



The INSTITUTE for  
BIRD POPULATIONS

# MAPS Chat

The Annual Newsletter of the  
Monitoring Avian Productivity  
& Survivorship Program



Photo by Jon Cox

**Number 26**

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## The Wolfe-Ryder-Pyle (WRP) Ageing System: Its continued evolution for the MAPS program.

*by Danielle Kaschube*

It has been terrific to see many operators incorporate the Wolfe-Ryder-Pyle (WRP) ageing into their banding data collection. It was something new to learn, and banders have done a great job learning the coding and applying it to their birds in addition to calendar ageing. As you know, it is still a fairly new system, and it has been updated several times since its introduction in 2010 to refine coding and deal with unexpected molts. Articles have been included in several issues of MAPS Chat, explaining new developments and answering questions banders have posed.

The MAPS Manual explains the basic system, and the most recent discussion of WRP in MAPS Chat was [here](#) in 2023. Coding examples that have been included in MAPS Chats prior to 2023 have been updated to use the current WRP coding. These updated versions are available on our website [here](#). And, we have recorded several WRP videos that you can find on the IBP Video presentation page, such as one from Lauren Helton [here](#), and Danielle Kaschube [here](#).

To review, the WRP system uses three building blocks, based on the modified Humphrey-Parkes

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terminology, to create each basic three-letter code. In addition, four adjunct codes were added to help clarify the basic codes when necessary. The videos linked above are a great reference for seeing how all of these work together.

One of the things banders are having a hard time with is how to incorporate alternate plumages into the WRP coding. I think this is for two main reasons:

1. During MAPS, we usually only see passerines during the time they are in their alternate plumage, so we are looking hard for something that is right in front of us. I.e., we can't see the forest because of the trees. This is partly due to what many of us were taught years ago: that the function of alternate plumage is to make the birds more attractive to mates with new bright colors, as in some warblers and tanagers. But the current theory is that prealternate molts occur to offset some of the damage to

feathers that undergo extra-heavy solar degradation. Species with longer migrations are more likely to have an extensive pre-alternate molt because they are travelling to wintering areas where days are longer, and feathers are degrading more than species that winter at higher latitudes. Following this theory, if an individual is already replacing feathers due to wear, it is not much more energy to add color during the process. Some species add colorful feathers during the prealternate molt, while others, like sparrows and the females of many species, don't make a significant color change, so the differences between alternate and basic plumages are more subtle.

2. A second reason it can be hard to determine if an individual is in alternate plumage is that not all individuals molt to the same degree during the prealternate, with some individuals molting most of their body

## Wolfe-Ryder-Pyle Building Blocks

### 1st position- cycle (age)      2nd position- molt status      3rd position- plumage

**F- first**

**S- second**

T- third

**D- definitive**

4 to 9- fourth to ninth

**C- Cycle** (molt completed)

**P- "pre"** (molt in progress)

U- unknown

**J- juvenile**

**F- formative**

**A- alternate**

**B- basic**

X- auxiliary formative

S- supplemental

U- unknown

### Adjunct codes

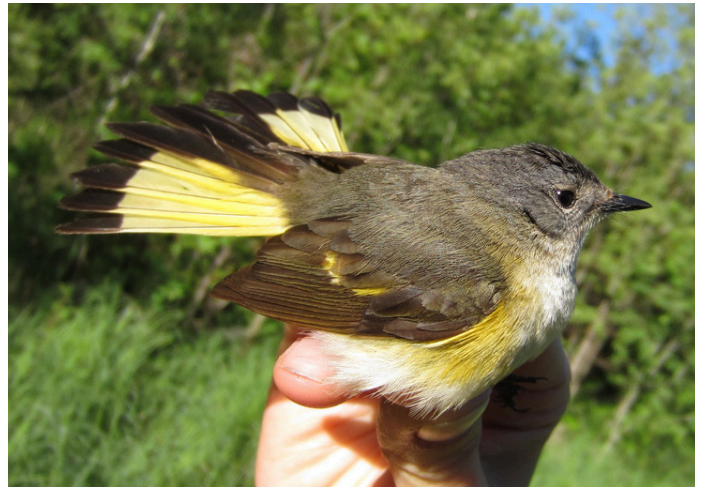
**M:** Minimum age, indicating that the bird is at least as old as the associated WRP code.

**H:** Hatching season, used for birds in "new" formative plumage, estimated to be <6 months of age.

**A:** After hatching season, used for birds in "old" formative plumage, estimated to be >6 months of age.

**S:** Suspended molt, indicating that the bird's molt has been suspended.

and others only molting a few feathers. In these cases, the prealternate can be listed in the Pyle ID guide as absent to partial. In communications with Peter Pyle regarding this, it is likely that if any individual of a species undergoes a prealternate, then all individuals of that species do, though some individuals only molt a few feathers. As we explained in point one, prealternate molts evolved as a response to feather wear caused by solar radiation, and evolution occurs at the species/population level rather than at the individual level. Individuals and sexes may vary in how many and how bright the feathers they molt in, e.g., with the number of feathers varying, some individuals may just molt a few feathers, and others molt most of their head and body, and males tend to have brighter replacement feathers than females.



*This female American Redstart would be coded WRP=DCA. Nice dark basic wing and tail feathers and alternate body feathers, because we assume all American Redstarts go through some degree of feather replacement during the prealternate molts.*

**So, going forward, for MAPS coding purposes, for species with variable prealternate molts (i.e., absent to limited/partial), we are going to assume that all individuals of that species undergo a prealternate molt to some degree. And, we are going to remove the U code in the third position of the WRP code, e.g., in codes like FCU, DCU, MFCU. Instead, the codes FCA, DCA, and MFCA will be used for all individuals of these species.**



**This photo, by Rishona Vemulapalli, of banders hard at work at the MAPS station in Robertson's Reserve, Georgian Bay, Ontario won 3<sup>rd</sup> prize in our 2025 MAPS Photo contest.**

# New WRP Tools

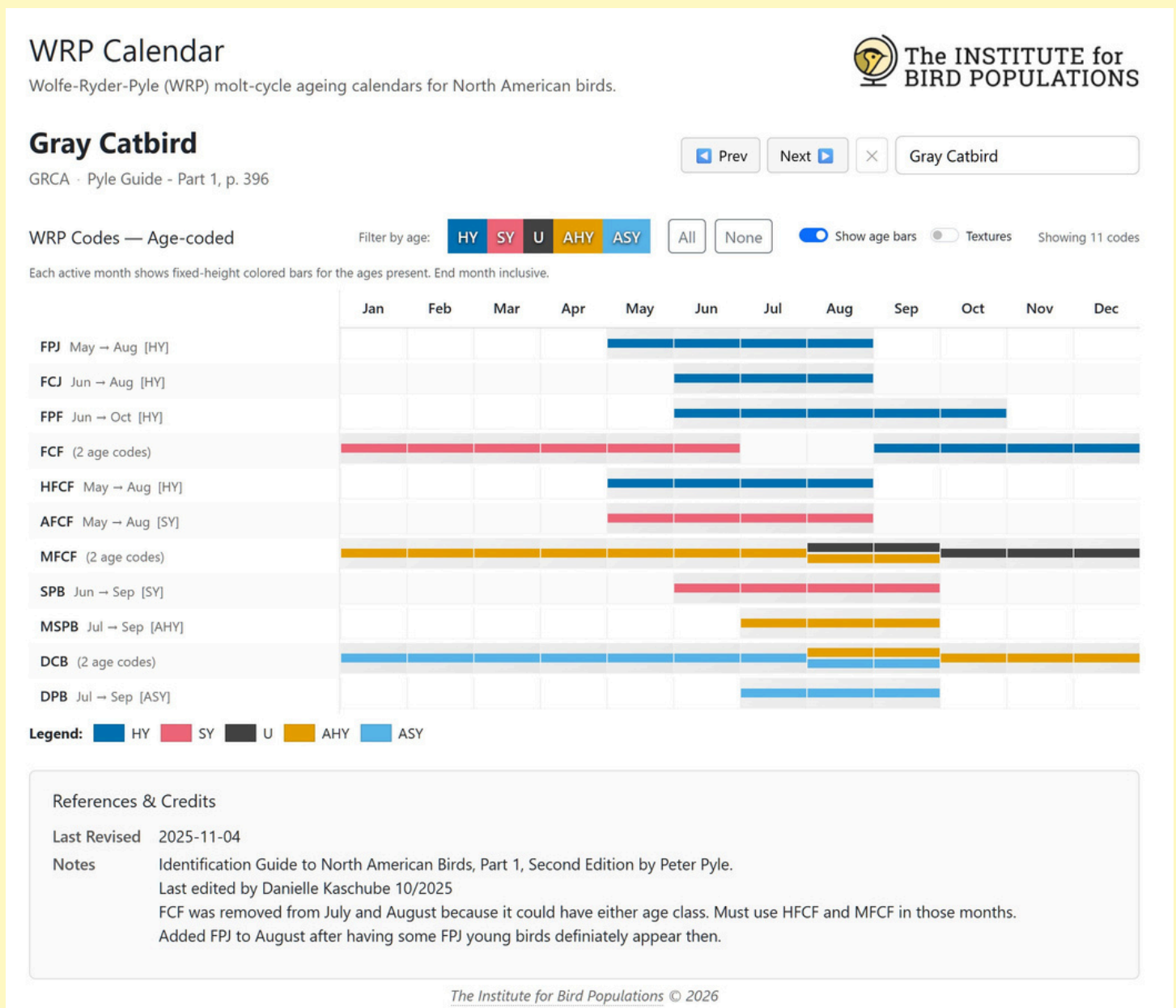
In conjunction with the development of MAPSNet, new tools have been developed to help banders know what and when WRP codes are appropriate for each species.

