THE STILT

BRIDGERLAND AUDUBON SOCIETY

Vol. 16, No. 7 May 1988

MEETING CALENDAR

Monday, May 2: Conservation Committee Meeting, 7:30 p.m. in room 122B, Biology/Natural Resources Building, USU Campus.

Thursday, May 5: Regular BAS Monthly Meeting, 7:30 p.m. in Room 105, Natural Resources Building (Natural Resources Seminar Room), USU Camus NOTE THAT THIS IS ONE WEEK EARLIER AND IN A DIFFERENT LOCATION THAN USUAL. Dr. Barrie Gilbert will present a talk and slide show on endangered species, and will tell people how to get involved in the fight to save endangered species. If you've ever wondered what you could do, to whom you could write, and how much effect you can really have, don't miss this meeting. You can make a difference, and Gilbert will show you how.

Wednesday, May 18: BAS Planning Meeting, 7:00 p.m. in the Logan Library conference room, 255 North Main Street.

FIELD TRIP CALENDAR

BAS will conduct many exciting field trips this summer, including wildflower trips, birding trips, canoe outings and overnight and weekend camping trips. This issue of the *Stilt* contains the summer field trip schedule as a separate sheet. Remove and post it as a reminder.

GROSBEAKS ABOUND

We (Ed and Lenna Baldwin) have enjoyed the presence of between 50 and 75 evening grosbeaks throughout the winter, although by mid-March a few seem to have left. Early in the winter we also had several chickadees, and throughout the winter we have fed juncos, finches, pine siskins and several varieties of sparrows. The threat of hawks has been ever present: we have had both a merlin and a sharp-shinned hawk about.

We have also had one bird we can't identify feed for two days. It was white with yellow wing tips and tail feathers—can anyone guess what it might have been?

— Ed & Lenna Baldwin

RECOVERY OF AN ENDANGERED SPECIES

CEDAR CITY—Donations to the state nongame tax checkoff last year helped pay for the trapping and relocation of 1,568 Utah prairie dogs from 40 private land sites to 18 public sites. Once on the endangered species list, the Utah prairie dog is now listed as threatened. Until recently these animals faced a dim future on private lands, where their burrowing habits create problems for farmers and ranchers. The trapping program is a key element in recovering prairie dog populations.

A Division of Wildlife Resources nongame biologist now travels to all the Utah prairie dog colonies each spring and counts emerging adult animals. In 1987, this effort docu-

mented 5,574 adult prairie dogs, the highest number ever recorded since the program began. The success of this recovery effort is just another example of what can be done with money from the nongame tax checkoff.

— *Utah Wildlife,* Division of Wildlife Resources, February ,1988/TJG

RECYCLING PAYS

The off-campus recycling project is more than paying its way. Thanks to the booming aluminum business this year, the price of recycled aluminum cans is up to $.40 per pound. We have already earned $142 in 1988 for the off-campus recycling project; proceeds go toward our education projects including scholarships to Audubon Camps. Please keep telling your friends about the recycling effort, and drop off your aluminum cans (NO FOIL PLEASE) at Al Stokes' house, 1722 Saddle Hill Drive, or take them directly to Marty's Distributing on 6th West and 4th South in Logan. Have them make the check payable to Bridgerland Audubon, and mail it to Betty Boeker, Utah State University, Logan 84322-0300.

On-campus recycling is alive and well, too, although the program's April load of cans—some 150 pounds—was either accidentally dumped as garbage or stolen.

Budget: The ledger below summarizes the status of the on-campus recycling program.

USU Campus Recycling Program (Aluminum Cans)

Date	Transaction	Debit	Credit	Balance
Apr 1987	Recycling grant	$350.00		$350.00
Apr 1987-Apr 1988	Investment in barrels, paint, advertising, bags, etc.		$224.99	125.01
Feb 1988	New recycling fund	150.00		275.01

Sales: (Since all income goes to the education department and not to the recycling program, income is not reflected in the above ledger.)

Pounds recycled: 829
Cans recycled: 20,725 (approximately)
Income: $243.60

Future: The campus recycling program will purchase two more barrels, bringing the campus total to ten. We will then limit the program's growth to advertising and promotion, so that our current investment in barrels will gather as many aluminum cans as possible.

Anyone interested in helping the USU Campus Recycling Program operate, please call Rich Campanella at 752-3689. Many thanks to all who have helped in the past and who are helping now.

Al Stokes/Rich Campanella

GROUSE TRIP A SUCCESS

The road through Curlew Valley is flat, and brown fields on both sides of the road seem excessively bright. We squint northward, trying to remember the way to Curlew National Grasslands. At Holbrook, take a left, pass greening winterwheat. Wind through an old lava flow, and you're at historic Twin Springs Campground, where you may drink the same refreshing water that the '49ers drank.

Our party arrives early, and after quickly setting up camp, goes for a walk east of the campground. Soon we are threading our way past buttercups and fresh, wild onions. Up a small wash, we notice that the rock is riddled with holes, very lightweight, and brittle. No geologists, we guess that it is also volcanic.

We head on toward an old ranch house, now abandoned. Though I look for some grouse-like movement, the most I see is grass, waving vigorously back and forth in the wind and dustdevils gracefully rising. We see acres that have been purposefully burned free of sagebrush.

