

SAINT PAUL AUDUBON SOCIETY

PO Box 7275, St Paul, MN 55107-7275

WWW.SAINTPAULAUDUBON.ORG

February March 2014

April May Deadline 3/5/2014

Welcome... To the Saint Paul Audubon Society. We're a chapter of the National Audubon Society. Our Mission is to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and Earth's biological diversity.

CALENDAR

February

Board Meeting:3
Member Meeting:13
Mississippi National River & Recreation Area
Great Backyard Bird Count14-17

March

Board Meeting:3
Member Meeting: Raptor Vision13

SPAS Members: Please Check our Website for Calendar Updates!

Non-profit Organization
U.S. Postage
PAID
Permit # 3795
Twin Cities, Minnesota

Time Dated Material
CHANGE SERVICE REQUESTED

The Great Backyard Bird Count

February 14-17, 2014

To participate, go to the Cornell Lab of Ornithology's website at http://birdsource.org/gbbc. Over time, our data will grow, and become as important as that we provide for the Christmas Bird Count.

This year, a new BirdLog eBird app is being offered free for both iPhone and Android smartphone users. You can use the app any time between now and February 28th to submit your checklists to eBird. Your sightings will be included in the Great Backyard Bird Count if you use the app during February 14-17. You can log in with your existing GBBC/eBird account or create an account if you don't already have one. Data provided to eBird has very quickly become an important source for migration, nesting, and wintering range mapping. Your electronic records can be your journal of birding trips and sightings!

National Audubon Society Membership

C9ZM030Z

Yes! I will become a new member or give a new gift membership in the National Audubon Society. I will receive Audubon Magazine and Saint Paul Audubon's The Cardinal newsletter. Please fill in the form, make a check for \$20 out to National Audubon Society, and send it to the address below. Thank You Very Much!

Name _____

Address _____

City _____ State _____ Zip _____

Please sign gift card: _____

Mail to: National Audubon Society, P.O. Box 422250, Palm Coast, FL 32142-2250
(Write on envelope: "Attention: New Membership — please process immediately")

St. Paul Audubon Society Local Sponsorship

Yes! I want to be a sponsor of my local chapter, Saint Paul Audubon, by donating \$15, for which I will receive The Cardinal newsletter and other online news. Please fill in the personal information, make a check for \$15 out to Saint Paul Audubon Society, and send it to the address below. Thank You Very Much!

- I'm a NEW member! Please send my Welcome Packet right away!
I currently receive National's Audubon Magazine.

Name _____

Address _____

City _____ State _____ Zip _____

Please sign gift card: _____

Mail to: Saint Paul Audubon, c/o John O'Connell, 2184 Larry Ho Drive, St. Paul, MN 55119

The Cardinal

FEBRUARY MARCH 2014 • WWW.SAINTPAULAUDUBON.ORG • SAINT PAUL AUDUBON SOCIETY

FEBRUARY MEMBER MEETING

'The Mississippi National River and Recreation Area: 25 Years and Growing!'

with **Kate Havelin, Mississippi River Fund**
Community Outreach Coordinator, and Author

February 13, 2014

Encompassing 72 river miles that wind through the Twin Cities, the Mississippi National River and Recreation Area (MNRRA) just celebrated its 25th anniversary! It is unique in that the National Park Service does not own most of the land along the river, but relies on partnerships with established parks and other lands throughout the corridor.

The most recent addition to the park is the acquisition of Coldwater Spring, a 29-acre tract very near Fort Snelling. The area was a crossroads for Indians and traders. After the army acquired the land, it was used to provide water for the fort, and more recently was a Bureau of Mines research site. The National Park Service and the Mississippi River Fund are working diligently to restore Coldwater Spring to its native landscape. It is a wonderful place for bird watching and hiking.

Kate Havelin will share stories of the rich cultural and natural history of our closest National Park.

To learn more about this topic, please visit the following website(s):

<http://www.nps.gov/miss/index.htm>

<http://www.missriverfund.org/>



MARCH MEMBER MEETING

'The Powerful Vision of Raptors'

with **Mike Billington**, Interpretive Naturalist,
The Raptor Center, Univ. of Minnesota

March 13, 2014

"You have 'eagle eyes!'" We know raptors have powerful vision, but how well do raptors actually see? And, how did we learn about this phenomenon? This presentation, voted best presentation at the International Conference of Avian Trainers and Educators in 2012, will look at the science behind raptor visual acuity. It will explain how vision scientists were able to determine raptor visual acuity by looking at both the optics of the eye and through behavioral studies.

