



Global Tree Specialist Group Newsletter

October 2023

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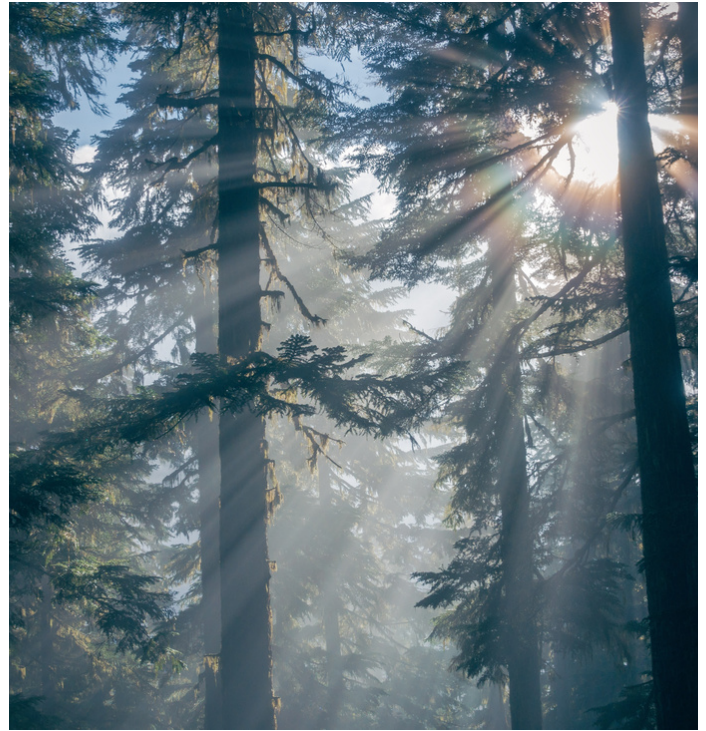
Spotlight: on GTSG member: Emily Beech



**BOTANIC
GARDENS**
CONSERVATION
INTERNATIONAL



GTA
Global Tree
Assessment



The Global Tree Assessment team at BGCI are working incredibly hard in the final months of the Global Tree Assessment. We anticipate completing, reviewing, and submitting over 12,000 assessments to the IUCN Red List in 2024!

As ever, a huge thank you to all GTSG members who are helping to achieve the mammoth task.

In this newsletter we are delighted to announce the launch of a new GTSG website, which will be more fully developed with your contributions over the coming months.

We also report on a new Red List for Sabah, a highly successful workshop in Fiji, and a new project to record conservation actions for Mexican threatened trees.

We feature the work of GTSG member and BGCI Tree Red List Manager, Emily Beech, who has worked tirelessly on GlobalTreeSearch and tree Red Listing for nearly ten years.

And there is an article about the new Center for Species Survival focused on trees based at The Morton Arboretum.

Thank you to all for your ongoing commitment to the GTSG.

With very best wishes,

Sara Oldfield & Adrian Newton (Co-Chairs GTSG)

The New GTSG Website

We are very grateful to Fauna & Flora for their development and hosting of the GTSG website within the website of the Global Trees Campaign (GTC). Along with launching the GTC, Fauna & Flora supported the development of the GTSG as part of the Campaign and provided the Secretariat until 2005. Since its launch in 1999 as the only global conservation programme dedicated to saving threatened tree species, GTC has safeguarded more than 400 threatened tree species in over 50 countries worldwide. The Global Trees Campaign has now drawn to a close.

FFI and BGCI continue to develop their respective tree conservation activities, drawing on all the successful actions and myriad of local to global partnerships developed over the past two decades. BGCI continues to host the GTSG Secretariat, as it has done since 2005, and generously supports our new website. This is a work in progress and we will be in touch for your help in providing updates, writing case studies and developing new features.

<https://www.bgci.org/global-tree-specialist-group/>



Using the Conservation Action Tracker for Mexican Trees

We are delighted to announce that the GTSG has received an SSC Internal Grant enabling a team in Mexico to track conservation action for Mexican threatened trees. Under the leadership of Marie-Stéphanie Samain, Karina Machuca will gather and record information necessary to prioritize and monitor conservation actions for Critically Endangered Mexican trees together with all threatened *Magnolia* and *Quercus* species in the country. Information will be added to the Conservation Action Tracker as displayed in the BGCI GlobalTree Portal. An exciting component of the project is a collaboration with the Mexican network for environmental restoration REPARA (Red Mexicana para la Restauración Ambiental). This organization, that includes hundreds of conservationists throughout Mexico, is planning to map current tree restoration actions in the country. Information collected for the Conservation Action Tracker will be shared with REPARA. A questionnaire has been developed to send to all REPARA practitioners in the REPARA database to record information on additional conservation actions underway. Information will also be gathered from Governmental organisations in Mexico. The project will work closely with the Global Conservation Consortia and liaise with the Center for Species Survival for Trees (see below).

