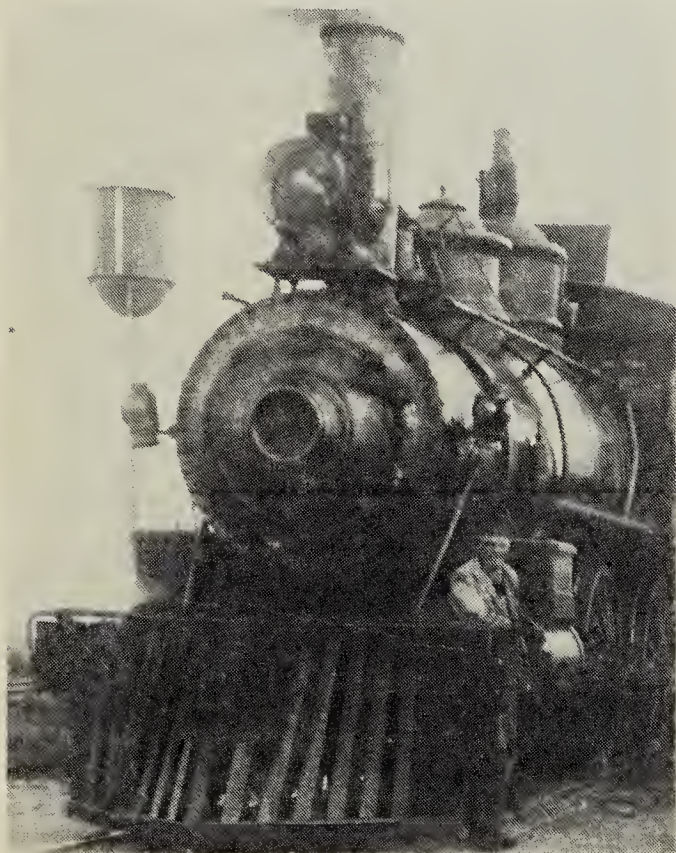


Figure 3. George A. Withey with Great Northern engine #132.



Figure 4. George A. Withey in 1896.



Figure 5. George C. Withey with a *Ferruginous Hawk* nest on open, level prairie, 1937.

5) and M. Everett Withey, he collected an estimated 6000 eggs in North Dakota, and was considered the dean of North Dakota oology. The Witheys made annual fishing and eggging trips to the Moose Mountains of southeastern Saskatchewan and to the Turtle Mountains on the Manitoba - North Dakota boundary. Their Saskatchewan visits, sometimes via Sherwood and Northgate and sometimes via Gainsborough and Oxbow, resulted in the collection of 15 sets of *Ferruginous Hawk* eggs from a corner of Saskatchewan where the species no longer breeds. After his retirement, Withey travelled through the adjacent counties and added another 34 *Ferruginous* and 16 *Swainson's* sets to his collection, bringing the totals to 60 *Ferruginous*, 16 *Swainson's* and 14 *Red-tailed Hawk* sets. Through trade and purchase, his collection included eggs from other species throughout the United States and Europe. He did not publish, and only two of his letters

have been located: one to J. Van Tyne at the University of Michigan, asking help in identification of a raptor skin from near Devil's Lake (it proved to be a *Merlin*, evidently rare there), and a letter to John R. Cruttenden, who ultimately bought most of the collection in 1945, just one year before Withey's death. Earlier, Withey had donated portions of his collection to various state colleges; for example, he gave 57 sets to Minot State College in 1934. The lion's share of the Withey collection has passed on from the Cruttenden and Byron Knoblock collections in Quincy, Illinois, to the WFVZ, but a few sets are in the American Museum of Natural History in New York, the University of Wisconsin at Green Bay, the Field Museum in Chicago and the Museum of Vertebrate Zoology at the University of California, Berkeley.

The other area of North Dakota with resident collectors who made important raptor egg collections was at Dickinson in Stark County. Edward Dodd, a taxidermist who came from England, and his sons Roy and Leonard, were serious collectors there between 1892 and 1910. Although only 15 sets of their raptor eggs have been located, these include the only five nesting records of the *Peregrine Falcon* for the country, with nests on a rocky butte face in 1898, 1899, 1901, 1902 and 1904. Only the 1901 record has been previously known.²⁴ Also in the WFVZ are Richardson's *Merlin* egg sets collected by the Dodds from a rocky butte in 1897 and from a clay butte in 1910; these appear to be the only known nesting records for Stark County. In addition to six *Ferruginous* sets, the Dodds labelled two other sets as those of "Rough-legged Hawks," almost certainly a misidentification of melanistic *Swainson's Hawks* (Bechard and Houston, *Condor*, in press).

Species such as the *Ferruginous Hawk* and *Long-billed Curlew* disappeared rather quickly as large tracts of

grassland succumbed to the plough. In certain areas, this demise may have been accelerated by the activities of the many enthusiastic oologists who kept amassing larger and larger collections. As nests became scarcer, and as a hobby as destructive as oology became increasingly difficult to defend, egg collecting lost its popularity, but only after thousands of egg sets had been taken in North Dakota alone. Now only a few sets are taken by museums under rigid scientific permits; collecting by private individuals is no longer allowed.

The Western Foundation of Vertebrate Zoology in particular must be commended for gathering together, cataloguing and preserving many of the extant collections. These are a priceless research resource serving as a reference collection that allows measurement of parameters such as egg shell thickness before biocides of various types were developed and used. The data slips accompanying their egg sets offer valuable historical evidence as to distribution and even abundance of species near the turn of the century. Nowhere outside of North Dakota, for example, have we better documentation of the initial abundance of the Ferruginous Hawk, the nature of its nests, and the chronology of its decline.

Acknowledgements

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Hugh Boyd of Ottawa kindly gave permission to use Figure 1 from his recent publication.

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Old Ferruginous Hawk nest, Rockglen Valley.
Chris Adam