

## Volunteer Training Breeding Surveys

















### Items to cover

- Project Goals and Overview
  - Why a bird atlas
  - Birds as indicator species
  - Timeline, Funding
- How to go about conducting surveys
- Reporting data
- Technology
  - Navigation
- Breeding Codes
- Resources



## **Project goals**

- Describe breeding bird distribution and abundance
- Document changes since the last atlas
- Describe wintering distributions
- Stopover habitat use <del>(we hope)</del>
- Understand where species occur on the landscape
- Develop an interactive web site for updating and data retrieval



## Why a bird atlas Where Do We Best Put Our Resources?

- Tough budget times, conservation typically a 'luxury' item
- Thus, must target where we can do the most
- More informed land use decisions
- But, where are those places? And, what conservation actions?
- What are our priorities? Forest interior birds, shrubland birds, waders, etc...







## Birds as indicator species

Birds are indicators
of environmental
health
If they aren't thriving
it is likely we are all
in trouble



Forest fragmentation impacts forest birds:

- Increased predation, nest parasitism
- At least 30% of forest birds in decline, BUT, how much in decline???



Invasive species such as Phragmites Reduce habitat for many wetland species



Lack of active management results loss of habitat for many species 80% of shrubland birds in decline, BUT, how much in decline



Climate change and rising sea levels threaten all saltmarsh species, many of which are declining at a very fast rate

## Birds as indicator species



Certain species such as yellowbreasted chat are only found in high quality habitats



Yellow-breasted chat are a listed species in CT



Species such as sora and Virginia rail are only found in high quality wetlands



Sora and Virginia rail are rare in CT



Northern goshawks require large tracts of forest and ample prey



Goshawks are in steep decline



Species like upland sandpiper require large tracts of grassland habitat



Upland sandpipers are a listed species in CT

## **Major funding**













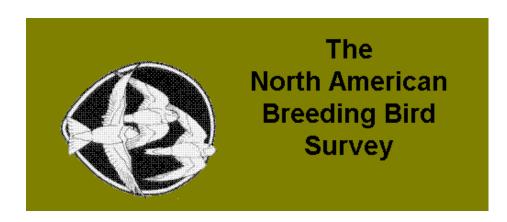
Connecticut
Ornithological
Association





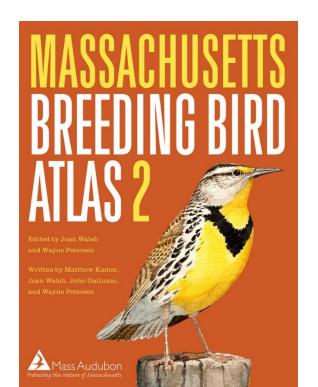
... plus may other contributions ...

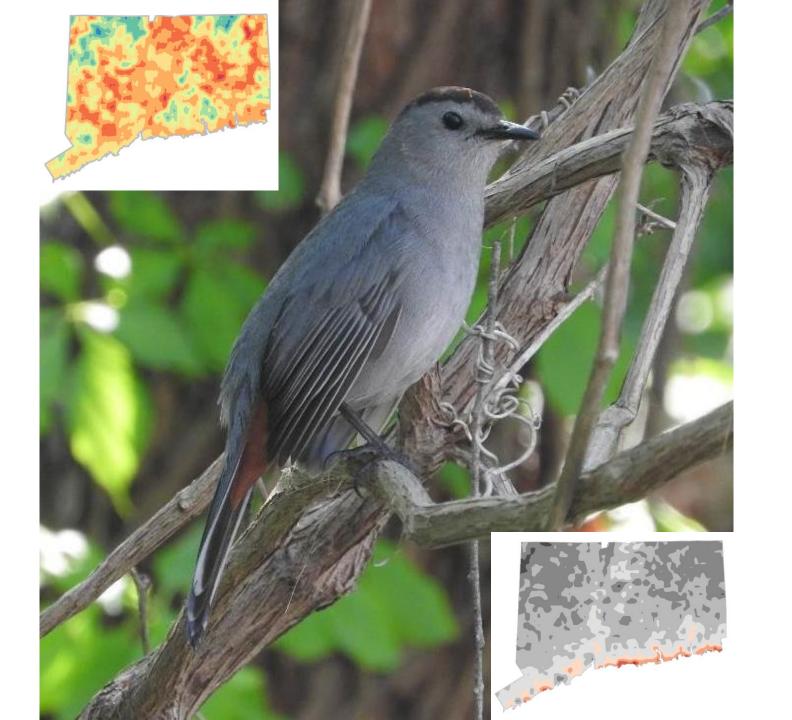
YEAR 1: Make initial predictions from existing data ...











## 2018-2020: Collect new atlas data

- 1. traditional citizen science block work
- 2. point counts to estimate abundance
- 3. winter surveys
- 4. migration surveys



### Analysis to test/refine predictions

- > test models
- upgrade predictions
- > compare to 1980s atlas
- > identify priority areas for conservation
- post data on-line

### Items to cover

- How to go about conducting surveys
  - The Goal
    - What does it mean to cover a block
  - Where to Survey
  - When to Survey
  - How to Survey

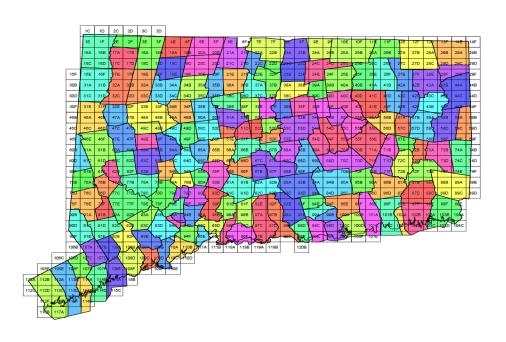


## How can birders help?



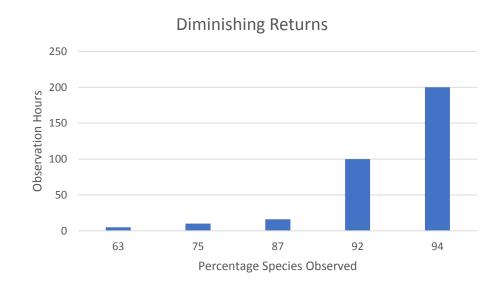
## Conducting surveys -The Goal

- Obtain a complete list of all birds breeding in each block. This will require both identifying as many species as possible, and obtaining the strongest evidence for breeding possible.
- Wintering distributions
- 20 hours per block over three years
- There are 601 25km² blocks statewide



