

## Atlas Corner: Breeding Codes Part 1

By Julie Hart, Atlas Project Coordinator

In the last issue I introduced the idea of breeding codes used by bird atlases to document the breeding status of birds. It's now summer and the birds are well into their breeding cycle, which means that you have the opportunity to practice using these codes.

### What are the different categories of breeding evidence?

The [atlas breeding codes](#) fall into four categories or levels: Observed, Possible, Probable, and Confirmed. As you can tell by their names, they range from weak to strong evidence for breeding. Observed and Possible codes indicate that a bird is present, but we don't have enough evidence to say that they are attempting to breed.

The Probable and Confirmed codes give a stronger indication that the birds are breeding or are at least attempting to breed. The atlas is not trying to determine if the breeding birds are successful and the young birds fledge and go on to become reproducing adults. We are more interested in the species that are trying to breed and where they are choosing to do so.

### Confirmed Breeding – The Holy Grail

The Confirmed codes are the *holy grail* of atlasing. They also tend to be some of the easier codes to apply to your observations because they are so conclusive. If you observe a nest with eggs (**NE**) or young (**NY**), it's obvious how to record these observations. The same goes if you see a bird carrying a fecal sac (**FS**), a small white gelatinous mass of baby bird excrement that the adults remove from the nest to prevent predators from coming and eating the young.

Carrying food (**CF**) or nesting material (**CN**) are also pretty good indications of breeding. In my

experience, these are two of the most commonly used codes in atlasing. Birds collect and fly off with food and nesting material a short distance from their nest site, so we can learn that a bird is breeding without going through the extra effort of discovering where their nest is located. But if we do see a bird building its nest (**NB**), we can be pretty sure that it's going to breed in that location.



**Blue-gray Gnatcatcher,  
nest building (NB) at Vischer Ferry in May.**

*Photo © Daniel Schlaepfer.*

There are two things we need to be careful of with these codes. Nest building should not be used for wrens or woodpeckers because wrens build multiple nests and woodpeckers may be excavating a roosting cavity instead of a nesting site. For these species we have a different code, Woodpecker/Wren Nest Building (**B**), which falls in the Probable category. We also have to be careful not to use the **CF** code for species that use food as part of their courtship (terns), for caching (corvids), or those that carry food to another location to eat (raptors).

If you are lucky enough to encounter a bird sitting on its nest, this counts as an occupied nest (**ON**). This code can also be used for species that nest high up on a cliff or in the top of a tree, and for birds that nest in cavities or dense shrubs. If you

observe a bird entering one of these nest sites and it stays for a long time or you see the mate fly out soon afterwards indicating a change in incubation duties, that's a good indication that they have eggs or nestlings. Even a used nest (UN) can be used to confirm nesting as long as it is a recent nest and you know for sure what species built it.

A distraction display (DD) is used by some species to draw threats away from nests and young. If a Killdeer, Ruffed Grouse, or Common Yellowthroat flops around wildly making all sorts of un-birdlike noises, you can be pretty sure that they have a nest or young nearby.

A similarly straightforward code is physiological evidence (PE). Banding stations are encouraged to use this code to document breeding when they observe a full brood patch, a protruding cloaca, or an egg in the oviduct.

Perhaps the trickiest of the Confirmed codes are recently fledged young (FL) and feeding young (FY). You might think that if you see a young bird or an adult feeding a juvenile bird, that would be super strong evidence of breeding. But remember that we want to know not only what species are breeding, but where they are breeding. Some birds move their young far from the nest site soon after hatching or fledging, so it's possible that the birds you are watching did not breed nearby. There are a couple of clues to help you apply these codes correctly. If the birds are still in the nest, there is obviously no need to worry, just use the appropriate code. If the birds are precocial, meaning they are able to swim, walk, or run soon after hatching, you need to be sure that the birds haven't wandered too far. If the bird is incapable of sustained flight, you are probably safe. If it's a tern or gull chick still in the vicinity of the breeding colony, you are also probably safe. But if, for example, you see a fledged Red-tailed Hawk or Common Tern away from their nest site still being fed by the parents, you shouldn't use this code

because it's quite possible the birds have moved miles from where they nested. In fact, terns will stay with and feed their young well into fall migration!

### **Using the Confirmed Codes**

You can start using the confirmed breeding codes today! They are available in eBird all the time all over the world. The code definitions are the same no matter where you are, so I always enter a confirmed breeding code wherever and whenever I observe such a behavior (provided I know enough about their natural history to properly categorize it). Whether you use eBird web or mobile (see our Tutorials page to get started), you simply click on the breeding and behavior codes section by the species name and use the drop-down menu to select the appropriate code. You can tell which codes are in the Confirmed category because they all have two-letter codes.

Simple, right? You will undoubtedly have questions and want clarifications, and for that we are making lists of examples of how to use the codes. We're also holding training workshops around the state and review some of the common issues; contact me ([julie.hart@dec.ny.gov](mailto:julie.hart@dec.ny.gov)) to book a workshop. If you want answers to your questions now, please post them to our FaceBook Discussion Group. We've already had some discussion of how to use some of the trickier Probable codes, which we'll dive into next time. In the meantime, enjoy observing and reporting your local breeding birds!

Published in *New York Birders*, July 2019, by the New York State Ornithological Association, Inc.