

ANNUAL REPORT: THE NEXT CHAPTER FOR MAP

FY 2015

TABLE OF CONTENTS

Contents

From the Executive Director	1
Marvellous Mangroves Curriculum	3
Community-Based Ecological Mangrove Restoration	5
International Advocacy and Outreach	10
Children's Mangrove Art Calendar	12
2015 Funder Acknowledgement	13
Financial Summary	14
MAP Staff and Board of Directors	15

From the Executive Director

2015 was another significant year for both MAP and the mangroves. MAP's workload greatly expanded and some added new staff helped ease the otherwise unwieldy burden of work overload. Sara Lavenhar took on the position of Outreach and Development Coordinator, while also managing MAP's new office in Seattle. She was formerly working on MAP's Question Your Shrimp campaign as an intern, but moved into the important niche of helping build MAP's organizational capacity via her part-time position. In Thailand, the MAP Asia office hired Pimaaksara (Pick) to take on the newly created position of Office Administrator. Her role will significantly reduce the workload for the other staff in Thailand. Both of these new staff positions have received a generous 3-year grant from the Samworth Foundation aimed at strengthening MAP organizationally.

In regards to the mangroves, mounting evidence further revealed the enormous value and benefits of mangrove ecosystems that nurture our oceans, sustain biodiversity and local communities, while also combating climate change by sequestering and storing massive amounts of carbon- five times the amount stored by inland tropical rainforests. As well, mangroves support over 200 million coastal fishers who depend upon these coastal wetlands for their lives and livelihoods.

Yet, further mangrove loss continued throughout 2015 at the same annual rate of around 1%, or 150000ha lost each year. We at MAP are increasing our efforts to address the reasons for this ongoing loss, hoping to not only halt it, but also to reverse it through implementation of effective mangrove conservation and restoration measures.

I personally witnessed the sad plight of an abandoned shrimp farm where mangroves were recolonizing along the pond's inner edges, but these returning mangroves were instead bulldozed as we helplessly watched. This was in a declared Ramsar site in Honduras which MAP's team was planning to use as a demonstration site to help teach workshop participants Community-based ecological mangrove restoration (CBEMR) techniques. There were many such abandoned shrimp farms in Honduras, and we hoped to begin the healing process utilizing CBEMR as the best-practice approach. However, we were "beat to the punch" by the local government and shrimp farm industry that colluded to take steps to reopen the illegally sited shrimp farm by bulldozing the returning mangroves and reshaping the pond the same day that we arrived to check out the site for the workshop.

This represents a lost opportunity to restore our planet's threatened mangroves. Yet, we managed to make the best of a bad situation and found another site to conduct a CBEMR training exercise at a bird sanctuary in the Gulf of Fonseca. So, in the end, we managed to teach those participants the principles of mangrove restoration and commenced a demonstration CBEMR project at another location where it was needed.

I bring this example up because it illustrates the struggle we are in to save the mangroves from ongoing unsustainable development. But it also shows the importance of sheer perseverance in this struggle, which

FROM THE EXECUTIVE DIRECTOR

we still believe will win out in the end. Mangroves are no longer so remote and maligned in misconceptions as "muddy, mosquito-infested wastelands!" There is a genuine awakening of both scientific and general public sentiment concerning mangroves today, and this gives rise to hope that after 24 years of dedicated work, we are witness to a remarkable change which could well lead to a reversal of that still dangerous 1% loss rate.

And towards that end, MAP has developed effective tools to further the goals of mangrove conservation and restoration via our proven track record with CBEMR and the Marvelous Mangrove (MM) Curriculum. More people living in the mangrove areas are learning important lessons that improve the overall approach to mangrove conservation and management. CBEMR is bringing local communities more clearly and effectively into the picture of restoration and resource management. And our MM Curriculum program is reaching the next generation of decision makers who will be so much wiser in the care and sustainable use of our planet's otherwise diminishing coastal resources.

We at the Mangrove Action Project (MAP) realize the need to expand the level of our work to meet the immense challenges we now must face! We greatly appreciate all those who have supported us, as you really do have a huge impact on our projects and us. We sincerely hope that our program updates and visions for the upcoming year will excite and convince you to participate as best you can to help MAP Save the Mangroves.

alpedo Quanto

Alfredo Quarto Executive Director [Date]

MARVELLOUS MANGROVES CURRICULUM

Marvellous Mangroves Curriculum

A busy year saw MAP's Marvellous Mangroves (MM) curriculum making the big time in three Asian countries, with preparation for three more countries in the coming year. <u>The year began in Khulna</u>, <u>Bangladesh, with an exciting 5-day teacher's workshop</u> including a 3-day trip to explore the Sundarbans mangrove forest led by MAP's Education Coordinator, Martin Keeley.



