

NOTE NO.	NOTE
1	band changed, original band number = 122045678
2	molt limit within lesser and med covs
3	aged by adult plumage; escaped before fully processed
4	Unable to fly on release but couldn't recapture
5	couldn't see molt limit betw/ tert and middle ss (but Pyle says can be hard to see)
6	pox on legs; pp 1-2 growing
7	male seen near net during extraction. Rects looked ~truncate but pp covs looked ~tapered - unsure of SY/ASY, aged AHY
8	molting pp 3-4. unreplaced outer pp covs & rect truncae
9	gr covs w/ 3 feather gens - 3 alternate coverts: rect with limited yellow (like Fig. 263 B)
10	molting pp 2-3, ss 8-9, & pp covs, L & R r 1, unsure of brood patch 5
11	preformative nearly complete; head & upper breast feathers black w/ yellow edging

WRP – Wolfe-Ryder-Pyle age classification. **This age classification system underwent a revision in 2022.** We recommend reading the paper detailing the revisions by Pyle et al. 2021 (full reference in the Literature Cited) and the 2022 MAPS Chat (https://www.birdpop.org/docs/misc/MAPS_Chat_2022.pdf) which provides a summary of the paper as well as examples of how to use the system for MAPS data.

Enter the age code for the cycle-based age class of the bird. This code describes the plumage and molt stage of the individual. Entry of the cycle based codes is currently optional but we hope operators will quickly adopt their usage.

The first of the three core characters indicates the cycle:

- F - first cycle
- S - second cycle (usually used only for woodpeckers)
- T - third cycle (used rarely for woodpeckers)
- D - definitive cycle

The second of the three core characters indicates the molt status:

- C - mid-cycle, no molting feathers on bird
- P - bird in molt. For HYs it can be in body-feather molt; for AHYs it should be in primary molt. This code can also be used for a bird not actively molting if it is in the suspended phase of a suspended molt, e.g. REVI, but this situation will be very rare.
- U - unknown

The third of the three core characters indicates the plumage. I.e., the plumage a non-molting individual is currently in or the plumage in which a molting individual is molting into:

- J - juvenile plumage
- F - formative plumage
- A - alternate plumage
- B - basic plumage
- X - auxiliary formative
- S - supplemental
- U - unknown plumage

An adjunct code – placed before the three character core code – is used to indicate when the core code cannot be specifically defined, either because of how the species molts or because the plumage of an individual bird isn't certain.

- M - indicates that the bird has reached, at minimum, the plumaged indicated by the core WRP code
- H or A - specific to WRP code FCF. Used to separate HYs that have finished the molt (H-FCF) from SYs that have not begun the second prebasic molt yet (A-FCF). These codes will be needed for certain species in July and August in which HYs may complete the preformative molt before SYs have started the second prebasic molt; thus, we need to distinguish these FCFs with an adjunct code.

Not all of the code combinations are valid. Below is a list of the codes most frequently used in MAPS, followed by the calendar based age code that usually applies in North America, but note that there is no direct correspondence between WRP and calendar-

based age codes. The most common codes are listed first and in the order they are encountered in a typical passerine:

- FPJ - **F**irst **p**rejuvenile molt: The individual is molting into its juvenile plumage and must have molting body and/or flight feathers. AGE=2/HY in North America and during the MAPS season.
- FCJ - **F**irst **c**ycle juvenile plumage: The individual is in full juvenile plumage, i.e. only juvenile feathers are present and the bird has no molting feathers. JP=3 and AGE=2/HY during the MAPS season.
- FPF - **F**irst **p**reformative molt: The individual is molting into its formative plumage. The bird must have molting body and/or flight feathers. JP=1 or 2 and AGE=2/HY during the MAPS season.
- FCF - **F**irst **c**ycle formative plumage: The individual is in full formative plumage, i.e. the bird has no molting feathers and most often has a mixture of retained juvenile feathers and replaced formative feathers. **During the MAPS season, as we are getting use to WRP adjunct codes, please enter a code here for all known FCFs - either H, or A.**
 - H-FCF** - Hatch year, first **c**ycle formative plumage. This code is applied to fresh HYs that have finished the preformative molt for species in which adult birds might be in the same plumage, e.g. Wilson's Warbler, Canada Warbler, etc. AGE=2/HY during the MAPS season.
 - A-FCF** - After hatch year, first **c**ycle formative plumage. This code is applied to worn SYs that have not begun the second prebasic molt, for species in which hatch year birds might be in the same plumage, e.g. Wilson's Warbler, Canada Warbler, etc. AGE=5/SY during the MAPS season.
- M-FCF - **M**inimum first cycle formative: This code will be used for species that have a complete preformative molt, e.g. WREN, BUSH, NOCA, GRSP, HOSP, swallows, and other species **-and-** for unknown plumage adults of other species. AGE=1/AHY during the MAPS season.
- FPA - **F**irst **p**realternate molt: The individual is molting into its first alternate plumage. The bird must have molting body and/or flight feathers. AGE=5/SY during the MAPS season.
- FCA - **F**irst **c**ycle alternate plumage: The individual is in full first-alternate plumage, i.e. the bird has no molting feathers and has a mixture of juvenile, formative, and alternate feathers. AGE=5/SY during the MAPS season.
- M-FCA - **M**inimum first cycle alternate: The individual is in alternate plumage but it can't be determined if it is in first or definitive cycle alternate plumage. AGE=1/AHY during the MAPS season.
- SPB - **S**econd **p**rebasic molt: The individual is molting into its second basic plumage. It must have molting primaries and still retains some juvenile, formative and/or first alternate feathers. AGE=5/SY during the MAPS season.

- M-SPB - **Minimum second prebasic molt:** The individual is molting into its basic plumage. It must have molting primaries and no juvenile feathers remain so it is uncertain if this is second or subsequent prebasic molt. AGE=1/AHY during the MAPS season.
- DCB - **Definitive cycle basic plumage:** The individual is in full basic plumage, i.e. the bird has no molting feathers and has only basic feathers. Often AGE=6/ASY during the MAPS season.
- DPA - **Definitive prealternate molt:** The individual is molting into its definitive alternate plumage. The bird must have molting body and/or flight feathers. AGE=6/ASY during the MAPS season.
- DCA - **Definitive cycle alternate plumage:** The individual is in full alternate plumage, i.e. the bird has no molting feathers and has a mixture of basic and alternate feathers. AGE=6/ASY during the MAPS season.
- DPB - **Definitive prebasic molt:** The individual is molting from one basic plumage to another definitive basic plumage. It must have molting primaries and show both retained and replaced definitive basic and/or alternate feathers. Often AGE=6/ASY during the MAPS season.
- FCU - **First cycle unknown plumage:** The individual is its first cycle because it retains juvenile feathers, but it is unknown if it is in formative or alternate plumage. Used often for species where the prealternate molt can vary from absent to limited and/or difference between formative and alternate plumages is subtle, e.g. OVEN or female COYE, etc. AGE=5/SY during the MAPS season.
- DCU - **Definitive cycle unknown plumage:** The individual is its definitive cycle but it is unknown if it is in basic or alternate plumage. See FCU (above). AGE=6/ASY during the MAPS season.
- UCU - **Unknown cycle unknown plumage:** It is unknown which plumage and cycle the individual is in and the bird has no molting feathers, e.g. for birds that escape before processing. AGE= 0/U during the MAPS season.

