OVERVIEW AND KEY PARAS
from the 228 page pdf
ARCHIVE of early Torreya Guardians emails
prior to June 2010
(assembled by Connie Barlow)

archive-email-pre-june-2010.pdf

Bill Alexander (Biltmore) + Lee Barnes - 2007 thru 2009 re Biltmore Torreys & seeds

Bill Alexander + Connie Barlow - 2006 re Biltmore torreys

Frank Callahan + Connie Barlow - 2008 re T. tax seed harvest in Oregon

Barlow + Ed Croom (botanist and grandson of Hardy Croom) - May 2009

Barlow + Sara Reichard re comments USF&WS recovery plan update: May 2010

Barlow + Emma Marris re book chapter on Torreya Guardians Jan 2010

Barlow + Estella Leopold on Leopold fossil of Torreya in WA April 2010

Barlow + Jack Johnston first communications - Aug/Sept 2006

Chris Larson (Shoal Sanctuary FL) + Barlow - 2008

Barlow + Eileen Crist re Gaia book, Barlow's chapter on Torreya Sept 2008

Barlow + Mark Schwartz emails - circa 2010

Barlow + Vivian Negron Ortiz - 2010 re recovery plant update advisory mtg

Lee Barnes + Jack Johnston - 2007 on rooting cut branchlets

Lee Klinger + Barlow + Swanton Pacific Ranch - California Torreyas -2008

Peter White + Barlow - 2007 branchlets ID

Dayton/Evans offer Waynesville land for planting - June 2008

Barlow + Greg O'Neil (BC forestry assisted migration) - 1 July 2009

Barlow + Paul S. Martin - 2008 various correspondence

Communications prep for July 2008 Torreya potted seedling planting NC incl Audubon mag

Communications re August 2008 Ecological Society of America mtg

Barlow email with Highlands NC Audubon Chapter 07/08/08

Barlow and George Mustoe re cycad dispersal by dinosaurs - May 2008

2008 misc. communications Malcolm Hunter, Chris Thomas, Chris Clarke, Camille Parmesan, Claire Williams, Josh Donlan, Hugh Possingham, Jessica Hellmann

July 31, 2008 Barlow email to (above names) announcing new webpage that lists their responses re Q of what to name this action: http://www.torreyaguardians.org/assistedmigrationdebate.html

Barlow email to Jessica Hellmann June 2010 re the new ESA working group on Managed Relocation. Barlow excerpt:

> On July 30, 3 of us Torreya Guardians will be planting 31 Torreya taxifolia on two different private properties south of the Smokies in North Carolina (elevations 3400 and 2600 feet, mountainous terrain). An Audubon reporter and photographer will be there to film this effort in "assisted migration", or colonization, which I also enjoy referring to as "rewilding", if one comes to the matter (as I do), from a deep-time perspective. Again, only from a deep-time perspective is it clear that moving Torreya taxifolia north is truly help with its own long-established migratory patterns of movement south and north to track the waxing and waning of glaciations--glacial /interglacial migrations, rather than merely seasonal migrations. (On July 29, Audubon will be reporting/ photographing the official Endangered Species Act propagation work at the Atlanta Botanical Garden.) Jessica: When the "Assisted Colonization" working group has finished meeting, please either (a) give me a hotlink to connect our own webpage with whatever website will post the results (especially on the naming issue) or that will continue the effort, or (b) send me a pdf of any report(s) that you'd like to have posted on the web and I'll be happy to do it from the TorreyaGuardians website (and also I will make sure to hotlink them into wikipedia). ..

Barlow email to authors of the 2008 "assisted colonization" paper, excerpt:\

> I have two suggestions for future discussion: 1. Paul S. Martin and I, when we published our original paper on this topic in Wild Earth (2004), stressed the deep- time perspective in perceiving not only the need for but naturalness of climate-induced migration. Thus, for our focal species, the endangered conifer Torreya taxifolia, we stress that the proposed translocation from northern Florida (actually, the "pocket glacial reserve") to the southern Appalachian Mountains is mimicking what would almost certainly have been the tree's natural migratory movements during previous episodes of interglacial warming. I think it would help conservationists and others "warm" to the idea of assisted migration if the populace became better educated about the massive movements species have made during previous episodes of massive climate change. See, for example, Hazel Delcourt's excellent book, "Forests in Peril", which stimulated the initial debate that led to the formation of TorreyaGuardians.org