Teachers identify mangrove species in Shenzen

The summer started in Hong Kong with a visit to the Mai Po mangrove wetland Nature Reserve on the border with Shenzhen in Mainland China. Crossing the border and under the sponsorship of the Shenzhen Mangrove Conservation Foundation (MCF) and the Chinese Mangrove Conservation Network (CMCN) saw a full 3-day workshop with 36 teachers from the Shenzhen area and Guangdong Province. This workshop culminated in a field trip to the Shenzhen Mangrove Nature Reserve.

This workshop was also held in conjunction with the newly formed Dandelion Education Promotion

Centre (SEED) environmental education NGO based in Shenzhen founded by two teachers who took the MM workshop in Xiamen in 2012/13: James (Jie Zhang) and his wife Blue Star (Ying Pu). A second one-day workshop was also held in Shenzhen in conjunction with the Yantian Foreign Languages School's Ecological Education Centre. Two major presentations were also completed. Several MM workshops in the Guangdong region took place in December and more workshops are planned for 2016. The CMCN recently appointed Mr. Keeley their Honorary Advisor of Environmental Education for his "outstanding achievements in environmental education."

Following the summer Chinese workshops, Mr. Keeley led a follow-up 3-day MM workshop in Khulna, in conjunction with partner the Coastal Livelihood & Environmental Action Network (CLEAN). Following the same pattern as the Khulna workshop held in January, teachers and students from six local rural schools attended. This time many of the activities were run by the teachers and students who had participated in the first workshop.

These "lead" teachers and students were chosen as leaders in the activities, and all of them were key participants and organizers in the "Mangrove Clubs" which CLEAN and MAP have established at the six schools, and which meet regularly at each school to study mangroves and act as a basic Science Club.

MARVELLOUS MANGROVES CURRICULUM

Two more microscopes were also donated for the use in the Mangrove Clubs, one specifically to the Comrade Ratan Sen Collegiate Girls School, which was established to provide a good education for girls from the poorest of families in the Sundarbans region near Khulna. US\$60.00 will provide a light-source, 30-hour rechargeable LED microscope, and several MAP members have already contributed to this project.

After the Khulna workshop Martin Keeley, together with CLEAN executive director Hassan Mehedi, travelled to Odisha, India, where they met with members of the CHALE CHALO and MANGRO group who are MAP's partners in the translation and adaptation of MM for use in Odisha, India. Based near the town of Pattamundai, the CHALE CHALO center has well-established roots in the communities and schools of the area, as well as successful restoration projects also carried out in conjunction with local communities. CLEAN's Hassan Mehedi is already assisting the Working Group that has taken on the translation/adaptation process. The Working Group established during a two-day mini-introduction workshop involving about 25 teachers and students.

Work on translating and adapting MM for Suriname was begun and is underway in conjunction with our partner there, **Stg. Ontwikkeling Radio & TV Suriname** (SORTS), under the direction of Ms. Loes Trustful.



Students identify mangrove leaves in Bangladesh



Mangrove Club members at Comrade Ratan Sen Collegiate Girls School receive microscopes

Since the inception of Marvellous Mangroves in the Cayman Islands, MAP's mangrove curriculum has been translated, adapted and introduced to eleven countries worldwide, with more than 3,000 teachers and over 250,000 students taking part in this invaluable education program. Three countries – India, Haiti and Suriname – are on the schedule for completion in the coming year. Funding from the Disney Worldwide Conservation Fund, the Singing Field Foundation and our associates the Mangrove & Reef Education Association, has been critical in the completion of both adaptations and translations.

Our new video all about MM has now over 2000 views on YouTube: <u>https://www.youtube.com/watch?v=Eq1D0h4YFQE</u>. And we will shortly be launching an exciting new interactive multilingual MM website later in 2016 – stay tuned.

