Urbanization leads to dramatic changes in breeding bird behavior occurring at multiple levels – the backyard; neighborhood and even city wide. This month Dr. Sara Gagne, Assoc. Professor in the Department of Geography & Earth Sciences at UNC Charlotte will share what she has learned from her research related to this issue. Sara’s research focuses on understanding the impact of changes in the urban landscape have impacted birds 1) in the number, type, and characteristics of birds as housing density increases; 2) in response to the amount and spatial arrangement of habitat at the landscape level, and 3) with increasing human population size at the city scale. Although the responses of birds to urbanization are complex, Sara will help us understand how they can be synthesized into a simple framework for bird conservation in urban areas for the benefit of people and nature.

Join us for a fascinating look at our urban landscape and see how birds fit into it, Thursday, December 6th at the Tyvola Senior Center (2225 Tyvola Rd.). Refreshments will available starting at 6:45 PM with the program starting at 7:15 PM.
Field Trips

All Mecklenburg Audubon Field Trips are free and open to the public. Directions for all trips can be found on the Mecklenburg Audubon website – meckbirds.org/trips/trips.html. Please remember to contact the trip leaders several days before the trip. If you don’t, you may not receive information about last minute changes or cancellations. Also, if they don’t know you are coming, they might leave without you!

Saturday, Dec. 1st: McDowell Prairie/Copperhead Island
½ Day • Moderate • Contact: Ron Clark [waxwing@bellsouth.net]

We will be looking for winter migrants including waterfowl at Copperhead Island. We will be walk 2-3 miles on trails that can be uneven at times. There are no facilities. Brief directions: Turn right on Shopton Road off Hwy 49. In 0.7 miles, turn left on Four Horse Road. Follow it about 3/4 mile to the green gate on the right. We will meet at 8:00 AM.

Tuesday, Dec. 4th: Wing Haven (Senior MAS members Only)
10-11:15 AM • Easy • Contact: Patty Masten [pmasten31@gmail.com]

Do you love nature and birds? Whether you are a novice or bird expert, you are sure to find delight in this special bird walk experience led by Mecklenburg Audubon Society volunteers. MAS has partnered with Wing Haven to offer these special, guided bird walks for Mecklenburg Audubon members. Wing Haven has many benches to sit and observe the birds, brick pathways to stroll and seek, as well as wooded areas to explore. A number of the pathways are ADA compliant and conducive to walkers and wheelchairs. The entire property is about 3 acres. Bring your binoculars and meet/pay at 10:00 am at the main Garden Gate! The cost is $5/person - seniors only! To register, call 703.331.0664 or register online.

Wednesday, Dec. 5th: McAlpine Creek Park/Greenway
½ Day • Easy • Contact: Judy Walker [birdwalker@me.com]

This park/greenway doesn’t get birded as much as it use to. The Cottonwood Trail has a wetland created by beavers that can produce some interesting birds. Fields and edges are great for sparrows. We’ll walk 2-3 miles on mostly flat, wide, dirt/gravel trails. There are not facilities. Meet at 8:00 AM in the main parking lot off of Monroe Rd.

Saturday, Dec. 8th: Wintering Waterfowl
½ Day • Easy • Contact: Judy Walker [birdwalker@me.com]

By now wintering waterfowl should have arrived at Coddle Creek Reservoir and the surrounding area. We will meet at Panera Bread across from Concord Mills Mall at 8:45 AM to first check out the wetland behind HH Greg and then car pool up to the reservoir. Depending on time we may even swing by Moss Creek Greenway to see what’s there. There is very little walking but a fair amount of driving. We will car pool.

Wednesday, Dec. 12th: Four-mile Creek Greenway
½ Day • Easy • Contact: Ron Clark [waxwing@bellsouth.net]

This greenway with its variety of habitats always provides good birds regardless of season. We’ll walk 2.5 - 3 miles on paved, flat walkway. There is a bathroom at the parking lot. Meet at the Johnson Rd. parking lot at 8:00 AM.

