

SEANSRF Times

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“People who are crazy enough to think they can change the world are the ones who do.”



Scientists estimate that we are losing one species of plant or animal every 20 seconds...that adds up to over 25,000 species every year! Gone FOR-
EVER!

We all know that biodiversity is disappearing at an alarming rate.

It's urgent and important, yet we feel helpless.

But we don't have to!

SOLUTIONS;

- What if there are innovative and effective methods of education, research and conservation that DO address reseeding, replanting, re-greening our planet?
- What if this solution is a template “Made in Thailand” to inspire the whole world?
- What if this solution includes creative education programs which really inspire our children to learn?
- What if this is all already happening?
- What if you could be part of this community?

In this issue

Change the World!	P.1
Mission critical.....	P.2
Accomplishments.....	P.3
Education.....	P.4
Research & Conservation..	P.5
Support.....	P.6

SE Asian *Nepenthes* Study & Research Foundation's

mission is to conserve critically endangered fascinating and unique carnivorous plants species through conservation, research and education. But our programs can be applied to any species.

We have solutions! While our conservation projects have developed highly successful methods of propagation of these challenging-to-grow plants, like almost any other endangered species, if we simply return them to Nature they are likely to just be lost again to poaching or development. The only way forward is through coupling conservation with education.



We have been applying ourselves to these tasks for the past 6 years with remarkable results. And we want to do MORE, but we need your help! Six years ago we set some intentions for a vision to make a difference to the rapid decline of these species, and we made what seemed a nearly-impossible set of goals:

- To act as an independent and effective vehicle to inspire, coordinate and realize projects to conserve these species
- To use these amazing species to expose and engage children in learning the scientific principles of botany and biodiversity conservation
- To focus on finding pure genetic material of the most critically endangered species and successfully propagating these from seed before their genetic diversity completely disappears
- To create a series of effective, community-managed habitat preserves in these species' natural territories
- To engage a esteemed member of Thai society to ensure these habitat preserves are respected
- To communicate with scientists, researchers and conservation organizations on the highest level to share information and list species on the "IUCN Red List of Endangered Species"

Well, we've been able to do all of that, and more!



***SEANSRF Student Nepenthes presentations to
HRH Princess Maha Chakri Sirindhorn***

- We have created and received Royal Thai Government recognition and approval of a foundation to inspire, coordinate and realize goals to conserve these species in Thailand
- Engaged HRH Princess Maha Chakri Sirindhorn, Thailand's champion of Science and Education through our persistent and successful education programs
- Created, established and implemented school programs working with children and their engagement with biodiversity conservation (and much more!) throughout Thailand
- Formed working alliances with the National Science & Technology Development Agency, Sirindhorn Science Home (Children's University), Princess ICT program, Thai Universities, and International conservation organizations
- Created gene banks of the most critically endangered species, in some cases even doubling the total number of known pure species plants on the face of the earth!
- Our activities have been the subject of nationally televised programming and newspaper stories.

SEANSRF strives to increase Thailand's national conservation capacity by developing networks capable of inspiring the country's future leaders - its youth.

Education

Since 2010 we have worked with HRH Princess Maha Chakri Sirindhorn's education projects in schools throughout Thailand to bring 21st century skills to classrooms around the country. We use students' *Nepenthes* studies as the vehicle to all sorts of science curriculum; botany, chemistry, biotechnology, internet technology and English language to name just a few.



'Hands-on' learning programs

We provide Thailand's youth with education programs that transform the learning experience with 'hands-on' science education programs that inspire joy in the discovery of learning. Through our teaching curriculum, Science camps, 'Botany in School' internet social-learning network (with over 1,300 members) and National science exhibitions we have affected schools and students all over Thailand and with great results! Students have responded by applying themselves to their education with a rarely seen enthusiasm, using their *Nepenthes* projects to win awards in National science competitions, acceptance into Universities and in many cases full 4-year scholarships!

Beyond these benefits, students have provided us with a gateway to their own communities, first through their parents and then their neighbors. In 2014-2016 we aim to expand this process by seeking the wider society's inclusion in our community-managed endangered species habitat preserve programs throughout the country. Few opportunities exist for the youth of the country to participate in and experience meaningful conservation dialogs and actions, leading to a lack of student interest in pursuing higher education studies for careers which would strengthen Thailand's conservation capacity. This in turn, has created a shortage of trained scientists working on the problems, little inspiration and few resources for our society to gain awareness of, or change, its damaging habits. We want to continue to change all that and make Thailand the World leader in effective plant conservation programs!

