

# HANDBOOK FOR ATLASERS

OKLAHOMA BREEDING BIRD ATLAS PROJECT

2000 Edition

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Project coordinated by:

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and

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Report the highest breeding category that you observe, and try to upgrade the status of each species as high as you can. **The best is to have "Confirmed" Breeding!**

### SURVEYING GUIDELINES

(See text for more information)

- **Respect private property. Always ask permission.**
- Be careful; bird safely.
- You must visit your block at least two times, once early in the season (before May 15) and once later.
- Your visits must total at least 10 party-hours.
- You must meet the coverage goals set for your quad.
- Upgrade each species to the highest breeding status possible.

Make sure to send in your data sheets (Area Visitation, Species List, and Special Interest Species) and area maps by **August 31, 2000.**

Important Contacts:

#### **Atlas Coordinator**

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Sutton Avian Research Center  
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Bartlesville, OK 74005-2007  
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## CONTENTS

Important Reminders.....	3
Introduction to Atlasing.....	4
Contents of Packet.....	5
Questions? Ask the Coordinators.....	5
Explanation of Data Forms.....	6
Breeding Evidence Codes.....	6
Species List and Special Interest Species forms	8
Bird Name Changes.....	8
Abundance Codes.....	9
Nest Record Cards.....	9
How to Fill Out the Data Forms.....	10
Sample Block Visitation Form.....	12
Sample Species List Form.....	13
Sample Special Interest Species Form.....	14
Block Upgrade Form.....	15
Methods.....	16
Respect Private Property.....	16
Goals for Coverage.....	17
Schedule.....	18
Explanation of Safe Dates.....	19
Block Completion.....	19
Reporting Instructions.....	20
Breeding Records from Previous Years.....	20
Atlasing Tips.....	20
Atlas Ethics.....	25
Thanks!.....	25
Safe Dates List.....	26



## IMPORTANT REMINDERS

- SEE SAMPLE DATA SHEETS IN THIS BOOKLET FOR EXAMPLES OF HOW TO FILL OUT THE FORMS.
- PLEASE REMEMBER TO RECORD THE DATE YOU ARE USING WHEN YOU USE THE SAFE DATE FOR POSSIBLE BREEDING. WRITE THE DATE ON THE DATA SHEET NEXT TO THE SPECIES' NAME.
- Please try to get as many species as possible into the Probable and Confirmed breeding categories by obtaining evidence of breeding.
- Fill out a Special Interest Species Observation Form for any sightings of asterisked species from late May to July, regardless of location.

## INTRODUCTION TO ATLASING

### OBJECTIVES

The Oklahoma Breeding Bird Atlas Project (1997-2001) is an effort to gather data on the breeding distributions of birds in our state. The results will be an atlas, a collection of maps, showing where each bird has been found breeding. We expect to publish the survey results in book format following the five years of field work. Over 40 states have either started or completed similar atlas projects. Public or university libraries may have copies of some of the published atlases from other states should you wish to see them. All states bordering Oklahoma have completed some level of atlasing. The information gained from such projects provides a systematically gathered and repeatable "snapshot" of breeding bird distribution within a five-year time frame. In the short-term, the information that is gathered will provide a more up-to-date and detailed picture of the breeding distribution of birds in Oklahoma than is now available. In the long-term, the atlas will provide a benchmark of breeding bird distribution in the late 20<sup>th</sup> century that can be compared to results of a repeated atlas project in 20 or 30 years. The value of such information for bird conservation will be substantial, and this project offers you a chance to contribute in a very meaningful way.

The Breeding Bird Atlas is being organized and administered by the George M. Sutton Avian Research Center (GMSARC) and the Oklahoma Biological Survey (OBS). GMSARC is coordinating data collection while OBS is coordinating data management. Both groups will be involved with the production of the published atlas. The success of the project depends upon the participation of volunteers.

The data for the Breeding Bird Atlas are not counts of individual birds (as they are with the Christmas Bird Counts or Breeding Bird Surveys), but are instead the presence or absence of the species within the defined areas. The result will be a list of birds for one-sixth of every other quad (a unit of area which is described below), along with a code to show whether the species was possibly, probably, or confirmed breeding in the block. These categories are described in the data forms section of this handbook.

To gather data for the atlas, we are using the grid of 7½ minute quads established by the U. S. Geological Survey. Each of these quads is 7½ × 7½ minutes of latitude and longitude, or approximately 7 × 8 miles, about one-third the area of a Christmas Bird Count circle. The grid covers the entire state, with about 1200 quads covering Oklahoma. However, the atlas project will be sampling only one-sixth of every-other quad. This unit of land is referred to as an atlas block, and is about



3.5 × 3 miles in size. About 600 such blocks will need to be surveyed in the five years of atlas field work. We have selected this sampling scheme because of Oklahoma's relatively large land area and small population compared to many of the eastern states which have surveyed more intensively.

Oklahoma Breeding Bird Atlas data are the property of the agencies cooperating to produce the atlas. The information will be published in atlas format and is intended for use by the general public and for scientific purposes, wildlife management, and local, state, federal, and business planning. Persons, agencies, or organizations wishing to obtain data from the atlas may submit a request to the coordinating organizations.

#### *CONTENTS OF PACKET*

The packet each atlaser receives contains all of the materials that should be necessary to survey the selected portion of a quad (your "block"). Those who are surveying more than one block will not receive an entire packet for each one, but will receive one complete packet and the extra data sheets and maps for all of the blocks they are surveying.

Each packet contains the following materials:

- A copy of this handbook.
- A set of Block Visitation and Species List data forms for each block the atlaser is surveying.
- Special Interest Species Observation Forms
- Block Upgrade forms
- A locator map, showing where blocks the atlaser is surveying lie.
- A bird checklist for the appropriate region of the state
- A set of Nest Record Cards. (We are now out of these cards.)
- An atlaser dashboard identification sign. (The sign is the back cover of this handbook. Take it with you into the field.)

#### *QUESTIONS? ASK THE COORDINATORS*

If you have any questions or problems, wish to take on an additional block, or if you have a breeding record for a species not listed on the data form (a good bird!), please contact the Atlas Coordinator directly by whichever means is most convenient for you. He may be reached at:

Dan Reinking	(918) 336-7778 (phone)
Breeding Bird Atlas	(918) 336-7783 (fax)
Sutton Avian Research Center	e-mail GMSARC@aol.com
P.O. Box 2007	

Bartlesville, OK 74005-2007

An atlas Field Coordinator will be traveling throughout the state during the atlas season providing instructional programs and field trips for groups and interested individuals. To arrange such activities in your part of the state during 1998, you may contact her directly at::

## EXPLANATION OF DATA FORMS

The following section explains the different data to be collected and the codes to be entered on the data form. Because data for this project are being collected by many different atlasers, it is extremely important that each atlaser read the instructions and explanations and follow those instructions carefully. This will ensure that data from different atlasers is standardized and comparable.

