



Addenda and Errata

(As of 17 July 2010; please see <http://atbc2010.org/> for most recent changes)

Schedule of plenaries

Add →

- **20 July**
 - 09:00-09:30 : **Daniel Murdiyarso** . Coping with multiple-stressors of our time: how tropical biodiversity survive?
 - 09:30-10:00 : **Umar Anggara Jenie**. Bioethical-friendly strategy for biodiversity exploration
- **21 July**
 - 08:30-09:30: **Michael Donoghue** . Reconnecting ecology and evolution to cope with global change
 - 16:30-17:30: [Vice President of Indonesia]
- **22 July**
 - 08:30-09:30 : **Charlie Veron** . Climate change and coral reefs
- **23 July**
 - 08:30-09:30 : **Kathy MacKinnon** . Why Biodiversity Matters in a Changing World
 - 16:30-17:30 : **Frans Bongers** . Surviving the crises: not by biodiversity alone

Schedule of oral presentations

Symposium #01

Add → 13:45 Alford (continued)

Symposium #07

Add → 12:00 Discussion

Add → 12:15 Discussion

Symposium #08

New timing →

10:30 **Pimm**, et al. (V-08-1)

10:45 **Pimm** (continued)

11:00 **Murphy**, et al (V-08-2)

11:15 **Koh**, et al. (V-08-3)

11:30 **Bradshaw**, et al. (V-08-4)

11:45 **Bradshaw** (continued)

12:00 **Ingle**, et al. (V-08-5)

12:15 **Shanley**, et al. (V-08-6)

Symposium #10

Remove → 15:15 **Yuliani** (V-10-8)

Add → 15:15 **Discussion**

Symposium #11

Add → 15:00 **Discussion** (with Peter Ashton)

Add → 15:15 **Discussion** (with Peter Ashton)

Symposium #13

Remove → 15:30 **Setiadi et al.** (V-13-14)

Add → 15:30 **Donoghue**. The biogeographic importance of Southeast Asia in the diversification of campanulid angiosperms and Viburnum (Dipsacales) (V-13-21)

Symposium #21

Remove → 15:45 **Pfund, et al.** (V-21-10)

Add → V-21-11: **Where has my participation gone?’ Case studies on village land-use planning in northern Lao PDR**

Guillaume Lestrelin, Jeremy Bourgoin, Bounthanom Bouahom and Jean-Christophe Castella

Symposium #23

Add → 12:15: **Discussion**

Symposium #39

Add → 15:00: **Discussion**

Add → 15:15: **Discussion**

Symposium #40

Add → 13:45: **Pressey** (continued)

Add → 15:00: **Mumby** (continued)

Symposium #45

Add → 12:15: **Discussion**

Symposium #58, Orangutan Special Side Event

Replace schedule →

08.30-08.40: **N. Andayani**: Setting the stage: Meeting structure and expected outcomes

08.40-08.55: **Damayanti Buchori**. Situational analysis of Kalimantan communities and its implications toward orang-utan conservation: Key results of Kalimantan Wide Survey

08.55-09.10: **Suci Utami Atmoko** . New finding from Sumatera with special references to orang-utans in Dairi and Phakpak

09.10-09.25: **Chairul Saleh**. Population and Distribution of Orangutan in Southern Part of P.T Suka Jaya Makmur Logging Concession, West Kalimantan

09.25-10.00: Q & A including BREAK

10.00-10.15: **Albertus Tjiu** . Orang Utan Living in and Outside Danau Sentarum National Park

10.15-10.30: **Roberto Delgado**. Primate Diversity and Abundance in Two Protected Forests of East Kalimantan

10.30-10.45: **Rondang Siregar**. Reintroduction of orang-utan in Meratus protected forest: a study case of orang-utan behavioural adaptation after release to the natural habitat

10.45-11.00: **Mark E Harrison**. Orang-utan feeding ecology in Sabangau peat-swamp forest, Central Kalimantan, Indonesia: Implication for Captive Management

