

NEWSLETTER

#2-March 2021

We are delighted to share the second issue of our newsletter with you. An issue will now be published each quarter with a wider distribution that will include our partners.

Our aim is not just to share about the life of the foundation, but also to highlight the achievements of our beneficiaries, and to gather recent information on tree conservation (scientific articles, conferences...) that could be useful to them. An edition in both French and English will now be available.

Whilst it would be impossible to share information related to all the projects, we will make a selection according to the quality of the information received and their accessibility on the internet.

Our priority will be to vary the newsletter content each quarter with the most relevant issues in different regions of the world. We strongly encourage all our beneficiaries to share progress, discoveries or publications with us, so that this information can be shared through this channel.

Enjoy reading it!

ACTIVITIES OF THE FOUNDATION

- Following our last call for projects, we received about one hundred proposals. All of them have been studied by the Secretariat and the members of the Foundation's Experts Committee. The Committee will meet on March 26th to make a selection which will be submitted to the Foundation Board for a decision in mid-April. The Secretariat will then contact the shortlisted projects with the Foundation's comments.
- The first quarter of the year is also a busy period for the Secretariat with the review of numerous annual reports. These are carefully read and discussed with the grantees. Impact data is also collected to be aggregated to assess the total impact of the foundation. This data will be published in a future issue, after validation by the Foundation Board.
- For your information, the list of projects that we support is available on our website. We strongly encourage projects in the same region to establish collaborations and we can assist in making contact if necessary.

NEWS FROM THE PROJECTS

Brazil - Atlantic Forest

NYBG



The Foundation supports several projects in Brazil that involve a large number of threatened species, including species whose population is reduced to only a few individuals. This

is the case for a project implemented by the New York Botanical Garden, the University of Bahia and FlorestaViva that tries to preserve *Andreadoxa flava*, the only species of the genus *Andreadoxa* with only one individual left. To learn all about one of the rarest trees in the world, see the video.



Our partners from Osa Conservation, based in the Osa Peninsula on the Pacific coast of Costa Rica, have been very active in the field but also with communication and knowledge sharing. They are trying to conserve several threatened species including *Pleodendron costaricense*, a tree species described only 15 years ago and of which only 4 individuals are known. To know everything about this work, but also about the more global context of conservation of threatened trees, read the Mongabay article.

To learn more about the Osa Peninsula, the impact of covid on tourism and its

repercussions on people and nature, read the National Geographic article.



Hawaii





With 10% of endemic species already extinct and about half threatened with extinction, especially by invasive species, the islands of the Hawaiian archipelago are one of the places on the planet with the greatest threats of species extinction. The National Tropical Botanical Garden of Hawaii has been trying to stem this tide of extinction for several decades. To learn more about their recent efforts, read this article.

Yemen





Frankincense trees (Boswellia) are species intimately linked to human history for millennia and economically important; they are currently threatened with extinction on Socotra Island, Yemen, a UNESCO World Heritage Site. Mendel University is leading conservation efforts that aim to increase the resilience of these species, which represent a unique evolutionary group of island trees of invaluable ecological and cultural significance. To learn more about these species, the threats they face, and this World Heritage Site, read this article.

South Africa EWT



Warburgia salutaris is listed as Endangered, both nationally and globally, due to the illegal and unsustainable harvesting of its bark, which is widely used in traditional South African medicine to treat flu, diarrhea, burns and other ailments. Click here to learn more about Endangered Wildlife Trust's conservation efforts on this iconic tree.

Cambodia



Around the world, wildlife poaching generates an extremely lucrative trade. Currently, the illegal trade in precious woods is raging in the forests of protected areas in Indonesia, Cambodia, Laos and Myanmar. The Foundation supports a project led by Wildlife Alliance that aims to dismantle groups linked to deforestation and poaching of wild animals and flora within the vast Cardamom mountains that cover more than 20,000 km². In 2020, Wildlife Alliance conducted 492 patrols, covering a total of 19,750 kilometers and protecting 23 threatened tree species in over 129,573 hectares of primary forest. To learn more about the activities of Wildlife Alliance, read this article.



Botanical gardens, arboreta and conservation

The expertise of botanical gardens is essential to preserve the world's flora and to ensure that tree conservation efforts are successful. Their work in gathering knowledge is irreplaceable and their commitment to the conservation of life on earth is a real necessity. It is in this spirit that the Foundation funds the work of a number of botanical gardens and arboreta around the world. Botanic Gardens Conservation International, the world's largest network of botanic gardens, is a long-time partner of the Foundation and one of its largest beneficiaries, notably in the implementation of the assessment of the 60,000 tree species for the IUCN Red List (Global Tree Assessment) as well as in the response to the extinction crisis that the Global Trees Campaign is trying to bring about. BGCI recently announced the creation of a fund dedicated to tree conservation with a video that can be seen here: www.treeconservationfund.org.

