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FSEM Bird Obsession

Think Piece #2

Part One: The Exodus

There's a change coming. You can sense it. You can see it in the changing of the light. You've never experienced it before, but you have the instincts of every Bicknell's Thrush before you coursing through the very fabric of your being. Your muscles are tensed, and you feel restless. It's time to leave, because tomorrow could mean the end for your summer sanctuary.

So you take to the wing because you know you must. You know without knowing that it's fight or flight, that if you stay behind you won't stand a chance. Tomorrow your world will become a frigid, barren wasteland blanketed by brutal snow and bereft of nourishment. Millions of strange and wonderful winged creatures are fleeing to the tropics, to the middle of the earth, seeking refuge that they will, in all likelihood, find. Unfortunately, your kind has long been isolated to a few scattered havens, with no guarantee that safety will be there when you need it most.

For you the "end of the world", as you know it, comes once a year, but every passing day could mean the end for your winter asylum. If only you weren't so picky. If only you could adapt like the Yellow-rumped Warblers of the rugged north, who have evolved so much that they can sustain themselves on wax myrtle berries – or even nectar (Chu, pic pg 8). Instead, you retreat from one patch of solitude to another. You call a few scattered mountains in Canada and the northeastern U.S. your summer home, and

you withdraw to a scant 43 miles of prime real estate in the Dominican Republic during winter (Chu, 178). Being able to live solely in such a restricted habitat makes your survival, and that of your entire species, extremely tenuous. Your continued existence is hanging by a thread that could be cut by the slightest whim of nature, or, more likely, by the destructive tendencies of humankind. What would you do if you returned to your winter retreat one year only to find clear-cut farm land, a neighborhood, or a resort? What could you do?

All you can do now is focus on the present. For the moment, there is a long journey ahead of you. You must traverse thousands of miles, most by night, through good weather and bad. The sun, the stars, and the earth's magnetic field will be your guides. The majority of the trip is not so bad; there's land beneath you after all. You can always stop to replenish yourself. Some birds are not so lucky. You don't envy those who must cross the Gulf of Mexico, and who can blame you? Thousands, maybe millions, die every year flying that 500 mile marathon, but they are fighters all. Take the little Ruby-throated Hummingbird for example. In eighteen hours it will fly the entire trip non-stop. The odds against it are huge (the slightest headwind is fatal), but the winnings are even larger because flying straight across the Gulf is the fastest way by far, and as every bird knows – the early bird catches the worm (Kaufman, 342-343).

Although the odds are not stacked quite as high against you, you are still anxious about your first migration; you're restless to leave. You have heard some scary tales, but none of those will hinder you. There is an unstoppable force inside you that will carry you all the way to the mountain you have been seeing in your ancestral dreams; this is just one more thing that you "know." You've stuffed yourself in preparation for this trip,

adding enough fat to nearly double your body weight. But now the light is gone, and your food with it. You know that if you burn up your hard-earned supply of fat, you will start to burn critical flight muscle as you continue on your way. You will die flying if that is your fate.

And so you leave your home among the stunted conifers of your Vermont mountain, and head to the mountain jungles of the Caribbean. Your flight is not as daunting as those faced by others, but it is dangerous nonetheless. Awaiting you is a bountiful Eden – or so you hope. There you will find food galore, and perhaps even a mate. But your future is grim. You'll make this trip not out of desire, but out of need. You have no where else to turn. Your summer home is covered in ice and there are no other suitable habitats within reach. Migration is a thing of necessity. However, if either one of your tiny, remote habitats is destroyed, it will be the end of your world for good – your species' demise. In that case, there will be no spring after this winter.

Part Two: The Holdout

There's a change coming. You can sense it. Your muscles are tensed and you can see it in the changing of the light. It's time to "dig in" because the big freeze is coming, and it feels like it might be coming in faster and stronger than ever...not that you can't handle it. You are a hardy bird, a survivor. There's not a stronger Common Redpoll around.

You've seen it all and you can handle it all. Too cold? Dig yourself a snow burrow. Too dirty? Take an ice water bath. No seed? Well, that's a bigger obstacle.

Once every two or three years, the seed crop will fail in your frigid homeland. This always poses a problem, but it's not one without a solution. You don't normally migrate, but desperate times call for desperate measures...so off you go. You lead your flock out of Northern Canada and down into the Northern United States. There you find all the feeders and weed and tree seeds a flock could desire – which is quite a bit. One of the many hazards of living so far north is the cold temperatures, and in order to survive them, there must be a constant intake of food to keep your system running smoothly. That normally isn't a problem for you and your flock. You're specialized seed eaters and have been doing this for longer than anyone can remember.

There's another hazard, though. How can your little body survive the biting cold itself? Temperatures often plummet, but as a Common Redpoll, you can survive at 65 degrees below zero (Chu, 203). No, the cold is not usually the problem. It is still usually the food. You may be masters at storing and husking seeds, but you still need to daily consume roughly 42 percent of your body weight in order to keep your metabolic fires burning and your body warm (Chu, 204). And there's another problem. Many trees go through synchronized seed irruptions. In the typical predator-prey relationship, when the food supply goes through an irruption, so will the number of predators. You are the “predator” and seeds are your “prey.” This is great while it lasts, but it only lasts for one year, and then your population takes a heavy hit as food becomes scarce (Chu, 210).

It only makes it harder when you have to share your food supply with various other species who think that they are real winter-weather birds. Take the chickadees for example. They don't migrate, and they can roost in tree cavities to reduce their heart rate and body temperatures, but they aren't quite as efficient or hardy as you redpolls. Then

there are the birds who try their best to spread their range farther and farther north with every generation, like the Carolina Wren. Every year they push the northern boundaries of their range, only to lose the battle with winter when they refuse to fall back. They are relatively clever birds, but their diet consists mainly of insects, which cannot survive the cold. The wrens, unlike your kind, just have not had the time to make the necessary adaptations to live at the northern latitudes (Chu).

All of these challenges you face can be extremely disheartening at times, not to mention deadly. But what are your alternatives? You are not cut out for life in the warmer climates, and even if you were, you could not compete with the locals. Instead, you have filled an unoccupied niche in the ecosystem, and rather successfully at that. You are not known as a migrating bird, but you will do so as occasion warrants. There is no constant necessity that forces you to flee to the south every year. You are an animal of adaptation, and for you, migration is a thing of desperation.

Afterword

Millions of birds all over the world do not migrate, and millions more do every single year. There are benefits and hazards to both ways of life. Whether or not birds undertake migration depends largely on their evolutionary history, and somewhat on the weather and food supplies. Every species of bird finds itself in a different situation when it comes to migration and survival, but there are similarities even between migrants and non-migrants. These similarities are the necessities for continued existence: food, shelter, and a chance for successful reproduction, and these determine in kind a species' necessity for migration. While there are benefits to both ways of life, there are also many hazards.

And now, with global warming and the human population on the rise, migrants and non-migrants alike will be in danger unless we work harder to conserve our world's ecosystems.

Works Cited

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