Barlow email to Michelle Nijhuis [Orion magazine] 2007 excerpt:

> … You absolutely must get hold of Forests in Peril: Tracking Deciduous Trees from Ice-Age Refuges into the Greenhouse World (Paperback) by Hazel Delcourt. I interviewed her about this (not for a book or article, just for my own

interest) just before she retired from U Tenn Knoxville. As I remember now, it was this book that got me off my butt about Torreya and had me contact her, Paul Martin, Peter White, and several others to have an email conversation about actually doing assisted migration for Torreya. Because before this book, it was just my crazy idea. In the book, she does a powerful job of teaching about Ice Age pocket refuges. Anyone who reads this book will instantly become in favor of at least moderate assisted migration. ... If you wanted to do a really cool article sometime, you could visit all three of the major Ice Age pocket refuges for Eastern North America. I've been to 2. Altamaha can't hold a candle to the Apalachicola, as far as having good shaded rich bank topography on which to grow stuff. But I bet the one Hazel talks about in Louisiana is terrific. I would love to have them declared "Sacred Sites" for vegetation lovers of eastern north america. See the Sacred Sites webpage on my www.TheGreatStory.org website.

Barlow to Jack Johnston 31 Aug 2006 excerpt:

… As to foliage: I saw such strikingly different foliage among the California [torreya] trees, even on the same individual, that, personally, I wouldn‚t even attempt to think that foliage would give a clue. Do visit the California pages on the Torreya Guardians website and see the foliage˜ and all the diverse habitats! Personally, I have much more faith in the utility of looking at California habitat for „Florida‰ Torreya than looking at anything in its historic range; again, because of the deep-time story I have.

Barlow email to Jack Johnston 15 Aug 2006 excerpt re Rob Nicholson's propagation of original late 80s branchlets cut from wild T. tax, and nurtured at Smith College by him: . I ALSO JUST HAD EMAIL COMMUNCIATION WITH ROB NICHOLSON AT SMITH COLLEGE BOTANICAL GARDEN WHO WAS INVOLVED IN THE TAKING OF CUTTINGS FROM FLORIDA SURVIVING SPECIMENS AND ROOTING THEM AND CLONING THEM FOR DISTRIBUTION TO 3 BOTANICAL GARDENS, INCLUDING ATLANTA. HERE IS HIS EMAIL TO ME:
Hi Connie, been on vacation. We no longer have any Torreya as I shipped them all south where they can be put in the ground. We propagated about 4 or 5 thousand of the cuttings so I felt we had done about as much as we could. If a tenth of those survive to seeding size, I'll be happy.I
will be in a half day today and full days Thursday and Friday so you are welcome to come by for a look but since our new director came on, my research component has drastically been reduced so there is not much in house in the way of conifers.
Regards, Rob N.

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Barlow to many, 3 December 2008 excerpt:

…. A year ago, Ron told me he would be happy to SUPPLY NONPROFIT ORGANIZATIONS IN NORTH CAROLINA WITH T. TAXIFOLIA SEEDLINGS GRATIS as participants in safe repositories and breeding (technically, NOT assisted migration, as that action is not yet countenanced under the Endangered Species Management Plan for this species). You would have to check with him to find out whether the seedlings would be allowed to be planted in managed forests on your private properties;

otherwise, you would have to purchase seedlings grown from private seed stock not subject to the ESA, as Torreya Guardians has done. (I am cc-ing Bill Alexander, Forest Historian at the Biltmore Gardens, as his group has supplied Torreya Guardians with seed from their mature Torreya taxifolia trees for each of 2 years in which a hundred or so seeds were produced there, but we haven't been very successful in getting those seeds to germinate.