Also note that ArbNet, the network that unites arboreta, coordinated by the Morton Arboretum in the USA, will soon celebrate its 10th anniversary with a conference in September 2021.

Tree assessments BGCI

A milestone was reached earlier this year when half of the tree species were included on the IUCN Red List of Threatened Species. More than one third of the assessed species are threatened with extinction. Over the past two years, nearly 20,000 species have been assessed with the help of hundreds of experts, including those from the IUCN Species Survival Commission. This represents a unique effort in the history of the Red List for a given group of species. This project, coordinated by BGCI, is fundamental in identifying threatened species, causes of threats, knowledge gaps, and priority conservation areas, particularly those where threatened species are concentrated.

BGCI will be hosting a webinar to launch their latest report "The Red List of Trees of Madagascar" which covers over 3,000 tree species. They will be joined by members of the assessment teams of Kew Madagascar Conservation Centre and Missouri Botanical Garden Madagascar Program to talk about the results and their implications for the conservation of trees in Madagascar. The webinar will take place on the 31st March at 12pm BST. It is free to join and you can register here.

RECENT PUBLICATIONS AND CONFERENCES

• Ten golden rules for reforestation.

The Foundation welcomes the publication of these rules; most ongoing projects implemented by the beneficiaries of the Foundation largely follow them already. Most of these rules were mentioned in the guidelines accompanying calls for proposals but we shall fully incorporate them in the future. We hope that all large tree planting efforts will adopt them to protect biodiversity, enhance carbon capture and benefit people. To access the paper, click here.

• Tree planting conference

Franklinia was one of the supporters of the conference "Reforestation for Biodiversity, Carbon Capture and Livelihoods" successfully organised by Kew Botanic Gardens and BGCI on February 24-26, with the objectives of creating a global hub of expertise and new ideas on reforestation. The conference was joined by thousands of people and a number of our partners were represented advocating for a better integration of biodiversity issues in tree planting initiatives. A declaration is being finalized with the goal of influencing reforestation programmes around the world. The conference site is here.

• Great Green Wall and past mistake

The "Great Green Wall" was launched in 2007 by the African Union and received new attention recently following the announcement of new large financial pledges. The following paper published in Science reminds all that tree planting is more complex that simply digging a hole and that many tree planting projects failed. A fresh look at past mistakes is indeed needed.

Trees and climate change

Climate change and heat waves are often seen as bad news for trees, but this article brings attention to potential benefits of heat waves on native trees in Australia. These can have an important impact on parasites and pathogens and can therefore have a curative effect.

Report on deforestation

Franklinia's focus is on threatened tree species and, of course, deforestation is the key driver of extinction for trees. This report by WWF is dedicated to deforestation fronts, with maps of deforestation on each continent as well as an analysis of drivers and responses.

The full report is available <u>here</u> and a summary available <u>here</u>.

Genetic diversity

We often ask our partners about the level of genetic diversity when collecting seeds and growing them in nurseries. This publication explains why this is a crucial aspect of long-term project success and restoration of resilient ecosystems. This is an issue that animal conservation has been careful to consider for decades; protocols exist for plants as well and should be systematically implemented.

Further practical advice on how to increase the genetic diversity of seedlings that will be reintroduced into their natural environment is available on the <u>Global Trees Campaign website</u>.

Why do plant grow vertically?

<u>This recent study</u> explains the mechanism and how plants peculiar sensors called statoliths sediment at the bottom of the cells allowing to detect inclination. The mechanism is not yet fully understood but our understanding progresses.

Mapping trees thanks to satellites

New technologies are often presented as the solution to solve our planet's ecological problems. Drones and satellites are promising tools when it comes to forest conservation. While they will never replace "boots on the ground" and conservationists' technical expertise, they may prove very useful tools. This paper describes progress towards mapping every tree on Earth.

Conservation of ash trees

The emerald ash borer (*Agrilus planipennis*) is responsible for the death of hundreds of millions of ash trees across half the North American continent causing tens of billions of dollars of damage. <u>This article</u> presents various efforts to save ash trees from breeding effort to biological control.

Research and monitoring versus action

Funds to combat biodiversity loss are insufficient, requiring conservation managers to make trade-offs between costs for actions to avoid further loss and costs for research and monitoring to guide effective actions. This analysis of species' proposed recovery plan budgets showed that an average of 50% is allocated to research and monitoring. In addition, overall, species with higher proportions of budgets allocated to research and monitoring have poorer recovery outcomes. For some species, plans have allocated the majority of funds to information gathering for decades. A careful examination of the value of collecting new information is needed.