The rusty patched bumble bee (Bombus affinis), a prodigious pollinator, is the first bee species in the continental United States to come under federal protection. It was added to the list of endangered species on March 21, 2017. Twenty-years ago it was a common sight across a large swath of the United States including the Charlotte area. Unfortunately, its population has fallen by an estimated 90% because of disease, pesticides, climate change and habitat loss.

Angel Hjarding, director of pollinator and wildlife habitat programs with North Carolina Wildlife Federation, will be our May meeting presenter. She will introduce us to this amazing little creature and fill us in on what is being done to bring it back from the edge of extinction. In addition, we will learn what we might be able to do in our own backyard to join the effort. Angel will also bring us up to speed on the Butterfly Highway, project in which she is deeply involved.

So buzz on over to the Tyvola Senior Center on Thursday, May 4th. Sweets and nectar will be available at 6:45 PM with the program starting at 7:15 PM.

The Butterfly Highway is a statewide conservation restoration initiative that aims to restore native pollinator habitats to areas impacted by urbanization, land use change and agriculture across North Carolina. From backyard Pollinator Pitstops to large-scale roadside habitat restoration, the project is creating a network of native flowering plants to support butterflies, bees, birds and other pollen and nectar dependent wildlife. The program began with several communities in Charlotte, NC that wanted to beautify their environment through planting gardens. Through the Butterfly Highway, these communities are transforming community gardens, backyard gardens, public spaces and park fragments into new pollinator and wildlife habitats. The Butterfly Highway has also provided capacity for communities to participate in a community based citizen science project that tracks butterflies and bumble bees. No garden is too small to make an impact and all together they are a part of the Butterfly Highway.
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, April 28: Ribbon Walk Nature Preserve
1/2 Day • Moderate • Contact: Ron Clark [waxwing@bellsouth.net] • MAP

This nature preserve always produces something interesting. Migration will be in full swing so who knows what we will find. Trails are uneven dirt paths over some moderate hills. We’ll walk about 2.5 miles. Meet in the parking lot on Hoyt Hinson Rd. at 8:00 AM.

Sunday, May 7: Latta Prairie (Latta Plantation Nature Preserve)
1/2 Day • Moderate • Contact: Judy Walker [birdwalker@me.com]

Breeding neotropic migrants like the Chat, Indigo Bunting and the Tanagers should be settled in for the season. It’s always great to see these brightly colored gems in the spring. We will meet at 8:00 AM in the parking lot of the preserve’s nature center just inside the gate on Sample Rd.

Saturday, May 13: New Girl Scout Camp (Carolina Thread Trail)
3/4 Day • Moderate • Contact: Jill Palmer [jpalmer53@earthlink.net]

Come explore this new trail reported to be a birding hotspot by the Catawba Lands Conservancy and based on last years trip the birding is good. This 2.2 mile one way (4.4 round trip) trail is to the north in Iredell County and was completed in 2013. The trail runs through the Girl Scout’s Hornet’s Next Council’s Dale Earnhardt Environmental Leadership Campus at Oak Springs located on Highway 21 in Iredell Count. Three hundred and fifty eight acres of the camp were put into permanent land protection with the Catawba Lands Conservancy.

Bring a lunch to enjoy after out hike or plan to stop on the way back. It is about an hour drive from Charlotte. We will meet at the North Lake Mall (I-77 & Harris Blvd.) parking lot across from the Drury Inn & Suites (far front of Macy’s) at 7:30 AM and carpool from there. We should arrive at the camp around 8:30 and hike for 2-3 hours on a dirt trail (easy walking). The trip is limited to 20 participants so if you plan on going please let Jill know so she can reserve a spot for you.

Saturday, May 20: Blue Ridge Parkway Birding
All Day • Easy • Contact: Judy Walker [birdwalker@me.com]

We will head west to Brevard/Shinning Rock area of the Blue Ridge to see what we can find. Black-capped Chickies breed at the high elevation along with a lot of other ‘boreal’ birds such as Winter Wren, Junco, and Crossbills. Of course there will be warblers.

We will meet in Walmart (177 Forest Gate Dr
Pisgah Forest, NC 28768) parking lot outside of Bevard at 7:30 AM. That is about a 2.5 hr drive from Charlotte. If you want to go up the night before, there are a few hotels in Bevard and a good number in Hendersonville & Flat Rock about 1/2 hr from our meeting spot.