## Conducting surveys -Why 20 Hours?

In a 10x10 km block, a skilled birder could obtain atlas data for 63% of species in five hours, 75% in 10, 87% in 16, 92% in 100 and 94% in 200 (Sharrock 1973)

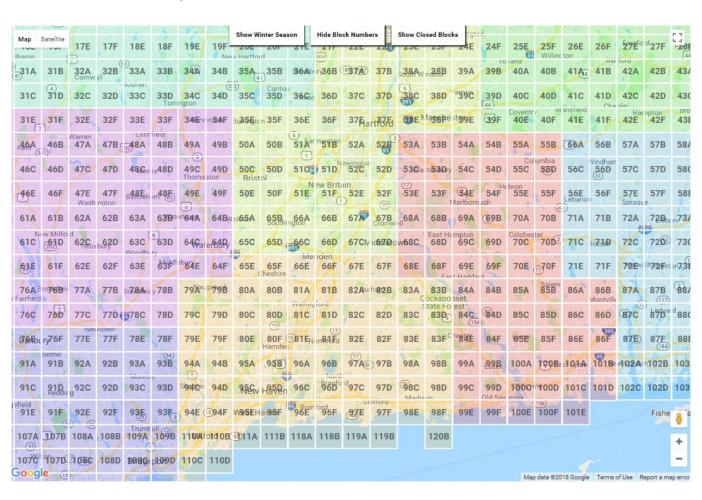


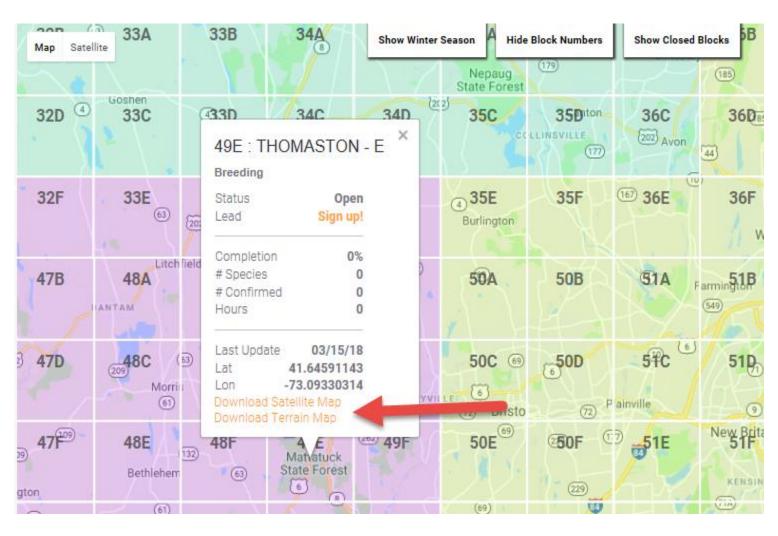
## Conducting surveys -Spread out

- Over three years
- Over all habitats
- Over breeding period

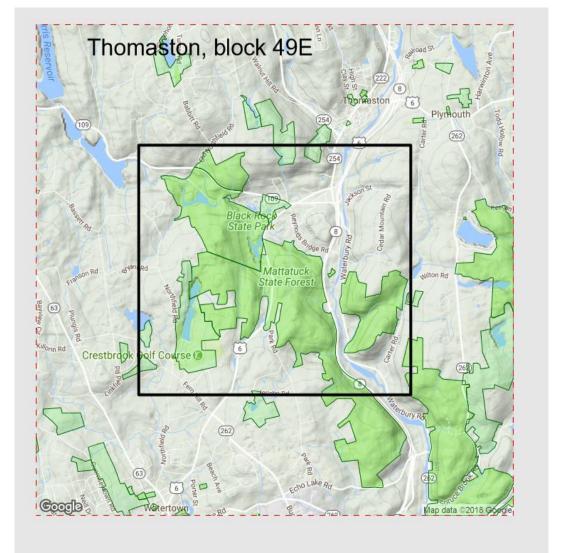
## ctbirdatlas.org











## What if "my" block is taken!?

- Collect data anyway!
- Coordinate with assigned birder
- Pick another block



### What if I don't have time to do a block?

- Collect data anyway!
- Submit records whenever you go birding
- Submit incidental records from your yard
- Submit incidental records any time you confirm

breeding

#### 1 species total

1 Common Raven

Flying low over the highway carrying a stick.

Breeding Code

CN Carrying Nesting Material (Confirmed)



- Data from any block, whether you are the adopter or not, will be entered into the database!!!
- So, be sure you know what block you are in and:
- SEPARATE DATA SHEET OR EBIRD ENTRY FOR EACH BLOCK
- MAKE SURE YOU KEEP TRACK OF YOUR TIME AND MILEAGE

- Special considerations
  - Water Utility Properties
  - Stewart B McKinney Units
  - Private Land

## Conducting surveys -Where to survey- Private Land

- Private lands comprise over 70% of our state. In some instances, you may want to access private land in order to complete surveys in your block(s). Please, do not trespass. Often a simple knock on the door will gain you access to private land for birding, and, in doing so, spread the word about the atlas project.
  - relatively large piece of land or
  - it contains a specific habitat type

## Conducting surveys -Where to survey- Private Land

- Contact the landowner prior to the day on which you intend to begin surveys.
- Identify yourself as a volunteer with the Connecticut Bird Atlas before making the request.
- Let the landowner know when you want access, when you will arrive (especially if it will be early), how many will be in your party, and what your vehicle looks like.
- As appropriate, assure them that you will close gates, will not disturb livestock or crops, and will avoid driving on muddy roads.
- If they seem interested in birds, offer to provide them with a list of the species you find.
- A brief thank-you note to show our appreciation after your visit will help ensure continued access.

## Conducting surveys -Where to survey- Private Land





#### Dear Landowner.

The Connecticut Department of Energy and Environmental Protection and University of Connecticut are conducting a comprehensive study of the hird species inhabiting our state. This project, the CT Bird Atlas Project will provide the most detailed and comprehensive information about the distribution and status of all birds across this state. This information will allow us to better protect those beautiful birds.

In order to do this, paid technicians and public volunteers are visiting 596 blocks that cover the entire state. These folks are conducting bird surveys in those 596 blocks. Visits range from 10 minutes to a couple of hours, depending on the site. Private lands comprise over 70% of our state. So, surveying private lands is a huge component of the Project.

We are asking your permission to access your private land to conduct this survey. We are selfinsured, there will be absolutely no risk to you or your property.

Thank you very much for your willingness to assist us with this important work.

Sincerely.

