

VIDEO "Helping Forests Walk" - episode 01: Introduction

by Connie Barlow

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featuring a talk Barlow delivered in Prescott, Arizona, in 2014

<https://youtu.be/lpcOQk6zy6U>

TIMECODED table of topics:

00:05 Introduction by Connie Barlow, 6 June 2021, Ypsilanti, MI). Topics include returning to s. Michigan as an elder (where she is 6th generation of colonizers) and appreciation for the original inhabitants - Potawatomi. Barlow credits botanist Robin Wall Kimmerer with the term "helping forests walk." Kimmerer, a botanist at State University of New York, is a role model for using both modern science and indigenous ways of knowing and observing for understanding plants and their ecologies.

02:19 This series will feature traditional natural history ways of observing and interpreting as a possible bridge between indigenous and modern science. Credits Charles Darwin and her mentor, Pleistocene ecologist Paul S Martin, as her role models in natural history.

03:10 Example of a future episode: the Yew Family, genus *Taxus*, and the problem of its contracted ranges in North America, east Asia, and especially Europe. Barlow's previous 18 years of living on the road, and the past 7 with a hand-held video camera, enabled her to film native trees in wild locations, across the USA. She plans to post her wild yew videos to aid colleagues in Europe and China in developing restorative, rewilding practices for their native yews.

06:00 Closing of introduction: "So let us remember the ancestors of our own species, of trees, and let us think of the descendants, who may or may not have an opportunity to follow us."

06:34 PREVIEW, followed by an updated and remixed video of a presentation Barlow delivered in 2014 in Prescott, Arizona, titled: "Forest Trees in Climate Peril."

07:28 Walt Anderson, naturalist and teacher at Prescott College, introduces Barlow as a science writer and advocate for "assisted migration" of trees facing climate change.

08:58 Barlow begins talk by speaking of the 2014 Climate March across USA, and the pilgrimage she took (led by Walt Anderson) a few days earlier to the Alligator Juniper champion tree — and how it was saved from a wildfire by the Granite Mountain hotshots, just a week before 19 of them died in the Yarnell fire.

11:45 "Ecological anachronisms" (subject of her 2001 book) and "deep time eyes" (knowledge of paleohistory and glacial refuges). Barlow and Paul S. Martin 2004 paper, "Bring *Torreya taxifolia* north now." Role of (extinct) megafauna in dispersing seeds of fruited plants. Pawpaw, Kentucky Coffee Tree, and Joshua Tree as left-behind seed examples. Fossil dungball of Shasta Ground Sloth as a sacred object.

17:31 "What I'd like to do here is take you through a worldview shift... with climate changing really fast." 2014 IPCC chart shows trees are slowest of all life forms to shift ranges.

21:11 Joshua Tree as local example of a tree missing its megafaunal seed disperser; map of its paleoecological range v. future range shift. (Example of Glacier National Park losing its glaciers.) JT as "poster plant of climate change for the American west."

26:51 Florida *Torreya* as poster plant for the American east. Barlow founded the citizen-naturalist group that accomplished the first "assisted migration of a tree endangered by climate change." Assisted migration v. fear of invasive species. Knowledge of Pleistocene ecology, range shifts, and glacial relicts removes fear. Eastern USA trees lost Passenger Pigeon acorn disperser. Anthropocene is here. Now, "nature can no longer take care of itself." Examples: beech, oaks, juniper, *torreya*. Climate change elevates virulence of native pests.

30:13 Barlow story of using loopholes in USA Endangered Species Act to recruit citizens to move *Torreya taxifolia* north — because the officials in charge refused to do so.

32:46 "You all have no idea how far north your Joshua Tree can grow.... Do you see the amount of science and natural history that needs to be done in order for

us to do a responsible job [in helping forests walk]? ... Who's going to take care of the trees?"

33:30 Continues story of Torrey Guardians actions and website: <http://www.torreyguardians.org/>

33:51 Scholarly papers in forestry journals are ahead of conservation biology in experimenting with "assisted migration" of canopy trees. Emphasis in Canada. Whitebark Pine example. Emotional difficulties in accepting need to help trees move; role of citizen activists.

39:06 Torrey Guardians: "We're trying to set the example." Importance of online documentation of plantings and learnings. In 2005 Barlow visited California's torrey species. In 2013 a paper confirmed legality of citizen effort.

41:07 Importance of training students in natural history and paleoecology. "There's something to be gained from breadth and experience." Paul Martin, Dan Janzen, and E.O. Wilson "they would say, 'I'm a naturalist first and a scientist second.'" Importance of field experience of California torrey and "recording associated species."

43:57 Barlow's 2014-2020 "Climate, Trees, and Legacy" video series: <http://thegreatstory.org/climate-trees-legacy.html> included: Torrey Pine, Joshua Tree (5 vids), Arizona Cypress, Rocky Mountain Trees (10 species), Engelmann Spruce (2 vids), "Becoming Passenger Pigeon" (eastern USA large-seeded trees), Alligator Juniper (9 vids), Redwoods and Sequoias (9 vids), and Barlow lecture on assisted migration at Michigan Tech 2015.

45:00 US Forest Service 76 tree species website has moved to: <http://charcoal.cnre.vt.edu/climate/species/index.php> There is also a USFS website for range shift projections of 134 species of native trees in eastern USA: <https://www.fs.fed.us/nrs/atlas/tree/v3/resources/spp-list.php>

46:17 Importance of mythic narrative and ceremony. Suggests "The Man Who Planted Trees" 1980s classic animation as the myth to support helping forests walk.

48:42 Ending: "... It's a time to mourn, and it's a time to prepare the next generations to remember what it was like when both the environmentalists on one side thought nature could take care of itself ... and industrialists on the other

said, 'Ahhh, nature will take care of itself!' ... We're at a point now where it's really arguable whether nature can take care of itself." Importance of helping trees move north not by "gardening" but with "respect for the wildness of the species."

51:23 End slides. "May the forest be with you."