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Harris' Sparrow *Photo: Ron Spomer*

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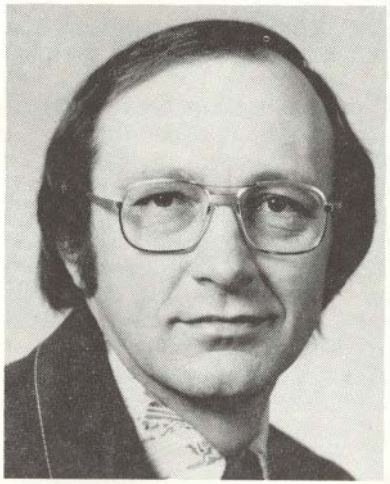

PRESIDENT'S PAGE

"You're Interested in Birds?"

I've heard it said (or maybe I read it somewhere) that all of us, at times, have to deal with feelings of inferiority. Would you believe that once I had an inferiority complex about my interest in birds? This feeling came when I met people for the first time and the talk got around to occupation and preoccupation.

The scenario (only partly fanciful) went something like this. I met a person for the first time and we reached the awkward moment when each of us came to grips (literally and figuratively) with the other. During that instant all sorts of questions flashed through my mind. Where is this person from? Is he (or she) a friendly, pleasant character? What does he do for a living? What are his accomplishments? Somehow I intuitively felt that the last two questions were most important and so I would ask, "What do you do for a living?" The other person told me what he did and then asked the expected question, "And what do you do?" And here is where I had the problem. Not wanting to let the cat out of the bag right away, I usually responded by saying, "Well, I'm a biologist." An eternity seemed to follow during which nothing was said and I began to imagine all sorts of things. The first thought was that the fellow didn't even know what a biologist is. But everyone knows what a biologist is, and I would feel better for a brief moment. But then I thought that I saw a sudden quickening of interest on his part, signaled by a slight raising of the eyebrows and a more intent gaze. I convinced myself that the fellow was trying to decide what *kind* of biologist I was. I told myself that he probably thought I was deeply involved in cancer research, or developing a new vaccine of some sort, or working as part of a genetic engineering team, or breeding some new, important-to-man variety of plant or animal. Inevitably, the question came, "What kind of biologist are you?" I answered at times, I must admit, with something less than excited enthusiasm, "I'm an ornithologist--I'm interested in birds."

What happened next is that I imagined the other person to be a little surprised and disappointed. After all, I thought, if one had to construct a list of important things to do for humanity the study of birds would be far down on that list.

I got over all of these nonsense feelings by practicing a little self-psychotherapy, resulting in a remarkable personal transformation. At the end of the therapy, whenever I spoke of my profession, I threw my head back, fully expanded my chest, bared my teeth, and put a glint in my eyes. What I did was to go over some of the really important contributions birds have made to mankind's well-being. And this exercise was not a

Walter Mittyism; many such contributions are made each year and at an ever-increasing rate. Just in case you need a little therapy once in a while, here are a few examples.

The first involves a little pocket of lymphatic tissue located on the roof of the cloaca of very young birds. This little organ is called the bursa of Fabricius. What contribution has this bursa made to mankind? The answer has to do with the body's immune system. When invaded by disease-causing organisms or toxins, our bodies respond by producing antibodies and sensitized cells that attack and destroy the invaders. As it turns out, antibodies are produced by a certain kind of cell, a lymphocyte, formed originally in the bone marrow. However, before these lymphocytes can produce antibodies, they must undergo a kind of preprocessing. The fact that this preprocessing occurs was first recognized in studies of bird immune systems. As you may have guessed, the organ in birds that accomplishes the preprocessing is the bursa of Fabricius and the resulting lymphocytes are known as B-cells (after bursa) in birds and man.

A second example has to do with certain viruses that cause disease. Both the study of these viruses and the production of vaccines against them require the availability of large quantities of virus, relatively free of extraneous material. Really good progress in understanding viral diseases came when we learned that many viruses can be conveniently cultured in fertile chicken eggs that have been incubated for ten days or so. This embryo technique is used for the production of virus for vaccines against smallpox, yellow fever, influenza, and other diseases.

A third example has to do with another human disease, malaria. The malarial parasite is an extremely important pathogen in man's history. Malaria is caused by protozoans in the genus *Plasmodium.* Since species of *Plasmodium* that infect people are difficult to grow in culture, scientists deal experimentally with species that infect birds, especially ducks.

And I can think of many other examples. One could explain how the study of flight in birds has been important in man's learning to fly. Or how Darwin's finches are important in the study of evolution. Or how bird studies have elucidated many important ecological principles. One could go on to talk about the importance of birds as a food source and their place in recreation and esthetics (something to which all of us relate in a special way).

And so as I went through this kind of mental review, I concluded that pursuing an interest in birds is an important, useful, worthwhile, and enviable thing to do. Let's try to do a better job of getting that word out.

IN MEMORIAM - Walter Rose

by **Bruce Harris**
Clear Lake 57226

Walter Rose passed away on 8 September 1981 at Deuel County Memorial Hospital, Clear Lake, South Dakota. A charter member of SDOU, Walt was an enthusiastic supporter of SDOU programs and encouraged a number of Deuel County residents to join our group. He was particularly proud of *The Birds of South Dakota*, selling many copies to friends and relatives.

A life-long resident of Deuel County, Walt was born in 1894 on a farm overlooking the Hidewood Valley, in Brandt Township. He attended a nearby country school and developed an early interest in all natural history, having ample opportunity to observe wildlife on his daily hikes to and from school. He learned much about the habits of predators and their prey while trapping for furs, which he sold. He read all the literature available not only on trapping and hunting but also on horticulture, fur farming, taxidermy, and upland game farming. About 1914 Walt raised and released some of the first pheasants in South Dakota. Working with his father, he successfully grafted various fruit and ornamental trees on the family farm.

Walt made his home on the farm for many years with his parents, and later with a sister, supplementing his income with carpentry, sheep-shearing, and taxidermy work, at which he became particularly skillful. He worked for the U.S. Government at Provo, SD during the early years of World War II. In 1944 he was hired by the Department of Game, Fish and Parks as a trapper-warden. An expert trapper, he enjoyed the work in wildlife management and was so employed for thirteen years until his retirement in 1957.

In later years he did a great deal of hunting, fishing, and birding with various SDOU members and became quite active with the Izaak Walton League, the National Rifle Association, and similar sportsmen's groups. He wrote a number of articles and letters to the editors of local newspapers, stoutly defending sportsmen's rights.

No one has portrayed Walt Rose better than the editor of *The Clear Lake Courier*, who wrote the following: "Walt was a most colorful individual who got around quite well despite his age. He made regular stops here at the *Courier* and many times would tell us about an incident that happened to him several years ago. He would remember the smallest detail about these incidents and would tell the story with a lot of color. He told of being in a tornado, of threshing on the farm, of his encounters as a trapper and employee of the state, of his liking for certain organizations, such as the National Rifle Association and his dislikes of other organizations. Each of us who knew Walt or had contact with him will rememeber him in different ways. I'll remember him as a kind, older gentleman, who believed in conservation and wildlife, a humorous person who enjoyed telling a story about something that happened long ago, yet a person who was against gun control and was against any person or organization that advocated gun control. His little visits will be missed."

Lead Shot In The Sediments Of Lake Andes National Wildlife Refuge

by **Donald R. Huff, Greg S. Erickson and James C. Schmulbach**
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Introduction

Lead poisoning (plumbism) is a widespread and frequent cause of mortality among waterfowl. First observed in North American ducks in 1874, this problem was not recognized to be severe until the early 1900's (Bowles 1908, Wetmore 1919). Today an estimated 1.6 to 2.4 million birds die annually from this cause. However, losses attributed to lead poisoning are difficult to document since some incidents are not observed and dead birds can be quickly consumed by scavengers. Moreover, subacute levels of lead poisoning indirectly contribute to waterfowl deaths that are ascribed to other factors such as disease, predation, and hunting.

Lead shot is ingested when waterfowl forage in lake and stream sediments and in upland soils. When the birds chance upon hard objects, including lead shot, they swallow them for retention in the gizzard and subsequent use as grit for grinding food. The shot is gradually eroded and digested producing lead salts that are absorbed by the body through the small intestine. Practically all of the lead is absorbed; little undigested lead passes through the digestive tract.