Page 4

Community-Based Ecological Mangrove Restoration

MAP-ASIA

In Thailand, MAP-Asia completed its program work with Global Nature Fund (GNF) from Germany working on restoring abandoned shrimp farms in Thailand. The year began with a workshop and study tour that brought together 20 community members from four villages taking part in the GNF project; the workshop and tour were designed to discuss livelihoods and exchange experiences on the practice of CBEMR. Of particular note during this workshop was apiculture. Participants noted how beekeeping and honey production made obvious the connection between the sustainable management of the mangrove and the

benefits people could derive from it for their livelihoods.

Honey and beekeeping continued to be an important focus throughout the year. In April, MAP-Asia staff co-organized a workshop under the GNF project support with 5 trainers from the "Office of Extension and Training on Economic Based on Insect-derived Products of Chumphon Province", a branch of the Department of Agricultural Extension of Thailand. The workshop focused on products made with honey and bee wax and trained about 35 participants of the bee-raising livelihood group of Ban Nai Nang, Krabi province.



Community members were shown how to make the products by actually producing them. Here, they were busy helping in the cooking phase which involved a lot of stirring.

In celebration of World Earth Day in April, MAP-Asia held a two-and-a-half-day environmental education and community development camp in Bang Kang Kao community, Trang province one of the GNF sites. The objective of this camp was twofold; provide the Bang Kang Khao School with mangrove awareness display exhibits and expand the environmental education knowledge of 21 students in years four and five, with a focus on mangrove ecosystems. The main learning goal was for students to understand the benefits that mangroves provide by learning from facilitator experts and local community people who have direct firsthand experience.

For World Environment Day, MAP participated in a large half-day environmental event for grade 7-9 students in Krabi with GNF support, along with other groups such as RAKS Thai and government agencies. The event was hosted by the Krabi Provincial Administrative Organization and was attended by over 2000 students. To raise awareness amongst the students on what MAP does for the community and environment staff conducted fun and educational, question and answer games complete with prizes.



With the help of MAP staff member, Khun Chay, students were able to find the answers to questions on World Environment Day by using the banners, their own personal experiences and analytical skills.

Mangrove Restoration Guide

As part of the GNF's project "Mangrove Restoration and Reforestation in Asia, a

Project for Knowledge Exchange and Action to Reduce Climate Change, and Protect Forest Biodiversity", MAP-Asia contributed significantly to the created of the Mangrove Restoration Guide: Best Practices and Lessons Learned from a Community-based Conservation Project. GNF's project involved organizations and communities in Sri Lanka, India, Cambodia and Thailand over the past four years.

Said Jim Enright of the handbook: "Considering that CBEMR was not part of the original project proposal, I think we've managed quite well in getting CBEMR incorporated into the project, starting with a training at the inception workshop. I believe all partners learned a great deal how to improve their own mangrove planting efforts using CBEMR knowledge and two of the four partners undertook CBEMR projects. CReNIEO who works at Pulicat Lake in India have made CBEMR a major component of their mangrove restoration efforts."

The Guide provides an engaging and comprehensive overview of the CBEMR method, and highlights the necessity of community involvement in sustainable, long-term mangrove management. It is the culmination of many years of hard work on the part of our MAP-Asia staff, and shows some good progress towards evidence-based restoration activities.

The full guide is available online here.

EPIC

Work continues with the IUCN's Environment Protecting Infrastructure and Communities (EPIC) program, which is focused on Disaster Risk Reduction efforts in typhoon and tsunami affected nations in Koh Klang, Thailand. MAP-Asia kicked off 2015 with volunteers from Projects Abroad, an organization that has worked with MAP for several years on restoration sites. Volunteers throughout the year assisted with minor construction projects, sedum transplanting to reduce erosion, and hydrological improvement.

In March, MAP Asia, with assistance from Raks Thai (CARE Thailand) Foundation, hosted a visit for members of IUCN (International Union for Conservation of Nature), DMCR (Department of Marine and Coastal Resources) and people from the local communities. The representatives visited five sites over two days as a key component of MAP's EPIC project. This informal meeting provided the opportunity for MAP and IUCN to discuss the progress of the project and determine the next steps for the rest of the year.

The main objectives of this visit were to show real examples of restoration projects and help to increase the understanding of their failings or successes, hoping that lessons can be learned and integrated into future restoration, management and policy.

In an ongoing effort to promote best practices, in April MAP-Asia tested transplanting *Sesuvium portulacastrum* along the pond bank of one EPIC site to help stabilize the bank slope and trap mangrove seeds. MAP-Asia has been conducting a new experiment on what conditions of ground surface that will allow the establishment of the volunteer seedlings inside the pond by creating 6x6m fixed quadrat of 4 different applications. The results of this experiment are forthcoming.