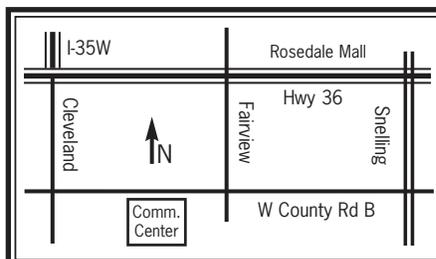
For more information about raptors, please visit the following websites:

<http://www.cvm.umn.edu/raptor/>

<http://www.learner.org/jnorth/tm/eagle/VisionA.html>



Our meetings begin at 6:45 with social time, 7:00 PM for the program, at the Fairview Community Center, 1910 W. County Road B, in Roseville. Free and open to the public. Free parking available. *Bring a friend!*



"Volunteer Opportunities for Saint Paul Audubon members!! See p. 2 and p. 4."

BOARD MEETINGS

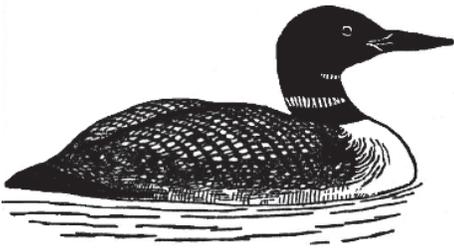
Saint Paul Audubon's Board Meetings are held at the Ramsey-Washington Metro Watershed Office at 2665 Noel Drive, Little Canada. Exit 35-E at Little Canada Rd, go east to Noel. Meetings are held from 6:30 to 8:30 PM.

Upcoming dates: **February 3, March 3, April 7.** Regrets only to Barbara Lindeke.

Early Birders!

Look for the **LOON** on your 2013 tax forms and donate to the "**Chickadee Check-off!!**"

(Remember that all donations to non-profit organizations are tax-deductible.)



Chapter President's Message

Hello Audubon friends; I hope you are all staying warm and providing food, water and shelter for our avian friends. It's -20 degrees as I write on this January day, but I recall a warm June day a few years ago when I walked with several other SPAS volunteers and 15 young Bird Campers across Como Park toward the Conservatory. It was wonderful to run into some Raptor Center volunteers who were working to rehabilitate a Bald Eagle. They stopped to visit with us and explain what they were doing. We watched as they flew the eagle several times. As we got near the Conservatory, we wandered through the butterfly garden across from the front entrance, where some Friends of

SAINT PAUL AUDUBON SOCIETY

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	<i>(Outgoing message only — make note of numbers to call for chapter information, or go to chapter's website)</i>
Audubon MN	651-291-2596
	www.mn.audubon.org

ABOUT OUR CHAPTER

Founded in 1945 as the 'St. Paul Bird Club' with 12 members, the Saint Paul Audubon Society now serves the entire East Metro region of the Twin Cities area, and has around 2,600 members. We hold 9 Member Meetings a year. Feel free to contact those listed at left for more info, or write to SPAS at PO Box 7275, Saint Paul, Minnesota, 55107 or visit our website at www.saintpaulaudubon.org

ABOUT OUR NEWSLETTER

The Cardinal is published 6 times a year. Articles are due on the 5TH of January, March, May, July, Sept, and Nov. Submissions may be edited. Send to hpbirdscouter@msn.com

THE CARDINAL Electronic Version Members may now receive the newsletter by download from the website. To sign up, contact Webmaster **Ben Wilson** online at webmaster@saintpaulaudubon.org.

LOCAL SUPPORT

Audubon members who don't live in the East Metro Area who want to receive *The Cardinal* may send \$15 for a 1 year's subscription to **John O'Connell**, 2184 Larry Ho Drive, Saint Paul, MN 55119

ADDRESS CHANGES

Please call **1-800-274-4201** to change your address for National Audubon Society mailings, including *Audubon Magazine* and *The Cardinal*, or to sign up for Audubon's paper-free renewal program.

Nat'l Audubon Soc. www.audubon.org

Como Park volunteers were cheerily weeding and taking care of their garden. Our students took some wonderful pictures with the cameras we had borrowed from the DNR. That walk brought home to me how much of the quality of our lives we owe to the wonderful work of volunteers. I know both Como Park and Zoo and the Raptor Center have numerous volunteers that allow them to achieve what they do.