Audubon News

Physical Difficulty Key
Easy - Trails are level to slight grades usually paved; .5-3 miles walking
Moderate - Trails can be uneven with some hills; 2-4 miles walking.
Strenuous - Trails vary greatly; 4+ miles of walking.
* Trails are handicapped accessible.
Known by its necklace of short stripes, the little-studied Canada Warbler (*Cardellina canadensis*) is a summer resident of moist, shady woods in the East. It usually stays in the understory, feeding in the bushes or on the ground. Sometimes hard to see in this dense cover, it is not especially shy, and a patient observer can usually get good looks. Although it does breed in Canada, it also nests in the higher south as Georgia.

During the breeding season Canada Warblers inhabit many types of forest growth, but the species is most abundant in cool, moist forests with a mix of coniferous and deciduous trees, a dense understory, and complex ground cover, often with standing. It frequents rhododendron thickets in montane areas in the south, steep aspen/poplar forests in the north, and forested wetlands/swamps in the central part of its range.

**Feeding Behavior:** The Canada Warbler is a very active in its foraging, feeding primarily on insects and spiders. It does more flycatching than most warblers. The bird typically flushes insects from foliage while foraging on twigs and leaves, then darts out to catch escaping insects on the wing. This behavior explains the names used historically for this species: Canadian Flycatcher and Canadian Flycatching Warbler. It also searches on the ground among fallen leaves. In winter in the tropics, forages in mixed flocks with other birds, usually 3-30’ above ground in denser foliage.

**Breeding Behavior:** Males arrive on breeding grounds during the first two weeks of May. Sometimes pairs may arrive together, as migrants have been seen traveling in pairs in Central America. The birds have a high fidelity to their nest site. Individuals have been known to persist in local breeding populations up to six years. The nest is placed on or within 6” of the ground, on sphagnum hummocks, in hollows in streambanks, on moss-covered logs, or in cavities among the upturned roots of fallen trees. Built by female, the nest is a bulky open cup, loosely constructed of dead leaves or leaf skeletons, bark strips, grasses, weeds, ferns; lined with fern roots, horsehair, and plant fibers.

The Canada Warbler is socially monogamous and territorial during the breeding season but often joins mixed-species foraging flocks during winter. Females lay one, creamy white, brown spotted egg per day, usually 3-5 in number. Incubation is probably done by female, possibly with help from male. The length of the incubation period is not well known. It is probably a short incubation period -- ten days after the second to last egg is laid. Their nesting period ranges from 7-9 days. Both parents care for nestlings but age at which young leave the nest is not well known.

**Migration:** This wood-warbler undertakes a long annual migration, wintering in northern South America. They migrate late in spring and early in fall; peak passage in many areas during May and August. In spring, most apparently move north through Central America and Mexico, then around west side of Gulf of Mexico rather than flying across it.

**Conservation status:** Populations of this warbler have declined steadily over the past 30 years. According to the North American Breeding Bird Survey, Canada Warbler populations declined by over 2% per year between 1966 and 2015, resulting in a cumulative decline of 65%. The decline is most likely in response to forest succession and loss of forested wetlands, making this species a high priority for management and monitoring. Its wintering grounds along the east slope of the Andes are also under pressure, but the species apparently can use disturbed forests if sufficient stands of trees remain.

Still, trends in many parts of its breeding range exceed 2% loss annually, prompting the need for vigilant study and management. Canada Warbler is on the 2016 State of North America’s Birds’ Watch List, which includes bird species that are at risk of extinction without significant conservation actions to reverse declines and reduce threats.

**Interesting Facts**

- Not much is known about the mating system of the Canada Warbler, but it appears to be monogamous. The observations of male-female pairs in Panama during fall and spring migration suggests that the pair may stay together year-round.
- This warbler spends relatively little time on its breeding grounds, usually one of the last warblers to arrive and one of the first to depart local nesting areas.
- Canada Warblers often continue to sing late into the nesting cycle and even during fall migration and on the wintering grounds.
- The oldest recorded Canada Warbler was a male, and at least 8 years old when he was found in Quebec in 1982. He had been banded in the same province in 1975.
Summer Feeding

For many birders once warm weather arrives they take down their seed and suet feeders and put up their hummingbird feeders and bring out the mealworms for the bluebirds. I, on the other hand, have been leaving my feeders up all year round. It’s not so much that the birds need the food. They have survived for millennia without my feeders. And everything I have learned over the years indicate feeders do not change migration patterns. The birds know when and where they need to go.