Mexico has a well-established tradition of species conservation with policies and mechanism in place. There remains, however, a significant gap in conservation actions for threatened Mexican tree species - a gap that this innovative and collaborative project will help to address.



Critically Endangered *Esenbeckia vazquezii* is known only from a small population in Jiutepec, Morelos where it occurs in the protected area "El Texcal".

Despite protection the remnant forest & its trees are threatened by urban expansion & extraction of construction materials

We again encourage all GTSG members to share information for the Conservation Action Tracker. With your support, we aim to obtain information for all known Critically Endangered trees, and most of the threatened species on the IUCN Red List.

To contribute your conservation action information for tree species, access the following link: <https://www.bgci.org/resources/bgcidatabases/globaltree-portal/conservationaction-tracker/>

For more information about BGCI's Conservation Action Tracker, please read: <https://www.bgci.org/newsevents/conservation-action-tracker-a-tool-tohelp-optimize-conservation-of-tree-species/>



Red List of Timber Trees Published

The Red List of Timber Trees compiles information from 4,945 tree species assessed on the IUCN Red List and used for timber. It finds that a third of these tree species (1,664) are threatened with extinction. The timber use, such as logging and wood harvesting, is identified as the most common threat to these timber trees affecting 59% of species.

The report also contains a conservation gap analysis, and shows a conservation gap for many timber species. The ex situ survey found that 46% of timber species are not held within an ex situ collection (such as in a seed bank, botanic garden, arboretum etc.). Out of the 1,664 threatened species, 64% are not found in ex situ collections. With 2,219 species (45%) experiencing significant population decline, there is a need for greater conservation action for timber trees.

The report provides, recommendations for conservation action needed by different stakeholders including expansion and support of sustainable use and forest management. Case studies in the report, showcase the vital conservation efforts that are being carried out across the world to save timber species by GTA partners and GTSG members.

This report is an outcome of 'The Barometer of Life: Global Timbers Species', along with the Global Tree Assessment which has accelerated the production of IUCN Red List assessments for tree species including those used for timber.

Funding for this project was provided by the IUCN - Toyota Red List Partnership and by Fondation Franklinia.



Tree Red List Workshop in Fiji

Between the 4th and 8th September 2023, tree experts from Fiji gathered at the Ministry of Forestry's Research Station to share their knowledge of the country's endemic tree species with the goal of assessing their conservation status using the IUCN Red List Categories and Criteria.

The workshop was convened by Emily Beech of Botanic Gardens Conservation International as part of the Global Tree Assessment, an initiative to assess the conservation status of the world's trees for the IUCN Red List.

Participants included both current and retired Ministry of Forestry staff members, as well as University of the South Pacific colleagues.

With over 400 endemic tree species to assess, this was an ambitious task, however the week was very successful, and we managed to assess all the endemic species, as well as some non-endemics.

For IUCN Red List assessments, data is collected on distribution, population size, threats, conservation actions and then a category is assigned based on the IUCN criteria. Using Smith's Flora Vitiensis as a basis, and adding information from the experts present, during the week, 428 endemic species were assessed, with 33% of the species (139) found to be threatened with extinction. The majority of the species were assessed under criterion B, due to their small ranges and continuing declines. 22 species are classified as Data Deficient, meaning that more work is needed to determine if they are highly threatened or not. The most common threats were plantations (exotic wood), agriculture (including livestock and crops), fire and cyclones.

This massive effort is a great contribution towards the Global Tree Assessment. Assessment reports will now be written for all the species assessed, before being submitted for publication on the IUCN Red List in 2024. We hope this work will lead to a publication, containing further analysis of the results (The Red List of Trees of Fiji), and applications for conservation action funds.

Funds for this workshop were provided by Fondation Franklinia.



Attendees:

Marika Tuiwawa, Jone Navuso, Panapasa Tubuitamana, Alivereti Naikatini, Sanivalati Vido, Tevita Bulai, Apisai Rivamalo, Senilolia Tuiwawa, Anjeshni Narayan, Iliesa Koroi, Emily Beech.



