

# Program Book



**MMM3. Galle. Sri Lanka. 2-6 July 2012**

**Meeting on Mangrove ecology, functioning and Management  
(MMM3)**

**2-6 July 2012, Galle, Sri Lanka**

**This conference is jointly organized by**

**the Vrije Universiteit Brussel (VUB), the Université Libre de Bruxelles  
(ULB), the Kenya Marine and Fisheries Research Institute (KMFRI),  
the University of Ruhuna (UoR), and hosted by the latter**



Vrije  
Universiteit  
Brussel



UNIVERSITÉ  
LIBRE  
DE BRUXELLES



**MMM3 Secretariat**

Laboratory of Systems Ecology and Resource Management  
Dept. of Organism Biology, Faculty of Sciences  
Université Libre de Bruxelles - ULB  
CP 169, Avenue F.D. Roosevelt 50  
B-1050 Brussels, BELGIUM.

Tel: +32 (0)2 650 2137/2164

Fax: +32 (0)2 650 2125

E-mail: [mmm3@ulb.ac.be](mailto:mmm3@ulb.ac.be)

Homepage: <http://www.vub.ac.be/APNA/greendyke/MMM3/>

# **Program Book**

**Meeting on Mangrove ecology, functioning  
and Management (MMM3)**

## **Organizing Committee**

- Prof. Dr. Farid DAHDOUH-GUEBAS, Chair (Université Libre de Bruxelles - ULB & Vrije Universiteit Brussel - VUB, Brussels, **Belgium**)
- Prof. Dr. Loku Pulukkuttige JAYATISSA (University of Ruhuna - UoR, Matara, **Sri Lanka**)
- Dr. Jared O. BOSIRE (Kenya Marine and Fisheries Research Institute - KMFRI, Mombasa, **Kenya**)
- Prof. Dr. Sanath HETTIARACHI (University of Ruhuna - UoR, Matara, **Sri Lanka**)
- Dr. James G. KAIRO (Kenya Marine and Fisheries Research Institute - KMFRI, Mombasa, **Kenya**)
- Prof. Dr. Nico KOEDAM (Vrije Universiteit Brussel - VUB, Brussels, **Belgium**)

## **Local Organizing Committee**

- Prof. Dr. Loku Pulukkuttige JAYATISSA (University of Ruhuna - UoR, Department of Botany, Matara, **Sri Lanka**)
- Prof. Dr. Sanath HETTIARACHI (University of Ruhuna - UoR, Department of Botany, Matara, **Sri Lanka**)
- Prof. Prof. Kanthi K.A.S. YAPA (University of Ruhuna - UoR, Department of Physics, Matara, **Sri Lanka**)
- Prof. Kumudu DE SILVA (University of Ruhuna - UoR, Department of Zoology, Matara, **Sri Lanka**)
- Prof. N.P. DISSANAYAKE (University of Ruhuna - UoR, Department of Botany, Matara, **Sri Lanka**)
- Dr. Saman CHANDANA (University of Ruhuna - UoR, Department of Zoology, Matara, **Sri Lanka**)
- Mrs. Jagathi HEMMALI (University of Ruhuna - UoR, Center for International Affairs ; SAR, Matara, **Sri Lanka**)
- Mrs. Nilanthi (University of Ruhuna - UoR, Research Assistant to VC and DVC, Matara, **Sri Lanka**)
- Mr. Sunanda KODIKARA (University of Ruhuna - UoR, Department of Botany, Matara, **Sri Lanka**)
- Dr. Behara SATYANARAYANA (Université Libre de Bruxelles & Vrije Universiteit Brussel - VUB, Brussels, **Belgium**)

- Prof. Dr. Farid DAHDOUH-GUEBAS (Université Libre de Bruxelles - ULB & Vrije Universiteit Brussel - VUB, Brussels, **Belgium**)

## **Conference Secretariat**

- Dr. Behara SATYANARAYANA (Université Libre de Bruxelles & Vrije Universiteit Brussel - VUB, Brussels, **Belgium**)
- Prof. Dr. Sanath HETTIARACHI (University of Ruhuna - UoR, Matara, **Sri Lanka**)
- Prof. Dr. Loku Pulukkuttige JAYATISSA (University of Ruhuna - UoR, Matara, **Sri Lanka**)
- Prof. Dr. Farid DAHDOUH-GUEBAS, Chair (Université Libre de Bruxelles - ULB & Vrije Universiteit Brussel - VUB, Brussels, **Belgium**)

## **Scientific Committee**

- Prof. Dr. Uta BERGER (Technische Universität Dresden, Dresden, **Germany**)
- Dr. Marília CUNHA-LIGNON (National Institute for Space Research, São Jose dos Campos, **Brazil**)
- Prof. Dr. Ndongo DIN (University of Douala, Douala, **Cameroon**)
- Prof. Dr. Norman C. DUKE (University of Queensland, Brisbane James Cook University, Townsville, **Australia**)
- Dr. François FROMARD (Université Paul Sabatier, Toulouse, **France**)
- Prof. Dr. Mark HUXHAM (Napier University, Edinburgh, **United Kingdom**)
- Prof. Dr. Kandasamy KATHIRESAN (Annamalai University, Parangipettai, **India**)
- Prof. Dr. Joe S.Y. LEE (Griffith University, Gold Coast Southport, **Australia**)
- Prof. Dr. Victor RIVERA-MONROY (Louisiana State University, Baton Rouge, **USA**)
- Prof. Dr. Patrik RÖNNBÄCK (Gotland University, Visby, **Sweden**)
- Prof. Dr. Martin SKOV (Bangor University, Menai Bridge - Anglesey, **United Kingdom**)
- Prof. Dr. Nora Fung-Yee TAM (City University of Hong Kong, Hong Kong, **China**)
- Prof. Dr. Brad B. WALTERS (Mount Allison University, Sackville, **Canada**)



## International Conference on Mangroves



E-mail : [mmm3@ulb.ac.be](mailto:mmm3@ulb.ac.be)

<http://www.vub.ac.be/APNA/greendyke/MMM3/>



After MMM1 in Mombasa (Kenya) in 2000 and MMM2 in Coolangatta (Australia) in 2006, MMM3 is the 3rd edition of the only recurrent international conference on mangroves

### MMM3 Conference: 2-6 July, 2012

Place: Auditorium of the Faculty of Medicine, University of Ruhuna, Karapitiya, Galle, Sri Lanka

### MMM3 Workshop: 9-13 July 2012

Place: SFFL - Small Fishers Federation (of Lanka), Pambala-Kakkapalliya

#### Scientific Committee

Uta BERGER, Germany  
Marília CUNHA-LIGNON, Brazil  
Ndongo DIN, Cameroon  
Norman C. DUKE, Australia  
Ilka C. FELLER, USA  
François FROMARD, France  
Mark HUXHAM, UK  
Kandasamy KATHIRESAN, India  
Joe S.Y. LEE, Australia  
Victor RIVERA-MONROY, USA  
Patrik RÖNNBÄCK, Sweden  
Martin SKOV, UK  
Nora F.Y. TAM, China  
Brad B. WALTERS, Canada



Registration is  
open!

Sponsors and organisers:



## **Keynote Speakers**

- Prof. Dr. **Stefano CANNICCI**
- Dr. **Karen L. McKEE**
- Prof. Dr. Em. **Jurgenne PRIMAVERA**

## **Sessions and Chairpersons**

- Macroenthos and Plant-Animal Interactions I: **Candy FELLER**
- Macroenthos and Plant-Animal Interactions II: **Jared BOSIRE**
- Macroenthos and Plant-Animal Interactions III: **Joe S.Y. LEE**
- Oral pitching research highlights: **Farid DAHDOUH-GUEBAS**
- Plant, Vegetation and Systems Ecology I: Mala **AMARASINGHE**
- Plant, Vegetation and Systems Ecology II: **François FROMARD**
- Plant, Vegetation and Systems Ecology III: **Loku Pulukkuttige JAYATISSA**
- Nutrient Cycling, Biogeochemistry and other Environmental Drivers: **Kandasamy KATHIRESAN**
- Carbon Sequestration, Stocks and Payments: **Sanath HETTIARACHI**
- Scientific debate: **Nico KOEDAM**
- People-Ecosystem Interactions, Conservation and Management I: **Marília CUNHA-LIGNON**
- People-Ecosystem Interactions, Conservation and Management II: **James G. KAIRO**
- Climate Change I: **Catherine E. LOVELOCK**
- Climate Change II: **Behara SATYANARAYANA**

## **Lunch Meetings**

- Young Mangrove Scientist Brainstorm Session (for students and PhD students): **Nibedita MUKHERJEE** and **Marco FUSI**
- Mangrove Forest Management and Policy Brainstorm Session (for scientists, managers and policy-makers): **Marília CUNHA-LIGNON** and **Loku Pulukkuttige JAYATISSA**

## **Best Student Presentation Award Committee**

- Mala D. **AMARASINGHE**
- Todd E. **MINCHINTON**
- Ulrich **SAINT-PAUL**, Chairman

## Venue

The conference will be held at Koggala Beach. The hotel complex consists of three hotels spanning over a kilometer of coastline: Koggala Beach Hotel, the central hotel, the Long Beach Resort to the north and Club Koggala Village to the south.