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Barlow to a land inholder in Torreya State Park 30 Nov 2008:

. Josh -
Great that you learned about us, and thank you for contacting us. I don't see prospects for collaboration with Torreya Guardians for two reasons:
It is legal for Torreya Guardians (not operating under the auspices of the Endangered Species Act) to work only with trees raised in nurseries or from private seed stock from trees outside of the wild native range in Florida. Any wild trees you have are strictly off limits to us, as they fall under the purview of the Endangered Species Act.
2. Because the USF&WS is already doing a heroic effort to try to keep Torreya taxifolia present and perhaps even again reproducing in its "native" range in northern Florida, Torreya Guardians seems to be putting its entire efforts into (a) assisting the migration of nursery seedlings to the Appalachians, and (b) distributing seeds to individuals in northern climates who will attempt to use them in orchard situations to raise more seeds.
Together for Torreya, Connie Barlow

On 11/30/08 12:23 AM, "Hiker Hostel" <hikerhostel@yahoo.com> wrote: I saw your information on saving the Torreya tree. I own land inside Torreya State Park. I would be interested in discussing the use of our trees for your project as well a building the population on my property. The land in Florida is where I grew up but I currently live just outside of Atlanta in Dahlonega, GA Josh Saint (770) 312-7342

On 7/2/08 10:04 PM, "Jack Johnston" <jack_georgia@hotmail.com> wrote:

Hi All, I am just returned from Woodlander's Nursery and have 30 Torrea taxifolia

in one gallon pots in my yard. The round trip was 406 miles. It took a lot of
time, but I had a nice visit with Bob McCartney. He had additional plants if anyone wants more. I would guess he had about 10 that were a touch scruffy from this seed lot, then about 10 more that looked great but were younger, and a big pot of seedlings that represents another 15 plants maybe.

He took me to see his seed plants which are on a private estate. There are 3 cutting grown plants, one male and 2 females. One of the females was smashed by a falling oak limb and has not recovered. The two females are only about 3 feet tall and sprawl since they are cutting grown. The

male is twice that size. It is so dry that the one female with seeds is aborting most of them. Since Bob has no way to water it, there may not be seeds this year, or certainly only a few.

I'll share a bit of info regarding setting out the plants. I have found it best to get rid of all the material in the pot and try to get the roots in contact with dirt. Once the plant is in the ground it is difficult to water through the bark mix used for growing. I lost a plant last summer even though I was watering. When I pulled it up to examine the roots it was readily apparent that the water was not penetrating well, and that the plant had died from lack of water.

Also, I am concerned about these 30 plants being planted in the shade. It is probably easier for the plants to survive the dry weather with shade, but I know they will not prosper unless light reaches the crowns. I have ample evidence of how important light is due to observations of Stewartia ovata that I grow. The plants put out leaves and grow a little in the shade, but given sun they grow fast. I think it is the same with Torreya.

It is interesting to compare the seedlings I brought back today with the ones I have had in the ground for two years. The ones in the ground are not much taller, but they have a larger stem diameter.

I asked Bob how long he thought it might take for seedlings to flower. He seemed to think about 10 years. However, the seedlings are already 3 years old, and given good conditions maybe less than 10 years?

Best, Jack Johnston

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From: Peter LaFontaine [mailto:Lafontainep@nwf.org] Sent: Thursday, January 22, 2009 1:27 PM
To: lbarnes2@earthlink.net; Jack Johnston
Subject: Torreya Guardians

Dear Mr. Johnston and Mr. Barnes,

Thanks for taking some time to answer my questions. I'm mostly interested in the climate-related applications of your work with Torreya Guardians.

-What ecological function does the species perform? Are other organisms or systems dependent upon it? -What sort of habitat is necessary for the species to flourish?
-How has that habitat shifted in the last few decades?
-What does your group do to promote restoration?

-What results have you seen (positive or negative) as a result of your work? -Advice for dealing with other climate-related shifts in habitat?
Thanks again, and good luck to you.
Sincerely,

Peter LaFontaine
National Wildlife Federation National Advocacy Center 901 E St, NW -- Suite 400
Washington, DC 20004

Phone: 202-797-6621 Email: lafontainep@nwf.org

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On 1/28/09 10:52 AM, "Lee Barnes" <lbarnes2@earthlink.net> wrote: Peter,

Thanks for your interest in Torreya Guardians and our project rewilding /assisted migration of Torreya taxifolia. TorreyaGuardians appear to be a flagship promoting public discussion of rewilding. Here's some comments on your questions... feel free to contact me for clarification, etc. Thanks and Happy Trails, Lee

- What ecological function does the species perform? Are other organisms or systems dependent upon it?