Waterfowl appear to be twice as sensitive to the biochemical effects of lead poisioning as mammals. Lead affects waterfowl by inhibiting the action of two important enzymes, heme synthetase and aminolevulinate dehydratase (Dieter and Finley 1978). Both enzymes are involved in the biosynthetic production of hemoglobin and other heme proteins. The symptoms of acute lead poisoning include impared motor functions, marked lethargy, partial paralysis, green-stained feces and gizzard linings (caused by excess biliverdin in the bile), enlarged gall bladders, impaction of the proventriculus, emaciation, and anemia (Wetmore 1919). The ingestion of only one or two shot can be lethal to ducks (Bellrose 1959, Fuller 1969). Sensitivity to lead poisoning is enhanced by poor nutrition and extreme environmental conditions such as cold temperatures. The average time between receiving a lethal dose of lead and death is 21 days (Bellrose 1959).

Lead poisoning is prevalent in areas where lead shot is concentrated by hunting activities. The present policy of both federal and state waterfowl regulatory agencies is to designate as nontoxic shot zones those areas where lead poisoning frequently occurs. In these areas, hunters must use steel rather than lead shot. In South Dakota, a nontoxic shot zone exists along the Missouri River and its reservoirs. This zone includes parts of Buffalo, Hughes, Hyde, Lyman, Potter, and Sully counties and encompasses one of the principal goose-hunting areas in the state.

Several criteria are used to determine whether an area should be designated as a nontoxic shot zone. They include documented waterfowl deaths caused by lead poisoning, abnormal levels of lead in the blood and other tissues of waterfowl, secondary lead poisoning of endangered species, and the quantity of lead in waterfowl gizzards, in lake or stream sediments, or in the soil.

Intermittently the Lake Andes National Wildlife Refuge (LANWR) experiences waterfowl deaths caused by lead poisoning (Fuller 1969). Each

fall the refuge receives considerable hunting pressure with hunting restricted to the center section of the lake by law and to areas with easy access by hunter preference. Consequently, lead shot accumulates in the lake sediments adjacent to two man-made dikes. In the fall of 1980, the University of South Dakota Biology Club became interested in the potential for waterfowl lead poisoning at LANWR. The purpose of this preliminary survey is to estimate the abundance and distribution of lead pellets in the sediments of the most heavily hunted areas of the refuge.

Methods and Materials

Description of the Study Area

The Lake Andes National Wildlife Refuge (Figure 1) in southern Charles Mix County was established in 1936. In 1939 the U.S. Fish and Wildlife Service took an easement from South Dakota so that they could inundate most of the original lake basin of approximately 4700 acres to create a federal refuge for migrating birds and other wildlife.

The original shallow lake, typical of the prairie, depended on surface runoff and ground water to maintain its water level. However, man-made changes in the surface runoff pattern adversely affected the water levels in the lake. In an effort to control water levels, two dikes were built across the lake, dividing it into three sections. Waterfowl hunting is allowed only in the center section where most hunters prefer to pass shoot. A 50 to 100 yd retrieval zone extends from the dikes into both the south and north lake sections. Consequently, hunters shoot in all directions from both dikes. Lead shot accumulates in the lake sediments adjacent to the dikes.

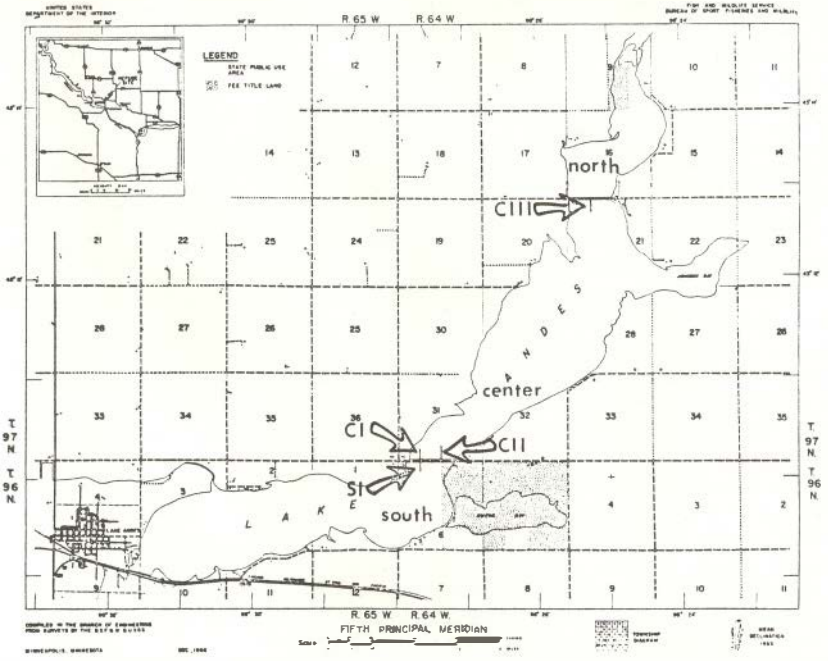

Figure 1. Lake Andes National Wildlife Refuge showing the location of the four transects (arrows) used in sampling lead shot from the lake sediments.

Sampling procedure

We used a modified stratified-random sampling design to sample the bottom sediments of Lake Andes. All samples were taken on 13 September 1980, along four transect lines extending from the dikes along north-south axes for approximately 120 yd into the lake (Figure I). Three transects extended into the center lake section and one into the south section. We secured substrate samples from 46 stations at about 10 yd intervals along the transects. At each station we attempted to take samples from three depths (0-2, 2-4, and 4-6 inches). However, rocks, wood, and plant roots or rhizomes in the sediments prevented us from getting samples at all stations and from all depths. Consequently, we only secured 105 of the 144 planned samples (4 transects x 12 stations x 3 depths).

We took our samples by using a one-square-foot area demarked by a steel frame with a depth of two inches on all sides. We pushed the frame into the sediments until the top was flush with the sediment surface. The frame carried an extended handle to facilitate its entry and removal from the sediments. After extracting the sample from the frame by using a shovel and draining the water from the sediments, we placed the the contents in large plastic bags, labeled as to location and depth. Samples secured from two or three depths at each station were removed successively from the same square foot of surface area by simply forcing the frame two inches deeper into the substrate for each sample. Thus each sediment sample consisted of one square foot of material with a depth of two inches (0.167 ft^3).

Before analyzing them, we stored the samples for several months. In the lab we eliminated fine organic matter by washing each sample through window screening (0.06 inch mesh). We rewashed the remaining coarse material (including lead shot, gravel, snail shells, and plant remains) with flowing water. The organic debris was decanted from the heavier inorganic material, which consisted mainly of gravel and lead pellets. The pellets were then removed manually with a forceps and placed into labeled vials.

Results and Discussion

Results from the 105 samples taken from three sediment depths at 46 stations along 4 transects revealed that the estimated mean density of lead pellets was 2.48/ft^3/2 inch depth and 7.44/ft^3/6 inch depth (Table 1). We selected the six inch depth because a study by Utah State University biologists revealed that Mallards forage in the sediments to this depth (Low, pers. comm.). When our results are extrapolated to a larger areal basis, the mean number of lead pellets equals 108,029/acre/2 inches of depth and 324,086/acre/6 inches of depth. This latter value is probably more representative of lead shot that is available to feeding waterfowl. If we assume that our estimates are reasonable approximations of the actual shot densities in the 120 yd strips on either side of the dikes, more than 28 million lead pellets lay in the upper six inches of sediments along the two dikes. Both dikes are approximately 0.5 miles long (880 yd) and a 120 yd strip on each side of the two dikes encompasses 87.3 acres.

The lead pellets were not uniformly distributed throughout the sediments. The number of pellets per sample (1 ft^3, 2 inches deep) varied from 0 to 18. In fact, approximately 1/3 of the samples contained no pellets. This variability is reflected in the large standard deviations associated with the mean values in Table 1.

Table 1. Mean numbers of lead pellets/ft² and their standard deviations (in parentheses) in sediment samples taken from four transects and three depths in Lake Andes Wildlife Refuge, S.D., September 1980. ns=station location missing; nt=transect location missing.