Min Huang
Migratory Bird Program Leader
CT Department of Energy and Environmental Protection
391 RT 32
N. Franklin CT 06254
860-642-6528 (p)
Min.huangüert gov

Chris Elphick and Morgan Tingley EEB Department University of Connecticut Storts CT 06268 Chris.elphick@uconn.edu Morgan.tingley@uconn.edu

### When should I start?

Now, but cautiously ...



- Safe date info on web site
- 20 hours: mid-May mid-Aug



- Early morning, when birds are most active.
  - At least one trip should be made in the evening or at night to listen for nocturnal species (e.g., rails, owls, nightjars).
  - Visits should be spread out across the breeding season.
  - It also becomes easier to confirm breeding as the season progresses, so surveys in mid-summer when many species are actively feeding young can be especially productive.

## Conducting surveys- How to survey

- First trip
  - Identify as many species as possible.
    - Make fairly complete list. Confirm breeding for some species right away,
- Later visits
  - Upgrade many of these species, with stronger evidence of breeding.
- Suggestion: Make three 5- or 6- hour morning visits to your block,
  - The first in the latter half of May
  - One in June
  - One in July.
  - A couple of shorter visits to target night-birds or particular species that you think you have missed would then make up the 20 hours.
- A good alternative might be to make 20 one-hour visits (perhaps mostly before work each day, but with 1-2 evening visits), each to a different part of the block, and evenly spread out across the summer.

## Conducting surveys -Two crucial things

 keep a record the time you spend surveying  keep a separate list of species each time you visit your block.

## Conducting surveys -SAFE DATES

- Safe dates give the period when most migrants will have left
- Breeding codes, especially those in the Possible and Probable categories, generally should not be used outside the safe dates

Species	Safe	Habitat	
	Dates		
Canada Goose	4/15-8/1	Shore or islands in any wetland	
Mute Swan	4/15-8/1	Large ponds and marshes	
Wood Duck	5/1-8/5	Wooded swamps, freshwater marshes, streams, rivers	
Gadwall	5/15-8/5	Fresh/brackish water or saltmarsh	
American Black Duck	5/1-8/5	Most wetlands, from beaver ponds to saltmarsh	
Mallard	5/1-8/5	All wetlands, occasionally suburban yards with swimming pools	
Blue-winged Teal*	5/10-8/5	Fresh/brackish pond or marsh	
Green-winged Teal*	5/15-8/5	Fresh/brackish pond or marsh	
Common Eider*	5/15-8/1	Coastal islands	
Hooded Merganser	5/15-8/5	Wooded swamps, freshwater marshes, streams	
Red-breasted Merganser*	6/1-8/5	Coastal marsh	
Ring-necked Pheasant	5/1-8/15	Open scrub, pastures, fields	
Ruffed Grouse	4/1-6/31	Mixed upland woods	
Wild Turkey	4/1-7/15	Mature deciduous woods, edge	
Northern Bobwhite*	4/30-8/15	Open scrub, pastures, fields	
Pied-billed Grebe*	5/10-8/1	Fresh/brackish reedy pond or marsh	
Double-crested Cormorant	5/10-8/5	Islands on coast or lake	
American Bittern*	5/15-8/1	Fresh/brackish reedy pond or marsh	
Least Bittern*	5/25-8/1	Fresh/brackish reedy pond or marsh	
Great Blue Heron	5/1-7/15	Wooded swamps, beaver ponds, islands	
Great Egret	5/15-7/15	Islands on coast or lake	
Snowy Egret	5/15-7/15	Coastal islands	
Little Blue Heron	5/15-7/15	Coastal islands	
Tricolored Heron*	5/15-7/15	Coastal islands	
Cattle Egret*	5/10-7/15	Coastal islands	
Green Heron	5/10-8/1	Woody growth near marshes or open water	
Black-crowned Night-Heron	5/5-7/15	Coastal islands	
Yellow-crowned Night-Heron*	5/5-7/15	Coastal islands	
Glossy Ibis	5/1-7/15	Coastal islands	
<del></del>		the tree transfer	

## Conducting surveys -SAFE DATES

Confirmed breeding should be well documented

(e.g., a detailed description of the bird species and the behaviors that confirm breeding)

Records are likely to be of particular interest if confirmed breeding happens outside of the safe dates range.

Please provide additional documentation for species observed in an inappropriate habitat or outside of the safe dates range.

#### Additional written documentation for:

- Species marked with an asterisk
- Any species not on this list

## Conducting surveys —INCIDENTAL DATA

- Because these observations do not come from standardized searches in which we are also collecting data on the time you spend surveying blocks, we want to keep these data separate from the regular block data. Consequently, you should not enter them using a standard field card.
- Use the Incidental Observation Form

### How should I submit data?

#### CONNECTICUT BIRD ATLAS - BREEDING FIELD CARD

Use this form to report species detected during block surveys. IMPORTANT: Report only species found within the block boundaries. List a code for all species detected. Use a separate card for each visit.

		Email:			
Block: Site (if visiting je	ust part of block):				
Date:	Start time:	End time:			
Circle to confirm whether all sp	ecies detected are n	narked below: YES NO			
For other data forms and details of Please report all of the time spent Please report locations of any nes	on the project and yo	our mileage on the Volunteer Form			
Breeding Codes:		NB – nest building (do not use for wrens and woodpeckers)			
X – seen or heard but not in suitable evidence of breeding	nesting habitat; no	DD – distraction display or injury feigning UN – used nest or eggshells; careful confirmation of species necessary			
H - seen in suitable habitat within saf other indication of breeding	e dates, but no	FL – recently fledged young or downy young of galliforms, shorebirds or waterfowl; young should be			
S – singing in suitable habitat within s	afe dates	incapable of sustained flight and dependent on adults for food and/or protection			
M - multiple (7+) singing males in sui	table habitat	ON - adults entering or leaving nest site, indicating			

P - pair in suitable habitat during breeding season

T - song or other evidence of territory establishment on at least two days, a week or more apart

C - courtship behavior or copulation

N - bird visiting probable nest site

A - agitated behavior or anxiety calls from adults suggesting probable nest or young nearby

B - nest building by wrens or woodpeckers

PE - physiological evidence (brood patch, etc.)