### *BREEDING EVIDENCE CODES*

The breeding evidence codes used for the Oklahoma atlas are listed below. Please study these criteria (along with those for abundance) before you go out, so you will be familiar with them. You will be entering these codes on the Species List form as you find birds in your block. A separate Species List form will be used for each block in which you conduct atlasing. Codes and criteria generally follow the standardized code system used for most breeding bird atlases. Categories range from the least certain breeding status (Possible) to the most certain (Confirmed). Vagrants, early or late migrants, or other species exhibiting no evidence of breeding should be reported using the "Observed" code. Such "observed" records will not be included on the species maps that plot breeding distributions because they do not substantiate breeding. **The codes are given in increasing order of certainty within each category. Try to upgrade codes (from "NB" to "NY," for example) whenever possible.**

Report the highest breeding category that you observe, and try to <u>upgrade the status</u> of each species as high as you can. "Probable"
--

breeding is good, but the best is to have  
"Confirmed" breeding! Patient observation can  
pay off in upgrading the breeding codes.

Code

Letter      Description

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"OBSERVED" CATEGORY (OB)

**O**      The species (male or female) was Observed during the breeding season, but is not believed to be breeding in the block. Contrast this with the "Possible" category. The "Observed" category would include winter residents or migrants not expected to breed in Oklahoma (for example, Cape May Warbler or Lapland Longspur), vagrants, or any other species suspected to not actually be breeding within the defined block (such as a Great Blue Heron flying over). Non-breeding vagrants and obvious migrants need not be recorded.

"POSSIBLE" CATEGORY (PO)

**X**      A singing male was present in suitable nesting habitat

**S**      Safe Dates: The species (male or female) was observed in suitable nesting habitat during its breeding season (see Safe Dates list). Note that this is for species that may breed in the block, as opposed to the "Observed" category (which is for birds not breeding in the block). You must list the date of observation on the Species List form.

"PROBABLE" CATEGORY (PR) *A more desirable category than those above.*

**M**      Seven or more singing Males were present on one day in suitable nesting habitat during their breeding season. Applies mostly to passerine species, and not to birds which do not sing, such as ducks or swifts.

**P**      A Pair (male and female) was observed in suitable nesting habitat during their breeding season.

**T**      A permanent Territory was presumed, because an adult male was defending it (e.g., chasing other birds, or singing at the same location on at least two occasions a week or more apart).

**C**      Courtship behavior or copulation was observed. Includes a display or food exchange. For example, this could include the courtship flight of hummingbirds or the bill-tilt display of cowbirds, etc.

V A bird was observed Visiting a probable nest site (for example, a Great Crested Flycatcher inspecting a tree cavity).

A Adult(s) exhibited Agitated behavior or gave anxiety calls that suggested they have a nearby nest. Do not include agitated behavior you induce by pishing or using tape recorded calls. But if you flush a ground nesting bird into a bush where it repeatedly gives a distressed call, or if a pair of birds flies at you or circles closely above you, use this code. Contrast this with code DD below.

N Nest building by wrens or excavation of holes by woodpeckers. These species may build nests they never use for breeding. See also code NB below.

"CONFIRMED" CATEGORY (CO) *Upgrade each species to this category if possible.*

***The presence of Brown-headed Cowbird eggs or young is confirmation of breeding for both the cowbird and the host species.***

DD Adult(s) gave a Distraction Display or feigned injury, indicating a nearby nest. Several species, especially ground nesters, will flutter, apparently helpless, and try to draw predators away from their nest. Examples: broken wing acts of Killdeers or Mourning Doves.

PE Physiological Evidence of breeding based on a bird in hand. This would include a female with a highly vascularized, edematous incubation (brood) patch or an egg in the oviduct. A single male with a cloacal protuberance would not qualify as a "confirmed" breeder.

NB Nest Building by all species except woodpeckers and wrens. See also code N above.

ON Occupied Nest: Adult(s) watched entering or leaving nest site in circumstances indicating an occupied nest. Generally, this should be used for high nests or holes, the contents of which cannot be seen, where the adult may be incubating eggs or brooding young. If the contents of the nest can be seen, use one of the codes below.

NE Nest with Egg(s).

NY Nest with Young seen or heard.

UN Used Nest or eggshells found. These must be carefully identified if they are to be accepted. Use only for unique or unmistakable nests.

AY Attending Young: Adult was seen carrying food for young or feeding recently fledged young, or carrying a fecal sac away from the nest. Use carefully since some

species, especially corvids and raptors, carry food some distance before eating it themselves. Generally, this code should be used only if the nest or young cannot be found. If the nest or fledglings are found, use one of the other codes in this section.

**FL** Recently **F**Ledged young (of altricial species such as songbirds and raptors), or downy young (of precocial species such as ducks, shorebirds, and quail).

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#### *SPECIES LIST and SPECIAL INTEREST SPECIES forms*

The species list on the Species List form includes most species with established breeding records in Oklahoma. Filling out a **Nest Record Card** (see below for more details) is encouraged for any species for which you find a nest ("Confirmed" codes NB, NE, ON, NY). *Any species not on the list but for which you confirm breeding will also require good documentation; contact the Coordinator as soon as possible--the same day is best.* There are some species of special interest for which we would like additional information even if you do not confirm their breeding, and even if you discover them while birding in areas outside of your assigned atlas block(s). These species of special interest are marked with an asterisk (\*) on the Species List form. **For any observation of these species or of species not on the list (anywhere in the state) in late May, June, or July, please fill out a Special Interest Species Observation Form.**

#### *BIRD NAME CHANGES*

Common names for birds are changed from time to time (as are the scientific names, to better reflect our current understanding of taxonomy), which can sometimes lead to confusion when using field guides or other references which were published prior to the name change. Some of the recent changes for Oklahoma species which you may or may not be aware of or which your field guide or checklists may not include are: Green-backed Heron is changed back to Green Heron; Black-shouldered Kite is now called White-tailed Kite; Rufous-sided Towhee is now split into Eastern Towhee (which winters in Oklahoma and may breed locally) and Spotted Towhee (which winters but is not known to breed in Oklahoma); Brown Towhee is split into Canyon Towhee (breeds in Oklahoma) and California Towhee (does not occur in Oklahoma); Plain Titmouse is split into Oak Titmouse (not found in Oklahoma) and Juniper Titmouse (found in western Oklahoma); Scrub Jay is changed to Western Scrub-Jay (to separate it from Island Scrub-Jay and Florida Scrub-Jay, neither of which occurs in Oklahoma); and Northern Oriole is split back into Baltimore and Bullock's orioles (both of which breed in Oklahoma). Most field guides illustrate the different forms of towhees and orioles, although they may not be labeled with the current names. The Species List form and the Safe Dates list reflect these splits and name changes.