11.00-11.15: **Leslie Bollick** . Orang-utan (*Pongo pygmaeus wrumbii*) population density in the logged peat swamp forest of Rimba Raya Restoration concession, Central Kalimantan

11.15-11.30: **Yaya Rayadin**. Nesting site and habitat preferences on Bornean orang-utan (*P.pygmaeus morio*) in forest plantation: Implication for conservation management plan

11.30-11.45: **Tatang Mitra Setia** . Function of long-calls on Sumatran orang-utan (*Pongo abelii*)

11.45-12.00: **Wahyu Susanto** . Sexual selection for large male body size in Orang-utan, the largest canopy animals

12.00-12.15: **Astri Zulfa** . Adult female orang-utan food and nutrients composition at Tuanan, Central Kalimantan

12.15-12.30: Q & A

12.30-13.30: LUNCH BREAK

13.30-13.45: **Lilik Budi Prasetyo** . Village based data for habitat suitability mapping of orang-utan: Logistic regression approach

13.45-14.00: **Y. Hadiprakarsa**. Predicting orang-utan occurrences in the Kalimantan multifunctional landscape

14.00-14.15: **Jessica Wells**. Multilevel analysis of presence and relative abundance of orang utan, based on village survey

14.15-14.30: **E. Linda Yuliani**. Saving the orang-utan populations and habitat within and around Danau Sentarum National Park

14.30-14.45: **Manahan Sihotang**. Using GIS and Remote Sensing to analyse Sumatran orangutan distribution and habitat association in Batang Toru, North Sumatera

14.45-15.00: Q&A

15.00-15.15: BREAK

15.15-15.30: **Harry Santoso**. Policy intervention for the conservation of orang-utans

15.30-15.45: **Bungaran Saragih**. Habitat restoration in log-over area for orang-utan conservation

15.45-16.00: **Niel Makinudin**

16.00-16.15: **Herry Djoko Susilo**. A synthesis from regional consultation forums: stakeholder's perspectives on the orang-utan national conservation plan and strategy

16.45-17.00: **Jamartin Sihite**. Living in the edge: landscape approach to conserve orang-utans

17.00-17.50: Q&A

17.50-18.00: CLOSING (Damayanti Buchori and N.Andayani)

Symposium #61

Remove → 14:00 Forget et al. (V-61-3)

Add → 14:00 Fragoso, et al. Animals Overhunted or Animals Hiding? (P-19-9)

Poster session #01

Add → P-01-42: The diversity of peat swamp forests in Tanjung Puting National Park: Structure and composition of high forest value species

Daniel Murdiyarto¹, Sofyan Kurnianto¹, M. Stidham², D. Donato², J. B. Kauffman; M. Kanninen; 1. *CIFOR*, 2. *USDA Forest Service*

Poster session #03

Add → P-03-20: Carbon sequestration of some trees collection in Bogor Botanic Garden, Cibodas Botanic Garden, Muara Angke Tourism garden and Indonesian University conservation forest, Depok

W. Widiyono, F. Syarif, Saefudin; *RC for Biology, Indonesian Institute of Sciences*

Poster session #08

Add → P-08-26: Turnover in herbivorous insect communities in contrasting tropical forest habitats

Greg. P. A. Lamarre¹, C. Fortunel¹, P. Fine², C. Baroloto¹; 1. *INRA - Umr Ecofog*, 2. *Department of Integrative Biology, UC Berkeley*

Poster session #10

Add → P-10-10: Evaluation of potential demographic differences in the Mona island iguana *Cyclura cornuta stejnegeri* in different microhabitats in Mona island, PR

Cielo E. Figuerola-Hernández, Elvia Meléndez-Ackerman; *University of Puerto Rico*

Poster Session #13

Add → P-13-23: Phylogenetic Analysis of Actinomycetes Isolated in Indonesia

Puspita Lisdiyanti¹, Shanti Ratnakomala¹, Roni Ridwan¹, Misa Otoguro², Hideki Yamamura, Tomohiko Tamura, Shinji Miyadoh, Yantiyati Widyastuti, and Katsuhiko Ando; 1. *Research Center for Biotechnology, LIPI*, 2. *National Institute of Technology and Evaluation*