CN - carrying nest material (do not use for wrens)

occupied nest (use for cavity nesters only when bird enters hole and stays inside, when a pair exchange places while incubating, or when a bird leaves after being inside for some time)

CF - adult carrying food for young (do not use for raptors, corvids, kingfishers, terns; take care near block boundaries)

FY - adult feeding young away from the nest

FS - adult carrying fecal sac

NE - nest with eggs or adult sitting on nest

NY - nest with young

Species	Code	Species	Code	Species	Code
Canada Goose		Wild Turkey		Glossy Ibis	
Mute Swan		Pied-billed Grebe*		Turkey Vulture	
Wood Duck		Double-crested Cormorant	Black Vulture		
Gadwall		American Bittern*		Osprey	
American Black Duck		Least Bittern*		Bald Eagle	
Mallard		Great Blue Heron	Mississippi Kite*		
Blue-winged Teal*		Great Egret	Northern Harrier*		
Green-winged Teal*		Snowy Egret	Sharp-shinned Hawk*		
Common Eider*		Little Blue Heron		Cooper's Hawk	
Hooded Merganser		Tricolored Heron*		Northern Goshawk*	
Common Merganser		Cattle Egret*		Red-shouldered Hawk	
Red-breasted Merganser*		Green Heron		Broad-winged Hawk	
Ring-necked Pheasant		Black-crowned N-Heron		Red-tailed Hawk	
Ruffed Grouse		Yellow-crowned N-Heron*		American Kestrel	

<sup>\*</sup>Please submit a Rare Reports Form (see web site) for these species or any species not listed

Mail: Connecticut Bird Atlas, c/o Chris Elphick, Ecology & Evolutionary Biology, University of Connecticut, 75 North Eagleville Road, Unit 3043, Storrs, CT 06269-3043 Email (scans): atbirdatlasdata@gmail.com (subject: CT Bird Atlas Field Card)

#### CONNECTICUT BIRD ATLAS - INCIDENTAL OBSERVATION FORM

	icult to find species.	
Observer:	Email:	Phone:
Address:		
Send to:	Connecticut Bird Atlas, c/o Chris Elphick, E	cology & Evolutionary Biology,

Use this form to report breeding species detected incidentally (i.e., when not surveying an assigned block) Incidental records are especially valuable if they confirm breeding for a species or involve

> University of Connecticut, 75 North Eagleville Road, Unit 3043, Storrs, CT 06269-3043 Or email (scans); ctbirdatlasdata@gmail.com (subject; CT Bird Atlas Incidental Obs)

Date (m/d/y)	Latitude/Longitude (decimal degrees)*	Block ID	Species	Breeding Code	Notes
()	(accimia acgreco)				

<sup>\*</sup>Instructions for getting this information from Google Maps are on the atlas web site. Alternatively, mark the location on a paper map and submit with this form.

#### Breeding Codes:

X - seen or heard but not in suitable nesting habitat; no evidence of breeding

H - seen in suitable habitat within safe dates, but no other indication of breeding noted

S - singing in suitable habitat within safe dates

M - multiple (7+) singing males in suitable habitat

P - pair in suitable habitat during breeding season T - song or other evidence of territory establishment

on at least two days, a week or more apart C - courtship behavior or copulation

N - bird visiting probable nest site

A - agitated behavior or anxiety calls from adults suggesting probable nest or young nearby

B - nest building by wrens or woodpeckers

PE - physiological evidence (brood patch, etc.) CN - carrying nest material (do not use for wrens) NB - nest building (do not use for wrens and woodpeckers)

DD - distraction display or injury feigning

UN - used nest or eggshells; careful confirmation of species necessary

FL - recently fledged young or downy young of galliforms, shorebirds or waterfowl; young should be incapable of sustained flight and dependent on adults for food and/or protection

ON - adults entering or leaving nest site, indicating occupied nest (use for cavity nesters only when bird enters hole and stays inside, when a pair exchange places while incubating, or when a bird leaves after being inside for some time)

CF - adult carrying food for young (do not use for raptors, corvids, kingfishers, terns; take care near block boundaries)

FY - adult feeding young away from the nest

FS - adult carrying fecal sac

NE - Nest with eggs or adult sitting on nest

NY - Nest with young

### How should I submit data?

#### CONNECTICUT BIRD ATLAS - BREEDING FIELD CARD

Use this form to report species detected during block surveys. IMPORTANT: Report only species found within the block boundaries. List a code for all species detected. Use a separate card for each visit.

- Block number
- Site within the block (optional)
- Date, start time, end time
- Breeding code for every species you see

### How should I submit data?

#### CONNECTICUT BIRD ATLAS – INCIDENTAL OBSERVATION FORM

Use this form to report breeding species detected incidentally (i.e., when not surveying an assigned block). Incidental records are especially valuable if they confirm breeding for a species, or involve unusual or difficult to find species.

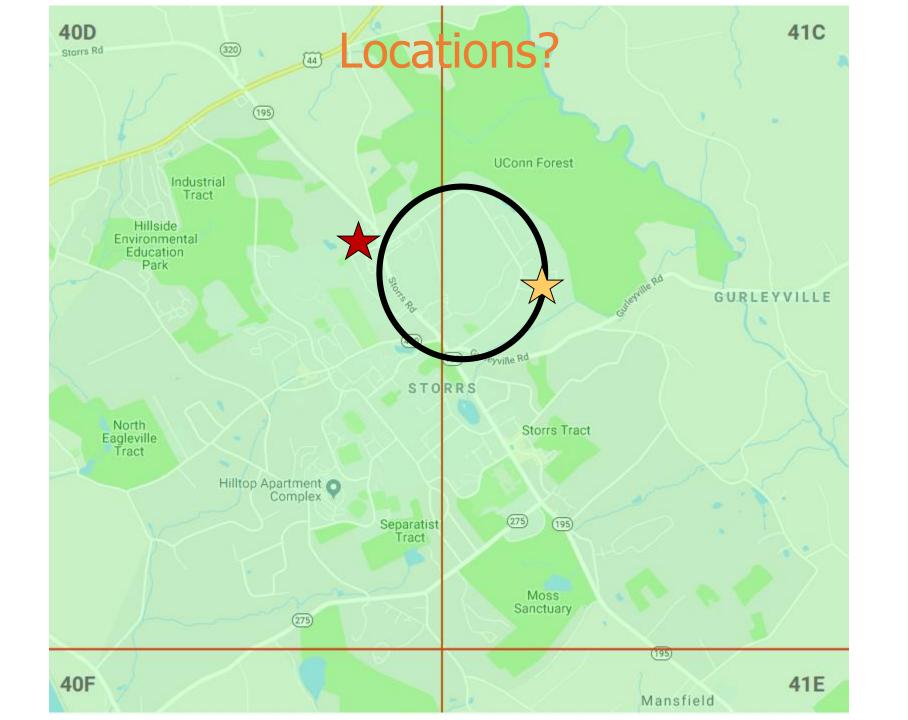
- Location (block and/or lat-long)
- Date
- Breeding code for notable species
  - Confirmed breeding (always submit)
  - Hard to confirm species (always submit)
  - Rare species (always submit)

Use this form to provide supporting information for all reports of rare species, or species found breeding in unusual habitat or outside their expected breeding period.