Transect	Depth (inches)				
	0-2	2-4	4-6	Depth Missing	Mean
Center I	2.43	2.14	1.0	3.0	2.11
	(1.7)	(1.2)	(1.4)	-	(1.5)
Center II	2.38	1.8	1.0	3.5	2.25
	(2.2)	(1.8)	-	(3.5)	(2.3)
Center III	2.2	2.5	4.0	1.25	2.19
	(1.9)	(0.96)	-	(1.6)	(1.6)
Center II (ns)	1.25				
	(1.6)				
Center (nt)		6.0			
South I	3.5	1.14	3.0	1.33	2.24
	(1.5)	(0.8)	(6.1)	(1.2)	(3.8)
Mean	2.36	2.04	2.42		
	(1.9)	(1.5)	(4.9)		

When the results of 38 samples with no collection data were combined with the 67 samples comprising the tabular data, the following mean values/unit of area resulted:

#/ft²/2" depth = 2.48	#/m²/5 cm depth = 26.7
#/ft²/6" depth = 7.44	#/m²/15 cm depth = 80.1
#/acre/2" depth = 108,028.8	#/ha/5 cm depth = 266,939.2
#/acre/6" depth = 324,086.4	#/ha/15 cm depth = 800,817.5

During storage many of the labels disintegrated or became illegible. Consequently, we limited our analysis of lead pellet differences between transects and between depths to the pellet counts from 67 samples. All depths and transects gave similar density estimates. The mean lead pellet densities per sample for each transect varied between 2.11 and 2.25, while the mean densities for the 0-2, 2-4, and 4-6 inch depths equalled 2.36, 2.04, and 2.42, respectively (Table 1). Since our sampling variability was high, none of the transect or depth means differed significantly at the 95% confidence level (Table 2). We concluded that the sample means were similar and the variation we observed was caused by chance. Our overall estimate of lead pellet density (7.44/ft²/6 inches of depth; 324,086/acre/6 inches of depth) gave a reasonably accurate estimate of the existing lead pellet densities in the sediments of Lake Andes adjacent to the two dikes. Waterfowl biologists generally consider lead pellet densities of 20,000/acre as high levels that could cause lead poisoning in waterfowl. Our estimates, more than 16 times this amount, suggest that the potential for lead poisoning exists in the sample zones of LANWR.

The shot did not concentrate in the deepest sediment layer that we sampled (4-6 inches), despite several decades of concentrated hunting from the dikes. Perhaps biological activity by vertebrates, benthic invertebrates, and microorganisms in the sediments keep the shot in a

Table 2. Comparison of the differences in mean number of lead pellets/ ft^2 from sediment samples taken from four transects and three depths in Lake Andes National Wildlife Refuge, S.D., September 1980. Statistical significance was assessed using Hartley's modificatin of the Q test. Numbers in ( ) indicate the size of significant differences at the 95% confidence level.

	Depth comparisons		
Depth (inches)	x	x - 2.04	x - 2.36
4 - 6	2.42	0.38 (4.2)	0.06 (4.2)
0 - 2	2.36	0.32 (4.2)	
2 - 4	2.04		

	Transect comparisons			
	x	x - 2.11	x - 2.19	x - 2.24
Transect				
Center II	2.25	0.14 (3.95)	0.06 (3.74)	0.01 (3.11)
South I	2.24	0.13 (3.74)	0.05 (3.11)	
Center III	2.19	0.08 (3.11)		
Center I	2.11			

state of flux resulting in random upward, lateral, and downward movement until the pellets are completely abraded or digested. Possibly lead does concentrate at some depth in the sediments below the levels we sampled.

Lead shot densities did not vary at stations along the transects (i.e., with reference to their distance from the dikes). Perhaps this observation is a consequence of the almost exclusive use of pass shooting at relatively high-flying birds. Pass shooting tends to distribute spent shot over a wide area in all directions whereas hunting over decoys from blinds probably concentrates spent shot in an arc in front of the blind.

Conclusions

We found high lead pellet densities in the sediments within the 120 yd wide zones extending parallel and adjacent to the two man-made dikes in Lake Andes National Wildlife Refuge. Although our estimates lacked precision, they had to be in error by more than one order of magnitude for the estimates not to elicit concern about the potential for lead poisoning. We doubt that our estimates were that imprecise. Lead shot density in the sediments is only one criterion, albeit an important one, in assessing whether an area should be designated as a nontoxic shot zone. Additional research is needed to refine the density estimates over a larger area of the refuge and to establish the fact that foraging waterfowl are actually ingesting lead pellets from the sediments of the lake.

Acknowledgements

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samples. Also, we are indebted to William C. Bair, U.S. Fish and Wildlife Service disease biologist, Pierre, S.D., former refuge manager Gary Zahn, assistant refuge manager Dave Hilley, and refuge biologist John Decker, who provided invaluable advice and help throughout the course of study.

LITERATURE CITED

Bellrose, F.C.
1959. Lead poisoning as a Mortality Factor in Waterfowl Populations. Bull. Ill. Nat. Hist. Surv. 27(3):235-288.
Bowles, J.H.
1908. Lead Poisoning in Ducks. Auk 25:312-313.
Dieter, M.P. and M.T. Finley.
1978. Delta Aminolevulinic Acid Dehydratase Enzyme Activity in Blood, Brain, and Liver of Lead-dosed Ducks. Env. Rev. 19(1):127-135.
Fuller, T.L.
1969. Analysis of a Waterfowl Die-off. M.A. thesis. Univ. of South Dakota, Vermillion. 58 p.
Wetmore, A.
1919. Lead Poisoning in Waterfowl. U.S. Dept. of Agri. Washington, D.C. Bull. 79.

The Misunderstood Etymologies of the Generic Names *Archilochus, Atthis, and Phaethon*

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Numerous genera of the animal kingdom are named after persons in Classical antiquity or mythology. This paper will deal with three examples among birds--two hummingbirds and the tropicbird--whose generic names are apparently not understood by the authors of current etymological reference books.

The tropicbird genus *Phaethon* is obviously named after Phaethon, son of Helios the Sun-god. But why? The most recent reference work, *The Audubon Society Encyclopedia of North American Birds* by John K. Terres (1980), after explaining who Phaethon is, goes on to say that the genus is "named apparently in allusion to the sunny tropical home of these birds" (p. 935). This inadequate explanation is an echo of the one found in an earlier reference work, *Words for Birds: A Lexicon of North American Birds with Biographical Notes* by Edward S. Gruson (1972). Gruson says (p. 27):

> Phaeton, in Greek mythology the son of Helios, the sun, ... alludes to the birds' tropical range. The name was derived from *phaethein*, "to shine," as the sun does.

The last-quoted sentence is confusing and also irrelevant. To clarify: the name of the son of Helios is derived from *phaethein*, not the name of the

tropicbird. As we shall see the tropicbird genus is simply named after the person Phaethon; that Phaethon's name happens to connote "shining" is irrelevant.

Another standard reference, *A Source-Book of Biological Names and Terms* by Edmund C. Jaeger (1955) has this etymology for *Phaethon* (p. 191):

> phaeth- Gr. *Phaethon*, the sun god, Helios; *phaethontis*, shining. *Ex:* Phaethornis (Av.); Phaethon (Av.); Phaethontidae (Av.).

In this entry, the confusion of Phaethon with his "shining" father Helios is complete; the young man is not even mentioned. Similarly, Elliott Coues, in his *Coues Check List of North American Birds* (1882) is also uncertain whether the genus is named for young Phaethon or for his father. He says (p. 119):

> *Phaethon flavirostris*. Gr. Φαέθων, Lat. Phaethon, a proper name, an epithet of the sun; Phaethon having once undertaken to drive the chariot of the sun, his father Helios; well applied to these highly aerial birds of the Tropics.

Indeed, Phaethon *is* a title of Helios himself as well as the name of one of his sons. Homer, for instance, uses the word *phaethon* as a stock adjective for the Sun (*ēelios* in Homer's dialect) in both the *Iliad* and the *Odyssey*. But this is of no concern to us here, because *Phaethon* the tropicbird is named after the young Phaethon, not his father.