[www.koggalaexperience.com](http://www.koggalaexperience.com)





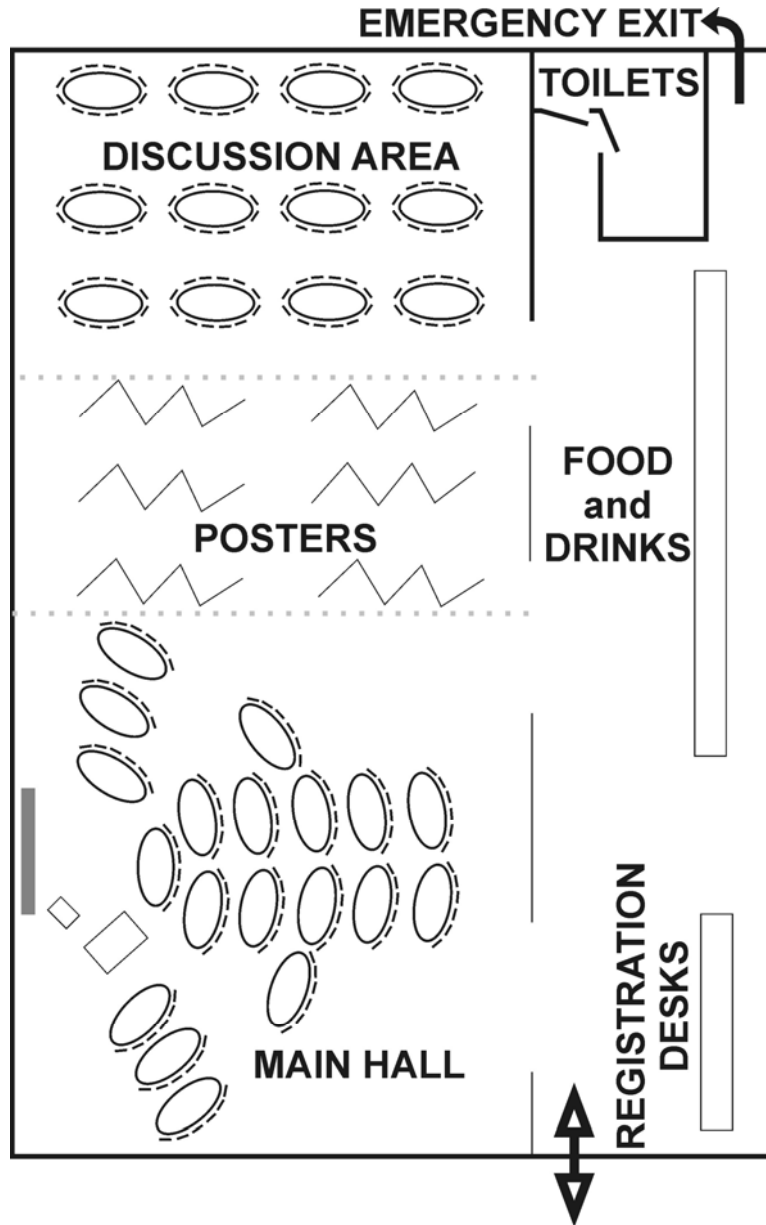
All activities except for the cultural show and the mid-conference excursions will take place at the same hotel complex.

Lectures and poster presentations as well as coffee/tea breaks and lunches will be held at the **Long Beach Resort** on the third floor (see map on next page). Access to the conference venue is restricted to persons wearing an MMM3 Conference badge.

Oral contributions and Oral Pitching Research Highlights will be presented in the **'Main Hall'**

All food and drinks will be served in the **'Food and Drinks'** area. Coffee and tea can be consumed in the **'Posters'** area, whereas the tables in the **'Discussion Area'** can be used to consume your lunch.

The two lunch meetings that are taking place on Tuesday 3 July 2012 will be held in the **'Discussion Area'** (Young Mangrove scientist brainstorm session) and in the **'Main Hall'** (Mangrove forest management and policy brainstorm session).





Participants that have paid for the MMM3 Conference dinner on Thursday 5 July 2012 will be driven to the auditorium of the Medical Faculty of the University of Ruhuna in Karapitiya (Galle) after the scientific program (17h15).



A mix of traditional Sri Lankan dance and music will be offered during a 90 minute show, followed by a multi-flavoured buffet at **Club Koggala Village**.



### **Instructions for Chairpersons and Oral presentations**

- Presentation time: Every lecture is scheduled for 20 min only (max. 15 min talk and 5 min discussion). If a speaker passes 15 min, the time for discussion will be less or nil.
- Please ensure that the presentation times listed in the program are respected. In case of a no show, there is a waiting list of 5 presenters with the conference organizers that will be activated immediately.
- PowerPoint file submission: We recommend to use PowerPoint (version 1997-2003 or version 2007) for your presentation. The speakers of the day are requested to submit their PowerPoint files before the daily program starts (between 8 and 9 AM). There will be a laptop connected to an LCD projector in the presentations room.
- Session chairs should announce if a presentation is given by a student participating in the Best Student Presentation Award.

### **Instructions for Oral Pitching Research Highlights**

- Presentation time: Every lecture is scheduled for 3 min only (no discussion). The chairperson rings bell at the end of 3 min, and the speaker should leave the stage immediately (even if the presentation is not finished).
- Please ensure that the presentation times listed in the program are respected. In case of a no show, the time slot is lost.
- PowerPoint file submission: see instructions for oral presentations above.

### **Instructions for Poster presentations**

- Each poster has been assigned a unique number, which is indicated in this program book and also listed at the entrance of the poster room.
- Presenters are requested to mount their posters (max. 90 cm x 120 cm dimensions), immediately after registration, in the respective places indicated on the poster boards.
- Velcro will be supplied at the registration desk/poster boards.
- Posters participating in the Best Student Poster Award competition bear the letter 'S' after the poster number mounted on the poster board.

## **Guidelines for evaluation of Oral presentations and Posters**

### **Structure**

- Is the message sufficiently clear?
- Can scientific questions be clearly distinguished?
- Is there an answer (conclusion) for each question evoked?
- Are all sections treated in a well-balanced way (not too much material and methods, too little results, etc)?
- Is there a clear introduction, material and methods, results, discussion and conclusions?

### **Scientific value**

- Does the approach testify of understanding and insight into the subject?
- Does the literature review (if applicable) testify of knowledge of the peer-reviewed publications?

### **Tables and Figures**

- Are tables and figures not redundant with what is already provided as text or *vice versa*?
- Are the figures self-explanatory?
- Are graphs well designed (type of graph, clear legends, no shadows or 3D where not necessary, no confusing colors, correct regressions, tested  $r^2$ , etc)?

### **Form and Layout**

- Is the poster/presentation elaborated in an understandable language?
- Do illustrations contribute to a good understanding of the topic?
- Is it clear in which order a poster needs to be read?
- Does the poster look attractive and inviting?
- Is there a good balance between text and illustrations?
- Is the font type large enough and readable?

### **Questions**

- How are questions answered and how is the research defended?

## **MMM3 Schedule**

### **2 July 2012: MMM3 Conference DAY 1**

- Arrival and on-site registrations
- Sri Lankan opening ceremony
- Welcome address by university delegates and local authorities
- Keynote address by **Stefano CANNICCI**
- Participant oral presentations
- Oral pitching research highlights
- Poster session
- MMM3 organizer's presentation
- DAY 1 findings and announcements

### **3 July 2012: MMM3 Conference DAY 2**

- Arrival and on-site registrations
- Keynote address by **Karen L. McKEE**
- Participant oral presentations
- Young Mangrove scientist brainstorm session (for students and PhD students)
- Mangrove forest management and policy brainstorm session (for scientists, managers and policy-makers)
- DAY 2 findings and announcements
- Instructions and guidelines for the mid-conference excursions

### **4 July 2012: MMM3 Mid-conference excursions**

### **5 July 2012: MMM3 Conference DAY 4**

- Arrival and on-site registrations
- Mid-conference excursions report and announcements
- Poster session
- Participant oral presentations
- Scientific debate
- DAY 4 findings and announcements
- Conference dinner

### **6 July 2012: MMM3 Conference DAY 5**

- Arrival and on-site registrations
- Keynote address by **Jurgenne PRIMAVERA**
- Participant oral presentations
- Best student award(s)
- MMM4 announcement organised in 2018
- closing ceremony and reception

## Program Details

### Monday, 2 July 2012:

08h00 - 09h00 : Arrival and on-site registrations

09h00 - 09h10 : Sri Lankan opening ceremony

09h10 - 09h40 : Welcome address by university delegates and local authorities

09h40 - 10h00 : MMM3 Welcome address

Session: Macrobenthos and Plant-Animal Interactions I

Chair : **Candy FELLER**

10h00 - 11h00 : Keynote address 1: Functions of macrobenthos in mangrove forests : >20 years of research lessons, by **Stefano CANNICCI** *et al.*

11h00 - 11h30 : Coffee/Tea break

11h30 - 11h50 : Does 'you are what they eat' apply to mangrove sesarmid crabs?, by **Lee**

11h50 - 12h10 : Benthos diversity in Yanbu mangrove conservation sites - Red Sea shoreline, by **Paimpillil** *et al.*

12h10 - 12h30 : Thermal response of mangrove macrobenthos: explaining processes in endangered coastal systems, by **Fusi** *et al.*

12h30 - 14h00 : Lunch

Session: Macrobenthos and Plant-Animal Interactions II

Chair : **Jared BOSIRE**

14h00 - 14h20 : Patterns growth and herbivory in mangrove forests along latitudinal gradients and the consequences of nutrient over-enrichment, by **Feller** *et al.*

14h20 - 14h40 : Multi-country comparison of insect herbivore communities and leaf herbivory, on mangroves, by **Burrows**

14h40 - 15h00 : Impact of typhoon disturbance on key macrobenthos in a monoculture mangrove forest plantation, Can Gio Biosphere Reserve, Vietnam, by **Diele** *et al.*