Poster session #19

Add → P-19-10: You are a world treasure: an international partnership for community-based conservation in Tompotika, Sulawesi, Indonesia

Marcy Summers, Anim Alyoihana, Agustian Laya, Ikhsan Suling, Ritfan Djano, Panji Kresno, and Noval Suling; *Alliance for Tompotika Conservation*

Abstracts

Symposium #13

Add → V-13-21: The biogeographic importance of Southeast Asia in the diversification of campanulid angiosperms and Viburnum (Dipsacales)

Michael J. Donoghue ; *Department of Ecology and Evolutionary Biology, Yale University*

A new phylogenetic analysis of the Campanulidae suggests that this major clade of angiosperms diversified initially in the Southern Hemisphere, most likely in northern Australasia. In this analysis we also recover some evidence of the role of the break-up of Gondwana on distribution patterns. These analyses also indicate that the closest relatives of the northern temperate-zone Dipsacales are found in austral areas and Southeast Asia. Within Dipsacales, we now have evidence of a possible Southeast Asian origin of Viburnum. The inclusion of several rare species previously assigned to section *Megalotinus* yields the surprising result that these are very distantly related to one another. Despite their rarity and general obscurity, these species are spread among the

major *Viburnum* clades in a way that suggests an initial diversification in sub-tropical montane habitats in Southeast Asia. This early phase of *Viburnum* evolution followed by several shifts into temperate forests, and then movement around the Northern Hemisphere through Beringia and, most recently, down into South America.

Symposium #21

Add → V-21-11: Where has my participation gone?’ Case studies on village land-use planning in northern Lao PDR

Guillaume Lestrelin, Jeremy Bourgoin, Bounthanom Bouahom and Jean-Christophe Castella

Land-use planning represents an important arena for political debates over society-environment interactions. Importantly, the establishment of sustainable development as key objective for the practice of land-use planning raises fundamental questions about political priorities, socioeconomic and environmental values and the way individual divergences should be addressed as part of a participatory planning process. Since the early 1990s, the Laotian government has embarked into a nationwide Land-Use Planning and Land Allocation (LUPLA) programme conducted at the village level. Through village boundary delineation, land zoning and allocation of individual land-use rights, LUPLA is expected to foster socioeconomic development while preserving the environment. The programme, however, has long been portrayed as a cause of increased pressure on land and natural resources, decreased food security and increased poverty. The debate over LUPLA relates essentially to the way limited local participation results in unsustainable land-use planning and land allocation. Over the past two decades, significant changes have thus been introduced into the process in order to increase local participation. This evolution has eventually led to a redefinition of LUPLA into Participatory Land-Use Planning (PLUP).

Based on three case studies representative of different forms of village land-use planning, the paper addresses the following question: Is the evolution of Laos’ village land-use planning process towards increased local participation reflected into actual livelihood and conservation of natural resources? For that purpose, a quantitative approach to local participation is experimented and combined with surveys on livelihood and land-use change and direct observations of village land-use planning implementation.

The research highlights that, despite significant differences in local participation, land-use planning had a very limited influence on livelihood and land-use patterns in the three study villages in Phonxay district, Luang Prabang province. Accessibility and resource endowment appear in fact much more determining. Land-use zoning – i.e. a key process that is expected to optimize natural resource management and, hence, facilitate sustainable development – is generally ignored by villagers after completion of the planning exercise. LUPLA becomes thus merely a matter of delineating village boundaries and allocating land to village households. On the one hand, however, the outcomes of land allocation appear highly contingent upon existing configurations of power within villages. As a function of the bargaining power of each individual household, land allocation tends to freeze existing disparities in terms of access to land resources. On the other hand, the potential of LUPLA to limit land conflicts (through securing land tenure and clarifying village boundaries) is often hindered by the impacts of concurrent, yet non-coordinated village relocation policies.

