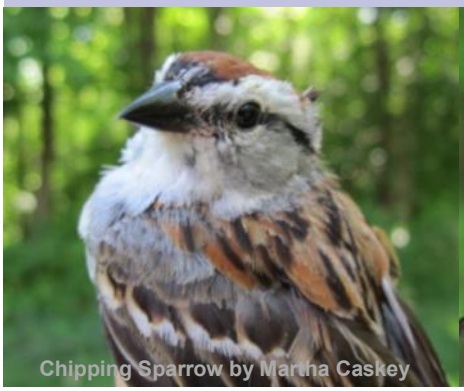
THE INSTITUTE FOR BIRD POPULATIONS
www.birdpop.org

MAPS Chat

An occasional newsletter of the Monitoring Avian Productivity and Survivorship (MAPS) program

Number 13 – March 2013


Chipping Sparrow by Martha Caskey


Magnolia Warbler by Don Freiday


Yellow-billed Cuckoo by Mark Conway

Bird Safety

Danielle Kaschube
MAPS Coordinator

When I began as a bander I was in awe of the tiny fragile creatures that fluttered in my hands. My bander trainers kept a close eye on me and the birds to make sure I did no harm and worked to pass on safe and ethical banding practices. Now I work with new banders and pass on skills they will need to keep the birds safe while in hand. Bird safety is so very important and I wanted to take time away from our busy banding seasons to bring up some easily overlooked issues as we head into the MAPS season.

Below are some brief notes on topics about which I commonly receive questions from new banders, or banders new to MAPS.

Net run length. We recommend that nets are checked every 40 minutes on an ideal day. If there is any inclement weather (e.g., heat, cold, dampness, etc.) the nets should be checked more frequently. An average MAPS station has 10 nets and we recommend that you and your crews should be able to walk around the net run in 15-20 minutes, if there are no birds. This will allow you to complete nets runs in 40 minutes if you have birds to remove from nets and process them.

Communication. Stations regularly have banders of varying experience. The newest banders often feel they can't ask questions regarding how the station is being run, whether a particular practice is safe, do we have too many birds, etc. It is important that these banders feel they have a voice because the questions they ask will only help to ensure bird safety. We can't notice everything all the time, so extra eyes are essential. Station operators/managers need open lines of communication to reassess if there is a true safety concern.

Have a contingency plan that all the banders at the station are aware of, and keep clear lines of communication so the plan can be carried out if a problem arises.

Processing order. Which bird gets processed first? When a batch of 8-10 birds is brought back from a net run, it has to be quickly decided which birds will be

Also in this issue:

processed first. Experienced banders do this automatically, but it never hurts to review.

Stressed or injured birds. Ideally every bird that is captured in your nets should be banded. However, if a bird looks overly stressed, release it at the net unbanded (or after you read the band numbers at the net for recaptures). If you don't band a bird you'll never have a chance to recapture it and see if it recovered from a particular stress or injury. Many birds are listed once in our database as stressed, but return in following years with no ill effects. For these birds, don't forget to fill in the MAPS "Disp" field.

Cerulean Warbler by Laurie Doss

Endangered species. We don't often have the privilege of banding these species, but if they do happen to be captured in your nets, they are a top priority. Band them first and release immediately.

Sensitive species. Each region of the country has their own set of these, so talk to other banders in the area and share experiences. Some examples: Kinglets and gnatcatchers are easily cold-stressed – keep them in your jackets to keep their temperatures up. Towhees are notorious for dislocating the joint above the band in the nets or in the bags – get them out of the nets and bags as soon as possible.

The end of the day. Unfortunately, this is when many safety issues arise – when we are tired after an early morning and a long day. However, these last moments are some of the most important to ensure that no nets are left open (or improperly closed). IBP's preference is that nets be taken down, rather than furled, after each banding day and that at least two banders meticulously ensure that all of the nets have been collected. We do this by having a numbered bag that corresponds to each net site number. If all the numbered bags are full of nets, we know we have taken down all the nets.