## ABUNDANCE CODES

The Species List form has a column (AB) for the abundance code for each species. Filling out this column is optional, but it will provide more information for future users of the atlas data. The code you use should be for the number of birds you actually find during your surveys within each block. The three codes represent large categories:

- A Rare (Only one or two birds seen within the defined block).
- B Uncommon (3 to 30 birds seen).
- C Common (More than 30 birds seen).

## NEST RECORD CARDS (*Disregard this section--we are out of Nest Record Cards*)

We encourage you to fill out a Nest Record Card for all species for which you find a nest. For species not on the list or those marked with an asterisk you should also fill out a Special Interest Species Observation Form, because this form has room for identification details, etc. See below for more information on this form.

When you are recording the data about a nest, please use the Nest Record Cards; if you use photocopies on paper then we have to transfer all of your data to cards later, a process which is time consuming and may introduce more errors into the data. If you need more Nest Record Cards, contact the Coordinator.

Please also fill out the latitude and longitude sections on the Nest Record Cards, to the nearest minute (1/60th of a degree) if you can. Although it is sometimes difficult to determine the latitude and longitude from a quad map (a library or university may have them), having these data on the cards makes them much more valuable. Figuring out the latitude and longitude requires a ruler. Remember that these maps are 7½ minutes along a side; you can divide the side up into 7½ equal parts. The latitude and longitude are given in each corner of the map. Note also that on the Nest Record Cards, if a measurement is less than 10, a leading zero is given to hold the space. Thus, if your nest is located at 30° 9' North latitude and 91° 47' West longitude, on the card it should be written as 30 09 and 091 47.

If you confirm a breeding species that is not on the list (a very good bird!), please fill out the Special Interest Species Observation

Form and a Nest Record Card and contact the Coordinator as soon as possible (same day is best). All breeding records for species not on the list must be carefully documented.

#### HOW TO FILL OUT THE DATA FORMS

Please use the data forms in the field. They contain lots of information that is important to you as you survey your block. A clipboard with a rope to put over your shoulder is a convenient way to carry the forms in the field. A rubber band can help keep the unsecured end of the forms from blowing in the wind. Please use a ball-point pen or pencil when filling out the forms (rollerball and felt tip inks run when the paper is wet). The deadline for completion and turning in the data forms is **August 31, 1998**.

*Data Forms*—See examples of correct data forms on the next pages. Please make sure you have your name, the correct block name, and the year on every page of data forms (spaces have been provided). On the Block Visitation Data Form record the dates of your visits to your block, and the number of party-hours you spent looking for birds in the block on each day. (If you visited your block for 4 hours with another person and you worked near each other then you would record 4 party-hours. If you each went to separate regions of your block then you would record 8 party-hours.) Count only the time you actually spent surveying your block; do not include travel time. There are lines for 10 visits; if you visit your block more than 10 times (this is especially prone to occur if you happen to live in your block), just record the additional dates and hours on the back of the sheet.

The Species List form is three pages in length. Be sure to use a separate 3-page list for each block if you are atlasing more than one block (and remember to fill in the blanks at the top of each page). You may fill out a Nest record Card for any nests that you find. If you find a species not on the species list (pretty lucky!), you may add the species in one of the blank spaces at the end of the species list (after you have filled out a Special Interest Species Observation form for it, of course, and contacted the Coordinator!).

The Species List form has been designed be user-friendly and to minimize the amount of erasing you will need to do in the field. The list has four columns for Breeding Evidence Codes, labeled OB (Observed), PO (Possible), PR (Probable), and CO (Confirmed). When you first go into your block in the spring, for example, you might find an Eastern Wood-Pewee, which you suspect to be a

migrant. You would then mark the "Observed" column with the appropriate code, an "O." If you later find a singing male Eastern Wood-Pewee, you could upgrade the species status by marking an "X" in the "Possible" column. You do not have to erase the "O" in the "Observed" column because the new, higher-ranking code supersedes it. Later if you find a nest with eggs of an Eastern Wood-Pewee, you could skip the "Probable" column, go directly to the "Confirmed" column, and enter the code "NE" (for nest and eggs) in it. **Thereafter, you do not have to search for Eastern Wood-Pewee nests; once the species is confirmed in your area its status cannot be upgraded any further.** Once you have confirmed breeding for a species within your block, your efforts would be much better spent on confirming other species, rather than finding more Wood-Pewee nests (remember--our primary goal is to document the presence and nesting evidence of species during the breeding season rather than to get a count of individuals). Of course, if you are surveying more than one atlas block this year, you must confirm each species separately for each block. Using the Species List form in the field will allow you to tell at a glance which species you have recorded on previous visits to your block and which species you can still look for or try to upgrade to "Probable" or "Confirmed" status by observing evidence of breeding.

The rightmost column for each species is labeled "AB," for "Abundance." This is an optional column, where you can enter the code letter (A, B, or C) for the relative number of individuals of the species that you have seen in your block. Although it is optional, this information can make the atlas data much more valuable. Unfortunately, this column may require some erasing if you go out on subsequent days and see more of each species than you did on previous visits. As an example, if you see 3 Lark Sparrows in the northwest corner of your block, and on future visits to the southwest and central portions of your block you see an additional 1 and 4 Lark Sparrows, respectively, then you would enter "B" in the Abundance column. This signifies that you observed between 3 and 30 Lark Sparrows in your block.



[insert sample block visitation data sheet. ]

[insert a sample species list data sheet]

[insert sample SIS form]]

[insert sample block upgrade form]

## METHODS

To ensure uniformity and comparability of the Breeding Bird Atlas data, it is necessary to follow guidelines in surveying. The Breeding Bird Atlas guidelines are fairly flexible, because the data being collected are primarily the presence or absence of each species. Because the guidelines are flexible, it becomes the responsibility of the atlaser to decide what portions of the block he or she will survey and when they will be surveyed. Some of these decisions will no doubt ultimately be dictated by the willingness of particular landowners to cooperate. However, the methods used in surveying and reporting must still fall within the guidelines of the atlas project. If you have difficulty gaining access to your block, contact the Coordinator.

