



May Newsletter

Next meeting Monday May 12, 2014 – 7:00 p.m.

Grandin Court Baptist Church
2660 Brambleton Ave SW. Roanoke, VA 24015

Before the meeting please join fellow club members at 5:30 p.m. for dinner
at the Brambleton Deli, 3655 Brambleton Ave.

Celebrating 57
Years of Birding!
1957-2014

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**Deadline for submissions
to be included in the RVBC
September Newsletter is
before August 20, 2014.**

Please send photos (in medium
resolution or smaller) and
submissions or suggestions to:
rvbcnews@cox.net

Hyperlinks have now been
added. You can click on the
underlined link and it should
take you there!

<http://www.roanokevalleybirdclub.com>

BABY BIRDS #2

Presented by Maureen Eiger



Photo by Maureen Eiger

A new Baby Bird Id updated and with new species. You've heard about the phrase "LBJ's"? These are the "UBB's" of the baby bird world. Learn how to identify the most confusing species. Enjoy close up photos of baby birds growing up. Learn what they eat. Test your knowledge with the Baby Bird Quiz and get "rewarded" if you are right. Please bring and donate a box of tissues or paper towels and help save a baby bird. Thank You!

This month's meeting refreshments will be graciously provided
by: **Ann Allen**

A Bird Word- Each month a new word relating to birding will be provided. Can you guess or do you know the meaning of a "**Cosmopolitan**" species? Here's a hint- examples include the Osprey, Peregrine Falcon, Barn Owl, Cattle Egret and because of extensive introductions, the House Sparrow... now what do they have in common? Answer on page 9.

May 3rd, Big Spring Day

Thanks to everyone who has signed up for Big Spring Day. Just remember, this count is done **rain or shine**. If, for any reason, you cannot go, please give Eunice Hudgins (389-4056 or uvaau@aol.com) or Kent Davis (344-8377 or kedjr@cox.net) a call. All teams will meet at noon at Harvey's Knob (milepost 95.5, south of the Peaks of Otter) for lunch and a tally. If you are unable to be at the tally, make sure your count information is mailed within (3) days to Jim Elder, 1349 Deerview Dr., Forest, VA 24551 (or jim.elder@msn.com).

May 4, 7:45 a.m. - Little Spring Day at Chigger Holler

Note that this is a Sunday field trip. Anyone who would like to carpool from Roanoke can meet at Tanglewood Mall under the big sign at 7:00 a.m.. If you're driving yourself down and need directions, contact Tim and Alyce. The address is 681 Edgewood Farm Lane, Wirtz, VA 24184. (Keep an eye out for Eurasian Collared-Doves as you pass the Burnt Chimney Elementary School on your way.) If you're not birded out from Big Spring Day, join Tim and Alyce Quinn (719-0109), twoquinns@yahoo.com at their house in Burnt Chimney in Franklin County the following day for a morning of looking for spring migrants and resident birds. They have a variety of habitats including woodland trails, a pond, scrub and open fields, and their property list includes over 130 species. Wear sturdy shoes as the footing is rather uneven. If you don't want to hike, there's a big deck and lots of chairs to bird from the yard. If you'd like to stay for lunch, bring a dish to share.

May 10th - Warbler Road

Saturday at 7:00 a.m. Meet leaders Tim and Alyce Quinn (719-0109) near the Bojangles at Botetourt Commons in Daleville. We will bird a series of forest service roads between the Blue Ridge Parkway and Arcadia in search of warblers and other Neotropical migrants. This trip usually lasts into the afternoon so bring drinks, snacks and a lunch. Dress in layers and be prepared to carpool as pull-offs are limited. Important: we are going to try something new and bird from the top down, starting at the Sunset Field overlook on the Parkway; so if you're planning to catch up with the group along the route somewhere, take that into consideration.

May 11th - Mother's Day Birding

Sunday at 8AM join Laura Beltran (269-569-5791) for a walk on the Mill Mountain Star Trail to look for spring migrants. We will start at the trail head off of Riverland Road, walking up the mountain and then back for about a 2 mile walk. The trailhead is close to the intersection of Riverland Road and Garden City Blvd.