Session: Oral Pitching Research Highlights

Chair : **Farid DAHDOUH-GUEBAS**

- 15h00 : One year survey of CO<sub>2</sub> fluxes from sediments and water column in mangrove ecosystem (New Caledonia), by **Léopold** *et al.*
- 15h03 : Test assembly mechanisms of mangrove communities using geostatistical tools: a study case in the mangrove of Gaoqiao, by **Bourgeois** *et al.*
- 15h06 : Mangroves and climate change: effects of increasing temperature on biology, density and distribution of *Perisesarma guttatum* (A. Milne Edwards, 1869) and *Uca urvillei* (H. Milne-Edwards, 1852) crabs at Gazi Bay, Kenya, by **Kochey** *et al.*
- 15h09 : Managing the mangroves economically: use it or lose it, by **Debroy** *et al.*
- 15h12 : High-resolution mapping of mangrove topography and vegetation community structure, by **Friess** *et al.*
- 15h15 : Above ground:Below ground productivity ratios in natural mangrove forest of Gazi, Bay Kenya, by **Githaiga** *et al.*
- 15h18 : Evaluating the local use of mangroves as a source firewood in Sri Lanka, by **Ransara** *et al.*
- 15h21 : Assessing the link between the local people and the mangroves status of Mtwapa Creek, Kenya, by **Ochieng** *et al.*
- 15h24 : Impact of flood on *Rhizophora* plantation in Batticaloa, Sri Lanka, by **Mathiventhan & Jayasingam**
- 15h27 : Variations in the crab diversity of the mangrove environment from Tamil Nadu, Southeast coast of India, by **Ravichandran & Wilson**

- 15h30 : Species preferences of the crab *Sesarmops intermedius* to seedling predation in mangrove ecosystem of Kerala, India, by **Nayar et al.**
- 15h33 : Analyses of the mangrove's recover process in abandoned salt ponds constructed areas, in the Ceará river, Northeast Brazil, by **Reis-Neto et al.**
- 15h36 : Vegetation structure of mangroves in the Rio del Rey estuary (Cameroon), by **Essomè-Koum et al.**
- 15h39 : Successive cambia in the mangrove *Avicennia*: a study on the three-dimensional structure of the cambia and the functioning of the internal phloem tissue, by **Kodikara et al.**
- 15h42 : Size does matter, but not only size: two alternative dispersal strategies for viviparous mangrove propagules, by **De Ryck et al.**
- 15h45 : Episodic sediment mixing from the tidal flat to the mangrove forest: a disturbance gradient for seedling survival, by **Balke et al.**
- 15h48 : Mangrove management at the Gulf of Kutchch, India for coastal protection and resilience to climate change, by **Saint-Paul**
- 15h51 : Satellite remote sensing and GIS to assess anthropogenic pressures and aid mangrove forest management: a case study at the São Francisco River Estuary (Northeast Brazil), by **Santos et al.**
- 15h54 : Photosynthesis in mangrove seedlings ceases underwater, by **Mangora**
- 15h57 : Studies on sulphate reducing bacteria from Southeast coast of India, by **Abirami et al.**
- 16h00 - 17h00 : Coffee/Tea break & Poster session in poster room
- 17h00 - 17h45 : MMM3 organizer's presentation: Meeting on Mangrove ecology, functioning and Management (MMM3): more than two decades of insight on mangrove research in Kenya, Sri Lanka and beyond, by **Dahdouh-Guebas et al.**

17h45 - 18h00 : Conference DAY 1 findings and announcements

**Tuesday, 3 July 2012:**

08h00 - 09h00 : Arrival and on-site registrations

Session: Macrobenthos and Plant-Animal Interactions III

Chair : **Joe S.Y. LEE**

09h00 - 10h00 : Keynote address 2: Ecological functioning of mangroves under changing climatic conditions, by **Karen L. MCKEE**

10h00 - 10h20 : Human-induced environmental change affecting macrobenthic communities in the Segara Anakan Lagoon, Java, Indonesia, by **Nordhaus et al.**

10h20 - 10h40 : Barcoding needs morphology and vice versa: the case of a new East African sesarmid crab species, by **Fratini et al.**

10h40 - 11h00 : The bidirectional relationship between mangrove vegetation and sesarmid crabs: complex interaction amongst density and composition of vegetation, crab density and propagule density, by **Van Nederveelde et al.**

11h00 - 11h30 : Coffee/Tea break

Session: Plant, Vegetation and Systems Ecology I

Chair : **Mala AMARASINGHE**

11h30 - 11h50 : Casting the net: functional networks of mangroves, by **Mukherjee et al.**

11h50 - 12h10 : How does tree competition and stand dynamics lead to spatial patterns in monospecific mangroves?, by **Khan (M.N.I.) et al.**

12h10 - 12h30 : Mapping functional-structural models to fields of neighbourhood, by **Grüters et al.**

12h30 - 14h00 : Lunch + Lunch meetings

Meeting 1 : Young Mangrove scientist brainstorm session (strictly for students and PhD students only)

Chairs : **Nibedita MUKHERJEE & Marco FUSI**

Meeting 2 : Mangrove forest management and policy brainstorm session (for scientists, managers and policy-makers)  
**Chairs : Marília CUNHA-LIGNON & Loku Pulukkuttige JAYATISSA**

Session: Plant, Vegetation and Systems Ecology II

**Chair : François FROMARD**

- 14h30 - 14h50 : Genetic diversity of *Avicennia schaueriana* and *A. germinans* along the Brazilian coast: population structure, migration and admixture, by **Mori et al.**
- 14h50 - 15h10 : Formation of a research network for conservation of genetic diversity of mangroves: knowledge gaps, studies, and future directions, by **Kajita et al.**
- 15h10 - 15h30 : Quantifying and monitoring vulnerability of Amazon-influenced mangrove coasts. Case study from French Guiana, by **Blanchard et al.**
- 15h30 - 15h50 : Biological and environmental drivers in mangrove propagule dispersal and recruitment: a field and modelling approach, by **Van der Stocken et al.**
- 16h00 - 16h30 : Coffee/Tea break

Session: Plant, Vegetation and Systems Ecology III

**Chair : Loku Pulukkuttige JAYATISSA**

- 16h30 - 16h50 : Mangrove forest regeneration in tsunami impacted sites of Nicobar Islands, India, by **Nehru & Balasubramanian**
- 16h50 - 17h10 : The ecological success of the mangrove *Avicennia*: the perfect combination of well-adapted wood anatomical characteristics and special radial growth?, by **Robert et al.**
- 17h10 - 17h30 : Mangrove invasion of salt marsh in temperate Australia: predicting patterns of seedling recruitment under fluctuating environmental conditions, by **Minchinton**
- 17h30 - 17h45 : Conference DAY 2 findings and announcements
- 17h45 - 18h00 : Instructions/guidelines for the mid-conference excursions

**Wednesday, 4 July 2012:**

**Mid-conference excursions**

**Excursion 1: Selected mangrove communities of Galle-Unawatuna, Rekawa, Kahandamodara and Kalametiya**

**Leader: Prof. Farid DAHDOUH-GUEBAS**

**Place and time of Departure: Unawatuna Beach Resort at 08h00**



This excursion will start off at the small but unique mangrove of Galle-Unawatuna, which has been studied by the Belgian and Sri Lankan organisers since the 1990s. The mangrove at Galle-Unawatuna is a basin mangrove affected by heavy alteration of the topography and the hydrography by roads, paths and a

small dam. In addition, the mangrove is characterised by an accidented topography due to burrowing activity of *Thalassina anomala*. After a stop at the Weherahena Temple near Matara, which hosts a colossal six story high Buddha statue. We then continue South to the Bandagiriya Training Centre of the Small Fishers Federation of Lanka (SFFL) where we will take lunch. Next, we visit the Kiralakele Mangroves Resource Centre of SFFL where you will be able to drink the tasty mangrove apple juice. Finally, on the way back we halt at three mangrove lagoons in a row, being Kalametiya Lagoon, Kahandamodara Lagoon and Rekawa Lagoon, all of which were featured in the 2005 front cover article of *Current Biology* 15(6). Rekawa Lagoon has been extensively studied by the University of Ruhuna for decades.

**Excursion 2: Udawalawe National Park, the Udawalawe Irrigation Scheme and its downstream mangrove lagoons**

**Leader: Dr. Dammini PREMACHANRA**

**Place and time of Departure: Unawatuna Beach Resort at 05h00**

Udawalawe National Park was created to provide a sanctuary for wild animals displaced by the construction of the Udawalawe reservoir on the Walawe River, as well as to protect the catchment of the reservoir. The reserve covers 30,821 hectares of land area and was established on 30 June



1972. Udawalawe is an important habitat for water birds and Sri Lankan Elephants, which are relatively easy to spot, but also home to some large carnivores such as the Sri Lankan leopard and the Sloth bear. It is a popular tourist destination and the third most visited park in the country. The excess water of the Udawalale Irrigation Scheme is dumped in the

Kirama Oya, the Urubokka Oya and the Kuchchigal Ara rivers that discharge in Rekawa Lagoon, Kahandamodara Lagoon and Kalametiya Lagoon respectively, which host large mangrove communities.

### **Excursion 3: Yala National Park and the mangrove of Palatupana Lagoon**

**Leader: Dr. Saman CHANDANA**

**Place and time of Departure: Unawatuna Beach Resort at 07h30**

Yala National Park is the most visited and second largest national park in Sri Lanka. Actually it consists of five blocks, two of which are now open to the public. Ruhunu National Park is the best know block. Yala National Park covers 979 square kilometres and was designated as a wildlife sanctuary in 1900 and is best known for its variety of wild animals. It is important for the conservation of Sri Lankan Elephants and aquatic birds.



The area around Yala has hosted several ancient civilisations. Two important pilgrim sites, Sithulpahuwa and Magul Vihara, are situated within the park. The 2004 Indian Ocean tsunami caused severe damage on the Yala National Park including on the mangrove of Palatupana Lagoon, which we will visit in the park, if road conditions permit. On the way to Yala National Park we will visit *Hoo-maniya* or the natural blow hole in Dickwella.

