

Bird Window Strike Survey Instructions

Project Contacts:

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Bird Survey Kit (what you will need to bring when you walk your route):

Denim bird bags are available in the BWSP bin outside IO-124. Each bag is stocked with all items needed for a Bird Collection Kit (except nitrile gloves). We only have a limited number of the denim Bird Bags, so the **denim bags must be returned to IO-124 after you finish surveying your route**. You can use one of CEES's bird bags or assemble your own personal bag.

CEES denim bird bags contains:

- plastic baggies (for collecting dead birds)
 - 4 sizes of bags: foldable sandwich, ziplock sandwich, ziplock quart, and ziplock gallon
- specimen information cards (to include with dead birds that you collect)
- PPE: masks & safety glasses
- pink marker flag
- clipboard (a hard writing surface for when you fill out specimen collection cards)

Items available to borrow from the BWSP Bin outside IO-124 (return after use each day!):

- **Route Map** (with building codes and compass directions marked out for you)
 - Laminated copies of route maps will be available in the BWSP bin outside IO-124.
 - Return the laminated map once you have finished your route.
- clipboard: extra clipboards will be available (in case you are using your own collecting bag)

Things you need to provide:

- **nitrile gloves** - CEES is providing these, but you need to select the size that fits you and bring them along; gloves will be available at the following locations:
 - BWSP bin outside IO-124
 - Earth Sciences office (SL-118), in a box behind the student worker's desk right across from the door as you enter the office
 - surgical mask (if you want extras): these are available from dispensers throughout campus
 - pen/pencil (to record information on the data card if a bird is found)
 - **smartphone** (or tablet) so that you can:
 - photograph birds (you can use a 35mm DSLR camera if you prefer)
 - contact organizers (if necessary)
 - record data to the online form (when you do your route or at a later time)
- When a dead bird is collected, the data needs to be recorded on both the online form and on the card that is placed in the bag with the bird.**

You may also wish to have:

- headlamp or flashlight if it is difficult to see during your route time
- **notebook** (if you are not immediately submitting the online data form)

Route maps:

Route maps are available on the CEES web site on the Bird Window Strike Project page. You can download these and print them out. The building(s) on your route map will have compass directions marked (so that you know which side is facing north, south, etc.). Buildings will be sectioned into quarters so that we can have finer resolution as to where on the buildings strikes are occurring. If you don't understand any part of the route or are not familiar with the area, please let us know! We can help you with this.

Shifts:

Survey your route any time during the **2 hour shift window**.

Morning: 7:00am-9:00am window ("sunrise" survey; timing of sunrise changes thru term)

- sunrise: 7:15 am (early Sept.), 8:15 am (early Nov.), 7:15 am (Nov. post time switch)

Midday: 12:00pm-2:00pm

Evening: 6:00pm-8:00pm window ("sunset" survey; sunset time changes drastically after DST ends)

- sunset: 8:15 pm (early Sept.), 6:40 pm (early Nov.), 5:40 pm (Nov. post time switch)

After DST ends, I am considering a switch to two shifts per day: morning (8:00am-10:00am) and late afternoon (4:00-6:00pm).

To walk your route:

Walk around the building, carefully scanning the ground as you walk, looking for dead or injured birds. You need to **examine the ground around the building from the base of the wall to a distance of approximately 3 m** (about 10 ft) **from the wall**. Walk slowly enough that you are able to make good observations. If there are bushes or trees at the base of the building, make sure to look around and under them if you can. Be very careful when examining flowerbeds: do not damage the flowers!

For a two-person team, one person can concentrate on the area closer to the building (0-1.5 m; 0-5 ft), and the other person can concentrate on the area further from the wall (1.5-3 m; 5-10 ft). If you are walking a route by yourself, you may want to walk around a building twice: once to inspect the area closer to the wall, and once to inspect the area further from the wall.

Note: Library route. The library presents a special challenge because it has an overhang (and numerous flowerbeds). You will need to inspect from the wall to the edge of the overhang, and from the overhang an additional 3 m (10 ft), since it is possible that birds could strike the undercut portion of the wall or the overhanging portion.