May 14th - Second Wednesday Walk with Laura Beltran

8:30 a.m. with Laura Beltran (269-569-5791). We will walk around Greenfield Lake in Botetourt County and search for waterfowl and songbirds. The walk will be mostly flat walking for about 1 1/2 miles. Meet at the second dirt parking lot (off of International Parkway) on the right across the road from the lake.

May 17th - Natural Bridge birding with Wes Teets - We will meet at 7AM at Botetourt Commons (in front of Bo Jangles) and carpool up to the Natural Bridge Hotel. Our tour guide, Wes Teets, will meet us in the hotel lobby at 7:45AM. The hotel bus will take us to various birding spots in the vicinity. Wear waterproof shoes and bring rain gear and/or sun screen as this field trip will take place rain or shine. Be aware of ticks, so bring spray. There is work underway to turn the area surrounding the hotel in to a Virginia State Park. Although the birding tour is free, contributions are accepted to go towards this effort. After the bus brings us back to the hotel (late morning) we can visit the Natural Bridge with a 10% club discount. At that time the deli will be open if we are hungry and the Summer House restaurant will be open at the bridge. This field trip requires an RSVP, so please email LCORY50@juno.com to secure your spot on the bus.

June 11th - Second Wednesday Walk with Laura Beltran

8:30 a.m. with Laura Beltran (269-569-5791). We will walk around Greenfield Lake in Botetourt County and search for waterfowl and songbirds. The walk will be mostly flat walking for about 1 1/2 miles. Meet at the second dirt parking lot (off of International Parkway) on the right across the road from the lake.

August 2nd - Annual Summer Open House at the Austins - Bent Mountain

Join the Austins at 8:30am for a walk around their property. Wear sturdy shoes for easy to moderate walking. At noon, we will have Lunch with the Hummingbirds. Bring a dish to share. Their property is at 10513 Bottom Creek Road, Bent Mountain, VA 24059. Call Robin or Allen at 540-929-5222 with any questions.

Upcoming Events and News

Bluebird Monitors Still Needed

. We are trying to help Smith Mountain Lake State Park get their trail up and running and we could use some volunteers to monitor there. This is a short trail with very little walking. Contact Dick Hendrix at hendrixonthelake@yahoo.com or at (296-0757) for more information. And the folks who take care of the trails at Greenfield could use help with one of their trails. Contact Theo Evans at (966-5872) for information.

Breeding Bird Surveys

Breeding bird surveys have been conducted at Booker T. Washington National Monument in Franklin County, for the last several years. Want to help out?! You need to be able to identify birds by ear. Surveys would be conducted 4 or 5 times from late-May until mid-July. Training will be provided. Contact Anne Tucker (721-1573) or billt3256@gmail.com

Youth Bird Club Field Trips

Summer field trips and outings for youth members may be planned but as of this print date no information has been firmed up. Please contact Laura Beltran (269-569-5791) for more information

Club Projects & Outreach

Bluebird Box Building Workshop

In March, Alyce Quinn, Allen Austin and Dick Hendrix led a workshop showing members of the Town and Country Garden Club how to build bluebird boxes. Participants' skills ranged from one who brought all her own tools and appeared to have some woodworking experience to one who allegedly had never used a screwdriver in her life! The ladies (and one gent) seemed to have a great time and everyone got to take home a completed box. A few even purchased a kit so they could build another box at home.

Baby Bird Rehab Supplies still needed

All items are used for rehabbing injured or orphaned wild birds. If you need a tax deductible receipt one will be provided. Thanks for your help!

- Paper towels & tissues (baby birds poop!) and old but clean towels
- Cat or dog carriers, bird cages
- Sugar, Suet cakes, small bags of seed, Dove Mix (found only at Petco)
- Grocery store items; powdered egg whites, white sugar, peanut butter, jam or pure fruit jelly (any berry or grape), Gerber chicken and gravy (only) baby food
- Cleaning supplies; bleach, sponges and tall kitchen bags (use 1 bag a day), unused spray bottles
- For the outdoor bird cages; tree bark (large strips), wooden dowels, fiberglass screen, shade cloth, logs, bags of landscape pebbles, ¼" hardware cloth.
- Do you have fruit trees or berries on your property and would like to share with the rehab birds?
- Also if you find/have Gypsy Moth cocoons, call me at (342-4890) Thanks! Maureen

Volunteers are needed to transport or help feed baby birds this summer!

