

## Ancient GPS (Global Positioning Systems)

by Dan Bisaccio  
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Morning light is steadily creeping back on my clock as evening sunset moves forward. Now, as I leave my home for work, I notice a change in the sounds that greet me as I step onto the front porch – a shift from the “crack” of a frozen porch step and “crunch” from the snow beneath my feet to the cacophony of chickadees and cardinals heralding the change of season.

In the weeks ahead, a marvelous phenomenon of chorus – much older than “us” (Homo sapiens) – is about to begin, again.

Voices from the early “Cretaceous” sing their song of spring in New Hampshire. Every vernal pool is alive as “spring peepers” and “wood frogs” begin this ancient chorus. Soon, other species of frogs join this growing choral society.

From mid-April on, this New Hampshire choir grows reaching a crescendo with the addition of migratory birds. Fully, two-thirds of the bird species we call “ours”, are really tropical birds on loan to us for a few months. Henry David Thoreau rightly put it in his journal ... observing that, “birds give our trees voice.”

We know why these birds leave .... as winter approaches, their food diminishes. So, why do they return? Once in the luxuriant tropics, why not stay? Surely the insects or flowers that they need are there. Why risk the demands of flight and return thousands of miles to New Hampshire?

The answer, as it turns out, is nested in this ancient rhythm of seasons. Temperate forests have longer day length during our summer months than the tropics and offer these migratory birds longer foraging opportunities to provide food for their young. It is essential for their very existence to return to New Hampshire each spring.

Home. New Hampshire is home to many tropical birds. In fact, we now know that individual family groups of birds are “faithful” to their New Hampshire and tropical sites. They return generation after generation to that point on the globe they need to be ... winter and spring. It is that site fidelity that clearly makes a most tangible “global” connection between our forests and tropical forests.

This fact, coupled with this ancient rhythm, demands our attention when we think about conservation.

A recent grant by the Amherst Land Trust to an ecological reserve in Mexico, via the Souhegan School Board, clearly demonstrates the wisdom of our species. Consequently, I was very interested in a public question raised to the Amherst Land Trust; “Where is Mexico in Amherst?” This is a very pragmatic question.

That question will soon be most vividly answered by the return of our birds to our forests. Almost every tree and shrub in Amherst will find a “Mexican bird”. The American Redstart, Ovenbird, and the Woodcock are some of the species that spend time at that reserve in Mexico (I have seen them there and here) to return “home” this spring.

Where is Mexico in Amherst? The answer is not only in our trees, but probably in most of our kitchens and medicine cabinets as well. Many foods and sixty per cent of our pharmaceuticals come from tropical forests.



Hooded Warbler found in Mexico



Main field house at El Eden

Where is Mexico in Amherst? We need to observe and see the links between our use of tropical woods and deforestation with respect to changes in global climate.

Where is Mexico in Amherst? It can be found in the hearts and minds of several hundred Souhegan High School students who have visited and conducted research at the El Eden Ecological Reserve in Mexico since 1995.

We have given ourselves the taxonomic name of “Homo sapiens” (wise man). Let us live up to it by integrating our understanding of these ancient rhythms of global positioning systems with our current technological tools to map it. Conservation needs to transcend the (political) boundaries that are only recognized by our species.



Dan Bisaccio examines a bat.

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Dan Bisaccio is a resident of New Hampshire who migrates to the tropics each winter with his students.

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