## Tool 1: WRP graphs

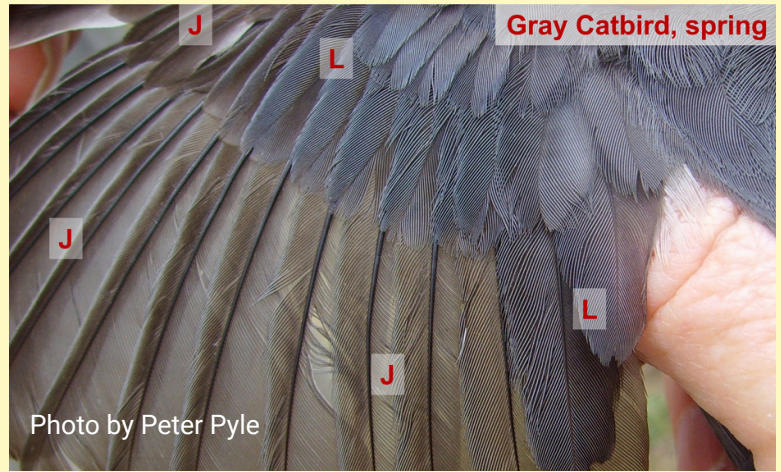
The first is a visualization tool that maps out which codes can be used at what time of year. This tool is available at: <https://mapsnet.birdpop.org/references/>

WRP: Group 3 (see pp. 34-37). FCJ (Jun-Aug); FPF (Jun-Oct); FCF (Aug-Jul); SPB (Jun-Sep); DCB (Sep-Aug); DPB (Jul-Sep); [M-SPB (Jul-Sep)],...

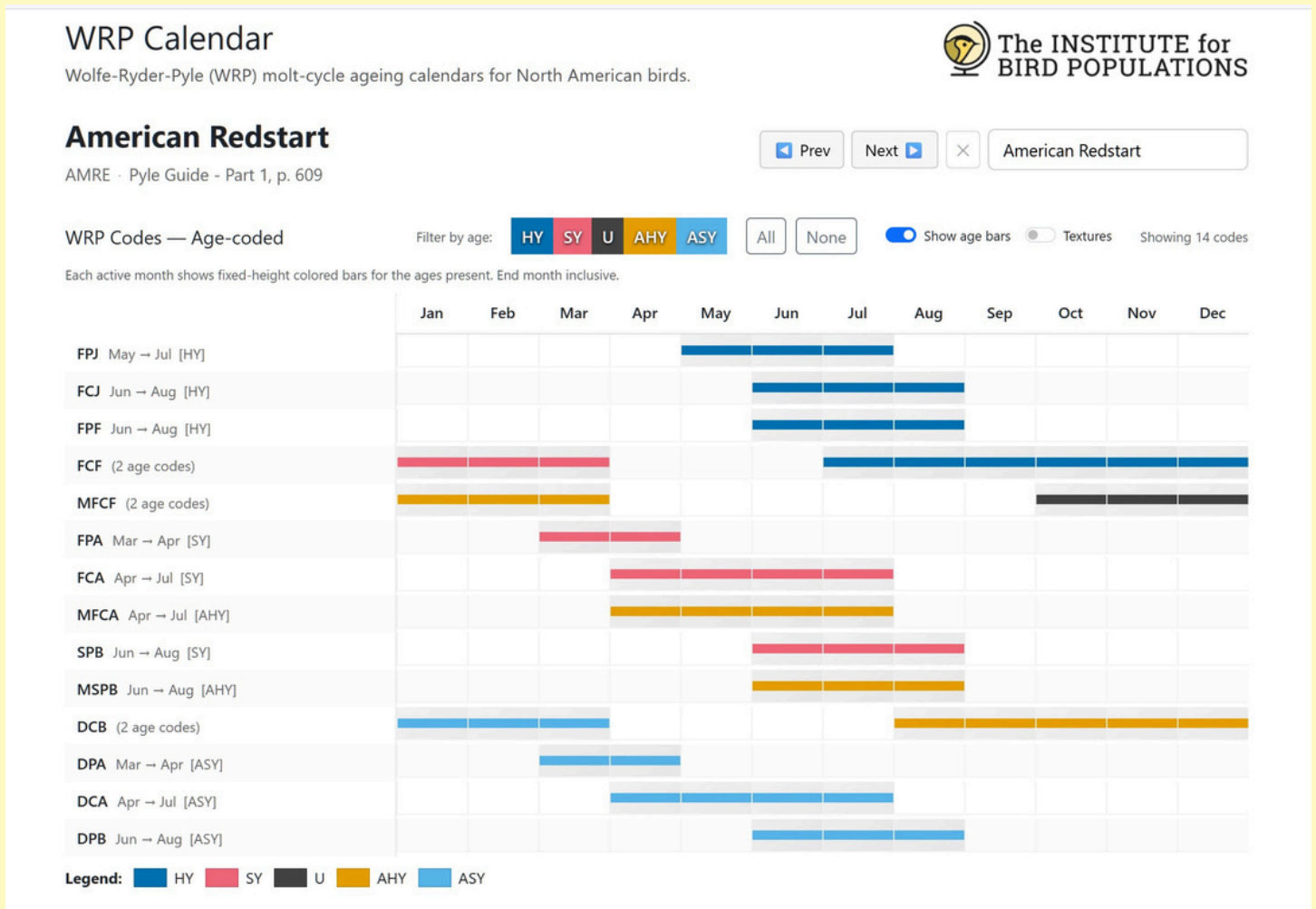
We'll start simple with a Gray Catbird. The text image above is from page 396 of Peter Pyle's Identification Guide to North American Passerines, Part 1, 2nd edition. It is expanded in MAPSNet into a graphic image (below) that shows each WRP code option and its calendar age on a monthly grid.



After examining the photo of the catbird on the right, taken in May, and determining that it is an adult bird in formative plumage, you would know that it is AGE=5 (SY/Second year), WRP=AFCF (adult first cycle formative plumage), and could go to the graph and check that your coding is possible.



Similarly, if you had captured the female American Redstart pictured on page 3, in July with no molt, and determined it had basic feathers in the wings. You would know that it is AGE=6 (ASY/After-second year) and WRP=DCA (adult definitive alternate plumage), and you could go to the graph to check that your coding is correct. Note that the AFCF and HFCF codes aren't included on the graph for this species because there is no overlap between adults and young in formative plumage. The question might come up for this individual whether it is a bird that molted early into its definitive basic plumage, which is possible. But this individual is quite worn, and a bird that had molted early into its basic plumage would be very fresh. It is important to record feather wear and feather molt score when determining WRP scores!



## Tool 2: Back of Book (BOB) look-up sheet

I think the WRP graph tool is amazing and very helpful when I'm stuck during WRP code compilation. However, I can't imagine having to look at the graphs each time I need to determine a WRP code in the field. What I need to know quickly in the field is what the flight feathers are telling me about age/cycle and if the species has a prealternate molt.

To help with this, we decided to piggyback off a tool that IBP staffer Emma Cox had already created. She made a shortcut page that could be printed and taped to the back of her Pyle guide, including four-letter alpha codes, Pyle ID Guide page numbers, and appropriate band sizes. Our MAPSNet developer, Joe Wiess, and his wife, Stacy, fell in love with the idea and ran with it,

incorporating it into MAPSNet for MAPS Operators. This back-of-book cheat sheet, affectionately known as BOB, is available as one of the side menu options when you log into MAPSNet.

As in the original, the output includes the four-letter code, page number, and the band size range from Pyle's ID guide, and whether the species has a prealternate molt – very handy when needing to compile your WRP code. The control panel lets you choose which species to include. If you are at a location that has captured many species, you can choose not to include the ones less likely to be captured. You also have the option of adding a blank column that you can use for your own purposes (not shown here), perhaps to highlight species you are doing individual research on. The control panel also includes a toggle that lets you highlight your top 10 captured species.

Both the WRP graphs and BOB are fairly new features, and we expect them to evolve over time. If you have suggestions for improving them or see any errors, please reach out to me, Danielle Kaschube, at [dkaschube@birdpop.org](mailto:dkaschube@birdpop.org).

I hope all of the updates mentioned here make it easier to navigate the use of the WRP coding during your MAPS season.

*Remember: We Rock Plumage!*

Code	Pg	Band Size	PA
ALHU	111	X	
AMRO	427	2	
ANHU	104	X	
AUWA	633	0-1C 0A-1	•
BHCO	569	F: 1B-1A-1D M: 1A-1D-2-1B	
BHGR	670	1A-1D-2	•
BLPH	278	1-1C	
BRBL	570	2-1D	

This menu in MAPSNet allows you to create your own custom BOB sheet (example below) that includes species commonly banded at your station.

