

## Lucy's Warbler Nest Searching and Reporting Info and Protocols.

Tucson Audubon – April 2017

Thank you so much for helping us look for and gather information on nests for Lucy's Warblers. This document is both for nests found in natural cavities and crevices and for nestboxes. If you find a Lucy's Warbler nest, we want to know as much info as you can tell us!

There is not very much information to be found in articles etc. about the nesting habits of Lucy's Warblers except that they are cavity nesters. What we have gathered so far is that they tend to build pretty complete looking cup nests inside of cavities or crevices they find. There are some example pictures below. We have also heard from members and birders that they sometimes use decorative nestboxes in an urban setting.

Here are some thoughts that nest searching pros have shared with us in regards to Lucy's Warbler nests:

"You use standard warbler nest searching to find them, either catching them building or feeding young or by following incubating females back to nests during foraging bouts. It is all about following the calls and figuring out which is the male and which is the female, since the male never incubates. They are not easy. Perhaps the trickiest thing is that even if you can follow the female to the nest area, you have to be quick with your mind and infer from their behavior where the nest likely is, as they are very reluctant to go into their cavities in front of you. They will instead just call and call, attracting predators and cowbirds- so it is really important that you work quickly and *\*really\** minimize any stress calling to just a few calls." –*Chris McCreedy*

Just a few things to keep in mind:

- 1) Do NOT open any nestboxes that have nesting Lucy's Warblers. It is ok to open them once the parents and young have left.
- 2) Our primary concern is to not negatively impact these birds. If they seem distressed be sure to back off until they seem unafraid. Go with your best judgment on how close is too close. When they call constantly they are nervous.
- 3) Be safe! Watch your footing and watch for snakes.
- 4) Gather all information that seems relevant to you. We have specific questions in the data form but if you observe something not asked about please do share it with us.
- 5) Photos are awesome! If at all possible please get a photo
- 6) Exact locations are great – if you can please get us a gps point. There are many apps for smart phones now that do this.

**Examples of nests found by some of our partners and volunteers.**



two different Lucy's Nests in 7B Ranch near Mammoth, AZ – photos by Celeste Andresen



Nest in Tanque Verde Wash in fallen Cottonwood – photo by Brian Nicholas

# Nest Monitor's Code of Conduct

Observations of nests should never jeopardize the well-being of birds. Please exercise extreme caution and responsibility when monitoring nests to ensure the safety of birds, nests, and nest contents. The NestWatch Code of Conduct will help you minimize the three potential risks that all nest monitors must be careful to avoid:

- Accidental harm to a nest
- Parental desertion of a nest
- Attracting predators to a nest

## 1. Learn about the nesting cycle of birds

Birds are diverse and fascinating creatures! Make the most of your NestWatch experience by understanding a bit about their nesting behaviors. Appendix D provides a brief and general overview about avian nesting cycles. More information about breeding birds can be found at our website.

## 2. Plan and prepare for nest visits

Make a plan to conduct observations of nests every 3-4 days following the NestWatch protocol. Most successful songbird nests last about 30 days, so you may need to visit each nest 8-10 times. The first time you encounter an active nest, accurately record its location in your field notes and draw a picture of its location to avoid long searches on subsequent visits. Prepare materials, such as data sheets, notebooks, GPS units, etc., before your nest visits to minimize time spent in the immediate vicinity of the nest. Nest visits should last no longer than one minute. Clipboards are an excellent way to keep your data sheets organized.

## 3. Choose appropriate times to visit nests

Generally, you should AVOID visiting nests under the following conditions:

- **Do not check in the early morning.** Most birds lay their eggs in the morning, so plan on visiting nests in the afternoon. Also, most adults will temporarily leave the nest when you are near, and eggs and young nestlings can become cold quickly if left alone in the morning.
- **Avoid nests during the first few days of incubation.** If necessary, observe nests from a dis-

## Quick Guide to Code of Conduct

- Learn about the nesting cycle of birds
- Plan and prepare for nest visits
- Choose appropriate times to visit nests
- Search carefully
- Approach nests with care
- Minimize disturbance at the nest
- Do not handle birds or eggs\*
- Don't leave a dead-end trail
- Respect private land
- Understand the Migratory Bird Treaty Act

*\*It is illegal under the Migratory Bird Treaty Act to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued by federal and, in some cases, state agencies.*

tance and approach only when the female leaves the nest.