The St. Paul Audubon Society relies completely on volunteer efforts to do all it does. Next time you come to a Members' Meeting, be sure to notice and appreciate the greeters, the refreshment providers, the speaker introducers, and board members who take care of the finances, and

communications, and program planning, and field trip organizers and leaders, and news-letter contributors and mailers and all of the others who volunteer their time and effort to keep our chapter vital and involved. Please consider volunteering some of your time and energy in the upcoming year.

- We need several shifts of volunteers to staff an information table at the Home and Garden Show in Minneapolis from Friday evening, February 28TH through Sunday afternoon March 2ND.
- We also welcome volunteers to lead several spring birding jaunts on the Jonathon Padelford Riverboat, from April 29TH through May 15TH, to work with

Annual Fund Drive Donors

Many thanks to all who donated to the St. Paul Audubon Society's Annual Fund Drive. It was very successful. In 2013 there were an unusually large amount of donations in memory of loved ones. Our sympathy to all of those who donated in memory of those who are no longer with us.

Egret, up to \$49:

Donna Anderson, Elwood & Judy Anderson, Robert & Carmen Bell, Monica Bryand, Clay Christensen, Steven Cook, Marjorie Davis, Helen Dwight, Carolyn Elliott, John Enblom, Bridget Evens, Patricia Flynn, Mary Furman (In honor of Jacqueline Vosecky), Cynthia Goosen, Kim Gordon, Vance Grannis, Mary Jane Haemig, Kenneth Harris (In memory of Dr. Jack Boylan), Daniel Hawkins, Bob Holly, Christine Hope, Nancy Johnson, Brooke Johnson, Sharon Karalus, Linda Kellar (In memory of Patricia Cramer), Sue Lamoureux, Ken & Harriet Livermore, Ellen Lowery, Julia & K. J. Maas, Jim & Nancy Malkowski (In memory of Julie Kae Malkowski), Sylvia McAlpine, Bill & Bonnie Meingast, Krista Menzel, Phyllis Merrill, Dorie Miller, Dean Mitchell, Martha Osterberg, John Petroskas, Joan Porcher, Karen Reece, Jim Rewey (In memory of Pamela J. Burg), Jo Anne Rohricht, Carrolyn Shepherd, Cheryl Steinmueller, Denis Stoddard, Ronald Tabaika, Michele Vaillancourt & Brent Wennberg, Jacqueline Vosecky, J. L. Zollinger.

Bluebird, up to \$50-99:

Linda Amrein, Barbara Ankrum, Michael Bahr, Bill & Vicki Burgman (In memory of Lorraine Kemmer), H. Mead Cavert, Margaret Clayton, Stewart Corn, Neil & Marcia Dahlquist, Elizabeth Danielson, Edward Davies, Ron & Jackie Dexter (In memory of Kathleen Dexter), Thomas Diffley, Michael Dunford (In memory of Ruth Dunford), Trudy Dunham, John Ellis, Lorri & Tom Evans, Susan Fuller, Barb & Rich Gabriel, Nancy Hasse, Sally Heuer (In memory of JoAnne Heuer (her mother) and Sharon Heuer (her step mother), Pat Hogle, Maxine & Kieran Hughes, Katherine Kudzy, Gene & Nancy Larimore, Jan Leite, Linda Lindeke (In memory of our

favorite teacher - Jerome Wagner - who inspired so many to fully observe and experience the world), Mary MacDonald, Patricia Mack (In memory of Raymond Marcotte), Carol Mizuno, Gunilla Montgomery, Carole Nimlos, James J. Pearson, Nancy & Ken Pedersen (In honor of 55th anniversary - *Congratulations from SPAS!*), Holly & Paul Peirson (In memory of Jerry Wagner), Robert & Alice Peters, Leslie Pilgrim & Ned Rukavina, Molly Redmond & Steve Ring (In memory of Noel Cutright), Joel Roberts, Deborah Robinson (In memory of Jerome Wagner), Robert Sherman, Laurel Stiebler, Jim Thommes, Paul Tuckner, John Zakelj, Kathy Zanner, Jeanne & Jeff Zlonis (In honor of Ed Zlonis, our favorite birder).