#### **Excursion 4. Ancient and recent tsunami-affected sites in the South of Sri Lanka and rehabilitation projects**

**Group Leader: Prof.L.P. JAYATISSA**

**Place and time of Departure: Galle Fort at 06h30**



The 26/12/2004 Indian Ocean tsunami killed over 230000 people of which more than 35000 in Sri Lanka. The damage of this recent tsunami has been enormous and so were the rehabilitation efforts, such as artificial plantations of coastal vegetation, housing and other projects. After a short visit to *Hoo-maniya*, a natural blow hole in Dickwella, our excursion

will take off at the Kirinda Temple which is the setting of one of the popular legends that constitute early Sri Lankan history. The legend tells that Princess Viharamahadevi drifted ashore at Kirinda following an ancient tsunami. From this spot one can also view part of the coast where the 2004 tsunami struck and appreciate the sand dunes that offered protection. During the trip we will also spend some time visiting the Bandagiriya Training Centre of of the Small Fishers Federation of Lanka, an NGO helping fisherfolk in their livelihoods. On the way back a stop will be made at *Casuarina* plantations and at the largest seated Buddha statue in Sri Lanka (Dickwella Temple).

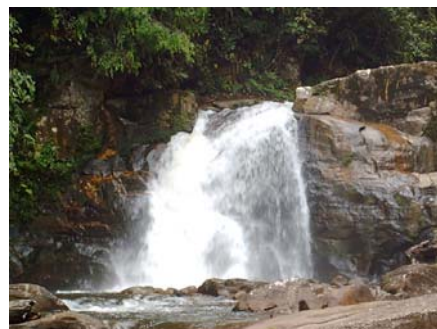
#### **Excursion 5. Rainforest at the Sinharaja Forest Reserve**

**Group Leader: Prof. Mala AMARASINGHE**

**Place and time of Departure: Unawatuna Beach Resort at 05h00**

Sinharaja Forest Reserve is a national park and a biodiversity hotspot in Sri Lanka. It is of international significance and has been designated a Biosphere Reserve and World Heritage Site by UNESCO.

The hilly virgin rainforest, part of the Sri Lanka lowland rain forests eco-region,



was saved from the worst of commercial logging by its inaccessibility, and was designated a World Biosphere Reserve in 1978 and a World Heritage Site in 1988. The reserve's name translates as Kingdom of the Lion.

The reserve is only 21 km (13 mi) from east to west, and a maximum of 7 km (4.3 mi) from north to south, but it is a treasure trove of endemic species, including trees, insects, amphibians, reptiles, birds and mammals.

Because of the dense vegetation, wildlife is not as easily seen as at dry-zone national parks such as Yala. There are about 3 elephants and the 15 or so leopards are rarely seen. The commonest larger mammal is the endemic Purple-faced langur.

An interesting phenomenon is that birds tend to move in mixed feeding flocks, invariably led by the fearless Greater racket-tailed drongo and the noisy Orange-billed babbler. Of Sri Lanka's 26 endemic birds, the 20 rainforest species all occur here, including the elusive Red-faced malkoha, Green-billed coucal and Sri Lanka Blue Magpie.

Reptiles include the endemic Green pit viper and Hump-nosed vipers, and there are a large variety of amphibians, especially tree frogs. Invertebrates include the endemic Common Birdwing butterfly and the inevitable leeches. You are expected to dress appropriately in order to avoid giving leeches access to your skin.

**The arrival time for all excursions is expected to be 20h00 at the latest. Depending on animal sightings in Yala, Excursion 3 may return later. All coaches will halt at Koggala Beach, Unawatuna Beach and Galle Fort on their way back.**

**Thursday, 5 July 2012:**

08h00 - 09h00 : Arrival and on-site registrations

09h00 - 09h30 : Mid-conference excursions report and announcements

09h30 - 10h30 : Poster session in poster room

10h30 - 11h00 : Coffee/Tea break

**Session: Nutrient Cycling, Biogeochemistry and other Environmental Drivers**

**Chair : Kandasamy KATHIRESAN**

11h00 - 11h20 : How mangroves act as a filter toward trace metals between open-cast mining and lagoon, by **Marchand et al.**

11h20 - 11h40 : Bioremediation and mangrove: an original method for wastewater treatment, by **Herteman et al.**

11h40 - 12h00 : Feasibility of reverse adaptation: Physiological and biochemical approach for two mangroves from Sundarbans, India, by **Dasgupta & Das**

12h00 - 12h20 : Better than nothing: biomass and carbon storage in natural and planted mangroves in Kiên Giang Province, Viet Nam, by **Wilson et al.**

12h30 - 14h00 : Lunch

**Session: Carbon Sequestration, Stocks and Payments**

**Chair : Sanath HETTIARACHI**

14h00 - 14h20 : Very-high-resolution diameter, biomass and carbon stock mapping on the two-thousand hectare mangroves of the Cameroon estuary, by **Nfotabong Atheull et al.**

14h20 - 14h40 : Carbon sequestration potential of mangroves and their sediments in southeast coast of India, by **Kathiresan et al.**

14h40 - 15h00 : Marketing the mangroves: can carbon payments make conservation work?, by **Huxham et al.**

15h00 - 15h30 : Coffee/Tea break

15h30 - 17h00 : Scientific debate

**Chair : Nico KOEDAM**

17h00 - 17h15 : Conference DAY 4 findings and announcements

18h00 : Cultural show and Conference dinner

**Friday, 6 July 2012:**

08h00 - 09h00 : Arrival and on-site registrations

**Session: People-Ecosystem Interactions, Conservation and Management I**

**Chair : Marília CUNHA-LIGNON**

- 09h00 - 10h00 : Keynote address 3: A lifetime of mangrove research, management and advocacy, by **Jurgenne PRIMAVERA**
- 10h00 - 10h20 : Modelling mangrove propagule dispersal: sensitivity analysis and implications for shrimp farm rehabilitation, by **Di Nitto *et al.***
- 10h20 - 10h40 : A socio-ecological assessment aiming at improved forest resource management and sustainable ecotourism development in the mangroves of Tanbi Wetland National Park, The Gambia, West Africa, by **Satyanarayana *et al.***
- 10h40 - 11h00 : A study on the impact of anthropogenic activities on the sustainability, habitat preference and distribution of bird fauna associated with mangrove reserve in Kadolkele, Negombo, Sri Lanka, by **Jayamanne & Jayamanne**
- 11h00 - 11h30 : Coffee/Tea break

**Session: People-Ecosystem Interactions, Conservation and Management II**

**Chair : James G. KAIRO**

- 11h30 - 11h50 : Urban mangrove dynamics under increasing anthropogenic pressure: analysis of remote sensing data and Brazilian legislation, by **Cunha-Lignon *et al.***
- 11h50 - 12h10 : Delimitation of global mangrove biogeographic regions based on species composition using Self-Organizing Maps, by **Ximenes *et al.***
- 12h10 - 12h30 : Disturbances in a mangrove ecosystem – implications in the long term recovery patterns and climate change, by **Mohamed *et al.***
- 12h30 - 14h00 : Lunch

Session: Climate Change I

Chair : **Catherine E. LOVELOCK**

- 14h00 - 14h20 : Prediction on recovery pathways of the cyclone-disturbed mangroves in the Ayeyarwady Delta, Myanmar, by **Aung et al.**
- 14h20 - 14h40 : Predicting future latitudinal limits of mangroves in South-Africa with species distribution modelling, by **Quisthoudt et al.**
- 14h40 - 15h00 : Potential geographic distribution of *Rhizophora apiculata* Blume under different future climate change and sea level rise scenarios, by **Record et al.**
- 15h00 - 15h30 : Coffee/Tea break

Session: Climate Change II

Chair : **Behara SATYANARAYANA**

- 15h30 - 15h50 : Variation in sea level and effects on surface elevation gains in coastal wetlands, by **Lovelock et al.**
- 15h50 - 16h10 : Impacts of climate-induced mangrove expansion on the ecological functions of salt marshes, by **Mendelssohn & Perry**
- 16h10 - 16h30 : A global standardized network for monitoring mangrove vulnerability to sea-level rise, by **Webb et al.**
- 16h30 - 18h00 : - Best Student Awards  
- MMM4 announcement organised in 2018  
- Closing ceremony and reception

## Poster Presentations

1. A survey of the Sunderban mangrove wetlands of India: an environmental threat, by **Bandyopadhyay**
2. Mangrove management at the Gulf of Kutchch, India for coastal protection and resilience to climate change, by **Saint-Paul**
3. Variations in the crab diversity of the mangrove environment from Tamil Nadu, Southeast coast of India, **Ravichandran & Wilson**
4. Episodic sediment mixing from the tidal flat to the mangrove forest: a disturbance gradient for seedling survival, by **Balke et al.**
5. Photosynthesis in mangrove seedlings ceases underwater, by **Mangora**
6. The role of mangrove habitat in the life of women in Akshi village, Maharashtra State, India, by **Thakur & Yeragi**
7. Present status of mangrove ecosystem in and around Mumbai (West Coast of India), by **Kulkarni et al.**
8. Coringa mangroves in relation to local environmental conditions on the East coast of India, by **Satyanarayana et al.**
9. Spatial heterogeneity in mangroves assessed by GeoEye-1 satellite data: a case-study in Zhanjiang Mangrove National Nature Reserve (ZMNNR), P.R. China, by **Leempoel et al.**
10. Long-term mangrove forest development in Sri Lanka: early predictions evaluated against outcomes using VHR remote sensing and VHR ground-truth data, by **Koedam et al.**
11. Forest composition and structure in the mangroves at Matang, West Peninsular Malaysia, after a century of sustainable management, by **Goessens et al.**
12. Habitat recovery assessment of reforested mangrove sites in the Gazi Bay, Kenya: a study testing the role of molluscs as bioindicator species, by **Dahdouh-Guebas et al.**
13. Are the mangroves in the Galle-Unawatuna area (Sri Lanka) at risk? A social-ecological approach involving local stakeholders for a better conservation policy, by **Mulder et al.**
14. Vegetation structure at Zhanjiang Mangrove National Nature Reserve (ZMNNR), P.R. China: comparison between original and non-original trees using ground-truth, remote sensing and GIS techniques, by **Durango et al.**