After dinner we find out why there have been so many fires around the area. As we feast on hot chunks of Al's famous Campfire Cornbread, Ken Timothy, from the U.S.F.S., tells us that the Forest Service is successfully improving habitat for sharptailed grouse in the Curlew Valley by replanting with several different kinds of grasses. He informs us that there is no shortage of sharptails here, in fact there are so many that hunting is allowed, which brings in revenue ($25/day/hunter), which in turn helps the revegetation program. Both Mr. Timothy and Al Stokes give an informative review of the characteristics and behavior of the sharptails, and we retire early, full of expectation.

In the quiet cool morning, engines idle long before we leave, to warm up both automotive and human bodies. We pile in and shortly reach the lek. To my great delight there are six or seven male sharptailed grouse, most of which have flown back after our disturbing arrival, and maybe two or so females moving periodically through the group, seemingly nonchalant. They're playing hard to get. The males, however, are not fooled, and they dance their best dance, which impresses even me. We crack open our windows a bit and hear defiant cackling between the territorial males, their hollow-boned legs rapidly drumming the earth. They spread their rattling wings

wide, parallel to the ground, and fan their tails, pivoting from left to right and back again, like a wind-up toy. At this distance, anywhere from five to forty feet, we can tell their sex only by behavior. The sun breaks over the mountains and I glimpse the inflated purple sacs on the males' necks, brilliantly shining in the new light.

After about a half-hour, the action seems to die down, and we move on to look for sage grouse. Eventually, with Mr. Timothy's help, we find them, though we can't get nearly as close to them before they spook. We spot maybe six males on the crest of a small hill, prominently displaying their chest sacs and fanning their tails. Inflated so, they seem luxuriously fat. None in our car spots any females on the ground.

When we have had breakfast, we head back toward Holbrook, stopping to look at packrat dens and the whitewashed rock that signals their presence. We also take a break to walk along the road, which is a goldmine of aluminum cans. I pick up about two or three cans every ten feet, and in a short time have a goodly contribution for Audubon.

Slightly east of Holbrook is a newly-hatched spring where we stop and see cinnamon teal, mallards, a water pipit, and killdeer, among others. We walk upstream looking for the source, which we never find, but we scare up hundreds of mallards, with a snowy egret thrown in. We are a curious bunch, examining scat and feathers, looking for signs of the creatures that have passed by , signs of life.

— Linda Baker Rawlins

IMAGES: GRAND GULCH

It's a hawk of some kind, delicately incised into the red sandstone, its wing tips curving up as it feels its way through a thermal. It has soared here on this rock for perhaps 900 years, ever since an Anasazi artist sought to capture the magic of its effortless circling. Pat and I have walked through 10 miles and nearly nine centuries of this canyon, and the diminutive hawk is our reward—or at least one of them.

Grand Gulch, a BLM wilderness area in southeastern Utah, starts out rather unprepossessing. Leaving the Kane Gulch Ranger Station, we walk south through a pinon-juniper forest across terrain so flat I think we could see Mexico. The trail gradually descends into a shallow wash, and the wash gradually deepens, and within a couple of miles the flat terrain has given way to a red slash in the earth through which flows (at least in March) a tiny, exquisite stream. We follow the stream—an on-again, off-again tributary of the San Juan River—until, after five miles, the sky is just a blue ribbon overhead, confined between the red slick rock canyon walls.

We're not alone. Rufous-sided towhees flash through the pinons, calling sharply. Pinon jays advertise our passing to anything within 20 miles having ears. Canyon wrens, like bosuns, pipe us aboard each rock we climb. For 90 magic seconds we stare at a cottontail we surprise, watching him stare back at us, playing "chicken" with our eyeballs. Water striders prowl restlessly above their snowshoed shadows where ever the water pools.

We explore the various ruins minutely, knowing hundreds have preceded us but still feeling the excitement of discovery. Potsherds and corn cobs by the hundreds litter the red sand, and desiccated turkey scats by the thousands. The Anasazi raised turkeys—for their feathers, we understand, rather than their drumsticks—and then as now, turkeys were nothing if not prolific. Here and there we find bits of cordage, probably made from yucca fiber (yucca abounds in the canyon), and in one small dwelling a carved wooden figure that may be a doll. Petroglyphs adorn the rocks, red and white handprints gather in flocks on the walls, and the plaster of a kiva bears clear impressions of the plasterer's fingerprints. A metate and mano sit outside one dwelling, as if awaiting the momentary return of their user. Did that ancient lady feel here the peace we feel, or was her life one of drudgery?

High above our campsite, perhaps 150 feet up the cliff, a pair of ravens has built a nest in a sandstone hollow. In the great quiet that settles into the canyon we can hear their most intimate conversations. When the sun first strikes the nest—an hour or more before it reaches us, down in the canyon bottom, and warms the frost off our sleeping bags—one of the ravens leaves the nest. We can hear each beat of its heavily flapping wings as it circles above us, climbing up to the desert above where early morning thermals will aid its flight. It calls to the bird still on the nest with a short, guttural call that has the same timbre as an old fashioned "ah-ooo-gah" automobile horn. For a raven, that must be an irrresistible "come hither," because almost without fail the remaining raven leaves the nest and goes very quickly thither.