Cardinal, \$100 and above:

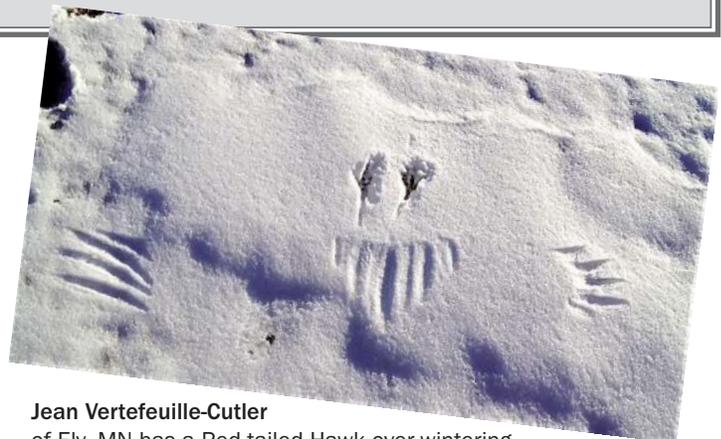
Jean & George Albrecht (In memory of Brenda S Zimmerman), Roger & Margie Anderson, Susan Audette, Deb Bachrach, Janet Baker, Carol Becker, Char Brooker, Barbara Burleigh, Alice & Herb Cederberg (In memory of Brenda S Zimmerman), Karen Cramer (In memory of Patricia Cramer), Val Cunningham, Chase Davies, Jacalyn Eastman, Karen Eckman, Mary Glaeser, Florence Gleason, Jody Hauer, Ellen Healy (For the St. Paul Garden Club - In memory of Brenda S Zimmerman), Betty Hesselgrave (In memory of Patricia Cramer), Barbara Holm, Charles & Hope Lea, Dr. Ji-Chia and Su-Wan Liao (In memory of Brenda S Zimmerman), Barbara Lindeke (In memory of Jerome Wagner), Jim Lindner, Barbara Lindstrom, Tom & Sue McCarthy, Anne McManus, Phyllis Merrill (In memory of Jerome Wagner), Dave & Jane Moline (via Fidelity Charitable Trust), Jeffrey & Jane Nelson, JoAnn M. Nelson, Richard Newmark, Carole Nimlos, Cristina Pacheco (In memory of Patricia Cramer), Ann Ribbens & AJ Moses (In memory of Wilbert & Julia Ribbens), Marge & Ed Senninger, John Stoklosa, Robert & Miriam Titzler, Louis & Carole Winslow (In memory of son John B. Winslow), Ann Wynia, Ben Zimmerman (In memory of Brenda S Zimmerman).

the National Park Service to talk about and watch birds with 4TH-7TH graders.

- Help coordinate Warbler Weekend at Frontenac, May 9-11 (see p. 5).
- The Birding Camp for Kids will be offered again in mid-June, dates TBD (see April-May Cardinal...)
- So You Want To be a Field Trip Leader! (see p. 4.)

Please contact me if you would be interested in knowing more about any of these opportunities and events. Enjoy the season and appreciate all that volunteers do for our community.

Barbara Lindeke



Jean Vertefeuille-Cutler

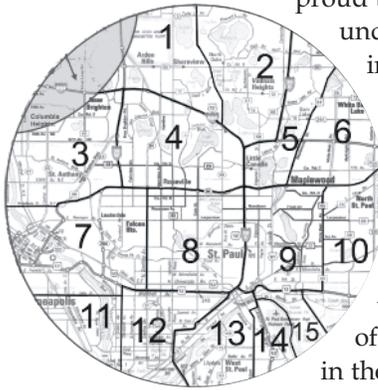
of Ely, MN has a Red-tailed Hawk over-wintering nearby. She took this 'hawk-angel' photo one day, just after it had caught a vole. It's rare to find wings, feet and tail in one shot.

Thank you, Jean, for letting us see your image!

St. Paul 'North' CBC Results

The 114TH Christmas Bird Count was held on December 14TH. This was also the 70TH year for the St. Paul North Count, a tremendous legacy of effort that provides great historical data for this area. We are but a small part of the big international picture, but we can be proud to have contributed toward understanding winter residents in one of the less hospitable climates on the continent!

15 teams, 55 field observers and 3 feeder watchers found 61 species. Over 12,000 individual birds were counted despite the snow which lasted most of the day. Early cold weather in the month of December did not stop our teams from counting over 1,000 more birds than in 2012. Of course, it was raining on count day in 2012!!!