Saturday, Dec. 15th • Gaston CBC
Contact: Steve Tracy [stevepath1@aol.com]

For many animals the Catawba River can act as a barrier. Only the heartiest mammal will a empt to swim across the river. Birds, however, are not as easily intimated. And birders shouldn’t be phased by the river either. That’s why we team up with the birders from the Gastonia area to conduct the Gaston County Christmas Count. This will be a great opportunity to get to know our neighbors and explore new birding hot spots. So plan to spend at least a morning if not the entire day getting to know Gaston County.
Christmas Bird Counts

Sunday, Dec 16th • Lake Norman CBC
Contact: Taylor Piephoff [Piephoff@aol.com]

This is by far the best count circle in the Piedmont. Because of the wide variety of habitat open fields, large lake, small ponds and wetlands, mixed hardwood forest, old farms the potential for unusual birds is great. In some ways this count is like a tour through Peterson’s guide with a smattering of species from loons all the way through to the sparrows with representatives of almost everything in between. Groups will start before dawn to catch the owls and woodcocks. Others will meet at 7:00 AM. There are fast food places in the count circle (in Cornelius) but you may want to bring food to munch on for energy and warmth. Although you might spend a fair amount of me in the car, warm clothes and sturdy shoes are a must. A tally up dinner will be held at 5:30 PM. Contact Taylor Piephoff for specific assignments.

Saturday, December 22nd • Charlotte CBC
Contact: Ken Kneidel [kenkneidel@gmail.com]

The granddaddy of the counts, this circle still encompasses a surprising variety of habitat considering suburban sprawl which has taken over much of the area. There are still patches of woods, ponds, lakes, streams and open fields which turn up an interesting variety of resident and wintering species. In the last 5 years we have averaged around 90 species. A remarkable number considering the wholesale lost of habitat over the past 20 years which just proves the tenacity of the birds. Although this is an all day event if you can only participate in the morning or afternoon you are more than welcome. Since fast food establishments (and warmth) will be just around the corner packing a lunch is optional although a thermos of coffee never hurt. There will be a tally up dinner at Wing Haven [248 Ridgewood Ave.] at 5:30 PM. Just bring your appetites and good birding stories. Too assure even and complete coverage of the area those who wish to participate should contact Ken Kneidel.

Wednesday, January 2nd • Colonel Francis Beatty Park
1/2 Day • Easy • Contact: Judy Walker [birdwalker@me.com]

What better way to celebrate the new year than a morning of birding. It will help you get over your holiday food hangover. We’ll be looking for sparrows and ducks as well as our regulars. Meet in the parking lot by the baseball diamonds at 8:30 AM. Most of the trails are dirt and there may be a little bit of uneven ground. There are facilities at the park.

Saturday, January 5th • Pee Dee NWR CBC
Contact: Judy Walker [birdwalker@me.com]

There is nothing quite like knowing you are the only one wandering the paths of a wildlife refuge. That’s what it is like at the Pee Dee Count. We have the refuge to ourselves and its a wonderful opportunity to see a wide variety of birds and hopefully other animals in a truly wild environment. Habitats include open fields, mixed woodlands and small lakes and ponds. Red-headed woodpeckers and ducks abound and if we are lucky a few Tundra Swans might grace the landscape. If you want to car pool, we will meet at 5:45 AM at the McDonald’s at the Windsor Square Shopping Center on Independence. Please let Judy know if you want to car. Otherwise meet at the maintenance building at 7:15 AM. To get to the building take the left immediately after the bathrooms at the main entrance off of Rt. 52.

We will be out in the field all day so remember to dress warmly as things can get pretty cold out in the fields. Waterproof shoes would also be helpful but not necessary. There will be a hot lunch to warm our inners and energize us for an afternoon of more birding. If you plan to attend contact Judy Walker.

SEE BIRDS. SHARE BIRDS. SAVE BIRDS.
Well it’s been quite a year for birds and those who watch them. We’ve learned how to help them on their migration and counted them several different times on their journey. Some of us started a new hobby of photographing birds. Others took some youngsters under their wings. We visited new parks to see what birds might be there. We pledged to work toward reducing plastic in the environment and learned how to make our windows safe for birds. And of course planted native plants to feed birds, bees and other wildlife. The birds really appreciate all of our effort and hope we will continue to work towards a healthier community for birds and birders.

1. They provide pest control.
Modern history is filled with stories of birds saving potato fields, fruit orchards, and cranberry bogs from insect devastation. Now researchers are studying the phenomenon more formally, trying to quantify birds’ value as living pest controllers.

