Environmental Case Study
Why You Should Buy Organic Coffee:
It Helps Migratory Birds and Other Forest Species

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The cup of coffee you drank this morning was closely tied to the fates of warblers in your home state, and to ecosystem health in Central and South America. Whether your morning coffee helps or hurts these birds depends on whether or not you bought "shade-grown" coffee beans.

Coffee beans are really seeds from berries that grow on shade-loving understory bushes. These bushes need the shade of mature trees, the same trees that provide habitat and food for many birds and insects. Across Central America and other coffee-growing regions, birds, bats, butterflies, and other forest-dwelling species, have found shelter in the open forests of coffee plantations at the same time as local farmers have earned an income from the land. Coffee plantations have been called one of the most sustainable and environmentally benign agroecosystems in Central America. Many of the migratory birds that brighten North American forests in the summer are included in the long list of species that survive in shaded coffee fields.

All this has radically changed in recent years, however. Starting as early as the 1970s, coffee growers began breeding plants that prospered in the full sun, rather than in the shade. With sun-tolerant coffee bushes, growers could remove trees, slightly increasing the profitable area of their fields and the yield of each plant. Some growers also argued that fungus and beetles are reduced in the full sun. Sun-tolerant coffee varieties are becoming more widespread today, as coffee consumption increases around the world and big coffee producers take over more and more of the production areas.

Sun-tolerant coffee plants are more expensive to grow than traditional varieties because they require a steady diet of agricultural chemicals. With no leaf litter to enrich the soil, fertilizer must be applied to maintain yields. With full sun exposure, weeds invade the fields, and herbicides become necessary. Fungicides also remain important despite the sun exposure. These chemicals are expensive, so that it is mostly the larger, better-financed coffee companies that use them. Competition with highly-capitalized producers is driving smaller coffee farmers to copy the new methods or give up farming. Furthermore, the trees in a shaded plantation provide alternative sources of income (such as fruit and wood) for farmers dependent on the sometimes volatile prices in the world coffee market. At the same time chemicals threaten the health of plantation workers--and the health of wildlife that live in the plantations.

What can you do? Buy "shade tolerant" coffee, or ask your favorite coffee shop to buy it. Organic coffee is also shade tolerant. Shade tolerant coffee is often available already at organic food stores. Sometimes it costs slightly more than sun-tolerant varieties sold by larger producers, but the cost difference is often modest.
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For further information, see these related web sites:

Smithsonian Migratory Bird Center: check out the Coffee Corner and the Cocoa Corner

Declining numbers of migratory songbirds

To read more, see

Environmental Science, A Global Concern, Cunningham and Saigo, 5th ed.
Deforestation in South and Central America: pp. 297-300
Map of vegetation zones: p. 296
Map of desertification risks: p. 309
Agricultural economics and coffee: the down side of cash crops

Environmental Science, Enger and Smith, 6th ed.
Tropical rain forests and farming: p. 81
Forests and deforestation: pp. 194-96
Economics and sustainable development: pp. 337-45