

How To Use Virginia Bluebird Society's Data Forms

The data you collect on these forms is important because it helps us know how healthy our trails are, where we need to make improvements, and how much progress we have made in boosting the bluebird population. These instructions are intended to make your data collection as simple as possible.

General Advice

Weekly monitoring. Our bluebird trails should be monitored once a week. If monitoring becomes less frequent, the data is far less accurate.

Trail Notebook. We suggest that the Trail Monitor or Trail Leader assemble a Trail Notebook for each trail: a loose-leaf binder holding these instructions, the Weekly Trail Summary Sheet, and a divider for each nest box and its Weekly Nest Box Monitor Form. Also include pictures and descriptions about what to look for in guessing a chick's age.

Do it on the computer? The Weekly Nest Box Monitor Form and the Weekly Trail Summary Sheet are completed in the field in pencil or pen. The other forms can, at the user's option, also be completed on a computer with a spread sheet program. Please contact Charlie Chambers, at ce.chambers@cox.net, for the appropriate forms via e-mail or on floppy disk.

For Bluebird Trail Monitors

Weekly Nest Box Monitor's Form. This is the basic form for all of our data. It's the record of activity at a *single box* for the whole nesting season. Use one line of the form *for each weekly visit* to the box. On each visit, write down *what you can see* in the box.

Accuracy is essential. Please keep in mind that we need an *accurate* count of the *maximum*:

- Number of eggs
- Number of chicks
- Number of fledglings

Do the "bluebird math" so that you can predict hatch date and fledge date. (We're working on a primer on bluebird math.)

Here are some pointers for filling out the form.

- **Month and Day.** It may be useful to add the day of the week in the Comments column.
- **Species Seen.** Always fill this in each week.
- **Empty Box or Partial Nest.** Be sure to check (✓) the appropriate column.
- **Complete Nest.** Check (✓) the column if appropriate, and note the date of the first nesting activity in the Comments column.
- **No. of Eggs.** If you can estimate the date the first egg was laid, please note it in the Comments column.

- **No. of Young.** If the hatching process is under way, there may be both chicks and eggs in the nest; if so, *this is hatch day!* Note the number of eggs and the number of chicks in the appropriate columns.
- **Age of Young.** This may be difficult to estimate. Review the pictures and descriptions in your Trail Notebook. Or consult any of several new books that have excellent pictures and descriptions of bluebirds from hatching day through hatching-day-plus-14.¹
- **No. Fledged.** You will almost certainly need to estimate (since it's unlikely that you'll actually *see* the fledging). For instance, if the nest is empty, and at the last visit there were say, three chicks, then the best guess is that three birds were fledged.
- **Comments.** Besides the information mentioned above, please note any problems or unusual circumstances you see in the Comments column. Here are some examples:
 - This box should not be opened next time (for instance, because chicks may be near fledging age, 13-18 days old).
 - The presence of parasites like ants, mites, or blowflies.
 - Evident competition from bees or wasps, House Wrens, House Sparrows, or Tree Swallows. If there are Tree Swallows, the nest box will need to be paired with another. If there are House Sparrows, the male sparrow will have to be dealt with.
 - Predation by cats, raccoons, snakes, mice, or an unknown agent.
 - Squirrel at the box, or hole or side of box gnawed around ventilation holes.
 - Bat or flying squirrel in the box.
 - Evidence of vandalism.
 - Excessive heat, cold, or rain.
 - Infertile or missing eggs.
 - White eggs (about one in ten female bluebirds lay white eggs).
 - Albino chicks, or chicks with unusually many white feathers.
 - Feathers on any birds (for age estimation).
 - Chemical or pesticide spraying in the area.

In general, if there's a problem you can't figure out, make a note under Comments to alert the other monitors.

Weekly Trail Summary Sheet. This form is not essential unless you have a team of people taking turns monitoring the trail. It's a means of communication among the team members. It has two pages, for weeks 1-12 and weeks 13-24. It can also be used to crosscheck the summary numbers of fledglings you recorded on the Individual Trail Summary Form at the end of the nesting season. Fill this form out as soon as you've completed your weekly visit to the trail.

For Trail Leaders

It's the trail leader's job to fill out the Individual Trail Summary Form at the end of the nesting season. If you're monitoring the trail all by yourself, *you're* the trail leader.