In May, scientific monitoring began on the two EPIC sites in Koh Klang. Monitoring is a key piece of the CBEMR method, and it is vital to the success of a restoration project. Without adequate monitoring, it is impossible to address any potential issues that may arise at a given site. The monitoring will also allow MAP to understand how mangroves return to an area and what conditions allow the establishment of the most volunteer seedlings. It is critical to understand how different conditions affect the speed and success of restoration in order to continually improve practices of restoration worldwide.

CBEMR TRAINING IN HONDURAS

MAP conducted a second workshop in San Lorenzo, on the Gulf of Fonseca in Honduras, during February, supported by the US Wildlife and Fisheries Service. The workshop was led by MAP advisor and colleague Dominic Wodehouse, who was assisted by Alfredo Quarto, MAP's executive director and Jorge Varela of Honduras, who acted as our local coordinator for this project. The workshop was designed to produce a group of proficient Central American mangrove workers, providing them both a theoretical understanding and practical experience of MAP's CBEMR techniques. 25 participants attended the workshop, most from Honduras, but some from El Salvador and Nicaragua (The Gulf of Fonseca borders all three countries).

The 8-day, practical workshop took on a well-known local tourist attraction, Isle de Pajaros, whose mangroves have been suffering from poor hydrology, cutting pressure and limited natural regeneration. Using techniques learned in the initial, more theoretical session, the latter practical workshop studied these issues and attempted to improve the condition of the island and the hydrology in particular.

The workshop intended to use the 1000th Ramsar site and protected wetlands of international importance as the demonstration site, showing techniques used to restore an abandoned shrimp pond. However, despite assurances from the government, these two ponds were actively being taken back into shrimp production at the very start of our workshop in San Lorenzo. Not to be deterred, the team chose Isle de Pajaros (Bird Island) as an alternative site for a demonstration restoration project. Isle de Pajaros is a local tourist attraction, famed for its bird nesting colonies. Local members of the training group understood that the island's central mangrove area was not healthy because of the accumulation of standing water that was drowning the mangroves on the island's upper reaches. The whole island was suffering from this obvious hydrological blockage, as well as uncontrolled mangrove cutting for fuel wood and accumulated trash from visiting fisherman and tourists. This initial visit confirmed that the island was experiencing several challenges.

The workshop participants were able to apply their learned knowledge of CBEMR principles on the island by removing the trash, dead leaf litter and branches that were blocking the natural waterway and causing the pooling of trapped water around the base of the mangroves. Participants dug out the silted up waterway, and were able to restore a healthy drainage and flow, thus allowing the dying mangroves to "breathe" again through their exposed root systems.



Participants digging out the silted up waterway

At this interim stage it is too early to tell whether the hydrological work will make an impact. However, the training workshops were very well received. Arrangements are being made for the island's continued monitoring and evaluation by local participants, and a 2nd more advanced CBEMR training is being planned for the area. Follow-up monitoring and assessment was carried out over the last year by two "Guadarecursos" or "Mangrove Rangers" who were participants at

the workshop and who were commissioned to undertake an important monitoring ad evaluation of the restored site over an extended time to ensure project success. The two "rangers" also organized local community talks and educational events to raise conservation awareness among surrounding communities.

Jorge Varela, who won the Goldman Environmental Prize in 1999 for his work to protect the mangroves and the local fishing communities, worked with the two fishermen "rangers" to carry out further work on Isla de Pajaros, as well as work with local government officials and local tourist industry leaders to pass a legal ordinance that protects the island from further abuse and to better ensure effective conservation of this unique island bird nesting sanctuary. This involvement of local communities, local government and the tourism industry will better ensure success of our joint efforts to restore and conserve the mangroves.

International Advocacy and Outreach

MAP has continued to expand its global outreach and involvement across a number of channels, including attendance at conferences and symposia, and developing new working partnerships.

Executive Director Alfredo Quarto travelled to Dakar, Senegal in early October to join a conference on mangroves organized by Wetlands International (WI), Africa and IUCN. He spent two weeks in both Senegal and Guinea Bissau, promoting the Marvellous Mangroves Curriculum and CBEMR training workshops. Part of this trip included a workshop on developing guidelines for a large mangrove program for the Atlantic coast of Africa that included government decision-makers, experts, and practitioners.