If you would like to know what it is like to rehab baby birds or just transport them to the proper habitat and release them please give me a call. Also transportation is sometimes needed from Botetourt, Bedford and Franklin and other nearby counties to my house in Roanoke City. If you can help even occasionally please call Maureen at (342-4890) or email me for more information at meiger@cox.net

Woodpecker Ridge update

The RVBC donated a fourth Nest Box for Prothonotary Warblers at Solitude Swamp. Currently Woodpecker Ridge only had three boxes. Hopefully you will see some nesting birds there on your next visit.

Note from Barry Kinzie

Speaking for all those that visit Woodpecker Ridge Nature Center here in Troutville...Many thanks to the dozen RVBC members that worked very hard clipping, weeding, etc. and got the place in great shape. THANK YOU !!!

Meet a Member(s)

Sid and Mary Lou Barritt



We moved to Roanoke from Richmond in 1975 and have lived in the same house in South Roanoke ever since. The yard, back then, was overgrown but did have a nice apple tree where we noticed robins would often nest. The yard was gradually worked on but for many years was mainly a playground for our 3 children and their friends. Neither of us can remember when we first joined the Bird Club (Alyce was president) but we do remember looking forward to and joining the Wildflower Pilgrimages that the Science Museum sponsored in the last weekend of April every year. There were usually a couple of Bird Walks as part of the program and we recall Mike Donahue and Bill Ayers leading them and introducing us to the migrants that come through the Roanoke Valley every spring. Eventually, we began to do some birding on our own, particularly when we were at the beach in summer, either at the Outer Banks or on Long Island's south shore. Somewhere along the line, we heard about the

Bird Club and starting coming to meetings and going on field trips where we've made wonderful friends.

More recently, as we've retired or partially retired, we've gone with Field Guides on birding vacations to the Amazon rainforest, the Galapagos Islands, Alaska, Southeastern Arizona, etc. These trips have been very enjoyable and whetted our appetites for even more travel. The backyard continues to be an ever surprising source for warblers and unexpected bird species. E-bird listing has added a new dimension to the fun of birding.

Other interests/hobbies include grandchildren (6 and counting), tennis (Sid), gardening and wildflowers. Come sit on a bench in our backyard...who knows what you may see.

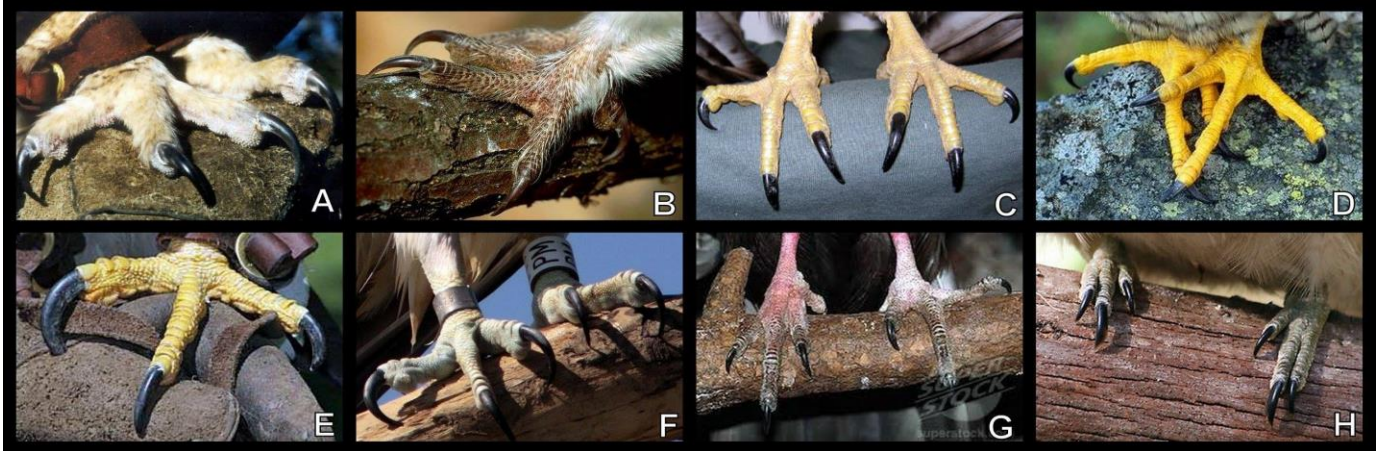
As many of the club members know, Mary Lou has become an excellent photographer of birds and has been fortunate enough to have submissions to the calendar accepted on several occasions. Here are a 2 of her new favorites.