Highlights include a flock of 16 Lapland Longspurs at Holman Field, the first time the species has been found on CBC count day. A Saw-whet Owl, Barred Owl, and a Townsend's Solitaire (picked out from a flock of 60 Robins) were found near Hodgson Rd and Cty I. Our count occurred during this year's huge Snowy Owl irruption, but no Snowy's were found in our area. An amazing 67 Trumpeter Swans were found by the North Oaks team. What a delight to celebrate one of the great species recovery stories of our time! Other unusual species included 1 Merlin, 5 Peregrine Falcons, 3 Northern Shrikes, 2 late White-throated Sparrows, and a late Song Sparrow. What was the most common species recorded?? Almost 3,000 Mallards were counted from many localities within our circle!!

Thanks to everyone who volunteered and persevered. Very special thanks to **Karen Eckman**, who opened her home for the Pot Luck Tally Party.

Please consider joining us next year as the adventure continues. Write down **Saturday, December 13TH** on your calendar and volunteer a day to become part of a wonderful tradition and great commeraderie!!

BILL STJERN, ST. PAUL
NORTH'S
CBC COORDINATOR
AND COMPILER

PHOTO:
CBC TEAM FROM
AREA 2, WITH SOME
OF THE SWANS ON
PLEASANT LAKE IN
NORTH OAKS.



Field Trips Leaders are Needed

Now's Your Chance!

Some of our valued Field Trip Leaders are retiring or cutting back. Yep, so, it's a great time to step up and begin to lead a few trips, perhaps a "Tuesday Morning in May"—and early June – a weekend morning, or some other time.

Some of us would like to experience new birding places. Have you a suggestion for where we should go? It would be great if you could begin by co-leading. Leaders needn't be experts, but should have some knowledge of the birds and other wildlife to be found in different types of habitat.

While I am on the subject, how would you like to help plan our 2014 list of field trips, in anticipation of taking over this briefly intensive activity (once a year, Feb-April) eventually? Most trips are repeats so just need confirmation. The group always has fun during the planning stages!

Contact Field Trips Chair **Chase Davies** at **ccdavies@aol.com** or **651-633-1663**.

Seriously, yes, **Y O U** are needed!

Audubon Minn's Annual Gathering

In mid November, about 90 statewide members came together in St. Paul to exchange ideas, learn about the latest bird-related issues, and renew old friendships. AudMN's new Executive Director, Matthew Anderson, introduced himself, then we viewed a video from NAS CEO David Yarnold, followed by volunteer recognition.

Environmental author Sue Leaf gave a presentation based on her latest book, "*A Love Affair with Birds: the life of Thomas Sadler Roberts.*" Roberts (1858 - 1946) was a physician, ornithologist, author, one of the founders of the Bell Museum, and was active during the beginning of the conservation movement.

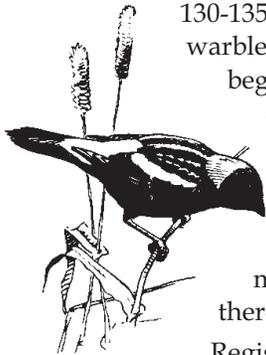
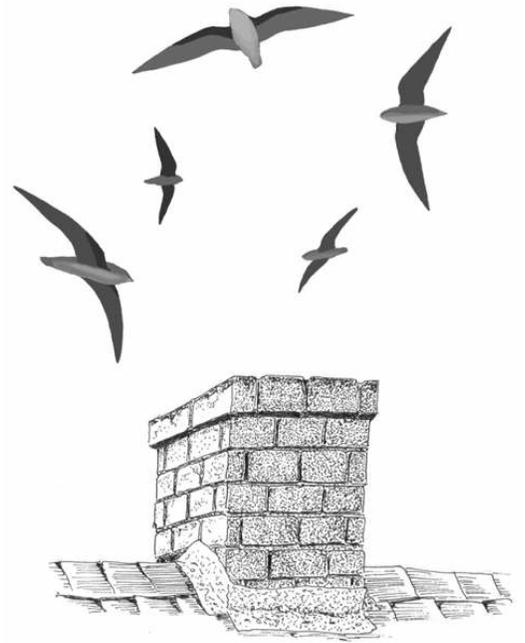
There were five breakout sessions (each attended by at least one SPAS board member).