Three Years in the life of Joe Bird

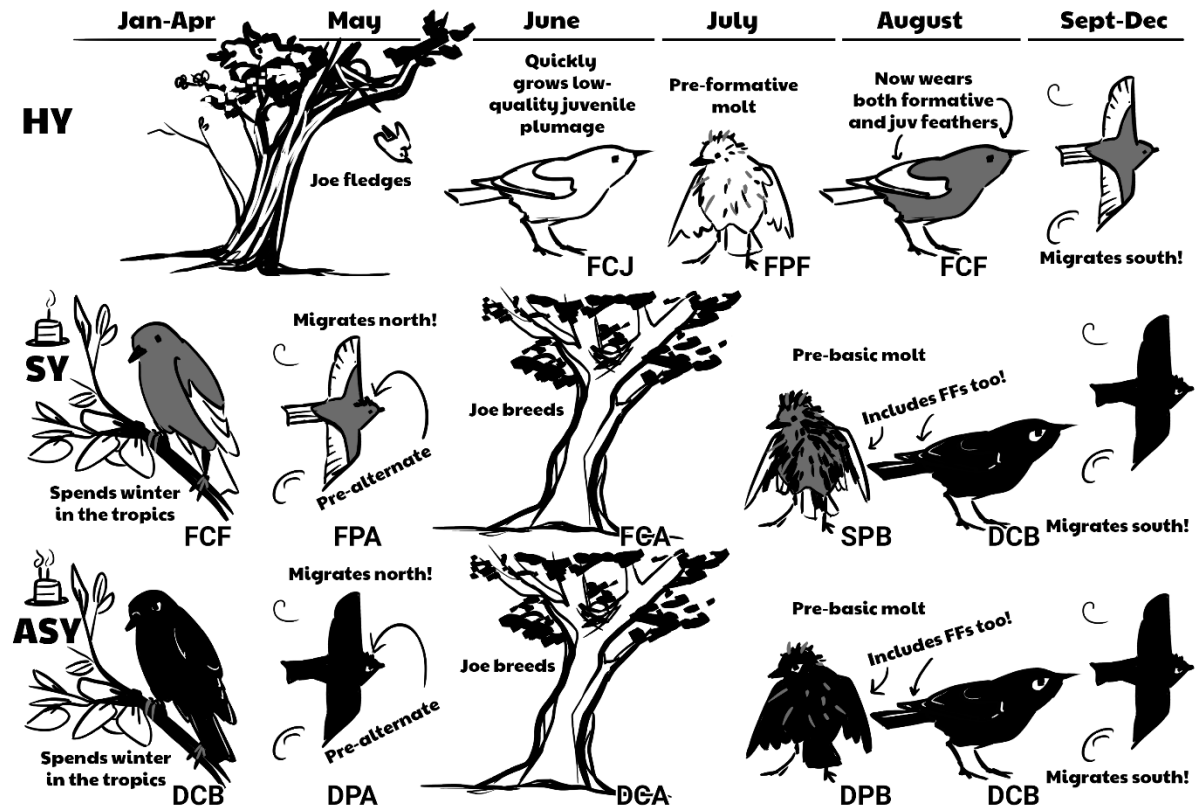


FIGURE 7. The Life Cycle of a Typical Migratory Songbird, Including Age and Common WRP Codes.

Less common codes:

- SCB - **S**econd **c**ycle **b**asic plumage: The individual is in second basic plumage with a few retained juvenile feathers and has no molting feathers. This and the following two codes are used almost exclusively for woodpeckers during MAPS banding. AGE=7/TY during the MAPS season.
- TPB - **T**hird **p**rebasic molt: The individual is molting into its third basic plumage. It must have molting primaries and retains at least some juvenile and second basic feathers. AGE=7/TY during the MAPS season.
- TCB - **T**hird **c**ycle **b**asic plumage: The individual is in third basic plumage with retained juvenile and second basic feathers and has no molting feathers. This code is only rarely used for woodpeckers. AGE=4Y during the MAPS season.
- 4PB - **T**hird **p**rebasic plumage: The individual is molting into its fourth basic plumage. It must have molting primaries and have at least four generations of feathers (including the newly molted ones). AGE=8/TY during the MAPS season.

There are times when the codes UPB, UPU, and UUU are needed because not enough information was seen on the bird, often because the bird was released early. However,

whenever possible we ask you try to use one of the above codes to both provide IBP with the most information possible on each bird and to solidify your understanding of molts and plumages. Please contact IBP if you have any questions!

The WRP determination must be supported by data in the body molt, flight feather molt, juvenile body plumage, and/or the first seven MOLT LIMITS & PLUMAGE fields.