Location: YOSE   Station: HODG   2026 MAPS Season							
Code	Pg	Band Size	PA	Code	Pg	Band Size	PA
ALHU	111	X		MOCH	329	0 0A	
AMRO	427	2		MOUQ			
ANHU	104	X		NAWA	594	0A-0	•
AUWA	633	0-1C 0A-1	•	NHWR	383	0 0A-1C-1	
BHCO	569	F: 1B-1A-1D M: 1A-1D-2-1B		OCWA	589	0 0A	•
BHGR	670	1A-1D-2	•	ORJU	504	0-1C-1	
BLPH	278	1-1C		OSFL	255	1B-1-1C	
BRBL	570	2-1D		PAWR	385	0A-0	
BRCR	373	0A-0		PISI	464	0 0A	
BTYW	640	0A-0	•	PUFI	456	1-1C-1B	
BUSH	354	0A-0		RBNU	368	0-1C-1	•
CAFI	456	1B-1-1C		RBSA	189	1A-1B-1D	
CAHU	109	X		RECR	461	1B-1A	
CAVI	291	1C-1-0	•	RSFL	202	3-3B	
CBCH	330	0 0A		RUHU	111	X	•
CHSP	492	0 0A-1C-1	•	RWBL	562	F: 1A-1D M: 2-1D	•
DOWO	192	1B		SOSP	527	1B-1-1C	
DUFL	274	0A-0	•	SPTO	538	F: 1D-1A-2 M: 1D-2-1A	
FOSP	501	1A-1B		STJA	310	3-2-3B	
GCKI	361	0A		SWTH	422	1B	
GRFL	272	0A-0		TOSO	417	1B	
GTTO	537	1A-1B-1D		TOWA	642	0A-0	
HAFL	270	0A-0		WBNU	369	1B-1-1C	•
HAWO	198	1D-2-1A		WEFL	275	0A-0	•
HETH	423	1B-1		WETA	662	1B	•
HEWA	644	0A-0		WEWP	257	0A-0-1C-1	

# MAPSNet Data Tweaks

by Danielle Kaschube

As a MAPS Operator, I hope you have had a chance to work with your data in MAPSNet! Most operators have jumped on board and used the new MAPSNet data verification system for their data. It has been great to see the switch to the new system and get all the positive comments back! While the MAPSNet system is mostly intuitive to use, we have seen some places where people have struggled and thought more explanation was needed.

The first, and biggest issue, we have seen is in **data import**. The problems include:

- 1. Incorrect column headers:** This has been a fairly minor problem that people have figured out quickly after reading the error messages and reexamining the Excel template.
- 2. A lack of a breeding status file:** Some stations have not submitted breeding status files in the past, and we have had to infer a great deal about the bird community at those stations. Now, as part of the data import step, a breeding status list is required, and we hope to get improved information from operators – the people on the ground about the birds in the air....

The second most numerous issues have involved the **effort files**. We assumed operators knew these concepts, but we had never explained them, so we apologize for our assumptions. The items below will now be explained in the MAPS manual, but we feel we should also explain them here.

- 1. Net length:** For MAPS purposes, a 12m net is 1 unit length, i.e., length=1 in MAPSNet for most nets. MAPSNet did not show an error this year



We promise these data tweaks will be less painful than the finger tweaks delivered by this Red-naped Sapsucker photographed by Julie Hovis at the MAPS station near Winthrop, WA. This photo won 2<sup>nd</sup> Place in the 2025 MAPS photo contest.

for LENGTH=12, but it will in the future. We changed any LENGTH=12 to LENGTH=1 after submission for the data received until now. For reference a 12m net: LENGTH=1, 9m net: LENGTH=0.75, 6m net: LENGTH=0.5

- 2. SP (subperiods):** Most stations only operate one day per period, and the subperiod is always A. This includes instances where it is necessary to run on a second date to make up effort, i.e., on day 1, the station was operated less than half the regular effort. However, some stations operate multiple days per period, so we have broken the periods into 10 subperiods, A-J. Subperiods are assigned in date order within a period.

After the above issues were addressed, there remained several problems that were spread more widely across the data, but occurred less regularly. We wanted to bring them up so people can record the clearest possible data and make it as valuable as possible.

**3. Alula column:** The “AL” column for recording alula data was added to the data form and MAPSNet during the 2025 season. Until now, information about the alula has been included in the Secondary Coverts box, but enough banders are now recording alula information that we wanted to separate it from the secondary coverts, i.e., the greater, lesser, median, and carpal, coverts. Information about which species have alula limits usable for ageing is not usually included in the Identification Guide to North American Passerines by Peter Pyle, but it is described in [a North American Bird Bander article by Robert S Mulvihill, Using Wing Molt to Age Passerines, 1993, Volume 19](#). So if you are coding alula limits, you now have a distinct column in which to record information.

**4. Same-day recaptures:** Please record captures of birds captured previously on the same day, even if you don’t fully process the individual at each capture. Ideally, we would like full

information recorded at each capture to potentially provide details not seen during the original capture, collect weight information so we can see if there is any fluctuation during the banding day, and ensure all records affect the calculation of capture rates. However, if a bird is showing signs of stress, we don’t want to further exacerbate this and so just record the species, band number, net, and time before releasing. We have been told that the BBL/Banding Office Bander Portal shows errors when multiple captures of an individual appear on the same day, so MAPSNet only includes one record per bird per day in the export file for the Bander Portal.

**5. Molt limits and plumage section:** Fill only the columns that you examined and with the code that explains what you saw. For example, for the Black-capped Chickadee, Red-eyed Vireo (wings) and Lincoln Sparrow (wings and tail) below, we often get data that looks like



All photos courtesy of the Boreal MAPS program (pg. 25)

Table 1

SPECIES	ALPHA	CODE		AGE	HOW	AGED	WRP CODE			SEX	HOW	SEXED	PRI. COVS	SEC. COVS	ALULA	PRIMARIES	SECONDS	TERTIALS	RECTRICES	BODY PLUM.	NON-FEATH
B	C	C	H	6	P	S	D	C	B	M	C		B	B	B	B	B	B	B	B	
R	E	V	I	6	P	E	D	C	B	U			B	B	B	B	B	B	B	B	B
L	I	S	P	6	P	M	D	P	B	M	C		B	B	B	B	B	B	B	B	

Table 2

SPECIES	ALPHA	CODE		AGE	HOW	AGED	WRP CODE			SEX	HOW	SEXED	PRI. COVS	SEC. COVS	ALULA	PRIMARIES	SECONDS	TERTIALS	RECTRICES	BODY PLUM.	NON-FEATH
B	C	C	H	6	P	S	D	C	B	M	C		B	B	B	U		U	U		
R	E	V	I	6	P	E	D	C	B	U			B	B	B	U	B	B			N
L	I	S	P	6	P	M	D	P	B	M	C		B						U	A	

(Note: Both tables are truncated to show only columns pertinent to this example.)

Table 1 above (pink) with almost all the fields filled-in. This makes us nervous because it is likely that the bander did not determine the age of every tract based on how it looked, but rather on what the tract's age "should" be, based on another tract.

More likely, the data should look like Table 2 (above in green). Only the tracts examined and potentially helpful for ageing in that species were scored, and the scores were based on what was seen. Table 2 allows us to "see" what happened in the field. The coding in the top box masks what is important in the noise, making it impossible to know what happened in the field.



Sad, rained-out MAPS banders at the Wolf Ridge Environmental Learning Center in Finland, MN. This photo by Lori Walewski won 4<sup>th</sup> place in the 2025 MAPS Photo Contest. From left to right: Stacy Weiss, Joe Lutz, Courtney Wright, Loren Albin, Lori Walewski, and Pam Albin.

**6. The “data” is more important than the conclusion:** This relates to number 5. While we want to know the bird's age (both calendar and WRP) and sex, what you see on the bird is the primary data we need. Once the primary data are recorded, e.g., degree of skull pneumatization, presence of breeding condition and/or molt, and the age of various feather tracts, conclusions can be drawn later. However, if you only provide the conclusions, important information about each individual is missed and cannot be recovered.

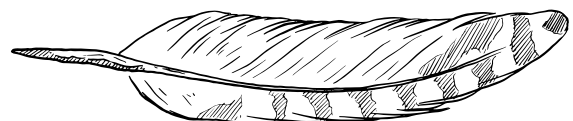
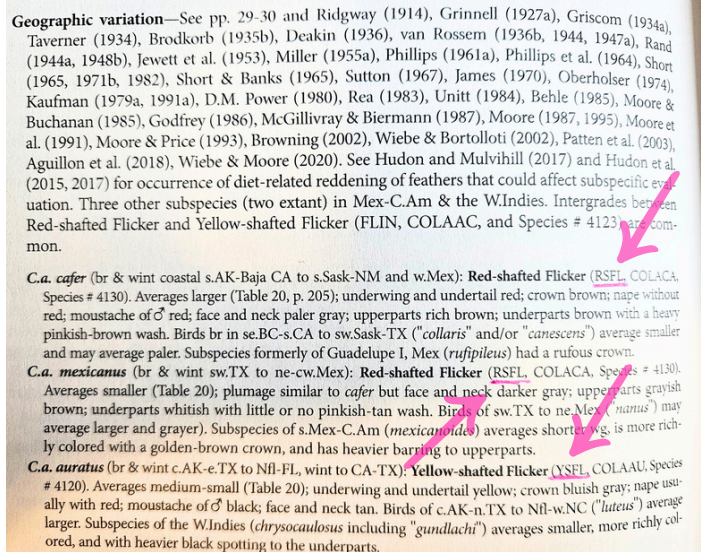
**7. Subspecies designations:** For some species, such as Northern Flicker, Yellow-rumped Warbler, Palm Warbler, Dark-eyed Junco, White-crowned Sparrow, and Savannah Sparrow, etc., multiple identifiable subspecies exist and should be identified, when possible. However, we have noticed an increase in the use of species, rather than subspecies codes, being submitted in the data since the release of the second edition of Peter Pyle’s Identification Guide to North American Birds, Part 1. We think this is because the sub-species codes are not as obvious as they used to be. Previously, the codes were listed at the top of the account, but now they are shown within the subspecies description. I find it difficult to quickly find the codes, so I have marked them in pink, as you see in the photo to the right. You should use the subspecies code as you have in the past, e.g., YSFL rather than NOFL, unless you are unsure of the subspecies. Geography can be very helpful in determining which subspecies you have.

**8. A new disposition (DISP) code:** We have added a new DISP code to indicate the presence of ectoparasites such as ticks, mites, and others. This code can be used with STATUS=300, rather than STATUS=500, which is usually required when DISP is filled in. As you would expect, if a more serious condition, such as an injury, is also present, please record that in the DISP field and note ectoparasites in the NOTES field.

