



I.O.U. NEWS

Spring 1992 Iowa Ornithologists' Union Newsletter

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Birds in the Winter Night

by G. Edgar Folk, Jr. and Mary
Arp Folk, Iowa City

For a number of years we have wondered how small birds protect themselves during the cold winter night. In some areas even in the daytime, there is a challenge by the hostile environment of cold. While spending one winter in Fairbanks, Alaska, we experienced 17 days with a maximum temperature of -40 degrees F or lower; temperatures of -60 degrees F were common. One noon when the temperature was -62 degrees F, Anna Larson invited us to lunch at her cabin in an evergreen forest. A pair of chickadees came to peck at ice-hard peanut butter; they seemed sluggish and had frost on their feathers. In the next few days the air warmed up to -50 degrees F and apparently, the same pair of birds came back. The only other active birds that we saw at these cold temperatures were Great Gray Owls, Ravens, and most interestingly, on the bank of the Yukon River, Magpies. All these birds must produce adequate body heat during the daytime, but the environmental challenge is even greater at night. The nighttime sky has been measured under these circumstances at -

80 degrees F and therefore it represents a dangerous heatsink for heat to flow from the bird to the sky.

It is not only in Alaska that birds must cope with the frigid winter night! In January of 1991, Tom Kent found 45 species of Iowa birds on one day alone; where were all those birds during the time of the nighttime cold?

There are three main ways that birds can combat the winter cold at night. Most birds use the technique of migration to warmer climates; a second way is to take shelter; a third way is a combination of taking shelter and a spontaneous lowering of the bird's body temperature. We will consider here both the situation of taking shelter from the night sky, and undergoing a lowered body temperature.

Although we have always wondered where birds spent the cold winter night, we have not looked for what must be an extensive literature in this field. From personal observation, we are sure that some birds merely go to evergreens and huddle in the most protected area, perhaps near the trunk. However, Barbara Boyle tells us that she observed after a cold, late autumn night, 16 bluebirds come out of one individual bluebird house.

This is one way of combating the elements because the bluebirds huddled together are acting like a much larger, warmer animal, and heat is conserved. This total bluebird mass has a small surface area relative to the heat producing mass. A single bluebird has a large surface area for heat loss relative to its mass.

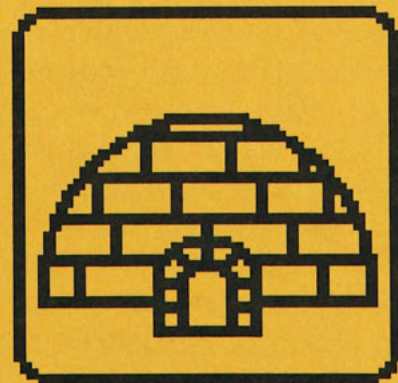
Perhaps some readers of this article will send in to the editor their experiences with observing winter birds using artificial shelters.

The other technique is to cut down on the flow of heat to the environment. Birds have a mean body temperature of 101.5 degrees F (38.5 degrees C) which is higher than that found in mammals. The rate of heat flow depends upon the difference between this high blood temperature and the cold environment. If the body temperature is lowered, there are two advantages: in the first place, not as much food need be provided as fuel to maintain a lower body temperature. Secondly, if the difference between blood temperature and the environment is lower, the rate of heat loss is lower. At the last meeting of Comparative Physiologists which we attended, there were three "gems" related to this discussion: one paper reported that chickadees lowered their body temperature by 18 degrees F (10 degrees C) under cold circumstances. This phenomenon is called "controlled hypothermia" because such birds can respond instantly to stimulation when they are in this situation. This probably explains what survival technique is used by the obviously cold chickadees which we observed at -62 F in Alaska. It would be expected that they would use both methods, probably entering a protective hole and lowering their body temperature as well. Birds that use controlled hypothermia do not lower their body temperature below 77 degrees F (25 degrees C). Another group of birds, however, can have a colder temperature than this and we must call this "torpor". They can

drop their body temperature to 64.5 degrees F (18 degrees C). However, it takes them about 20 minutes to arouse and take on a normal body temperature. There is even a third group of birds including hummingbirds, poor-wills, and nightjars, which can maintain a body temperature as low as 40 degrees F (5 degrees C).