2. They’re money makers.
Birds stimulate economies just by being the beautiful, fascinating creatures they are. In an economic analysis released in 2009, the U.S. Fish and Wildlife Service calculated that, based on a 2006 survey, birders spend $12 billion annually on travel and an additional $24 billion on equipment including binoculars, camping gear, and nest boxes. That money ripples out, generating $82 billion in economic output, employing 671,000 people, and enriching state and federal governments by $10 billion.

3. They clean up.
Perhaps the least sexy service birds provide is eating dead bodies. They clean up enormous amounts of roadkill all over the world. Unfortunately, vulture populations everywhere have suffered major declines. In many cases, the cause can be traced to indirect poisonings that are the result of drugs given to the animals the vultures feed on. When vulture numbers plunged in India, feral dogs took over carcass disposal. This led to a growing canine population, which meant more fatal dog attacks, as well as an increase in rabies and bites.

4. They spread seeds.
In the high mountains of the American West, the future of a tree called the whitebark pine hangs in the beak of a particular bird. The tree’s seeds are dispersed only by the Clark’s nutcracker, a cousin to the crow. The nutcracker’s long, sturdy bill opens the pinecones to pluck out the seeds, which it eats or stores inside its throat. It then buries the uneaten seeds at the depth and location that the trees often need to reproduce. Without the nutcracker, it’s unlikely that the whitebark pine could sustain itself.

Researchers with the U.S. Forest Service have done some experiments that help quantify the value of the nutcracker’s dispersal service. They figure its worth at between $800 and $1,000 per acre, based on what it would cost to plant the pines by hand. Multiply that by about 14.3 million acres of whitebark pine forest, and you get savings of more than $11 billion in the United States alone.

5. They announce danger.
Most of us are familiar with Silent Spring, Rachel Carson’s 1962 book, which chronicled the lethal effects of the DDT. Carson’s robins—along with bald eagles exposed to the pesticides—signaled to many Americans that birds could serve as “winged sentinels” of environmental degradation. More than 50 years later scientists routinely use birds to gauge the health of ecosystems—and not just for purely biological reasons.

6. They pollinate.

Continued on page 5
Reasons for Thanks

Pollination is the recognized realm of bees, bugs, and butterflies. But more than 900 bird species worldwide pollinate, too, and their sophisticated sense of geography suits them well to the task. The durian munjit, a wild fruit that is collected and eaten in northern Borneo, relies exclusively on spiderhunters, members of the sunbird family.

7. They help farmers.

After California farmers harvest their rice crops, they need to get rid of the leftover rice straw. Burning it is cheap, but it pollutes and is therefore illegal. An alternative, tilling the straw into the soil, is expensive.

Fortunately, farmers can enlist help from wintering waterfowl that travel along the Pacific Flyway. By foraging for leftover grain, weeds, and bugs in flooded rice fields, mallards and other birds help decompose the straw. This reduces the need to fill the fields, providing considerable savings to growers, concluded a 2000 study from the University of California-Davis. Farmers would be well advised, the report noted, to flood their fields and create wetlands for these avian wayfarers.

8. They poop.

Seabird guano—rich in nitrogen, phosphorus, and other nutrients—provides an important source of fertilizer and in-come to many people living near seabird colonies. This has been true for centuries: Guano was considered essential to the Incas’ agriculture, “upon which their civilization was based,” wrote Edward How Forbush in 1922. Two years earlier ornithologist Robert Cushman Murphy determined that the best Peruvian guano was 33 percent as effective as barnyard manure based on its nitrogen content.

Unfortunately, guano production is one of the most threatened avian eco-system services, due to the rapid decline of seabirds worldwide, say scientists. Among the culprits are fishing longlines, which lure and then drown such birds as black-browed albatrosses.

9. They are heroes.

Birds possess skills that historically made them useful to militaries. During World War I pheasants detected incoming hostile aircraft at long distances and “gave the alarm by their insistent cries,” says one account; canaries, of course, offered early warnings of poison gas; gulls followed submarines in search of garbage. Carrier pigeons successfully navigated through shellfire (and past bullets aimed at them). They carried messages that helped the Allies capture German submarines, and that saved the crews of downed seaplanes and a sunken mine sweeper.