Tree Red List Workshop in Dominican Republic

Between 19-21 September, 40 participants from 15 organisations gathered at the Dr. Rafael Ma. Moscoso National Botanical Garden for a one-day Red List training in Spanish followed by two days assessing the conservation status of the endemic trees of Dominican Republic. 146 species were assessed. The species have a very high level of threat, with 94% assessed as Critically Endangered, Endangered and Vulnerable. For more information contact emily.beech@bgci.org.

New Red List for Sabah Endemic Trees

The Red List of Sabah Endemic Trees (published 23rd August 2023) is a compilation of the conservation status assessment of 291 Sabah endemic tree species that have been validly published on the IUCN Red List from 2018 up to 2022. About 204 endemic tree species (70%) in Sabah are considered threatened and assessed within the categories of Critically Endangered (CR), Endangered (EN) and Vulnerable (VU). Analysis found the largest threat to these threatened species is attributed to climate change and severe weather conditions. Interestingly, the majority of endemic tree species (66%) are considered stable in terms of their population trends.

The Red list of Sabah Endemic Trees was compiled from an initiative led by the Sabah Forestry Department with support from BGCI and GTSG. The majority of species were assessed by staff of the Sabah Forestry Department, Dr Colin Maycock and student interns from Universiti Malaysia Sabah.

It is hoped the publication will raise awareness and achieve priority action for the 39 Critically Endangered species. Within Sabah the publication will provide important information for the implementation of the 25-year forest management plans, plant species conservation programs, and identification of critically high conservation value habitat, that requires urgent conservation policy towards Sabah's sustainable development goals.

Contribute to the next issue of BGCI's education journal: Roots

The next issue of BGCI's education journal; Roots, will focus on conservation prioritisation and how botanic gardens can engage our visitors with this important topic.

In 2024, with the Global Tree Assessment completed, the extinction risk of all the world's tree species will have been assessed.

But how is this information used to engage visitors?

We are looking for a range of examples that bridge the gap between the conservation assessment work taken place to understand the status of the world's plant species, and the stories that we tell our visitors.

This could include interpretation examples, lesson plans, focused booklets, science communication talks, and much more.

To contribute, please send a 100 word abstract to ane.zabaleta@bgci.org by 15th January 2024.



A New Center for Species Survival focused on Trees

The Morton Arboretum (Illinois, U.S.A.) through a partnership with the Species Survival Commission (SSC) of the International Union for Conservation of Nature (IUCN), has established The Center for Species Survival: Trees—a hub for coordinated action to conserve tree species around the world. It is the only IUCN SSC Center for Species Survival to focus specifically on trees, and one of only five such Centers in North America.

The Center is part of The Morton Arboretum's Global Tree Conservation Program, which facilitates partnerships with multiple organizations and stakeholders around the world to catalyze conservation efforts in priority biodiversity hotspots. The Center is led by Dr. Silvia Alvarez-Clare and managed by Amy Byrne. Staff also include research postdoc Dr. Isabel Loza, and two tree conservation officers — Kate Good and Karina Orozco (Figure 1). Given Morton's extensive ex situ collections, research-focused Center for Tree Science, and comprehensive education program, the Center for Species Survival: Trees will benefit from strong expertise and institutional support.

Activities at the Center will follow the IUCN's Assess-Plan-Act pillars, in which scientific knowledge and community needs drive conservation actions. Initially, the Center will work with the two most closely aligned IUCN specialist groups: the Global Trees Specialist Group (GTSG) and the Conservation Planning Specialist Group (CPSG), but there is great potential for the Center to support and align with efforts of other IUCN communities, such as Key Biodiversity Areas, the Sustainable Use and Livelihoods Specialist Group (SULi), or regional and national specialist groups.



The core team work with collaborators all over the world towards safeguarding tree species.

ASSESS - Conservation officer at CSS: Trees Kate Good focuses on determining species with highest conservation needs. She does this through Red List Assessments and Conservation Gap Analysis. Currently, Kate is focusing on preparing a report that will summarize the conservation gaps for the 60 threatened and data deficient oak species (genus *Quercus*) in Mexico and Central America. She has recently finished curating the final dataset of over 4500 occurrence points and has generated distribution maps for all species. She is currently analyzing the geographic and ecological coverage of ex situ collections, and is working with regional oak experts to develop in depth profiles for each species. Stay tuned for the final report to be released in mid-2024 and a similar analysis for SE Asian oaks for 2025. This work will serve as a roadmap to inform conservation actions at the Center and beyond. Tree Conservation postdoc Dr. Isabel Loza, uses the information generated through these and other analyses to organize and lead research expeditions to understudied sites. This year, Isabel and a team of Mexican partners will travel to the Maderas del Carmen area in northern Mexico in search of rare and threatened oak species.