- **Do not approach nests when young are close to fledging.** When the young are disturbed during this stage, they may leave the nest prematurely. Young that fledge prematurely usually do not stay in the nest despite attempts to return

## Premature Fledging

Before they are fully feathered and ready to fledge, the young of many species instinctively scatter from the nest when a potential predator approaches. If this happens during a nest check, gather the birds quickly and replace them gently but firmly in the nest cup, the smallest on top, and covered with a hand or tissue. Withdraw the cover smoothly after giving time for the nestlings to settle. This is most successful if you can keep yourself out of sight. If they leave the nest again, it's best to let them be and allow the parents to round up the young themselves. The adult birds will continue to care for young that fledged prematurely.

them, and their survival rates away from or outside the nest are low. When young birds are fully feathered and very alert, only observe the nest from a distance.

- **Avoid nests during bad weather.** If it is cold, damp, or rainy, postpone checking nests until another day. Checking nests during this time can be very stressful for birds.
- **Do not check nests at or after dusk,** when females may be returning to the nest for the night. The exception to this would be owls, which typically leave the nest at dusk.

#### 4. Search carefully

It is critically important that monitors avoid damaging nest sites. Nests that have yet to be discovered are particularly vulnerable. When searching for nests, move slowly through dense foliage, being careful not to dislodge any nests. The nests of ground-nesting birds, such as Killdeer, Ovenbirds, Bobolinks, and many waterbirds, are difficult to see, so tread lightly and be cautious around potential ground nest sites.

#### 5. Approach nests with care

Avoid leaving tracks that can direct predators to nests. Nest predators are everywhere—on the ground, in vegetation, and in the air—and many are smart enough to watch you! Be careful that predators such as cats, crows, and jays are not following you. Minimize damaging or trampling vegetation that could expose nests.

#### 6. Minimize disturbance at the nest

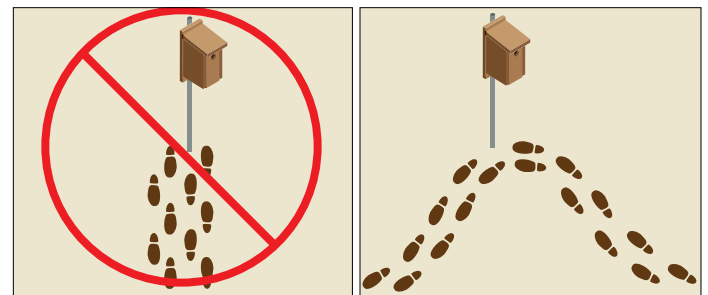
It is important not to startle a bird as you approach the nest; this may cause it to accidentally knock out eggs or young when it flies off. Before approaching the nest, try to see if a parent is sitting on it. Whenever possible, wait a few minutes to see if the bird leaves on its own. If it does, this is the ideal time to check the nest. If the bird is to be flushed, give it ample time to slip off quietly by rustling branches or making noise during your approach. Nest boxes should be tapped first, then tapped again when open to allow the parent to slip away before you stare directly into the box. If a sitting bird does not leave on its own, do not force it off the nest. In this case, you will need to come back later. Remember to keep each visit brief, and wait until you are well away from the nest before recording your field notes.

#### 7. Do not handle birds or eggs

Do not handle young birds or eggs. Eggs can be easily cracked or small nestlings injured. Small nestlings are remarkably helpless and may not be able to crawl back into the nest cup if displaced, even inside of a nest box. Children monitoring nests should always be under the supervision of an adult. If you wish to band birds or handle nest contents, you need to possess the proper federal and/or state or provincial permits.

#### 8. Don't leave a dead-end trail

Whenever possible, take a different route away from the nest site than the route you took to reach it. Walking to the nest and back along the same path leaves a dead-end trail that can lead predators directly to the nest.



To avoid leaving a dead-end trail that may lead predators directly to a nest, approach a nest by one path and leave it by another.

#### 9. Respect private land

If you wish to search privately owned land for nests, first gain permission from the landowner. Remember that you are asking for a favor. Explain your purpose; many landowners will probably be interested in learning more about what you are doing and what birds are nesting on their property. Treat landowners and their property with the utmost respect, and follow any special requests that they make.

#### 10. Understand the Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act, it is illegal to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued by federal and, in some cases, state agencies. Additionally, many species are protected by other state and local laws. Therefore, in most instances, it is illegal for you to touch or otherwise physically disturb an active nest or its contents.