10. They just are.

We have all been transported by simply watching a flying bird. We have been lifted out of ourselves; we have felt our hearts race when the wings flash by.

Every one of us has seen what really matters—seen it in the blistering stoop of a peregrine, heard it in the richly harmonic dawn song of a thrush, caught its essence in the slow undulations of white pelicans against a blue sky.

And we’ve realized that for those moments, we were privileged to experience something beyond ourselves—that older, greater, glorious world that a wild bird inhabits, and which through its very existence embodies and makes vivid to us.

Adapted from “Follow the Money,” by Barry Yeoman, and “Beyond Measure,” by Scott Weidensaul, in Audubon magazine’s special “Why Birds Matter” issue (March-April 2013). For the complete article: http://goo.gl/RDHOMS.

Bird Seed Cookies

Here’s a quick project to encourage young birders and say thank-you to the birds.

What you will need:

- bird seed (any type)
- cookie cutters
- water
- flour
- corn syrup
- unflavored gelatin string
- skewer
- non-stick cooking spray

Spray your cookie cutters with non-stick spray to make the cookies easier to pop out.

In a large bowl, mix together: 3/4 cup of flour, 1/2 cup of water, 3 tablespoons corn syrup, 2 1/2 teaspoons gelatin, and 4 cups of desired bird seed. Stir until the bird seed is evenly distributed.

On a tray or sheet of wax paper, lay out your desired cookie cutters (sprayed with cooking spray). Fill the cookie cutters with the mixture and press into shape firmly. Make a small hole in each cookie with the skewer for the string.

Let the cookies dry overnight, turning them occasionally to dry both sides equally. When dry, carefully pop the cookies out of their molds and thread a string through the hole. Hang the ornaments from a tree, pole, or hook outside your windows and watch the birds devour them! (This recipe makes about 12 medium-sized ornaments).

For more projects for young and old alike check out Cornell’s Bird Sleuth http://www.birdsleuth.org/diy-feeders/
If it looks like a Duck...

Is it a duck? What duck? Don’t be fooled by some of the ducks you see, especially those around park ponds. The duck to the right might be either a Mallard or Pinlard depending on how you want to mash it up. In truth it is probably a hybrid between an Mallard and a Northern Pintail. Ducks, especially Mallards, are notorious cross breeders. They particularly like to interbreed with domestic white ducks to produce some pretty interesting combinations that will have you scratching your head. Here’s an brief article by Melissa Mayntz at The Spruce [http://bit.ly/2Q1QOOz] that will help you figure out what duck you might be looking at.

Ducks can be one of the most difficult types of waterfowl to identify. Not only are there many different types of ducks, but they often form mixed flocks and similar species can be seen in close proximity. Hens in particular can be challenging to distinguish, and many ducks’ propensity to hybridize further creates identification challenges. These duck identification tips can help you learn to sort out which duck is which, so you can always be confident that your birding skills are just ducky.

Identifying Ducks by Sight

Many duck species can be easy to identify visually if you know what to look for. Because these are larger birds that can be seen on open water, it is often easy to pick out different field marks for a proper identification. When watching ducks, look for these characteristics to identify the species.

* **Size:** How large is the duck? How do the head and neck look in proportion to the body? What posture is typical for the duck at rest? How high is it floating in the water?

* **Head:** What markings are visible on the head? Is there a brow or eye line, cheek patches or a head crest? Is the head round, sloped or elongated?

* **Bill:** What is the size and color of the bill? How big is the nail, and is it a different color? What is the bill’s thickness and slope? Are both mandibles the same color?

* **Neck:** What is the neck length? Does it show any unique rings or coloration? How does the bird hold it at rest, when aggressive or when feeding?

* **Plumage:** What are the most prominent colors on the back, rump, neck, breast and flanks? Is there any iridescence or bold color patches? Is the plumage streaked, spotted or marked in any way?

* **Legs:** What color are the legs, and how long are they? Where are they positioned on the bird’s body? Does the bird walk well on land?

* **Tail:** How long is the tail? Is it held stiffly upright or slack behind the body? While male ducks – drakes – can be easy to identify by sight alone, hens can be more challenging and it may be necessary to consider other characteristics as well for positive identification.

