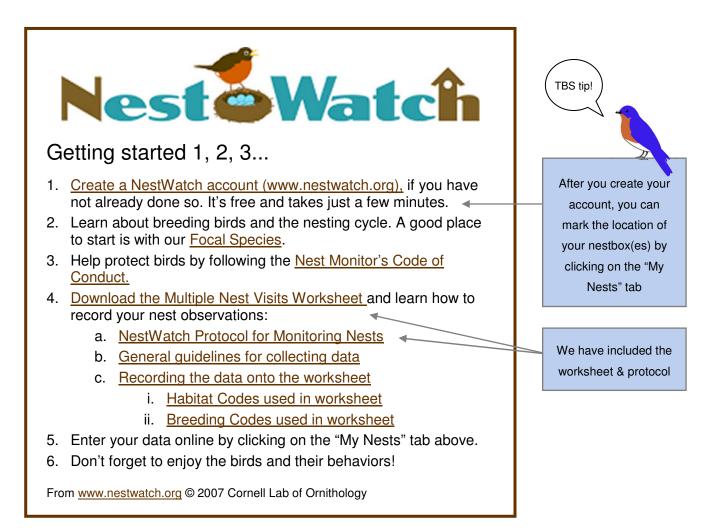


# Contribute to science • Create a legacy • Have fun!

Are you interested in the natural world? Do you want to help monitor the success of nesting birds and better understand the threats they face? NestWatch needs your help!

#### What is NestWatch?

NestWatch is a nest-monitoring project by the Cornell Lab of Ornithology, funded by the National Science Foundation and developed in collaboration with the Smithsonian Migratory Bird Center. Your valuable nest observations will be permanently stored as legacy data along with hundreds of thousands of other nesting records. When combined, these data will provide a wealth of information about breeding birds and the factors that influence their success across different landscapes.





Multiple Nest Visits Worksheet

This form is for your records — use it to locate and describe your nest site and record up to 10 visits to a nest. Use a separate form for each nest monitored and each new nest attempt. See descriptions on back for explanation of codes and fields. If response is "Other" enter "OT"; for "Unknown" enter "U."

Year	<b></b>		Spe	ecies _											
1.1	Nest Site Lo	catior	<b>1</b> (see ke	y on back)			2. D	escript	ion (	see key on ba	ıck)				
Nest Site Name:							Nest is located (circle one): IN ON UNDER								
Nest Location (nearest street address OR lat/long):							Substrate Habitat within one meter								
Nest Location (hearest street address OK laviong).						3)-	Habitat within 100 meters								
							Habitat modifier								
OR							Elevation (specify ft. or m.)								
Latitude N							Height above ground (ft. or m.)								
Longitude W –							Cavity orientation								
Zip Code							Cavity opening width (specify in. or cm.)								
3. E							if eggs or young are present, but exact number is unknown. Enter "U" for unknown.								
	Date/Tin A.					Stat F.	tus/Activi G.	_	Details (Optional)  J. K. L.						
Visits	Month / Day (1–12) /(1–31)	Time	# of	# Live Young	# Dead Young	Nest Status	Adult Activity	H. Young Status	Mgn Activ	nt. Cov	Cowbird Evidence		Observ Initial		Comments below
Ex	5 /12	4 pm	4	0	0	CN	AA	_	No	IE	0	О	Ms		<b>/</b>
1	/														
2	/														
3	/														
4	/														
5	/														
6	/														
7	/														
8	/														
9	/													$\perp$	
10	/														
4. N	EST ATTEM	PT SU	MMA	.RY Su	ımmary info	rmation is u	used to expo	rt data onlir	ne. (See	key on back.	.)				
l —	PORTANT DAT	ΓES					TOTALS				_				_
First Egg Date					No. of visits	Clutcl size	- 1	Unhatched eggs		No. liv		o. dged			
Estimated Hatch Date					VIOLO	10120	+			young	1	ugou	-		
Estimated Fledge Date									$\perp$						
CO	MMENTS:														
1															

# 1& 2 - Nest Site Location & Description Key

Nest Site Name — Unique Name or number for each nest site. Nest Location — Enter either the closest street address and city

OR the latitude or longitude of nest site (in decimal degrees).

