

In 1916, Alexander Wetmore, ornithologist and First Secretary at the Smithsonian Institution, noticed it in Puerto Rico. Almost two decades later in Guatemala, the godfather of modern birding, Ludlow Griscom, also made note of the phenomenon. The evidence was clear: Songbirds in the neotropics—migrating birds as well as residents—tended to inhabit traditional shade-grown coffee farms almost as much as they occupied existing natural tropical forests. Whether it was Cape May warbler and ovenbird in Puerto Rico, or black-and-white warbler and rose-breasted grosbeak in Guatemala, the birds were doing quite well on rustic coffee farms.



Above: Coffee cherries from the Matagalpa region. Right: Coffee-growing habitat near Selva Negra.

natural habitat remaining for birds.

It was many years later—after decades of neotropical forest loss—before the implications of these observations began to be fully appreciated. Indeed, only relatively recently have

researchers thoroughly explored their significance. In the past decade there have been many scholarly articles in journals such as *The Auk* and *Conservation Biology* on this subject.

Research, particularly in northern Latin America, has shown that shade-coffee agriculture supports about as much avian biodiversity as do natural forests. Other investigations, especially where shade-coffee farms were adjacent to undisturbed natural forest

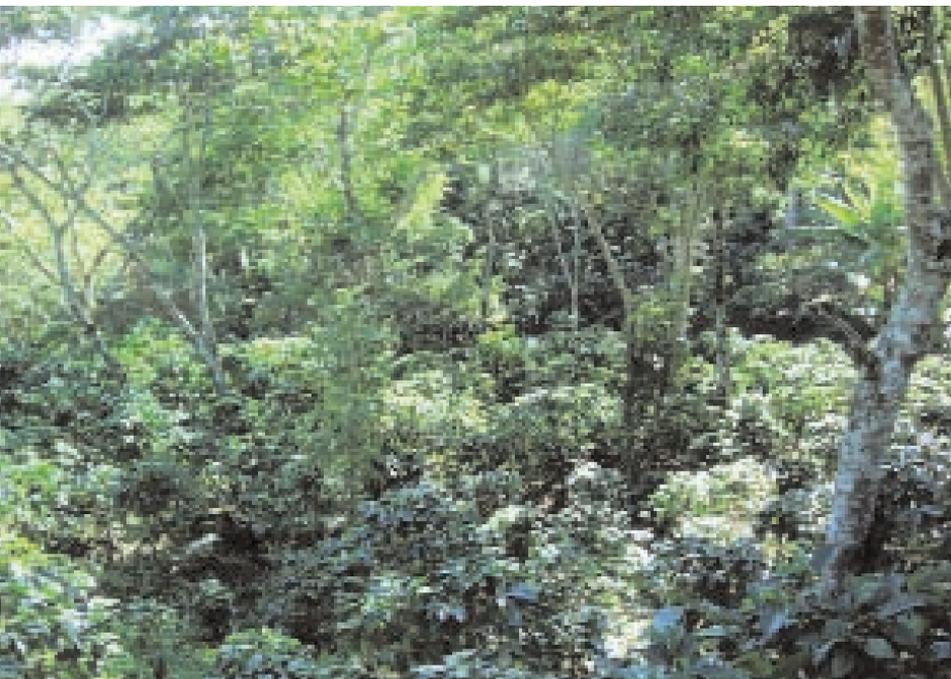
ALL PHOTOS BY THE AUTHOR

Coffee

At the time, though, it did not seem like a startling discovery. After all, traditional coffee in Latin America and the Caribbean, outside of Brazil, was usually grown within modified forests, with minor disturbance to the surrounding vegetation and good use of the shade of the overstory, the surrounding trees. Besides, back in 1916 and in 1932 there seemed to be plenty of

(serving as a de facto buffer for the forests), have produced similar encouraging results.

I was able to confirm this for myself in two trips to Nicaragua, most recently in early 2006. I was able to witness the cultivation of shade coffee in the Matagalpa region and how birds, especially “our” species, found refuge in the coffee shade trees.



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Lessons

The Assumption

Enter eco-agriculture with a twist of social awareness. It is the avoidance of pesticides and chemical fertilizer, the accumulation of leaf litter, complex insect use, and, of course, the required maintenance of the mixture of large shade trees that all combine to provide attractive bird habitat in these human-transformed coffee locations.

What a splendid way to neutralize deforestation in Latin America and the Caribbean, where the ax and continued slash-and-burn techniques currently gobble up a disturbing amount of forest habitat on a daily basis. What an easy way to support hemispheric bird life, preserving the altered-but-sufficient coffee habitats where many of our own birds may spend the winter. After all, in Latin

Coffee laborers return by the truck-load for another day's work in the Matagalpa region.



America and the Caribbean coffee is the leading source of foreign exchange. What a great idea: Just suggest that we drink coffee, and lots of it. You can save those migrating orioles, warblers, and tanagers as well as protect the local motmots, todies, and euphonias. Drink up! Simple, isn't it?