### *SURVEYING*

You, the atlaser, can choose which dates to visit your block and exactly how much time you spend doing it. A summary of the atlasing guidelines is in the box below, and they are subsequently explained in more detail. Please study these techniques, the breeding codes, and the abundance codes before you go out, so you will be familiar with them.

#### SURVEYING GUIDELINES

- **Respect private property. Always ask permission!**
- Be careful; bird safely.
- You must visit your block at least two times, once early in the season (before May 15) and once later.
- Your visits must total at least 10 party-hours.
- You must meet the coverage goals set for your block.
- Upgrade each species to the highest breeding status possible.
- Fill out Nest Record Cards and Special Interest Species Observation Forms if necessary.

*Limits of the area:* The block(s) you have been assigned are based on and located within U.S. Geological Survey 7½ minute quadrangles (a "quad"). **You may visit any habitat or region within your block, and we suggest that you do visit most of the habitats that are found in the block. This will ensure that the birds you list are representative of the entire block, and not just one habitat within it. Please be careful to record only those birds found within the limits of your block.**

**Respect private property:** This is perhaps the most important instruction of all. Please obtain permission before entering

private property. This serves two functions: first, of course, it respects the rights of the owners. Respect for private property includes closing gates (as you found them), not driving on a soft road and leaving ruts, not harassing livestock, etc. Second, many landowners know a lot about the birds on their land. Use caution about observations from casual birdwatchers, but remember that they can provide solid information on some obvious species such as hawks, heron rookeries, prairie-ckicken booming grounds, and so forth. In some cases, large portions of a designated block or even a whole block may be owned by landowner(s) who do not wish to cooperate. If you find this to be the case, please contact the atlas Coordinator. Always remember: we are guests on private land and have no right to be there unless they agree. Most landowners enjoy birds and wildlife and should be receptive to atlasing if they are approached in a professional and friendly manner.

In some cases, land within survey blocks may be owned by someone not living on the property, making it difficult to determine who is the proper person to contact for permission to survey. In such cases, information on ownership can be obtained in one of two ways. First, the Treasurer's office or County Clerk's office of the county courthouse can provide ownership information. You will need to bring your atlas area map or provide the township and range information (for the County Clerk's office) or the address (for the Treasurer's office) to determine ownership of particular land parcels. The Natural Resource Conservation Service (or NRCS, formerly Soil Conservation Service) offices often have County platte maps for sale that provide land ownership information, but these can sometimes cost \$10-\$25.

*Be careful:* With all of our enthusiasm for the atlas, let us also caution you to go into the field safely. We suggest a few important rules.

- Do not go alone into wilderness, roadless areas, or rugged terrain. Use caution on night owling trips and take a companion. You may also want to contact local law enforcement officers before making owling trips. This can help avoid potentially uncomfortable situations.
- Always tell someone where you are going, especially when you go into remote areas.
- Beware of natural hazards such as ticks, ants, bees, venomous snakes, wild hogs, poison ivy, etc.
- Prepare for the weather. Especially in the warmer months, remember to carry plenty of water and avoid overheating and sunstroke, and avoid thunderstorms and lightning.

*Nest disturbance:* Atlas field work does not require you to inspect the nest for eggs or young. By the nature of the work, however, you will find a number of nests; please be conservative about approaching the nests to look in them. The greatest

dangers are predator attraction due to the scents or trails you leave, or causing abandonment of nests, so if you do approach, do so briefly. Please try not to unduly disturb the parent birds or the habitat; if you look into a nest, take a quick look and leave promptly. You should not enter nesting colonies or rookeries; these birds are often very susceptible to disturbance.

#### GOALS FOR COVERAGE

Ideally, we aim to record every species of birds breeding in each atlas block, but as a practical matter we cannot achieve that goal. In your block(s) you should try to survey all of the different habitats, which depending on location may include several of the following general types: river or streamside, coniferous forests, deciduous forests, wetlands, lakes, brushy fields, rocky slopes, prairies, pastures, crop fields, urban areas, etc. By visiting each of the various habitat types in an block, you will have the best chance of recording the greatest number of species actually breeding within the block. Our main goal is not to find rare species, but rather to provide as complete a picture as possible of the breeding distribution of all species within the state.

*Number of visits and party hours*—You must visit your block(s) at least two times and for a minimum of 10 party-hours. Please record your time as the number of party-hours, as you would on a Christmas Bird Count (see the *Data Forms* section, above). As an example, to meet the minimum requirements for number of visits and party-hours you would have to visit each block once early in the season (prior to May 15) and once later in the season from dawn until noon each time. You would have to meet the coverage goals within that time (see species coverage goals, below). Most atlasers will visit their block(s) more than twice and spend more than 10 hours surveying it. (It's really fun!)

If you live within the block you are surveying, you should add a note on the data sheet telling us this, and you should also record the number of party-hours you spent specifically surveying your block.

*Species-coverage goals*—To ensure that each block has been adequately surveyed, we must set species-coverage goals. Species-coverage goals may vary from block to block, depending on the region of the state and our estimate of the homogeneity of habitats in the block. The coverage goals are written on the Block Visitation Forms.

Species-coverage goals will be specified as a minimum total number of species with a certain number of those confirmed as breeding in the block. "Observed" species do not count for the total species. The total list of species will include all of those "Possible," "Probable," and "Confirmed."

### EXAMPLE OF MEETING SPECIES-COVERAGE GOAL

For an block with coverage goal of at least 50-75 species, 20 confirmed:

- The atlaser could report 22 species as "Confirmed."
- He/she could report 27 as "Probable," and 18 as "Possible."
- The total would be  $22+27+18=67$ , with 22 confirmed.
- "Observed" species (those with no evidence of breeding) do not count.

If you do not meet your block's species-coverage goal, do not worry. Please let us know why you think you did not make the goal. For some blocks, it will not be for lack of trying, but rather because the goal was too high. We probably have over-estimated the number of species that can be found in some blocks. However, if the coverage goal is not met because the atlaser did not spend enough time surveying the block, we will probably have the block surveyed again in the following year to provide some additional information. Please make a concerted effort to "finish" each block that you have agreed to survey in a given year. With about 600 blocks to survey statewide, we collectively need to complete 120 blocks per year to finish in five years. If you have any questions or comments about the species coverage goals, please let us know.

### SCHEDULE

*Surveying Period*—The surveying season for the atlas project in future years will be from February 15 to August 15. This is a period of five months, which should allow you many opportunities to visit and survey your block(s). It is necessary that you visit your block at least once early in the period (between February 15 and May 15) to find early nesting species, such as Carolina Chickadees and many hawks and owls. You should visit your block at least once during the later surveying period (between May 16 and August 15) to find most other nesting species, and to avoid confusion with migrants. Some species (such as American Goldfinch) usually do not nest until July or later, so end of the season visits are necessary if you wish to confirm these species. Note that the safe dates for many species are in June when the migrants have already passed. June is an excellent month to survey for the largest number of nesting species.