ZIP—Enter ZIP or Postal Code where nest site is located.

Nest Substrate —Enter if the nest is in, on, or under one of the following substrates:

Nestbox/birdhouse

Building or dwelling Post/Pole or platform

Cavity in snag/dead tree

Cavity in live tree branch

Live tree branch

Dead tree branch

Bush/shrub/cattails

Cliff or rock

Ground

Floating vegetation

Habitat - From the list below, enter habitat type within 1 meter of nest and dominant habitat type within 100 meters of nest.

Human Modified (see descriptions at right)

Agricultural Area

Woodland/Forest

Natural Grassland/Prairie

Chapparal/Shrubland

Desert Scrub

Fresh Water

Salt Water

Beach

Tundra

Habitat Modifier - If you chose "Human Modified" for either habitat type, describe the human modified landscape that nest is in:

Yard, residential area

Public park/green space

Roadside

Golf course

Landfill/gravel pit/strip mine

Cemetery

Industrial/commercial center area

Power/Utility Corridor

School/campus/church/hospital

Airport

Campground

Christmas tree farm

Orchard/vineyard

Recently clear cut area

Recently burned area

Elevation - Record elevation above sea level; specify feet (ft.) or meters (m.)

Height Above Ground - Measure height of nest from the ground; specify feet (ft.) or meters (m.)

Cavity Orientation - For cavity nests only, specify the orientation that the entrance hole faces.

N - North S - South NE - Northeast SW - Southwest SE - Southeast NW - Northwest E - East W - West

Cavity Opening Width - For cavity nests only, enter the width of entrance hole opening; specify inches (in.)

# 3 - Breeding Data (Column Codes)

- A-B. Date & Time—Record month, day, and time (to nearest hour) of each nest visit.
- C. # Eggs\*—Record the number of host eggs counted (enter cowbird info in column J).
- D. # Live Young in Nest\*—Enter the number of live young of host species in the nest (enter cowbird info in column J).
- E. # Dead in Nest\*—Enter the number of dead young of host species in the nest (enter cowbird info in column J).
- F. Nest Status—Describe the status of the nest at each visit.

NO = no nest

AN = another nest found in same site (begin new attempt)

CN = completed nest

DN = damaged nest

IN = incomplete nest

FN = flattened nest with fecal matter

NN = non-avian nest found (describe in comments)

RN = nest removed, remover unknown

G. Adult Activity—Describe activity of adults seen or heard near the nest for each visit.

NO = no adults seen

BA = building nest or carrying nest material

DA = dead adult(s)

FA = feeding young

AA = at, on, or flushed from nest

RA = remained on the nest

VA = vicinity of the nest

H. Young Status—Describe the development of young birds.

NO = No young

HY = hatching young

NY = naked vound

DY = down present

PY = partially feathered

FY = fully feathered young

YY = fledged young outside of nest

VY = vocal young, heard only
I. Management Code—Describe any human management activities at the nest site for this visit.

NO = no management activity

AM = avian competitor nest/eggs/young removed

CM = competitor/pest management (wasps, ants, mice, etc.)

EM = eggs removed

NM = nest box management. Activities include cleaning boxes, plugging/unplugging boxes, or removing inactive nests of host species.

- J. Cowbird Evidence—(Optional) Record evidence of cowbird parasitism. Include number of cowbird eggs, and live and dead cowbird young. (EX: 2E, 1LY, 1DY = 2 eggs, 1 live young, 1 dead young).
- K. Observer Initials— (Optional) Record initials of nest monitor.
- L. Comments— (Optional) Check box if comments are noted and record them in the space provided at the bottom of the page.

# 4 - Nest Attempt Summary

IMPORTANT DATES - In the table provided record:

- 1) the estimated date the first egg was laid; 2) the estimated date that the first egg hatched; and 3) the estimated date that the first young fledged from the nest.
- TOTALS In the table provided record:
  - 1) the total number of times this nest attempt was monitored;
  - 2) the maximum clutch size (# of eggs); 3) the total # of unhatched eggs; 4) the total # of live young in the nest; and 5) the total # of young that fledged (left the nest).