The new PLUP framework rightly attempts to tackle these issues by integrating land-use planning at the village cluster level and allowing for community land titling. As observed in one of the study villages, however, methodological issues can seriously undermine the ambitions of PLUP. With limited technical knowledge and capacity, implementers tend to follow the planning guidelines quite literally, therefore reducing the room for adaptation to local circumstances. GPS coordinates are recorded; agro-ecological and socioeconomic surveys are conducted; yet, the information is seldom integrated at a later stage. Field data hardly serve as a basis for reflexion on zoning and management. In the end, elusive methods wrapped up in good PLUP principles foster confusion regarding on-the-ground implementation. Hence, just as happened to LUPLA in the past, there is a risk that without proper methodological training and technical support to implementing agencies, the good principles of PLUP will get lost in translation when concretely applied in the field.

Symposium #55

Add author → V-55-10: The Praxis of Biodiversity Conservation in Conversion Landscapes

Gary Paoli¹ and Jos Barlow²; 1. *Daemeter Consulting*, 2. *Department of Biological Sciences, Lancaster*

Symposium #58 (Special side event)

Add symposium abstract → New perspectives in orangutan conservation: Learning from the past, adapting for the future

Arguably, orangutan is the most studied primates in Indonesia. For more than four decades this great ape has attracted scientists from all over the world, generating from their works wealth information on its ecology, behavior, genetics, demography, and culture. Despite this great interest, orangutan does not fare better compared to other primate species as their habitats being cleared indiscriminately for timber and palm oil. Today this Asian only great ape is listed among the most threatened species in the world. The World Conservation Union (IUCN Red Data List 2007) respectively classifies the two orangutan species, Bornean (*Pongo pygmaeus*) and Sumatran (*P. abelii*), as endangered and critically endangered. A suit of laws and regulations assigned to both orangutan species by the Government of Indonesia is clearly insufficient to protect those species from habitat destruction, which often followed by illegal hunting and trade. Various reports on their population estimates confirm this dire situation, as demonstrated by a sharp decline of their populations in the last three decades. Although new populations in Kalimantan and Sumatra have been reported recently, those findings do not overall secure the future of orangutans provided that no strong political will to improve forest governance is in existence. This symposium is designed to bring together researchers, development agencies, and policy makers in a consultative forum to find new ways of saving orangutans and the tropical lowland forest where they live. Traditional approach of land use plan with static boundary of protected areas is viewed no longer adequate. Multiple land use approaches need to be evaluated to seek for a viable solution to ensure orangutan's survival amidst the government's continuing drive for socioeconomic development. Science needs to be used rigorously and aimed to find practical management recommendations agreeable to different stakeholders under such approaches. New findings from island wide surveys conducted in Sumatra and Kalimantan to assess the current status of orangutans will be presented and provide a framework for further discussion. At its close, this symposium is set for new directions in orangutan research and a better link between conservation science and development.

Add → Orangutan Occurrence In and Outside Danau Sentarum National Park

Albertus Tjiu¹, Chairul Saleh¹, Haryono¹, Azwar and Ambriansyah; *1. WWF Indonesia*

Danau Sentarum National Park situated in Kapuas Hulu District, West Kalimantan Province with an area of 132.000 ha is one of the important habitats for Orangutan (*Pongo pygmaeus pygmaeus*). Research on Orangutan population and distribution was carried out using the line transects method employing measurements and calculations of nest densities, along with other parameters confirming the existence of the studied species. For vegetation analysis we used plots measuring 20 x 20 m. The range interval of each plot was 100 meters. An area of 131.509 ha forest was covered in the survey, and we estimate that about range from 771 to 1.006 orangutans are still living within and outside Danau Sentarum National Park. More than half of the populations are concentrated in the eastern side of the park or corridor areas connecting Betung Kerihun and Danau Sentarum National Park. Vegetation analysis yielded that 54% trees species can serve as Orangutan food trees. Their high availability above 50% of trees species demonstrated the habitats within the surveyed location are still very suitable Orangutan habitats.