**9. Space for TAIL and TARSUS:** Many operators record tail length, less so tarsus length, in their data, so we have added fields for those measurements in MAPSNet. This will make it easier to find those measurements rather than having them included in the note field.

**10. Excel breeding status lists:** Several operators asked to have both the PDF version of the breeding status lists and an Excel list to make it easier to enter data in the future. The Excel sheet went live in MAPSNet this week, which should make data entry easier going forward.

We hope that these explanations and hints make recording and importing your data easier. If you have questions about specific codes, we urge you to consult the current MAPS Manual to see whether the code descriptions are helpful. However, if you need further explanations, please reach out to us.



# MAPSNet How-To Video

For a detailed guide to how to use MAPSNet, check out this video tutorial presented by MAPS Program Coordinator Danielle Kaschube. You can watch on our [website](#) or on [YouTube](#). The QR code at right will take you to the video on YouTube.



## Band Together!

Are you part of your regional bird banding association? These are your people! Join them! The three regional associations, Western, Inland, and Eastern Bird Banding Associations, provide grants to banders for research, host webinars to share research, hold annual meetings to share results from projects, techniques, and provide opportunities to socialize with others in the field. The three associations also jointly produce the journal North American Bird Bander. We hope you can join one of these organizations and support the work they do for the banding community.

Western: <https://www.westernbirdbanding.org/>

Inland: <https://inlandbirdbanding.org/>

Eastern: <https://easternbirdbanding.org/>

NABB: <https://easternbirdbanding.org/Contribute-to-NABB>



This photo by Mike Dakota of Laura Mahrt showing off the details of a sparrow wing to observers at her MAPS station near La Grande, OR won 5<sup>th</sup> place in the 2025 MAPS photo contest.

## How is MAPS Data Being Used?

Since the MAPS Data Exploration Tool was launched in 2023, scientists, science educators, students and banders have been putting your data to use. Below are just a few of the ways your hard earned data is being used to better understand bird biology, teach the next generation of biologists and conservation scientists, and make our banding efforts more effective. First on the list is a soon to be published study on female bird survival lead by UCLA graduate student Joanna Wu. *"There are few datasets that span the time (3 decades), spatial extent (US and parts of Canada), and amount of detail as MAPS data,"* says Joanna. *"My analysis on sex-based survivorship required rigorous data collected at standardized effort, and MAPS data was already cleaned and ready for analysis. Scientists at IBP were very helpful and easy to work with, too. Thanks to the banders and IBP for putting together such a valuable dataset!"*



This photo of a bander measuring the yellow tips on a Cedar Waxwing's tail won 1st place in the 2025 MAPS Photo Contest. It was taken by Daniel Lombardi who photographed MAPS stations in Glacier National Park, Waterton Lakes NP in Alberta, and the Missoula, MT area.

### Some other in-progress uses of MAPS data:

- **University of MN, Duluth-** Building a lifecycle model for Boreal Chickadees.
- **Oregon State University-** Determining trends in vital rates among the North American cuckoo species.
- **University of Oklahoma-** Analyzing continental bird community structure dynamics using co-occurrence records (birds captured in the same net during the same net run.)
- **USGS-** Exploring how restored habitat in Nebraska can be used for multiple non-target species.
- **Appalachian State University-** Examining songbird breeding productivity in relation to weather in the eastern US.
- **Parks Canada-** Informing Canada-wide ecological modeling.
- **National Park Service-** Exploring recent trends in songbird populations in Lassen National Park.
- **Cornell University-** Developing integrated population models for multiple species using MAPS data and eBird.

# Help Needed For A Neotropical Migratory Bird Tick Collection Project



Danielle Kaschube, IBP and Ryan Harrigan, University of California

The Center for Tropical Research (CTR), Institute of the Environment and Sustainability, University of California, is asking for banders to collect ticks from any migratory bird species they capture in 2026 and beyond and send them in.

**The problem:** Many bird species migrate across continents, and these migratory journeys can also transport parasites, such as ticks, which may then become established in new regions, particularly as the climate warms. These ticks can carry infectious diseases that are harmful to both migratory birds and other wild and domestic animals. Some of these diseases may also be harmful to humans, so this transport of ticks by migratory birds can serve as a means of establishing emerging infectious diseases in new environments. A recent example of this is happening in Europe, as long-distance migratory birds have brought southern-hemisphere species of ticks with them, carrying the Crimean Congo Hemorrhagic Virus (CCHV), a newly established disease, into more temperate climates.

**Researchers at the University of California, Los Angeles (UCLA), in collaboration with the Institute for Bird Populations (IBP), and as part of a One Health Initiative, are interested in identifying these types of ticks, the diseases they carry, their hosts, and potential pathways in North America, before they have a chance to establish themselves.**

**How can banders help?** As part of these efforts, UCLA needs information on the types of ticks that are hitching rides on birds!



**As part of the regular bird processing during banding, if banders see any ticks on the birds they are handling, we request that you remove the ticks (see instructions below) and send them in.** It is that easy! Usually, these ticks are readily seen near the eyes, bill, or head of migrating birds, as these are the locations on the body where birds aren't able to effectively preen. If your station regularly encounters ticks on birds during banding efforts, please let us know (see contact address below) to obtain tick collection kits and instructions for safely shipping tick samples. There is no cost to your operation as UCLA will provide the collection kits and shipping materials, including prepaid labels to the analysis lab. We ask that you send the ticks in once a month so we can see the numbers getting collected and what diseases might be present in the ticks.

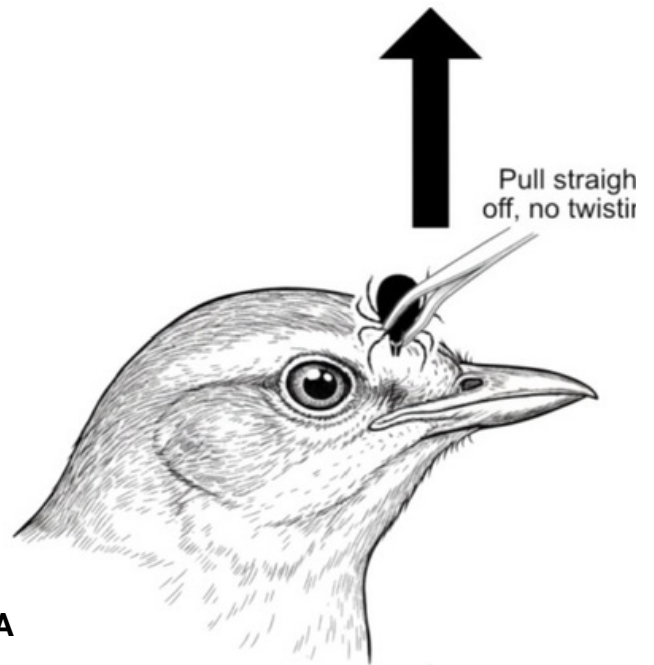


Field Sparrow with ticks on its face.  
Photo by Alan Schmierer.

Your help would be much appreciated, and will continue a long collaboration between UCLA and IBP to better understand our connection to migratory birds and our environment. Former and current projects include investigations into avian influenza, West Nile virus, and migratory connectivity and demography of birds across North America. **Happy tick hunting!**

For further information on any of these projects, or more details on this one, please contact:

**Ryan Harrigan**  
**Center for Tropical Research**  
**Institute of the Environment and Sustainability, UCLA**  
**La Kretz Hall, Suite 300**  
**610 Charles E. Young Drive East**  
**Los Angeles, CA 90095 USA**  
**Tel: (310) 206 6234**  
**Email: [iluvsa@ucla.edu](mailto:iluvsa@ucla.edu)**



## **Protocol: Tick Collection From Migratory Birds**



- 1. While processing an individual bird, look closely on both sides of the head and especially the ocular region (the parts with little or no feathers) for any ticks. If you see any, proceed with the next step.**
- 2. Using the supplied tweezers (or tweezers of your choice), carefully squeeze the tick between the head and body of the tick, and pull directly away from the bird WITHOUT TWISTING (see illustration above).**
- 3. Drop the tick into one of the supplied collection vials, and write the banding number of the bird on the vial side and cap. If there isn't enough room, just write the last 6 digits.**
- 4. If there is more than one tick on the bird you are sampling, just put those additional ticks into the same vial. ONE VIAL PER BIRD.**
- 5. Maximum of 10 ticks per vial – if there are more than this on a single bird (yikes!) you can remove them, but no need to collect these into the vial.**
- 6. Assemble vials into the boxes provided as you proceed, and each station will ship these boxes once a month to the lab.**

**THANK YOU SO MUCH FOR YOUR HELP!**

## MAPS in a Nutshell Video



IBP has produced a short video (less than 5 minutes) about the MAPS Program that you can share with visitors to your banding station or anyone else interested in your work. Use the QR code below to view the video on YouTube. [You can also watch it on the MAPS program page on our website or by clicking this button:](#)



 [Play MAPS Video](#)

## 3rd Annual MAPS Photo Contest

We want to see MAPS banders in action and share your important work with the world! Of course we love photos of birds- they are the stars of the show- but we also love photos of banders! Whether it's a posed group photo or a candid shot of your team hard at work at the banding table we want to see the people of the MAPS community too. You can see photos from the winners of last year's contest sprinkled throughout this issue and gathered together on page 23.



The 5 top-rated photographers will receive their choice of one item from IBP's merch store on Bonfire.com. Entries are due by Sept. 1st, 2026.

You can submit photos individually or in batches of 10 using this [FORM](#). To upload photos using the form you will need a Google (Gmail) account. If you don't have a Google account, and don't want to create one, PLEASE FILL OUT THE FORM & SUBMIT IT ANYWAY so that we have your information. Then email your photos separately to Meredith at [mwalker@birdpop.org](mailto:mwalker@birdpop.org).