# Nest-Monitoring Risks

## Abandonment

If you find a nest with eggs and no parents, verify whether the nest is indeed abandoned. Prior to incubation, birds may leave their eggs unattended for most of the day. During incubation, adults may leave the nest for periods of up to 15 minutes to feed. Although many songbirds begin incubating on the day the last egg is laid or the day before, there

are exceptions.

For example, Tree Swallows may wait up to a week to start incubating a clutch of eggs. A nest such as this may only appear to be abandoned.



*A Tufted Titmouse nest and eggs.*

Remember that it is illegal to remove any materials from an active nest.

Threats of predation, harsh weather, or infestations of insects can cause the parents to leave. Frequent or aggressive disturbances from humans also can cause nest desertion, and care should be taken to eliminate this possibility. Certain species are more prone to deserting nests than others. Also, young breeders are typically more sensitive than experienced pairs, though individual birds vary greatly in the degree to which they will tolerate nest inspection.

### **Please remember:**

- Do not assume a nest is abandoned just because you don't see or hear an adult bird in the vicinity, even for long periods of time.
- Do not try to hand-raise eggs or young that appear abandoned. Raising wild birds is very difficult and illegal without appropriate permits.
- Contact a local wildlife rehabilitator if you find injured birds.

## One-Month Rule

The eggs of most birds will remain viable for up to two weeks after being laid even before they are incubated, so as a rule of thumb, you should wait at least one month after the expected hatch date before concluding that a nest is abandoned.

## Predation

Nest predation by crows, jays, chipmunks, weasels, squirrels, skunks, raccoons, snakes, small rodents, cats, and birds of prey is a common cause of nest failure. Observers often fear that increased predation may result from the observer leaving a track or scent-trail to nests. However, a two-year investigation by the British Trust for Ornithology showed that nests visited frequently had similar success rates as nests left undisturbed between laying and fledging. Predation in the absence of human involvement has also been demonstrated by searches of completely undisturbed areas late in the season. Such findings are consistent with the normal high annual mortality of songbirds. However, you should still do your best to minimize unwanted attention to the nest.

If you are monitoring nest boxes in predator-prone areas, we recommend outfitting them with predator guards. Common predators of nest boxes include raccoons, snakes, cats, and squirrels. Please see page 19 for more information on dealing with predators.



*Hooded Merganser eggs in a nest box are vulnerable to any predator that can get through the entrance hole.*

## Tips for Finding and Monitoring Nests

**P**atience and good observation skills will go a long way toward finding nests. Once you find one, minimize disturbance to the nest site and surrounding area.

### Before searching for nests

- Please read and understand the Code of Conduct for Nest Monitoring (page 6).
- Read the NestWatch Protocol for Monitoring Nests (page 12), which specifies when to collect information needed to determine daily nest survival.
- Get certified to monitor nests.
- Print out the Multiple Nest Visits data sheet from our website to determine what to record in the field.
- Recognize behavioral cues of breeding birds (see page 10).

### Practice First

If you are going to monitor an open-cup nest, you should hone your ability to check nest contents with a “walking by” glance. To practice, first create a fake nest (e.g., a pile of grass, a cupcake holder, etc.) and fake eggs (e.g., marbles, rocks, clay balls). Ask a friend to put the nest with fake eggs in a nearby tree or bush, when you are not looking. Then walk the area slowly and, without stopping, try to find the nest and its contents. With practice, you can learn to see all the necessary details during a few seconds as you walk by. Keep your eyes open for details such as recently cracked eggs or the presence of nest parasites.

### When to look for nests

Generally in North America, birds nest between March and August. In warmer climates, the nesting season may begin as early as February; in cooler climates, nesting may not begin until late May or June. Because most songbirds feed their young insects, nesting is closely tied to insect abundance. Resident birds, or those that do not migrate in the winter, usually begin nesting earlier than non-resident or migratory birds, which may have traveled great distances to reach their breeding grounds.



*An American Robin chick begs for food.*

If possible, during fall and winter, look for old nests in trees that have yet to regain their leaves. Many birds will come back to the same nest site year after year.