Furling nets at the end of the day is perfectly acceptable, and widely practiced, but appropriate accounting measures need to be applied to make sure the station is properly closed down. At stations where nets are furled, they should always be tied shut in several places along the length of the net. To ensure all the nets are properly closed, I have seen: the head bander make an extra net run to make sure the nets were down; forms for people to sign if they furled the net, etc. The important thing is that all nets are properly shut and the station is safe until the next banding session.

The unexpected. It sounds odd to plan for something you don't expect, but setting a few guidelines for your banders to follow, in advance, will help them be more confident as they work. For example, how many birds are too many? And, what

IBP Bird Banding Classes

Each year IBP teaches several bander training classes for both beginning and advanced banders. There are four courses currently scheduled for 2013.

Spring 2013
An advanced banding class will be held April 28 - May 2, 2013 at Howell Woods Environmental Learning Center in central North Carolina. For an information and registration packet contact the class host Jordan Astoske at Howell Woods ELC.

Summer 2013
Two advanced banding classes will be held July 23 - 27, 2013 and July 28 - August 1, 2013 at Wolf Ridge Environmental Learning Center in northeastern Minnesota. Visit the Wolf Ridge banding workshop page for registration information.

Fall 2013
An advanced banding class will be held at the Environmental Studies on the Piedmont near Warrenton, Virginia and is tentatively scheduled for September 21 - 25, 2013. Contact the class host, Louise Edsall at Environmental Studies for more information and class availability.

do you do when that happens? There is no absolute number on the first question, but the answer will depend on the number of birds and the number and experience of the banders. Each bander at the station should be aware that they have a right and a responsibility on each net run to ask the question, do we have too many birds to handle? If so, what to do? **Don't Panic!** There are several ways to handle too many birds; the suggestions below are listed in order of what to do when things get mildly rushed to downright crazy:

Move faster while walking the net run. You can't rush bird extraction, but you can hurry up between the nets.

Take less data on each bird when processing. Depending on how your banding hierarchy is set up, banders and extractors may be the same people. If you can age and sex the bird accurately by looking at only one or two characteristics, taking data on all seven molt limits and plumage fields is not necessary when you are rushed. This may free up a bander to help run nets.

Close a net or two. Often stations have one or two nets at the far end of the station that cause slowdowns on the net run. Close these so the net run can be shorter in length. This will give you more time to handle the birds you have in hand.

Close all of the nets. This may need to happen if you have a backlog of birds at the banding station or if you get a huge rush at the nets. Huge flocks of birds usually happen during migration or when flocks of juvenile birds start to form. Depending on how many birds are hitting the nets, you may be able to bag the birds for quick processing or you may need to release the birds unbanded. On the very rare occasion when a fallout occurs and the bird numbers are truly overwhelming, empty one tier of the net at a time and close it before moving on to the next tier and then onto the next net. If birds in the bottom tier are on the ground, extract those birds first. This will reduce the risk of injury and you won't have to worry about where you step while extracting birds from the other tiers of the net.


Common Redpoll by Laurie Fortin

The important thing is to **have a contingency plan** that all the banders at the station are aware of each day and that there are clear lines of communication so that plan can be carried out.

As I mentioned above, these are only a few commonly raised questions. As you know, when running your station you also need to consider weather, proper bird grips, choosing a correct band size, bird bags, etc. I could talk for hours on banding safety (and do at my bander training classes) but instead of continuing here I recommend **The North American Banding Council (NABC) manuals** as references for all banders. Hard copies of these manuals, and a copy of the Bander's Code of Ethics are handy to have at your stations, along with your trusty MAPS Manual, in case a safety question arises. ●

New MAPS operators join the flock — Welcome!

The following operators joined the MAPS Program during 2012 or early in 2013. Most are beginning operations at a new station but others have inherited a previously operated station. We look forward to including them as part of the MAPS banding community for many years to come. A warm welcome!