Torreya is a rare species with little study of its ecological function. Torreya taxifolia was widely distributed throughout the Northern Hemisphere as evidenced in pollen fossil records for many millions years. It's historical location is known only along the lower reaches of the Appalachicola River where it has been described as located along bluffs and ravines. The relic population was presumably restricted by regional wildfire and over-collected for steamer firewood. Torreya's evergreen nature does offer year round cover for wildlife. Seed propagation is apparently not occurring in the wild and it has been suggested that the nutmeg-sized Torreya seeds were possibly disseminated by now extinct megafauna. Squirrels have been observed to distribute seeds in Georgia and North Carolina.

- What sort of habitat is necessary for the species to flourish?

Habitat for T. taxifolia is relatively unknown, described historically as growing along the bluffs of the Apalachicola in southern Georgia and panhandle Florida. Other Torreya species are observed growing either as thick groves on bluffs/rock face or in mixed understory. Torreya has been successfully grown in arboretums in North Carolina, Georgia, New York, Ireland, and Switzerland. Preliminary studies suggest buds are winter hardy to minus -10-15 degrees F. (personal comm..1985). Healthy Torreya taxifolia trees have grown at the Biltmore Estate for nearly 100 years, surviving winters of -10-15 F. Torreya Guardians are field testing two small plantings of 30 T. taxifolia in WNC – one site is a north aligned ravine at Corneille Bryan Nature Native Garden at Lake Junaluska. The second site is about 800 ft. higher elevation mid- slope on a 5000 ft. Eagle Nest Mountain. Both mesic and dryer sites were chosen for planting and are being monitored for relative growth and seed production that is expected in 5-10 years.

- How has that habitat shifted in the last few decades?

The rare paleorefugia along the Apalachicola River has been impacted by recurring drought cycles and observed major diebacks for over 100 years. Evidence suggests that the African fungal pathogen Phytophora rootrot was introduced through the

cotton trade in New Orleans and spread across the southern cotton states, including the panhandle of Florida. This pathogen is known to kill container grown Torreya seedlings. Presumably the introduced Phytophora root rot was distributed from cotton fields to nearby forests and infected Torreya with major diebacks recorded with record droughts. Drought stress is recognized to influence regional dieback of numerous diseased tree species. Seed production in the historical habitat has not been reported for nearly 20 years. Plantings at the Atlanta Botanical Gardens in Georgia have resulted in natural reseeding and squirrel distribution.

- *What does your group do to promote restoration?*

We have coordinated two rounds of limited seed distribution to Botanical Gardens, arboretums, and private individuals in Eastern USA, British Isles, and Switzerland. Only a few hundred seeds have been available from one private source with recent seed failures in the last few years. Torreya Guardians is coordinating several private plantings with the intent to have a steadier supply of seeds for distribution in perhaps ten years. Different ecological niches at these sites are being investigated with the plants to further determine the species true habitat requirements. Plantings in Waynesville, NC are being monitored for growth, observation of disease, and seed production as plants mature. The website, TorreyaGuardians.org, is continually updated with Torreya updates and current progress reports, as well as, continue the discussion of assisted migration.

- *What results have you seen (positive or negative) as a result of your work?*

Initial seed distribution efforts resulted in poor germination due to insufficient winter stratification. Current recommendations of on-site, in-ground stratification of cleaned seeds will make future distribution more effective. Current 2008 plantings appear to be well established and are being monitored for winter survival and bud break in the spring. The website TorreyaGuardians.org continues to educate the public on rewilding discussions and seed saving and transplanting techniques.

Connie Barlow is using her experience in setting up TorreyaGuardians as a model in creating the new webpage, PlantGuardians.org, to allow others to champion and promote other rare and endangered species including the rare Mountain Stewardia. Our biggest challenge is manage these plantings for seed production and future distribution with relatively no monies or government support.

- *Advice for dealing with other climate-related shifts in habitat?*

Observed climate-shifts must stimulate humanity to better study ways to reduce local and global greenhouse gas production, and habitat destruction. We're all on this planet lifeboat together. Rare plants and rare habitats should be especially monitored to prevent loss of biodiversity. When carefully considered, assisted migration might be the only way to preserve numerous plant and animal species. Extinction is forever. First rule, save all the pieces...