By submitting your photos you are giving IBP permission to use them—with attribution to the photographer—on our social media accounts, and in newsletters, reports and other publications.

To be eligible for a prize in the contest, photos must meet IBP's guidelines for public-facing communications. To read the guidelines, click this link [MAPS Photo Contest Guidelines](#).

*If you have any questions, please email IBP's Communications Specialist, Meredith Walker, at [mwalker@birdpop.org](mailto:mwalker@birdpop.org).*



# Bird Genoscape Project

The Bird Genoscape Project (BGP) continues to request feather samples for analysis. If you are a past contributor to the project: Thank you! If you haven't yet contributed, it is a simple process, and all of these samples are greatly appreciated and help us understand bird populations!

Protocols are available on the MAPS Materials page of the IBP website or directly from the Bird Genoscape project. You can also explore the results on the BGP page at:

<https://www.birdgenoscape.org/species-list/>.

Thank you to anyone who has contributed feathers to this project!

**MAPS Materials Page:** <https://www.birdpop.org/pages/mapsDataForms.php>

**BGP sample page:** <https://www.birdgenoscape.org/contribute-samples/>



## Invest in future birds

For over 35 years, IBP and the MAPS Program have conducted critical research on bird populations to enable effective, evidence-based conservation. You can help ensure we continue this important work for the next 35. A planned gift costs nothing during your lifetime, can offer substantial tax benefits, and can be changed at any time. These donations can take many forms and are easy to set-up. If you have questions or need more information, please contact our Chief Financial Officer Anne Devlin ([adevlin@birdpop.org](mailto:adevlin@birdpop.org)) or consult with your financial advisor.



Photo by Keith Williams

# Converging On, and In, Woodpecker Molt

by Peter Pyle



As you do the first net run at your MAPS station, you spot a Downy Woodpecker in the net ahead. Your groan can be heard by your partner setting up 400 meters away. "It's too early in the morning to age a Downy Woodpecker!" "Why can't this be an FCA (SY) male Baltimore Oriole or Black-headed Grosbeak?" "Or a full-plumaged M-FCF (AHY) Northern Cardinal or Bushtit?" I hear you. Back in the early '70s, when I ran my banding station in Maryland, our reference was Merrill Wood's "A Bird-bander's Guide to Determination of Age and Sex of Selected Species" published by the Pennsylvania College of Agriculture at Penn State. I still have my worn down and poop-stained, 3-ring-bound copy buried in a box somewhere, but can't find it at the moment. I do recall the Downy Woodpecker page as being mostly blank, with no known criteria for age (except maybe juveniles by eye color), and the only dichotomous key something like:

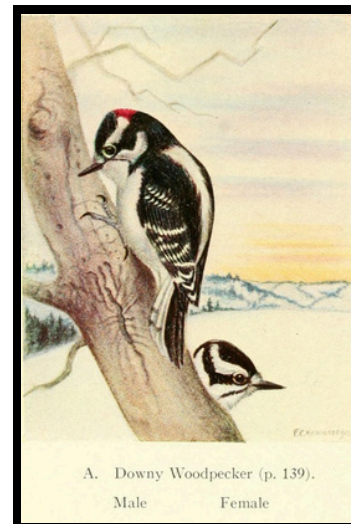
Male: Red in nape.

Female: No red in nape.

Now that's more like it! We could relax back then, and have time for our coffee. But inquiring minds just could not let this stand.

In 1997 we expanded our Identification Guide series from just passerines (the skinny red 1987 version) to include "near-passerines," as we unscientifically called them back then. These included landbirds that were not passerines but were captured a lot by banders: doves, cuckoos, hummingbirds, and, yes, woodpeckers. I had noticed that some individuals of these families, along with those of owls, nightjars, trogons, and kingfishers, could show two generations of flight feathers. What's up with that?

In the mid-1990s I spent hours and hours among the specimens at the California Academy of Sciences, sometimes until 3 a.m., trying to crack these codes. Incomplete prebasic molts! Now, if we can identify birds with both juvenile and basic feathers, it might enable us to age SCB (SY/TY) birds and those with two generations of basic feathers could be M-TCBs (ASY/ATY)! (See [here](#) for a partial summary.) This was unheard of back then, almost blasphemy. Among these families, woodpeckers (perhaps along with owls) proved the toughest nuts to crack. I distinctly recall being in the collection with Steve Howell one night, and exclaiming, "I think I got it! The lightbulb just lit. Those woodpeckers with replaced outer primary coverts but worn, retained inner coverts are all SY/TYs (SCBs)!" One of the hurdles in reaching this conclusion was that primary coverts did not molt at the same time as corresponding primaries in woodpeckers, another thing that blew our minds at the time. (We now know that this can happen in woodpeckers, kingfishers, parrots, and, of all things, flamingos!).



Illus. from  
Birds of  
eastern  
Canada  
Ottawa,  
J. de L.  
Taché, 1919.

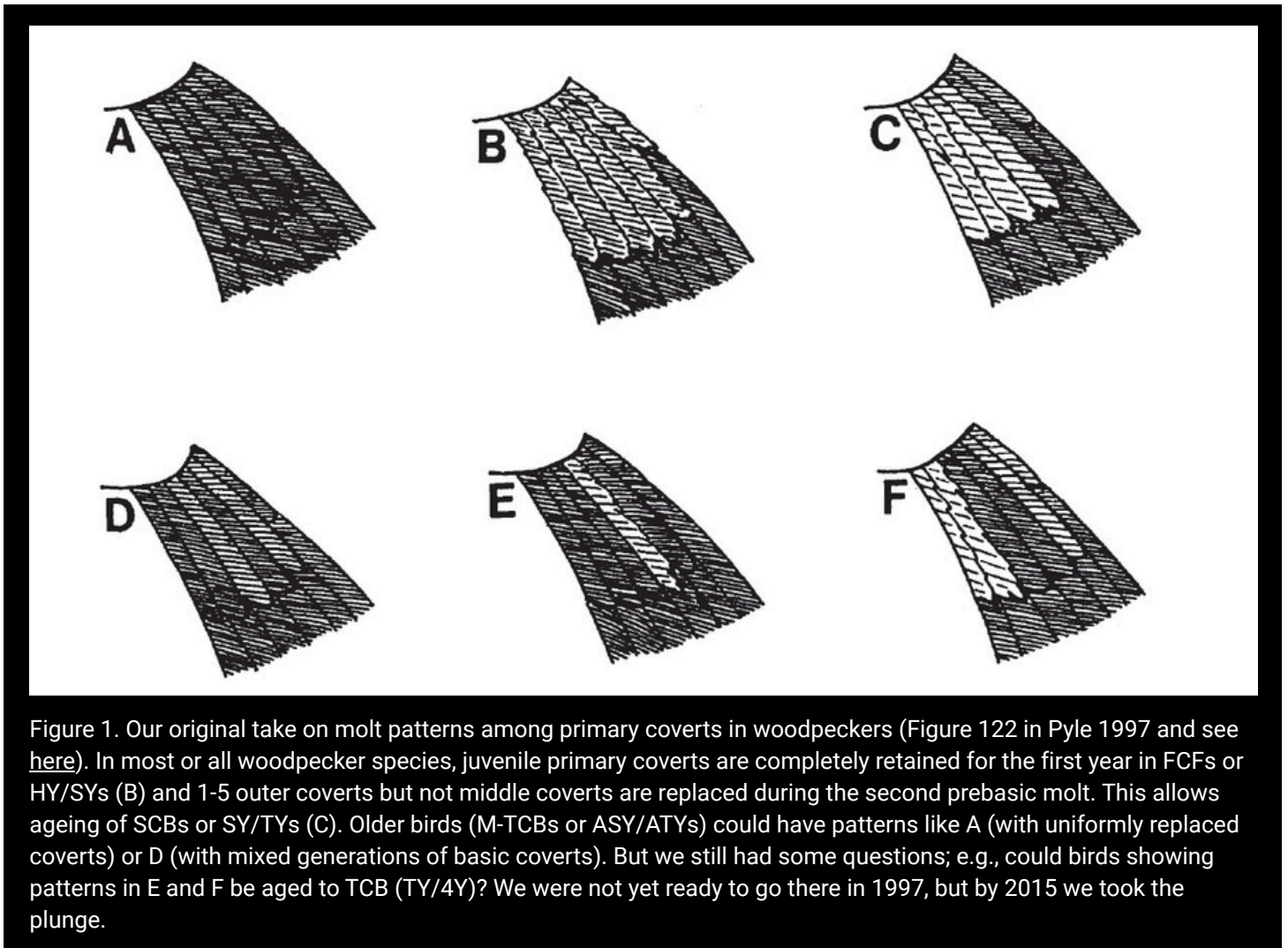


Figure 1. Our original take on molt patterns among primary coverts in woodpeckers (Figure 122 in Pyle 1997 and see [here](#)). In most or all woodpecker species, juvenile primary coverts are completely retained for the first year in FCFs or HY/SYs (B) and 1-5 outer coverts but not middle coverts are replaced during the second prebasic molt. This allows ageing of SCBs or SY/TYs (C). Older birds (M-TCBs or ASY/ATYs) could have patterns like A (with uniformly replaced coverts) or D (with mixed generations of basic coverts). But we still had some questions; e.g., could birds showing patterns in E and F be aged to TCB (TY/4Y)? We were not yet ready to go there in 1997, but by 2015 we took the plunge.

In 1995 we published our findings on woodpeckers ([here](#)) and I included Steve's primary-covert figure in the 1997 ID Guide (Figure 1 here and Figure 122 in the '97 Guide). We had also determined that similar patterns among secondaries could be used to age SCBs (SY/TYs) and M-TCBs (ASY/ATYs), but replacement patterns among secondaries were not as consistent as those of the primary coverts. I was nervous, though. What if we completely blew it! Banders would surely let us know in a hurry.