Phaethon borrowed his father's sun chariot, but he drove it through the sky so disastrously that he was struck down by a lightning bolt from the god Zeus and fell into the sea. The tropicbird genus was named for Phaethon because of the bird's long central tail feathers that stream in the wind, causing the tropicbird to resemble a sky chariot out of control with reins trailing. Greek mythology is full of stories of men who were killed in chariot accidents. To name only a few, Glaucus of Corinth (son of Sisyphus and father of Bellerophon), Oenomaus of Elis (father-in-law of Pelops), Laius of Thebes (father of Oedipus), and Hippolytus of Troezen (son of Theseus) were all killed in chariot mishaps, as was Phaethon. But the tropicbird genus could hardly be called *Glaucus* or *Oenomaus* or *Laius* or *Hippolytus*, or named after anyone else who lost control of a chariot on *terra firma*. *Phaethon* is the best name because only Phaethon's chariot was in the sky. Phaethon's fall to the sea might also be recalled by the tropicbird's aerial diving for food. (See Arthur C. Bent's *Life Histories of North American Petrels and Pelicans and Their Allies*. 1964 edition, p. 189.)

While our reference works have not understood why the tropicbird was named *Phaethon*, they at least correctly recognize Phaethon as a proper name from Greek culture. But not even this much can be said for their etymology of the hummingbird genus *Archilochus*.

Why should the genus of the Ruby-throated Hummingbird (*Archilochus colubris*) and of the Black-chinned Hummingbird (*A. alexandri*) be named after the inventor of satirical iambic verse, the Greek post Archilochus of Paros? Our etymological reference works are of no help in answering this question. The following explanation is given in Gruson's *Words for Birds* (p. 158):

> *Archilochus*. Greek for "chief brigand," coined from *archos*, "chief" or "first in importance," and *lochos* "ambush or a company of men." But why? Because the bird steals the pollen from the flower and dashes away?

It is one thing to say that Gruson's etymology is totally absurd, as he himself seems to admit. But even more deplorable is that this scholar, who should have some acquaintance with Greek, seems never even to have heard of the poet Archilochus, who in ancient times was considered

to be as great a poet as Homer, Pindar, and Sophocles.

While Gruson is honest enough to admit that his etymology makes no sense, Terres, in his *Audubon Society Encyclopedia,* offers essentially the same explanation, or non-explanation, without the slightest apology or sign of embarrassment (p. 543):

> genus name: Lat., from Gr. *archi-*, prefix meaning chief, first in importance, and *lochos*, an ambush, also company or body of people (Jaeger, 1955).

Jaeger does indeed agree with this false etymology, as we read in his *Source-Book* (p. 143):

> loch- Gr. *lochos*, an ambush; also a company or a body of people;...*Ex*:...Amphilochoides (Arth.); Archilochus (Av.).

And yet, in the "Addendum" at the back of his book, he also offers the following entry (p. 290):

> archilochus -- L. Archilochus, name of a 7th century B.C. Greek poet.

This strange entry is devoid of any example of biological usage with which Jaeger usually provides his entries. For example, under "phaeth--," cited above, he points out that *Phaethon* is a bird genus, and under "loch--" that *Amphilochoides* is an arthropod genus. Why doesn't he give the example "Archilochus (Av.)" under the entry "archilochus" rather than under "loch--?" The word Archilochus certainly occurs nowhere else in biological terminology than as the bird genus. We can see that Jaeger was uncertain whether he should put "Archilochus (Av.)" in "loch--" or in "archilochus." He made the wrong choice.

Of course, the name Archilochus really does happen to mean "brigand chief" or "leader of ambushes," but this information is meaningless. The genus is named after the poet Archilochus; what Archilochus's name happens to mean is irrelevant. To illustrate: Wilson's Warbler belongs to the genus *Wilsonia,* named after Alexander Wilson, the 19th-century Scots-American amateur ornithologist. The fact that Wilson's name happens to mean "son of William" is, of course, an irrelevancy. The hummingbird *Archilochus* is no more a "leader of ambushes" than the warbler *Wilsonia* is a "son of William."

We might note that an opposite offense is also occasionally committed. Not only do some ancient proper names get mistaken for recently coined compound words, but some recently coined compounds also get mistaken for ancient names. I will give just one example. The same reference works in which Archilochus goes unrecognized as a proper name also claim that the Calliope Hummingbird's scientific name, *Stellula calliope,* is named after the Muse Calliope. But this false etymology has its problems as we shall see. Coues says (p. 74):

> *Stellula calliope*. ... Gr. Καλλιόπη, one of the Muses; καλός, feminine καλή, beautiful &c., and ὄψ , voice. The application of the word to a voiceless bird is not obvious, unless it be simply dedicatory.

Gruson agrees (p. 160):

> *calliope*. The muse of eliquence was called Calliope, a name meaning "beautiful voice." It is not clear why a species lacking a voice should be dedicated to this particular muse.

Terres (p. 544) accepts this false etymology as a matter of dogma, again without pointing out the problem involved with it. Actually the species designation *calliope* has nothing to do with the proper name Calliope (which really does mean "beautiful voice"). It is a compound derived from two Greek words: *kallē,* beautiful, and–not *ops* (spelled with an omicron), "voice," but rather:--*ōps* (spelled with an omega), "face." The Calliope Hummingbird does indeed have a very beautiful green and white-and-violet-striped face.

Coues, incidentally, is of no help in explaining the name *Archilochus*, because he never recognized it as a genus. To his dying day Coues persisted in including the species of what we know as the genus *Archilochus* in the older genus *Trochilus*, established in 1758 by Linnaeus. In the last edition of his *Key to North American Birds* (the posthumous 5th ed. of 1903), he was still calling the Ruby-throated Hummingbird *Trochilus colubris* and the Black-chinned Hummingbird *T. alexandri* (pp. 547-548). In the middle of the 19th century the expansion of U.S. society, culture, and science was helping to break up (among other things) the huge Linnaean hummingbird genus *Trochilus*. In 1831 William Swainson established the new genus *Selasphorus* at the expense of *Trochilus*. In 1854 Heinrich Reichenbach deprived the genus *Trochilus* of some more species by establishing his two new genera *Archilochus* and *Atthis*. In 1861 John Gould removed the Calliope Hummingbird from *Trochilus* for his new genus *Stellula*. Coues was quick to recognize all of these new general except *Archilochus*, and therefore gives us no etymology for it.

The two genera established by Reichenbach in 1854, *Atthis* and *Archilochus*, were both named after persons in Greek culture—one a mythical priest of the goddess Cybele, and the other a poet. Reichenbach was well versed in the Classics, and he wrote several of his books in both German and Latin, the German and Latin texts being printed side by side. His name *Atthis* (for Heliose's Hummingbird) is the easier of the two to understand, although the authors of our reference works manage to misunderstand this name as well.

In *The Coues Check List* Coues says (p. 74):

> *Atthis heloisa*. Gr. Ἀττίς, Attic, Athenian; probably in allusion to some peculiar charm of the bird. Attic was *ne plus ultra* Greek, as Parisian is *par excellence* French.

In *Words for Birds* Gruson shows only slightly more ingenuity by saying (p. 160):

> *Atthis*. Greek for "Athenian," i.e., "Attic," and by some (e.g., Noble) held to refer to an Athenian woman, possibly Philomela, who in the myth was transformed into a bird.

Terres says in his *Encyclopedia* (p. 545):

> genus name: according to Gruson (1972), *Atthis* is Gr. for Athenian, i.e., Attic; also believed to refer to an Athenian woman, possibly Philomena, [*sic*] who in Gr. mythology was changed into a bird.

All of this, of course, is nonsense; no Attic woman is indicated here. Yes, Philomela was turned into a nightingale, just as her sister Progne (for some reason not mentioned in the above quotations) was turned into a swallow. (The swallow genus *Progne*, the Purple Martin, is named after her.) And yes, Progne and Philomela were Athenians; they were the sisters of Erechtheus, which makes them about as Athenian as anyone can be. And yes, Atthis can mean Attic or Athenian. But the correct etymology of *Atthis* is as follows: Atthis is a variant spelling of Attis, the shepherd boy who was forced to live his whole life in the pine-covered mountains of Phrygia as a priest of Cybele. The appropriateness of the name lies in the fact that the habitat of *Atthis heloisa* is pine woodland or high-elevation cloud forest. (See Ernest P. Edwards, *A Field Guide to the Birds of Mexico*, 1972, p. 113.)

So it is not so difficult to see how a biologist such as Reichenbach with his Classical turn of mind came to name Heloise's Hummingbird *Atthis*. But why he named the Black-chinned and the Ruby-throated Hummingbirds *Archilochus* is somewhat less obvious. Even so, I will show that Archilochus the poet is considerably more obvious than is the "leader of ambushes."