Backyard Hermit Thrush and Great Horned Owl and owlets by Mary Lou Barritt

BIRDS OF THE MONTH

Each species of bird has a different arrangement and look to their toes. What if you can only look at a bird's foot? Can you identify the birds that belong to these feet? Get your pencils out... Answers and more on page 9.



**Welcome New Roanoke Valley Bird Club Member
Dawn Swistak**

Important Note from the RVBC Executive Board

The Roanoke Valley Bird Club Executive Board has voted to revise the club's Bylaws. The previous Bylaws were last updated in 2001. In the current Bylaws it was unclear as to who can vote at Board meetings besides the executive committee officers. As a chapter of the Virginia Society of Ornithology, we have revised the Bylaws to also include a Board of Directors with voting rights. Other changes include many clarifications on how the club operates and adding non-discriminatory legal clauses. We did not change our mission or purpose of the Club and the membership dues were kept the same.

The revised edition of the Bylaws is on the following pages for club members to consider before a general membership vote to approve them is done at the beginning of the September meeting. Please send your comments and suggestions in writing to Linda Cory, the Bylaws Chairperson (LCORY50@juno.com) prior to the May meeting. We will have a brief discussion at that meeting as well as the September meeting before a vote is called. Many thanks go to the Bylaws committee for their hard work, time and thoughtful effort; Bylaws Committee Chair, Linda Cory and Committee Members, Maureen Eiger and Carol Whiteside. This document had a thorough review and input of the entire Board. We hope you will approve of the revisions and the club will be prepared for the next 50 years. Thank you for your support.

Contact Names and Phone Numbers for The Roanoke Valley Bird Club 2014 Officers

President, Kent Davis, 344 -8377

VP (Membership) Eleanor Dye, 890 -1627

Secretary, Candy Andrzejewski, 365 -2508

Directors at Large, Eunice Hudgins, 389-4056 and Alyce Quinn, 719-0109

VP (Programs) Butch Kelly, 384 -7429

Treasurer, Robin Austin, 929-5222.

Committee Chairs

Field Trips, Linda Cory, 580-5214

Young Birders, Laura Beltran, 269-569-5791

Publicity & Publications, Maureen Eiger, 342-4890

Bluebird Trail, Alyce Quinn, 719 -0109

Website, Carol Siler, 725-1609

Refreshments, Eleanor Dye, 890 -1627

Proposed New Bylaws for the Roanoke Valley Bird Club

Roanoke Valley Bird Club Organized in 1957 Bylaws (Revised 2014)

ARTICLE I - Name

Name: The name of this organization shall be Roanoke Valley Bird Club, referred to herein as the Club, and is organized as a constituent local chapter of the Virginia Society of Ornithology.

ARTICLE II - Purpose

Purpose: The object of the Club shall be to educate and promote interest about birds and conservation, to organize bird study field trips and bird census, and other avian related projects.

ARTICLE III – Quorum

Quorum: A quorum is the minimum number of members who must be present at the meetings of a deliberative assembly, for business to be legally transacted. Before the presiding officer calls a meeting to order, it is his duty to determine that a quorum is present. If a quorum is not present, the chair waits until there is one, or until, after a reasonable time, there appears to be no prospect that a quorum will assemble. If a quorum cannot be obtained, the chair calls the meeting to order, announces the absence of a quorum, and entertains a motion to adjourn. Voting can only be conducted in person.