The two birds spiral about one another, sweeping back and forth across the canyon, playing tag around the rock spires. They climb into the bright azure strip of sky above us, wheeling and chasing and diminishing until first one and then the other suddenly folds its wings and pluments earthward, relinquishing in brief seconds an ascent that took many minutes. Well down into the canyon they spread their wings and flash over the stream and our campsite, caressing the red rock cliffs with their extended, whistling primaries. Finally they fly slowly across the canyon muttering to one another beneath their breath, a surprisingly melodious, liquid murmur, and disappear into their nest. The spell is broken; I can breathe again.

The ravens seem so perfectly integrated with this landscape—both physically and aesthetically. A living thing in this canyon should soar and plummet: the land soars and plummets. The ravens and the land are complements: because of the land, I see the raven anew, and the raven teaches me something about the land. They are connected in a way I don't quite understand; they seem extensions of one another. It occurs to me that the petroglyph I saw was perhaps not a hawk at all, but a raven.

—TJG

WELCOME, NEW MEMBERS

Norbert Debyle, Logan
Carl Johnson, Logan
The Piersalls, Logan
Syd Smith, Richmond
Fawn Steigerwald, Logan

THANKS, RENEWING MEMBERS

Christopher Amrhein, Riverside, CA
Mr. & Mrs. John Barnes, Smithfield
P. Sutton Finch, Whitefish, MT
R.M.R. Holdredge, Logan
Karen Krogh, Frostburg, MD
Jon G. Lee, Paradise
Thomas J. Lyon, Logan
Mrs. Raymond Sanders, Richmond
Jillyn Smith, Logan
Scott Smith, Logan
F.H. Wagner, Logan

GROUP STOOP

Group hunting has long been known in several mammalilan species as a method of increasing hunting success. Now comes the first observation of such group hunting among birds. In the March 25 issue of *Science*, James Bednarz reports cooperative hunting by groups of Harris' hawks in New Mexico. Bednarz, currently on the staff of the Hawk Mountain Sanctuary in Kempton, PA, conducted the research while at the University of New Mexico in Albuquerque. He and his assistants observed the hawks by attaching radio transmitters to the birds and following them, recording each bird's position and activity every 30 seconds, noting at the same time the general activity of the group each bird was associated with, if any.

Harris' hawks are large birds that normally survive by eating quail and other smaller birds. The hawks can eat much better if they can capture rabbits or hares, but doing so is very difficult for an individual hawk because the speedy rabbits can outweigh the hawks by as much as 3 to 1. Bednarz found that groups of four to six hawks increased the capturing of rabbits by employing group hunting techniques to seek out, tire and confuse their prey.

The most common tactic was the "surprise pounce," in which many different hawks would dive at the rabbit from different directions, confusing it until one hawk could get a clean shot at the animal. In the "relay attack," the hawks chased the rabbit for several minutes; when the leader dived and missed, another assumed the lead position and the pursuit continued. The hawks often invoked the "flush and ambush" strategy when the rabbit found temporary refuge in a bush or copse of trees. One hawk would land and walk into the cover, flushing out and exposing the prey to the waiting hawks outside. The hawk on the ground had virtually no chance of capturing the rabbit on its own, Bednarz explains, so it is evidently acting to increase the group's chance of success rather than just its own.

Bednarz theorizes that the ability to hunt cooperatively was able to develop because the New Mexico population doesn't migrate and has a stable social structure, and because rabbits can offer an important food source (in this case accounting for nearly 90% of the hawks' energy needs).

— *Science News 133*, p. 222/TJG

GUARD COWS?

Everybody who's watched a Western knows cattle and sheep don't mix. Cattle don't normally mingle with sheep, and sheep prefer to stick to their own kind. However, a sound and potentially exciting reason for enforced integration is emerging from studies conducted at the USDA's Jornada Experimental Range in New Mexico.

Researchers there have placed groups of weaned lambs and yearling heifers together in small pens, two lambs to each heifer. After living and eating together for two months, the lambs bonded to heifers; the sheep grazed placidly among the cows and followed their "own" heifer around like . . . sheep. The bond endured when the animals were set loose.

So what, you ask. This: when sheep were first introduced to Jornada, in segregated flocks, researchers lost up to 60% of the sheep, mostly to coyotes. Losses of that magnitude have induced many sheep ranchers to abandon sheep raising. In integrated herds (or flocks) (flerds?), however, the cattle protect the sheep from predation. If a coyote appears, the sheep cower near the bovine bodyguards on which they've imprinted. If the coyote comes too close, the cattle lower their horns and chase it away.

The cattle, in fact, do not actually defend the sheep. The

bonding is unidirectional: the sheep become attached to the cattle, while the cattle merely tolerate the sheep. Cattle, however, have an innate hostility toward coyotes, so when one approaches, the cattle become aggressive. Putting sheep among them simply takes advantage of the cattle's natural reaction.

In addition to saving sheep, the integration technique could save substantial expenditures on fencing. Keeping sheep in and predators out of a grazing area requires electric or other fencing costing several thousand dollars a mile. Cattle, however, require only thin wire fencing costing about half as much. Integrated herds require only the lighter fencing, since the imprinted sheep don't stray far from their bodyguards. Since much US rangeland is fenced only for cattle, integrating the herds would open up substantial new grazing territory for sheep at virtually no cost.