Data to report:

Record the following data to the **online bird strike data form** each time you walk your route:

- Team or Collector Name(s)
- Date & Time the route was surveyed
- Route name
- Shift (morning, midday, or evening)
- Did you find any birds (yes/no)

If you find a bird, there will be more data to report.

If you find a bird:

Record the following data to the [online bird strike data form](#):

- **name of the building** by which the bird was found
- the **building aspect** (the side of the building where the bird was found: north, south, etc.)
- the **building section** where the bird was found (consult your map; each building has 3-5 sections)
- **species identification** (made by **Merlin**) - **do Merlin identification 1st**
 - Merlin will provide you with a list of possible choices
 - record Merlin's 1st and 2nd suggested IDs
- **species identification** (made by **Seek**) - **do Seek identification 2nd**
- was the **bird alive or dead**
- if dead, was the bird collected (yes/no)
 - if no, add a note explaining why it was not collected
- if the bird was alive, describe its condition (see below for the *Live Bird Protocol*)
- **add any notes you feel to be relevant**

If you are not immediately recording this information to the online data form, you should record it in a notebook so that you can later fill in the information when you submit the data form.

Collection Protocol for Dead Birds:

Step 1: Fill out a specimen information card.

- this will be used when photographing the bird and will go in the 2nd ziplock bag.
- identify the bird using Merlin first THEN identify the bird using Seek

When handling birds, wear 2 pair of nitrile gloves, a surgical mask, and eye protection.

Step 2: photograph the bird (see below)

Step 3: Collect the bird. We will (try to) collect all birds. Even if a bird is in poor condition (decomposing, etc.), collect it. If you are uncomfortable collecting a bird that is in poor condition, text Dr. Schmalhofer (317-601-4445), identify yourself as being part of the Bird Window Strike Project, and let her know the location of the bird and its condition: someone from CEES will come collect the bird.

Bird Collection Procedure (smaller birds):

- turn the foldable-but-non-sealable sandwich bag inside-out
- with your gloved hand inside the baggie, gently pick up the bird
- if the bird is in poor condition pick up as much as you can (pieces, bones, loose feathers)
- turn the foldable sandwich bag right-side-in, enfolding the bird (or bird pieces)
- with the bird at the bottom of the baggie, gently roll up the bag to wrap up the bird
- place the bird-in-the-baggie inside the ziplock sandwich bag (the lighter weight ziplock bag), remove as much air as possible, and zip seal the bag
- place the bird-in-the-ziplock bag and the specimen information card in the ziplock quart freezer bag (the heavier weight ziplock bag), and zip seal the bag
- after finishing your route, **deposit the bagged bird in the bagged bird bin (small plastic bin) inside the large BWSP Box** located outside the door of the CEES lab in Innovation Hall (IO-124)
- **Text Dr. Schmalhofer to alert her that a bird is in the bin awaiting pick up.**
Collected birds will be transferred to a freezer.

TROUBLESHOOTING: collecting BIG birds.

Most birds that you find will be small songbirds. These small birds should fit in the sandwich bags. However, you may find larger birds (a Blue Jay, for example) that will not fit in the small bags. Your bird collecting kit includes a gallon-sized freezer bag to use for larger birds.

Collection Procedure for BIG birds:

- place the specimen information card in a ziplock sandwich bag and seal it
- photograph the bird as normal
- gently pick up the bird and place it in the gallon ziplock bag
- place the ziplock sandwich bag (with the specimen card) in the gallon ziplock bag with the dead bird; remove as much air as possible from the gallon bag, and zip seal the bag
- after finishing your route, **deposit the bagged bird in the bagged bird bin** (if it fits) - otherwise, simply place it on top of the bagged bird bin inside the large **BWSP Box** located outside the door of the CEES lab in Innovation Hall (IO-124)
- **text Dr. Schmalhofer to alert her that a bird is awaiting pick up** (and it is a large bird).

TROUBLESHOOTING: collecting VERY BIG birds.