- 1) "Birds are Amazing" A refresher on birding basics; getting the GISS of a bird, song characteristics, memory aids, flight characteristics, and fun facts.
- 2) "Putting Online Mapping Tools to Work" National Audubon Society is using geographic information systems combined with bird and habitat data to advocate for protecting critical habitat. We learned how's this powerful technology works.
- 3) "Speaking for Birds" Highlights AudMN's conservation priority actions. The list included silica sand mining, invasive species, wetland protection, solar energy, and management of School Trust Lands. All five issues directly or indirectly impact birds and/or their habitats.

Saint Paul Audubon's Spring Warbler Weekend

May 9 - 11, 2014 (Reservation deadline April 9, 2014)

Many birders are aware that some of the world's best birding is available right here in Minnesota! During the spring migration one of the best locations to be looking for birds is along the north-south Mississippi and St. Croix River Flyway. Our annual Warbler Weekend is held in the Frontenac area, located on Lake Pepin, right on the flyway!



Our annual weekends over the last 35-45 years have averaged 130-135 species, including an average of 21-24 species of warblers. The Chapter's Field Trip Leaders offer bird walks for beginners and experienced birders. You may bird by car, or on foot on the grounds of the Villa Maria and Frontenac State Park's many trails and the prairie restoration project, or venture farther afield to Well's Creek, Sand Point (this hike may require knee-high boots due to high water), and Hok-Si-La Park just north of Lake City. A Bird Board will be maintained for the weekend, so if you decide to stop birding to come in for sustenance, and see that there's a Kentucky Warbler about ¼ mile from your location, you have a decision to make.

Registrations are due 30 days in advance. There can be no refunds for cancellations made after April 9.

Last year we were over capacity, so please register early to guarantee sufficient food and quarters. Meal tickets are required. The fee for those attending the evening lectures and/or coming for meals only is \$10. If you would like confirmation of your registration, please include an email address, phone number, or enclose a self-addressed stamped envelope with your registration. Accommodations include dorm-style rooms, shared bathrooms and dining at very reasonable prices. Camping is available at nearby Frontenac State Park. *Note the early registration deadline of April 9.*

Friday dinner is on your own (there are numerous restaurants in nearby Red Wing). Socializing, snacks, coffee, and information on Friday at 7:00 PM will precede a talk by **Val Cunningham** on "*Landscaping with the wild world in mind: turning our yards and gardens into mini-wildlife refuges for birds and pollinators.*" Copies of Saint Paul Audubon's booklet on Native Plants will be available. Viewing Chimney Swifts as they come to roost at dusk and an owl walk will follow the lecture (bring flashlights and dark sweat-shirts!).

Saturday evening's lecture features **Clay Christensen**, "*The Bird man of Lauderdale,*" all about his tales and adventures. Copies of his book will be available.

Registration is limited to Saint Paul Audubon members until March 20th, then will be open to all on a first-come first-serve basis. For more information please contact **Deb Bachrach** at deb.bachrach@yahoo.com or 651-690-4130. Thank you for your registration. We look forward to seeing you, and to the repeat of all our wonderful Spring Warbler Weekends.

Warbler Weekend Registration Form

Quantity	Options	Amount
___	Full Wknd Adultsgl \$170 .shr \$140	\$ _____
___	Fri. night +3 mealssgl \$95 .shr \$80	\$ _____
___	Sat night + 4 meals . . .sgl \$105 .shr \$90	\$ _____
___	Child 6-11 (sharing with adult)	\$.35 \$ _____
___	Child 12-17 (sharing with adult)	\$.50 \$ _____
___	Commuter (not staying overnight)	\$.10 \$ _____
___	Saturday Breakfast8:00 AM	\$.10 \$ _____
___	Saturday LunchNOON	\$.10 \$ _____
___	Saturday Dinner6:00 PM	\$.10 \$ _____
___	Sunday Brunch10:00 AM	\$.10 \$ _____
___	Camp (no hookup) \$30 -ea nt + \$40/4 meals	\$ _____

(Prices include registration fee. No refunds for missed meals.)