Furthermore, integration makes environmental sense. Rangeland includes various types of grasses, weeds and shrubs. Cattle eat grass, sheep eat weeds, and goats—recently introduced to the Jornada "buddy system"—eat shrubs. Thus integrated herds tend to produce a more balanced grazing than do segragated herds—a situation more closely resembling multi-species grazing in the wild.

Although exciting, the program is still experimental. The Jornada herds number only about 20 animals, while commercial herds number in the hundreds. The required bonding ratios for such large herds are unclear. Moreover, the mix ratio must be balanced to the grazing land flora. Nonetheless, integrated herds may offer a solution to coyote predation that can satisfy both the sheep rancher and the environmentalist. (There'd probably be trouble with the KKK, though.)

— *Discover 9*, 4 (April 88), p. 19/TJG

AUDUBON TELEVISION SPECIALS

The next Audubon Special to air on national television is "Messages From the Birds" narrated by Martin Sheen. This program is about birds as indicators of environmental degradation and has a special focus on shorebirds. It premieres on SuperStation TBS on June 6, 1988, at 10:00 p.m. and is repeated June 9 at 12:054 a.m., June 11 at 4:00 p.m. and June 27 at 11:05 p.m. (all times EST).

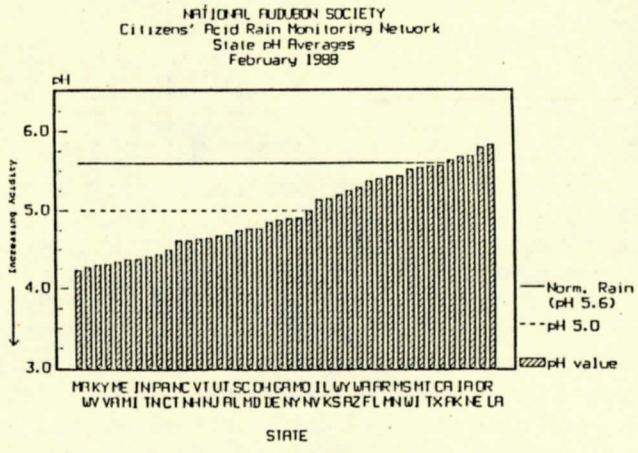
The PBS summer season of Audubon specials starts on Sunday, June 26, at 8:00 p.m. and runs weekly (every Sunday) for eight weeks until August 14. Four of these eight shows have never been seen on PBS. Here is the schedule:

June 26 — GRIZZLY AND MAN: UNEASY TRUCE
July 3 — ON THE EDGE OF EXTINCTION: PANTHERS AND CHEETAHS
July 10 — WOOD STORK, BAROMETER OF THE EVERGLADES
July 17 — WHALES!
July 24 — MESSAGES FROM THE BIRDS
July 31 — GALAPAGOS: MY FRAGILE WORLD
August 14 — DUCKS UNDER SEIGE
August 31 — COMMON GROUND: FARMING AND WILDLIFE

I hope you have a chance to watch them. Six of the Audubon Specials are now available on videocassette for teachers and libraries. They come with an excellent teacher's guide. Please call Chris Palmer in our Washington office (202-547-9009) for details.

ACID RAIN WIDESPREAD

(Editor's note: the following article is reprinted from the April 1988 issue of *The Pileated Post,* published by the Flathead Audubon Society, Bigfork, MT. Thanks to Jim Rogers, Flathead Audubon's Education Chairman, whose permission to use this article I didn't have time to seek.)



The Citizens Acid Rain Monitoring Network aims to increase public awareness about acid rain pollution, which is damaging lakes, forests and soils, and corroding buildings, statues and bridges. In addition, the airborne pollutants that cause acid rain create or aggravate respiratory problems for millions of Americans.

Acid rain is the name given to pollution that is formed when sulfur dioxide and nitrogen oxides from power plants, factories and motor vehicles mix in the atmosphere and fall to the Earth as rain, fog, snow or dust. Much of the sulfur pollution comes from coal-fired power plants in the Midwest, but does the most environmental damage in the Northeast and Canada. Emissions from local fossil-fuel burning sources also contribute to acid rain production.

The pH scale, which ranges from 0 to 14, measures the

acidity or alkalinity of a solution. The lower the pH value, the higher the acidity. Pure distilled water has a pH of 7, while cola soda has a pH of 4 and lemon juice is roughly 1. Normal rain is slightly acidic and has an average pH of 5.6. Because the scale is logarithmic, there is a tenfold difference in acid concentration between one whole number and the next one. For example, rain with pH of 4.6 is ten times more acidic than normal rain, pH 5.6, and rain with a pH of 3.6 is 100 times more acidic.

Audubon's data show the following states are experiencing chronic acid rain problems: Connecticut, Georgia, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Vermont, Virginia, and West Virginia

CONSERVE A TREE WITH CONSERVATREE

Conservatree Paper Company supplies the recycled paper upon which the *Stilt* is printed. They stock copier paper, computer paper, bond stationery, card stock and other products. If you or your firm would like to join the ranks of those using recycled paper, contact Tom Gordon at 752-6561 for information on how to contact Conservatree.