But, lo and behold, initial comments were positive and confirming. (This was well before internet toxicity, mind you!) Figure 122 became a fixture among my molt and ageing workshop Powerpoint slides. But we still had some questions about what occurs after the second prebasic molt, as the patterns in older birds still seemed confusing. Could we age some birds to TCB (TY/4Y), as we surmised could be the case (see Fig. 1)? Another thing we noticed in the hand was that the innermost two primary coverts sometimes looked like they had been replaced in FCF (HY/SY) birds. Hmm. Banders now refer to replaced inner coverts as "hidlers" because they are so hidden it takes a little work to see them. Again, what's up with that? Figure 2 (next page) shows several examples of "hidlers."

Fast forward 25 years. IBP studies Black-backed Woodpeckers as related to colonization of burned forest areas (see [here](#) for details of this program), and I got involved by ageing captured and

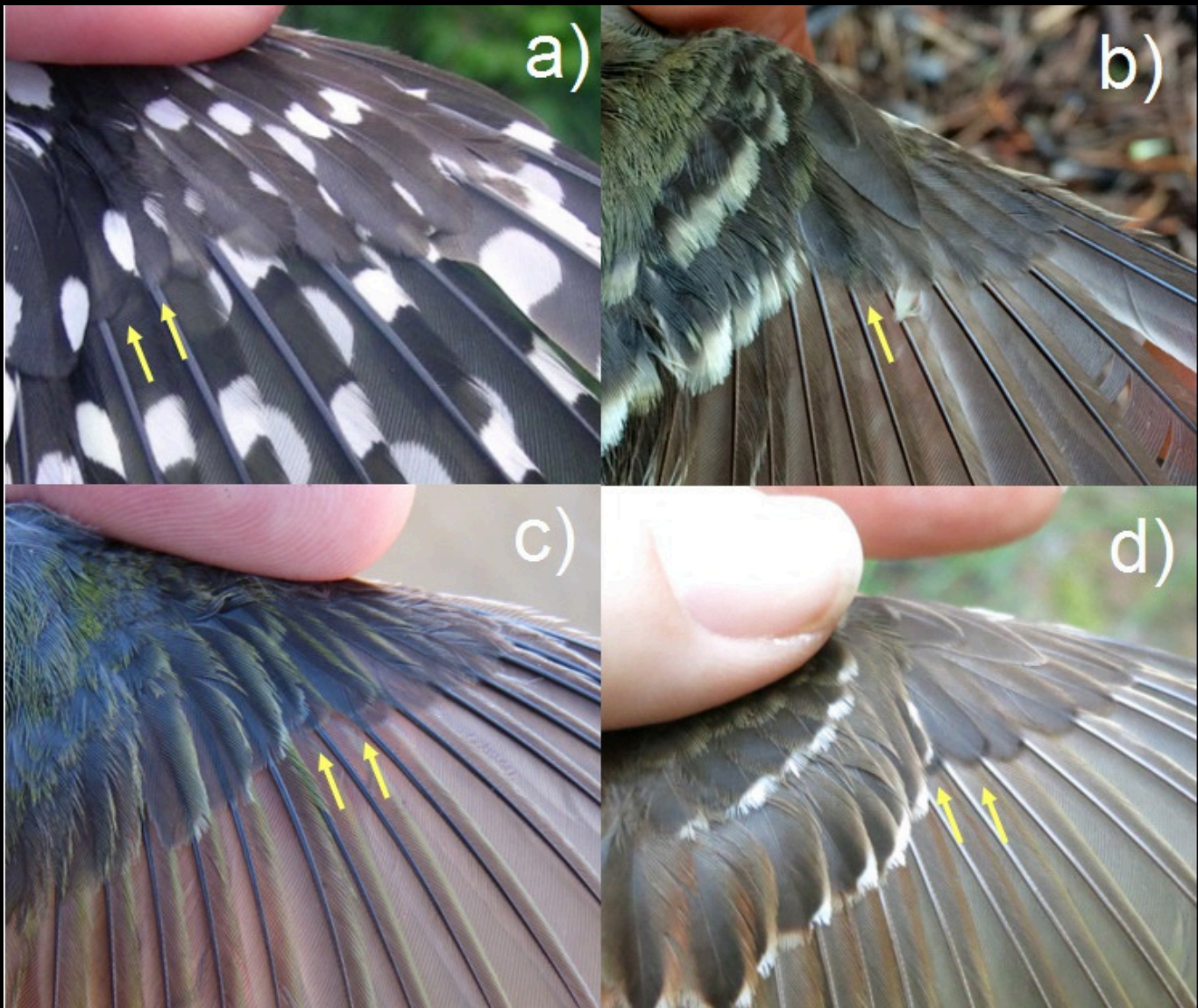


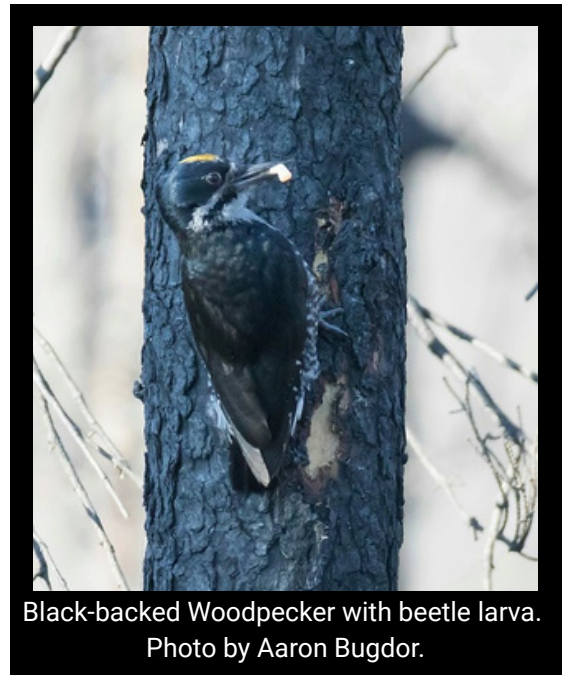
Figure 2. We are seeing what are now referred to as "hiders" - the inner one or two (or maybe occasionally three) primary coverts being replaced on FCFs or FCAs (HY/SYs) in woodpeckers and other species that normally replace no primary coverts (or so we think): A Downy Woodpecker; B Alder Flycatcher; C Tennessee Warbler; D White-throated Sparrow (yellow arrows point to evidently replaced, inner primary coverts). Because hidere cannot be viewed on round-wing specimens and are not visible in almost all images (say, the 90 million + at the Macaulay Library), the best way to study these is with live birds in the hand. How often do they get replaced during the preformative molt? One feather or two? Or three? In what species? Can a limit here be reliable for ageing FCF/FCAs? Are they really replaced or just less exposed and form a pseudolimit? If you know of an enterprising young bander in need of a data project, this is it!

re-captured birds to study if dispersal to new burns occurs with FCFs (HY/SYs), or older birds, or both. During this study it became evident that the answer to one of our questions, "*Could we age some birds to TCB (TY/4Y)?*" was yes. Birds with 2-3 retained juvenile primary coverts in the middle of the tract and two generations of basic coverts to the outside of these were TCBs, in some cases confirmed by capture history. This led us to answer our first question as well: dispersal to recent burns occurs primarily with FCFs and not with older birds (see [here](#) for the whole story). So, once a BBWO gets to a new burn it stays put. This also makes sense relative to bark-beetle population dynamics. Peak beetle abundance and peak-age for reproductive success in woodpeckers both

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occur 3-4 years following a new burn, maximizing reproductive success in these years. After this, both of these factors diminish and, as I like to say, the burn, the beetles, and the woodpeckers all ride off into the sunset together.

So we put our new criteria to good use, beyond just assembling molt puzzles. Yet we still lacked a full understanding of the subject, especially when it came to sapsuckers. In 2011, we initiated our Boreal MAPS Program, and one species captured frequently there is Yellow-bellied Sapsucker. Understandably, the banders were having trouble ageing some of the birds, and took open-wing photos for me to try and help, but I was having trouble too! LOL. Some of the patterns among retained juvenile primary coverts and secondaries were not adding up. Sometime, probably around 2015, the light bulb turned on again. A good proportion of Yellow-bellied Sapsuckers do not replace outer primary coverts during third prebasic molt as well as the second prebasic molt! So a bird with uniformly juvenile primary coverts could be either an SCB (SY/TY) or a TCB (TY/4Y). Sitting here in California, I could hear the groans all the way from northeastern Alberta!



Black-backed Woodpecker with beetle larva.  
Photo by Aaron Bugdor.

So what do we do? An in-depth analysis and publication on molt patterns in sapsuckers of course, this time undertaken with IBP Biologist Lynn Schofield ([here](#)). Some upshots from this paper (which includes all four sapsucker species):

- 1) Only 23% of sapsuckers replace outer primary coverts during the second prebasic molt, so most TCBs (TY/4Ys) still show completely juvenile primary coverts (hidlers excepted).
- 2) Thankfully, secondaries are also relatively slow to molt, so retention patterns there can be used to distinguish all TCBs from all 4CBs (Figs. 3-4).
- 3) This slow molt rate relates to the migratory habits of sapsuckers, especially Yellow-bellied Sapsucker, our only woodpecker that can go as far as Central America for winter.
- 4) Both primary coverts and secondaries are replaced convergently (from both ends inward), and Staffelmauser occurs among both tracts. The slides linked [here](#) show molt by molt which feathers are replaced and in which direction within the tract.