ARTICLE IV – Membership and Dues

Section 1. The membership shall consist of all persons desiring membership and having paid the required dues.

Section 2. Classes: There shall be five membership classes: Individual, Family (defined as two votes), Student (defined as any full time student), Sustaining, and Life (defined as being exempt from the payment of dues, after the recommendation by majority vote of the Board of Directors).

Section 3. Dues: All annual dues are payable September 1. Dues will not be prorated; however, anyone joining the Club June 1 or later will have their dues applied to the following annual year. Members who have not paid their dues by the November meeting shall be dropped as members in good standing of the Club, and will not be eligible to vote or receive any Club publications.

ARTICLE V – Membership Meetings

Section 1. Membership Meetings: The Club shall hold at least nine meetings each year, but shall not be restricted to this number, on the second Monday of each month from September through May, unless otherwise ordered by the Board of Directors.

Section 2. Notification: All members in good standing shall be notified of all meetings.

Section 3. September Meeting: A Nominating Committee shall be elected.

Section 4. October Meeting: The Slate of Officers and Directors shall be presented by the Nominating Committee.

Section 5. November Annual Business Meeting: The purpose of this meeting shall be the annual election, receive annual reports, and any other business transactions. Additional nominations may be taken from the floor by any member in good standing.

Section 6. Voting and Quorum: Only members in good standing are entitled to vote. Twenty-five members or twenty percent of the members entitled to vote, whichever shall be less, shall constitute a quorum at any meeting of the membership. Less than a quorum may adjourn the meeting to a fixed time and place, no further notice of any adjourned meeting being required.

Section 7. Any financial requests shall be referred to the Board of Directors for consideration.

ARTICLE VI – Officers and Directors

Section 1. Officers and Duties: The Officers of the Club shall be a President, First Vice-President of Programs, Second Vice-President of Membership, Secretary, Treasurer, and a number of, not less than four or more than eight, Directors. Together the Officers and Directors shall be known as the Board of Directors, referred to herein as the Board, and shall perform the duties prescribed by these Bylaws and by the parliamentary authority adopted by the Club. In the absence of the president, the presiding officer shall be ordered by the sequence of the officers listed.

Section 2. Elections, Voting and Terms: The Officers and Directors shall be elected during the November business meeting and shall begin their terms on January 1 following the election, shall serve for one year, and shall be eligible for re-election. In the event of more than one candidate for any office, voting shall be by secret ballot. Any candidate receiving a majority of the votes shall be declared elected. Only members in good standing may hold office and shall be eligible to vote as a member of the Board.

Section 3. Vacancies: Board vacancies may be filled by majority vote of the Board for the unexpired term only.

ARTICLE VII - Board of Directors

Section 1. Board Composition and Duties: The Officers of the Club, including the Directors, shall constitute the Board of Directors. The Board shall have general supervision of the affairs of the Club, make recommendations and reports to the Club, and is subject to the orders of the Club. The Board shall supervise the finances of the Club. It shall be the duty of the Board to take the initiative in determining the policies and planning of the activities of the Club. Board members are unpaid volunteers.

Section 2. Code of Conduct: The Board of Directors agrees to operate the Club in a manner that is in the best interest of the Club. Verbal abuse towards, or deliberately provoking another Club member is not acceptable. They shall refrain from illegal activities, conduct business in a professional manner that respects all Club members, and shall not do anything which is likely to intimidate, offend, insult, humiliate or discriminate against any other person on the ground(s) of gender, race, disability, age, religious or political belief, sexual orientation, social background, ethnic origin, language, marital or civil partnership status. If a Board member does not abide by this conduct he/she shall be removed from office by a majority vote of the Board.

Section 3. Meetings: There shall be a minimum of three Board meetings a year. Meetings can be called by the President or at the request of three or more members of the Board. Any member of the Club may attend a Board meeting by formal request to the President.