Research & Conservation;

SEANSRF has joined forces with the world's most highly regarded conservation authorities, Thailand's National Science and Technology Development Agency, Sirindhorn Science Home and Universities around the country. We have participated in the location of and data collection for the last remaining colonies of Thailand's most critically endangered endemic *Nepenthes* species. This data is presented to the International Union for the Conservation of Nature (IUCN), the world's foremost conservation authority, for inclusion on the IUCN Red List of Endangered Species. The Red List comprises the most highly regarded source of information on the World's species' conservation status. In July of 2013 we were pleased to see our efforts result in the publication of Thailand's very first 'Red Listed' *Nepenthes* species, *N. suratensis* as "Critically Endangered".

(See; <http://www.iucnredlist.org/details/full/21848236/0>).

Over the last 4 years we have also done annual seed collection trips to the site, carefully collecting seed to ensure there remains a wide base of genetically diverse material for propagation for reintroductions from this last dwindling colony. Artificial seed germination experiments have been carried out in SEANSRF facilities and in tissue



N. suratensis 'Gene Bank'

culture labs here in Thailand to develop a strategy that can be applied to conservation of other species throughout the region. These efforts have now resulted in a more than doubling of the total known plants of *N. suratensis* remaining in the World! Additionally, we have started preliminary work with numerous of the other species we feel are the most critically endangered.

Research & Conservation (Cont.);



N. mirabilis var. globosa

Nepenthes mirabilis variety globosa is another Thai endemic species found nowhere else in the world. Only officially described in 2010, it is believed that most of the remaining representative colonies of this species growing along shorelines of the Andaman Ocean were destroyed by the Boxing Day Tsunami of 2004. Researchers have discovered only two remaining colonies and only one of these consists of 100% pure *N. mirabilis var. globosa* plants usable for species reintroduction and augmentation programs.

The colony growing on the grounds of the Prince of Songkla University – Trang Campus was slated for destruction late in 2012 in the development process of a palm oil plantation. Efforts by SEANSRF and our partners to educate the involved parties as to the significance of this colony resulted in the cancelation of the proposed lease.

Based upon encouragement by HRH Princess Sirindhorn, the Director of the National Science and Technology Development Agency and the President of Prince of Songkla University SEANSRF has proposed the “Princess Maha Chakri Sirindhorn/Prince of Songkla University *Nepenthes* habitat preserve”, one of four such community-managed preserves to be developed as soon as possible.

Community Action;

In our plans for the 2014-15 program, students in targeted communities will identify and prioritize conservation issues facing endangered *Nepenthes* species in their area and we will work with community members to plan and implement community service project activities individually designed by each school in accordance with local conditions and community needs. We will involve students with their own communities in hands-on science projects actually assisting researchers and conservationists as they participate and gain experience in a process that develops leadership skills and strengthens organizational capacity to envision, create and successfully implement high quality conservation education and sustainable resource management projects giving students first hand participatory experience in working on such programs.

Where are we now?

Until now we have done all of this with our own private funding and a few personal donations...and we are not done! But, we have reached a stage where we can no longer afford our rapidly expanding budget for programs in research, education and conservation. We need to hire teachers, project coordinators, fund raisers, purchase equipment, fund the development of training curriculum materials for participating schools/communities, print textbooks, hold community meetings and it all costs money.

How can you help?

We are honored to have recently been granted the assistance of Thammasat University who will accept tax deductible donations on our behalf. Due to their status as an educational nonprofit institution, donors to Thammasat University will receive a receipt allowing for a 200% tax deduction credit. This means that your generous donation to SEANSRF's education and conservation programs will not only allow us to continue to benefit Thailand's children's education and Biodiversity, but at the same time reduce your own, or your company's, tax liability in effect; costing you nothing! We hope this exciting development will inspire businesses, individuals, organizations and especially you to assist us to continue to prove that together we can change the World!

What else can you do?

Tell others/your organization/a local school about us
Help us fundraise
Support a fundraiser at your organization

For further information and to make a donation;

Help us change the World!

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