At this same professional meeting, it was also reported that the domestic pigeon can also lower its body temperature 18 degrees F (10 degrees C). What especially interested us was another matter about which we have been curious for many years; this is the report that under the very thick insulation of the domestic pigeon, vasomotor function is still present so that blood can be shunted to the skin under cold conditions, probably for brief periods, to warm the tissues there; then vasoconstriction occurs again to cut down on the loss of heat. This sporadic flushing and cooling is also found in mammals. The purpose of this mechanism is to allow occasional "doses" of oxygen and nutrients to reach the cold skin.

It is evident that there are many observations which we bird watchers can make that will contribute to the solving of the problems of birds in winter cold.



Nominations for 1992/93 Year _____

The nominating committee consisting of Carol Thompson, chair, Pete Petersen and Ray Cummins have proposed the following slate of officers to be voted on at the spring meeting: Secretary - Hilda Sickels; Treasurer - Pam Allen; Board of Directors (two openings) - Rick Hollis and Eloise Armstrong. All of these positions are for two year terms. Additional nominations may be made at the meeting, and the election for these positions will be held at that time.



Big Day Count 1992 _____

The IOU Big Day Count's primary objectives are to have fun and to promote friendly competition. They also help to raise funds for the IOU endowment fund and special projects.

The counts are divided into categories of **statewide and county** counts. Traveling plaques will be presented at the fall IOU meeting for highest species count for the state and county.

A minimum contribution of \$10.00 per team is required. The Big Day rules remain the same as last year. The counts can be taken any time up to May 31. Those wishing to participate need to request an entry form from Ray Cummins at 609 S. Main St., Centerville, IA 52544.

From the Iowa Birdline (319)338-9881



An alcid, thought to be a **Marbled Murrelet** by Steve Dinsmore, who discovered it at Red Rock Reservoir on December 12, was the highlight of a rather dull period. **Prairie Falcons** were seen at Glendale Cemetery in Des Moines on December 21-22, and in Sioux County on January 4. A **Pine Warbler** visited Gladys Black at Pleasantville from December 19 - February 9, and she sustained it with a mixture of peanut butter, suet, and corn meal.

Unusual gulls were present at the Quad Cities starting in mid-December through mid-February and included **Great Black-backed, Lesser Black-backed, Iceland, Glaucous, and Thayer's** in various plumages. **Northern Saw-whet Owls** were reported from almost every corner of the state, and **Common Redpolls** were also widely observed. However, other winter visitors, such as crossbills, Evening Grosbeaks, and Snowy Owls were virtually absent.

IOU Spring Field Trip April 11, 1992 _____

Greater Prairie Chickens used to roam the prairies of Iowa until the lush prairie grasses were replaced by equally lush fields of corn and beans. In an effort to re-establish a population in the state, birds were stocked in Ringgold County in southern Iowa in 1987-1989. Once again the annual spring ritual on the booming grounds is a spectacle available to Iowans. Join other IOU members on Saturday, April 11,

1992 to experience this wonder of spring.

Our field trip leader will be Mel Moe of the DNR. He will be able to lead us to the most likely areas for observations of the birds. The trip will leave from the Clinton Motel in Mt. Ayr at 4:30 A.M. For those who would like to camp, self-contained units may stay near the booming grounds or there is a developed campground just east of town. Call Mel at 515/464-2220, work, 515/464-2692, home if you want directions to the picnic area in the wildlife area. The group can meet you there in the morning.

The best observations will probably be from using vehicles as blinds, so vans would be most welcome. The birds are also viewable in the evening hours. If you would like directions for late afternoon/early evening viewing on the night before, call Mel at the above number.