—TJG

BALD EAGLES NESTING IN UTAH

According to Miles Moretti, Southeastern Utah Nongame Manager, Utah Division of Wildlife Resources, the bald eagle is making a comeback in Utah. Formerly a common Utah nester, the bald eagle breeding population was thought to have been driven from Utah by increased human activity and the use of pesticides. Until recently, the bird was thought only to winter in the state. In 1984, however, an eagle nest was discovered along the Colorado River north of Moab. The nest has been used each year since, and each year the pair has produced one young eagle.

Last year, nongame biologists monitored the nest to determine when eggs were laid, when hatching occurred and when the young birds left the nest. When the young bird was 41 days old, biologists visited the nest to band it, to collect prey remains and to measure the nest. Among the food items found in the nest were prairie dog and carp. The prairie dog remains were unexpected, since biologists believed that bald eagles eat only fish in the summer, and rabbit, prairie dogs and other species during the colder months. This pair, however, presumably took advantage of an abundance of prairie dogs from the nearby Cisco Desert, as well as taking fish from the Colorado River.

— *Utah Wildlife*, Division of Wildlife Resources, March 1988/TJG

MANN PROPERTY PURCHASED

The Division of Wildlife Resources recently purchased from Palmer Mann 1118 acres of land at the mouth of Cherry Creek northeast of Richmond, Utah. In addition to facilitating public access to Forest Service land to the east, this is good big game winter range, currently used by a significant number of deer and a few elk. Range improvements on the land could greatly increase elk and deer carrying capacity.

— *Cache Valley Wildlife Federation News*, March 1988/TJG

LOGAN CANYON UPDATE: UDOT WAFFLING?

In a surprise move, the Utah Department of Transportation announced at a March Logan City Council meeting that it was not going to press for a full development alternative for Logan Canyon's highway 89. UDOT environmental engineer James Naegle said they initially chose the full development alternative because they knew if they elected another alternative, they would be asked why they had not chosen full development.

UDOT is still preparing an environmental impact statement (IEIS) which should be available in late summer or early fall. Following its release, a new round of hearings and reviews will occur. While UDOT is preparing the EIS, Logan conservationists are preparing new efforts to build support for Logan Canyon's protection. Among the ideas currently under consideration is developing a statewide system of scenic highways, of which Logan Canyon would be a part.

— *Utah Sierran 21*, 4 April 1988/TJG

* * * * *

I love to go diving
So I can see
The beautiful killer whale.
The water, the sea is its home.
The sea has food for the whale.
The whale swims,
Jumps, and dances
on the bottom of the sea.
The killer whale
is a beautiful animal.

— Danette Gittens
7th Grade English
South Cache Middle School
with thanks to Margaret Pettis

POST AND SAVE!

BRIDGERLAND AUDUBON SOCIETY
SUMMER 1988 FIELD TRIP SCHEDULE

Saturday, June 11: Green Canyon Birds. Leave at 8:00 a.m. from the Fred Meyer parking lot and return by noon. Expect to see orange-crowned warblers, black-throated blue warblers, warbling vireos, western tanagers, indigo buntings and some of the elusive flycatchers. We'll also spend some time identifying wildflowers.

Saturday, June 25: Wildflowers of the Wellsvilles. Leave at 8:00 a.m. from the Fred Meyer parking lot and return early in the afternoon. This is an easy walk along dirt roads and trails among the mountain maples and aspen, where you'll enjoy a profusion of wildflowers and some birding as well. BRING LUNCH AND WATER for this field trip.

Thursday, July 7: Evening canoe trip on Cutler Reservoir. Leave at 5:30 p.m. from the Fred Meyer parking lot and return by 9:30 p.m. Enjoy the evening sounds on this easy paddle into a nesting colony of ibis, egrets and night herons. Wear tennis shoes and bring a jacket and hat. You'll encounter few if any mosquitos. YOU NEED ADVANCE RESERVATIONS FOR THIS TRIP, and the cost for those not bringing their own canoe is $5.00. Call 752-2702 for reservations.

Saturday, July 9: Wildflowers of Tony Grove Lake. Leave 8:00 a.m. from the University radio tower and return after lunch. We will walk around the lake using the new Audubon nature trail guide. Some may wish to hike into White Pine Lake or climb Mt. Naomi in the afternoon. BRING LUNCH AND WATER for this field trip.

Saturday, July 23: Limber Pine Trail. Leave at 3:00 p.m. from the University radio tower and return by 9:00 p.m. We'll hike the three-mile loop trail to the venerable limber pine, using the new Audubon nature traiil guide. The trail goes through subalpine fir and aspen forests, mountain mahogany stands and limber pines. Expect to see signs of red squirrel and badger activity. Then drive to the Tony Grove Ranger Station for supper and early evening birding at the campground. This is a great place for mountain songbirds including the calliope hummingbird, olive-sided flycatcher, thrushes and warblers. BRING SUPPER AND WATER on this field trip.

Thursday, July 28: Evening flight of ibis in Cache Valley. Leave at 7:00 p.m. from the Fred Meyer parking lot and return by 9:00 p.m. Watch several thousand white-faced ibis as they arrive in flock after flock at their roost just north of Valley View Highway. Also see flights of gulls, crows, cranes and pelicans. All observations will be from the roadside; bring binoculars.