*Reporting Dates*—Once you have finished, you should make sure the Block Visitation Data Form(s), Species List form(s), Special Interest Species Observation Form(s), Block Upgrade forms (if applicable), and Nest Record Cards (if you did them) are correctly filled out, and return them by **August 31** to the Coordinator (Dan Reinking, Breeding Bird Atlas, Sutton Avian Research Center, P.O. Box 2007, Bartlesville, OK 74005-2007).

*EXPLANATION OF SAFE DATES (Please read this section carefully. Using safe dates properly will help you upgrade many species beyond "Observed" status, even if you don't see any behavioral evidence of nesting).*

Included at the end of this handbook is a list of species indicating "safe dates" for each species. Safe dates are those dates when a bird can be safely considered to be a "Possible Breeder" in the block, and not a migrant just passing through or a winter resident (an "Observed" species). For example, the safe dates for Prothonotary Warbler are May 20 to June 30. If you find a singing male Prothonotary Warbler in your block on April 28, the warbler may be a migrant, and may not breed in the block. On the other hand, if you find a male or female on June 10, within the safe dates for Prothonotary Warbler, the bird is probably not a migrant, but may have nested in the block. You could then list the Prothonotary Warbler as a Possible Breeder for your block, although it is even better to spend some time trying to upgrade the status to "Probable breeder" or "Confirmed breeder" through continued observation and obtaining evidence of breeding.

<p>Finding a species within its safe dates is only sufficient to upgrade its status from "Observed" to the better status of "Possible breeder." However, it is best to work toward obtaining "Probable" or "Confirmed" status based on nesting evidence.</p>
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#### *COMPLETION*

Your block will have been completed once you have met the coverage goals and are satisfied that you have found most of the breeding species in the block. (Remember: we do not require that every species be found in every block; rather, we want consistent coverage sufficient to meet our coverage goals. After all, we have a lot of blocks to survey in just five years!) Although it is possible that some atlas blocks will need to be surveyed for a second year, we strongly encourage you to complete your block(s) this year. There are a couple of reasons for this: 1) it is better to have more blocks surveyed moderately well than to have

just a few blocks surveyed really well; and 2) as mentioned above, we have a lot to do in just five years!

Once you have completed your block, please report it to the Coordinator, following the instructions below.

#### *REPORTING INSTRUCTIONS*

Although it is the most fun to simply go out birding and hunting for nests, a critical part of the atlas surveying procedure is reporting what birds have been found. Please be careful to fill out your forms carefully and completely, according to the "How to Fill Out the Data Forms" section of the handbook.

Be sure to send in your Block Visitation Data Forms, Species List forms, Special Interest Species Observation Forms, and Nest Record Cards to the Atlas Coordinator at the Sutton Center (address on page 1) by **August 31, 2000**.

#### *BREEDING RECORDS FROM PREVIOUS YEARS*

If you have nest or breeding records from years before the Breeding Bird Atlas (1996 or earlier) for special-interest species (those with an asterisk on the Species List form), we would like to have that information, too. The information we need on these previous records is:

- Species
- Specific locality
- Date
- Description; for example, "nest and 4 eggs" or "3 fledglings"

You may turn in those data at the same time as you turn in your current Breeding Bird Atlas data sheets, but please use separate sheets of paper.

#### ATLASING TIPS

##### *GETTING STARTED (reprinted from BBA News Number 1)*

Although the stack of data forms, maps, and this handbook may at first make atlasing your block seem a little overwhelming, the atlasing process is really quite simple. The following suggestions may make getting started a little easier.

- 1) Read the handbook (twice is better).
- 2) Review the data forms and the sample forms in the handbook.

- 3) Contact the coordinator with any questions.
- 4) Assess your block. Drive the public roads within it (you can actually get many species from the road) and take note of residences which may be the landowners'. Get a feel for the habitats your block contains.
- 5) You may find it helpful to draw your own map of the block on an 8 1/2" X 11" or larger sheet of paper showing roads and residences as well as different habitats within the block. You can then mark off areas which you have covered, note landowners you have spoken to, etc.
- 6) Ask permission to go birding on the property of landowners within the block. Not everyone will cooperate, but most people won't mind as long as you are polite, careful to leave gates as you found them, and do not damage crops, frighten livestock, or leave ruts in soft roads. Many landowners may know of things like hawk or owl nests on their property. This information can be helpful to you.
- 7) Go birding! Try to visit all of the habitats in the block, and remember to carefully record all of your observations on the provided forms.
- 8) Send in your information by August 31.

#### *DIFFICULT TO IDENTIFY SPECIES*

All of us have trouble with some species. Do not guess. You may report them as "*Empidonax* species" or "*Accipiter* species" (in the blank lines at the end of the list), rather than trying to reduce them to species using field marks with which you are not comfortable. If you inform us of these situations promptly (and have consistently located the bird several times in the same area), we may be able to arrange a visit to your area by a local expert to help you with the identification.

#### *HONING YOUR OBSERVATIONAL SKILLS*

While most of us who have been birding for a while are reasonably proficient at identifying birds, the identification is often where we stop. Effective atlasing requires development of a new set of observational skills. On the surface that sounds like work, but in reality it gives birding a whole new, rewarding dimension. The skills required are those of looking for and interpreting bird behavior. Much of the information gathered from atlas projects is in fact behavioral in origin.

Watching—really watching—an individual bird for several minutes or more will often provide the clues needed to record a bird as a Probable or Confirmed breeder in a block. The following are some hints and examples of behavioral clues which suggest breeding. Included with each description are the proper status and code to record.

- ◆ Remember to check your observations against the Safe Dates list; this can help you upgrade many species from "Observed" to "Possible" status using code "S." Review the Safe Dates sections of the handbook (the instruction section on page 19

and the list itself starting on page 26) for an explanation of using safe dates.