Well, not really.

Some Complications

Yes, the evidence is incontrovertible, but there are at least four major complications:

FIRST, there is the existence of Robusta coffee. Robusta coffee plants grow taller, are more resistant to pests and disease, and produce more fruits than standard shade-loving Arabica coffee. Robusta is grown mainly in Africa, parts of Asia, and widely in Brazil. With caffeine content about twice that of the Arabica, Robusta is often used for instant coffee and as the main ingredient in your supermarket-grade blends. Robusta coffee does not need to be grown in the shade, and plantations are clearly not havens for biodiversity.

SECOND, there is the element of sun coffee, or "unshaded monoculture." The arrival in South America of a fungus, coffee leaf rust (*la roya*) in

the 1970s promoted the expansion of newer coffee hybrids, bred for sun tolerance and compact growth, and yielding more coffee beans per plant. The flipside is that more chemical inputs—fertilizer, herbicides, and pesticides—are required for sun coffee than in traditional cultivation, and, of course, the land is denuded of shade trees.

"Like the Green Revolution that was supposed to provide a miracle cure through new strains of rice, wheat, and corn, the sun coffee revolution has failed to fulfill its promise," wrote Mark Pendergrast, author of the thorough coffee history *Uncommon Grounds*. "Instead, it has contributed to the ecological degradation and loss of important habitat." More than 40 percent of the coffee areas in Colombia, Mexico, Central America, and the Caribbean have been converted to sun coffee. Throughout the Latin American wintering grounds of migratory birds, the natural landscape is undergoing massive changes at phenomenal rates. Not surprisingly, studies have shown that in full-sun farms, as opposed to shade farms, the number of bird species is cut by half, and the number of individual birds is cut by as much as two-thirds.

THIRD, there is the problem of the prolonged coffee glut. The prices that coffee farmers have received for their beans since the late 1990s have included historic lows. Bumper crops in Brazil and the entry of Vietnam as a significant coffee producer have flooded the market with cheap, low-quality Robusta coffee beans, causing prices to sink. Even the “specialty market,” relying on higher-quality Arabica beans, has not been immune to the plummeting prices.

The consequences add up to the dislocation and impoverishment of thousands of coffee farmers and their families in Latin America. Many of those in the coffee sector in Latin America who are not able to make

the transition to marketing organic and shade-grown Arabica coffees are now abandoning coffee—and the land—sometimes selling out to speculators and even accelerating the development of cattle ranches, tobacco farms, or pineapple fields. These circumstances are bad for people as well as birds. Moreover, the ongoing coffee glut just exacerbates the sun-versus-shade issue.

FOURTH, there is the issue of the label itself. There are unremitting controversies over what constitutes real shade coffee. In the 1980s, a group of Mexican coffee researchers and technicians devised a “management spectrum for coffee,” describing a shade-gradient of shade cover. This

Finding Shade-Grown Coffee

The task of finding bird-compatible shade-grown coffee is not as burdensome as it used to be. Here are some current Internet sites:

- Two leading reliable certification sources are the Smithsonian Migratory Bird Center
http://nationalzoo.si.edu/ConservationAndScience/Migratory-Birds/Coffee/Bird_Friendly

and the Rainforest Alliance

www.rainforestalliance.org/programs/agriculture/shop/index.html

- Another excellent regional effort is the bird-oriented Northwest Shade Coffee Campaign
www.seattleaudubon.org/shadecoffee

- Most local bird specialty stores—whether they are franchise or not—currently stock bird-compatible shade coffee.

- There are brands, like the American Birding Association’s “Song Bird Coffee” (produced through the Thanksgiving Coffee Company) that are available through mail-order
<http://americanbirding.org/resources/shadecoffee/index.html>

breakthrough, however, only clarified some debate limits. Controversy over what is legitimate shade coffee, and if and how to certify it, abounds. There is also the ongoing issue of truth-in-labeling. "Not all shade is equal," posits April Pojman of the Thanksgiving Coffee Company.

Some Answers

Consumer birders, therefore, need to develop into discerning and insistent shoppers. We need to become better educated about the issues surrounding coffee, and to become better educators. The resulting message must be loud and clear: Shade coffee is great for birds and is good for people.

Solutions are also available for our four problem areas. First, the Robusta versus Arabica issue is an awareness-and-quality concern. Robusta, with a higher caffeine content and stronger flavor that tends toward bitter, is less aromatic than Arabica. Commonly used in instant coffee and as a price stabilizer in the canned blends, Robusta is separated by quality as well as by place of origin. Arabica coffee of Latin America and the Caribbean is generally more

expensive, due to higher growing and processing costs, and is perceived as better tasting by discerning drinkers.

Second, absent a shade label, buying organic Arabica coffee is about as beneficial for habitat conservation because it is quite hard to produce coffee outside a shade environment without the use of some chemicals. Right now, "organic" is a far stricter term than "shade grown." Another designation, "fair-trade coffee," also enters the mix. This coffee brings a fair return to those who pick and process the beans. Besides, an estimated 80 percent of fair-trade coffee is also de facto shade grown.