### Where to look

You can find nests in nearly all habitats across the continent. However, NestWatch has created a list of Focal Species that were chosen for their tendency to nest in areas where people also live. The Focal Species (see page 3) include common birds such as American Robin, Eastern Phoebe, Mourning Dove, Tree Swallow, and Eastern, Western, and Mountain bluebirds. For those species that don't nest in cavities or nest boxes, look for clumps of nest material in shrubs and trees, being careful to gently part vegetation and not to dislodge nesting material.

### After you locate a nest

The first time you find a nest, note its location carefully so that you can easily find it again later. If you find a nest in a spot that may be difficult to relocate, look around and try to memorize some visual landmarks. We do NOT recommend placing any type of flagging within 20 meters of a nest. Instead, draw a picture in a field notebook, recording compass bearings and distances from landmarks. Record additional information about nest contents on the field data sheet. To keep each visit brief, prepare equipment beforehand (e.g. data sheets, notebook, camera, and GPS unit).

A sturdy stick is worth carrying, and is useful for:

- parting foliage to view a nest;
- leaning on to inspect a nest without disturbing the immediate surroundings;
- rustling foliage to warn a nesting bird of your approach, enabling it to leave the nest.

## Use mirrors or binoculars to monitor nests from a distance

If the nest is too high, you might have to use a mirror to see into it. Attach a small mirror (e.g., a bicycle or mechanic's mirror) to the end of a pole and position the contents in the reflection.

If a nest is so out of reach that you can't monitor it safely, you can still collect valuable information by observing activity through binoculars. You may not be able to get an exact count of eggs or young, but you can determine if the nest is active and whether the parents have eggs or nestlings by observing their behavior.

## Be efficient and thorough

Check the nest quickly. On average, nest visits should take less than one minute. Count the eggs/nestlings and then leave the immediate area to record your data. Remember, if you miss a day or can't get an exact count, it's okay. Safety of the birds should be your first priority!



NORTHERN CARDINAL EGGS BY T. GREENWOOD

Using a mirror to see a nest that is more than 5 feet off the ground.

## Behavioral Cues for Finding Nests

If we listen and observe carefully, we can witness a variety of behavioral cues that birds use to communicate with one another during each phase of the breeding season.

### Courtship phase

- Singing males are often trying to attract a mate or defend a breeding territory. This is usually a good indication of nearby nesting.
- Food offering, also known as allofeeding, occurs when a bird (usually the male) feeds or appears to feed another adult bird.
- If you see copulation, females are probably building a nest or laying eggs.



Singing



Food offering



Copulating

- Nudging and preening of one bird by another often accompany courtship and help maintain the pair bond.



Nudging and preening

### Nest-building phase

- Not all birds build nests, but for those that do, the nest-building stage can be very obvious because adults make frequent flights to the nest site carrying nest material. Female songbirds typically build the nests, so follow females when possible.
- If you observe a bird carrying nest material, try to follow it from a distance to avoid interrupting its flight. This is an ideal time to find a nest because the adult will be making frequent visits to the nest site.
- During nest building, males may follow their mate closely. Called "mate guarding," this tactic deters the female from mating with other males.



Nest building



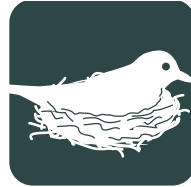
Mate guarding

## Egg-laying phase

- This is the most difficult stage for finding nests because the female may visit the nest only once per day, usually in the early morning. However, if you see only the male and you have previously observed nest building, keep watching him. He will probably lead you to the female and, in some cases, will join her as she comes off the nest.

## Incubation phase

- Look for birds that suddenly vanish during quick bouts off the nest to forage, followed by long flights back to the nest.



*Incubating*

- Listen for birds giving call or chip notes that may alert their mate that they are off the nest. If she chips frantically, you are probably close to the nest. Search quickly and thoroughly, but leave the area if the bird is visibly agitated.
- Look and listen for males that may be either guarding a nest while a female forages or feeding an incubating female.

## Nestling phase

- This is the easiest time to find an active nest because both parents make frequent trips to the nest with food, and young birds can often be heard begging. If you spot an adult bird with food in its beak, it is probably on its way to a nest with young. Follow the bird at a safe distance of about 20–30 feet to locate the nest.
- In an effort to keep nests clean, parent birds are often seen removing fecal sacs from the nests. Fecal sacs are small white deposits of excrement produced by young birds.



*Feeding*



*Young begging*



*Removing fecal sac*



*Bewick's Wrens hatching.*

J. PAVESI