The move was totally selfish on my part. I wanted to see what the birds did during the summer. Over the years, I have learned a lot about bird behavior. Especially the behavior between parents and their offspring. There is nothing more amusing than seeing a family of young brown-headed nuthatches invade the feeder, most of them barely able to fly. And the racket! All the parents seem to have a bit of problem, getting their offspring to understand they are supposed to have a bit of protein, getting their fledglings to have a bit of protein, getting their cats away from the feeder, most of them barely able to

If you are interested in feeding over the summer here are a couple of hints and safety tips:

- **Switch the type of food you offer.** Goldfinches need thistle. I put away the suet and have a feeder with shelled peanuts instead. You may also want to switch to shelled sunflower seeds as well, fewer shells to get moldy.
- **Keep the seed dry.** Our hot, humid summers are perfect for mold and mildew. Some molds can be deadly for birds.
- **Only fill your feeders halfway.** Because parents are feeding young protein and there is probably a lot of natural food around, the feeders won’t be as active as they are in the winter. Filling them only half way will help avoid the mold issue.
- **Move feeders occasionally.** Concentrations of seed hulls and bird droppings under a feeder can lead to outbreaks of salmonellosis, a bacterial sickness that can affect birds (and people). Move feeders around the yard and don’t allow waste to build up in one area.
- **Clean your feeders regularly.** Washing feeders roughly every two weeks will keep your feeders both attractive and healthy for your guests. To clean your feeder, take it apart and use a dishwasher on a hot setting or hand wash either with soap and boiling water or with a dilute bleach solution (no more than 1 part bleach to 9 parts water). Rinse thoroughly and allow to dry before refilling.

Of course, there are a good number of birds in my yard during the summer that do not frequent the feeder at all – cardinals, vireos, gnatchatchers, phoebes. The plant I have in my yard are their feeders. But the one thing all birds need, especially on hot summer days, is water. I keep my bird bath filled. If you can provide running water, that’s even better. And make sure you clean it on a regular basis.

Beneficial Bugs

Instead of using chemicals to get rid of unwanted bug try enlisting some bug thugs like assassin bugs, robber flies and twice-stabbed lady beetles to take them out. Here are some suggestions on how you can attract these and other beneficial bugs to your yard and even up the score.

**Have a constant supply of blooms all season.** Long to provide a steady supply of nectar, which most beneficial insects also eat. Unlike butterflies, which have long “tongues” and sip nectar from deep-throated blossoms, many predatory insects require blooms with short nectar tubes. Daisy-shaped native wildflowers such as asters, sunflowers and coneflowers, which have tiny floral tubes, are champions at attracting the insects.

**Provide protected places** where your pest control accomplices can safely rest, lay eggs and overwinter. Supply plants of various types and heights, from ground-hugging grasses to shrubs and tall trees. In addition, tree snags and brush piles are havens for overwintering predators and parasitoids as well as for pollinators such as bees.

**Chemical pesticides are as deadly to beneficial insects as they are to pests.** Instead of dousing your plants with dangerous poisons, let backyard biodiversity naturally nip potential pest problems in the bud.

In addition to the suggestions above, here are 4 things you can do to help save our native bumble bees:

1. **Plant native flowers, shrubs and trees that bloom from spring through fall.**
2. **Avoid pesticide use in your garden and landscape.**
3. **Leave plants uncut during winter, as leaf litter and downed trees can provide habitat for rusty patched and other ground nesting bumble bees.**
4. **Urge your elected officials to support legislation & programs in 2017 to save & recover wildlife.**
There’s No Place like Nest!

From The Birdwatcher’s Companion to North American Birds by Christopher W. Leahy

Since some species construct no enclosure whatever for their eggs, it can be argued that nests are not, strictly speaking, necessary. However, it is clear from their elaborate evolution and general prevalence that nests have aided survival by protecting eggs and young from weather and predation and perhaps by increasing the efficiency of the rearing process.

Like most other functions of avian life, the nesting urge is tied to a bird’s hormonal cycles. The earliest manifestation of this urge—prospecting for a suitable site—coincides with the mating and copulation period and at least in some species, nest building parallels the development of the fertilized ovum. Hormonal triggers are in turn set off by external phenomena such as temperature and precipitation, so that site selection, for example, may be prolonged due to bad weather.

SITE SELECTION: Once a pair has mated, choosing a place to lay the eggs becomes a high priority. Either or both partners may undertake this responsibility, according to the habits of their species, but the female dominates the process in the majority of cases. Birds that return to old nest sites in successive years are, of course, relieved of this responsibility. For some species, such as many colonial seabirds, choosing a site is mostly ritual, with the final selection apparently quite arbitrary. Most species, however, ‘shop around’ for a while. The process may include ‘fitting’ the body into prospective tree forks or patches of ground. This period varies in length from species that seem to take the first site they see and immediately start construction, to tits and others that inspect sites year round. For the majority of species site selection probably consumes a few days.

