

Ketterson / Nolan Research Group Collection

This document is part of a collection that serves two purposes. First it is a public archive for data and documents resulting from evolutionary, ecological, and behavioral research conducted by the Ketterson-Nolan research group. The focus of the research is an abundant North American songbird, the dark-eyed junco, *Junco hyemalis*, and the primary sources of support have been the National Science Foundation and Indiana University. The research was conducted in collaboration with numerous colleagues and students, and the objective of this site is to preserve not only the published products of the research, but also to document the organization and people that led to the published findings. Second it is a repository for the works of Val Nolan Jr., who studied songbirds in addition to the junco: in particular the prairie warbler, *Dendroica discolor*. This site was originally compiled and organized by Eric Snajdr, Nicole Gerlach, and Ellen Ketterson.

Context Statement

This document was generated as part of a long-term biological research project on a songbird, the dark-eyed junco, conducted by the Ketterson/Nolan research group at Indiana University. For more information, please see IUScholarWorks (<https://scholarworks.iu.edu/dspace/handle/2022/7911>).

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PHASE II, May 4-15, 1999

- **Mapping the study area for adult locations, identifying unimplanted males**
- **Finding nests**
- **Targeting birds for capture**
- **Running traps and nets**
- **Following nests**
- **Bird care**
- **Sub-projects including GPS (Diane), building the aviary (Joe), egg masses (Val), Ethan's projects, etc.**

Implanting began 19 April and by 2 May we had implanted 107 birds. High density of birds gave us a boost, but nevertheless we deserve to be congratulated for our exceptional skills and good teamwork. Rather than continue to expend effort implanting birds that might be from off the study area and thus difficult to recover in late summer, we have switched to Phase II when we will work towards the goals listed above.

Please move your clocks up, because this work is most effective *early in the morning*, and is much more frustrating later in the day. It's fun and requires skill – good luck.

Mapping

To locate the unimplanted/unbanded birds that have settled on the study area, we need to make a rough map of the locations of all the birds we see – nests, female ID, males ID. To be most effective, take along a list of the color bands of all the birds we have handled this year (made by DZ/EK), males and females. When in the field, use your ears perhaps more than your eyes. For the next few days – and probably the next few days only – many females are fertile, and males are following them quietly. The name of the game for males seems to be to keep their females' locations a secret.

So listen carefully for the twitter sounds that females make as they fly and forage. Listen for faint song by males or for loud, rapidly delivered song; both will lead you to the female. If the female is laying, you are not likely to be able to use her behavior to find the nest, but you can get her color bands, who she is mated to, etc. Record the information on your sighting sheets and if you are confident, record pair members on the makeshift maps we use this time of year (see folder). If you are lucky a female might be in the vicinity of her nest, in which case she will chip and you need to look around in likely locations.

Soon females will be incubating and males will move up in the trees some to sing. You will then be able to ID males by their bands. When you see incubating females, they will be foraging fast. If you are lucky, they might lead you to the nest. In general, they are off the nest for 20 min for every 40 min they are on eggs.

Finding nests

Please read Licia Wolf's description of how to find nests in the woods – it's helpful. In short the best places are stream and road banks and the roots of upturned trees, so active searching

in these areas pays off. In these places you can find nests without the female's help. But nests can be anywhere, so try to think like a junco. She wants a slightly elevated spot that won't flood and where the vegetation will cover, or will soon grow to cover, her eggs/young.

Soon the female will help you find the nest. Her calls will guide you. The closer you are to the nest, the louder and more rapidly the adults will call. Don't look so long that you cause the female to desert. You may also succeed in brushing her off the bank with a branch as you walk.

When you find a nest, put the info on the daily list **and** record it in an implant log. See document on nests for what to record

Targeting birds for capture

Any male identified on the study area by colors should be checked against the implant list in the front of the implant notebook. If the bird is not implanted let people know! It's really a pain to have unimplanted males on the study area; we need to treat them all. Val and others can specialize in cleaning up these loose ends. We will take a tape and lure to the bird's territory and get his blood, implant him, etc.

If you find a female that is not bled, then we need to get her too, but not cause her to desert. Add info to daily list and nest log, and Eric will make decision as to when to catch her.

Running traps and nets

After a small break we will run traps and nets at least one more time per location to clean up and to make sure the implants are in place. Be alert for this.

Following nests

Follow instructions from daily list and on the nest instruction sheet.

Bird care

Bird care has begun and will need to be done daily all summer long. Joe will oversee, but for now, please share this equally among yourselves. The key to good bird health is clean water dishes.

Sub-projects including GPS (Diane), building the aviary (Joe), egg masses (Val), Ethan's projects, etc.

Ethan will arrive May 9th and Diane will arrive May 12th and they will both need help getting started. Joe will need help with construction. Val needs to know about any laying females so he can obtain egg masses. I want all these people's projects to succeed. We also need to stay on top of the study area and once the mapping is done this turns on knowing as many nest locations as possible, all the time.