Supporting Ecosystems and People

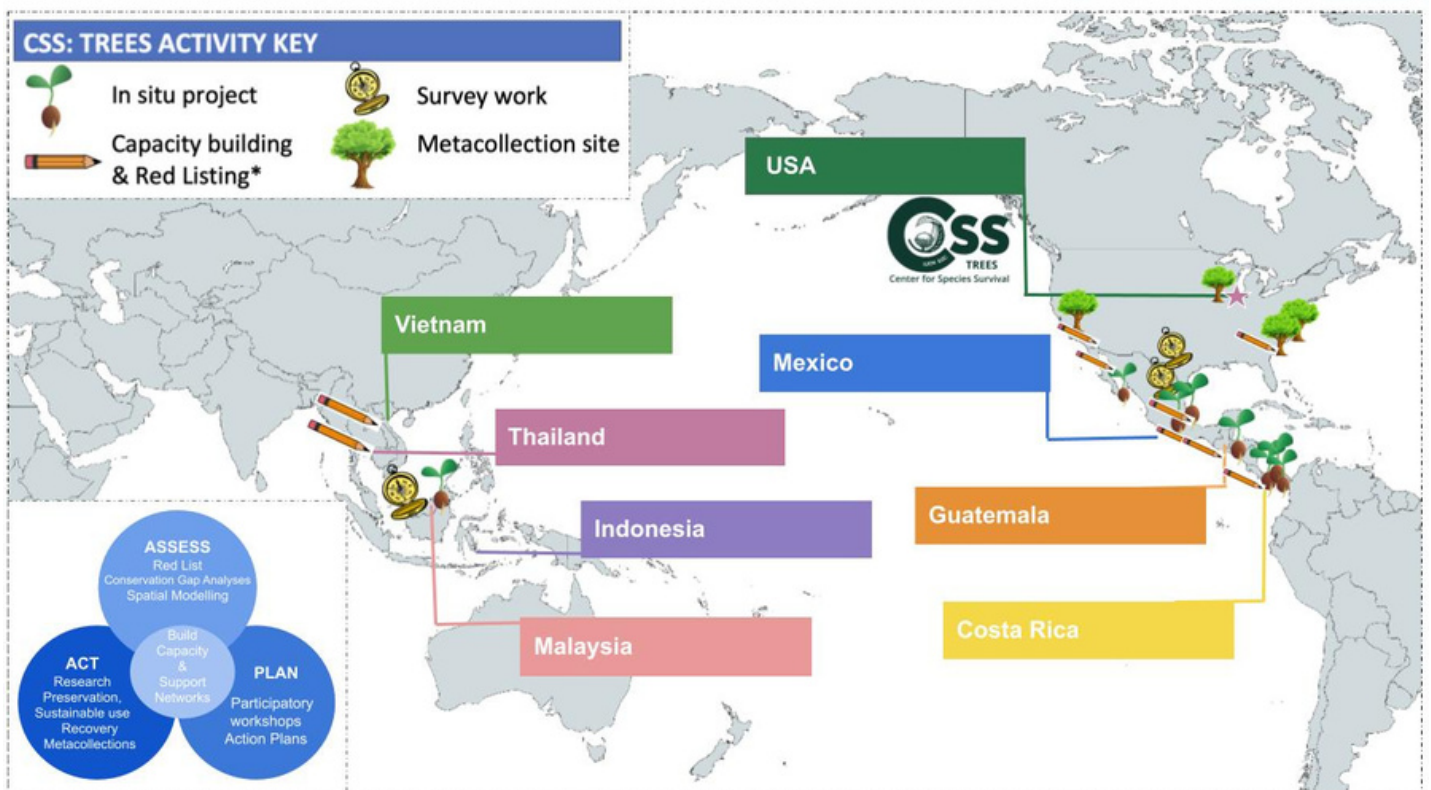
The Center for Species Survival addresses the urgent need to make trees a priority in addressing the global biodiversity crisis. Staff will work alongside the GTSG and partners around the world to improve data and knowledge about the biodiversity crisis through assessments of threats to trees, conduct on the ground research, and build conservation capacity in biodiverse regions such as Mesoamerica and Southeast Asia.