NEST BUILDING: On superficial observation nest construction seems to be clear proof of a highly sophisticated avian brain. However, we need to recognize that individual birds are not inventing original works of art or specialized craftsmanship from scratch when they set out to make their first nest. It is evident that many nest-building skills are ‘hard-wired’ genetically. Through observation we know that birds use a lot of stereotyped motions in building nests, and it has been shown experimentally that captive-reared birds can make decent facsimiles of finished nests without ever seeing one built. It is also true that abnormal nests are not uncommon and young birds are often less skilled engineers than their elders, so some learning of the ‘practice makes perfect’ kind most also occur.

The effort that goes into nest building also varies among species. Many species forgo the process altogether and simply lay their eggs on a bare surface or take over an abandoned nest without making alterations. Eagles return each year to old nest sites apparently never lose the urge to build. Bald Eagles add many new sticks each year, creating an enormous edifice over decades. Male wrens build a series of dummy nests. In some species, young from a first brood will help in the construction of its parents’ second nest of the season, which benefits all concerned.

NESTING PATTERN & TIMING: Most birds build a new nest for each brood they rear, even when double- or triple-brooded, but less time and energy are expended each time in nest construction. Gnatcatchers often transport old nest materials to a new site. Whether a species is single- or multiple-brooded depends on both the inherent nature of the species and the climate in which it lives. Most North American birds are single-brooded, but a significant percentage of song birds rear a second brood and a few (e.g. doves, some wrens, bluebirds, mimids, House Finch, and Song and Field Sparrows) are typically treble-brooded in the southern parts of their range.

The time required to build the nest is also highly variable. Most song birds do the job in 3-9 days, though the period may be prolonged by cold or otherwise bad weather; this is especially true of some swallows, which can take over a month to build a nest. The complexity of the nest structure is also a factor: the long, pendulous sack of the Altamira Oriole may take 3 weeks or more.

SEX ROLES: Site selection and nest building tend to be dominated by the female but males are rarely exempted entirely from these duties. The Red Phalarope may be the only North American species in which the male alone is responsible for nest construction. Among all hummingbirds; most tits, icterids, tanagers, and finches; and some flycatchers, swallows, vireos, and wood warblers, the female alone builds the nest. In most species nest building is shared in a variety of ways. Pairs of woodpeckers, waxwings, gnatcatchers and some swallows divide responsibility equally. In Mourning and

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There’s No Place like Nest!

other dove species, the female builds while the males brings materials. In some cases the male will build certain parts of the nest and the female will do the rest. Male wrens of some species build a series of nest ‘shells’ and the female selects one and lines it for occupation. However, in House Wrens the female does all the real work, with the male reduced to ineffective and ritualistic stick-carrying.

MATERIALS: In general, birds of a given species will use similar materials in making their nest; however, there is considerable variation, depending on the availability of materials and individual ‘taste’. Though the vast majority of nests are made with a small number of ‘basic’ components – mostly plant material – in some cases held together with a binding substance, a few species characteristically incorporate an ‘odd’ item. Great Crested Flycatcher nests, for example usually contain snakeskin – though not for protective purposes, as is sometimes supposed. Some species like to ‘decorate’ their nests with flowers or man-made materials, such as paper (Blue Jay), rags (Northern Mockingbird, American Robin), or yarn (Baltimore Oriole). Materials commonly used for basic external nest structure include sticks, grasses, cattail, sedges, rushes, Spanish moss, seaweed, wet-decaying aquatic plants, bark, lichens, paper, string/yarn, and mud. All song birds and many other species line their nests; some ground nesters like the House Wren, will appropriate virtually any hole of the right size regardless of the substance in which it occurs. Many species have come to regard man-made structures as acceptable nest sites and a few, like the Barn Swallows, phoebes, House Sparrow, and Chimney Swift, have come to prefer them to what nature offers.

Some birds enhance nesting security by nesting close to other, more aggressive bird species. For example, several species of songbirds have nested among the twiggy interstices of a raptor’s nest, and birds nesting within torn or gull colonies doubtless derive some benefit from the latter’s no-nonsense approach to nest defense.

Some birds use nests for their eggs, and weighing perhaps an ounce; equally so that a Bald Eagle’s nest accumulated over decades should attain a diameter of 9 feet, a depth of 20 feet and eventually weigh a ton or two.

The type of nest a species makes is less variable than the materials it uses or the location it chooses. However, many species build similar structures.

FINDING & IDENTIFYING: The laws that prohibit the collection of most native birds also protect their nests and eggs. This does not, however, prevent the dedicated birdwatcher from both adding to our knowledge of birdlife and having fun with nests. Countless details of nest construction, site preferences, frequency of renesting, and the degree of variation shown by any given species remain to be recorded. Properly identified off-season nests can be used in confirming the presence of a particular species.