This is not likely to happen, but it's not out of the realm of possibility: you may find an exceptionally large bird, such as a hawk. If a bird is too large to fit in a gallon-sized ziplock freezer bag, contact Victoria Schmalhofer (317-601-4445) or Adrienne Kelley (317-435-2038) for instructions. Prepare a specimen information card and proceed with normal photography.

If you find a live bird:

Bird-building collisions are not always fatal. Birds are sometimes only stunned and will recover on their own. If you encounter a live-but-stunned/injured bird during your survey, **the Live Bird Protocol** is initiated.

If the bird does not immediately fly away (or attempt to fly away) as you approach, **text Adrienne Kelley** (317-435-2038) **or Victoria Schmalhofer** (317-601-4445) **before proceeding**. One of us may be able to come out and assess the situation and take care of the bird. If we are unable to, we will direct you for the next steps. Typically what will happen is as follows:

- gather what data you can without stressing the bird
- photograph the bird (if you can) - but do not handle the bird!
 - this will likely be from a distance; use your smartphone's zoom feature to try and get closer (without actually coming closer)
 - even if you can't photograph the bird, you may still be able to identify it; use Merlin's non-photography bird ID feature to try and identify the bird
- **use a pink marker flag to mark the location of the stunned/injured bird**
- finish walking your route, and then return to where you saw the stunned/injured bird
- evaluate the bird's condition, and record this information to the online bird strike data form:
 - your evaluation will be based on whether the bird is still present, and, if it is, how is it behaving (sitting upright, lying down; alert, dazed, non-responsive-but-breathing; calm or showing signs of stress) and any obvious signs of injury (blood, broken wing, etc.)
- note anything you feel of significance

What happens if the bird is seriously injured:

We have accredited wildlife rehabilitation people on call to assist with seriously injured birds. If you find a bird that is deemed to be in need of rehab assistance, you may be directed to go to IO-124 and get a **stunned bird box** (kept in the same area as the BWSP Collection Bin and clipboards). A *stunned bird box* is a small cardboard box that is set over the stunned bird, so that the bird is in a small, dark space (free of distressing sights). Birds find dark enclosed spaces calming. (This is why falconers put hoods on their falcons.) The box will also help the wildlife rehab person locate the bird if someone cannot stay with the bird until the rehabber arrives.

FYI: if ever you find an injured bird in need of assistance (outside of this project), contact:

Providence Wildlife Rehabilitators
317-902-3825

They prefer that you text them if you find injured wildlife.

Photographing LIVE birds:

Take photographs of LIVE birds as best you can.

A side view generally shows the best features for identification purposes. Sometimes a photo of the belly or crown of the head is needed. Do not be concerned about getting the perfect photo: take whatever photographs you can without handling the bird. Handling the bird will stress it, and that is something we want to avoid. Any photographs you can get should still help us identify the bird.

Name the photo file and email your photos to cees@iu.edu (please send photos in jpeg format).

The naming convention for a live bird photograph is:

[YourLastName_building_aspect-section_date_live.jpg](#)

For the date, use day-month (3 letter abbreviation)-year format. For example, a photograph taken on the 16th of September of 2023 would be 16Sep2023.

Photographing decomposing birds/bird remains:

You may find a bird or bird remains that have been on the ground for some time and are decomposing.

Photograph decomposing birds exactly as you found them. This is referred to as an *in situ* photograph.

Try to remove as much vegetation as possible (if it is obstructing your photo). An *in situ* photograph is one of the three photos that you normally take of all dead birds.

The naming convention for an *in situ* bird photograph is:

[YourLastName_building_aspect-section_date_insitu.jpg](#)

Always use the university's two-letter code to designate the building(s) you survey.

Photographing DEAD birds: DO THIS BEFORE COLLECTING DEAD BIRDS

Take (at least) 3 photos of the DEAD bird: an *in situ* photo, a photo that includes bird and specimen card, and a building-location photo.

When handling birds, make sure you are wearing 2 pair of nitrile gloves, a surgical mask, and eye protection.

Photo 1: *In situ* photograph: Please be sure your bird is in focus!