Individual Trail Summary Form Page 1. This form is used to pass the data on your individual trail to your county coordinator and then to the state compiler at the end of the nesting season. In this form, use one row per nest box on your trail. (This form is different from last year primarily

¹ [The Bluebird Book](#) by Donald & Lillian Stokes, 1991 Little, Brown & Co.; and, [The Bluebird Monitor's Guide](#) by Cynthia Berger, Keith Kridler, and Jack Griggs; 2001, Harper Collins Publishers Inc.

in that the rows and columns have been interchanged so that the species are listed across the top of the form—rather than down the left-hand side—to be consistent with the other forms.)

You get the data for most of these columns from the Weekly Nest Box Monitor Form for each box. It's easiest if you take each box's form and at the bottom, tote up, in sequence:

- The number of nest attempts (in which a new nest has been built and at least one egg has been laid).
- The number of eggs laid.
- The number of eggs hatched, and the number of chicks fledged.

Note the number of occasions in which predation occurred, the numbers of eggs and/or chicks lost through predation, and the number of dead adults, if any. This data on predation will have to be inferred from the comments section of the Weekly Nest Box Monitor Form. With this done, it's straightforward to transfer these numbers, by species, to the summary form.

In the section called **No. Instances of Predation**, for each box, indicate the number of occasions in which there was predation to the *box*. We often don't know which predator was at fault; if you don't know, check "Unknown Agent." If there was vandalism, check "Vandalism."

Under **Results of Predation**, indicate the damage from predation or vandalism, including the number of missing or destroyed eggs, missing or dead chicks, or a dead adult. Use an asterisk (*) to indicate non-viable eggs.

If you have more than 20 boxes on your trail, use a second sheet for Page 1.

Individual Trail Summary Form Page 2, Additional Trail Information. This form is mostly self-explanatory. Here are a couple of examples:

- On your trail there are 13 standard more-or-less rectangular boxes, two Peterson boxes, and one slot box. Opposite "rectangular" on the form, enter "13"; opposite "Slot box," enter "1"; and opposite "Peterson," enter "2."
- Because of Tree Swallows, you have paired box numbers 1 and 2; and 11 and 13. Opposite "Paired box numbers," enter "1-2" and "11-13."

For County Coordinators

You may use the optional **County Coordinator Annual Summary Statistics Form** for your own information and that of the trail monitors in your county (or perhaps for publicity).

However, the VBS Board has concluded that, for the most accurate statewide statistics, the data should be compiled directly from the **Individual Trail Summary Forms**. So here's a procedure we suggest:

- At the beginning of the nesting season (or early in the season), get copies of the **Individual Trail Summary Form** to the Trail Leaders and individual Trail Monitors, so that they can see the kind of data the Trail Leaders will be compiling for that form. The idea is that if the Monitors can see what the Trail Leaders need, they can better fill out their Weekly Nest Box Monitor forms. This is most important for the data dealing with predation.
- Near the end of the season, remind the trail leaders to begin to pull their data together, complete the **Individual Trail Summary Forms**, and pass them to you.
- Carefully review the **Individual Trail Summary Forms** for completeness; confer with the individual Trail Leaders if necessary; and pass the set of forms to the compiler

Data Form Shock?

In some areas of the state, our trail monitoring operations are substantially organized, with Monitors, Trail Leaders, and County Coordinators—the whole nine yards—who are prepared to fill in all of the forms we've discussed above. On the other hand, in some other areas, the process is not so completely organized with some trails 20 or more years old! In those places, while we do hope to get all of the data on our forms, we don't want to shut out any participants; and we'll be happy with any data that you can provide. To help those without the means to collect the full range of data that our forms call for, we've prioritized the data elements:

First, and most important: Number of nest boxes, and the number of birds fledged for each species using your boxes.

Second (a very close second): Number of nesting attempts, eggs laid, hatched.

Third: Box types on your trail, mounting, habitat, predator protection, etc.; that is, the data shown on the **Individual Trail Summary Form Page 2**.

Fourth: Occurrence of predation, vandalism, and their results; that is, the last two sections of the **Individual Trail Summary Form Page 1**.

Our mission is to help the bluebirds prosper. The data, while nice to have, is secondary to the primary mission.