Section 4. Voting and Quorum: Only Officers and Directors in good standing shall be eligible to vote. The majority of the Board of Directors shall constitute a quorum at any meeting of the Board. Less than a quorum may adjourn the meeting to a fixed time and place, no further notice of any adjourned meeting being required.

ARTICLE VIII – Committees

Section 1. The President, with the approval of the Board, shall appoint all Committees except the Nominating Committee. A majority of any committee shall constitute a quorum of that committee and committee business need not be conducted in person. All committees shall be subject to the call of their respective chairmen, and the chairman shall be responsible for reporting all of their committee business and expenditures to the Board of Directors.

Section 2. Nominating Committee: A Nominating Committee, consisting of three or more members in good standing, shall be elected at the September membership meeting. This Committee shall research and prepare a slate of one nominee for each officer and director position to serve for the succeeding year and shall make their report at the October membership meeting. The membership shall receive written notification of the slate prior to the November election.

ARTICLE IX - Parliamentary Authority

Roberts Rules of Order Newly Revised shall govern the Club in all cases to which they are applicable and in which they are not inconsistent with these Bylaws and any special rules of order the Club may adopt.

ARTICLE X - Amendment of Bylaws

The Bylaws may be amended by the Board of Directors by a majority vote. The Club membership is then notified at least thirty (30) days in advance of the proposed amendment(s). It is ratified by a majority vote of the Club members in attendance at any membership meeting.

ARTICLE XI - Indemnity

Members of the Board of Directors and members of committees shall be indemnified by the Club against liabilities, fines, penalties, and claims imposed upon or asserted against the member in connection therewith.

The undersigned, Kent E. Davis, President of the Roanoke Valley Bird Club, hereby certifies that the attached is a true, correct and complete copy of the Bylaws adopted by the members of the Roanoke Valley Bird Club at a meeting held in Roanoke, Virginia, and supersedes any other Bylaws of the Club.

SIGHTINGS

✓ Field trips and unusual bird sightings

- ✓ 4/02/14 - Carvins Cove Recreation Area – by Kent Davis, **Common Loon, Horned Grebe, Pine Warbler**
- ✓ 4/02/14 - Murray's Pond – by Kent Davis, Barry & Teresa Kinzie, **Northern Shoveler, Canvasback**
- ✓ 4/02/14 - Walrond Park, Kent Davis, Barry & Teresa Kinzie, **Wilson's Snipe, Brown-headed Nuthatch, Rusty Blackbird**
- ✓ 4/02/14 - Poor Mountain Road, Roanoke Co. Carol & Ed Burroughs, **Chimney Swifts** “beats our earliest date, 4/15/2011”
- ✓ 04/3/14 - Smith Park, by Kent Davis, 9 **Yellow-crowned Night-Heron**
- ✓ 4/17/14 - South County Library, by Joanne Derryberry, **Common Yellowthroat**
- ✓ 4/19/14 - Youth Bird Walk, Walrond Park, By Laura Beltram, **3 Rusty Blackbirds, Gray Catbird**. We also had a great view of a Northern Water Snake, with Bill Hunley sharing his wonderful knowledge of the species.
- ✓ 4/20/14 - Natural Bridge, by Wes Teets, **Blue-Winged Warblers Prairie Warblers, White-Eyed Vireo**
- ✓ 4/ ? /14 - Greenfield and Ashley Plantation pond, Laura Beltram, Barry Kinzie, Kent Davis and others, **Long Tailed Duck**

✓ From the RVBC Members attending the March meeting

- ✓ **Robin Austin** saw Wood Ducks.
- ✓ **Jill Overstreet** saw Brown Thrashers, Eastern Towhees and a Coopers Hawk.
- ✓ **Page Lourdes** saw an Eastern Meadowlark at Greenfield.
- ✓ **Alyce Quinn** reported having Woodcocks on her property in Franklin County,
- ✓ **Barry Whitt** saw a Swallow-tailed Kite in Yankee Town, Florida.
- ✓ **Ed Kinser** saw a Grouse while travelling between Fincastle and Eagle Rock.
- ✓ **Maureen Eiger** saw a Brown-headed Nuthatch nest at Hidden Valley Golf Course.
- ✓ **Annie Downing** saw a Downy Woodpecker and a Carolina Chickadee vying for a nesting site and the chickadee won!
- ✓ **Kent Davis** reported Chimney Swifts, Mute Swan, Spotted Sandpiper, Pine Warbler and Louisiana Waterthrush.
- ✓ While coming from Blacksburg today **Jerry Via**, April's RVBC program speaker, saw a Goshawk.