Jordan Astoske Four Oaks, NC ● **Bruce R. Bacon** Mercer, WI ● **James Dame** Murfreesboro, NC ● **David Decker** Cold Spring, NY ● **Dominique Dufault** Mont-Saint-Hilaire, QC ● **Neil A. Gifford** Albany, NY ● **John Goodell** Bend, OR ● **Frank Grubbs** Four Oaks, NC ● **Mark E. Hopey** Mars Hill, NC ● **Matt Johnson** Arcata, CA ● **Eric Lind** Cold Spring, NY ● **Cindy McCormack** Spokane Valley, WA ● **Heather L. McGuire** Murfreesboro, NC ● **Brittany Morlin** Spokane Valley, WA ● **Tiffany Shepherd** San Diego, CA ● **Alison Styring** Olympia, WA ● **David St. George** Wenatchee, WA ● **Robert B. Van Ersvelde** Grinnell, IA ● **Adrian Wolf** Olympia, WA ● **Jennifer Wilcox** Trabuco Canyon, CA ●

MAPS Data Reveal Effects of El Niño on the Annual Survival of Pacific-slope Breeding Swainson's Thrushes

David DeSante, IBP President

One of the goals of the MAPS Program is to link demographic parameters of the monitored species to environmental factors. Directly associating climate with demographic parameters provides a powerful approach for predicting a species' response to climate change, and mark-recapture data from the MAPS program are providing unprecedented revelations about the influences of weather and climate on bird populations at a regional scale.

Most studies that have attempted to examine the effects of global climate cycles on the demographic rates of birds have looked only at local scales; few analyses have attempted to examine these effects at larger, regional scales. Because MAPS stations are distributed across the continent, IBP scientists and colleagues were able to look at species response at a larger regional scale, and their results were published in The Auk in late 2012. The analysis reveals that the El Niño–Southern Oscillation (ENSO) is an important driver of annual survival probability in Swainson's Thrushes breeding along the Pacific slope of Washington, Oregon, and California. Annual adult survival was substantially higher during the positive phase of the El Niño climate cycle, and this appeared to be driven by increased dry-season precipitation along the birds' spring migration route in western Mexico. This additional moisture presumably results in an increased food supply during this energetically demanding migration period and thus increases the birds' chances of returning to their breeding grounds along the Pacific slope of Washington, Oregon, and California. It is also possible that following southeasterly winds that also tend to be associated with the positive phase of the El Niño climate cycle may further facilitate their spring migration and thus their annual survival rate.

Some climate models predict increases in the annual variation in ENSO, along with possible decreases in the frequency of positive El Niño events. If this occurs, we will likely see greater variation in annual survival of Swainson's Thrush in the future, coupled possibly by an overall decrease in its annual survival rate. Many western Neotropical migrant birds pass through and winter in the same general geographic area as these Swainson's Thrushes, so it seems likely that other such species may be similarly influenced by ENSO. ●

Join Your Bird Banding Association.

The three bird banding associations listed below are member organizations who support banders and the science behind bird banding. These organizations bring together banders of every age and experience level, allow banders to share the latest techniques, provide information about current projects, allow banders to develop new partnerships, and more. Click below, and join the banding community.

Western Bird Banding Association
Inland Bird Banding Association
Eastern Bird Banding Association

MAPS Bandathon

Coming Soon: The MAPS Bandathon Fundraiser

The 2012 Bandathon raised some much needed funds for the MAPS program and for a number of individual MAPS stations. We thank all those that participated by collecting pledges or making donations.

Last year's winners were: Charlie Muise, Laurie Doss, Renee Carlton, and Rad Mayfield. Prizes included Swarovski and Eagle Optics binoculars, a spotting scope, gift certificates, IBP t-shirts and more.

We will be sending more information with your MAPS beginning of season packet. Please keep this event in mind as you prepare for the season.

