

From: Connie Barlow conniebarlow52@gmail.com
Subject: Re: need Reed at Torreya Symposium March 1
Date: January 26, 2018 at 7:58 AM
To: Reed Noss noss_r@bellsouth.net
Bcc: Janet Marinelli jmarinelli@earthlink.net

CB

Reed-

Thanks for your prompt response! I understand. I will keep looking.

For the future,
Connie

On Jan 25, 2018, at 8:05 PM, Reed Noss <noss_r@bellsouth.net> wrote:

Hi Connie,

I appreciate all this fascinating information. I agree that the Apalachicola ravines have served as a climatic refugium for *Torreya*, as well as many other species, but I am not so certain about the history of the taxon. Maybe it was in the Appalachians, but an alternative hypothesis is that it was endemic to the lower Coastal Plain (which has many paleoendemics) and was distributed more broadly during periods of more mesic or cooler climate, and just happened to survive only in the Apalachicola area because the steep slopes offered more protection. In any case, I agree that it's a good thing that populations have been established elsewhere as insurance against extinction.

Unfortunately, I am not available March 1-2 due to previous commitments. I don't know hardly anyone in the Panhandle anymore, and the people I do know are even older than I am.

I'm really sorry, but I'm afraid I have no other useful perspectives to offer on this topic (and I am out of time trying to finish deliverables for two contracts that came in at the same time after being delayed for at least 6 months!).

Best,
Reed

On Jan 25, 2018, at 3:00 PM, Connie Barlow <conniebarlow52@gmail.com> wrote:

TO: Reed Noss (recall you were on advisory panel of the 1986 recovery plan for *Torreya taxifolia*)

FR: Connie Barlow, fellow naturalist and Wild Earth contributor; founder of <http://www.torreyaguardians.org/>

RE: Torreya Symposium, March 1-2, Torreya State Park (invitation only), Ed Wilson speech + hike (good), focus on pathology (bad)

Conference link (U FI Prof Jason Smith main organizer): <https://www.torreyatreeoflife.com/>

Note this statement on the conference page:

"The main cause of the decline has been attributed to a fungal disease (i.e. *Fusarium torreyae*) and to date there is no control strategy available. Although the species has been subject to extensive conservation interventions, its **extinction in the wild is imminent.**"

REED:

(1) Is there a young (under 45) person in n. FL with naturalist skills, huge conservation enthusiasm, and prospects for being a leader in how biodiversity conservation takes shape as you and I age out of all of this? If so, let's get that young person invited to attend this historic gathering.

(2) Might you yourself be interested in attending -- and thus supporting E.O. in expressing a naturalist perspective.

I have no idea what you think about the actions of Torreya Guardians in **slipping past Endangered Species restraints** (only for plants) and getting on with moving this "left behind" "glacial relict" north. But I do know that you will value several imperatives that I myself have brought to our actions and that are mysteriously missing from what the funded scientists working on *Torreya* have been doing for three(!) decades.

1. PALEOECOLOGICAL PERSPECTIVE. The fungal disease that Prof Jason Smith states is the "main cause" of *Torreya*'s decline (he has a 2011 paper on discovering and naming it) is merely one of several proximate causes. The "ultimate" cause, as **Paul S. Martin** and I asserted in our co-authored "Bring *Torreya taxifolia* North Now" (in the final issue of *Wild Earth* magazine, 2004) rests on a paleoecological understanding that Florida *Torreya*'s endemic range is where the Chattahoochee River safely deposited it as the glaciers advanced. Alas, the river did not reverse flow when *Torreya* needed to get its large seed heading north. And so, it was "**left behind in near time**" (as Paul used to say). See my updated paleoecological arguments here: http://www.torreyaguardians.org/assisted_migration_paleoecology.html

http://www.torreya-guardians.org/assisted_migration_paleoecology.html

2. NATURAL HISTORY OBSERVATIONS IN EXTANT GROVES IN NORTH CAROLINA — AND ITS WILD COUSIN IN CALIFORNIA. We Torreya Guardians have visited (and I have posted videos on youtube of our visits) old plantings of mature (still producing seeds) trees in North Carolina: Biltmore Gardens, private home in Clinton NC, and notably the "wild" amazing 90 year old grove near Highlands NC on land so untended that the species is "naturalizing" next generations into the regrowth forest with no human assistance. Doing fine! No signs of any of the diseases attacking the specimens left behind in Florida — and far from being "invasive" — which has been the bogeyman thrown at us from the get-go. I, myself, visited wild **Torreya californica** in 2005 and posted photos and hypotheses on our website. I went there to get a natural history sense of where genus Torreya prefers to grow, how patiently it hunkers down and waits (similar to Eastern Hemlock), and how (as with redwood) its propensity to resprout from basals makes one wonder just how old the rootstock may be. In contrast, the official scientists and academics working within the ESA recovery plan seem to have no interest in visiting these groves.

3. REWILDING PERSPECTIVE. While most of our volunteer planters are more horticulturalists than naturalists (some are amazingly proficient hobbyists in that regard) I am entirely a rewilder. The only human help this Jurassic genus needs from us is an animal (us) to ferry it back north, protect its big seed from at least some rodent predation (recently we discovered that burying seeds 6 inches deep probably works even better than what we had been doing: finding a flat, squirrel-proof rock to place over each seed). Alas, **this admirable survivor is being treated like a chronic invalid** — and, if this symposium goes according to plan, it will possibly be subjected to genetic manipulation in order to "save" it. Crucially, I disagree with the Symposium statement that "its extinction in the wild is imminent." Yes, **extinction in its "historically native range" is imminent -- but Torreya is doing fine in the "wild" several hundred miles northward, where we've set it free into regrowth forests.**

OVERALL: I believe **paleoecology, not pathology**, is the most helpful perspective for understanding what's been ailing *T. taxifolia* in Florida — and thus, what to do about it. My experience amid massive Engelmann Spruce NATIVE beetle kills in Colorado suggests to me that this spruce example is a more appropriate tree-analog than EXOTIC-killings of American Chestnut resprouts in the Appalachians and of the ongoing horror of what's killing the hemlocks. Again, **let's not get sidetracked by a proximate (pathogen) causal explanation** when the ultimate danger is climate change.

Note: I am webmaster and I admit that our site is huge. So I recently spent several days updating the "**History of Torreya Guardians**" link at the top of our home page. Just take a brief scan all the way down thru that history page and see how it gives a very helpful overview. Here, I will whet your appetite by attaching a new graphic I made for that page — and that I hope all symposium speakers and all attendees will have a chance to at least see this one graphic. Torreya Guardians will have one attendee, Clint Bancroft (a very successful Torreya planter in Tennessee) but we have not been invited to formally speak there.

Please call me and let's talk: 850-420-8002

For Torreya,
Connie

<maps-tg-sites.jpg>