Total (check payable to Saint Paul Audubon) \$ _____

Name _____

Address _____

City _____ State _____ Zip _____

Day phone _____ Evening phone _____

Email _____

Names of People attending _____

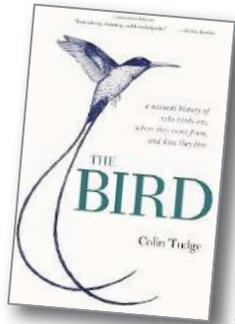
Send check to Saint Paul Audubon Society,
c/o Deb Bachrach, 1163 Edgcombe Rd., St. Paul, MN 55105.
Checks will be held until April 9. No refunds after April 9.
For more information please call Deb Bachrach at 651-690-4130
or send email to **deb.bachrach@yahoo.com**

BOOK REVIEW

The Bird: A Natural History of Who Birds Are, Where They Came From, and How They Live

by Colin Tudge, © 2008, Crown Publishers

I am reading the most fascinating book about birds. It is so fascinating that I wanted to share it during the months when you may have more time to read... Found at Half-Price Books.



Section I: Tudge begins with a quote from Orwell, "All animals are equal, but, some animals are more equal than others." Tudge next states "by all objective measures no other animals, not even mammals, the group to which we belong, quite match up to birds. Birds have their shortcomings but they are nonetheless a very superior form of life. Above all, birds FLY." Tudge then discusses physiology and evolution, defining convergence (two unrelated species that look or act similarly), and divergence (species that have grown apart). There follows a thorough and very interesting discussion of whether birds *are* evolved from dinosaurs, and if so, what family? (see "*The Family of Aves*," p. 7).

Section II: An absolutely fascinating discussion of classification, with several great charts that trace birds' probable evolution from theropod dinosaurs, followed by an annotated list of families. I had planned to skip this section but found myself reading the short "bio" of each. I learned more about how classification works by reading this section than in other sources.

Section III: All about food, migration, sex, raising the family, and the minds of birds. The question, 'what makes a brain' devolves quickly into a philosophical discussion of such things as emotion, memory, and logic. Are brains just centers of electromagnetism? Is there a difference between minds and computers? Do life and mind go together? Is there a fundamental difference between what goes on in the minds of humans and birds? What is it like to be a bird? Animals' and birds' intellects have evolved independently – so, do birds and other life forms think and feel as we do? Many philosophers and scientists have theorized on this topic, but the upshot today seems to be the same as in Aristotle's time: "Nobody Knows!"

The next topic is the birth of science: Darwin, Pasteur... What aspects of animal psychology can be measured? Mind, consciousness, happiness, and fear were found to be too elusive and subjective. The answer was, and is – behavior. Pavlov, Skinner... Many laboratory experiments later scientists began the study of "natural behavior" or Ethology: what animals do when they are making their own decisions. Tinbergen, Lorenz... Lorenz asks us not to anthropomorphize, to think that animals feel the same as we do, with consciousness and foresight ...their behavior is simply "instinctive." Lorenz mentions Kipling's *Just So Stories*: telling of the wiliness of snakes and wisdom of

wolves. Kipling "daringly let the animal speak like a human being... gave human motives to their actions, and yet... his stories convey a true impression of what a wild animal is like."

From Lorenz, the behaviorist paradigm shifted to Jane Goodall. Beginning in the 1960's she watched and learned, showing that chimpanzees use *and make* tools (once thought done only by man), and that they have individual personalities. She found that it was impossible to describe them *without* being anthropomorphic. She could not recount their behavior in purely scientific terms; a little humanism was necessary.

Currently, scientists are studying "how animals think," so we may have come full circle to the fact that WE don't really 'think' about doing something. We act instinctively 'in a flash,' but then we may use 2,000 words to express how we accomplished the task.

Very few humans could get from Texas to Argentina, even *with* a map; certainly not as infants travelling alone. We could not hide 30,000 pine cone seeds and expect to find them nine months later, under snow, as Clark's Nutcrackers do... We marvel when watching a gull put a clam in a spot where a car will soon crush it, or drop it upon a rock to open its shell. (Ex: Two crows were given 1 hooked wire and 1 straight wire, and food at the end of a long tube. The first crow grabbed the hooked wire, pulled out the food, and flew off with both. The second crow then *bent the straight wire* to get at the food!) Clearly, birds have minds! Yet, we still don't know what their minds are like, or what is in them.

Section IV: Discusses, among other topics, a *Birdlife International* estimate that one in nine birds, 1,100 species, face almost certain extinction in the 21st century. And this was before climate change was given credibility. Habitat destruction outpaces restoration, and humankind is doing little to stop it.

As members of the Audubon Society, we need go no further along this thought line. Obviously, we need to work on this issue. We must donate our volunteer time and expertise if we care to preserve as many species as possible in the face of rising oceans and carbon-full skies.