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9 May 2009 email from Connie Barlow to various Torreya Guardians:

This is Connie Barlow. The May/June issue of Orion Magazine contains an 8-page article by Michelle Nijhuis, titled "To Take Wildness in Hand." Subtitle: "While scientists debate how to help save species from a warming climate, others aren't willing to wait." The debate over assisted migration in a time of global warming is front and center, with the exemplar species being Torreya taxifolia. Why? Because, at the moment, Torreya Guardians is the only organization that not only has assisted migration on its agenda but is actually doing it. And the reason we are the only organizaton as yet

that has stepped out is because we really aren't an organization: just a bunch of interconnected individuals with a website, undertaking individual and small-group actions in a fully bottom-up and spontaneous way. Any "real" organization would still be talking about the pros and cons and maybe beginning to construct an actual plan that would carefully and prudently guide the effort--that is, if the plan eventually was approved...

Anyway, it is a beautifully written article, and because Orion covers environmental issues by attending to the human and subjective side of the matter, you will find some fun descriptions of and quotations by Torreya Guardians, in all our individual quirkiness: me, Jack Johnston, Lee Barnes, Bill Alexander. Plus Mark Schwartz who bridges in a very friendly way to "radicals" like me, while standing firm in the worldview of conservation caution and respect for the concept of native habitat (as it is currently understood). Also a Nature Conservancy site manager for T. taxifolia in Florida is interviewed and he, understandably, is a long way from venturing toward the bridge, so the controversy itself comes alive in these pages. Overall, I think the article will become a classic in environmental literature because it shows the human side of what happens during major worldview shifts and does so through the lens of the debate about a single species.

REWILDING QUERY: Anybody besides me interested in buying up the rest of the South Carolina nursery seedlings and engaging is a real "rewilding" somewhere around Highlands or Cashiers NC (where Jack Johnston has a second home), and which would have been the recipient big-mountain ecosystem in past interglacials when T. taxifolia migrated back north, presumably by

simply heading upstream? Rewilding would mean not a planting in someone's tended yard there, but planting in someone's "wild" forested property.
After all, assisted migration implies that we believe that if we can just get the species there, it will already have what it takes to survive and reproduce on its own in its new home -- in the wild. We would, of course,

initially plant the seedlings in places where slope, aspect, vegetational community and other characteristics inclined us to think the plants would

feel as if they were in Eden, and locals would surely want to keep an eye on them, perhaps removing branches of neighboring trees that, over the years, might come to take over too much sunlight (a Torreya can survive and meagerly grow in almost total shade, but it needs sunlight to invest in reproduction). But, on the whole, we would be saying, "Okay, Friend, we think you'll like it here; now show us what you can do!"

Ideally, this "first rewilding action" would become a community event, something written up in the local paper, and where the landowner(s) could be proud of their contribution to the community and a species in need.

More, I'd love to see an organization of kids or teens involved in a big way--maybe girl scouts or boy scouts or "Earth Scouts", or a local person could start up a branch of "Earth Scouts" there (see: <http://www.earthscouts.org/>). They could be assigned in advance the task of absorbing the info on TorreyaGuardians.org, studying the photographs I posted there of the habitats where Torreya californica grows in the

mountains, and being mentored by local adults there (e.g. Jeff Zahner (?), in addition to part-time resident Jack Johnston) And, of course, the private landowner(s) would pledge to grant that organization ongoing access to monitor and minimally manage the site.

Young folks would be crucial because, while Atlanta Botanical Garden is superb at using advanced horticultural techniques in getting its potted orchards to produce early and fabulously, this grove of rewilded seedlings would be reproducing at a normal pace middle-aged or older folks (I'm 56) doing the planting likely would not be

alive to watch the squirrels bury the first crop of seeds. We need to recruit the young folks now to step in to being "guardians" of these trees for the long-term. We need to give birth to a dedicated lineage of guardians for the long-term, who will pass on the experience, the verve, and the lore from one generation to the next.

Here's what I can contribute:

(1) ONE TORREYA SEEDLING. I have one lovely potted Torreya taxifolia, about 18 inches tall, that I've been carrying in my van (my husband and I are itinerant "evolutionary evangelists") every since Atlanta Botanical Garden generously gave me one of their seedlings after my tour of their Torreya

reproduction effort there in December 2007. I've been waiting till our business carries us back to North Carolina, which will happen July 30, 31,

and August 1 -- as I am determined to plant "my" tree there. But it needs partners; we need more seedlings.

