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LIVING

A trip to the tropics

When our warblers, vireos, flycatchers, thrushes and other songbirds head south in the fall, we give little thought to what kind of avian world awaits them in the tropics.



OUR CHANGING SEASONS
Drew Monkman

For years, I thought that it was probably just a warmer, greener and more humid version of what they experience here. Such is patently not the case. Most of what we take for granted in terms of bird behaviour and even appearance no longer applies in the tropics. Forget common assumptions like only male birds sing or that females are much duller in colouration. As Steven Hilty points out in *Birds of Tropical America*, it's a different world down there. So, let's accom-

pany a young male Blackburnian warbler, raised in the hemlock forests of northern Peterborough County, making his first fall migration to Colombia or Ecuador.

One difference that will quickly become apparent to our black, white and orange songbird is that the males and females of tropical species are often very similar in appearance. Temperate zone species — birds that nest in Canada and the U.S. — as well as species that migrate between the temperate zone and the tropics, are much more apt to have males and females that look quite different.

The reason lies in the need to defend a territory. When migrants return in the spring, they must re-establish their dominance on a territory and compete to attract a female. Not only do the bright plumages increase the males' ability to attract a mate, but they also send a not-so-subtle warning of vigour and physical health to rival males. The male with the brightest plumage will dominate the "battlefield" and, in some species, be able to mate with a number of different females.

Being brightly coloured may be helpful when it comes to reproduction, but by standing out like a beacon, a male bird also makes himself much more vulnerable to predators. It's almost as if he's saying: "Come and get me, boys!" Therefore, brightly coloured birds like Blackburnian warblers, scarlet tanagers, indigo buntings and bobolinks keep their bright plumages only during the short breeding season. They then quickly molt into a dull female-like plumage by the time fall migration begins. This molt also coincides with a change in the birds' behaviour from territorial to gregarious. As we'll see later, being less colourful may make the migrant males less threatening and allow them to fit in more easily with more dominant tropical birds.

Why don't the same sort of plumage rules apply in the tropics? Well, in some cases, they do. However, for birds that remain on or near their nesting territory all year-round, there is no need to re-establish dominance over other males or to attract a new female each breeding season. Consequently, the male's appearance stays pretty much the same all year. As for the females, they are often as brightly coloured as their mates. This is almost always true for the well-known species you see on tourist brochures like toucans, macaws, motmots and parrots. These birds tend to live on permanent territories and to remain mated for life. And, unlike the females on temperate zone territories, they play a much more active role in territorial defense. It is therefore thought that the bright colouration enables them to better defend their territory by appearing as dominant as the males. The same is true for temperate zone species like nuthatches and woodpeckers that defend territories all year. The males and females are almost identical.

Female assertiveness also extends to song. In the temperate zone, males are usually the only sex that sings. One notable exception is the northern cardinal. A male bird uses his voice to advertise ownership of the real estate occupied by him and his mate. In the tropics, however, female birds often sing as

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Karl Egressy, special to The Examiner

Clockwise, from top: The plate-billed mountain-toucan, a species of the cloud forests of Ecuador, is one of many tropical birds in which the sexes are identical in appearance; a blackburnian warbler (male); and a masked trogon. Like many tropical birds, both male and female trogons sing.

one species to the next.

Another strange thing that our Blackburnian warbler migrant may notice upon his arrival is an apparent scarcity of birds in general. This may go on for several hours until, all of a sudden, a mixed-species flock of dozens of individuals moves through the area. Flocks of this type are a well-known fixture of tropical forests. Some flocks specialize in the forest canopy. Others remain close to the ground. The flocks are mostly composed of insect-eating birds, and actually stay together all year along. The benefits of doing so must outweigh the costs. Studies have shown that mixed-species flocks offer a way of finding food more efficiently, because, with so many eyes watching, each individual spends relatively less time looking out for danger. There are even "sentinel" species in the flock who seem to specialize in watching out for one of the many species of hawks or falcons that inhabit tropical forests. They are also adept at robbing food from other members of the flock. Many bird species commute back and forth from the flock even when feeding young.

Migrant warblers such as the Blackburnian often join these flocks as well. Having molted now into a dull, female-like winter plumage, our male Blackburnian will find it easier to fit in without representing a threat or drawing too much attention to himself. Mixed-species flocks are actually quite common in the Kwarthas during the winter months when chickadees, creepers, kinglets, woodpeckers and nuthatches often forage together. However, unlike tropical species, they quickly disband once the breeding season begins.

Diet, too, will change for the Blackburnian. During the breeding season, his diet will have consisted of only insects. However, upon his arrival in the tropics, he will adopt a more liberal attitude towards food, and berries, too, become part of his diet. Miconia berries are among the most popular, because they provide a quick jolt of carbohydrate energy. These trees are members of the melastome family, one of the largest plant families in the neotropics.

Next week, I will look at some other characteristics of the birds of tropical America, such as their unrivaled colour and diversity.

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well, and have territorial songs similar to those of their mates. Often, the songs of the two sexes are virtually identical. This is especially true for wood-quails, doves, motmots, trogons, woodcreepers, wrens and ovenbirds. The fact that females sing greatly complicates attempts to estimate the number of breeding pairs of a given species that live in an area.

Tropical rainforest species occupy nesting territories that are, on average, 10 times larger than the territories of temperate-forest birds. Some birds defend an area as large as 35 acres. This may be part of the reason why both the male and female use song to publicize claims on such a large territory — the more voices the better.

Some tropical species such as manakins

and cotingas have practically abandoned song as a means of attracting a mate. Rather, the males gather on leks. A lek is a display ground where males of the same species essentially compete among one another for the privilege of mating with a female. Day after day, the same group of males meet at the same location and take up the same individual positions, each occupying and defending its small "court." In a highly ritualized display, males may call and fan their wings, while females, perched above, observe their performances. Eventually, a female may join a male on his section of the lek and, if she is suitably impressed by his dance and display of colour, may allow him to copulate with her. The type of display seen on leks differs a great deal from