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An Exclusive Interview with Connie Barlow

Barnes & Noble.com: First, let me say your book is fascinating. One aspect that really hits home is the underlying fact that North and South America were home to so many great beasts -- not just the mammoths, which people might be aware of, but camels, 18-foot-tall sloths, and, of course, horses. Do you hope readers will take away an expanded idea of what "wild" America really means?

Connie Barlow: When I started working on this book, I knew that America had been a land of very big and diverse beasts until the end of last glacial advance, about 13,000 years ago. But it hadn't really sunk in that our prairies and plains had supported wildlife just as magnificent as on Africa's Serengeti. So today, whenever I come upon anachronistic fruits native to this continent, these magnificent ghosts of evolution come to mind.

B&N.com: What do you mean by "anachronistic fruits"? And how do these fruits bring to mind extinct mammoths and sloths?

CB: Anachronistic fruits are fruits in a time warp. After tens of millions of years of offering energy-rich and nutritious pulp to beasts with mouths and stomachs and anuses big enough to disperse their seeds, plants like wild avocado in Mexico and papaya in South America, along with honey locust and Kentucky coffee tree in the eastern United States, osage orange and persimmon in the Midwest, and gourds and cactus fruit in the desert -- all these fruits now mostly just rot where they fall. There are no longer elephants or giant sloths to defecate seed-rich, steaming heaps of dung. The extinct partners are now just ghosts.

B&N.com: Are anachronistic fruits easy to find?

CB: Some, like Kentucky coffee tree, have become quite rare in the wild because they miss their seed dispersal partners. But any anachronistic fruits or plants that humans regard as tasty or useful are easy to come upon. You can actually find anachronistic fruits in grocery stores. Look for ghosts near the avocado bins. Avocado is native to Mexico. Who else but an elephant or a giant sloth could swallow and defecate a seed that big? Two other North American trees bearing anachronistic fruits are commonly planted for shade along city sidewalks and in suburban parking lots. In these places, watch for the long, curling pods of honey locust and the stinky orange spheres of ginkgo.

B&N.com: As you say, mammoths and giant sloths became ghosts 13,000 years ago. Do those extinctions, and especially how they affected plants, have anything to teach us about the extinctions happening today?

CB: Thirteen thousand years ago, the Americas experienced an "extinction of the massive." Today we are compounding the problem by triggering a mass extinction of our own making. The ghosts of evolution and ecological anachronisms remind us that it is not just the extinguished lineages of animals and plants that suffer, but also the partners left behind. Animals tend to be the most vulnerable to human actions. So if we drive animals into extinction, are we ready to step in and take

their place as seed dispersers and pollinators of the plant world? Extinction is something we may do today, but countless generations of humans will bear the consequences -- and hence the call to become gardeners of the whole planet! It is a frightening thought.

B&N.com: This is a new area of ecological and evolutionary research, as you indicate in the book. What remains to be done?

CB: So much remains to be done! Ecologists Dan Janzen and Paul Martin first came up with the idea of anachronistic fruits and their missing animal partners 24 years ago. Dan works mostly in Costa Rica, and Paul in the Sonoran Desert of Arizona and northern Mexico. So they've scrutinized a number of the plants native to those landscapes, looking for anachronistic fruits. But nobody yet has done even a cursory study of candidate anachronisms in the woodlands of the eastern United States -- honey locust, Kentucky coffee tree, Osage orange, pawpaw, persimmon.

B&N.com: But you give a lot of coverage to those very plants right in your book. How was that possible if the studies haven't been done?

CB: At first, the lack of published research on anachronistic fruits close to home was a big problem for me. But then I saw it as an opportunity. I saw it as an opportunity to make the natural history observations and do the library research myself. You know, much of the ecological science of the 20th century had its roots in natural history observations made in the previous century. The natural history comes first, then the science. Well, what I found is that the heyday of natural history is not yet over. Given this new perspective of the ghosts of evolution, the natural history of large fruits of eastern North America, including observations of how our remnant mammals interact with them, will become vital for moving ecological sciences to the next level -- recognizing that there are lost worlds we must envision when trying to understand our own.