The name Archilochus no doubt occurred to Reichenbach as a name for his new genus because of two characteristics at least superficially shared by both the hummingbird and the poet: heavy drinking and pugnacity. As for heavy drinking, observations by Althea R. Sherman ("Experiments in Feeding Hummingbirds during Seven Summers," *Annual Report, Smithsonian Institution,* 1913, p. 466) have shown that the Ruby-throated Hummingbird, which weighs 0.1 oz., consumes daily an amount of nectar containing 0.2 oz. of sugar. The amount of sugar in its daily drink is twice its own weight--an energy requirement that only a hummingbird could have. Archilochus the poet, as I will show, was also known as a good drinker.

Archilochus was born in the latter part of the 8th century B.C. (we don't know the exact year) on the island of Paros, in the Aegean Sea. As a young man he participated in the Parian colonization of Thasos, another Aegean island, which is just south of the coast of Thrace. This colonization is dated about 708 B.C. By occupation Archilochus was a soldier, and while living on Thasos he saw action against the native Thracians. Thasos was famous for its gold mines and Paros for its rich marble quarries, things to fight wars over, and to give men employment as soldiers. Archilochus later returned to Paros, where, sometime after the middle of the 7th century B.C., he was killed in a battle fought between Paros and Naxos, a neighboring island. As a poet he is kown as the inventor of satire, and perhaps also of elegy. Almost all of his poetry is lost, but we do have a considerable number of fragments of his work: epigrams, fables, diatribes, poems on war and army life, hymns and drinking songs and even some whole poems. Archilochus composed the victory song used by victors at the Olympic Games. His poem on an eclipse of the sun probably refers to the solar eclipse of April 6, 648 B.C.

The Alexandrian poet Callimachus once referred to Archilochus as "the wine-stricken Archilochus" (τοῦ μεθυπλήγος . . Ἀρχιλόχου). Archilochus may or may not have invented the drinking song (that honor might belong to his older contemporary, Terpander of Lesbos), but he at least invented numerous innovations of both composition and delivery of the drinking song and helped perfect its form. As Archilochus himself once put it:

Ὡς Διωνύσοι' ἄνακτος καλὸν ἐξάρξαι μέλος
οἶδα διθύραμβον οἴνῳ συγκεραυνωθεὶς φρένας.

("I know how to lead the beautiful songs of King Dionysus when my mind is mixed with wine.")

In another poem Archilochus tells us that he will not mourn the death of his sister's husband without mingling his grief with wine and merry-making, and explains that weeping does not heal a wound any more than feasting and drinking make it worse. In another poem he mentions drinking on guard duty; he asks that his own cup and also those of his comrades be filled with red wine, declaring that he and they cannot stay sober on this watch any better than any other soldier can. But of all the poems of Archilochus, the one which would most suggest the image of the hummingbird is the following:

Ἐν δορὶ μέν μοι μᾶζα μεμαγμένη, ἐν δορὶ δ' οἶνος
Ἰσμαρικός, πίνω δ' ἐν δορὶ κεκλιμένος.

("In my spear is my baked bread, and in my spear is my Ismarian wine, and on my spear I lean while I drink.")

(We seem to have here another reference to drinking on guard duty.) Of

course, Archilochus said that his bread and wine are in his spear because he made his livelihood as a soldier, but the food of a hummingbird also also comes through its spear, so to speak; indeed, it even appears to "lean on its spear" while it drinks.

I have established the fact that *Archilochus* the hummingbird and its namesake the poet are both known as heavy drinkers. Therefore it would seen likely that Reichenbach was naming his genus after the person Archilochus, and was certainly not meaning to call it a "leader of ambushes." But, one might ask, why should he have named the genus for this particular imbiber? Why didn't he name his genus of hummingbirds, say, *Anacreon* after the famous writer of drinking songs, or *Dionysius* after King Dionysius II of Syracuse, the proverbial drunkard? The answer is that these hummingbirds are known for their belligerency as well as for their heavy drinking of nectar, and neither Anacreon nor Dionysius fit that image. Hercules would fit that image, because he was both a hard-drinking glutton and a fighter, but it would hardly seem quite right to assign the name *Hercules* to a genus of tiny hummingbirds. No, the name Archilochus seems to be the best choice.

Regarding this belligerency, Robbins et al. in *Birds of North America* (1966) say of hummingbirds in general: "All are fearless and pugnacious." For example, Winsor M. Tyler, author of the chapter on *Archilochus colubris* in A.C. Bent's *Life Histories of North American Cuckoos, Goatsuckers, Hummingbirds and Their Allies,* writes (1964 ed., pp. 343, 346-347):

> It often resents the presence of other species of birds, however innocent their design may be. It is intolerant also to members of its own species to such a degree that, as a rule, the more hummingbirds there are together, the more excited and hostile they become. ... The notes that come from the hummingbird's tiny throat are high pitched and have a petulant quality, reflecting the bird's irritable nature. Sometimes the notes are angry-sounding, mouselike squeals; sometimes they are run into a nervous, fretful chattering, always very sharp and clear, though by no means loud, and delivery in a jerky, excited manner. A lone hummingbird is usually silent, except for the buzzing of the wings, but when several birds are together they become very voluble and quarrelsome and jerk out their notes, now arranged in emphatic phrases, squealing and chattering back and forth as if they were carrying on an animated controversy in a jabbering language.

Coues, without benefit of having recognized the genus *Archilochus,* was yet reminded of poets by Ruby-throated Hummingbirds. In his *Key to North American Birds* he says (p. 544):

> Hummingbirds, like poets, belong to the *genus irritabile;* they are very nervy if not also brainy little creatures, of greater courage than discretion, quick-tempered and extremely pugnacious--the Kingbird which has just whipped a Hawk or a Crow may be assaulted and worsted by the impetuous Ruby-throat.

Althea Sherman, in her article already cited, has this to say about *Archilochus colubris* (p. 460):

> The days and weeks are calm and quiet ones when a single bird has the bottles to herself. More or less fighting ensues as soon as another bird comes on the scene, and the tumult of battle increases with each new arrival until the presence of six or seven of these tiny belligerents makes the front yard appear like the staging of a ballet. With clashing sounds and continuous squeaking cries they chase each other about, often swinging back and forth in an arc of a circle with a sort of pendulum-like motion. Sometimes they clinch and fall to the earth, where the struggle is continued for many seconds. So jealous are they lest others share the sirup that they seem more anxious to fight than to drink.

One is instantly reminded of Archilochus's sentiment:

> μάχης δὲ τῆς σῆς, ὥστε διψέων πιεῖν,
> ὑσείης.

("I love to fight with you as much as I love to drink when I'm thirsty.")

In a similar vein, Pindar says in his Pythian Ode 2:

εἶδον γὰρ ἑκὰς ἐὼν τὰ πόλλ' ἐν ἀμαχανίᾳ
ψογερὸν Ἀρχίλοχον βαρυλόγοις ἔχθεσιν
πιαινόμενον.

("For I have seen the scolding Archilochus of an earlier day in great poverty nourishing himself with his heavy-worded hatreds.")

Athenaeus tells us that Archilochus prided himself on his ability to take part in political struggles even more than on his gift for poetry. Tradition has it that Archilochus had to leave Thasos because of the many enemies he made for himself by his invective poetry, and that he wandered to many places before returning to his native Paros. The best-known story told about him was that he once fell in love with a young woman named Neobule, but that her father, Lycambes, forbade them to marry. Archilochus thereupon embarrassed Lycambes with such vicious satires that Lycambes finally committed suicide for shame. In some versions of the story, Lycambes kills not only himself but his entire family. Archilochus was always reputed to be a man who could kill with his words as well as with more conventional weapons. An epitaph written for Archilochus by the poet Gaetulicus runs as follows:

Σῆμα τόδ' Ἀρχιλόχου παραπόντιον, ὅς ποτε πικρὴν
Μοῦσαν ἐχιδναίῳ πρῶτος ἔβαψε χόλῳ,
αἱμάξας Ἑλικῶνα τὸν ἥμερον. οἶδε Λυκάμβης,
μυρόμενος τρισσῶν ἅμματα θυγατέρων.
ἠρέμα δὴ παράμειψον, ὁδοιπόρε, μή ποτε τοῦδε
κινήσῃς τύμβῳ σφῆκας ἐφεζομένους.