Looking for nests in winter when the absence of most leaves make the beginner’s efforts reasonably rewarding, can add a lot to a stroll through your neighborhood or a nearby wilderness. There are now a number of good field guides to help with identification, and most people over twelve will probably not be very disappointed at not being able to bring these treasures home. Watching nesting activities ‘live’ is also rewarding – once you’ve seen an oriole stitching its distinctive bag...
Who Builds What, Where

NO NEST: Vultures, loons, boobies, falcons, grouse, oystercatchers, plovers, terns, skimmers, nightjars

LINED SCRAPES: (little or no external nest structure, but with a substantial lining) geese, ducks, sandpipers, some gulls, some sparrow (Savannah & Grasshopper)

MOUNDS: (on open ground or in shallow water) loons; grebes; pelicans, cormorants, swans, some ducks

FLOATING NESTS: grebes, some ducks, Forster’s and Black Terns

GROUND HOLES (BURROWS, BANK HOLES AND CREVICES IN ROCKS): Burrowing Owl, kingfishers, Bank & Rough-winged Swallows, wrens, waterthrushes

TREE HOLES: some ducks, owls woodpeckers, Kestrel, Merlin; Great Crested-flycatcher, Tree Swallow, Purple Martin, chickadees, titmouse, creepers, nuthatches, wrens, bluebirds, staling, Prothonotary Warbler

STICK PLATFORMS: (in trees or lower vegetation): anhinga, most herons, Wood Stork, ibises, raptors, pigeons, doves, large owls, cuckoo

CUP NESTS (THE ‘CLASSIC’ BIRDS NEST IN A TREE): cuckoos, humming-birds, most flycatchers, crows, jays, thrushes, gnatchasers, waxwings, shrikes, many warblers (Yellowthroat, Yellow-breasted Chat, Hooded, American Redstart), some blackbirds, tanagers, cardinals, grosbeaks, many sparrows

GROUND CUPS: rails, Sanderling, many warblers (Black-and-white, Worm-eating, Palm, Kentucky, Canada), most sparrows

DOMED OR ENCLOSED NESTS: Carolina Wren, Ovenbird, Common Yellowthroat, meadowlarks, House Sparrow

SUSPENDED NESTS (ATTACHED TO AND HANGING FROM A BRANCH OR OTHER SUPPORT): Acadian Flycatcher, kinglets, vireos, orioles, Northern Parula, Yellow-throated Warbler (where there is Spanish moss)

MUD NESTS: swallows, phoebes

NESTS IN/ON MAN-MADE STRUCTURES: Osprey, Kestrel, gulls, killedeer and terns (flat gravel rooftops), owls, nighthawks, swifts, phoebes, some swallows, Purple Martins, some wrens, robins, Starling, grackles, House Sparrow, House Finch

Additional Resources


Examples of Nest & Eggs (Cornell): http://www.birds.cornell.edu/page.aspx?pid=1327


Peterson Field Guide: Eastern Birds’ Nests, by Hal H. Harrison

Rusty Patched Bumble Bee

What is a rusty patched bumble bee?

Rusty patched bumble bees (Bombus affinis) live in colonies that include a single queen and female workers. The colony produces males and new queens in late summer. Queens are the largest bees in the colony, and workers are the smallest. All rusty patched bumble bees have entirely black heads, but only workers and males have a rusty reddish patch centrally located on the back.

Why protect the rusty patched bumble bees?

As pollinators, rusty patched bumble bees contribute to our food security and the healthy functioning of our ecosystems. Bumble bees are keystone species in most ecosystems, necessary not only for native wildflower reproduction, but also for creating seeds and fruits that feed wildlife as diverse as songbirds and grizzly bears.

Bumble bees are among the most important pollinators of crops such as blueberries, cranberries, and clover and almost the only insect pollinators of tomatoes. Bumble bees are more effective pollinators than honey bees for some crops because of their ability to “buzz pollinate.” The economic value of pollination services provided by native insects (mostly bees) is estimated at $3 billion per year in the U. S.

As the MAS activities wind down for the summer, it’s a reminder that it’s time to Renew your membership. Don’t worry if you recently joined you are good until June 2016. But the rest of us have to dig into our piggy banks to find some funds to renew our memberships for another year.

Local membership dues help cover administration costs such as the website, programs, printing display materials and much more. In contrast, all of the monies we raise through coffee sales, raffles, auctions, etc. are used for conservation and education efforts.

Take a few minutes to fill out the form below and send it to our illustrious treasurer. Or go to the website (meckbirds.org/membership.html) and pay with a credit or debit card.