(2) MONEY TO PURCHASE MORE SEEDLINGS. I can also contribute money to purchase all the rest of the seedlings from the Woodlander's Nursery in Aiken, SC. And I'd be happy to pay Jack Johnston for gasoline to drive there (that's where he purchased the T. taxifolia individuals he now has planted in his yard.) My husband's 2007 book, "Thank God for Evolution," has just been purchased by Viking/Penguin for reissue in hardcover next month, and some money is coming our way from that deal, a portion of which I can use in this effort. ..

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July 2009 correspondence bt Connie Barlow and Greg O'Neil:

From: Connie Barlow [mailto:cbtanager@bigplanet.com] Sent: Wednesday, January 13, 2010 12:06 PM
To: O'Neill, Greg A FOR:EX
Cc: Emma Marris
Subject: O'neill's work in BC on assisted migration

Hello Greg,

This is Connie Barlow of Torreya Guardians. I just really found out about the amazing work you are doing by reading Emma Marris's draft of her assisted migration chapter (I made many suggestions and already sent it back to her.) Wow! You folks are way ahead -- and better yet, because you are doing it in the least controversial ways that nobody could object to by taking lower altitude population seed stock and planting uphill -- planting you must do anyway because you are doing it on logged land. I mean, it isn't even a choice. Who could object?!

Anyway, so I finally got around to reading the Nature report Emma wrote on your work. I resisted when you initially sent me a pdf for my own viewing because I have this thing about believing all important work should be freely available online and that governments should be subsidizing the scienc journals instead of wars. So I was obstinate. But I just now read it as Janet Marinelli is doing last minute updates on the Audubon magazine article she wrote on our Torreya rewilding work in North Carolina. She was with us when we did it in July 2008, and an Audubon paid photographer was there too, and she wrote the article right away, but budget cuts at Audubon put off the article's publication, but it is now scheduled for May 2010 so she needed to update. I strongly recommended your work, and I changed my assisted migration articles page on my website to put yours right up near the top. Also, you will see that I posted a

PDF of the Nature report on my own website. That is my responsibility. If Nature comes after me, I will remove it. But it is so important for folks to see.

Make sure that when you go to my webpage listing it you hit refresh to ensure that you have the most up-todate version: http://www.torreyaguardians.org/assisted-migration.html And absolutely make sure you read the other posting besides yours that has a red alert because it is so important. Scroll down slightly to the one by Shirey and Lambert. Then keep Shirey informed of anything you do, as he is the dude who is chronicalling the history of this thing. Here is his email, as he and I have had correspondence: Patrick Shirey <pshirey@nd.edu>

And if you folks put anything else online on your own website that I can link to, make sure you notify me so I can get it on my page, which I suspect may hold its position as number 2 on google searches for assisted migration or assisted colonization, simply because google favors pages that distribute readers most widely to other websites.

As of yesterday, Emma still hadn't given birth.

Best wishes, Connie Barlow

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Hi Connie,
FYI... another article about assisted migration out of Associated Press

http://www.washingtonpost.com/wp-dyn/content/article/2009/07/19/AR2009071901189.html

Regards,

Greg O'Neill

-----Original Message-----
From: Connie Barlow [mailto:cbtanager@bigplanet.com] Sent: Thu, July 16, 2009 11:53 AM
To: O'Neill, Greg A FOR:EX
Subject: Re: Torreya Guardians assisted migration update

Greg -

Thanks for the info. Not much to freely read, alas. If the pdf become available somewhere for me to link to, please let me know and I will be happy to do so. I was relieved that the May 2009 NAS paper is freely accessible on the web. Someday I hope that the financing will be figured out such that articles like the one you alerted me to are also freely available to all online, but we are not there yet.