The survey was carried out in ten forest blocks in- and around Danau Sentarum National Park earmarked for commercial agriculture and forestry, within multiple use areas or production forest. Orangutan population densities ranged between 0, 33 – 3, 48 individual/km². It is noteworthy that in the same location three oil palm plantation concessions, as well as one logging concession were active, highlighting the need for inclusion of these areas without protection status in conservation concepts for the species.

Add → Policy intervention for the conservation of orang-utans

Harry Santoso; *Gedung Pusat Kehutanan Manggala Wanabakti*

Currently in Sumatra it is estimated that there are about 6,667 Sumatran orangutans in at least 11 geographically separated sub-populations. Of these populations, only 3 are estimated at over 500 individuals. Bornean orangutans were estimated at the PHVA to a number around 54,567 in numerous fragmented and scattered populations.

The biggest threats to the orangutan include habitat loss, disturbance and fragmentation, caused by conversion

of natural forest lands as their prime habitat, forest fires, illegal logging, encroachment, peatland and/or swamp forest drainage, mining and poor silvicultural practices by logging concessions and trade.

Recognizing the importance of these species, many efforts and measures particularly policy intervention for the conservation of the species have been taken to save them. These includes establishing legislation, develop a strategy for the conservation of orangutan; law enforcement to stop illegal logging, hunting/poaching, and illegal trade; rehabilitation and reintroduction programs; and ecosystem restoration for releasing orangutan. These efforts, however, will come to no end if they are not part of a systematic and prioritized approach.

The most recent policy in regard conservation of orangutan by licensing ecosystem restoration for releasing orangutan, there are 2 companies are proposed to granted the license for the management of ecosystem restoration as well as for habitat for releasing of orangutan with the total areas 319,475 ha in 4 location in Central and East Kalimantan.

Add → Nesting site and habitat preferences on Bornean orangutan (*Pongo pygmaeus morio*) in the forest plantation: Implication for conservation management plans

Yaya Rayadin^{1,2}, Awalia Novamalasari², Muhammad Husni²: 1. *Tropical Rain Forest Research Centre, University Mulwarman*, 2 *Forestry Faculty of Mulawarman University*

The Bornean Orangutan is currently found only in forests on the island of Kalimantan (Borneo). Their habitat now includes commercial and secondary as well as primary forests, oil palm plantations and forest plantations. This study addressed three important issues concerning the occurrences of wild Bornean orangutans (*Pongo pygmaeus morio*) in forest plantations of Acacia. First, observed orangutan nesting behavior and their features, second, determined habitat preferences for orangutan sleeping site, and third, developing management recommendations that maximize the long-term survival chances for orangutan conservation in forest plantations. The study was conducted in PT. Sumalindo Lestari Jaya forest plantation Site Sebulu, East Kalimantan Indonesia. Comparing to the orangutan nesting behavior in the natural forest, nest and nest site features on the orangutan in the *Acacia mangium* forest showed different patterns. Height of trees for nesting site (mean = 11.42 m, SD = 2.67, Range = 14.6 m, n = 104); height of nest (mean = 8.4 m, SD = 2.83, Range = 16.2 m, n = 104) and tree DBH (diameter at breast height) (mean = 14.83 cm, SD = 2.61, Range = 10.4 cm, n = 104) were lower than that natural forest. Although, they generally make nest on the tree with DBH more than 6 cm (*Acacia mangium* > 2 years old) and make near “*Lebung*”(conservation areas), however base on habitat preferences for nesting site, showed that orangutan in Acacia forest did not prefer *lebung* for nesting sites. Thus, better vegetation in *Lebung* may help keep orangutans in *lebung* only for short time and there is evidence that orangutans always enter and raid Acacia plantations especially around *lebung*. The pattern on the wild orangutans make nest on the Acacia forest, as implications from their habitat conversions. The better improving best practice management and provide recommendation for plantations company with aim to protect orangutan population is very important, and best practice management base on longterm study on orangutan nesting behaviour can maximize the long term survival chance for orangutan in Acacia forest.