15. Socio-economics of mangrove dependent people on the south east coast of India, by **Rajendran & Kathiresan**
16. Analyses of the mangrove's recover process in abandoned salt pounds constructed areas, in the Ceará river, Northeast Brazil, by **Reis-Neto et al.**
17. Salinity imposed biochemical changes towards efficient adaptation of some mangroves of Sundarbans, India, by **Dasgupta & Das**
18. Test assembly mechanisms of mangrove communities using geostatistical tools: a study case in the mangrove of Gaoqiao, by **Bourgeois et al.**
19. Studies on sulphate reducing bacteria from Southeast coast of India, by **Abirami et al.**
20. DNA markers for understanding mangrove genetics, by **Sahu et al.**
21. Species preference of the crab *Sesarmops intermedius* to seedling predation in mangrove ecosystem of Kerala, India, by **Nayar et al.**
22. Mangrove fisheries and livelihoods, by **Abu Hena**
23. Macro-algae in Lawas mangroves, Sarawak, Malaysia: ecosystem functions and economic aspects, by **Abu Hena et al.**
24. Elucidating the influence of reproductive traits on population genetic structure in mangroves from the Malay Peninsula, by **Wee & Webb**
25. Self-Organizing Maps to determine global distribution patterns of mangrove plant species and analysis of threats using socio-economic indicators, by **Ximenes et al.**
26. Biology of crab embryos in mangrove forests: from evolutionary trends to climate change perspectives, by **Giomi et al.**
27. Mangrove spatial structure in a monospecific stand of the black mangrove *Avicennia germinans* (L.) Stearn in the Cameroon estuary, by **Nfotabong Atheull et al.**
28. High-resolution mapping of mangrove topography and vegetation community structure, by **Friess et al.**
29. Robust baselines of mangrove extent do not exist for conservation policy, by **Friess & Webb**
30. Successive cambia in the mangrove *Avicennia*: a study on the three-dimensional structure of the cambia and the functioning of the internal phloem tissue, by **Kodikara et al.**
31. Impact of flood on *Rhizophora* plantation in Batticaloa, Sri Lanka, by **Mathiventhan & Jayasingam**
32. Community based mangrove restoration in Palk Bay, by **Balaji**

33. Variation of air temperature on conserved and impacted mangroves: preliminary results on the Southern coast of São Paulo State, Brazil, by **Lima et al.**
34. Survey and biodiversity identification of mangrove ecosystem in Lagos Lagoon and Eastern part of Badagry Creek, Nigeria, by **Omogoriola & Williams**
35. Stand structure and carbon stocks in a *Pelliciera rhizophorae* dominated mangrove forest in Montijo Gulf Ramsar site, Panama, by **Gross et al.**
36. Size does matter, but not only size: two alternative dispersal strategies for viviparous mangrove propagules, by **De Ryck et al.**
37. Mangroves facing climate change: landward migration potential in response to projected scenarios of sea level rise, by **Di Nitto et al.**
38. Assessing the link between the local people and the mangroves status of Mtwapa Creek, Kenya, by **Ochieng et al.**
39. Advocating for sustainability in mangroves utilization: a case study of Kilifi District, Kenya, by **Ochieng et al.**
40. Evaluating the local use of mangroves as a source firewood in Sri Lanka, by **Ransara et al.**
41. Survey on the distribution and species composition of mangroves in Sri Lanka in relation to the salinity of associated water, by **Ransara et al.**
42. Above ground: Below ground productivity ratios in natural mangrove forest of Gazi Bay, Kenya, by **Githaiga et al.**
43. Weaver ants as potential controlling agent of mangrove apple fruit borer, by **Rajapaksha et al.**
44. Mangroves and climate change: effects of increasing temperature on biology, density and distribution of *Perisesarma guttatum* (A. Milne Edwards, 1869) and *Uca urvillei* (H. Milne-Edwards, 1852) crabs at Gazi Bay, Kenya, by **Kochey et al.**
45. What is a mangrove? A global expert-based approach on definition, functionality and resilience of the ecosystem, by **Mukherjee et al.**
46. Governance of coastal plantations in southern India: long-term ecological vision or short-term economic opportunity?, by **Dahdouh-Guebas et al.**
47. Excluding random walks in the foraging behaviour of the Portunid crab *Thalamita crenata* : modelisation and simulation based on real data, by **Grüters et al.**
48. Distribution of mangrove species: effects of environmental variables, by **Gupta (Joshi) & Ghose**

49. Status of mangroves of the Sundarbans: some ecological observations, by **Ghose**
50. Effects of mono-specific plantation of *Rhizophora stylosa* on the mangrove community, by **Asaeda et al.**
51. One year survey of CO<sub>2</sub> fluxes from sediments and water column in mangrove ecosystem (New Caledonia), by **Léopold et al.**
52. Influence of salinity on biomass production, total phenols, damage markers, and water relations in mangroves, by **Aziz et al.**
53. Minimum temperature requirements per aridity class of the mangrove genera *Avicennia* and *Rhizophora* at their upper latitudinal limits, by **Quisthoudt et al.**
54. Colombian mangroves: recent advances towards their understanding, by **Polanía et al.**
55. Testing mangrove forest structure development and various forest management options in Gazi (Kenya) by combining KiWi individual-based modelling with >20 years of field data, by **Khan (M.N.I.) et al.**
56. Investigation of the population genetics of *Rhizophora mangle* (Rhizophoraceae) along the Brazilian coast using microsatellite markers, by **Francisco De Oliveira et al.**
57. Discrimination of mangrove vegetation habitat types (Northeast Brazil) using CBERS-2B images and the normalized difference vegetation index (NDVI), by **Santos et al.**
58. Satellite remote sensing and GIS to assess anthropogenic pressures and aid mangrove forest management: a case study at the São Francisco River Estuary (Northeast Brazil), by **Santos et al.**
59. Managing the mangroves economically: use it or lose it, by **Debroy et al.**
60. Seasonal changes in macrobenthos at Basatin mangrove creeks, Bay of Nayband, The Persian Gulf, Iran, by **Kamrani et al.**
61. Spatial variation in the morphological structure of monospecific stands of the mangrove *Avicennia marina* in an arid-zone world heritage area: challenges for management and conservation, by **Rule et al.**
62. Comparative studies on crown foliage dynamics of three mangrove species of the Family Rhizophoraceae in Okinawa Island, Japan, by **Sharma (Sahadev) et al.**
63. Litterfall in a peri-urban mangrove receiving raw domestic sewage, Mombasa, Kenya?, by **Mohamed et al.**

64. Are mangroves sustainable as peri-urban forests? A Case Study of Mombasa, Kenya, by **Mohamed et al.**
65. Nesting materials of indigenous cichlids in Batticaloa lagoon, Sri Lanka, by **Riyas Ahamed & Dharmaretnam**
66. Relationships between nesting and vegetation of three cichlids in Batticaloa lagoon Sri Lanka, by **Riyas Ahamed & Dharmaretnam**
67. Fruit size and predispersal herbivory by insects influence recruitment of the mangrove *Avicennia marina*, by **Minchinton**
68. Application of remote sensing and GIS for detection of long-term mangrove shoreline changes in Ca Mau, Vietnam, by **Tran Thi et al.**
69. Comparison of population structures of widely distributed sea-dispersal plants with mangrove species, by **Kajita et al.**
70. Global phylogeography of *Rhizophora* species, by **Takayama et al.**
71. Phylogeography of *Bruguiera gymnorrhiza*, by **Ono et al.**
72. Development of SSR markers for five mangrove species using next-generation sequencing with preliminary results of analyses of genetic diversity, by **Shinmura et al.**
73. Phylogeography of *Xylocarpus granatum*, by **Tomizawa et al.**
74. Estimating the value of goods and services in a marine protected area: the case of Watamu Marine National Park and Reserve, Kenya, by **Mwakha et al.**
75. Bottlenecks in conserving mangroves associated with the Puttalam estuary, with special reference to the Seguwantivu Conservation Forest, by **Perera (N) & Kotagama**
76. Mangrove die-back due to massive sedimentation and its impact on associated biodiversity, by **M'rabu et al.**
77. Insect pest infestation on mangrove forests of Kenya: identification, threats and impacts, by **M'rabu et al.**
78. The propagule dispersal black box - driving factors and complexities: a review, by **Van Der Stocken et al.**
79. Connectivity of *Scylla serrata* in Kenya and the Indian Ocean, by **Mascaux et al.**
80. First report on fish composition and abundance in Sibunag creek, Guimaras, Central Philippines, by **Abroguena**
81. Growth dynamics of mangroves in South Africa: a matter of latitudinal importance?, by **Rajkaran et al.**
82. Mangroves beyond their distribution. Is it a case of invasion at Nahoon estuary, South Africa?, by **Rajkaran et al.**

83. Macrobenthos assemblages in Cameroonian mangrove forests. First evidence from the Wouri estuary, Douala, by **Fusi et al.**
84. Are mangrove crabs true intertidal ectotherms? Different thermal strategies to cope with climate change, by **Babbini et al.**
85. New findings and current taxonomic uncertainties about Sesamidae of East African mangroves, by **Fratini et al.**
86. The tree-climbing behavior of *Cerithidea decollata* (Mollusca: Potamididae): how does this snail decide when to climb and where to stop?, by **Vannini & Fratini**
87. Spatial distribution patterns of intertidal crabs in tropical estuaries as a baseline for estuarine health monitoring, by **Vermeiren & Sheaves**
88. Diel and tidal changes in intertidal fish fauna composition from mangrove creeks of Qeshm Island, Persian Gulf, Iran, by **Shahraki et al.**
89. First structural and functional study of unexplored mangroves in the Iles Eparses, Southwest Indian Ocean, by **Fromard et al.**
90. Nutrient cycling and use by the species *Rhizophora mucronata* in two contrasted mangrove settings from the French Scattered Islands, Western Indian Ocean, by **Mangion et al.**
91. Canopy gaps and the natural regeneration of Matang mangroves, by **Aldrie Amir**
92. Vulnerability of mangroves in the WIO region to climate change, by **Bosire et al.**
93. Contribution of plant species to carbon sequestration function of mangrove ecosystems in Sri Lanka, by **Perera et al.**
94. Efficacy of traditional practice of mangrove cultivation in Negombo estuary, by **De Silva et al.**
95. Forest structure and regeneration of gray mangrove (*Avicennia marina*) in Red Sea coastal region of Egypt, by **Teraminami et al.**
96. Reproductive biology of the most-at-risk mangrove species (*Rhizophora annamalayana*) and its parental species, by **Kavitha & Kathiresan**
97. Investigation of possible bioshields to protect vulnerable sections of the Sri Lankan coast, by **Rans et al.**
98. Vegetation structure of mangroves in the Rio del Rey estuary (Cameroon), by **Essomè-Koum et al.**