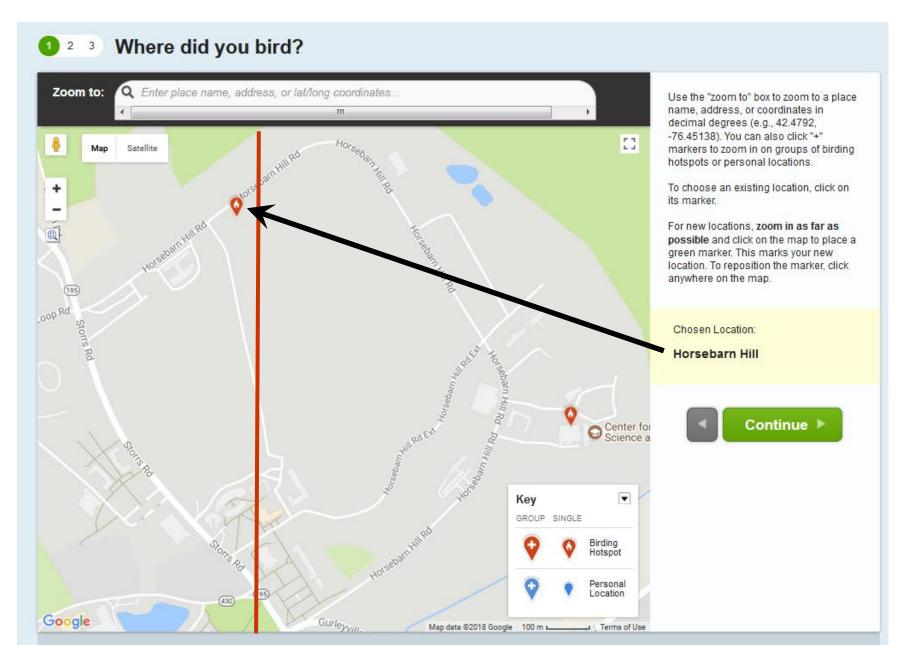
#### CONNECTICUT BIRD ATLAS - RARE REPORTS FORM

Use this form to provide additional documentation for records of rare breeding species, and of species found in unusual habitats or at unusual times of year (e.g., nesting outside of the safe dates for the species). Please use a separate form for each record.

Observer: _	Email:	Phone:					
Addraga							
Address:							
Send to:	Connecticut Bird Atlas, c/o Chris Elphick, Ecology & Evolutionary Biology, University of Connecticut, 75 North Eagleville Road, Unit 3043, Storrs, CT 06269-3043 Or email: <a href="mailto:chris.elphick@uconn.edu">chris.elphick@uconn.edu</a> (subject: CT Bird Atlas rare report)						
Species:							
Date of obse	rvation:	-					
Block number	er:						
Latitude:	ι	ongitude:					
, –	es preferred; instructions for obtaining the ely, mark the location on a paper map and	is information from Google Maps are given on the atlas web d attach to this form):					



### eBird hotspot warning ...



### Items to cover

- Technology
  - Google Earth
  - eBird
  - Detecting Longitude and Latitude



### Installing Google Earth Block Maps on a Smart Phone

- 1. Install Google Earth app to phone (free)
- 2. Download kml file (e.g., from website) to do this pull up the ctbirdatlas.org website on your smartphone. Navigate to the bottom of the block maps page. Tap on "Google Earth you can download maps grid here".

Numbers are cumulative across all years of the project. Once the target number of hours has been met for a given season, the data summary will say that the block is 100% complete. If you obtain additional information after this point, you should still submit it (especially if it increases the number of species or confirmed breeders for the block). But, we would prefer that you select another block and devote additional survey time to somewhere that has not yet met the target number of hours.

Google Earth downloads: If you use Google Earth you can download the block grid here, a map of open space (municipal and land trust) lands here and a map of DEEP

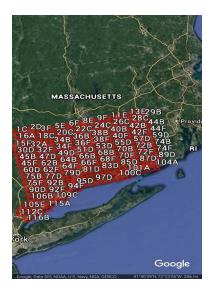
Google Earth downloads: If you use Google Earth you can download the block grid here, a map of open space (municipal and land trust) lands here and a map of DEEP properties here. (Be advised that the latter two data layers are the most recent available, but are not completely up to date - we are working to get more current information.)

If you download these data layers to your phone you will have access to the information in the field. Instructions on how to do this download are available here.

### Installing Google Earth Block Maps on a Smart Phone

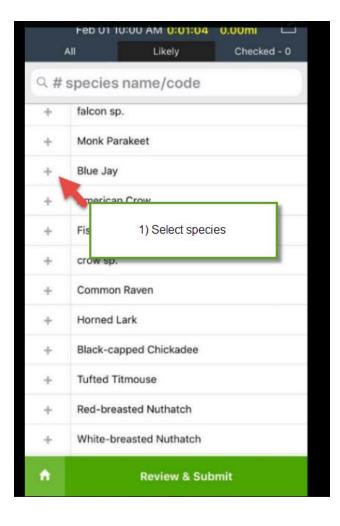


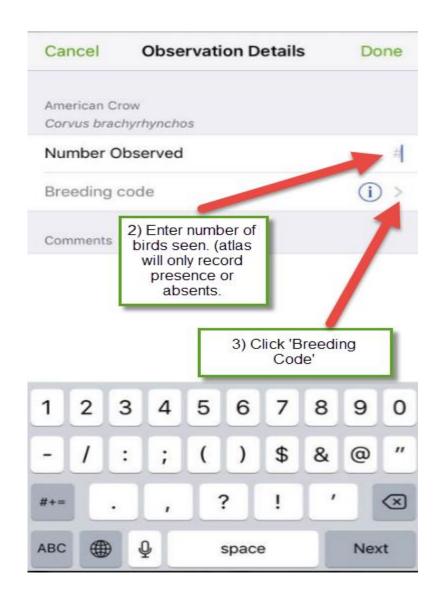
- 3. Once downloaded, press down on file and you will get a set of options, one of which is to copy to Google Earth (swipe the list left if you don't see it immediately)
- 4. Press on the Google Earth symbol, and the app should just open up with the file in place:

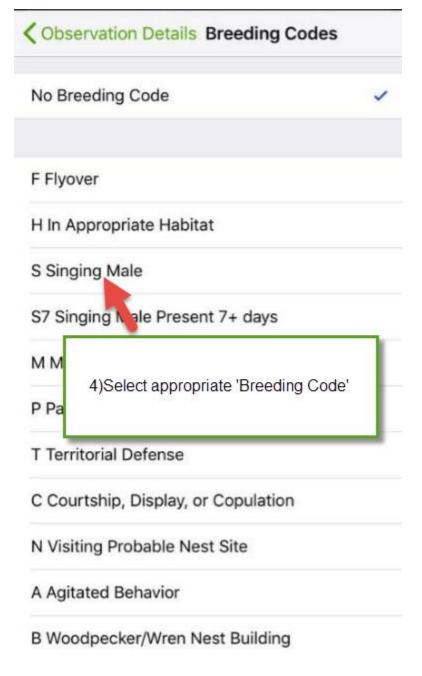




### eBird App







### eBird App -Share the checklist



Current Trip: 92 Species





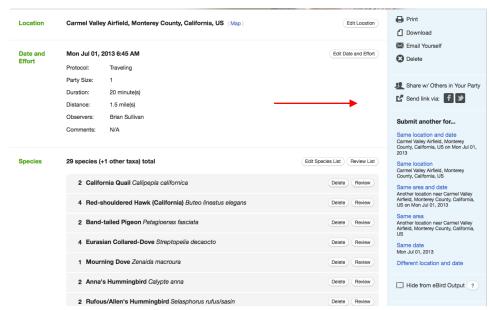


#### 12 Nutmeg Hill Rd, Hamden US-CT (41.4061,-72... Mar 25, 2018 at 6:26 PM Accepted 1 Species Reported 12 Nutmeg Hill Rd, Harden US-CT (41.4061,-72... Feb 1, 2018 at 10:00 A Not Submitted 0 Species Reported 21 Shell Beach Rd Guilford US-CT (41.2632,-72... Jan 29, 2018 at 300 PM Accepted 6 Species Reported New Haven, CT 06513, New Haven US-CT (41.3... Jan 29, 2018 at 2:08 PM Accepted 4 Species Reported East Rock Park, Hamden US-CT (41.3313,-72.9... Jan 29, 2018 at 1:30 PM Accepted 6 Species Reported 18 Nutmeg Hill Rd, Hamden US-CT (41.4058,-7... Jan 24, 2018 at 6:47 AM **Not Submitted** 1 Species Reported 561 Gulf St, Milford US-CT (41.2091,-73.0447) Dec 23, 2017 at 9:56 AM Accepted 11 Species Reported White Mountains, Hart's Location US-NH (44.11... Dec 16, 2017 at 10:17 AM Accepted 17 Species Reported White Mountains, Hart's Location US-NH (44.11... Dec 15, 2017 at 2:30 PM Accepted 3 Species Reported

Nutmeg	Hill Rd, Hamden	US-CT (41.4061,-72.91.
Click H on eBir		edit your checklists
1 [	Dark-eyed Junc	o (Slate-colored)
	Reported	1
Protocol		Stationary
Number of	of Observers	1
Duration		1
E	mail Checklist	View Track

### Sharing Check Lists on eBird

- When you submit a checklist, you can share it immediately by clicking the "Share w/Others in Your Party" link on the top right of the confirmation page.
- Additionally, any checklist can be shared by clicking the "Share" link on the Manage My Observations page.

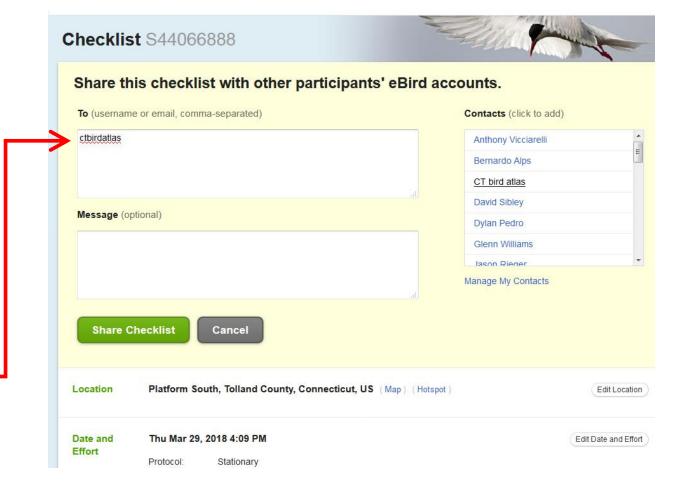


Mr. Shar	ed Observations		Page 11 of 145 ]	L - 2   12   11   12   13 - 145 Show Al
Date	Location	St/Prov	Project	
9/7/08	Millennium Park	US-MA	eBird	View or edit Share Delet
9/7/08	Lindhbrook Golf Course	US-RI	eBird	View or edit   Share   Delet
9/7/08	Sandy Point	US-CT	eBird	View or edit I Share I Delet
9/7/08	Oak Street Beach, West Haven	US-CT	eBird	View or edit I Share I Celet
9/6/08	Assateague I. NSVisitor Center area	US-MD	eBird	View or edit   Share   Delet
9/6/08	South Point	US-MD	eBird	Yew or edit I Share I Delet
9/6/08	Rum Pointe Golf Course	US-MD	eBird	View or edit I Share I Delet
9/6/08	Eagles Nest Campground	US-MD	eBird	View or edit I Share I Delet
9/6/08	Skimmer Island	US-MD	eBird	View or edit I Share I Delet
9/6/08	Isle of Wight boat ramp	US-MD	eBird	View or edit I Share I Delet
9/6/08	Rte. 90 bridge-east end	US-MD	eBird	View or edit   Share   Delet
9/6/08	Skimmer Island	US-MD	eBird	View or edit I Share I Delet
9/6/08	Ocean City Inlet	US-MD	eBird	View or edit I Share I Delet
9/6/08	Ocean City Inlet	US-MD	eBird	View or edit I Share I Delet
9/6/08	Ocean City Inlet	US-MD	eBird	View or edit   Share   Delet
9/6/08	Ocean City Inlet	US-MD	eBird	View or edit I Share I Delet
9/6/08	Ocean City Inlet	US-MD	eBird	View or edit   Share   Delet

### Sharing Check Lists on eBird

 Any of these links will open the Checklist Sharing page. Simply enter the eBird usernames (preferable) or email addresses of the friends with whom you wish to share the checklist. Write a message if you wish, and click the send button.

ctbirdatlas



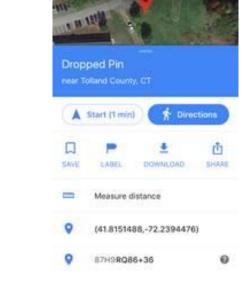
## Incidental Observations - Finding Latitude and Longitude on a Smart Phone with Google Maps