- ◆ Acts of aggression such as chasing, particularly by males toward other males of the same species, can be recorded as "Probable" using code "T."
- ◆ Types of courtship behavior vary widely from species to species, both in the rituals that are performed and in how obvious they are. Think of a strutting peacock as one of the more obvious examples! Unless otherwise noted, the following behaviors can be recorded as "Probable," using code "C."
  - Male **Common Nighthawks** have an obvious display in which they climb up and then dive sharply and deeply, creating a brief, loud, vibrating sound which carries a considerable distance.
  - **Upland Sandpipers** may circle high in the sky on steady wings, giving a surprisingly loud, wierdly trilling, wolf-whistle.
  - Mate-feeding is often practiced by **Tufted Titmice** and **White-breasted Nuthatches**, with males providing food to females.
  - Male **Brown-headed Cowbirds** may fluff body feathers, arch their neck, spread their wings and tail, and tip forward. This display may be competitive (code "T") if given to males, or considered courtship (code "C") if given to females.
  - Mated male and female **Northern Cardinals** may "countersing," or alternately sing back and forth to one another, although if you cannot actually see both the male and the female, you will not know for sure that it is a pair interacting (code "C") rather than two males (code "T"), or birds on neighboring territories. Mate-feeding is also common in cardinals.
- ◆ Detecting recently fledged birds is another good method of obtaining Confirmations (code "FL"). Small, downy Killdeer chicks can often be seen running near adults. Recently fledged songbirds often have very short, stubby tails because the tail feathers are only partially grown when the birds leave the nest. They may also continue to beg audibly and visibly after leaving the nest.
- ◆ One great source of information on bird behavior is [A Guide to Bird Behavior](#), volumes 1, 2, and 3 by Donald and Lillian Stokes, published by Little, Brown, and Company. Each volume contains twenty-five chapters, one species per chapter, which provide fascinating insight into visual and auditory displays, territorial and courtship behavior, nest-building, egg-laying, incubation, nestling, and fledgling periods for each species. These books are truly an eye-opener, even for common species you may feel quite familiar with. They will help you understand the meaning of the behaviors you observe. Another classic source is the series by Arthur Cleveland Bent, [Life Histories of North American Birds](#). Libraries may have the Dover reprint of this set of about two dozen superb volumes.

#### *FINDING UNDER-REPORTED BIRDS*

Some species of birds are often under-reported in breeding bird atlas projects. These birds may be more abundant and widespread than is shown by atlasers' reports. These include nocturnal species, those species which live in hard to survey habitats such as bitterns and rails, and also some species that are just shy. The following is an incomplete list of some under-reported species, with some notes that may help you find them in your block. Most bookstores carry tapes or compact discs of bird songs, which can be very helpful in sorting out species using your ears alone. "Birding by Ear" and the Peterson series tapes are particularly useful. Each offers eastern and western versions, although in Oklahoma both versions are useful. Listening to the whole tape will be more confusing than helpful, so concentrate on those species that are likely to occur in your block. Be sure to check the bird checklist for your part of the state to see which of the following species potentially may be found in your block. This list does have an eastern bias.

*Nocturnal Birds*--For owls and nightjars, it may be necessary to visit your block at night. This might be convenient if you live within the block, but inconvenient if you live elsewhere. A few species, especially Chuck-will's-widow and Common Poorwill, do not call past first light or until darkness has fallen. However, many nocturnal birds, such as nighthawks and woodcocks, are active just at dawn and at dusk, so you may be able to find them by beginning your surveying day very early, on birdwatcher's hours, or just at dusk. Even during the day, Eastern Screech-Owls do respond to recordings of their calls, so they can sometimes be located that way. Barred Owls often call during the day, and they are so loud they can be heard for some distance.

*Hairy Woodpecker*--These woodpeckers are often mistaken for or overlooked as Downy Woodpeckers. Hairy Woodpeckers have a very different call or rattle, much lower and not as sharp as the Downy Woodpecker's. If you notice a woodpecker that sounds like a Downy Woodpecker but not exactly, check to see if it is in fact Hairy Woodpecker.

*Eastern Wood-Pewee*--This species is very conspicuous if you know its call, but otherwise may be overlooked. The same is true for *Empidonax* flycatchers.

*Wood Thrush*--This is another one of those species that has a readily distinguishable song, but can be very hard to see. Wood Thrushes prefer hardwood forests, with tall trees, a closed canopy, and an open understory. Their song is very distinctive, sounding like no other Oklahoma bird: a rich, harmonic, song difficult to describe but easily recognized. Wood Thrushes do not respond well to screech-owl recordings.

*Yellow-throated and Red-eyed vireos*--These two vireos can be very hard to see, because they live high in the canopy and do not move much to call attention to themselves. They also have similar songs, so many people who know the song of the Red-eyed Vireo may

be overlooking the songs of Yellow-throated Vireos. The song of the Yellow-throated Vireo is more harsh and slightly slower. To me it sounds something like a Red-eyed Vireo song crossed with a Great Crested Flycatcher. The Yellow-throated Vireo also tends to live in more open, orchard-like woods than Red-eyed Vireo, which is usually in a closed forest. Both species respond pretty well to a screech owl tape, and both will respond to recordings of their song.

*Kentucky Warbler*--This warbler is usually found in a fairly dense, junky habitat. They prefer broad-leaved forests with a fairly open canopy, and with a fairly thick understory. They also may be in "better" forest than this (older trees, closed canopy, less understory). They occasionally will be in a fairly tall broad-leaved thicket, with little or no overstory canopy, very few trees. They are rarely found in pine thickets or pine forests of any sort. They are much more easily heard than seen

*Henslow's Sparrow*--This species is not very conspicuous until you learn its simple song, often described as "tslick", which it repeats frequently and even at night. Look for it in northeastern and northcentral Oklahoma where it inhabits tallgrass prairie which has not been recently burned and has large amounts of standing, dead vegetation.

#### *SOME EASY BIRDS TO CONFIRM*

Although the task of meeting your Coverage Goals may seem daunting, some species are very easy to confirm breeding. The young of most songbirds have a tittering begging call that is very recognizable, and it sounds similar in many species. If you learn to recognize the begging call for one species, you will likely recognize it in many other species. Here are some more tips on getting some easy confirmations (be sure to check the bird check-list for your part of the state to see if the following species are likely to be found there).

*Purple Martin*--Of course, it is very easy to get the martins around a martin house. You often can get confirmations on two other species at the same time: House Sparrow and European Starling, since the latter two often nest in martin houses.

*Swallows*--In Oklahoma, most of our other swallows (besides martins) are often found nesting under culverts or bridges.

*Nest Boxes*--*Carolina Chickadee, Carolina Wren, and Eastern Bluebird*--These species all will nest in bird boxes, and often around homes. Look for your local bluebird trail, and you may find not only bluebirds but other species, too!

*American Robin*--Robin fledglings have spotted breasts. Look for them in June.

*Northern Mockingbird*--Listen for the whining cheep of nestling and fledgling mockingbirds anytime after March. Singing adults will sometimes give this call, but if you hear it repeated many times, even without seeing the bird you can know you have nestlings or fledglings, both of which confirm breeding. Fledgling mockingbirds also have spotted breasts like young robins.