## Participants at the MMM3 Conference

**Abirami, G.**

Annamalai University  
CAS in Marine Biology  
Faculty of Marine Science  
608502 Parangipettai  
India.  
E-mail: [abinish.g@gmail.com](mailto:abinish.g@gmail.com)

**Abu Hena, M.K.**

Universiti Putra Malaysia  
Dept. of Animal Science and Fishery  
Nyabau Road 97008  
Bintulu, Sarawak  
Malaysia.  
E-mail: [hena71@yahoo.com](mailto:hena71@yahoo.com)

**Aldrie Amir, A.**

Institute for Environment and  
Development (LESTARI)  
Universiti Kebangsaan Malaysia  
43600 Bangi, Selangor  
Malaysia.  
E-mail: [aldrie@ukm.my](mailto:aldrie@ukm.my)

**Alqarawi, A.A.**

Dept. of Plant Production  
College of Food & Agri. Sciences  
King Saud University  
P.O. Box. 2460  
11451 Riyadh  
Saudi Arabia.  
E-mail: [alqarawi@ksu.edu.sa](mailto:alqarawi@ksu.edu.sa)

**Amarasinghe, M.D.**

Dept. of Botany  
University of Kelaniya

Dalugama, Kelaniya  
Sri Lanka.  
E-mail: [mala@kln.ac.lk](mailto:mala@kln.ac.lk)

**Asaeda, T.**

Dept. of Environmental Science  
Saitama University  
255 Shimo-okubo  
Sakura 338-8570, Saitama  
Japan.  
E-mail: [asaeda@mail.saitama-u.ac.jp](mailto:asaeda@mail.saitama-u.ac.jp)

**Aung, T.T.**

Laboratory of Plant Ecology  
Graduate School of Environment and  
Information Sciences  
Yokohama National University  
79-2, Tokiwadai Campus  
Hodogayaku, Yokohama  
Japan.  
E-mail: [toeaung02@gmail.com](mailto:toeaung02@gmail.com)

**Aziz, I.**

Institute of Sustainable Halophyte  
Utilization  
University of Karachi  
Karachi-75270  
Pakistan.  
E-mail: [irfanaziz@uok.edu.pk](mailto:irfanaziz@uok.edu.pk)

**Balaji, V.**

OMCAR Foundation  
India.  
E-mail: [omcarfoundation@gmail.com](mailto:omcarfoundation@gmail.com)

**Balke, T.**

Marine and Coastal Systems

Deltares  
2600 MH Delft  
The Netherlands.  
E-mail: [thorsten.balke@deltares.nl](mailto:thorsten.balke@deltares.nl)

**Barnuevo, A.P.**  
Kanepackage Group Philippines, Inc.  
KP-Green Earth  
Kakuyo Bldg., 1st Ave. Ext., Cor. 5th  
Ave. MEPZ1  
6015 Lapu-lapu  
Philippines.  
E-mail: [apbarnuevo@kp-grp.com](mailto:apbarnuevo@kp-grp.com)

**Blanchard, E.**  
Institut de Recherche pour le  
Développement (IRD)  
UMR AMAP, TA A51/PS2  
Boulevard de La Lironde,  
34398 Montpellier Cedex 5  
France.  
E-mail: [elodie.blanchard@ird.fr](mailto:elodie.blanchard@ird.fr)

**Bosire, J.O.**  
Kenya Marine and Fisheries Research  
Institute (KMFRl)  
Mombasa  
Kenya.  
E-mail: [bosire98@yahoo.com](mailto:bosire98@yahoo.com)

**Bourgeois, C.**  
Laboratory of Systems Ecology and  
Resource Management  
Université Libre de Bruxelles (ULB)  
Av. F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.  
E-mail: [cbourgeo@ulb.ac.be](mailto:cbourgeo@ulb.ac.be)

**Burrows, D.**  
TropWATER – Centre for Tropical  
Water and Aquatic Ecosystem  
Research  
James Cook University, Townsville,  
Qld. 4811  
Australia.  
E-mail: [damien.burrows@jcu.edu.au](mailto:damien.burrows@jcu.edu.au)

**Cannicci, S.**  
Department of Evolutionary Biology  
Leo Pardi,  
University of Florence  
via Romana 17, 50125 Firenze  
Italy.  
E-mail: [stefano.cannicci@unifi.it](mailto:stefano.cannicci@unifi.it)

**Cunha-Lignon, M.**  
Instituto Nacional de Pesquisas  
Espaciais (INPE)  
Divisão de Sensoriamento Remoto  
Avenida dos Astronautas, 1758,  
12227-010  
São José dos Campos, SP  
Brazil.  
E-mail: [cunha.lignon@gmail.com](mailto:cunha.lignon@gmail.com)

**Curnick, D.J.**  
Marine and Freshwater Conservation  
Programme Coordinator  
British Zoological Society of  
London  
N19 3SB, London  
United Kingdom.  
E-Mail: [david.curnick@zsl.org](mailto:david.curnick@zsl.org)

**Dahdouh-Guebas, F.**  
Laboratory of Systems Ecology and

Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
Av. F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.

E-mail: [fdahdouh@ulb.ac.be](mailto:fdahdouh@ulb.ac.be)  
Laboratory of Plant Biology and  
Nature Management (APNA)  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050, Brussels  
Belgium.  
E-mail: [fdahdouh@vub.ac.be](mailto:fdahdouh@vub.ac.be)

**Dasgupta, N.**  
Agricultural and Ecological Research  
Unit  
Indian Statistical Institute  
Kolkata-700108  
India.  
E-mail: [ndg.1009.@gmail.com](mailto:ndg.1009.@gmail.com)

**De Ryck, D.J.R.**  
Laboratory of Plant Biology and  
Nature Management (APNA)  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
Av. F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.  
E-mail: [dderyck@vub.ac.be](mailto:dderyck@vub.ac.be)

**De Silva, K.H.W.L.**  
Department of Botany  
University of Kelaniya  
Kelaniya  
Sri Lanka.  
E-mail: [wasana\\_cbc@yahoo.com](mailto:wasana_cbc@yahoo.com)

**DebRoy, P.**  
Dept. of Fish Business Management  
Fisheries Economics  
Extension and Statistics Division  
Central Institute of Fisheries  
Education  
Mumbai – 400061  
India.  
E-mail: [piyashi.debroy@gmail.com](mailto:piyashi.debroy@gmail.com)

**Di Nitto, D.**  
Laboratory of Plant Biology and  
Nature Management  
Mangrove Management Group  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
Av. F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.  
E-mail: [diana.dinitto@gmail.com](mailto:diana.dinitto@gmail.com)

**Diele, K.**  
Edinburgh Napier University  
Faculty of Health, Life and Social  
Sciences

Sighthill Campus, Edinburgh, EH11  
4BN  
United Kingdom.  
E-mail: [k.diele@napier.ac.uk](mailto:k.diele@napier.ac.uk)

**Duke, N.C.**

TropWater  
James Cook University  
Australia.  
E-mail: [norman.duke@jcu.edu.au](mailto:norman.duke@jcu.edu.au)

**Durango, J.S.**

Laboratory of Plant Biology and  
Nature Management  
Mangrove Management Group  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
E-mail: [jotadurango@yahoo.es](mailto:jotadurango@yahoo.es)

**Essomè-Koum, G.L.**

Department of Botany, Faculty of  
Science  
University of Douala  
PO Box 8948, Douala,  
Cameroun  
E-mail: [essomekoum@yahoo.fr](mailto:essomekoum@yahoo.fr)

**Feller, I.C.**

Smithsonian Environmental Research  
Center  
Edgewater, MD 21037  
USA.  
E-mail: [felleri@si.edu](mailto:felleri@si.edu)

**Francisco de Oliveira, P.M.**

Molecular Biology and Genetic  
Engineering Centre

State University of Campinas,  
Campinas, São Paulo  
Brasil.  
E-mail:  
[patricia\\_francisco@ymail.com](mailto:patricia_francisco@ymail.com)

**Fratini, S.**

Department of Evolutionary Biology  
University of Florence  
via Romana 17, Florence  
Italy.  
E-mail: [sarafratini@unifi.it](mailto:sarafratini@unifi.it)

**Friess, D.A.**

Department of Geography  
National University of Singapore  
1 Arts Link, Singapore 117570  
Singapore.  
E-mail: [dan.friess@nus.edu.sg](mailto:dan.friess@nus.edu.sg)

**Fromard, F.**

Université de Toulouse  
INP, UPS, EcoLab (Laboratoire  
Ecologie Fonctionnelle et  
Environnement)  
118 Route de Narbonne, 31062  
Toulouse  
France.  
E-mail: [francois.fromard@univ-tlse3.fr](mailto:francois.fromard@univ-tlse3.fr)

**Fusi, M.**

Università Cattolica del Sacro Cuore  
Agricultural and Environmental  
Chemistry Institute  
29100 Piacenza  
Italy.  
E-mail: [marco.fusi@unimi.it](mailto:marco.fusi@unimi.it)