The Greater Prairie chicken was a common bird throughout most of Iowa in the last century, peaking in the 1870's. The last known nesting of the original population occurred in 1952 in Appanoose County. Birds were released in Monona County in 1980 but did not take. A re-attempt was made in 1987 in the Mt. Ayr area and broods were seen through 1991. It is unlikely that any of the originally introduced birds remain, so the birds presently in the Mt. Ayr area should all be birds reared in the wild.



State & County Bird Lists

by Pete Petersen, Davenport

Members are encouraged to submit their state and county bird lists for the 1991 calendar year. Submission can be for one or all of the counties. The threshold for the state is 200 species and 150 for counties. This is a life long total and covers all species of wild birds positively recorded within the county or state. It is hoped that everyone will be able to submit a total of 150 species for their home county. One does not need to be a resident of Iowa, just an IOU member. Records through 1991 are due by May 23 and should be sent to Pete Petersen, 235 McClellan Blvd., Davenport, IA 52803.



Iowa Kestrel Box Program

Iowa originated the idea of a kestrel nest box program along its Interstate Highway System. Word of its success has spread and many other states have adopted this program. This research, sponsored in part by the IOU and performed by member Dan Varland, is summarized in a beautifully illustrated eight page booklet *Establishing a Nest Box Program for American Kestrels Along an Interstate Highway*. It is available at no cost from the Office of Project Planning, Iowa Dept. of Transportation, 800 Lincoln Way, Ames, IA 50010 while supplies last.

Bird Trivia Quiz

by Jim Dinsmore, Ames



The official checklist of Iowa birds was published in the most recent issue of Iowa Bird Life. The following quiz is based on that list to see how well you know your Iowa birds (but no fair peeking at the list for the answers).

Questions

1. Which bird on the Iowa list has the shortest name (actually two species are tied for that honor)?
2. Which species on the Iowa list has the longest name?
3. Besides a few punctuation changes (adding an apostrophe to names like Ross's Goose), two Iowa species had real changes made in their names between the last checklist published in 1986 and the 1991 version. Can you name them?
4. Fourteen new species were added to the Iowa list between 1986 and 1991. Seven of these species are in one family of birds. Can you name the family? Give yourself some bonus points if you can name the seven species.
5. Two species on the Iowa list are now extinct, both having disappeared from this planet early in this century. Can you name them?
6. One species on the list was first made known to science from a specimen collected in Iowa. Can you name the bird?
7. Six species on the Iowa list are not native to North America, having been brought here by humans. How many of those six can you name?
8. At least seven species on the list are European or Asian species that have reached Iowa by their own means as wanderers. How many of those can you name? Hint: one should be one of your answers in question #1.
9. Although most birds that wander to Iowa come from the west, north, or the Atlantic coast, at least five species on the Iowa list are mainly birds of the Southwest. One now nests here and another is a regular species. How many of those five can you name?
10. In 1804, two famous explorers traveled up the Missouri River past Iowa on their way to explore the Rocky Mountains and eventually the Pacific Coast. Two birds on the Iowa list are named for them (one for each explorer). Can you name the birds? I assume that you will remember the explorer's names from your high school history.

Answers



1. Sora and Ruff (Veery and Brant are tied for next shortest).
2. Northern Rough-winged Swallow with 29 characters counting spaces. American Swallow-tailed Kite and Black-throated Green Warbler are tied for second with 28.
3. Common Barn-Owl became Barn Owl and Water Pipit became American Pipit.
4. The gull and tern family (Laridae). The new species are Pomarine Jaeger, Laughing Gull, Little Gull, Common Black-headed Gull, California Gull, Slaty-backed Gull, and Ivory Gull. Oh gull-ee!
5. Both the Passenger Pigeon and Carolina Parakeet were found in Iowa but became extinct in the early 1900's.
6. Long-billed Dowitcher. It was found by the Stephen Long expedition which camped near Omaha in 1819-1820. The first Long-billed Dowitcher was collected on the Boyer River and was described by Thomas Say when the expedition's notes were published in 1823.
7. I assume you did well on this one: Ring-necked Pheasant, Gray Partridge, Rock Dove, European Starling, House Sparrow, and Eurasian Tree Sparrow.
8. Bean Goose, Eurasian Widgeon, Curlew Sandpiper, Sharp-tailed Sandpiper, Ruff, Slaty-backed Gull, Lesser Black-backed Gull.
9. Groove-billed Ani, Vermilion Flycatcher, Scissor-tailed Flycatcher, Curve-billed Thrasher, Great-tailed Grackle.
10. Lewis's Woodpecker and Clark's Nutcracker for Meriwether Lewis and William Clark.

