



Aging and Sexing Cedar Waxwings

In a departure from normal practice, we present a technical analysis of the 2020 ABA Bird of the Year

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I'm a fan of contemporary art, including stylized birds created at the whims of artistic license. But I also really like it when caricaturized birds have some semblance of accuracy, and even more so when it comes to age and sex. Such is the case with Tony Fitzpatrick's "Communion of Waxwings," the official art for the 2020 ABA Bird of the Year, depicting Cedar Waxwings. There, now, I've given away the species identity, but this was quite apparent, wasn't it? These are obviously waxwings, and, in all respects, *not* Bohemian Waxwings, right on down to the dark primary coverts and fine white fringing to the inner webs of the tertials.

Classification of age and sex in Cedar Waxwings is somewhat

complicated, necessitating evaluation of both categories interactively. In this case, it would be nice if the Navajo pinwheels were coded to age and sex; and, if that were the case, it wouldn't surprise me, given the sentient awareness first peoples had of their natural surroundings. But we present-day domesticated birders will have to rely on the depicted plumage features.

We can start with their not being juveniles, by their nice bright plumage and lack of blurry streaks to the breast. We all know the juvenile plumage fairly well, as the Cedar Waxwing is one of many species in North America which migrate away from

natal sites to undergo their preformative molts (Pyle et al. 2018); practically speaking, this means we often see juveniles in migrant fall flocks. Following these molts, both first-winter (formative) and older (definitive basic) adult birds resemble each other in body plumage. Our featured waxwings appear to be eating winter berries, possibly of honeysuckle (if in the East), toyon (if in the West), or pyracantha (if along a freeway). In any case, by winter the molts are done, and we can assume that our waxwings are exhibiting either fresh formative or fresh definitive basic plumage.

In some species, it's better to determine age before turning to sex, while in others, like the Cedar Waxwing, the reverse is the better course. Whether in formative or basic plumage, the

Featured "Photo." This is a painting of Cedar Waxwings, of course, but the birds can also be aged and sexed. See text for analysis. Drawing and collage by © Tony Fitzpatrick.



throats of females have a reduced amount of blackish, whereas those of males are more fully black, with little if any overlap in this character. So in our cover piece, the female is the bird with the berry, on the left.

Now it gets more fun. As nicely documented 50 years ago by Bob Yumick (1970), the number of waxy tips to the secondaries of Cedar Waxwings varies with age and sex, ranging from, out of nine secondaries, 0–3 with these tips in formative females, 1–7 in adult females, 0–7 in formative males, and 3–9 in adult males. Looking closely at our subject birds, I count six waxy tips on the secondaries of the female and five on the male. Accordingly, and along with the nice broad yellow tip to the tail (discussed below), the six waxy tips on the female indicates an adult. But what of the male? Here, five waxy tips can occur in both age groups, so we must

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turn to another character, in this case the rectrices (tail feathers).

In most birds, the juvenile rectrices grown in the nest are narrower and more tapered than those of adults. Breadth and fullness in terms of barb density are sacrificed for quicker fledging—and less time for predation (see Nick Minor’s report, “Predators may explain awkward avian teens,” *Birding*, Aug. 2019, pp. 22–23). In contrast, adults can take their time during the relaxing period of prebasic molt. This is the case in Cedar Waxwings, with the yellow tips in first-winter birds averaging duller and narrower than in adults. In the mid-1990s, I measured the width of the yellow tips to the rectrices in each age/sex group, and found ranges of 0.0–4.5 mm in formative females, 3.5–7.0 mm in adult females, 3.0–7.0 mm in formative males, and 5.0–9.0 mm in adult males. So I enlarged Tony Fitzpatrick’s piece on my computer monitor to approximate life size, and measured yellow tail tips of ~6.5

mm on the female and ~4.8 mm on the male. This further supports definitive basic plumage for the female, but indicates formative plumage and a first-year male—the latter already showing the namesake “wax” wings.

Sexual selection in birds often has an age-related component. With regard to waxwings, my hypothesis is that either sex chooses mates not only of the same age, if available, but also with characters which match or exceed their own in the spectrum of within-sex variation. In other words, females of relatively vibrant plumage tend to choose mates with similarly robust plumage features. That the female’s yellow tail tip in the artwork is broader than the male’s goes counter to this, and could indicate a skewed sex ratio in favor of females, as we see in some bird populations. Females by necessity might choose younger males.

Or, perhaps, it’s just what happens in vibrant cities, especially among those in the contemporary art milieu.

Supplemental photos—Cedar Waxwings of differing ages and sexes.

A. This formative (first-winter) female shows little black to the throat and no red waxy tips to the secondaries, along with dull and narrow yellow tips to the tail. *San Mateo County, California; Mar. 28, 2019. Photo by © Donna Pomeroy.*

B. A formative male (left) shows dull yellow rectrix tips and lacks waxy tips to the secondaries. However, he has a broader and more-extensive black throat patch than the adult female (right), which also shows two or more waxy tips. *San Mateo County, California; Mar. 28, 2019. Photo by © Donna Pomeroy.*

C. This female (with reduced black on the throat) shows broad yellow tail tips and several waxy tips, indicating an adult. *San Mateo County, California; Jan. 4, 2019. Photo by © Donna Pomeroy.*

D. This appears to be an adult, with bright plumage overall; the wing feathers are fully barbed, and rectrix tips are broad and bright yellow. At this angle, the throat is difficult to evaluate for sex, but this appears to be a male. The berries are of toyon (*Heteromeles arbutifolia*), also known in California as Christmas berry. *San Mateo County, California; Mar. 28, 2019. Photo by © Donna Pomeroy.*

References

- Pyle, P., J. F. Saracco, and D. F. DeSante. 2018. Evidence of widespread movements from breeding to molting grounds by North American landbirds. *Auk* 135: 506–520.
- Yunick, R. P. 1970. An examination of certain aging criteria for the Cedar Waxwing (*Bombycilla cedrorum*). *Bird-Banding* 41: 291–299. 🌐

The Cedar Waxwing is one of the most easily ID'd birds in North America. Put a pair of them in a fruiting tree, and you would be without excuse for misidentifying them. But what if you were asked to tell male from female? Second-year from after-second-year? In an appreciation of Tony Fitzpatrick's brilliant waxwing art, bird ID guru Peter Pyle provides a technical and readable assessment of the molts and plumages of *Bombycilla cedrorum*, the 2020 ABA Bird of the Year.



Flip back to p. 22 for Pyle's analysis. Also, go online for further discussion of the birds—and even the berries!—in Fitzpatrick's “Communion of Waxwings.”



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