Mr. Quarto then travelled to Xiamen, China in November to attend the IUCN Mangrove Specialist Group (MSG) Symposium. During the MSG strategy session, he got formal approval for undertaking a global assessment of past and present mangrove restoration in an attempt to establish a best practices approach to mangrove restoration. An assessment like this is important because too often mangrove restoration projects are not monitored and evaluated, thus allowing bad practices to be repeated and promoted to the tune of millions of dollars and thousands of wasted man hours in futile plantings. Because this failure to monitor and evaluate leads to around 70% or more failure rates, we are losing opportunity to reverse the ongoing negative trend in mangrove losses. The first phase of this assessment is planned for the Philippines.

ANTIGUA

In May, MAP received word of the recent purchase of 1600 acres of land, including mangrove-rich Guiana Island, with the intention of developing the US\$1billion Singulari resort, including a new Hard Rock Café and Casino. The land is inside a Marine Protected Area, and MAP has been working with the Antigua Conservation Society and other local advocates to fight this development, including petitioning the Prime Minister of Antigua and the executives of Hard Rock International to follow the laws and protect natural resources.

MANGROVE ACTION DAY

Since 1998 the 26th of July has been called the "International Day of Mangroves" or "Mangrove Action Day," commemorating the Greenpeace activist Hayhow Daniel Nanoto, who died of a heart attack while involved in a massive protest action in Ecuador led by the environmental organizations FUNDECOI (Ecuador) and the crew from the Greenpeace flagship Rainbow Warrior.

For Mangrove Action Day, MAP worked to raise awareness of the connections people have with mangrove forests by creating a global photography



INTERNATIONAL ADVOCACY AND OUTREACH

exhibition. Throughout the month of July, we asked for and received incredible photos from around the world. We received submissions from over 40 individuals in 18 different countries, demonstrating the wide range of these amazing trees, as well as the people who care about them.

Submissions can be viewed online here.

NEW PARTNERSHIPS

MAP joined two new coalitions in 2015: the <u>Healthy Oceans Coalition</u> (HOC) and the <u>Washington Fair Trade</u> <u>Coalition</u> (WFTC). The HOC is a network of ocean users, conservationists, and concerned citizens supporting full implementation of the National Ocean Policy for the stewardship of our oceans, coasts and Great Lakes. MAP has joined in the hope of not only supporting other organizations in the US, but also to promote mangrove restoration along the Gulf Coast. WFTC is a coalition of over 60 Washington labor, faith, environmental, farmer, and social justice groups that are committed to creating a fair, balanced, and sustainable global trading system. MAP joined WFTC as part of our Question Your Shrimp (QYS) campaign.

As well, MAP became a Conservation Partner with <u>Monterey Bay Aquarium Seafood Watch</u> as a way to further outreach for the QYS campaign.

BIWEEKLY MAP NEWS

MAP published its 380th edition of the MAP News at year's end.

This newsletter is lauded in mangrove circles, including both NGOs and mangrove ecologists, who often commend MAP for its longstanding biweekly electronic newsletter. After over 18 years of publishing the newsletter, MAP continues to share information globally sending out urgent action alerts, continuing as a key vehicle for MAP's networking and advocacy work to defend the world's mangroves.

AWARDS

The Energy Globe Award for 2015

MAP was awarded the Energy Globe for Myanmar in 2015. The projects of all National Energy Globe Winners were presented on 5 June, the UN's World Environment Day, to a global public on <u>www.energyglobe.info</u>. The main objective of this action under the patronage of UNESCO and in cooperation with UNEP is to point out that there are a lot of creative people on our world -- having implemented great projects with solutions for every problem.

CHILDREN'S MANGROVE ART CALENDAR

Children's Mangrove Art Calendar

MAP's Children's Mangrove Art Calendar for 2016 was the15th year of successful production, and was sent mangrove areas around the world.



This year around 2500 children from 12 nations entered the art contest looking to answer the question "What do the mangroves mean to my community and myself?" It was difficult to choose the winners, but has resulted in our most beautiful calendar to date. Many thanks to all those who took part and we hope you enjoy the 15th edition of the Children's Art Calendar.

You can order your 2016 calendar <u>here</u>.