Saturday, August 6: Canoe trip on the Little Bear River. Leave at 4:00 p.m. from the Fred Meyer parking lot and return by 9:30 p.m. This is an easy trip going down Spring Creek (off the Mendon road) through a heronry and beaver activity in a stand of enormous willows, then along giant cattail and bulrush stands. YOU NEED ADVANCE RESERVATIONS FOR THIS TRIP, and the cost for those not bringing their own canoe is $5.00. Call 752-2702 for reservations, and BRING SUPPER AND WATER on this field trip.

Friday-Saturday, August 26-27: Overnight camping trip to watch beaver behavior. Leave as soon after lunch as possible for the 2-hour drive to Allred Flat campground near Afton, Wyoming. After supper, we'll watch beaver activity under a full moon. Saturday morning we will take a closer look at the many beaver dams along Salt Creek, their construction and the beavers' sources of building materials. We will also look at the stream bank stabilization done by the Wyoming Fish and Game Department at the same place. We'll return Saturday afternoon. YOU NEED ADVANCE RESERVATIONS FOR THIS TRIP; call Al Stokes at 752-2702.

Saturday, September 3: Kokanee salmon spawning. Leave at 4:00 p.m. from the Fred Meyer parking lot and return by 8:00 p.m. The brilliant red Kokanee salmon swim up the Little Bear River above Porcupine Reservoir (about a 20-mile drive south from Logan) in early September to spawn in the shallow water. Watch the fish work their way through the rapids and defend their territories within 10 feet of observers on the bank. BRING SUPPER AND WATER on this field trip.

Friday-Saturday, September 9-10: Whooping cranes at Gray's Lake Wildlife Refuge, Idaho. Leave at 5:00 p.m. Friday (or very soon thereafter) from the Fred Meyer parking lot and return by noon on Saturday. The Gray's Lake Wildlife Refuge (about a 100-mile drive from Logan) is a spectacular marsh where several thousand sandhill cranes nest and where eggs of the rare whooping cranes are hatched and reared by sandhill crane foster parents. Many other birds inhabit the refuge as well. We'll camp in the U.S. Forest Service campground nearby, and on the return trip will stop at historic places along the Old Oregon Trail at Soda Springs. BRING FOOD AND CAMPING GEAR on this field trip, and spotting scopes if available. Call 752-2702 for carpooling arrangements.

Friday-Sunday, September 16-18: Trumpeter swans at Red Rock Lakes Refuge, Wyoming. This will be a 2-night camping trip at a wild refuge famous for its trumpeter swans. In addition to the camping, you'll have a chance for hiking about and seeing many swans and other waterfowl. YOU NEED ADVANCE RESERVATIONS FOR THIS TRIP; call Al Stokes at 752-2702.

Saturday, September 24: Hawk migration on the Wellsvilles. Leave at 7:30 a.m. from the Fred Meyer parking lot and return by 5:00 p.m. With favorable weather, you can see 200 hawks and eagles flying south along the ridge of the Wellsvilles. The four-mile trail to the observation point climbs 4,000 feet vertically through stands of aspen and fir. It's a good trail, and an average person takes about 3 hours to reach the observation point. The spectacular view of the Cache and Salt Lake valleys from the top of the Wellsvilles is alone worth the climb. BRING LUNCH, WATER AND A WINDBREAK on this field trip.

Friday-Sunday, October 3-5: Elk bugling in the Tetons. Details will appear in a future edition of *The Stilt.* Stay tuned!

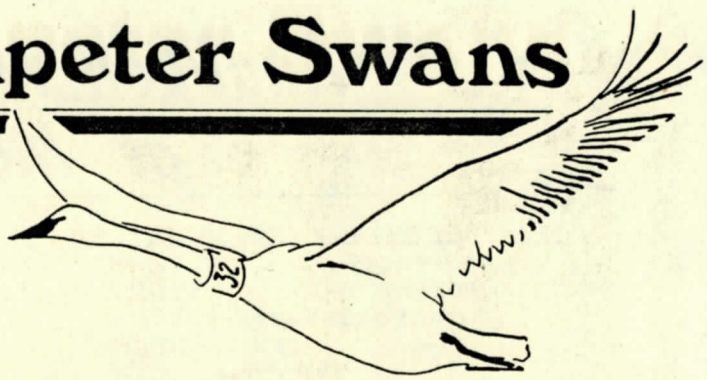
NOTE

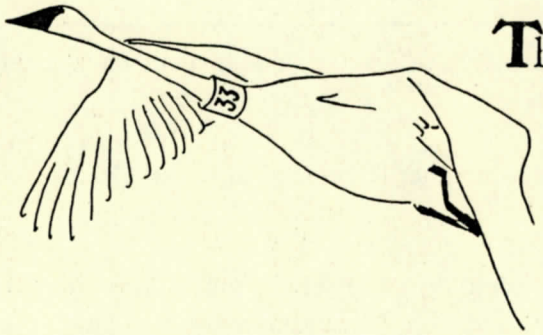
For those not familiar with Logan's geography, our field trips depart from one of two places, as the above descriptions indicate. These are:

1. The southwest corner of the Fred Meyer parking lot at Main Street and 7th North in Logan, or

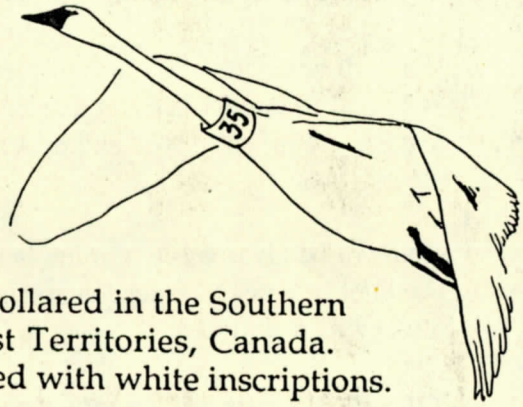
2. The Utah State University radio tower at 12th East and 7th North on the USU campus in Logan.