The Iowa Ornithologists' Union
Spring Meeting
Camp IO-DIS-E-CA
Cedar Rapids, Iowa
May 15-17, 1992



Come join us at Camp IO-DIS-E-CA for a spring outing in the Coralville Reservoir area. The area has produced many species each spring with a few surprises annually. There will be birding on the grounds of the camp as well as trips to the reservoir, McBride Nature Center as well as other local areas. Accommodations are available on the grounds as well as motels in Cedar Rapids and Iowa City.

All events take place and meals will be served in the Retreat Center at the camp. Field trips will leave from the parking lot and cover the camp, Coralville Reservoir and other local areas.

Registration will be at Camp IO-DIS-E-CA. You may register before, during, or following the social gathering at Fullers'. Feel free to arrive early at Fullers' for some afternoon birding nearby. See map for directions to Fullers', or pick up a map at the camp.

SCHEDULE OF EVENTS

Friday, May 15	7:00-9:00 P.M.	Registration at the camp and social get-together for getting acquainted, reacquainted and sharing at camp or Jim Fuller's house. Get map to Jim's house when registering.
Saturday, May 16	6:30 A.M.	Breakfast
	7:00 A.M.	Field trips leave
	12:00 noon	Lunch
	1:00 P.M.	Coralville Reservoir Area Breeding Bird Survey by Tom Kent.
	1:45 P.M.	Warbler identification by Pete Wickham.
	2:45 P.M.	Birding Johnson and Linn Counties by Rick Hollis and Keith Carris.
	3:30 P.M.	Business meeting
	6:30 P.M.	Banquet - Jim Messina



Sunday, May 17

6:30 A.M.

Breakfast

7:00 A.M.

Field trips leave

12:00 noon

Lunch and compilation

Directions to Camp IO-DIS-E-CA. Take I-380 to the Swisher-Shueyville exit no. 10. Go east to the stop sign in Shueyville and then turn south. Follow the signs to the camp.

Completed registrations are due to Jim Durbin, 1460 Douglas Court, Marion, IA 52302 by May 8, 1992. Make checks payable to the Cedar Rapids Audubon Society. Accommodations at the camp consist of a versatile building with 8 high comfort rooms, each with private bath, capable of sleeping 40 and 4 bunk style rooms capable of sleeping 50. The bath for the bunk rooms are separate but located adjacent to the rooms. There are three large meeting rooms, kitchen and dining area. Bed linens are furnished but bring your own towels.

Cedar Rapids Motels

Red Roof Inn (319/366-7523)	\$33.99 single	\$39.99 double
Exel Inn (319/366-2475)	\$28.95 single	\$33.95 double
Super 8 (319/363-1755)	\$34.88 single	\$39.88 double

These are all located at I-380 and 33rd Ave. on the south side of Cedar Rapids. If you have any questions, call Jim Durbin at 319/395-5524 (work) or 319/377-7194 (home) or Dale Fye at 319/364-1638 (home).