MAPS Operator Profile:

As MAPS operators, you spend numerous hours in the field collecting data, then entering and verifying it, before passing it on to us at IBP. Through short notes, phone calls and your data, we get to know you over the years but often you don't get to know one another. We wanted to devote some space and make some connections between all of you who are so important to us and the program. In this MAPS Chat we present a banding biography of a birder turned bander, a story that you may find strong connections with.

A Birder's Journey

Beverly Smith, MAPS Bander
Station: Clifton Farm, Warrenton, VA

In 1995 I brought an old pair of binoculars with me on a hike in the woods and discovered all these amazing creatures that I had been mostly ignoring all my life. I was hooked - - the more birds I saw, the more I wanted to see and the more I wanted to know about them. So I joined the Audubon Society of Northern Virginia (ASNV) to help me identify and find more of those wonderful birds. And again I couldn't stop at just looking at and counting them - - I had to know more. So I entered ASNV's LEAPP® (Learn, Enjoy, Appreciate, Preserve, and Protect) program and received a Master Naturalist certificate in 2003. As part of the program requirements of the LEAPP program, I had been volunteering at the Occoquan Bay National Wildlife Refuge in Woodbridge, VA. As it happens, there is a spring migratory bird banding station at this refuge and I began to visit the station. And, of course, I wanted to know more! I just kept showing up and they finally decided I was serious about bird banding and that is where my bird banding journey began.

Enter the Institute for Bird Populations (IBP)! Well, I think you know the storyline by now - - after interning for two years, I knew I needed to know more and in 2005 took the beginning bird banding course offered by IBP and hosted by Environmental Studies on the Piedmont in Warrenton, VA. Environmental Studies had just conducted their first year of IBP's Monitoring Avian Productivity and Survivorship (MAPS) program in 2004 and they were looking for more bird banders. I couldn't say no so I just kept coming back to ES, too! In 2005 Environmental Studies began a fall migratory bird banding program so I was able to continue my bird banding into the fall (oh, my goodness, look at those molt limits!). Now I was banding from spring through the fall of every year at Occoquan Bay NWR and at Environmental Studies.

But, soon I was ready for even more and took IBP's advanced bird banding course in 2009. That's when my banding journey took a big leap forward because Environmental Studies asked me to be their lead bird bander and run their MAPS and fall migratory banding programs. It is said that one learns more by teaching and leading and that certainly has been true in my case. For the past several years I have had the good fortune to facilitate the learning of most of Environmental Studies' current banders as well as many others through IBP's bird banding courses

hosted annually at Environmental Studies. When I took the beginning bird banding course in 2005 as a novice bander, I would never have believed that seven years later I would be guiding budding bird banders in their own journeys as well as continuing mine by running a banding station. So for me the journey never ends and who knows where it will take me? Or where it will take you? Thanks, IBP! ●

"Like" The Institute for Bird Populations on Facebook today! Enjoy news and interesting stories from IBP on a regular basis.

Molt Limits and Plumage Fields: The pitfalls of active molt

Erin Rowan, IBP Staff Biologist

A bird in active flight feather molt or that has adventitiously replaced a flight feather (FF molt = 'S' or 'A'), can be a little confusing in terms of applying Molt Limits and Plumages codes to each feather tract. The rule to remember is to **score only the feathers that have not yet been replaced during the current molt**.

Imagine the process of molt as an eraser that removes the history of the bird's past that was depicted in the patterns of previously replaced and retained feathers. When looking at a picture that has been half erased, you look at the remaining portion of the picture to see what it can tell about the original.

For example, in a species with a partial pre-formative molt, a SY bird molting its PPs and PPcovs would be scored PP='J' PPcov='J', even though some of the feathers in these tracts may be newly replaced or growing basic feathers. Because you have the worn retained juvenal feathers you can confidently age the bird SY (age=5).