**Ghose, M.**

Agricultural and Ecological Research  
Unit  
Indian Statistical Institute  
203 B.T. Road, Kolkata 700 108  
India.  
E-mail: [mghoseisi@gmail.com](mailto:mghoseisi@gmail.com)

**Gnanewaran, R.**

University of Jaffna  
Dept. of Zoology  
Ramanathan Road 40000, Jaffna  
Sri Lanka.  
E-mail: [raji0706@yahoo.co.uk](mailto:raji0706@yahoo.co.uk)

**Gross, J.**

1202 B - Mango Drive  
Yigo, Guam 96929  
USA.  
E-mail: [jess.gross@web.de](mailto:jess.gross@web.de)

**Grüters, U.**

Dresden University of Technology  
(TU Dresden)  
Institute of Forest Growth and  
Computer Sciences  
Postfach 1117, D-01735 Tharandt,  
Germany.  
E-mail: [uwe.grueters@forst.tu-dresden.de](mailto:uwe.grueters@forst.tu-dresden.de)

**Herteman, M.**

Impact-Mer, 90 rue Pr Didier  
97200 Fort de France  
Martinique F.W.I.  
France.  
E-mail: [mherteman@impact-mer.fr](mailto:mherteman@impact-mer.fr)

**Hettiarachi, S.**

University of Ruhuna  
Department of Botany  
Wellamadama 81000, Matara  
Sri Lanka.  
E-mail: [sanath.hetti@gmail.com](mailto:sanath.hetti@gmail.com)

**Jayamanne, S.C.**

Uva Wellassa University  
Passara Road, Badulla  
Sri Lanka.  
E-mail: [sepalikauwu@yahoo.com](mailto:sepalikauwu@yahoo.com)

**Jayatissa, L.P.**

University of Ruhuna  
Dept. of Botany / Faculty of Graduate  
Studies  
Wellamadama, 81000 Matara  
Sri Lanka.  
E-mail : [lpj@bot.ruh.ac.lk](mailto:lpj@bot.ruh.ac.lk)

**Kairo, J.G.**

Kenya Marine and Fisheries Research  
Institute (KMFRI)  
P.O. Box 81651, Mombasa  
Kenya.  
E-mail: [gkairo@yahoo.com](mailto:gkairo@yahoo.com)

**Kajita, T.**

Dept. of Biology  
Graduate School of Science  
Chiba University  
1-33 Yayoi, Inage, Chiba, 263-522  
Japan.  
E-mail: [tkaji@faculty.chiba-u.jp](mailto:tkaji@faculty.chiba-u.jp)

**Kamrani, E.**

Marine and Fisheries Ecology

Department  
University of Hormozgan  
PO Box - 3995, Bandar Abbas  
Iran.  
E-mail: [ezas47@gmail.com](mailto:ezas47@gmail.com)

**Kathiresan, K.**  
Centre of Advanced Study (CAS) in  
Marine Biology  
Faculty of Marine Sciences  
Annamalai University  
Parangipettai - 608 502  
India.  
E-mail: [kathirsum@rediffmail.com](mailto:kathirsum@rediffmail.com)

**Khan, M.N.I.**  
Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
CP 169, Avenue F.D. Roosevelt 50  
B-1050 Bruxelles  
Belgium.  
E-mail: [mnikhan@yahoo.com](mailto:mnikhan@yahoo.com)

**Kodikara, K.A.S.**  
University of Ruhuna  
Wellamadama, Matara  
Sri Lanka.  
E-mail: [sunandaruh@gmail.com](mailto:sunandaruh@gmail.com)

**Koedam, N.**  
Laboratory of Plant Biology and  
Nature Management  
Mangrove Management Group  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels

Belgium.  
E-mail: [nikoedam@vub.ac.be](mailto:nikoedam@vub.ac.be)

**Lambs, L.**  
CNRS, Ecolab UMR 5245  
118 route de Narbonne  
31068 Toulouse  
France.  
E-mail: [luc.lambs@univ-tlse3.fr](mailto:luc.lambs@univ-tlse3.fr)

**Lee, S.Y.**  
Australian Rivers Institute and School  
of Environment  
Griffith University Gold Coast campus  
Southport, Qld 4222  
Australia.  
E-mail: [joe.lee@griffith.edu.au](mailto:joe.lee@griffith.edu.au)

**Léopold, A.**  
EA 3325  
Université de la Nouvelle-Calédonie  
Nouméa  
New Caledonia.  
E-mail: [audrey.leopold@univ-nc.nc](mailto:audrey.leopold@univ-nc.nc)

**Lovelock, C.E.**  
The School of Biological Sciences  
The University of Queensland  
St Lucia, QLD 4067  
Australia.  
E-mail: [c.lovelock@uq.edu.au](mailto:c.lovelock@uq.edu.au)

**Mangora, M.M.**  
Institute of Marine Sciences  
University of Dar es Salaam  
P.O. Box 668, Zanzibar  
Tanzania.  
E-mail: [mangora@ims.udsm.ac.tz](mailto:mangora@ims.udsm.ac.tz)

**Marchand, C.**

Institut de Recherche pour le  
Développement (IRD)  
UR 206/UMR 7590 IMPMC, Nouméa  
New Caledonia.  
E-mail : [cyril.marchand@ird.fr](mailto:cyril.marchand@ird.fr)

**Mathiventhan, T.**

Dept. of Botany  
Eastern University  
Chenkalady  
Sri Lanka.  
E-mail: [tmathiventhan@gmail.com](mailto:tmathiventhan@gmail.com)

**McKee, K.L.**

U.S. Geological Survey  
National Wetlands Research Center  
700 Cajundome Blvd.  
Lafayette, Louisiana 70506  
USA.  
E-mail: [mckeek@usgs.gov](mailto:mckeek@usgs.gov)

**Mendelssohn, I.A.**

Dept. of Oceanography and Coastal  
Sciences  
Louisiana State University  
Baton Rouge, LA 70803  
USA.  
E-mail: [imendel@lsu.edu](mailto:imendel@lsu.edu)

**Minchinton, T.E.**

Institute for Conservation Biology  
and Environmental Management  
University of Wollongong  
New South Wales 2522  
Australia.  
E-mail: [tminch@uow.edu.au](mailto:tminch@uow.edu.au)

**Möhler, K.S.**

Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences, and  
Dept. of Journalism  
Université Libre de Bruxelles (ULB)  
Av. F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.  
E-mail: [karin.moehler@gmail.com](mailto:karin.moehler@gmail.com)

**Mohamed, M.O.S.**

Kenya Wildlife Service  
Coast Conservation Area  
P.O. Box 82144-80100, Mombasa  
Kenya.  
E-mail: [msaid@kws.go.ke](mailto:msaid@kws.go.ke)

**Mori, G.M.**

Centro de Biologia Molecular e  
Engenharia Genética  
Universidade Estadual de Campinas  
Av. Cândido Rondon 400 CEP 13083-  
875  
CP 6010, Campinas, São Paulo  
Brazil.  
E-mail: [mori@unicamp.br](mailto:mori@unicamp.br)

**Mukherjee, N.**

Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
CP 169, Avenue F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.

Plant Biology and Nature  
Management Laboratory (APNA)  
Vrije Universiteit Brussels (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
E-mail: [nibedita.41282@gmail.com](mailto:nibedita.41282@gmail.com)

**Nehru, P.**  
Division of Landscape Ecology  
Salim Ali Centre for Ornithology and  
Natural History  
Coimbatore - 641 108, Tamil Nadu  
India.  
E-mail: [nehrumcc@gmail.com](mailto:nehrumcc@gmail.com)

**Nfotabong Atheull, A.**  
The University of Douala  
Dept. of Botany, Faculty of Science  
P.O. Box 8948 Douala  
Cameroon.  
E-mail: [atheull@gmail.com](mailto:atheull@gmail.com)

**Nordhaus, I.**  
Leibniz Center for Tropical Marine  
Ecology (ZMT)  
Fahrenheitstraße. 6, 28359 Bremen  
Germany.  
E-mail: [inga.nordhaus@zmt-bremen.de](mailto:inga.nordhaus@zmt-bremen.de)

**Ochieng, J.A.**  
Plant Biology and Nature  
Management Laboratory (APNA)  
Vrije Universiteit Brussels (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
E-mail:  
[judith\\_okello2003@yahoo.com](mailto:judith_okello2003@yahoo.com)

**Omogoriola, H.O.**  
Nigeria Institute of Oceanography  
and Marine Research (NIOMR)  
P.M.B. 12729, Wilmot Point Road  
Victoria Island, Lagos  
Nigeria.  
E-mail: [adehannah2002@yahoo.com](mailto:adehannah2002@yahoo.com)

**Ono, J.**  
Dept. of Biology,  
Graduate School of Science  
Chiba University  
1-33 Yayoi, Inage, Chiba, 263-522  
Japan.  
E-mail: [tkaji@faculty.chiba-u.jp](mailto:tkaji@faculty.chiba-u.jp)

**Paimpillil, J.S.**  
Center for Earth Research and  
Environment Management  
Cochin 17  
India.  
E-mail: [psjoseph@eth.net](mailto:psjoseph@eth.net)

**Perera, K.A.R.S.**  
Dept. of Botany  
University of Kelaniya,  
Kelaniya  
Sri Lanka.  
E-mail: [roshanperera@yahoo.com](mailto:roshanperera@yahoo.com)

**Perera, N.**  
Dept. of Zoology  
University of Colombo  
Sri Lanka.  
E-mail: [nmpperera@yahoo.com](mailto:nmpperera@yahoo.com)

**Polanía, J.**  
Departamento de Ciencias Forestales

Universidad Nacional de Colombia  
Sede Medellín  
Colombia.  
E-mail: [jhpolaniav@unal.edu.co](mailto:jhpolaniav@unal.edu.co)