Add → Socioecology of sumatran orangutan matriline (*Pongo abelii* Lesson, 1827) at Ketambe research center, Gunung Leuser National Park, Southeast Aceh

Fitriah Basalamah^{1,2}, Sri Suci Utami Atmoko², Jatna Supriatna¹ ; 1. *Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Indonesia*, 2. *Fakultas Biologi Universitas Nasional*

Orangutan is the Asian representative of the great apes. Its present range is confined to dwindling areas on the islands of Borneo (*Pongo pygmaeus*) and Sumatra (*Pongo abelii*) . Orangutans are arboreal, frugivorous and live semi-solitary in fission- fusion societies. Ketambe, one of the major orangutan sites, supports a population density of 3-5 ind/km². Ketambe Research Center, which is based in Gunung Leuser National Park, was run since early 1970. There are at least six families of orangutans living in the area, including the offspring of the ex-rehabilitation orangutans. One of the most important studies identified matriline within Ketambe based on genetic analysis.

Female orangutans in Ketambe tend to be philopatric which means that they remain in their natal or birth groups. This condition is the result of intense competition among individual orangutans over food patches because they often form dominance relations when meeting in the same food patch. Dominant ranking of ex-rehabilitation orangutans, based on a linear index of responses in the context of displacement at a food patch, tends to be lower than those of wild orangutans.

Orangutans travel and forage to find food patches within their habitat. By using software GIS Arc View 3.3, Day Journey Length (DHL) of adult females including ex- rehabilitation is known to be 37-2.106 meters with an

average between 437-795 meter. The matriline relationship between individuals influence each other in foraging and competition to establish home ranges, especially for females. Orangutans matriline tend to have on overlapping home ranges between 46,66% - 97,07%.

Add → Saving the remaining orangutan population and habitat within and around Danau Sentarum National Park

Elizabeth Linda Yuliani¹, Hasantoha Adnan¹, Moira Moeliono¹, Deni Onesimus Bakara², Ade Bujani and Budi Suriasyah; *1. Center for International Forestry Research (CIFOR), 2. Riak Bumi*

Primary and secondary forest cover in and around Danau Sentarum National Park (DSNP), have continuously declined in the last ten years. These forests provide an important habitat for orangutans, and there has been a concomitant reduction in their numbers. The government and local stakeholders rarely prioritize the conservation of endemic species such as orangutan. In many cases, there are groups of stakeholders who contest conservation with development and human rights issues. Therefore a more comprehensive approach for orangutan conservation that clearly shows the importance of orangutan to human is needed. A study is currently being conducted by CIFOR in collaboration with Riak Bumi NGO and DSNP Authority (Balai TNDS). The objectives of the study are (1) to understand the underlying causes of failure of wildlife conservation in Indonesia; (2) to develop a more comprehensive approach and tools for more effective orangutan conservation; and (3) to develop a more accurate nest decay rate, and use the new nest decay rate to recalculate the orangutan population from previous study by Russon et al. (2001) and therefore compare population dynamics and whether there has been a dramatic reduction in primate populations. The study is integrating both biophysical studies (i.e. orangutan population survey using nest decay rate method) and social studies (i.e. social, economic and policy context) to inform the on-going awareness program, participatory land use planning and the generation of bottom-up decisions. This paper will present the conceptual framework, the approach and tentative results of the ongoing study.

Poster session #01

Add → P-01-42: The diversity of peat swamp forests in Tanjung Puting National Park: Structure and composition of high forest value species

Daniel Murdiyarto¹, Sofyan Kurnianto¹, M. Stidham², D. Donato², J. B. Kauffman; M. Kanninen; *1. CIFOR, 2. USDA Forest Service*

Peat swamp forests are important ecosystems both for timber and non-timber products. They also play an important role in regulating and providing ecosystem services, such as hydrological cycle and provision of natural habitat for rare and endangered species of fauna and flora.

The demand for land, however, has increased the rate of conversion of peat swamp areas and is having detrimental effects upon the environment locally, regionally and globally. The sustainability of peat swamp forest is uncertain, especially when the rate of conversions into production system is uncontrollable. Consequently, it is increasingly important that large areas of peat swamp forest are left in their natural condition and conserved, so that their biodiversity, carbon and water can be protected and their benefits and natural resource functions made available to future generations.