Best wishes with your vital work,

Connie Barlow Torreya Guardians

On 7/1/09 7:49 AM, "O'Neill, Greg A FOR:EX" <Greg.ONeill@gov.bc.ca> wrote:

Hello Connie, thank you for the links. I am attaching a recent editorial article in Nature on BC's Assisted Migration Adaptation Trial (AMAT), for your interest. I doubt Nature will give you permission to post the article, but you should be able o post the link. http://www.nature.com/news/2009/090617/full/459906a.html CBC TV filmed at two of our AMAT sites last week. They will run a short (10 minute?) documentary on assisted migration some time this summer.
Best of luck! Greg O'Neill

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On 4/12/07 7:31 PM, "Paul Martin" <pmartin@email.arizona.edu> wrote:

Connie, Have you seen the Current issue of Conservation Biology , vol. 21 (2) Apr 2007? Perhaps you had some advance contact from CB editiors. Jason McLachlan and three others take off on our (your) Torreya Guardian piece in their first sentence. I'll send a Xerox if you send a mail address. I'm so gun shy from contrary archaeologists on my overkill views that I look for trouble right away when I find a secondary source. But McLachlan et all look genuinely pleased and supportive and touch on other opportunities for more of the same. Should I send you a xerox and if so where? MK has eye trouble and I'm grounded so we are not going to the Dolls House often these days and may sell it. Dave Steadman's new Univ. Chicago Press book on island bird extinction is out and excellent, good enough to upset Jared Diamond. Three times a year Dave comes through to do bird watching on the Sonora side of the line.
Best, Paul and MK

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8 Dec 2008 email from Connie Barlow to Ron Determann (ABG) and others

… A year ago, Ron told me he would be happy to SUPPLY NONPROFIT ORGANIZATIONS IN NORTH CAROLINA WITH T. TAXIFOLIA SEEDLINGS GRATIS as participants in safe repositories and breeding (technically, NOT assisted migration, as that action is not yet countenanced under the Endangered Species Management Plan for this species). You would have to check with him to find out whether the seedlings would be allowed to be planted in managed forests on your private properties; otherwise, you would have to purchase seedlings grown from private seed stock not subject to the ESA, as Torreya Guardians has done. (I am cc-ing Bill Alexander, Forest Historian at the Biltmore Gardens, as his group has supplied Torreya Guardians with seed from their mature Torreya taxifolia trees for each of 2 years in which a hundred or so seeds were produced there, but we haven't been very successful in getting those seeds
to germinate.

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. Connie;
Thank you for your thoughtful response to that. I appreciate your not working in the western US.--Mark

From: Connie Barlow [mailto:cbtanager@bigplanet.com] Sent: Tuesday, November 25, 2008 9:45 AM
To: Callahanseeds@gmail.com
Cc: Schwartz, Mark; Lee Barnes; Jack Johnston

Subject: Re: Torreya taxifolia in Oregon

Hello Frank -

Thank you for your interest in helping this endangered species. Torreya Guardians has received one other offer of private lands for growing Torreya taxifolia along the Pacific (that was in California) and, while we appreciate the offers to help, we are careful to work with landowners only east of the Mississippi or on a separate continent. The reason is that Torreya californica is the Torreya species on your side of the continent, and we don't want to encourage any mixing of pollen types. Its northernmost outpost in the Coast Range is not far from the Oregon border, so in the decades and centuries ahead, California torreya may be looking up in your direction.

Together in the Great Work,

Connie Barlow Torreya Guardians

P.S.
In a couple months I'll have up online a broader website, www.plantguardians.org, in which anyone can post

interest in a particular genus and species and see who shows up to trade information and ideas.

On 11/21/08 2:28 PM, "Callahanseeds@gmail.com" <Callahanseeds@gmail.com> wrote:
I need to link with you folks for seeds of T. taxifolia. We are presently growing these trees in Oregon and have limited seed production. We have land to grow this species. Contact us at Callahan Seeds POB 5531 Central Pt. OR 97502 - 541-855-1164 callahanseeds@gmail.com Frank Callahan

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Connie;

You are not being paranoid about pollen mixing. It would be VERY BAD to mix pollen. This is what caused the de-listing of the Dusky Seaside Sparrow: the pure genotype was lost (owing to intentional cross-breeding because of there being 6 males and 0 females). Nonetheless, if a listed species is hybridized out of existence, then the species will be delisted. That is not good. We KNOW that some nurseries are not as careful as they should be. We have no idea what interested

collectors do. This is why I think it is very dangerous to advocate volunteer citizen groups to take on the task of translocating species for conservation and why I am opposed to what Torreya Guardians does. I think that, despite good intentions, these efforts can result in more harm than good. I am not so worried about Torreya Guardians, per se. But the promulgation of these efforts to other species can have disastrous effects on biodiversity. Please be very careful about who you suggest what to in this regard. I, for one, do not want free-wheeling interest groups for all 5000 rare taxa in the US.