Other Ways to Identify Ducks

In addition to field markings and general appearance, there are other ways to identify ducks conclusively.

* **Range and Habitat:** Where the bird is sighted is a great clue to its identity. While many ducks are widespread geographically, they tend to prefer the same types of habitat wherever they are found. Knowing water depth, vegetation and whether it is fresh or salt water can help you discover a particular duck’s identity.

* **Feeding Behavior:** Ducks feed in different ways. Dabbling ducks “tip up” to feed on vegetation, while diving ducks will disappear below the surface of the water to find their next bite. Note the bird’s feeding behavior as well as what it eats and whether or not it forages on land to help you identify the species.

* **Sounds:** Not all ducks quack, and not all quacks sound the same. Learning to bird by ear can help you distinguish different ducks’ identities. Pay attention to nonverbal sounds as well, particularly any noise the birds’ wings may make in flight.

* **Flocks:** Many ducks tend to be quite loyal toward their own kind, so if you’re stumped on a mystery duck compare it to others in the flock, particularly those it is closest to and seems
More Duck ID Tips
From US Fish & Wildlife Ducks at a Distance

Winter is duck season around the Carolinas. Most of the year we have only one or two species of ducks paddling around on our ponds - mallards and wood ducks when you can find them.

But the cold north winds push ducks from their northern breeding territory to our neck of the woods. Here are a couple of things to keep in mind when identifying ducks most often seen in the Charlotte area. Of course, doing your homework before you go out is most important.

Differences in size, shape, plumage patterns and colors, wing beat, flocking behavior, voice, and habitat - all help to distinguish one species from another.

Flock maneuvers in the air are clues. Mallards, pintails, and wi-geon form loose groups; teal and shovlers flash by in small, compact bunches; at a distance, can-vasbacks shift from waving lines to temporary V’s.

Closer up, individual silhouettes are important. Variations of head shapes and sizes, lengths of wings and tails, and fat bodies or slim can be seen.

Within binocular range, color areas can be important. Light conditions might make them look different, but their size and location are positive keys.

The sound of their wings can help as much as their calls. Flying goldeneyes make a whistling sound; wood ducks move with a hiss; canvasesbacks make a steady rushing sound. Not all ducks quack; many whistle, squeal, or grunt.

Although not a hard and fast rule, different species tend to use different types of habitat. Puddle ducks like shallow marshes and creeks while divers prefer larger, deeper, and more open waters.

Eclipse Plumage
Most ducks shed their body feathers twice each year. Nearly all drakes (males) lose their bright plumage after mating, and for a few weeks resemble females. This hen-like appearance is called the eclipse plumage. The return to breeding coloration varies in species and individuals of each species. Blue-winged teal and shovelers may retain the eclipse plumage until well into the winter. Wing feathers are shed only once a year and wing colors are always the same.

Birding 101: The 80/20 Rule
Did you know? In most businesses 80% of the profits come from 20% of customers? Or that 20% of drinkers consume 80% of beer? Or that 80% of healthcare costs come from 20% of the patients?

Some of you may have heard of this phenomenon. Put simply, the 80/20 Rule (also commonly called the Pareto Principle) states that roughly 80% of the effects come from 20% of the causes. For example, think about the clothes you wear. It’s a good guess that 20% of them account for 80% of what you wear. The examples go on and on, it’s fascinating! Now let’s use this knowledge to improve our birding skills quickly.

According to eBird.org 474 species have been found in North Carolina. It starts with White-faced Whistling Duck (only seen once in NC) and ends with the House Sparrow. Now that’s an overwhelming list to a new bird watcher! The problem is that most of these birds are unlikely to be observed, especially on a normal local birding trip. What are the odds you are going to observe a Ruddy Turnstone at your local park? But guess what? It’s on the North Carolina checklist.

So how does one go about learning all these birds? How about utilizing the 80/20 Rule while learning to identify birds? Instead of trying to learn all the birds, just focus on the 20% of birds that are going to be seen 80% of the time. In North Carolina, most checklists almost ALWAYS include American Crow, Northern Cardinal, Mourning Dove, Blue Jay, Carolina Wren, Turkey Vulture, House Finch, etc. You would only need to learn 95 species (474 x 20%) to achieve fantastic results. If you start with those only found locally (Mecklenburg County) you would only need to concentrate on 63 species (of 313 listed). If you know everything about these birds from field marks to mating sounds/songs, you will feel like a bird watching rock star.