2015 FUNDER ACKNOWLEDGEMENT

2015 Funder Acknowledgement

MAP would like to thank the following funders for providing support needed to run our programs:

FOUNDATIONS

Anonymous (2) Charities Aid Foundation (CAF) Disney Worldwide Conservation Fund German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety's International Climate Initiative (BMU-ICI) German Ministry for Economic Cooperation and Development (BMZ) Global Nature Fund (GNF) International Union for Conservation of Nature (IUCN) **McKnight Foundation** Norcross Wildlife Foundation Singing Field Foundation Synchronicity Earth **MAJOR DONORS** Molly Bang Lee and Peter Lockwood Thomas and Jackie Quarto **Stephanie Ross Pia Sandstrom** Arnold Schouten

Margaret Stewart

Financial Summary

\$56,853.93		
	Programs	\$174,837.97
\$164,337.20	Administration	\$40,633.10
\$6.40	Fundraising	\$23,530.81
\$33,231.98		
\$197,575.58	Total Expense	\$239,001.88
\$25 <i>4 4</i> 20 51	Polonco Forward 2015	\$15,427.63
\$	\$164,337.20 \$6.40 \$33,231.98 \$ 197,575.58	Programs \$164,337.20 Administration \$6.40 Fundraising \$33,231.98 Total Expense



MAP STAFF AND BOARD OF DIRECTORS

MAP Staff and Board of Directors

MAP – USA

Alfredo Quarto, Executive Director and Co-founder

Alfredo is a veteran campaigner with over 35 years of experience in organizing and writing on the environment and human rights issues. Formerly an aerospace engineer, his experiences range over many countries and several environmental organizations, with a long-term focus on forestry, indigenous cultures, and human rights. Alfredo has published numerous popular articles, book chapters, and conference papers on mangrove forest ecology, community-managed sustainable development, and shrimp aquaculture. He lives on a small, organic farm in Port Angeles, Washington and is conversant in Spanish.

Monica Gutierrez-Quarto, Children's Mangrove Art Calendar Coordinator

Monica is a Chilean artist and printmaker who has helped coordinate the MAP International Children's Art Calendar contest for the last 14 years. These beautiful calendars are gaining in popularity with each year. Monica also assists with database entry. She lives in Port Angeles, Washington with her husband Alfredo.

Sara Lavenhar, Outreach and Development Coordinator/Seattle office manager

Sara is a recent graduate of Columbia University with a degree in environmental science and sustainable development. She previously interned on MAP's QYS campaign. She is currently the sole staff member at the Seattle office, and has responsibilities ranging from volunteer and database management to donor relations. She will be transitioning to the position of Executive Director in 2016.

Sam Nugent, MAP News Editor

Sam is a graphic designer and editor. He also manages the graphic arts department for several small newspapers in the region around Port Angeles, WA where he is based. Sam was formerly the MAP Office Administrator and now currently compiles the bi-weekly MAP Newsletter.

Leslie Hill, Accounting/Bookkeeping

Leslie has worked since 2003 with MAP managing MAP's financial records and IRS reporting essential for keeping MAP's books and 501(c)3 non-profit status updated. She lives in Port Angeles, WA.

MAP – ASIA (THAILAND)

Jim Enright, MAP – Asia Coordinator

Jim oversees MAP's office in Thailand which includes 5 Thai staff (3 full-time and 2 part-time) plus an international volunteer intern. Presently he oversees two German government funded CBEMR and livelihood field projects in southern Thailand and in Cambodia a partnership project with Participatory

Management of Coastal Resources (PMCR) for over a decade. Before joining MAP in 2000, he spent 7 years working with coastal resource issues in Thailand, as a national park interpreter in Khao Sam Roi Yot, Thailands first coastal national park, and with the Thai NGO, Yadfon Association, which promotes community-based coastal resource management (CBCRM) with coastal fishing communities in Trang. Jim has an honors degree in Environment Resource Studies with a specialty in international development. He is responsible for the MAP-Asia office based in Trang, southern Thailand, and speaks conversational Thai.

Jaruwan Kaewmahanin (Ning), Field Project Manager

Ning oversees MAP's EMR and livelihood field program. Ning joined MAP in 2006 and came with 4 years' experience in project management and coordination of action research related to mangrove for the Regional Community Forestry Training Center for Asia and Pacific (RECOFTC). She has 13 years in project management and coordination of action research related to mangrove and community-based natural resource management and networking among communities at the provincial, regional and international levels. She also has 5 years' experience in participatory mapping and Geographic Information Systems (GIS) for natural resource management, including field application, training curriculum development and training of trainers while with Greenpeace she was involved in environmental education for children.