<sup>\*</sup>For columns C, D, E, and J, enter "X" to indicate eggs or young are present, but exact number is unknown. Enter "U" for unknown.

# **NestWatch Protocol for Monitoring Nests**

We recommend a maximum of 8–10 visits spread out over the course of the nesting attempt. As a general rule, if you check nests every 3-4 days, you will be closely following the protocol below.

Intelligent planning of nest checks makes daily visits unnecessary. The protocol described below is intended to gather the most meaningful data without causing unnecessary disturbance to the birds. Although it may be tempting to visit nests more often than suggested, please try to keep disturbances to the nesting area to a minimum.

## **Nest Building (one visit, if possible)**

If you are fortunate enough to find an active nest while it is being built, be sure to record the status of the nest on the worksheet.

### Egg Laying Period (one or two visits)

Make at least one visit during egg laying, preferably in the afternoon. If you find a nest with eggs, go back three days later to determine if the number of eggs has changed. This will help determine first egg date and the egg laying rate. For songbirds, the typical laying period lasts between three and eight days, with eggs laid one per day, usually early in the morning.

Knowing the date the first egg was laid is critically important and easy to determine if you can visit during the egg laying period. For example, if two eggs are in the nest on May 10 and four eggs on May 13, then counting backward one egg per day, we know the first egg was laid on May 9. The second egg was laid on May 10, the third on May 11, and the fourth and last egg on May 12.

Whenever possible during nest checks, wait for the female to leave the nest rather than flushing her off. Record the number of eggs, if known, along with any adult activity you observed, on your worksheet.

## **Incubation Period (two visits)**

Make two visits, preferably in the afternoon. We suggest one visit at the middle and one at the end of incubation to determine complete clutch size and whether eggs have been lost. Most songbirds begin incubating the day before the last egg is laid and will typically incubate eggs for 11 to 14 days. Record the number of eggs, if known, along with any adult activity you observed, on your worksheet.

#### **Hatching Period (one visit)**

Visit once at or just after hatching to pinpoint the timing of hatching and determine the number of hatched eggs. Most songbird eggs hatch within 24–48 hours of each other. If you see adults carrying food, this is a good sign that eggs have hatched. Check the nest contents and record the number of eggs, observed adult activity, and status of young on your worksheet.

#### **Nestling Period (two visits)**

Visit once when young are thought to be between five and seven days old to determine their development and survivorship. Visit again three or four days later to get an estimate of the number of young likely to fledge.

Do not open nest boxes or disturb nests with fully feathered young, as this can cause premature fledging. Once the young are fully feathered, you can check the nest from a distance with binoculars to determine if the parents are still actively feeding the young.

Typical songbird nestling periods last approximately two to three weeks. Record your observations for number of eggs (if any), observed adult activity, and status of the young on your worksheet.

## Fledging Period (one visit)

Visit once to determine success or failure of nests. Do not open nest boxes or disturb nests that have fully feathered young, as this can cause premature fledging. Most songbirds fledge within 1-2 days of each other.

Check the nest from a distance and look around for the adults. If they go to the nest carrying food, the young have not yet fledged. If they go somewhere else, it is likely they are feeding the young in nearby vegetation.

If you are certain the young have fledged, check the nest and make sure it looks intact, i.e., flattened, and in some cases covered in fecal matter. If it appears disheveled or depredated, describe what you see on your data sheet and look for any signs of the nestlings (feathers, body parts, bones) in the area surrounding the nest site.

If you suspect predation has occurred, try to determine the predator by looking around the nest site for clues. If adults are still present, continue monitoring their activity as they may try to nest again. Record the outcome, estimated number of fledged young, and additional comments for the nest attempt on the worksheet.

#### Post Fledging Period (one visit)

Visit the nest one last time after you are certain that all the young have fledged to determine if any unhatched eggs or dead young remain. Record additional comments for the nest attempt on the worksheet.

Stay alert—birds that raise more than one brood per season may nest again nearby. If possible, try to keep monitoring nests to the end of the season, August or September. If you find another active nest, please follow the same protocol. Use a separate worksheet for each new nest attempt.

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