Say what? Staffelmauser is a German term for what the British call "stepwise molt." I like Staffelmauser better because, well, it sounds cooler, and it was also coined by molt pioneers Erwin and Vesta Stresemann in their classic 1966 monograph *Die Mauser der Vögel* (The Molting of Birds), before "stepwise" was introduced. Up until now it has been defined only among primaries that molt distally from the inner (p1) to the outer (p9 or p10) feather. But our woodpecker results led us to define it among primary coverts and secondaries as well. It works like this. Following an

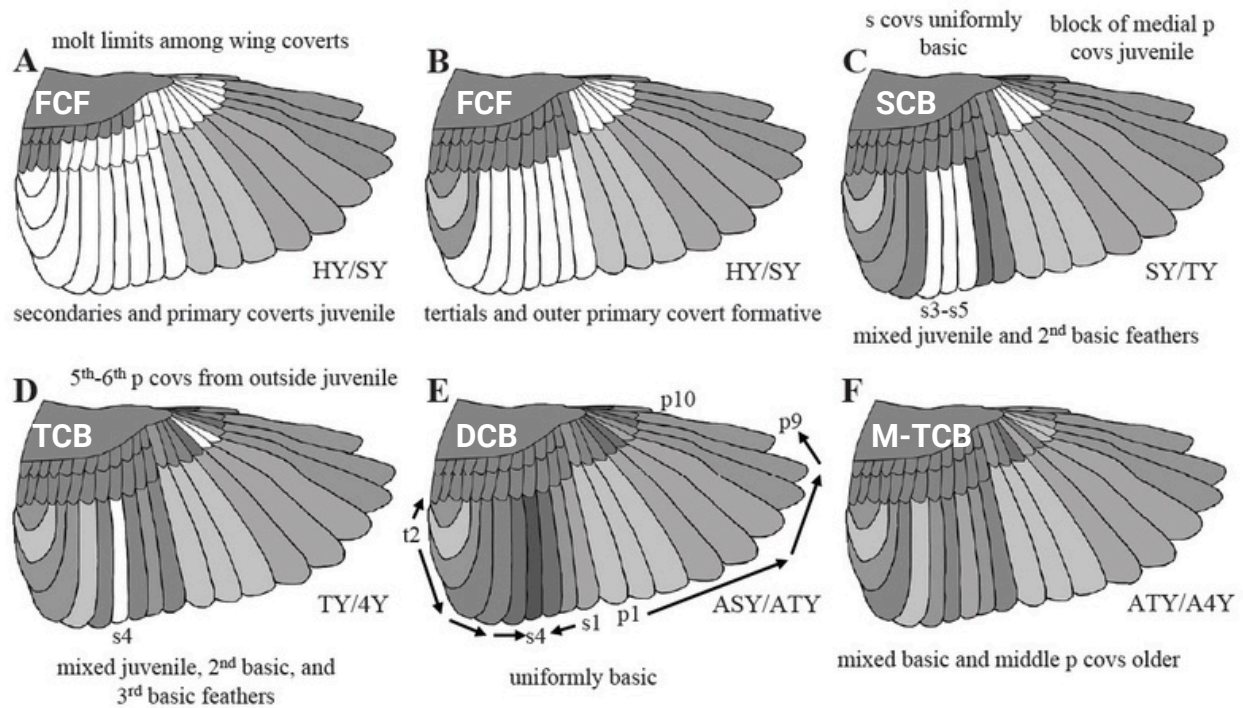


Figure 3. Molting patterns in most North American woodpeckers; Lewis's, Acorn, and Red-headed woodpeckers undergo differing strategies. The preformative molt includes the primaries, the rectrices, and some to all secondary coverts but few or no secondaries or primary coverts (A-B), with the exception perhaps of "hidlers." The second prebasic molt is incomplete, resulting in at least 3-4 juvenile primary coverts being retained in the middle of the tract, very abraded and worn, contrasting with 1-5 replaced second basic coverts distal to the juvenile feathers (C; often in sapsuckers, all juvenile outer coverts are retained); birds showing this pattern can be aged SCB (SY/TY). In some but not all TCBs from 1-6 juvenile secondaries can also be retained in the middle of the tract, contrastingly brown and often scalloped along the edges. Juvenile secondaries are replaced bilaterally from the second tertial (t2) and proximally from s1, so that the last feather replaced is s3 or s4 and primary coverts are not always replaced with corresponding primaries and instead are replaced convergently from both sides, the last feather replaced being that which corresponds to p6. In all sapsuckers and some individuals of other species, 1-3 very abraded juvenile primary coverts among the 4th-6th from the outside and (less frequently) one or more extremely brown and abraded juvenile secondaries among s3-s5 can continue to be retained following the third prebasic molt, among two generations of basic feathers (D); these individuals can be aged TCB (TY/4Y). As the third prebasic molt can also be complete or result in all juvenile feathers replaced, birds with uniform or mixed basic feathers and showing typical molt clines (E) are aged DCB (ASY/ATY; see text). Some woodpeckers can also be aged M-TCB (ATY/A4Y) by showing mixed generations of basic feathers including older basic feathers among the 3rd to 5th primary coverts from the outside (F). In sapsuckers, patterns as in (E) can be called M-TCBs (ATY/A4Ys) and patterns as in (F) M-4CBs (A4Y/A5Ys). For sapsuckers, these slides are also useful. Adapted from Figure 119 in Pyle 2022, Identification Guide to North American Birds, Part 2, Second Edition, Slate Creek Press (<https://slatecreekpress.com/>).

incomplete molt, the next molt begins in sequence from where the previous molt left off (how a bird remembers' this is still a big mystery) and a new sequence can begin, resulting in two or more waves of active molt at a time. See [here](#) for a simplish explanation and how to apply Staffeldmauser replacement patterns to ageing older birds of larger species. Staffeldmauser appears to have evolved, in part, due to lack of time to replace all feathers but it has the ultimate benefit of allowing more feathers to be replaced during a molt without incurring large gaps in the wing (see [here](#) for more on this regarding diurnal raptors). But why the primary coverts in woodpeckers? We have surmised that the pale panel or badge created by the retained juvenile coverts may allow woodpeckers to know the age of potential mates.



Figure 4. Examples of SCB or HY/SY (a), TCB or SY/TY (b), 4CB or TY/4Y (c), and DCB or ASY/ATY (d) Yellow-bellied Sapsuckers. Juvenile feathers are marked in orange, new basic feathers in blue, and older basic feathers in yellow, or green for feathers estimated to have been retained for two years (c). During prebasic molts, sequence of both secondaries and primary coverts converge from the outsides, with the terminal feathers replaced being s3 or s4 and the primary covert corresponding to p6 (pc6). A second replacement wave from the outsides can begin before all juvenile feathers are replaced. TCB sapsuckers appear always to retain at least s3-s4 and pc6-p7, surrounded by one or two generations of basic feathers, and some to many 4CBs retain at least the juvenile pc6, surrounded by two or three generations of basic feathers. Photos courtesy of the Boreal MAPS Program; figure adapted from the Supplementary Materials for Pyle and Schofield 2023, [here](#).

So, among sapsuckers and woodpeckers, the outermost and innermost primary coverts can be replaced for a second time before all juvenile coverts have been replaced (the last being that corresponding to p6), and the same thing can occur among the secondaries, the tertials especially being replaced twice or even three times before the last juvenile secondary (s3 or s4) has molted. Once we realized these converging Staffeldmauser patterns (that light bulb again), replacement sequences made a lot more sense and we are now confident in ageing some to many sapsuckers to TCB (TY/4Y) and M-4PB (ATY/A4Y) and it would also appear that some sapsuckers can be aged to 4CB (4Y/5Y), having retained the juvenile primary covert pc6 and showing molt clines indicating three waves among inner and outer coverts (Figs. 3-4 and see [here](#) for application regarding a Williamson's Sapsucker). The patterns, by the way, hold for woodpeckers around the world! A recent paper by Jenni et al. in Ringing and Migration shows all the same patterns for European woodpeckers ([here](#)) although, in typical European fashion, they don't like to give us Americans much credit when it comes to molt!

One more thing to say about WRP coding of woodpeckers before I sign off: How should we apply "minimum" codes vs. DCB? For passerines, many birds are aged M-FCF, meaning at least HY/SY. These occur for birds that can undergo complete preformative molts (including Bushtit, Horned Lark, Grasshopper Sparrow, Northern Cardinal, Song Sparrow, and House Finch), following which age cannot be determined by plumage to either FCF or DCB. Thus M-FCF = U/AHY, or "whatever, at least I don't have to think too hard." But for woodpeckers, all FCFs and all SCBs are theoretically aged with confidence, including as we have shown, YBSAs that have retained all juvenile primary coverts. So if, say, a bird gets away before ageing and you've seen two generations of secondaries, I recommend that M-SCB (ASY/ATY) should be used, rather than DCB. However, the code M-TCB (ATY/A4Y) seems a bit too out there, and would rarely be used apart from sapsuckers, although I have seen a couple of DOWOs that I would aged this way. Many TCBs (TY/4Ys) furthermore, have molted all juvenile feathers. So, for woodpeckers in general, we should use DCB for everything beyond M-SCB, even though some M-TCBs can be identified. For sapsuckers we can probably go a step farther, with acceptable age codes for both M-SCB and M-TCB, before we get to DCB, essentially meaning M-5CB (see Figure 3).

Whew. Quite a journey, perhaps not quite completed yet for woodpeckers, let alone other large birds with incomplete molts and Staffelmauser.