Third, to address the problem of the coffee glut, there is at least some hope for quality-coffee operations. Although nearly all gourmet/specialty coffees are Arabica, only about 10 percent of Arabicas are gourmet quality. Increasing that number in Latin America and the Caribbean is the goal of visionary coffee operatives. Paul Katzeff, head of the Thanksgiving Coffee Company and a past president of the Specialty Coffee Association of America, has stressed, for example, higher growing criteria

A coffee-growing area near Volcan Mombacho, not far from Grandad.



Sources of Information

Being informed consumer conservationists means that birders need to learn more about the bird-and-coffee connection. Recommended here are three fine sources of information:

- *Birdsong & Coffee: A Wake-Up Call*, a film released in early 2006. This is a two-part documentary (56 minutes in two 28-minute segments), produced by Old Dog Documentaries (www.olddogdocumentaries.com). The film, available as a DVD (\$30), specifically endorses fair-trade, shade-grown, organic, and bird-compatible coffees. It's a fascinating mix of biological background and social-justice issues. The DVD also includes an excellent short discussion guide.
- *Sustainable Coffee at the Crossroads*, a 184-page report prepared for the Consumer's Choice Council by Paul D. Rice and Jennifer McLean in 1999. It has stood the test of time and is still excellent. Best of all, it is available as a free downloadable pdf (www.greenbeanery.ca/bean/documents/sustainableCoffee.pdf).
- *Uncommon Grounds: The History of Coffee and How It Transformed Our World* by Mark Pendergrast (Basic Books, 1999). It contains just about everything you might want to know about coffee, including its history and economics. It is not a scientific treatise—although it has some good material on the link between shade coffee and biodiversity—but is a popular and informative narrative, from coffee's discovery to the age of Starbucks.

(appreciating shade levels), cooperative production and marketing, high-quality processing yardsticks, and standards to retain value in periods of low prices.

Fourth, unreliable (and even false) labeling continues. Debates over coffee label legitimacy are common. But the more consumer demands are articulated, the more the industry, large and small, has to adjust its practices.

Some observers have viewed the larger market dilemma as a chicken-and-egg situation. Major coffee producers (giants such as Procter & Gamble, Kraft, Sara Lee, and Nestlé)

usually claim that if they tried to sell specific shade-grown brands, there would not be enough produced and certified to ensure a reliable long-term supply. On the other end of the production process, growers are unlikely to pursue a certified shade-grown route unless they are guaranteed some secure return. Clearly, this cycle, particularly among the "big four," must be broken. (Recent moves at Procter & Gamble indicate that we might witness a breakthrough.)

Still, there are expanding opportunities to find bird-compatible shade-

grown coffee today, usually among the specialty coffees. It is far easier to buy shade-grown coffee now than it was 10 or even 5 years ago. There are even increasing opportunities to buy “triple-labeled” coffee—sustainable coffee that is shade grown, organic, and fair-traded.

Making an informed decision when it comes to your daily—or more-than-daily—cup of coffee can actually save birds. The additional good news is that your decision can help create further consumer demand and can help to sustain struggling coffee communities.

Bird-Conscious Consumers

Our origins as a “bird movement” actually began with consumer interests a little more than a century ago. Indeed, it was our bird-protecting foremothers who started it all. The rise of the bird-preservation movement at the end of the 19th century was in response to the slaughter of birds to adorn women’s hats and clothing. The call to stop the feather industry was a call to thoughtful consumers. That effort gave rise to the Audubon societies. It also gave birth to protective federal legislation, an innovative refuge system, and a culture of bird appreciation that persists today.

For a more recent effort to stop unnecessary animal deaths, one need only look at the promotion of dolphin-free tuna. Fishing practices had eliminated more than 6 million dolphins between 1950 and 1980. That needless byproduct of tuna fishing prompted a significant consumer boycott of canned tuna in the late 1980s that nearly devastated the industry. Since 1990, federal law has required canners who want to label

their tuna “dolphin-safe” or “dolphin-free” to shift their operations to the western Pacific, where tuna and dolphins do not swim together.

Today’s sustainable coffee interests have not reached this kind of critical mass, but that eventuality is not inconceivable, especially considering the huge U.S. coffee market. Birders can still play a crucial and assertive role, one that actually links us to our roots as bird protectors. Right now we have the science to back us up, and there is plenty of information to educate us and our friends. What is sometimes lacking is the confidence to spread the word.

In fact, it is cutting-edge marketing, not necessarily further research and science, that is required today. We could actually go beyond label obsession and concentrate on pressuring all the coffee companies—big and small—to respond to growing consumer demand. We should also strive to get beyond a persistent feeling of powerlessness that often pervades the birding community. Then perhaps we could match the wisdom, vision, and resolve of those early preservationists and say that we are saving birds, at least one cup at a time. a

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