Registration

Name(s) _____

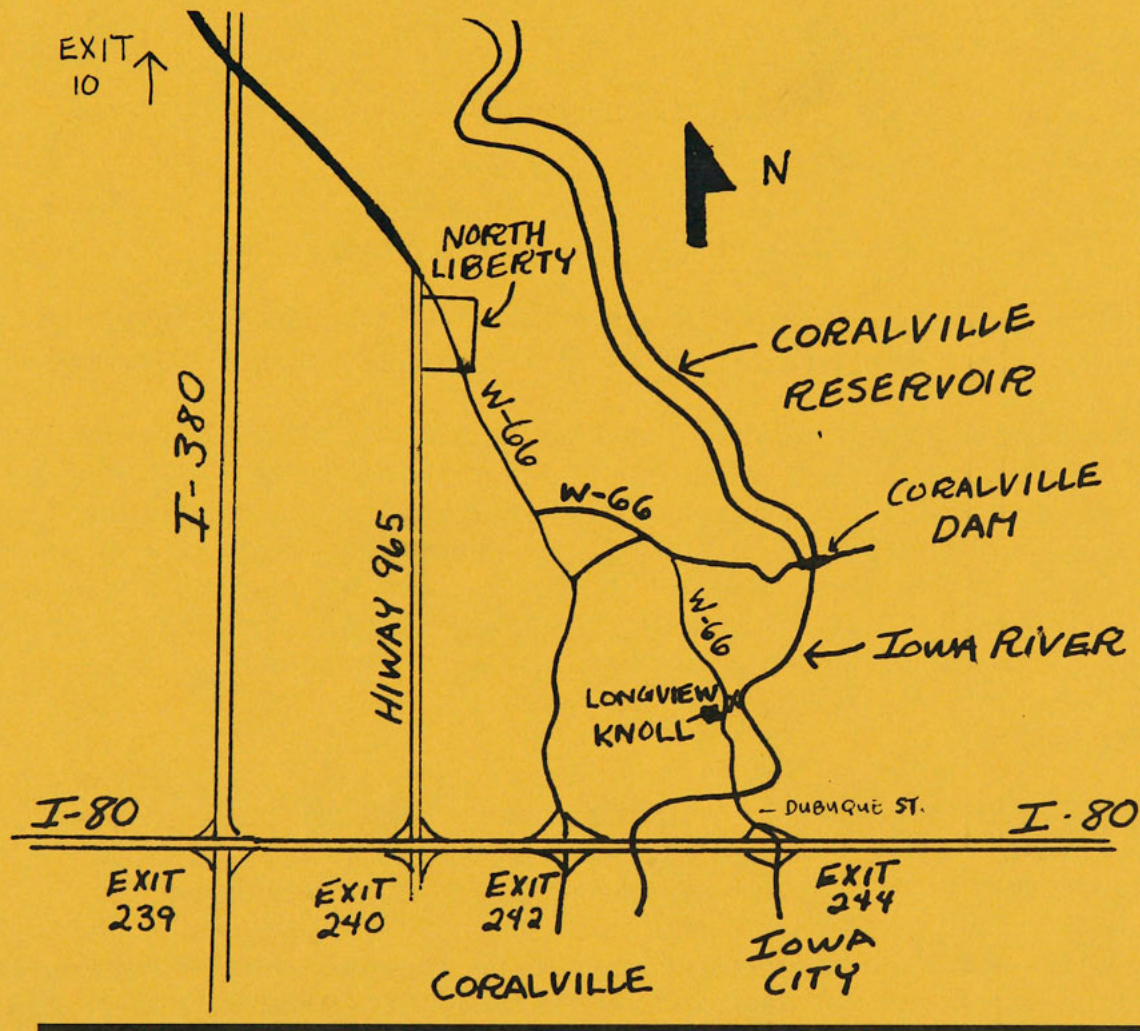
Address _____

Phone _____

- Registration** — \$5.00....._____
- Sat. breakfast — \$3.50....._____
- Sat. lunch — \$5.00....._____
- Sat. banquet — \$6.00....._____
- Sun. breakfast — \$3.50....._____
- Sun. lunch — \$4.00....._____

- Lodging**
- Fri. night — \$8.00....._____
- Sat. night — \$8.00....._____

- Camping**
- Fri. night — \$7.00 a unit_____
- Sat. night — \$7.00 a unit_____
- RV air conditioning \$2.00 a night



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