Its work encourages connections between researchers and conservation practitioners, convenes networks of institutions and other stakeholders that can act for trees, and raises public awareness of the importance of and risks to trees.

During the first three years, most of the work conducted at the Center will occur in the U.S. and in tropical and subtropical regions of the world where most threatened tree species grow.

PLAN - Center manager and Conservation Action Planning Specialist in-training Amy Byrne works to develop species recovery plans through participatory process with stakeholders. Following the standards of the IUCN CPSG, Amy is working to identify threats and needed actions to conserve, manage and recover at least 12 species of oaks in the U.S., Mesoamerica, and SE Asia, and support similar processes for at least five other co-occurring threatened tree species.

ACT- The Center leads and supports conservation research and action with in-country partners to manage and recover tree species while promoting sustainable livelihood for local people. Currently, the Center has on-the-ground projects with partners in the U.S., Mesoamerica (Mexico, Guatemala, and Costa Rica), and SE Asia (Malaysia and Indonesia; Figure 2). Parallel to these efforts, the Center collaborates with the botanic garden network to promote and support ex situ conservation collections that offer a last safeguard against extinction and ensure genetically diverse and representative plant material is available for research and restoration efforts. We call these coordinated networks Metacollections. We currently focus these efforts around oaks (genus *Quercus*) in collaboration with Botanic Gardens Conservation International and their Global Conservation Consortia program.



Activities led and supported by the Center for Species Survival: Trees. *Red list training currently focus mostly on oak (*Quercus*) biodiversity hotspots but species assessments are conducted at a global scale.

With one third of all tree species under threat of extinction, there is an urgent need to scale up conservation action focused on trees. The new Center for Species Survival will contribute to elevating this important group to the level of other charismatic taxa such as mammals and birds, and to raise awareness of the importance of trees to mitigate and reverse the global biodiversity crisis.

Article prepared by Silvia Alvarez-Clare, Amy Byrne and Kate Good. For more information about the CSS: Trees visit mortonarb.org/css-trees or contact Amy Byrne (abyrne@mortonarb.org)

Spotlight on a GTSG member: Emily Beech



Perhaps it is nominative determinism, but I have always wanted to work with trees.

I started working for BGCI 9 years ago as an intern and remember typing the first tree names into what would become GlobalTreeSearch and ThreatSearch databases. Without much knowledge of species names, I definitely made some spelling mistakes.

Assessing the world's tree species, The Global Tree Assessment, was a goal that was conceived before we knew how many species of tree there were! We spent two years compiling over 500 sources to create GlobalTreeSearch which was launched in 2017.

Using the list as our basis, assessments went full steam ahead. Through an IUCN initiative, we assessed the trees of Europe, with a whole workshop focusing on the Rosaceae genus Sorbus (rowans and whitebeams).

My first trip outside Europe was to Tanzania, helping to run botanic garden management training in Dar Es Salaam before heading to Kilwa in search of *Karomia gigas*. Next to Haiti to run IUCN Red List training and assessment workshop. In 2018, a large CEPF project was initiated to assess the amazing tree diversity of Madagascar, with over 2,900 endemic tree species. Running a series of IUCN Red List trainings and assessment review workshops, over three years we assessed all of the endemic trees and published the Red List of Dry Forest Trees of Madagascar (2020) and the Red List of Trees of Madagascar (2021). Since then, I have coordinated Red List assessments with colleagues across Central and South America, the Caribbean and the Pacific.

The best thing about working on this project is the people I work with and everyone I have met across the world, virtually or in person; people who have shown us the incredible hospitality, shared their expertise and organised immensely productive workshops. Shout out to all the GTSG members who have made working on this project a pleasure and a privilege.

Some chance meetings have led to some invaluable outputs. For example, I was contacted by Stefan Jänicke who had used the GlobalTreeSearch data to create a visualisation, by email, asking if we were interested in displaying it on our website. Several years of collaboration later, we launched the GlobalTree Portal, designed by Stefan, providing tree species conservation information on a species, country and global level.

With the assessments almost completed, the next step must be action. With more than 30% of the world's trees threatened with extinction, I hope we can use the GTA results to enact positive change to protect these rare species from extinction.

Keep in Touch

Please let us know what you have been up to and share news with the Group!

Drop us an email (redlist@bgci.org)

Follow Global Tree Assessment Progress on X [@GTA_GTSG](https://twitter.com/GTA_GTSG)

Check out the [GTA website](https://www.bgci.org/global-tree-assessment/) for updates