- do not move the bird: photograph the bird exactly as you found it
- if possible, remove any vegetation that is obstructing your photo

Photo 2: *In situ* photograph with ID card: Please be sure your bird is in focus!

- place the filled in specimen ID card next to the bird and photograph it

Photo 3: Building location photograph:

- use a pink marker flag to show the location of the bird
 - if you are on concrete, lay the flag next to the bird
- back up and take a photo of the bird in relation to where it struck the building

NOTE: You may need to move the bird to get a different view/angle in order to identify the bird.

Send the photos by email to cees@iupui.edu

- **in the subject line**, indicate **route/day-of-the-week/shift and date** the photograph was taken
- **rename the photos before sending them as jpg files** use the following naming convention:

[YourLastName_building_aspect-section_date_view.jpg](#)

- for biring buddy teams, include both team members' names (e.g. Miller&Smith)
- aspect is the side of the building where the bird was found (use abbreviations)
- date is in DayMonthYear format (e.g. 2Feb2023)
- **view** refers to whether it is an *in situ*, *in situ with data*, or **building** photograph
 - for optional photos, add an appropriate descriptor, such as side, belly, etc.

Example photo file names: if I find a dead bird on the north side, section 4, of SL while walking the SL/LD route on October 21, the file names would be:

[Schmalhofer_SL_N-4_21Oct2023_insitu.jpg](#)

[Schmalhofer_SL_N-4_21Oct2023_insitu-data.jpg](#)

[Schmalhofer_SL_N-4_21Oct2023_building.jpg](#)

If you find more than one bird on the same side of a building on the same date, assign numbers to the birds and include the number after the view designation.

For example, team Miller and Smith find a total of three birds along the northwest wall of the library (section 2) on September 28, file names for bird #3 would be:

[Miller&Smith_UL_NW-2_28Sep2023_insitu-3.jpg](#)

[Miller&Smith_UL_NW-2_28Sep2023_insitu-data-3.jpg](#)

[Miller&Smith_UL_NW-2_28Sep2023_building-3.jpg](#)

If you find no birds:

That's ok. You won't find a bird every time . . . at least, we hope you won't. Submit the online bird strike data form each time you walk your route (whether you find a bird or not - "no birds" is still data).

At the end of the route:

Bring any birds collected to the BWSP Collection Bin in Innovation Hall (IO-124).

Return any borrowed materials to the bin (same location).

Throw away your nitrile gloves if you handled a bird, and **wash your hands thoroughly.**

What to do if you need supplies:

Where you go to restock supplies will depend on what you need.

Earth Sciences Office (SL-118) student worker's desk (the desk is located directly in front of you as you enter the office). The Earth Sciences office assistants will have supplies stashed in/near their desk. These will generally be the types of things that, once used, cannot be re-used (i.e. consumable supplies).

IO-124 Bird Window Strike Project bin. The BWSP bin in the doorway alcove of IO-124 will contain several things in addition to the **bagged bird box** (a small plastic sealable box in which you will place dead bagged birds). The items in the BWSP bin will generally be items that stay in the main bin (such as the dead bird collection box) or items that you borrow while walking your route and then return once you have finished.

Here is where you will find various items:

- nitrile gloves (SL-118, IO-124)
- bird specimen collecting bags, regular size (sandwich and quart) (SL-118, IO-124)
- bird specimen collecting bags, extra large size (gallon ziplocks), (IO-124)
- specimen collection ID cards (SL-118, IO-124) - *you will also have a pdf file to print your own*
- stunned bird box (IO-124)
- clipboards (IO-124)
- denim bird bag collecting kits (IO-124)
- marker flags (IO-124)
- safety glasses (IO-124)

A few marker flags will be placed in the BWSP bin (IO-124). A flag may be needed if you find a stunned bird. Place the flag in the general vicinity of the stunned bird (but not too close to the bird - do not stress the bird). This will allow you to easily find the location of the stunned bird when you finish your route.

You may also use a flag to mark the location of a decomposing bird (if you feel uncomfortable collecting it yourself). The marker flag will let CEES staff know where to look for the bird's remains.