Only having to learn 20% of your local birds doesn’t feel so overwhelming. A new bird watcher can very quickly can recognize and identify almost all the birds that would be encountered on a typical excursion. Having some quick wins and positive results also provides the necessary confidence to continue learning and improving.

So, head on over to ebird.org. Type in Mecklenburg, North Carolina under Explore and find those 63 birds your need to come to know by intimately. It’s a lot easier.

Adapted from Bird Watching HQ - http://bit.ly/2Q0Fnqd
Now that the temperatures have finally decided it is winter, it’s time to talk about winter birding. However, I am not talking about identifying our winter visitors. I am referring to how to keep warm while trying to ID that duck in the middle of the pond or the sparrow flying through the brambles. New birders are always amazed at how chilly it can get even on a beautifully clear day, especially early in the morning when the birds are most active. So here are a few tips on how to stay warm this winter birding season.

The most important clothing items are a coat, pants, boots, hat, and gloves that are windproof and/or waterproof. Remember, do not buy clothing that is too tight — it will bind or cut off circulation making you colder. And layering is the key!

**Leg warmers**

Long underwear is a must for winter birding. Check the information on the item for temperature and activity ratings (if you’re walking you will be much warmer than just standing) and the percent of shrinkage.

Windpants are fantastic! Those that zip from the bottom are easiest to take off and on over boots. If you wear long underwear with a pair of fleece pants or heavy sweatpants over the underwear and the windpants over both, it keeps you cozy and warm while allowing easy movement.

**Body armour**

A windproof coat usually has a flap over the zipper (lots of cold wind can come in through a zipper) and fitted cuffs or Velcro tabs at the wrists to keep cold air from going up the sleeves. A hood is helpful to reduce cold air on the head or back of the neck.

Layered fashions (a windproof/waterproof coat with fleece jacket or vest underneath) are good for spring and fall as well as winter. Layers can easily be changed. A turtleneck with a warm sweater over it plus the fleece can keep you nice and toasty in even subzero weather. Any kind of warm clothing under the coat works.

**Keep A LID on IT**

There is an old saying, if your feet are cold, put on a hat. That’s because we lose a lot of body heat through the top of the head and neck. A lined waterproof hat with a bill to shield your eyes or glasses from the elements is highly recommended. Earflaps add extra coverage if needed. Add a neck scarf of made of knitted fabric or fleece that can be pulled over the chin, nose, and even the ears. This will protect you from wind and rain.

**Warm HANDS, HAPPY birder**

Take good care of your body’s extremities. Wrists, hands, and ankles are bony and have blood vessels close to the surface, which allows the blood to be cooled if you are not properly protected.

Wind goes right through even the best of knitted wool gloves. The most effective gloves are windproof and waterproof and have cuffs or Velcro fasteners to keep wind from cooling your wrists and hands. Glove liners can add extra warmth. Several of the knitted stretchy type are comfortable and can be worn in fall and spring without a heavier glove over them. Remember that you’re going to have to focus your binoculars, so try all layers on to see if you can still move your fingers easily.

**Five things to remember when winter birding:**

1. Always plan for it to be colder than what has been forecast.
2. Bird watching next to water usually feels at least 10 degrees colder than in surrounding areas.
3. Remember the wind chill factor; exposed skin is especially at risk.
4. It’s always better to have too many clothes on than to have too few. You can take clothing off if you’re too hot. Carry a daypack or tote bag to stuff things into that you don’t need, or to carry layers to add.
5. Learn to dress in layers. Don’t put all your layers on until you reach your destination, you may get too hot while traveling.
**What do you know... about Binoculars?**

*Bird Watchers Digest - http://bit.ly/2CX0v92*

1. When you see a binocular described as a 10x42 or an 8x30, the first number refers to the power or magnification. What does the second number refer to?

   a) The weight of the binocular; b) The close-focus of the binocular; c) The size of the front (objective) lens; d) The number of rotations of the focus wheel from close focus to infinity.

