Instructions for Photo Submission

Please contribute your high quality photographs to ***Piranga***! Submit photos of any bird species occurring in the Western Hemisphere that clearly show the diagnostic features of the bird. For each species, we are looking for representative photographs to illustrate every distinguishable plumage or age class (e.g., first cycle formative / hatch year, definitive cycle alternate / after-second-year), and both sexes, where they differ in appearance. We also welcome submission of additional sets of photos that highlight variation in molt or feather wear patterns, or geographic differences Below are the four key sets of considerations that we ask contributors to follow when photographing birds and submitting photos:

1) Best practices for photographing birds in the hand
2) Standards for ***Piranga*** photos
3) Standards for documentation
4) Review of the submission

1) Best practices for photographing birds in the hand

Above all, banders are responsible for meeting and promoting high ethical and scientific standards, which includes prioritizing the safety and welfare of birds. The North American Banding Council (NABC) has outlined best practices for photographing birds in the hand, consistent with the Banders' Code of Ethics. Refer to the NABC's manuals for guidance on appropriate handling methods for different bird groups.

Specifically, we expect that all contributors to ***Piranga*** will:

- Handle each bird carefully and respectfully, using a grip appropriate to the species that considers safety of both the bird and the person holding it. For example, passerines with powerful pectoral muscles should have their wings secured to prevent risk of injury, and species with weak legs (e.g., shorebirds, hummingbirds, and nightjars) should not be held by their legs.
- Have an established procedure for photographing birds that minimizes additional handling time (preferably no more than one minute).
- Not photograph birds showing signs of stress such as closed eyes, gaping, fluffed or ruffled plumage, or continual flapping of wings.
- Not use flash photography.

Images that suggest unsafe or unethical handling of birds will be removed.

Figure 1: illustration of appropriate holds for standard photos of a small passerine.

2) Standards for Piranga photos

All images should be well exposed, sharply focused, and clearly show key features for identification of species, age and sex. Use a photo editor to crop and resize images prior to upload, to maximize the size of the bird, and make any necessary adjustments to exposure, contrast, framing, etc. All images should be in .jpg format. Upon submission, all images will be automatically reduced for comparative display and thumbnails, but the original will be retained and can be viewed by selecting the image and zooming in. **Do not include your name on the image, as credits will be provided underneath each image.**

Some specific considerations:

- ***Standard images.*** In most cases, three images of an individual are preferred:
  - A side profile with a view of the closed wing ("body")
  - An open or partially open wing, held naturally ("wing")
  - The tail, preferably fanned to expose both inner and outer rectrices ("tail")

Figure 2: standard photos series of a Chestnut-sided Warbler

- ***Additional images.*** For some species, additional photos can be useful for highlighting other characteristics (e.g., eyes, throat, crown, underwing, undertail) that are useful for determining age or sex (see Figures 3-5 below). Note that photos of brood patch, cloacal protuberance, and skull pneumatisation are generally not desired for Piranga.

Figure 3: In some species, a clear view of the throat can be important for determining age and/or sex (e.g., black 'bib' on a definitive cycle basic / after-hatch-year Mourning Warbler, left; black patch largely limited to the chin of a female Cedar Waxwing, right).

Figure 4: Close-ups of the iris, face, bill (especially for hummingbirds and waterfowl) or crown can be helpful for many species, such as the ones shown below (clockwise from top left): the red eye of a definitive cycle basic / after-hatch-year Red-eyed Vireo, brown eye of a first cycle formative / hatch-year male Rose-breasted Grosbeak, smooth bill of a definitive cycle basic / adult female Ruby-throated Hummingbird and rusty crown of a definitive cycle basic / after second-year Swamp Sparrow

Figure 5: Additional examples of close-up features below (clockwise from top left): undertail of a first cycle formative / hatch-year Black-billed Cuckoo, outermost primary of a definitive cycle basic / after-hatch-year Eastern Kingbird, molt limit among the primary coverts of a second cycle basic / second-year Yellow-shafted Flicker, molt limit between feather tracts on the underwing of a first cycle formative / hatch-year Red-winged Blackbird, and black centre spots on back feathers and darkness of uppertail coverts on a definitive cycle basic / after-hatch-year Magnolia Warbler.