Mark

From: Connie Barlow [mailto:cbtanager@bigplanet.com]
Sent: Tuesday, November 25, 2008 12:38 PM
To: Schwartz, Mark; Ron Determann; Brandon Keim; Camille Parmesan; Chris Thomas; Dennis Hansen; George Mustoe; Hugh Possingham; Jessica Hellmann; Josh Donlan; Mac Hunter; Mauro Galetti; Vivian Negron-Ortiz
Subject: Assisted migration Q and plant nursery decisions

TO: those professionally working with Torreya taxifolia and T. californica AND TO: people published on the assisted migration controversy

FR: Connie Barlow, Torreya Guardians
RE: Question about how we should handle citizen/propagator questions like the one below

Hello all. Please read the emails from the bottom up. This is absolutely something you must address in the policy work on assisted colonization/migration going on now. I tend to be very conservative about the prospects of mixing pollen from sister species. What can be done to enlist nurseries — not just citizen groups, like Torreya Guardians — to try to participate responsibly in helping imperiled plants? Or am I just being too paranoid about pollen mixing?

Together for Torreya, Connie Barlow

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Mark -

Great response. May I share it with Vivian Negron-Ortiz? I will respond myself to a few points you make here in a later email to you. But I have some feelers out first to those who somewhat or fully share my perspective, and so I want to first hone some new arguments. The big picture which this Torreya question reveals in microcosm just keeps getting bigger . . .

For Torreya, Connie

On 5/12/10 8:58 PM, "Schwartz, Mark" <mwschwartz@ucdavis.edu> wrote: Connie;

I was not able to attend the meeting on Torreya taxifolia. As you know, I have written on assisted migration as well as on rewilding T. tax.

Let me first say that I deeply appreciate your efforts to be public and above board on your efforts. That is courageous and much needed in this whole discussion.

Nevertheless, I believe that we have a very, very , very large problem on our hands if all citizens who are interested in moving stuff around feel empowered to do so. We have to be judicious about the movement of organisms from one place to another. There is already an incredibly large and robust under-the-table set of activities moving species of all sorts because individuals think that they would like to see something where it is currently not.

I am certainly NOT you of such behavior. But, you can see the problem of invasive species that has the potential of being exacerbated by unregulated, undocumented, unplanned rewilding. For this reason. I strongly believe that we should only engage in such movements when there is no other course of action available to avoid extinction. And, this is not the case in T. taxifolia. We have time. We have opportunities to try in situ conservation. I believe that conservationists should prefer that solution. I believe that they generally do. Hence your feeling of being a lone voice. To some extent, you are.

Thus, you are likely to meet resistance simply because people see assisted migration as an option of last resort. I understand that your motivation or rewilding torreya emerges from a different place. Nevertheless, you should understand what motivates these conservationists: protecting species from extinction: all species. And impacts of species into recipient ecosystems have not, historically, been trivial, and are not likely to be in the future.

If I were you, I would begin preparing, for example, to defend arguments to extirpate torreya from the Caorlinas if you end up successful in establishing it there. I certainly wont be involved in that, but I bet that there are plenty in the Carolinas who would see torreya as an invasive species to be eradicated at all cost. Their worldview of nature is, like yours, a valid one.

All the best, Mark

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On 11/25/08 4:31 PM, "Vivian_NegronOrtiz@fws.gov" <Vivian_NegronOrtiz@fws.gov> wrote: I appreciate the conservation efforts in the recovery of T. taxifolia. However, interspecific hybridization should be avoided between these two species (or other species in the genus); their genetic integrity should be maintained. I don't recommend translocating T. taxifolia to the West; the native range of T. californica should be completely avoided. If T. taxifolia 'migrates' due to climate change it should be toward the East.
Also, species introduced into non-native areas may disrupt 'native' species assemblages that are already impacted by environmental change. Preferable, a careful reintroduction scheme should be followed. Sincerely, Vivian Negron-Ortiz