Open Google Maps

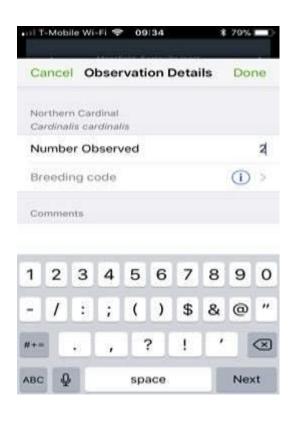


- Press your finger on the location of the bird or nest that you observed (a blue dot will show your current location). Doing this will place a red pin on the location you want to mark. See first image below.
- Once you have selected the location (named "dropped pin" in Google Maps), slide up the bar at the bottom of the phone screen.
- From the information provided, simply copy the coordinates onto the Casual Observation form. In the second image in the example below, the coordinates of the pin are 41.8151488, -72.2394476.





# Incidental Observations -Finding Latitude and Longitude on a Smart Phone with eBird



- 1. Generate an eBird checklist (either stationary or incidental)
- 2. Select the species in question, and include a breeding code from the built-in list of codes in the app.
- 3. Share your checklist with the atlas eBird account (ctbirdatlas) to ensure we get the information immediately. You can do this by going to the checklist in your eBird account and clicking the "Share w/Others in your Party" link, which is near the top on the right. Then enter "ctbirdatlas" in the box at the top and click on the "Share Checklist" button.

Incidental Observations - Finding Latitude and Longitude- Enter the Block Number

• If you are not a seasoned smart phone user, and are unable to identify the precise location of your observation, the easiest solution is to go to the atlas web site where you can look for the location of the sighting on <a href="the Block Map page">the Block Map page</a> and determine which block you were in. Then you can simply enter the block number on the data sheet instead of the coordinates.

Incidental Observations - Finding Latitude and Longitude- Send Us a Map

- You can simply print out a map of the location, mark the point on it, and send it to the atlas data entry team either by
  - Email- <u>ctbirdatlasdata@gmail.com</u>
  - Regular mail

Connecticut Bird Atlas c/o Chris Elphick Department of Ecology & Evolutionary Biology University of Connecticut 75 North Eagleville Road, Unit 3043 Storrs, CT 06269-3043

### Data Forms and Submission

- eBird
- Breeding Season Field Card
- Incidental Observation Form- Use this form to report records obtained while going about your day-to-day activities, or when not doing formal atlas surveys.
- Rare Report Form Use this form to provide supporting information for all reports of rare species, or species found breeding in unusual habitat or outside their expected breeding period.
- Volunteer Effort Form- Use this form to provide information about the time and mileage you invest in the atlas. This information is extremely important as it helps to match the grant funding that we are using to pay for the project.

### Data Forms and Submission

#### CONNECTICUT BIRD ATLAS - RARE REPORTS FORM

	provide additional documentation for records of rare breeding species, and of species found in unusual habitats mes of year (e.g., nesting outside of the safe dates for the species). Please use a separate form for each record.
Observer: _	Email:Phone:
Address: _	
Send to:	Connecticut Bird Atlas, c/o Chris Elphick, Ecology & Evolutionary Biology, University of Connecticut, 75 North Eagleville Road, Unit 3043, Storrs, CT 06269-3043 Or email: <a href="mailto:chris.elphick@uconn.edu">chris.elphick@uconn.edu</a> (subject: CT Bird Atlas rare report)
Species:	
Date of obse	ervation:
Block numb	er:
(decimal degre	Longitude:ees preferred; instructions for obtaining this information from Google Maps are given on the atlas web ety, mark the location on a paper map and atlach to this form):
Other obser	vers:
Please provi	de the following information on a separate page, attached to this document.
species), sha	scription as observed in the field. Include details of size (relative to nearby or common ape, bill structure, color of plumage and bare parts, etc. Sketches (even rudimentary ones) is are especially helpful.
	What was the bird doing? Did it fly or walk in a particular way? Was it out in the open or hidin 1.9 Did it interact with other species?
	18. Please describe any calls or songs and the circumstances under which they were given in perch, in response to other birds, etc.).
What habita	t was the bird seen in?
	the viewing conditions? Include information on your distance from the bird, optics used, we easy the bird was to observe, etc.
How dld you	u rule out similar species?
	ridence? If you observed breeding behavior, please describe what you saw and explain why d a particular breeding code.

### Data Forms and Submission

N. Franklin CT 08254

Print Name:		Sign Name:					
Address				Email			
Project:	CT Bird Atlas	Location:	Statewide				
Tasks Performed:	Bird Surveys						
Date:			Start Time:		End Time:		
Project Supervisor (pri Project Supervisor (sig Please send or email s CT Bird Atlas o'o Min H CT Department of Ene	sheets monthly to:	min.huang	a <u>@ct.gov</u>		Date:	_	

Your time and miles count as funding match

Please fill out a volunteer effort form every time you go out and collect atlas data

http://ctbirdatlas.com/PDF/BBA-Volunteer-Form.pdf

### Items to cover

Breeding Codes



### Do I have to find nests?



# BREEDING CODES- OBSERVED/POSSIBLE BREEDING



#### **OBSERVED**

**X**-Species (male or female) observed in the block during its breeding season, but not in suitable nesting habitat. No evidence of breeding. This code could apply to species such as vultures soaring overhead, summering ducks on an urban pond without nesting habitat, or a colonial nesting species not at a colony. This code should be used when an observation does not meet the standards of one of the higher breeding codes. Note that if you use eBird to enter data, X is not listed as a breeding code and you should enter it manually in the checklist or enter the number of individuals seen, just as you would in a normal eBird checklist.

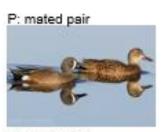
#### POSSIBLE BREEDING

H-Individual(s) of species (male or female) observed in suitable breeding habitat during the breeding season. Be cautious during migration periods when birds may just be passing through or may linger at wintering sites.

**S**-Singing bird present or breeding calls heard in breeding season in suitable nesting habitat.

All photos courtesy of Paul Fusco and Mark Szantyr

### BREEDING CODES- PROBABLE BREEDING







**P**-Pair observed together in suitable nesting habitat during the breeding season. Note that this code should not be used simply because two individuals of a species are seen in the same place. Use it when there is a male and female that are interacting with one another. Also be aware that some migratory species will pair before reaching the breeding grounds (e.g., many waterfowl).