IT'S NESTING SEASON AND FLEDGLING BIRDS NEED YOUR HELP

- ❖ **Keep your cat indoors and encourage others to do the same.** Cats can get used to an indoor lifestyle. Cats that are allowed to roam outdoors can encounter feral cats and are more likely to catch a disease.
- ❖ **Identify your cat.** Use a collar and tag or microchip your cat in case it gets lost.
- ❖ **Don't feed unknown cats without making a commitment to finding them a permanent home.** Feeding stray cats will only establish their presence and lead to rapid growth in their numbers. Instead take them to a local animal shelter where they have the chance to be adopted.
- ❖ **Spay or neuter your cat as early as eight weeks of age.**
- ❖ **Never abandon cats.** This is illegal and cruel behavior. Instead take the cat to an animal shelter where it has a chance of being adopted.
- ❖ **Support laws that prevent cats from roaming.**
- ❖ **If you are unwilling to keep your cat indoors, do not attract birds to your yard by putting out bird feeders, bird houses and bird baths.**

The American Bird Conservancy (ABC) has published a new report, Impacts of Feral and Free-ranging Cats on Bird Species of Conservation Concern: A Five-State Review of New York, New Jersey, Florida, California, and Hawaii, which, for the first time, analyzes the effects that cats are having on some of America's most at-risk bird species at cat predation hotspots. The five-state review illuminates troubling threats to endangered species such as the Florida Scrub-Jay, Piping Plover, and Hawaiian Petrel, and other key birds such as the Painted Bunting, Least Tern, and Black Rail. It was made possible through a generous grant from the National Fish and Wildlife Foundation. For resources and more information go to the American Bird Conservancy: <http://www.abcbirds.org>