*European Starling*--Besides martin houses, starlings breed anywhere around human habitations. They seem to like holes under the eaves of buildings, under gas station canopies, signs, stoplights--nearly anywhere man-made.

*Pine Warbler*--Fledgling Pine Warblers appear in May. Look for a Pine Warbler that is not yellow, but rather a brownish color all over. They often beg food from their parents, too, yet another sign they are young birds.

*Northern Cardinal*--Young cardinals have blackish bills, not red, and look otherwise like female adults. The bill turns red about two months after fledging, so you can see it for a long time. Look for them most commonly after the end of May.

*Brown-headed Cowbird*--Fledgling cowbirds are noisy and constantly beg for food. Because they parasitize many of our common yard birds such as cardinals, they often can be seen around cities and towns. Remember, a fledgling cowbird is a good find, because it confirms breeding not only for the cowbird, but the host species, too. Also remember that cowbirds are protected under U.S. law.

*House Sparrow*--Just like starlings, House Sparrows nest around human habitations, and their nests are easy to find in towns and cities.

## ATLAS ETHICS

### *Thoughtfulness for the Birds*

- Be quiet and unobtrusive. The quiet observer sees more.
- Approaching a nest too closely, or repeatedly flushing adults during certain stages of the nesting cycle may attract predators or cause abandonment. Do not handle eggs or young.

- Use tape recorders with restraint. Excessive use of tape recorders or constant pishing may disturb the birds too much.
- Use discretion in divulging information on nests of threatened or endangered species. The Atlas will keep confidential the exact locations for these species.

*Thoughtfulness for the Habitat*

- Avoid trampling fragile habitats, especially marshes or crops. Damage to the habitat affects all of the species in a system.
- Carry out your litter.
- Drive or park only on established roads and parking areas.

*Thoughtfulness for People*

- Obtain permission to enter private lands, and when necessary, public lands. Respect "Posted" and "No Trespassing" signs. Respect the privacy of landowners and tenants. Do not block rights-of-way; leave gates as you find them; stay on roads and do not drive into mud holes since this can result in ruts or stuck vehicles.
- Answer questions about your activities, or volunteer the information, courteously and respectfully. You represent the Breeding Bird Atlas project. If you represent the project well, it will make things easier for everyone involved.

Sources of this ethics code include the Colorado, Michigan, and New Hampshire atlases, and the Sacramento Audubon Society.

THANKS!

We sincerely acknowledge your valuable efforts as an atlas surveyor. A big, hearty Thanks! Your participation makes the Oklahoma Breeding Bird Atlas possible, and will be noted in the final published atlas.



## SAFE DATES FOR OKLAHOMA SPECIES

(To be used as an aid for assigning breeding status)

These dates represent the time frames within which a species can be considered a possible breeder (PO column, code “S,” on the Species List form) rather than potentially just a migrant, transient, winter resident, or non breeder, which would be recorded as an “O” in the Observed (OB) column. Using Safe Dates cannot upgrade a species beyond “Possible” status. Some species have no safe dates; for these species code “S” will not apply. When using the “S” code on the Species List form, record the date of your observation next to the species’ name. Any signs of breeding would, of course, upgrade the status from possible to probable or confirmed, rendering the use of the Safe Date code unnecessary. These dates do not represent early or late nesting dates; any evidence of breeding (regardless of date) supersedes the Safe Date code. Any summer observations (late May-July) of asterisked (\*) species or of species not on this list require completion of a Special Interest Species Form (even if the observation was not in an atlas block).

SPECIES	SAFE DATES
1. Pied-billed Grebe	None
2. Eared Grebe*	None
3. Anhinga*	None
4. Double-crested Cormorant	None
5. American Bittern*	June 1 - July 15
6. Least Bittern*	June 1 - July 15
7. Black-crowned Night-Heron	None
8. Yellow-crowned Night-Heron	None
9. Green Heron	None
10. Little Blue Heron	None
11. Cattle Egret	None
12. Snowy Egret	None
13. Great Egret	None
14. Great Blue Heron	None
15. White-faced Ibis*	None
16. Canada Goose	None
17. Mallard	None
18. Northern Pintail*	None
19. Northern Shoveler*	None
20. Blue-winged Teal	None
21. Cinnamon Teal*	None

22. Wood Duck	None
23. Ruddy Duck*	None
24. Redhead*	None
25. Hooded Merganser*	None
26. King Rail*	June 1 - July 15
27. Purple Gallinule*	None
28. Common Moorhen*	June 1 - July 15
29. American Coot	None
30. Black-necked Stilt*	None
31. Snowy Plover*	None
32. Killdeer	None
33. Mountain Plover*	None
34. Long-billed Curlew*	None
35. Spotted Sandpiper	None
36. American Woodcock	None
37. Upland Sandpiper	June 1-25
38. Least Tern**	None
39. Turkey Vulture	None
40. Black Vulture	None
41. Golden Eagle*	None
42. Bald Eagle	None
43. Mississippi Kite	June 1- July 15
44. White-tailed Kite*	None
45. Northern Harrier	May 15 - July 15
46. Cooper's Hawk*	May 15 - June 30
47. Red-shouldered Hawk	March 1 - June 30
48. Broad-winged Hawk	May 15 - July 15
49. Red-tailed Hawk	April 1 - June 15
50. Swainson's Hawk	June 1-30
51. Ferruginous Hawk	April 15 - June 15
52. Osprey*	None
53. American Kestrel	May 1 - July 15

54. Prairie Falcon	April 15 - June 15
55. Greater Prairie-Chicken	April 1 - June 15
56. Lesser Prairie-Chicken	April 15 - June 30
57. Northern Bobwhite	April 15 - July 15
58. Scaled Quail	April 15 - July 31
59. Ring-necked Pheasant	May 15 - July 15
60. Wild Turkey	May 1 - July 15
61. Rock Dove	March 1 - August 15
62. Mourning Dove	May 1 - July 31
63. Yellow-billed Cuckoo	June 15 - July 15
64. Black-billed Cuckoo	June 1-30
65. Greater Roadrunner	May 1 - June 30
66. Barn Owl	April 15 - June 30
67. Short-eared Owl*	May 10 - June 30
68. Long-eared Owl*	May 1 - June 30
69. Great Horned Owl	March 1 - July 15
70. Barred Owl	March 1 - July 15
71. Eastern Screech-Owl	March 1 - July 15
72. Western Screech-Owl*	March 15 - June 30
73. Burrowing Owl	May 1 - July 15
74. Chuck-will's-widow	May 20 - July 15
75. Whip-poor-will	May 25 - July 15
76. Common Poorwill	May 25 - July 15
77. Common Nighthawk	June 1 - July 15
78. Chimney Swift	May 15 - June 30
79. Ruby-throated Hummingbird	June 1-30
80. Black-chinned Hummingbird Hummingbird*	June 1-30
81. Belted Kingfisher	May 15 - June 30
82. Golden-fronted Woodpecker	May 15 - June 30
83. Red-bellied Woodpecker	March 15 - July 15
84. Northern Flicker	May 1 - June 30
85. Red-headed Woodpecker	May 15 - June 30