("In this grave by the sea lies Archilochus, who was first to steep a hostile Muse in cobra venom and stain civilized poetry with blood; so acknowledges Lycambes, having the hangings of three daughters to weep over. Traveller, pass quietly by, lest you stir up the wasps that settle by his graveside.")

I hope that future reference books that give etymologies of bird names can stop explaining *Archilochus* as a "leader of ambushes," but rather state correctly that this genus of birds commemorates that irritable drinker of nectar, Archilochus of Paros.

GENERAL NOTES

GREAT EGRET OBSERVED IN GREGORY COUNTY.--On the afternoon of 21 August 1981, I sighted a single Great Egret near a stock dam ten miles SE Burke in Gregory County. At first the egret, in company with a Great Blue Heron, stood in the shallow headwaters of the dam. As I drove closer the heron left the area and the egret flew a short distance to the grassy shore of the dam, affording me an excellent view from about 80 yd. The egret seemed quite unafraid. Not wishing to chase the bird from the area, I made no attempt to get closer after it slowly walked out of sight over a rise of ground. This sighting is my first of this species in Gregory Co. Whitney et al., *The Birds of South Dakota,* list very few west-river records for the Great Egret.--**Galen L. Steffen, Burke 57523.**

LATE GREAT BLUE HERON IN BRULE COUNTY.--I observed a Great Blue Heron on 21 December 1981 in Brule Co., South Dakota. The heron was flying south across country approximately 1 mi S and 0.5 mi E Chamberlain. Apparently the bird had found an open water area along American Creek. Whitney et al., *The Birds of South Dakota,* do not mention a winter sighting this late.--**Jack Friedel, SD Game Fish and Parks, Chamberlain 57325.**

EARLY WHITE-WINGED CROSSBILLS AT BURKE.--On the evening of 27 August 1981, as I walked out in my yard in Burke to check my bird traps, I was very surprised to find that one water-drip-trap contained two White-winged Crossbills. Both birds were immature and I did not see them again after I banded and released them.

Whitney et al., *The Birds of South Dakota,* list only one earlier fall date for this species, a single bird observed at Highmore by Harter on 17 August 1969. The next earliest date is 14 September 1972 at Brookings by Cooper.--**Galen L. Steffen, Burke 57523.**

OLIVE-SIDED FLYCATCHER SIGHTED AT BURKE LAKE.--On the evening of 9 August 1981, I observed an Olive-sided Flycatcher at the Burke Lake Recreation Area in Gregory County. I watched the bird for about ten minutes as it hawked insects and perched in the dead top of a willow at the lake's edge. The white tufts of feathers on each side of its lower back were noted several times as was the narrow strip of white between its dark chest patches. This sighting was my first in Gregory Co. Whitney et al., *The Birds of South Dakota,* list very few records for this species anywhere in the state.--**Galen L. Steffen, Burke 57523.**

SPRING SIGHTING OF THE BLACK SCOTER IN GREGORY COUNTY.--On 16 and 17 April 1981, a single female Black Scoter appeared on Burke Lake in Gregory Co. During the morning of the 16th, I studied the scoter, about 130-150 yd distant, for 30 minutes with a spotting scope. This duck was definitely larger than the Lesser Scaup with which it associated. I noted its sooty brown back and sides. Its dark cap and hindneck contrasted with its whitish-tan cheeks. The scoter spent much time preening and cleaning its feathers, accompanied by much rolling, shallow diving, and splashing of water over its body. At these later times, I noticed the tan underparts of the body and the black legs. The bird also had two small yellow areas at the base of the upper mandible. *The Handbook of North American Birds,* Vol. III, confirms this field mark. ("The bill is black with a hint of yellowish in the basal part of the upper mandible and, at least in some, a profile appears very slightly swollen near top base.") This description matches the appearance of the scoter's bill I observed at Burke Lake.

I returned to the lake in the early afternoon and spent another ½ hr rechecking field marks. The next morning the scoter was still present. Boating activity in the afternoon scared most waterfowl, including the scoter, off the lake and I never saw it again. Two friends, both avid hunters from Burke, Don Wilson and Lou Tolstedt, also observed the scoter before it left the lake and both agreed with my identification.

The literature reveals no spring dates for the Black Scoter in South Dakota. *The Birds of South Dakota* (Whitney et al.) lists only several fall dates from the Missouri River and the larger eastern South Dakota lakes. My sightings may be the first during the spring in the state. Also unusual is the fact that Burke Lake is rather small, about 20 acres, and is surrounded by tall trees, hardly the habitat where one would expect to find a Black Scoter.--**Galen L. Steffen, Burke 57523.**

ACTIVE BROAD-WINGED HAWK NEST AT SICA HOLLOW STATE PARK.--On 3 July 1981 Gary Stava, Bruce Harris, Ken Husmann, and I discovered an active Broad-winged Hawk's nest in Sica Hollow State

Park. The nest contained two young and was located in a mature Green Ash about 30 ft up. The nest tree is located on the N side of the Trail of the Spirits, lower loop, approximately 50 yd from the end of the trail. Although Broad-winged Hawks may nest in the region, this nesting record is the first for this species in the Park.

During the next several weeks I make the following notes:

3 July: Nest discovered. Female sounding alarm calls. Two young observed.

7 July: Female scared off nest in early evening. Young resting.

16 July: 9:00 a.m. Female not seen upon arrival but returned and gave alarm calls.

21 July: Female not seen but young becoming noticeably larger and active.

24 July: Female in area but does not appear to have seen me. Young very active and stretching wings in nest.

During all my visits to the nest area, the female never approached the nest and young. I never saw the male. On and after 29 July I searched the location several times but did not again see the female and young.--**Jessica Giusti, Naturalist, Sica Hollow State Park 57262.**

HOUSE FINCHES IN SOUTH DAKOTA. -On 27 November 1981, a lone female House Finch appeared among the Pine Siskins at my feeder at 1506 SE Third Ave., Aberdeen, Brown Co., SD. I collected this bird, an immature, because Whitney et al. (1978) give the impression that no specimen evidence from South Dakota e sts for this species. However, when Bruce Harris "observed" the first South Dakota House Finch on the Mitchell Christmas Bird count on 30 December 1966, he also collected the specimen (Harris 1970).

During the time between Harris' discovery of the species in 1966 and my taking it in Aberdeen in 1981, ten records of House Finches have been recorded in the state. Seven of these records are from the Black Hills region: 1 September 1968 (Whitney et al. 1978); 26 December 1971 through January 1972 (Baylor 1974); banded 27 January 1974 and retrapped 7 January 1976 (Hays 1976); 3 December 1975 through 2 March 1976 (Steffen et al. 1976); 17 December 1978 (Baker 1979): 10 July 1981 (Harris 1981): and 20 December 1981 (Serr, pers. comm.). Actually House Finches are probably to be expected in the Black Hills region in the nonbreeding seasons. The species is common in the Gillette WY region 90 mi NW of Spearfish (Hays 1976) and in central NB about 80 mi S of the region (Johnsgard 1979). Furthermore, along the Front Range of the Rocky Mountains, the House Finch is migratory (Baily and Niedrach 1965); the species would not have to drift far from normal routes to appear in SW South Dakota. In fact, the July record cited above was of a singing male in Edgemont, our first indication that the species may be breeding in the state.

Away from the Hills area, only two previous House Finch records exist--three males at Yankton from 5 February until 13 March 1976 (Hall 1976) and one male at Pierre on 21 November 1976 (Steffen et al. 1977). Presumably these eastern records are of vagrants of western origin. However, in the 1980's and everafter, this assumption can no longer be made because of the western expansion of the east coast population established by escaped birds in New York in the early 1940's. Birds of presumed eastern origin have reached Mississippi (Jackson 1981) and

Minnesota (Bruggers 1981). Both these locations are over 1000 mi from New York. I think that we in eastern South Dakota can predict increasing occurrences of House Finches in the next decades as this eastern population continues to expand.