BIRD TOPICS

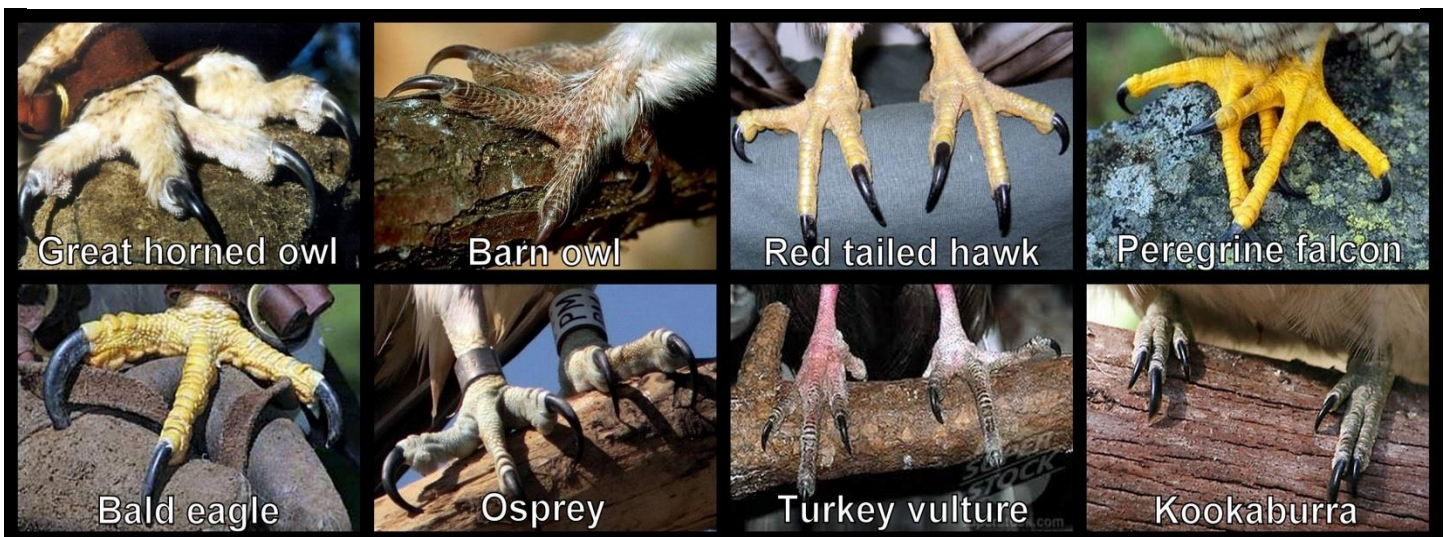
BIRD FEET

Birds have an amazing foot that is much different than ours. Most people think that a bird's knee bends backwards, but in fact what we think looks like a knee is actually the bird's ankle / heel joint. The knee is hidden under feathers close to the bird's body. Since everything under the ankle is the foot, it is easy to see that a bird actually walks on its toes. Another name for a bird's toe is a digit. When comparing a bird's digit with our toes, the first digit would be our big toe. The second digit would be the next toe and so on. Birds are missing the fifth digit, or our little toe. In fact, some birds have only three toes, and the Ostrich has only two.

A bird's toes give a bird the ability to grasp a branch and not fall off due to the action of tendons. These tendons are pulled tight when a bird sits on a perch. The tendons are attached to muscles above the bird's heel-the joint that looks like a backward knee to us. The particular tendons are called flexor tendons and they run down the backs of the legs and to the tips of the toes. When the bird sits, the tendons pull on the toes and close them tightly, like a fist. This automatic grip is strong enough to allow the bird to sleep while perching. The same mechanism is at work when a raptor captures an animal, serving to clench the talons and pierce the prey on impact. Woodpeckers are slightly different in that instead of three toes facing forward and one facing back, they have two toes forward and two back. This allow for greater support in the way they forage for food. Along with this toe arrangement they also have stiff tail feathers that add even more support.

So, why don't birds feet freeze to the bird bath or on a metal perch of a bird feeder? This is due to the circulatory system of birds that help maintain temperatures. Birds have a cluster of veins and arteries that redirects blood flow so as to reduce heat loss. This cluster is referred to as a "heat exchanger." Warm blood flowing through arteries would normally flow into the bird's legs before returning to the heart. When the legs are cold the artery in each upper leg constricts and forces blood to flow through the heat exchanger. Without going into a lot of detail, the cold blood rubs against the warm blood and this allows the blood to flow to the bird's toes without much heat loss to the environment. This type of blood flow arrangement saves heat and actually helps the birds keep a fairly efficient insulation against the cold. There's not a lot of active tissue in a bird foot. The muscles are mostly located in the thigh region, and so that leaves the mostly hollow bone, skin and some connective tissue. So, the bird feet do not require a high amount of blood flow. Nevertheless, this kind of blood flow pattern is argued to provide birds and mammals with the ideal solution: blood still flows and provides the tissues with nutrients and oxygen, while not dumping precious body heat to the environment. The tissues themselves can handle being cold, provided they do not actually reach temperatures below freezing.

Here are the identities of the birds that belong to these feet. How many did you get right?



BIRD WORD ANSWER – Cosmopolitan species: This is any species that breeds over much of the globe, including both the Old World and the New World, as opposed to most other species that are confined to just one or two of the world's regions.



The Roanoke Valley Bird Club
c/o Eleanor Dye
P.O. Box 74
Vinton,
Virginia 24179

2014 Roanoke Valley Bird Club Membership Application Form

Name(s): _____

Address: _____

City: _____

ST: _____ Zip: _____

Phone: _____

Email: _____

Memberships expire on August 31 each year

Annual Dues are as follows:

- Individual \$12
- Family \$20
- Student \$7
- Sustaining \$30
- Adopt a Bluebird \$15

Additional Contribution \$ _____

Total Submitted _____

Make check payable to
Roanoke Valley Bird Club
Mail To: Roanoke Valley Bird Club
c/o Eleanor Dye
P.O. Box 74
Vinton, VA 24179-0074