2. True or false: An 8x42 binocular is typically the same size and weight as a 10x42 binocular of the same brand and model. - True

3. As the size of a binocular's objective lens increases, the binocular will...

   a) Gather more light; b) Get heavier; c) Have a wider field of view; d) All of the above; e) A and B

4. Which style of binocular tends to have a narrower field of view but a better close focus?

   a) Porro prism; b) Roof prism; c) Compact

5. Which binocular specification refers to the optic's suitability for use with eye-glasses?

   a) Close focus; b) Weight; c) Eye-relief; d) Inter-pupillary distance

6. A binocular's magnification affects its...

   a) Size/weight; b) Close focus; c) Field of view; d) All of the above

7. Some binoculars use “ED” or Extra-low Dispersion glass. Which of the following is NOT true about ED glass?

   a) It enhances color contrast; b) It reveals greater details; c) It is available only on the most expensive models; d) It is heavier than standard optical glass

8. The quality of a binocular’s performance is most closely related to...

   a) The brand of the manufacturer; b) Its size; c) Its popularity; d) Its cost

9. A binocular’s diopter performs the following function(s):

   a) Allows you to see better at night b) Adjusts the focus mechanism for differences between left and right eyes c) Needs to be adjusted every time you focus binoculars d) Allows you to mount your binoculars on a tripod.

How did you do? [Answers below.]

For more info about binoculars check out these other articles from Bird Watchers Digest at


*Binocular Myths: Debunking the Legends [http://bit.ly/2PY1lKy]*

Answers: C, True, E, A, C, C, D, B
Meet Your Board Member:

Larry Leamy, Conservation

New board member Larry Leamy grew up in southern Illinois and from a very early age was attracted to Nature in all forms, including birds. Larry remembers seeing a bird scratching around in the leaves near his house, and eventually was thrilled to identify it as an Eastern Towhee with the aid of an early edition of Peterson’s bird book. Larry went to Eastern Illinois University as an undergraduate where he was fortunate enough to meet Roger Tory Peterson, who came to the campus and presented what in those days was called an Audubon Screen Tour. He also met his wife Donna there who knew nothing about birds, but who loves to tell the story about Larry taking Donna’s mother out into some local woods to show her some birds and of course Donna had to come along! Since that time, Donna has also become an avid birder, and Larry and Donna have taken a number of trips over the years to various birding spots. Their favorite spot probably is Magee Marsh in Ohio where there are warblers galore. Larry has just retired from UNC Charlotte where he has taught Biology for a number of years, and looks forward to more birding in the coming years.

Audubon News is published monthly from September through May by the Mecklenburg Audubon Society, a chapter of National Audubon. Local members receive the newsletter via postal mail and/or electronic mail. It is also posted on the Mecklenburg Audubon website - meckbirds.org.

**Continued from page 8**

**Birding**

**Toasty toes**

Waterproof, insulated boots are a must to keep your feet warm and dry. Buy a boot that is a little big, this will allow room to wear extra-heavy socks. Heavy felt insoles can be added to the bottom of the boot under the boot liner or bootie. A lightweight wool insole can be put on top of the bootie to keep toes warm from above. Take socks, liner- ers, and insoles with you when you try on boots. If you can’t afford a pair of expensive boots right away, rubber galoshes worn over shoes with layered socks and insoles are good alternatives.

Sock liners are definitely worth purchasing. Socks that wick moisture away from your feet help keep your feet warm; layer socks as well. You must be able to wiggle your toes comfortably inside your boots with whatever insoles and socks you will be wearing, otherwise your circulation will be impaired.

**A helpful addition**

Chemical warmers for hands and toes are available in most sporting goods shops, usually in the hunting or skiing section. Try to find the ones that biodegrade. They can really help you warm up. Remember always to follow the directions for use.

**Keep the fire burning**

Remember, a snack of nuts, seeds, dried fruits, candy bars, or cookies can help maintain body temperature. A thermos with a good hot drink can warm your insides.

**The reward**

Winter birds are worth getting out to see! With a little thoughtful preparation, you, too, can see the beautiful birds of winter in comfort and safety.
Mecklenburg Audubon Society

Renew now and your membership will be effective until June 2019.

Local Membership covers the cost of the newsletter, web site, meetings and other administrative commitments.

Return to: Treasurer, Mecklenburg Audubon Society, P. O. Box 221093, Charlotte, NC 28222