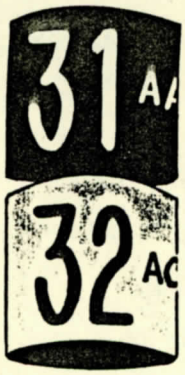
Collared Trumpeter Swans





The Canadian Wildlife Service requires your assistance in locating Trumpeter Swans wearing neck collars and stainless steel leg bands.





Trumpeter Swans have been collared in the Southern Mackenzie District, Northwest Territories, Canada. The plastic collars are bright red with white inscriptions.

Yellow collared Trumpeter Swans are being released at Elk Island National Park, Alberta, Canada as part of an effort to reintroduce Trumpeter Swans to an area formerly occupied.

Should you observe collared swans—**PLEASE NOTE THE FOLLOWING INFORMATION:**

- colour, number and/or letter on the collar or band,
- date of sighting,
- location of sighting,
- include observer's name and address,
- other swans, uncollared.

This information is vital in determining time, route and rapidity of migration and habitat utilization of the Trumpeter Swan.

Send observations to, or call:

Len Shandruk
Habitat Biologist
Canadian Wildlife Service
2nd Floor, 4999 - 98 Avenue
Edmonton, Alberta
T6B 2X3 • (403) 420-2525

Terry Winkler
Park Warden
Elk Island National Park
Site 4, R.R. #1
Fort Saskatchewan, Alberta
T8L 2N7 • (403) 992-1796

Canada

Audubon Wildlife Fund of Montana

FLOAT TRIP ON THE WILD MISSOURI IN MONTANA

BIRD WALKS ***PALEONTOLOGICAL DIG SITES*** ***HOMESTEAD HISTORY***
STEAMBOAT HISTORY ***PREHISTORIC GEOLOGY OF AREA*** ***BUFFALO BIOLOGY***
INDIANS OF THE UPPER MISSOURI ***WILDLIFE OF THE AREA*** ***PADDLEFISH***
LEWIS AND CLARK EXPEDITION HISTORY IN THIS AREA
NEZ PERCE WARS ***MINING IMPACT***

All equipment, except your personal needs, are furnished. You'll spend each day floating in a canoe flotilla, with stops at points of interest.

Overnight camps will be at Eagle Creek, Slaughter River, Judith River, Greasewood Flats, and Cow Island.

Six highly qualified instructors (in addition to the trip leader, Lynn Kelly) will lead exploratory trips and lecture on the topics outlined above. Moderate hiking will be involved.

You will be on the 180 miles of the mighty Missouri which is protected under the National Wild and Scenic Rivers Act that limits development. The trip is limited to 21 participants so that the group will not be an impact upon the ecology. Participants must be 18 years old or older.

You will be given basic training in canoe travel, and you will paddle your own canoe. You need not be an experienced canoe traveler. You will never be alone on the river as you will travel with a flotilla.

Tents for sleeping will be furnished. All meals are prepared by the outfitter. You need to bring your own sleeping bag. You also need to be prepared for long hours of bright sunshine on the river, for mosquitoes, for wind, and rain (not usual in July, but....).

COME JOIN US:

July 6-11, 1988

Six days away from civilization! Five nights in the solitude of the wild Missouri! Camp where Lewis and Clark camped, and be where Chief Joseph and the Nez Perce traveled.

REGISTRATION:

$425 (includes $200 tax deductable contribution to the *Audubon Wildlife Fund of Montana)*; $50 is non-returnable (administrative costs). Deposit of $50 must be paid by May 15. The total $425 must be paid by June 1. Reservations will be on a "first come, first served" basis. Make checks payable to Audubon Wildlife Fund of Montana. Mail to Tommie Clark, 231 Pine Needle Lane, Big Fork, Montana 59911 (406-837-6615).