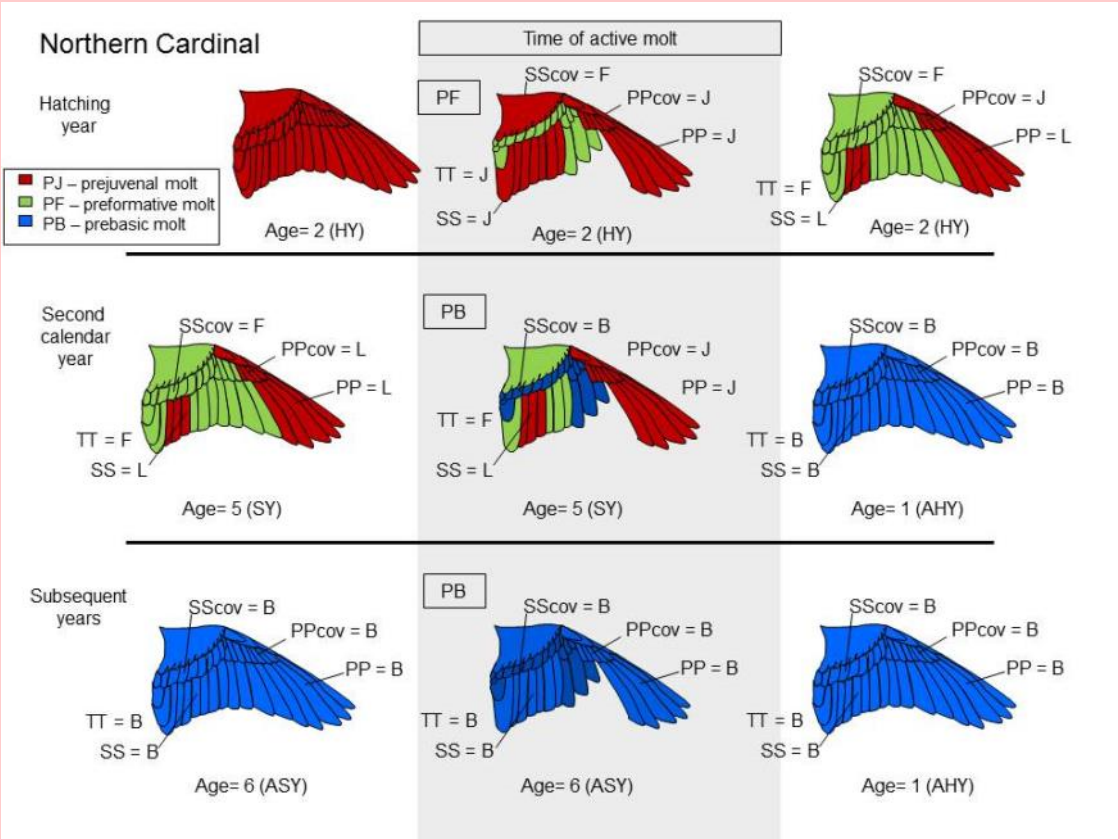
Many people are tempted to use 'L', 'M' and/or 'R' codes for a bird undergoing active molt. Unless you see these patterns in the not-yet-molted feathers, these codes should not be used. And, as a reminder, 'R' and 'M' codes should only be used when describing limits resulting from incomplete prebasic molts in near-passerines, like woodpeckers.

The coding you use on the data sheet paints a picture to the person that reads the data later. Incorrect coding in the ML&P fields corrupts the picture, making it very difficult to verify the age of the bird and recreate the image you saw of the bird if age discrepancies come up during verification.

If you want to make notes of which feather tracts are molting, feel free to do so in the notes section on the back of your banding data sheet. This information could prove useful in the future during verification or could be used toward a molt study. You can also fill out molt cards such as the ones found on page 60 of the NABC Bander's Study Guide. Taking pictures of the open wing or drawing diagrams can also help with the molt concepts.

Good luck with those molting birds! ●

Click on image to link to larger PDF image



The illustration above contains examples showing how the molt limits and plumage codes should be applied to birds in active molt. Note that:

1) We ignore the molting, or newly molted feathers, when scoring any tract.
2) The primaries in both the HY and SY bird may be scored the same (J), but the wear level will be significantly higher in the SY bird.