**Documentation of Nature’s Notebook v2.5**

(2/6/2017 to 1/16/2018)

*Updated 1/26/2018 by Ellen Denny*

The documentation files in this packet are organized as follows:

**Monitoring guidelines** folder includes a few new materials that were released in 2017:

* Section 1 of a “Phenophase Primer” guide to understanding the Nature’s Notebook phenophases
* “Basic Botany and Intensity Estimation” slideshow and scripted video quizzes to elucidate how to evaluate and report plant intensity measures in Nature’s Notebook
* New “Nature’s Notebook Nugget” articles designed to elucidate some tricky issues in observing

“Learn How to Observe with a Group” webpages and Nature’s Notebook Nuggets 5-8 did not change since Nature’s Notebook v2.4; “Learn How to Observe” training videos, the Botany Primer and Nature’s Notebook Nuggets 1-4 did not change since Nature’s Notebook v2.3; training materials for group sites (formerly called “shared sites”) did not change since Nature’s Notebook v2.2; and the monitoring guidelines embedded in our webpages did not change appreciably since Nature’s Notebook v2.1. Thus they are not included again in this v2.5 documentation archive (but can be found in the v2.1, v2.2, v2.3 and v2.4 documentation).

**Species** folder includes a list of all species available for monitoring. The format of the species search page and species profile pages did not change from Nature’s Notebook v2.1 (see v2.1 documentation) and thus example screen captures are not included again in this v2.5 documentation archive. For specifics on phenophases and definitions for each species during this period, check the database output that accompanies download of Nature’s Notebook data.

**Registration forms** did not change from Nature’s Notebook v2.1—with the exception of the initial registration process which was streamlined in Nature’s Notebook v2.2. Thus example screen captures are not included again in this v2.5 documentation archive (but can be found in the v2.1 and v2.2 documentation).

**Datasheets** did not change from Nature’s Notebook v2.1 (see the v2.1 documentation) and thus are not included again in this v2.5 documentation archive.

**Mobile apps** did not change from Nature’s Notebook v2.2 (see the v2.2 documentation) and thus are not included again in this v2.5 documentation archive.

Details of what was new in Spring 2017 were outlined on the Frequently Asked Questions page and are included here:

WHAT'S NEW FOR SPRING 2017?

We have added several new plant and animal species to *Nature’s Notebook*, and we have made significant changes to the protocols for birds, adding several new phenophases to better capture breeding behavior. The details of changes to the bird phenophases are listed below. For a few bird species, phenophases that seemed unnecessary to capture seasonal behavior were dropped, such as “Insect consumption” in species that eat insects with the same frequency all year round. All the other species and phenophases you are accustomed to are still here, unchanged, and waiting to be observed!

* The “Feeding” phenophase was already included for all bird species, but the definition now includes foraging behavior. This is because it can be hard to determine whether a bird is actually feeding on the food item it is clearly hunting for. The intention of this phenophase is not so much to report that a bird is eating (since they do that all year round!), but rather to give observers the opportunity to report what it is trying to eat during a given time of year.
* The “Singing males” phenophase has been changed to “Singing individuals”. This is because in some species, singing by males and females is hard for all but expert birders to distinguish. Rather than have observers report a “?” for the behavior simply because they are unsure whether the singing bird is a male or female, we decided to just make the phenophase inclusive of females.
* “Territorial individuals” is a new phenophase designed to capture the timing of confrontational behavior in birds related to preservation or defense of a resource—such as a breeding or feeding area—against other birds or animals.
* “Courtship” is a new phenophase designed to capture the timing of this behavior, which generally occurs at the beginning of the breeding season. Courtship behavior varies by species, but has been researched for many bird species and is well described in various resources for amateur birders.
* “Occupied nest” is a new phenophase that will enable observers to report the presence of active nests.
* “Nestlings” and “Fledged young” are new phenophases that will enable observers to report the presence and development of young “altricial” birds—that is, those with few to no feathers upon hatching and requiring an extended period in the nest before becoming well-developed enough to leave the nest. For example, most songbirds have altricial young.
* “Downy young”, “Partially-fledged young” and “Fledged young” are new phenophases that will enable to observers to report the presence and development of young “precocial” birds—that is, those born covered with downy feathers and able to leave the nest within a day or two of hatching. For example, ducks have precocial young—the fuzzy ducklings that are commonly seen swimming behind their parents.
* “Dead nestlings or young” is a new phenophase that will enable observers to report those cases where a young bird obviously did not survive.