Literature Cited

Baily, A. M. and R. J. Niedrach
1965. Birds of Colorado. Denver Museum of Natural History. 895 pp.
Baker, J. L.
1979. House Finches near Rapid City. SDBN 31:37-38.
Baylor, L. M.
1974. House Finch at Rapid City. SDBN 26:23.
Bruggers, D.
1981. House Finch in Minnesota. Loon 53:109.
Hall, W.
1976. House Finches at Yankton. SDBN 28:5.
Harris, B.
1970. Specimen Records for South Dakota. Condor 72:243-244.
1981. The 1981 Breeding Season. SDBN 33:84-88.
Hays, T. M.
1976. House Finch Banded at Spearfish. SDBN 28:17-18.
Jackson, J. A.
1981. The House Finch, a New Species for Mississippi. Miss. Kite 11:7-9.
Johnsgard, P. A.
1979. Birds of the Great Plains. Univ. NB Press: Lincoln. 539 pp.
Steffen, G. L. and others
1976. Winter Records. SDBN 28:32-36.
1977. 1976 Fall Migration Report. SDBN 29:8-23.
Whitney, N. R. and others
1978. The Birds of South Dakota. SDOU: Vermillion. 311 pp.

--Dan A. Tallman, Northern State College, Aberdeen 57401.

The 1981 Fall Migration

by **Bruce Harris**
Box 605, Clear Lake 57226

The season was generally very dry with average temperatures. November was particularly mild. Most lakes were open until the last few days of that month. Outstanding records include House Finch, Black Brant, Peregrine Falcon, Eastern Bluebird, and Olive-sided Flycatcher.

The following people contributed to this report: Leon Anderson (LA); Jocelyn L. Baker (JLB); Roger and Lois Birdseye (RB,LB); Tom Coffield (TC); James Cole (JLC); Bruce C. Coonrod (BCC); Rapid City Bird Club (RCBC); Esther Edie (ERE); Willis Hall (WH); Bruce Harris (BKH); Jean Helfinstine (JHe); June Harter (JH); Alfred and Gertrude Hinds (AH,GH); Nelda Holden (NJH); Kenneth Husmann (KHH); Douglas E. Kreger (DEK); Mr. and Mrs. John Lord (JL,EL); Ron Meester (RMe); Michael Melius (MMM); Everett Montgomery (ECM); Terry Schroeder (TS); Charles and Gladyce Rogge (CHR,GR); Dorothy and Richard Rosche (DJR, RCR); Esther Serr (EMS); Mrs. Edward Spevak (ESp); Galen L. Steffen (GLS); Dan Tallman (DAT); SD Ornithologists' Union (SDOU); Linda Watters (LLW); Nat Whitney (NRW); Lois Wells (LEW).

Common Loon–Reported from Yankton, Day, and Fall River Co. 16 November, Day Co., Bald Eagle made several unsuccessful attacks on a crippled loon (KHH).

Horned Grebe–20 November, Day Co. (KHH). 24 NOVEMBER, Yankton Co., LATEST EVER (WH).

Western Grebe–18 October, Deuel Co. (DEK).

White Pelican–18 September, Perkins Co., 25 (GH,AH). Reports also from Gregory (15, GLS) and Bon Homme Co.

Double-crested Cormorant–27 NOVEMBER, Fort Randall Dam, 19 (WH).

Great Blue Heron–19 November, Turner Co. (LA). 22 November, Day Co. (KHH). 27 November, Fort Randall (WH). 28 November, Deuel Co. (BKH, DEK). See also General Notes this issue.

Great Egret–21 September, Day Co., 30 (KHH). Reports also from Hamlin, Deuel, GREGORY, and FALL RIVER CO.

SNOWY EGRET–1 September, Hamlin Co., 2 (KHH).

American Bittern–4 October, Faulk Co. (MMM).

Whistling Swan–28 NOVEMBER, Waubay NWR, 15, LATEST DATE EVER; earlier in season concentrations of over 1000 swans were reported at Waubay (all LLW). 10 sightings from Day, Deuel, and Roberts Co. 1 November, Roberts Co., 144 at Bullhead Lake (BKH).

BLACK BRANT–24 October, Sully Co., shot by hunter (fide BCC).

White-fronted Goose–25 SEPTEMBER, Brown Co., 2, early (BKH, ECM). 13 and 14 October, Gregory Co., 200 and 300 (GLS).

Snow Goose–26 AUGUST, Deuel Co., early (BKH). 26 NOVEMBER, Deuel Co., late (BKH).

ROSS' GOOSE–21 October, Day Co., immature shot by hunter (fide RMe). Also Deuel Co., APPARENT ROSS/SNOW HYBRID: measurements and weight accurate for Ross' Goose but bill typical for Snow Goose (BKH).

Gadwall–15 and 18 November, Deuel Co., 3-4 (BKH). 25 NOVEMBER, Gregory Co. (GLS). 28 NOVEMBER, Yankton, LATEST EVER (WH).

Pintail–15 NOVEMBER, Deuel Co., 21 (BKH).

Green-winged Teal–15 NOVEMBER, Deuel Co., 11 (BKH).

Redhead–Poor flight in NE. 23 October, Deuel Co., 250 (BKH). 25 NOVEMBER, Gregory Co., very late (GLS). 30 October, Yankton Co., 740 (WH).

Canvasback–Very poor flight.

Ring-necked Duck–Very poor flight. Only 1 observation in Deuel Co. (BKH). Day Co., 150 (LLW). 22 NOVEMBER, Gregory Co. (GLS)

Common Goldeneye–Day Co., fairly common but few in Deuel Co. (BKH).

Bufflehead–21 November, Yankton Co., 71 (WH). 30 NOVEMBER, Yankton Co., 10, LATEST EVER (WH). 7 November, Deuel Co., 120 in single flock (BKH).

WHITE-WINGED SCOTER–14 November, MEADE CO. (NRW, JLB).

Hooded Merganser–20 NOVEMBER, Deuel Co., 2 (BKH).

Red-breasted Merganser–6 November, FALL RIVER CO. (RCR).

Common Merganser–7 and 28 AUGUST, Fall River Co. (RCR). Breeding birds?

GOSHAWK–1 November, Gregory Co., early (GLS).

Sharp-shinned Hawk–Reports from Deuel, Brookings, and Gregory Co.

Cooper's Hawk–Reports from Gregory, Deuel, Brookings, Day, Grant, and Brown Co. (where it was seen taking a squirrel at a bird feeder (RB,LB fide ECM). 25 November, Yankton Co., late date (WH). Many more reports than usual.

Rough-legged Hawk–2 OCTOBER, Fall River Co., EARLY (RCR).

Ferruginous Hawk–24 AUGUST, Deuel Co., EARLIEST EVER (BKH). Also reported in Hyde and Gregory Co.

Golden Eagle–Reported only from Gregory Co. (GLS) and McCOOK CO. (LA).

Bald Eagle–12 reports from various counties.

Marsh Hawk–Good flight in NE.

Osprey–Reports from Deuel, Pennington, Gregory, Brown, Hughes, Yankton, and Fall River Co.

Prairie Falcon--29 August, Deuel Co., EARLY (BKH). 2 October, Deuel Co. (BKH). 3 and 4 October, Day Co. (KHH). Faulk Co., 2 (MMM). Gregory Co., 3 (GLS).

PEREGRINE FALCON--25 September, Sand Lake NWR (BKH, KHH, ECM). 30 October, Pennington Co., Badlands NP (JL, EL fide TC).

Merlin--8 October, Faulk Co. (MMM). Gregory Co., 2 (GLS).

Prairie Chicken--25 November, YANKTON CO. (WH).

Sharp-tailed Grouse--30 November, DEUEL CO., 1 (DEK). Third record only for county in last 12 years.

Sandhill Crane--5 November, Deuel Co., flock of 150 (BKH). 6 November, Turner Co., 3 large flocks (LA). 11 November, Gregory Co., 2500 (GLS).

American Coot--14 NOVEMBER, Meade Co., 12, very late (JLB).

Semipalmated Plover--5 September, MEADE CO. (EMS). 7 August, FALL RIVER CO. (RCR).

Killdeer--17 NOVEMBER, Brown Co. (ECM). 15 NOVEMBER, Turner Co. (LA). Late dates.

Golden Plover--7 August, FALL RIVER CO. (RCR).

AMERICAN WOODCOCK--28 October, Deuel Co. (JLC).

Long-billed Curlew--10 July, Fall River Co., migrants (RCR, DJR).

Solitary Sandpiper--24 JUNE, FALL RIVER CO., early migrants, 2 (RCR, DJR). 11 July, Brown Co. (DAT).