**Praveen, V.P.**  
Division of Conservation Biology  
Tropical Botanic Garden and  
Research Institute  
Palode, Thiruvananthapuram -  
695562, Kerala  
India.  
E-mail: [praveencancrum@gmail.com](mailto:praveencancrum@gmail.com)

**Primavera, J.H.**  
Pew Fellow in Marine Conservation  
Scientist Emerita  
SEAFDEC Aquaculture Department  
Tigbauan, Iloilo  
Philippines.  
E-mail: [georginehp@yahoo.com](mailto:georginehp@yahoo.com)

**Quisthoudt, K.**  
Laboratory of Plant Biology and  
Nature Management  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
Av. F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.  
E-mail: [kquistho@vub.ac.be](mailto:kquistho@vub.ac.be)

**Rajapaksha, A.C.D.**  
Dept. of Zoology  
Faculty of Science  
University of Ruhuna  
Sri Lanka.  
E-mail:  
[anuradhadarshani@gmail.com](mailto:anuradhadarshani@gmail.com)

**Rajkaran, A.**  
Dept. of Botany  
Rhodes University  
P.O. Box 94, Grahamstown 6140  
South Africa.  
E-mail: [a.rajkaran@ru.ac.za](mailto:a.rajkaran@ru.ac.za)

**Ransara, G.B.M.**  
Dept. of Botany  
Faculty of Science  
University of Ruhuna  
Sri Lanka.  
E-mail: [muditharansara@gmail.com](mailto:muditharansara@gmail.com)

**Record, S.**  
Harvard Forest  
Harvard University  
324 North Main Street, Petersham  
01366  
USA.  
E-mail: [srecord@fas.harvard.edu](mailto:srecord@fas.harvard.edu)

**Reis-Neto, A.S.**  
PRODEMA  
Universidade Federal do Ceará  
Fortaleza  
60455-900  
Brazil.  
E-mail: [armandoreisneto@live.com](mailto:armandoreisneto@live.com)

**Riyas Ahamed, A.M.**

Dept. of Zoology  
Eastern University Sri Lanka  
Vantharumoolai, Chenkallady  
Sri Lanka.  
E-mail: [riyasahame@yahoo.co.uk](mailto:riyasahame@yahoo.co.uk)

**Robert, E.M.R.**

Laboratory for Plant Biology and  
Nature Management (APNA)  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
E-mail: [erobert@vub.ac.be](mailto:erobert@vub.ac.be)

**Rule, M.J.**

Marine Science Program  
Dept. of Environment and  
Conservation  
17 Dick Perry Ave, Kensington  
Western Australia.  
E-mail: [michael.rule@dec.wa.gov.au](mailto:michael.rule@dec.wa.gov.au)

**Sahu, S.K.**

CAS in Marine Biology  
Faculty of Marine Sciences  
Annamalai University, Parangipettai -  
608 502  
India.  
E-mail: [sunil.mangroves@gmail.com](mailto:sunil.mangroves@gmail.com)

**Saint-Paul, U.**

Leibniz Center for Tropical Marine  
Ecology  
Fahrenheitstr. 6, 28359 Bremen  
Germany.  
E-mail: [ulrich.saint-paul@zmt-bremen.de](mailto:ulrich.saint-paul@zmt-bremen.de)

**Santos, L.C.M.**

Laboratório de Ecologia da Paisagem  
e Conservação (LEPaC)  
Departamento de Ecologia  
Instituto de Biociências, Universidade  
de São Paulo. Rua do Matão  
Travessa 14, Cidade Universitária,  
São Paulo-SP  
Brasil.  
Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
CP 169, Avenue F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.  
E-mail: [santosl@usp.br](mailto:santosl@usp.br)

**Satyanarayana, B.**

Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
B-1050 Brussels  
Belgium.  
Laboratory of Plant Biology and  
Nature Management  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
E-mail: [satyam2149@gmail.com](mailto:satyam2149@gmail.com)

**Shahraki, M.**

Leibniz Center for Marine Tropical  
Ecology (ZMT)  
Fahrenheitstrasse D- 628359

Bremen,  
Germany.  
E-mail: [maryam.shahraki@zmt-bremen.de](mailto:maryam.shahraki@zmt-bremen.de)

**Sharma, S. (Sahadev).**  
Graduate School of Engineering and  
Science  
University of the Ryukyus  
Okinawa 903-0213  
Japan.  
E-mail: [mangrove\\_coral@yahoo.co.in](mailto:mangrove_coral@yahoo.co.in)

**Shinmura, Y.**  
Dept. of Biology  
Graduate School of Science  
Chiba University  
1-33 Yayoi, Inage, Chiba 263-522  
Japan.  
E-mail: [papi-rokoroko@hotmail.co.jp](mailto:papi-rokoroko@hotmail.co.jp)

**Teraminami, T.**  
Laboratory of Plant Ecophysiology  
Graduate School of Environmental  
Science  
Okayama University  
1-1-1 Tsushima-naka, Kita-ku,  
Okayama 700-8530  
Japan.  
E-mail: [phlc8l26@s.okayama-u.ac.jp](mailto:phlc8l26@s.okayama-u.ac.jp)

**Thakur, S.A.**  
Dept. of Zoology  
K.J. Somaiya College of Science and  
Commerce  
University of Mumbai, Mumbai  
India.  
E-mail: [sandhyajit@gmail.com](mailto:sandhyajit@gmail.com)

**Tomizawa, Y.**  
Dept. of Biology  
Graduate School of Science  
Chiba University  
1-33 Yayoi, Inage, Chiba 263-522  
Japan.  
E-mail: [z8s4021@students.chiba-u.jp](mailto:z8s4021@students.chiba-u.jp)

**Tran Thi, V.**  
Center for HydroMet and  
Environment Consultancy  
Vietnam Institute of Hydrology,  
Meteorology and Environment  
(IMHEN)  
23/62 Nguyen Chi Thanh, Hanoi  
Vietnam.  
E-mail: [ttran1@vub.ac.be](mailto:ttran1@vub.ac.be)

**Van der Stocken, T.**  
Laboratory of Plant Biology and  
Nature Management  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels  
Belgium.  
Laboratory of Systems Ecology and  
Resource Management  
Dept. of Organism Biology  
Faculty of Sciences  
Université Libre de Bruxelles (ULB)  
Av. F.D. Roosevelt 50  
B-1050 Brussels  
Belgium.  
E-mail: [tvdstock@vub.ac.be](mailto:tvdstock@vub.ac.be)

**Van Nederveelde, F.**  
Laboratory of Systems Ecology and  
Resource Management  
Université Libre de Bruxelles (ULB)

Av. F. D. Roosevelt 50  
B-1050, Brussels  
Belgium.  
Laboratory of Plant Biology and  
Nature Management (APNA)  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels,  
Belgium.  
E-mail: [fvnederv@ulb.ac.be](mailto:fvnederv@ulb.ac.be)

**Vermeiren, P.**  
Estuary and Tidal Wetland  
Ecosystems Research Laboratory  
James Cook University  
Townsville, Queensland 4811  
Australia.  
E-mail:  
[peter.vermeiren@my.jcu.edu.au](mailto:peter.vermeiren@my.jcu.edu.au)

**Webb, E.L.**  
Dept. of Biological Sciences  
National University of Singapore  
Science Drive 4, Singapore 117543  
Singapore.  
E-mail: [ted.webb@nus.edu.sg](mailto:ted.webb@nus.edu.sg)

**Wee, A.K.S.**  
Dept. of Biological Sciences  
National University of Singapore  
Science Drive 4, Singapore 117543  
Singapore.  
E-mail: [alisonwks@gmail.com](mailto:alisonwks@gmail.com)

**Wilson, F.S.**  
Centre of Advanced Study (CAS) in  
Marine Biology  
Faculty of Marine Sciences  
Annamalai University

Parangipettai - 608 502  
India.  
E-mail: [sylvesterfredy@gmail.com](mailto:sylvesterfredy@gmail.com)

**Wilson, N.C.**  
50A Sunrise Road, Palm Beach  
NSW 2108  
Australia.  
E-mail: [rstylosa@gmail.com](mailto:rstylosa@gmail.com)

**Wodehouse, D.C.J.**  
Bangor University & Mangrove  
Action Project  
Dept. of Environment, Natural  
Resources and Geography  
Adeilad Thoday  
Deiniol Rd., LL57 2UW, Bangor  
United Kingdom.  
E-mail: [dwodehouse@yahoo.com](mailto:dwodehouse@yahoo.com)

**Ximenes, A.C.**  
Laboratory of Systems Ecology and  
Resource Management  
Université Libre de Bruxelles (ULB)  
Av. F. D. Roosevelt 50, B-1050,  
Brussels  
Belgium.  
Laboratory of Plant Biology and  
Nature Management (APNA)  
Vrije Universiteit Brussel (VUB)  
Pleinlaan 2, B-1050 Brussels,  
Belgium.  
E-mail: [ari.ximenes@gmail.com](mailto:ari.ximenes@gmail.com)



**Notes**

**Notes**

## Acknowledgements

Our earnest thanks to all sponsors, who made this conference possible, and to the scientific community that made organizing this symposium a pleasure. Special thanks are due to the financial and administrative authorities at the Vrije Universiteit Brussel (VUB), the Université Libre de Bruxelles (ULB), the University of Ruhuna (UoR), and the Kenya Marine and Fisheries Research Institute (KMFRI). The MMM3 Proceedings layout/printing was supported by the Vlaams Instituut voor de Zee (VLIZ) and published as:

Dahdouh-Guebas, F. & B. Satyanarayana (Eds.). 2012. Proceedings of the International Conference 'Meeting on Mangrove ecology, functioning and Management - MMM3', Galle, Sri Lanka, 2-6 July 2012. *VLIZ Special Publication 57*, xxxix + 192 pp. ISBN 978-90-817451-6-1.





*Rhizophora apiculata* with the extended aerial roots in Matang Mangrove Forest Reserve, Malaysia (Behara SATYANARAYANA)