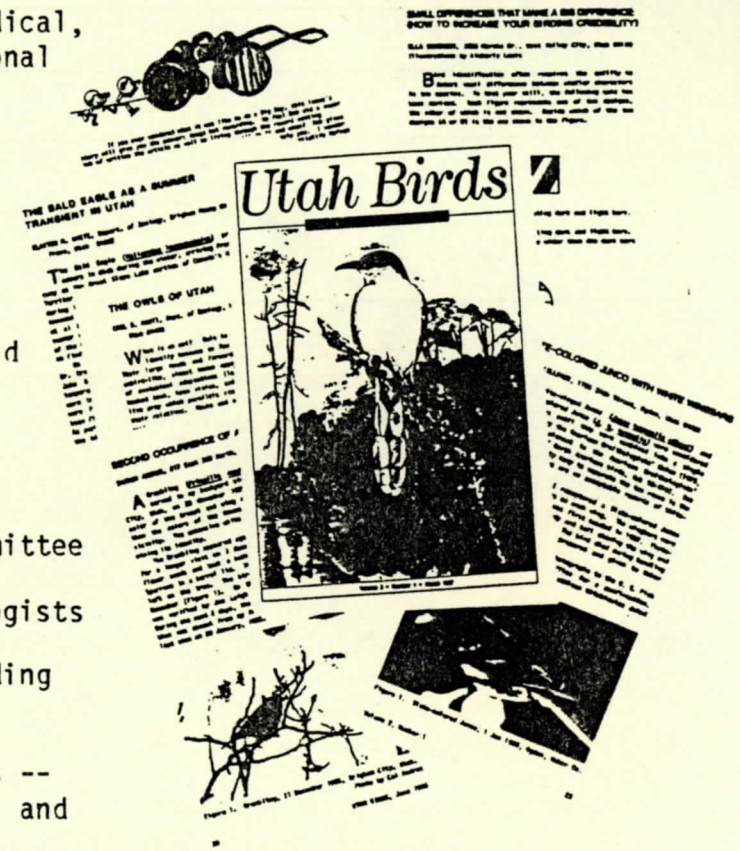
TRAVEL ARRANGEMENTS: If you are flying, fly into Great Falls; and we'll arrange transportation to and from the river.

Organized Under the Auspices of the
Montana Audubon Council

JOIN! the Utah Ornithological Society

And receive the quarterly journal Utah Birds and its companion periodical, Birding Utah, which offer something of interest to all Utah professional and amateur ornithologists.

Membership in the Utah Ornithological Society is open to anyone interested in birds.



Utah Birds contains

- main articles, often illustrated with photographs or drawings, dealing with status and distribution of Utah birds, habitat, field identification, life history, behavior, and birding locations
- short notes on most aspects of field ornithology including significant sight records
- annotated reports of the Utah Ornithological Society Records Committee
- interviews with Utah's leading amateur and professional ornithologists

Birding Utah deals with the sporting and recreational aspects of birding such as life lists, Big Days, and Big Years.

The Utah Ornithological Society also sponsors identification seminars -- featuring national expert field birders such as Jon Dunn (sandpipers) and Rick Blom (gulls) -- and occasional field trips.

Yes, I'd like to join the Utah Ornithological Society and receive Utah Birds and Birding Utah. I'm enclosing $8 for a one year membership.

Name_____

Address_____

City _____ State_____ Zip_____

Send to: Utah Ornithological Society
P.O. Box 1042, Cedar City, Utah 84720

The Bridgerland Audubon Society meets the second Thursday of each month, October through May, in the Council Room of the new Logan City Building, 255 N. Main. Meetings start at 7:30 p.m. The BAS Planning Committee meets every third Wednesday, October through May, in the Logan Library at 7:00 p.m. Everyone is welcome to attend.

President	Cynthia Kerbs, 752-3251
Vice President	Jillyn Smith, 750-1359
Secretary	Scott Cheney, 753-1893
Treasurer	Betty Boeker, 752-8092
Conservation	Bruce Pendery, 753-3726
Education	Sally Jackson,
Membership	Al Stokes, 752-2702
Field Trips	Al Stokes, 752-2702
Newsletter	Tom Gordon, 752-6561
Circulation	Mike Jablonski, 753-2259
Publicity	John Wise, 245-6695
Hospitality	
Hotline	Scott Cheney, 753-1893
Recycling	Rich Campanella, 752-3689
	Steve Cannon, 752-1209
Board of Directors	John Barnes, 563-3910
	Jon Wraith, 752-0743
	Larry Ryel, 753-8479
	Dianne Browning, 752-5946
	Ron Ryel, 753-6077
	John Sigler, 753-5879

Membership in the Bridgerland Audubon Society includes a subscription to *The Stilt,* as well as the *Audubon* magazine. The editor of *The Stilt* invites submissions of any kind, due on the 15th of each month. Send to 718 N. 200 E., Logan, UT 84321.

PRINTED ON RECYCLED PAPER.

National Audubon Society

CHAPTER

MEMBERSHIP APPLICATION

HOW DO I JOIN?

Complete the following application and enclose a check for the amount for the appropriate type of membership. Send it to:

NATIONAL AUDUBON SOCIETY
Chapter Membership Data Center
Box 2664
Boulder, CO 80321
Credit Bridgerland Audubon W-52

Check membership category desired:

- ☐ Introductory one year / $20
- ☐ Individual / $#30 (H)
- ☐ Family / $38 (J)
- ☐ Student / $18 (K)
- ☐ Senior Citizen Individual / $21 (N)
- ☐ Senior Citizen Family / $23 (P)
- ☐ Please bill me ☐ Check enclosed

Name _____

Address _____

City _____ State _____ Zip _____

Bridgerland Audubon Society
P.O. Box 3501
Logan, Utah 84321

Nonprofit Organization
BULK RATE
U.S. Postage
PAID
Permit No. 104
Logan, Utah

DATED MATERIAL — PLEASE DELIVER PROMPTLY

MERVIN COOVER
or current resident
435 CANYON ROAD
PROVIDENCE, UT
84332