**T**-Permanent breeding territory presumed due to territorial song, the occurrence of an adult bird, or defensive territorial behaviors (e.g., chasing individuals of the same species), at the same location in breeding habitat and season, on at least two occasions seven days or more apart. A male American Robin chasing another falls under this code, as would two males counter-singing against each. Some species, especially raptors and hummingbirds, exhibit territorial behavior in defense of feeding areas, favorite perches, etc. even while wintering or migrating, so be careful to limit use of this code to cases where defense is likely linked to nesting. **C**-Courtship or display behaviors, indicating interaction between a male and a

**C**-Courtship or display behaviors, indicating interaction between a male and a female, including courtship feeding or copulation.

### BREEDING CODES- PROBABLE BREEDING



A: agitated displays



B: nest building\*



**N**-Visiting probable nest site, but no further evidence obtained. This code is especially useful for cavity-nesters, for which it may be difficult to discern whether visits to a cavity confirm occupancy.

**A**-Agitated behavior or anxiety calls of an adult, indicating a nest site or recently-fledged young in the vicinity. A pair of birds circling just above your head or a Northern Goshawk distress call falls into this category. Do not include this code if agitated behavior was induced by "pishing" or using taped calls (note that use of tapes is generally discouraged to reduce the risk of disturbance).

**B**-Nest building by wrens or excavation of holes by woodpeckers and wrens. Woodpeckers and other cavity excavators usually make only one nest hole, but will make other holes for roosting. Wrens, including unmated males, will make nests that are intended to attract mates and which may not be used for breeding. Consequently, nest building by these species does not confirm breeding (see also NB, below).



**PE**-Physiological evidence in the form of a brood patch on an adult female or a cloacal protuberance on an adult male. These features are usually detectable only when the bird is in the hand, and will be used primarily by banders. Care should be taken not to use this code for birds that may be nesting in a different block (e.g., if a banding station is close to a block boundary, or if the bird is a species that could travel a long distance from its nest).

**CN**-Adults seen carrying nesting material (e.g. sticks, grass, mud, cobwebs). This code can be used with all species except wrens, which build dummy nests that are not used for nesting.

**NB**-Nest building at the nest site. Do not use for wrens or woodpeckers (see B, above).







FL: fledglings



**DD**-Distraction display, defense of unknown nest or young, or injury feigning. Used if adult bird is seen trying to lead people away from a nest or young. Commonly seen in most ground nesters (e.g. Killdeer, Ovenbird). Also use this code for active defense such as a Cooper's Hawk diving at you. Do not use this code for agitated behavior (see A, above).

**UN**-Used nests or eggshells found within atlas years. Unless carefully identified, use this code only for unmistakable egg shells and nests that were used during the atlas period. If you are unsure about the identity of an unoccupied nest, or about whether it was used recently, don't use this code. Do not use this code for species that build multiple nests in a breeding season, such as Marsh Wren. Do not collect nests, because some species roost in them year-round and because it is illegal to collect nests or eggs without a permit.

**FL**-Recently-fledged young of nidicolous species (those that stay in the nest for a while after hatch) or downy young of nidifugous species (those that leave almost immediately after hatching, e.g., ducks and shorebirds) including those incapable of sustained flight. Take care with use of this code for older fledglings or those seen close to a block boundary; the code should not be used unless you have reasonable confidence that the fledgling was hatched within the block. A duck brood on an isolated pond would merit this code, but older ducklings on a river may not. Note too that barely fledged blackbirds and swallows can fly considerable distances. The presence of young cowbirds confirms both the cowbird and the host.

ON: occupied nest







**ON**-Adults entering, occupying (e.g. sitting on nest), or leaving a nest site in circumstances indicating an occupied nest.

**CF**-Adult carrying food for the young. Be cautious when using this code. Birds flying more than a few meters or hopping around with beaks full of food are usually taking it to a nest, but avoid using the code for birds with food for their own consumption. Do not use the code for raptors (hawks, eagles, osprey, falcons), corvids (jays, ravens, crows), or kingfishers, which often carry food some distance before eating it themselves. Generally, avoid using it for species like terns, which may carry food from distances far from the nest and might be seen in a block in which they are not nesting.

**FY**-Adult feeding young (out of the nest). Young cowbirds begging for food confirm both the cowbird and the host.







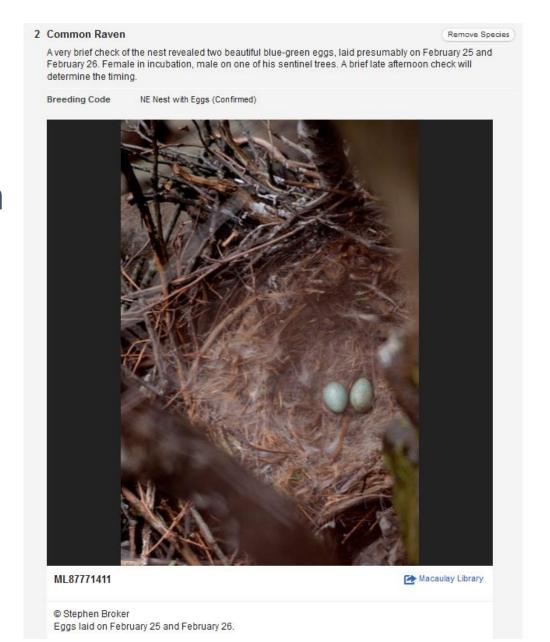
**FS**-Adult carrying fecal sac. Many passerines keep their nests clean by carrying fecal sacs produced by their nestlings away from the nest. Fecal sacs generally appear as a gleaming white blob in the bird's bill.

**NE**-Nest containing egg(s). Unless you see an attending adult, the same warnings under the UN code apply here. Cowbird eggs confirm both the cowbird and the host. If you find an active nest, be careful not to linger nearby or to make repeated visits, or you may risk disturbing the birds.

**NY**-Nest with young seen or heard. Use only when you actually see or hear the young. A cowbird chick in a nest confirms both the cowbird and the host. If you find an active nest, be careful not to linger nearby or to make repeated visits, or you may risk disturbing the birds.

### What data should I submit now?

- Confirmed breeding
- Probable breeding in secretive species
- Any breeding evidence for rare breeders



### Items to cover

• Resources



### Resources

- Your Regional Coordinator (RC)
- <a href="mailto:ctbirdatlasvol@gmail.com">ctbirdatlasvol@gmail.com</a>
- Dendroica <a href="https://www.natureinstruct.org/dendroica/">https://www.natureinstruct.org/dendroica/</a>
- Xeno-canto <a href="https://www.xeno-canto.org/">https://www.xeno-canto.org/</a>