Lesser Yellowlegs--10 JULY, FALL RIVER CO., 36 (RCR, DJR). 3 JULY, Day Co., 19 (SDOU).

Pectoral Sandpiper--5 September, MEADE CO. (EMS).

Baird's Sandpiper--10 JULY until 20 September, FALL RIVER CO., flocks of 17, 25, 25, and 250 (28 August) (RCR, DJR). 11 JULY, CUSTER CO., 6 (RCBC).

Least Sandpiper--3 JULY, 10 July, and 7 August, FALL RIVER CO., 12-59 individuals (RCR, DJR).

DUNLIN--2 October, Deuel Co., 3 (BKH).

Semipalmated Sandpiper--24 JUNE and 7 August, FALL RIVER CO. (RCR, DJR).

WESTERN SANDPIPER--10 July, Fall River Co., 6 in 2 areas (RCR).

SANDERLING--3 JULY, FALL RIVER CO. (RCR, DJR).

SHORT-BILLED DOWITCHER--7 August, FALL RIVER CO., 2 (RCR, DJR). Field marks noted at close range.

Long-billed Dowitcher--10 July, Fall River Co., 5 (RCR, DJR).

Stilt Sandpiper--2 October, Deuel Co., 3 (BKH).

Avocet--26 OCTOBER, Yankton Co., 6 (WH). 24 October, Deuel Co., (BKH). Both late dates. 3 July, Fall River Co., 39 (RCR, DJR). 11 July, Custer Co. (RCBC).

Northern Phalarope--27 September, Sand Lake NWR, 45 (BKH). 2 OCTOBER, Deuel Co., 6 (BKH).

Herring Gull--6 November, FALL RIVER CO. (RCR). Very few west river records.

Ring-billed Gull--3 July-6 November, Fall River Co., flocks of 40 to 126 individuals (RCR). 21 September, Pennington Co. (JLB). 20 NOVEMBER, Deuel Co. (BKH).

Franklin's Gull--22 September, Pierre, 100 (BCC). 25 October, Grant Co., 1000 (BKH). 2 NOVEMBER, Deuel Co. (BKH).

Bonaparte's Gull--3 NOVEMBER, Deuel Co. (BKH).

Forster's Tern--7 August, FALL RIVER CO., 2 (RCR).

Black Tern--27 SEPTEMBER, Sand Lake NWR, 1, very late (BKH). 7 August, FALL RIVER CO., 2 (RCR).

Mourning Dove--14 SEPTEMBER, Yankton Co., NEST with fledglings (WH).

Black-billed Cuckoo--27 and 29 SEPTEMBER, Hyde Co., latest ever (JH). 2 OCTOBER, Day Co., cuckoo species unknown but most likely this species (MMM).

Snowy Owl--records from Deuel (3) and Brown Co.

Burrowing Owl--3 August, CLAY CO., 5 (WH).

Long-eared Owl--Reports from Gregory Co. (GLS) and Faulk Co. (MMM).

Common Nighthawk--3 August, Perkins Co., 45-50 (GH,AH).

Chimney Swift--2 OCTOBER, Yankton Co., 3 (WH). 29 SEPTEMBER, Minnehaha Co. (LA).

Ruby-throated Hummingbird--1-10 August, Yankton Co. (WH). 18 OCTOBER, Hughes Co., LATEST EVER (BCC). Reports also from Lincoln, Hyde, and Brown Co.

Red-bellied Woodpecker--All November, Brown Co., at feeder (RB,LB).

Yellow-bellied Sapsucker--Reports from Brown and Faulk Co.

Eastern Kingbird--25 SEPTEMBER, Brown Co., very late (BKH, ECM, KHH).

Say's Phoebe--Perkins Co., nest destroyed 3 times but pair successful on 4th attempt in August (AH,GH).

Olive-sided Flycatcher--9 AUGUST, Gregory Co., earliest ever (GLS).

Bank Swallow--27 SEPTEMBER, Brown Co. (CHR, GR).

Rough-winged Swallow--27 SEPTEMBER, Brown Co. (CHR, GR).

Barn Swallow--19 OCTOBER, Hamlin Co., 2 VERY LATE (BKH).

Clark's Nutcracker--7 November, Custer Co. (RCR).

Red-breasted Nuthatch--22 AUGUST, Brown Co., very early (DAT). Reports also from Hughes, Brookings, Deuel, Hyde, and Gregory Co. A good flight.

House Wren--24 September, Hyde Co. (JH). 9 October, Brown Co., banded (DAT).

Winter Wren--9 SEPTEMBER, Brown Co., very early (DAT).

Mockingbird--24 October, BROWN CO. (DAT, ECM). 2 August, Yankton Co. (WH).

Gray Catbird--End of November, Brookings Co., LATEST EVER (ERE).

Brown Thrasher--20 November, Moody Co. (LEW). 1 December, Watertown (ESp).

American Robin--Gregory Co., heavy migration, 300 banded (GLS).

Swainson's Thrush--10 October, Brookings Co., banded (NJH).

Eastern Bluebird--25 October, Brown Co., 11 (TS). 12 October, Yankton Co., 41 and 88 other sightings in a 7-day period in October (WH).

Ruby-crowned Kinglet, 7 SEPTEMBER, Hyde Co., very early (JH). 30 October, Yankton Co. (WH).

Bohemian Waxwing--28 November, Perkins Co., 40 (GH,AH).

Northern Shrike--Reports from Clay, Deuel, Day, Brown, and Gregory Co.

Solitary Vireo--18 October, Pierre (BCC).

BLACK-THROATED BLUE WARBLER--12 September, Pierre (BCC).

Black-throated Green Warbler--6 October, Brookings Co., banded (NJH).

Blackburnian Warbler--4 September, Brown Co. (DAT).

Canada Warbler--29 OCTOBER, Brown Co., banded, LATEST EVER (DAT).

American Redstart--23 OCTOBER, Brown Co., banded, LATEST EVER (DAT).

Western Meadowlark--29 NOVEMBER (DEK) and 21 November (BKH) Deuel Co.

Rose-breasted Grosbeak--9 OCTOBER, Deuel Co. (BKH).

Blue Grosbeak--7 August, Fall River Co. in 2 areas (RCR).

Evening Grosbeak--Reports from Roberts, Day, Deuel, and Brown Co.

Purple Finch--28 AUGUST, Brown Co., banded EARLIEST EVER (DAT).

HOUSE FINCH--see details in General Notes, this issue.

Common Redpoll--17 OCTOBER, Deuel Co., EARLIEST EVER (BKH). Seen also in November in Deuel and Roberts Co. (BKH).

Pine Siskin--good numbers in Deuel Co. in November. Also reported in Brookings, Roberts, and Brown Co.

Red Crossbill--5 November, Brown Co. (LB, RB). 1-7 November, Brookings Co. (NJH).

White-winged Crossbill--27 AUGUST, Gregory Co., 2 banded (GLS). 4-6 November, Brookings Co., 2, with 1 banded (NJH). 3 November, Brown Co. (LB, RB).

Rufous-sided Towhee--5 October, Brown Co. (ECM). 29 September, Brookings Co. (JHe).

LeConte's Sparrow--28 OCTOBER, Deuel Co., LATEST EVER (BKH).

Slate-colored Junco--11 SEPTEMBER, Brown Co., very early (DAT).

Chipping Sparrow--28 October, Brown Co., late (DAT).

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ADVANCE ANNOUNCEMENT!
1982 Spring S.D.O.U. Meeting

Dates: May 28-30, 1982

Focus: Badlands National Park

Probable Headquarters: Wall, South Dakota

Activities: Field trips (Badlands and adjacent areas); banquet (talk on Gray Whale migrations)

Details: To follow in a separate mailing

Brewer's Sparrow--7 August, Fall River Co., 26 (RCR).

White-crowned Sparrow--13 SEPTEMBER, Gregory Co., very early (GLS). Reports also from Brookings and Brown Co.

Fox Sparrow--Reports from Gregory, Yankton, Union, and Brown Co.

Lincoln's Sparrow--28 AUGUST, Brown Co., early (DAT).

Swamp Sparrow--30 OCTOBER, Bon Homme Co., late (WH).

Chestnut-collared Longspur--24 SEPTEMBER, Meade Co., 35 (JLB).

Snow Bunting--1 NOVEMBER, "thousands" reported on prairie between Redfield and Spearfish (DEK).

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