## 2025 MAPS PHOTO CONTEST WINNERS

1

**Daniel Lombardi,**  
Glacier National  
Park, MT  
(see page 12)



2

**Julie Hovis,**  
Winthrop, WA  
(see page 7)



3

**Rishona Vemulapalli,**  
Georgian Bay,  
Ontario, Canada  
(see page 3)



4

**Lori Walewski,**  
Finland, MN  
(see page 9)



5

**Laura Mahrt**  
La Grande, OR  
(see page 11)





## MAPS Operator Profile: The Boreal MAPS program in Alberta by Christine Godwin and Kenneth Foster

The Boreal Monitoring Avian Productivity and Survivorship (Boreal MAPS) program began in 2011 as an ambitious dream of Ken Foster and Christine Godwin, and is operated through their Fort McMurray-based company Owl Moon Environmental Inc. and in full partnership with IBP. A mid-sized city, Fort McMurray is in the heart of Alberta's oil sands industrial operations within the boreal forest biome, the breeding grounds for a large number of Neotropical migrant species. To the south is Edmonton, a 5-hour drive. An hour's drive to the north leads to the Fort Chipewyan winter road beyond which all-terrain vehicles can take summertime explorers to sand dunes and small lakes hidden in extensive spruce and pine forests. The winter road is a vital link to Fort Chipewyan in the Peace-Athabasca Delta, and offers more hardy explorers access to unique environments during the deeply frozen winter months.

The Boreal MAPS program has evolved over its 15 years of operations. A total of 72 MAPS stations have been operated, with a maximum of 40 stations operating in any year. Historically, our purpose was to understand if oil sands mine reclamation practices were supporting boreal

birds, and our MAPS stations were operated on mine site reclaimed lands as well as in areas disturbed by exploration and in-situ oil sands operations, and in undisturbed upland and lowland boreal habitats. We have since transitioned our objectives to understand the impacts of oil sands development on songbird populations more broadly. Our current program operates 36 MAPS stations in older mixedwood forests located near industrial activities that include mining, in-situ oil wells, plant sites, pipelines, and wellpads,



One of the habitat types at the Boreal MAPS stations. Photo Courtesy of Kenneth Foster.

in landscapes fragmented by roads and seismic lines, and in undisturbed forests that serve as reference conditions.



Because of the large number of stations needed to address the objectives of the program, stations are located up to 5 hours to the south and southeast of Fort McMurray, around Bonnyville, Lac La Biche, and Conklin, and up to an hour and a half drive north of Fort McMurray, near and around Fort McKay. Some of our current stations offer easy road access, while other stations require a hike of up to 1.5km, with backpacks full of banding gear. The effort to clear and maintain our stations has evolved, and although hand saws can go through a fallen tree with some effort, a chainsaw team is now the preferred method of clearing the downed trees in the spring following the winter storms that can make some stations impassable.

The boreal species that our banders are most excited to capture are the Boreal Chickadee, Canada Jay, and any of the numerous colourful warbler species that breed in the boreal forest. Flocks of fledgling warblers can show up unexpectedly in July and make for some exciting communications on the chat among the banding teams as they share their adventures. Our banding records include 104 species, with 211 bird species recorded in our breeding status

data. These also include the occasional vagrant species that can spend the summer in our region. Our database includes over 70,000 capture records, to which we add about 4,000 records per year.

Safety of our banders is of paramount importance. There are two things we teach our banders. The first is how to drive a marked company truck to look official for work, and which is decked out with the safety equipment needed to be on roads that are regularly travelled by large trucks, buses and industrial service vehicles. Our truck unit numbers are the four-letter owl codes, with GHOW and GGOW reserved for program leads. The second is how to safely interact with black bears, and we have a lot of black bears. Our crews have had some amazing experiences encountering Canada lynx at their stations, gray wolves can be heard howling on occasion, moose will crash through the bush (and nets), and the occasional sightings of woodland caribou are very special.





## New MAPS operators have joined the flock!

The following people joined, or rejoined, MAPS for the 2025 or 2026 season. Most have begun operations at new stations but others have joined established operators or inherited the station from previous operators. We welcome them all to the MAPS family!

**Eric Baka** Woodworth, LA  
**Atley Elliot** Mill Spring, NC  
**Paul Fehringer** East Aurora, NY  
**Josh Fife** Moab, UT  
**Luanne Johnson** West Tisbury, MA  
**Greg Kearns** Upper Marlboro, MD  
**Matthew McKinney** West Liberty, WV  
**Liz Olson** West Tisbury, MA  
**Alex Pellegrini** Upper Marlboro, MD  
**Lauren Strong** Copper Hill, VA  
**Lauren diBiccari & Kevin Regan**  
Great Pond, ME

*Welcome*



Photo by  
Nick Thompson

The data from our program are made public through open-source, peer-reviewed journal publications, as we believe the public should be made aware of the status of our boreal birds. We have collaborated with other researchers on migratory pathway studies, including attaching transmitters and geolocators to birds, and collection of feather samples for isotope analyses. We have supported several students for high school, undergraduate and graduate research projects, and some of these studies have been published. Two publications have recently been submitted to journals and are expected to come out this year, and three more are in the works for later this year. Our future plans also include the attachment of Motus transmitters for another planned study, and in collaboration with the Wood Buffalo Wildlife Research Institute, we have set up the first Motus tower in the region with more being planned in the coming season. We are extremely grateful to The IBP for the true partnership we have created, and are greatly indebted to the many bird banders who have collected the data and the individuals who have supported station operations, data collection, data analyses, and database management over the 15 years of this Boreal MAPS program.

# Congratulations on 25 years of MAPS!

The **Five Rivers MAPS station** operated by New York State Department of Environmental Conservation in **Albany County, New York**, is celebrating its 25th year! In 2001, a small group of wildlife biologists started the station at DEC's Five Rivers Environmental Education Center. A quarter of a century later, a phenomenal team of DEC staff still braves early mornings, biting insects, unpredictable weather, and miles of net runs every summer to continue supporting the MAPS program. Over the years, the station has provided an opportunity for scores of wildlife technicians and interns to gain experience with mist netting and banding. They've also documented breeding of many Species of Greatest Conservation Need including Black-billed Cuckoo, Blue-winged Warbler, Brown Thrasher, Louisiana Waterthrush, and Wood Thrush. Learn more about the station here: [MAPS Banding: Bird Banding for Research and Education](#).



Happy 25th to the **Wishbone MAPS Station in Waterton Lakes National Park**, operated by Cyndi Smith. It is situated in an open cottonwood-willow deciduous forest adjacent to the Maskinonge wetland. We are tracking some interesting changes in species use as a result of three prescribed burns since 2002. The station is entirely run by volunteers with some support from Parks Canada and the Bow Valley Naturalists.



The MAPS station at **Riveredge Nature Center in Saukville, WI** represents a lasting legacy established by founding naturalist and first Executive Director Andy Larsen. He was a pioneer of the inquiry-based, hands-on education model that continues to inspire curiosity in both children and adult learners today. The MAPS program has been sustained by a hardworking, dedicated team of

volunteers, led over the years by federally permitted Master Banders Alan Sherkow (1999–2012), Mickey O’Connor (2013), and Jana Gedymin (2016–present).

The MAPS station sits on land with a dynamic history. Clear-cut in the late 1800s and later used for cropland and grazing through the mid-1900s, the site eventually transitioned into minimally managed habitat. By the late 1900s, it had become a mix of brushy old-field prairie and lowland forest, including hardwood swamp with tamarack and white cedar, bordered by lawn, cropland, and a pine plantation.



A MAPS celebration at Riveredge. Photo courtesy of Jana Gedymin .

In recent decades, the landscape has continued to evolve. The loss of ash and elm canopy has opened the door for invasive species, with common buckthorn now prominent in the understory and reed canary grass expanding through wetter areas. These changes have shaped the bird community observed through MAPS. Woodpecker numbers have declined as dead ash and elm trees—once valuable habitat—have degraded and disappeared.

The old-field prairie portion of the site remains prominent, continuing to support a steady population of Field Sparrows, a species of special concern in Wisconsin. Meanwhile, Gray Catbirds appear to be thriving, consistently ranking as the most frequently captured species, followed by Common Yellowthroats.

Looking ahead, recent funding through a Sustain Our Great Lakes grant will support invasive species removal and habitat restoration beginning in fall 2026. This next chapter offers an exciting opportunity to see how targeted habitat improvements shape breeding bird populations at this long-term research site in southeastern Wisconsin. Stay tuned—the story is still unfolding.



Jana Gedymin and her son Hutch at the banding table in 2017.



Male Rose-breasted Grosbeak banded at Redwood Creek on June 9th. Photo by June Yost / Point Blue.

The **Redwood Creek station between Muir Woods and Muir Beach, CA** is located in a beautiful, restored alder/willow riparian area in the National Golden Gate Recreation Area. It is operated (in collaboration with the National Park Service) by Point Blue’s Palomarin Field Station, which is celebrating its 60th anniversary; and Redwood Creek is the youngest of five stations it operates that have all contributed 25 years or more of data to the MAPS Program! While most of the species captured at this station are West Coast species, in 2025 they were privileged to capture this unusual visitor, a male Rose-Breasted Grosbeak- the third of its kind ever captured at the station.

# Banding Classes



Wolf Ridge Environmental Learning Center in NE Minnesota is welcoming banders and hosting banding classes again in 2026. The beginner class will be held June 25 – July 2, 2026, and the advanced class July 6 – 10, 2026. The youth Ornithology Field Camp is full, but students can be waitlisted. It is available for students (entering grades 10-12) and will be held July 12-17, 2026. Visit [Wolf Ridge's program page](#) for information on all of these classes.

If you have your own group or would like to host a class, we welcome you to contact us to schedule one. If you want to be notified when registration opens for new classes, please email Danielle Kaschube ([dkaschube@birdpop.org](mailto:dkaschube@birdpop.org)) to be put on the training class email list. If you are on this list, you will only get emails regarding scheduled classes.

We hope  
you have  
a fabulous  
2026 MAPS  
season!



Photo by Larry Hubble