I will look for more from this author to study in the future. His range of knowledge must only be supplanted by his exhaustive research, to complete such a fascinating story about birds. I will look in the non-fiction section, but *maybe...* there should be a new CLASS of books: One that takes the scientific approach but is written in such a populist style as to make anything worth reading! I wish he had written *my* high school biology book; if he had done so, I might have become a scientist!

HOLLY PEIRSON, EDITOR

The Family of AVES

(Supplement to Book Review seen on opposite page)

You may be interested in tracing the probable path from the earliest reptiles that laid their eggs on land to first split in life that formed both the KINGDOM of Archosaurs that became birds, and the Kingdom of Synapsids that became mammals and humans.

From the Archosaurs, after quite a few CLASSES, we come to Theropods, small bi-pedal feathered dinosaurs that due to recent finds in China have scientists believing the link may be within this family. From Theropods, there evolved Maniraptors. Here we pause a moment to reflect that this order holds *Tyrannosaurus Rex* and Ornithomimids. Mr. Tudge cleverly states that we must not look at



the size of the bones, but their very structure.... But, he then slyly passes the question, and moves to the ORDER of AVES, where the names are a bit more recognizable, such as Archaeopteryx. Here we are definitely AT the missing link: birds could be descended from either Confuciosornithidae or Archaeopteryx, or somewhere between.

The **Neornithines** have two orders, the Paleognathae (Ostriches, Rheas, Kiwis...) and the **Neognathae** (everyone else) on the more evolved "neo" side. First are the Galloanserae (Ducks, Geese, Swans, Grouse, Quail...), followed by the **Neoaves** (everyone else): Limpkins, Cranes, Rails, Pelicans, Plovers, Gulls, Loons, Penguins, Swifts, Hawks, Owls, Eagles, Woodpeckers, (*leaving out a lot of families here...*) and the largest, most "neo" FAMILY of all, the Passeriformes (the perching birds): flycatchers, ovenbirds, honeyeaters, logrunners, dippers, thrushes, mockingbirds, thrashers, kinglets, nuthatches, wrens, flowerpeckers, sunbirds, buntings, sparrows, larks, swallows, babblers, crows, jays, vireos, (*again, leaving out a lot of families...*) Within the passerines, the sparrow and crow families are considered to be the most evolved since they can weave and count!

Whew. It's a lot to comprehend. Looking at this gives us a good feeling for the eons of time it has taken birds to evolve to the SPECIES of today. For, within each GENUS listed, there may be as few as 1 species, but typically more, such as the 5 Loons in the Gaviiformes, or the 19 Penguins in the Sphenisciformes, etc. Then there are the sub-species, but we'll end here...

The great mystery is whether birds *are* descended from Archaeopteryx, as was thought for almost 100 years, or, as more recent finds in China suggest, from an as yet uncovered ancestor.

4) "Is Your Community Bird-Friendly?" This was a discussion format session. The answers are: more native plants and trees in backyards, lights out at night during migration, more use of bird-safe glass in large buildings, more parkland.

5) "Citizen Science - What's Next in Minnesota? This was another informal discussion. Audience members shared the citizen science projects they had participated in. The Christmas Bird Count, Lights Out, frog counts,

✦ Reaching Our Leaders

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In Minnesota

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MN Senators	To find your senator, call the Secretary of Senate 651-296-0504, or go to www.senate.leg.state.mn.us
MN Reps	To find your representative, call the MN House at 651-296-2146, or go to www.house.leg.state.mn.us

Minneapolis boulevard tree survey, and Blue Bird Recovery were a few of the projects mentioned. It became obvious that citizen involvement in science is educational, personally fulfilling, and can produce useful data.

The second presentation was "Galapagos: Fighting for the Future" presented by Julia Ponder, Director of the Raptor Center. The Rapture Center provided the plan to eradicate invasive rats from two different Galapagos Islands with the goal of protecting the Galapagos hawk. As it turned out, protecting the hawks also benefited the Galapagos tortoises and other indigenous Galapagos species.

At the end of the day's program, the results of the Annual Gathering questionnaire were given. Question #8 was rather personal in nature: "Why do birds matter to you?" Many members shared the feeling that: "When birds do well, we all do well." By the time Mr. Anderson gave the closing statement, our brains were full to the brim with six hours of new information and our common sense of purpose had been renewed.