- ***Lighting and background.*** Shaded but bright natural light is typically best. The bird should not be in direct sunlight, as this can either wash out or artificially intensify colours (depending on the light), obscure molt limits, and create intense shadows. Avoid flash photography for similar reasons, as well as the potential stress it causes for birds. The background should be as uniform as possible so as not to distract the eye (e.g. grass, blank wall, etc.); if available, use aperture priority to focus on the bird and blur the background. Choose a background that contrasts with the colours of the bird (e.g., a Yellow Warbler would show up well in front of a brown wall; a Song Sparrow would show better in front of a grass background).

  Figure 6: Taking photographs in full sun may boost the colours, but it also creates deeper shadows and can wash out potential moult limits. Below, the images on the left were taken in the shade, and while the colours may not 'pop' as much, the shadows are much more diffuse and easy to ignore, and the colours will be more consistent when comparing to other images.

  Figure 7: An image's brightness and contrast can affect the viewer's ability to detect contrast between feathers or feather tracts. The image on the left is too dark, while the image on the right is too bright and has lost a lot of its contrast (this often happens in the sun – see above). The image in the centre has the right balance of brightness and contrast to effectively show the molt limits in the closed wing.

- ***Editing****:* Crop the image so as to maintain only the relevant parts of the bird (e.g. crop out fingers and most of the background). This allows for a much tighter, clearer image of the bird. When taking photos, aim to hold and pose the bird such that all key features can be seen after images are cropped. As much as possible, focus on manipulating the camera rather than the bird.

  Figure 8: Note the difference in detail visible between the original photo (below left) and the cropped version (below right).

3) Standards for documentation

To maximize the scientific and educational value of ***Piranga,*** the contribution portal will prompt you to provide the following when submitting photos:

- *Species:* Initiate a photo contribution by selecting a species from the drop-down menu.
- *Date:* Full date is preferred, but at minimum month is required.
- *Location:* Provide country, province/state (if applicable), and brief location details (e.g., banding station or other site name). Note that although ***Piranga*** is intended to be multilingual, user-submitted text fields will not be translated.
- *Age, molt class, and sex.* Based on features visible in the set of photos, indicate at minimum the sex of the bird and either the calendar-based age or molt cycle class (or preferably both). If you know the actual age of the bird to be different (e.g., based on skull pneumatisation, measurements, or recapture history), or can specify sex based on characteristics not visible in the photos (e.g., brood patch, cloacal protuberance, or measurements), please complete the known age / known sex sections in the photo contribution portal.
- *Band number.* If the bird was banded, please provide the band number to serve as a unique identifier for the set of photos. Do not include hyphens. If unavailable (e.g., photo of an unbanded bird), leave this field blank.
- *Photographer name:* By default, the contributor is assumed to be the photographer; if you are submitting on behalf of someone else, please provide the photographer's name. Only submit photos for which you own the copyright, or for which the owner has explicitly given you permission -- you are legally responsible for ensuring that you have the rights to post the photo.

Although not strictly required, we encourage you to provide a brief description of how the visible characteristics in the photo were used to determine age / molt cycle / sex, to help users

understand the various cues used in ageing and sexing, and how they relate to the individual under consideration. For example, a record for a second-year / first cycle alternate male American Goldfinch might read: “Bright yellow body feathers; extensive white at base of primaries, brownish primary coverts and alula contrasting with replaced greater coverts; olive lesser coverts”. This field will be shown for all images associated with a particular bird record, so please ensure that the comment addresses all relevant characteristics.

4) Review of the submission

Once you have finished uploading an image file and accompanying documentation, please review everything carefully to ensure there are no errors or omissions. When you hit the save button, your content will be posted to the live site, and you will be invited to either upload another image of the same individual, or exit the upload page. You can edit or delete your files at any time.

Note that new uploads automatically appear as “contributed” photos. The *Piranga* managers periodically review content and reclassify the most representative photos as “reference” images, and others that show important variations in appearance for a given molt cycle class as “supplemental” images.

Thank you for your contributions – we rely on banders and birders like you to help us further develop this important resource!