

Request for a policy person to review citizen contributions toward recovery and thus climate adaptation of an endangered, glacial relict, Florida plant (*Torreya taxifolia*) by way of our own "assisted migration" efforts that began in 2005; our group is "Torreya Guardians"

CONNIE BARLOW submitted this via the "Send a message link" on the Martha Williams director page of USFWS on **May 19, 2022**:
<https://www.fws.gov/staff-profile/martha-williams>

RE: Request for a policy person to review citizen contributions toward recovery and thus climate adaptation of an endangered, glacial relict, Florida plant (*Torreya taxifolia*) by way of our own "assisted migration" efforts that began in 2005; our group is "Torreya Guardians".

Director Williams - I am a retired science writer (4 books) and founder of the citizen group Torreya Guardians, which formed in 2005 (with the then-blessing of FWS staff person Stan Simpkins) to begin on our own "assisted migration" of the glacial relict subcanopy conifer in Florida, *Torreya taxifolia*. The ESA was written with a legal exception (just for plants) enabling distribution of seeds from existing horticultural plantings — something that, of course, does not pertain to animals. Our group was the first to use this exception.

Our greatest accomplishments include: (1) full online documentation of what we have learned and what we have achieved; (2) outdoor seed production beginning in 2018 in the front yard of one of our volunteer planters in Cleveland Ohio; (3) site visits and online documentation of all known horticultural plantings from North Carolina and northward, with special attention paid to whether each site produced seeds and supported naturalized populations of seedlings and saplings (evidence of climate compatibility v. the distress and lack of reproduction in the peak glacial refuge in Florida).

Because I read the scientific papers re climate assisted migration, I have listed and annotated not only the key papers but also the 2 law review papers that have determined that the ESA does not require any amendment in order to include "assisted migration" in a recovery plan. FWS staff did attempt to add such an experiment into its 2010 recovery plan update, but because Torreya Guardians was the only voice voting yes to that idea, it was deleted from the final version of the plan. Ever since, the situation has only worsened, with Atlanta Botanical

Garden (ABG) in particular dictating that none of the 10,000+ seeds produced ex situ in north Georgia may be distributed to any institution for experimentation of "assisted migration." Instead "genetic safeguarding" to "prevent extinction" is the only option allowed.

More, ABG and State Botanical Garden in Athens Georgia have not documented annual seed production and "ultimate destinations" of those seeds. I know this because in 2018 I submitted an FOIA requesting such documentation. No documentation was found at the agency, and so in 2018 I filed a "petition to downlist *Torreya taxifolia*," pointing to our own success in plantings and documentation of seed production in North Carolina and Ohio. A decision was published by FWS 29 September 2021, which made it clear that "historic range" was the only locale acceptable for judging improvement in this species' recovery.

REQUEST: Please have a high-level, policy staff person visit the Torreya Guardians website: <http://www.torreyaguardsians.org/> From the home page, click on the link titled, "Case Study of Agency Failure." As well, our "Historic Groves" link is intended to be a strong and visually rich survey of how well the climate in the Appalachians and northward supports this glacial relict's health: notably its ability to fight a range of native diseases that have made the species functionally extinct in its historically native range. As well, do take a look at our documentation of what we have learned, especially to educate and guide volunteer planters via our "Propagation" page. Finally, please consult with USDA climate lead, Chris Swanston, who is well situated to educate conservation scientists in FWS about the forestry research scholarship that has welcomed "assisted migration" as a climate adaptation tool for timber management and forest ecosystem services. A well-regarded summary of the forestry science on this topic is a wikipedia page I coauthored in 2021 with a Canadian: "Assisted migration of forests in North America." I look forward to the possibility of Florida *torreya* becoming a highlighted achievement of FWS for the 50th anniversary of the ESA, instead of a sad example of ongoing climate denial and hostility toward citizen contributions.