86. Lewis' Woodpecker*	June 1-30
87. Downy Woodpecker	May 1 - July 15
88. Hairy Woodpecker	May 1 - July 15
89. Ladder-backed Woodpecker	May 1 - June 30
90. Pileated Woodpecker	March 15 - July 31
91. Eastern Kingbird	June 1 - July 31
92. Western Kingbird	May 15 - July 15
93. Cassin's Kingbird	June 15 - July 15
94. Scissor-tailed Flycatcher	June 1 - July 15
95. Great Crested Flycatcher	June 1-30
96. Ash-throated Flycatcher	June 1 - July 15
97. Eastern Wood-Pewee	June 1 - July 15
98. Eastern Phoebe	April 15 - June 30
99. Say's Phoebe*	May 1 - June 30
100. Vermillion Flycatcher*	May 15 - June 15
101. Acadian Flycatcher	None
102. Willow Flycatcher	None
103. Horned Lark	April 15 - June 15
104. Tree Swallow*	None
105. Purple Martin	May 15 - June 15
106. Bank Swallow	None
107. N. Rough-winged Swallow	None
108. Cliff Swallow	None
109. Barn Swallow	None
110. Western Scrub-Jay	May 15 - June 15
111. Pinyon Jay*	May 1 - June 15
112. Blue Jay	May 15 - July 15
113. Black-billed Magpie	April 20 - June 15
114. American Crow	March 15 - July 15
115. Fish Crow	April 1 - June 15
116. Chihuahuan Raven	May 1 - June 30
117. Common Raven	May 1 - June 30

118. Tufted Titmouse	April 1 - July 15
119. Juniper Titmouse	May 1 - June 30
120. Carolina Chickadee	March 15 - July 15
121. Verdin*	June 1-30
122. Bushtit	May 15 - June 30
123. White-breasted Nuthatch	April 1 - May 31
124. Brown-headed Nuthatch	April 1 - May 15
125. House Wren	June 1- July 31
126. Carolina Wren	April 1 - July 31
127. Bewick's Wren	March 15 - July 15
128. Sedge Wren*	None
129. Canyon Wren	May 1 - June 30
130. Rock Wren	May 1 - June 30
131. Blue-gray Gnatcatcher	May 20 - June 30
132. Eastern Bluebird	May 1 - June 15
133. Mountain Bluebird	May 1 - June 15
134. Wood Thrush	May 20 - July 31
135. American Robin	May 15 - July 31
136. Loggerhead Shrike	May 1 - June 30
137. Gray Catbird	June 10 - July 31
138. Northern Mockingbird	May 1 - July 31
139. Brown Thrasher	May 10 - July 15
140. Curve-billed Thrasher	May 1 - July 15
141. Cedar Waxwing*	None
142. European Starling	April 15 - June 15
143. Black-capped Vireo**	May 10 - July 15
144. White-eyed Vireo	May 20 - June 30
145. Yellow-throated Vireo	May 15 - June 30
146. Bell's Vireo	June 1 - July 15
147. Red-eyed Vireo	June 10 - July 15
148. Warbling Vireo	June 1-30
149. Prothonotary Warbler	May 20 - June 30

150. Northern Parula	June 10-30
151. Black-and-white Warbler	June 10-30
152. Cerulean Warbler*	June 1 - July 15
153. Yellow-throated Warbler	May 15 - June 30
154. Prairie Warbler	May 15 - July 15
155. Pine Warbler	May 1- June 30
156. Yellow Warbler	June 1-30
157. Kentucky Warbler	May 20 - July 15
158. Hooded Warbler	May 25 - June 30
159. Worm-eating Warbler	June 1 - July 15
160. Swainson's Warbler*	June 1 - July 15
161. Ovenbird	June 1-30
162. Louisiana Waterthrush	May 10 - June 30
163. Common Yellowthroat	May 15 - June 30
164. Yellow-breasted Chat	May 20 - July 15
165. American Redstart	June 5-30
166. Rose-breasted Grosbeak*	June 1-30
167. Northern Cardinal	March 15 - July 31
168. Blue Grosbeak	June 1 - July 15
169. Indigo Bunting	June 1- July 15
170. Lazuli Bunting	June 1-30
171. Painted Bunting	June 1- July 15
172. Eastern Towhee*	May 5 - June 15
173. Canyon Towhee	May 10 - July 15
174. Grasshopper Sparrow	May 10 - July 15
175. Henslow's Sparrow*	May 10 - July 10
176. Lark Sparrow	May 10 - July 15
177. Bachman's Sparrow*	May 1- July 15
178. Cassin's Sparrow	June 1- July 15
179. Rufous-crowned Sparrow	April 15 - June 15
180. Field Sparrow	May 1- July 15
181. Chipping Sparrow	May 1 - July 15

182. Dickcissel	June 1 - July 31
183. Lark Bunting	June 1 - July 15
184. Eastern Meadowlark	April 15 - July 15
185. Western Meadowlark	May 1- July 15
186. Yellow-headed Blackbird*	June 1-30
187. Red-winged Blackbird	May 15 - July 15
188. Brown-headed Cowbird	May 1 - June 30
189. Common Grackle	May 1 - June 30
190. Great-tailed Grackle	May 1 - June 30
191. Orchard Oriole	May 25 - June 30
192. Baltimore Oriole	May 25 - July 15
193. Bullock's Oriole	May 25 - July 15
194. Scarlet Tanager	June 1- July 15
195. Summer Tanager	June 1- July 15
196. House Sparrow	March 1 - July 31
197. American Goldfinch	July 1 - August 15
198. Lesser Goldfinch*	June 5 - July 15
199. House Finch	May 1 - June 15

\*= fill out a Special Interest Species Observation form for any observations from late May through July

\*\*= fill out a Special Interest Species Observation form but do not disturb endangered species

OKLAHOMA BREEDING  
BIRD ATLAS PROJECT

*VOLUNTEER*

I always ask permission before  
entering private property.