Udomsak Pariwatpan (Em), Field Project Officer

Em is MAP-Asia's Project Field Officer and holds a Bachelor of Science (Technology for Marine and Coastal Resources Management) from Walailak University, Nakhon Si Thammarat. He has 6 years experiences working with Seub Nakhasathien Foundation as a Geographic Information System (GIS) officer and has worked with the Environmental Research Institute, Chulalongkorn University for 8 months. He also has skills on computer systems and basic computer graphic design. Em joined MAP-Asia as a field officer in August 2015.

Pimaaksara Chalermwon (Pick)

Pick is MAP-Asia's first Officer Administrator as of Jan. 2016. She joined MAP in Oct. 2015 as Project Officer Thailand to manage the Community-Based Ecological Mangrove Restoration (CBEMR) project funded by Global Nature Fund (GNF) Germany. She has six years freelance experience with local communities and has worked for The Institute of Research and Development (IRD) at Walailak University focusing on communitybased research with villagers in Nakhon Sri Thammarat. Pick has been involved in a project called "Trang River Research" with The Thailand Research Fund. She also has journalism experience and has strong skills in southern Thai culture.

EDUCATION PROGRAM

Martin Keeley, Education Director

Martin brings 17 years of experience as a teacher and over 25 years in environmental education to his work developing and implementing MAP's Mangrove Curriculum with teachers, NGOs, and Education Ministries

MAP STAFF AND BOARD OF DIRECTORS

worldwide. Before joining MAP, Martin was the founder and Executive Director of a wetland education project called the Friends of Boundary Bay/Fraser River for Life Communications Society – based on the border of BC, Canada and Washington state- for 8 years. With more than 45 years of experience in communications and education, he has developed extensive and award-winning environmental education programs on wetlands. Martin lives in the Cayman Islands.

MAP - INTERNATIONAL PLAYERS

Leo Thom, MAP Visual Communications

Leo gained a first class degree and then a diploma in Landscape Architecture and went onto teach Landscape Architecture for 4 years at Kingston University London whilst always focusing and experimenting with different forms of visual communication including moving image. Having co-founded an award winning design studio, Room60, he now spends most time working on a variety of environmental projects around the tropics. Leo currently lives in London.

BOARD OF DIRECTORS

Roger de Freitas, President

Roger is a British philanthropist who often works directly with local NGOs to develop their capacity to deal with a broad range of challenges. Before joining the Open Spaces Society, a British conservation group, as a Vice-President, Roger was the chairman of the BTCV, the UK's largest practical conservation charity, and the 2010 UK charity of the year. He is also a Board Advisor of Global Nature Fund, the project holder of an Asia regional mangrove restoration project involving MAP-Asia.

Fiona Wilmot, Vice President

Fiona Wilmot ran Keys Connectivity, Inc. St. Petersburg, Florida, USA which provides support services for stakeholder groups engaged in marine conservation and social justice. She has worked primarily for the National Marine Sanctuary Program in the Florida Keys and also provides assistance to the Gulf and Caribbean Fisheries Institute. She recently completed her doctorate at Texas A&M University focusing on political ecology working with select coastal communities in El Salvador with a view to see how they adapt to environmental, economic and political change.

Meryl Redisch, Secretary

Since retiring as the executive director of Portland Audubon, Meryl Redisch is spending a lot more time enjoying Oregon's natural beauty. When she is not skiing, hiking, or traveling, she works to advance policies related to urban and community forestry including; as chair of Portland's Urban Forestry Commission. Meryl grew up in New York City and secured her first job as an Urban Park Ranger in Central Park. She graduated from Skidmore College with a degree in Environmental Science and Forestry. After leaving Brooklyn to go west in 1994, she ran TreeUtah, an urban forestry and community building organization.

Page 17

MAP STAFF AND BOARD OF DIRECTORS

There, she finally learned to ski powder and picked up another Bachelor's degree in Geography from the University of Utah.

John Cowan, Board Member

John Cowan is an experienced program development leader with a record of developing and implementing strategic planning that leads to sustained success. Skilled at developing people centered programs and helping them to build effective teams that contribute to a sustainable development, he has worked with such organizations as the UNDP, NZODA, and the Asian Development Bank. He currently works at NuAlchemy, a consulting practice specialized in technology commercialization, reclaimed water systems development, and strategic planning for business growth both organic and through strategic mergers and partnerships.