Tanjung Puting National Park is an example where those services may be demonstrated in a protected area. In order to quantify the diversity of peat swamp forest this paper assess a number of indices that describe the structure and composition of terrestrial ecosystem. The Park is dominated by Ketiau (*Ganua mottleyana*) member of Sapotaceae family with a relative dominance of 36%. This species bears fruits almost all year long, which is the favorite of Orangutan and has an importance index of 58%. The second dominant species is Rengas (*Gluta wallichii*) a family of Anacardiaceae an important timber species with an index of 37%.

Poster session #03

Add → P-03-20: Carbon sequestration of some trees collection in Bogor Botanic Garden, Cibodas Botanic Garden, Muara Angke Tourism garden and Indonesian University conservation forest, Depok

W. Widiyono, F. Syarif, Saefudin; *RC for Biology, Indonesian Institute of Sciences*

To understand plant capability to absorb carbon the eco-physiological research of some trees were conducted at the four locations in June, July and August 2009. Photosynthesis rate were observed by using Lci, Leaf

Chamber/Soil Respiration Analysis System. The research of some *Shorea* species in Bogor Botanic Garden indicated that photosynthesis of *Shorea assamica* ($26.18 \mu\text{mol m}^{-2} \text{s}^{-1}$) was the highest of all sample in this location. The photosynthesis rate of *Prumnopitys amara* (48.83) in nursery of Cibodas Botanical Garden was the highest of all sample in this location; and photosynthesis rate of *Shima walichii* in field was $29.3 \mu\text{mol m}^{-2} \text{s}^{-1}$.

The photosynthesis rate of Mangrove in Muara Angke Tourism Garden, y.i.: *Avecinnia marina* in 4 years old was $12.04 \mu\text{mol m}^{-2} \text{s}^{-1}$ and *Rhizophora mucronata* was $48.9229.3 \mu\text{mol m}^{-2} \text{s}^{-1}$. The photosynthesis rate of 10 years old *Acacia mangium* in the Indonesian University Conservation Forest-Depok was $38.2 \mu\text{mol m}^{-2} \text{s}^{-1}$ and other fast growing trees like *Bauhinia malabarica*, *Antidesma bunius*, *Syzygium polyanthum* and *Swietenia macrophylla* were respectively, i.e.: 3.6; 3.79; 6.8; 1.25 in $\mu\text{mol m}^{-2} \text{s}^{-1}$.

Poster session #08

Add → P-08-26: Turnover in herbivorous insect communities in contrasting tropical forest habitats

Greg. P. A. Lamarre¹, C. Fortunel¹, P. Fine², C. Baroloto¹; 1. INRA - Umr Ecofog, 2. Department of Integrative Biology. UC Berkeley

Herbivorous insects are hypothesized to promote tropical plant diversity by exerting different pressures across gradients of resource availability. Nonetheless, few studies have characterized insect communities in different tropical forest habitats, and little data exists integrating insect community structure and the impacts that herbivorous insect are likely to exert on plant communities.

We examined insect abundance and community composition in three widespread lowland tropical forest habitats of French Guiana: white sand forests, seasonally-inundated and terra firme clay forests. Insects were trapped using several methods during wet season months of 2010 in 2 ha areas circumscribing each of six 0.5-ha permanent vegetation plots. Here we present the composition (in terms of morphospecies and feeding guilds) and abundance of phyllophagous insects of five orders (Lepidoptera, Coleoptera, Orthoptera, Homoptera and Hymenoptera) from this survey.

To determine the extent to which any differences in insect abundance and composition affect the plant community, we also are conducting a survey of leaf phenology and herbivory rates in five woody plant lineages (Bombacoideae, Protieae, Inga, Micropholis and Swartzia) that include species that are specialists in each habitat.

We will present preliminary results of these observations and discuss the extent to which shifts in phyllophagous insect communities contribute to turnover in woody plant species across strong habitat gradients in French Guianan forests.

Poster session #10

Add → P-10-10: Evaluation of potential demographic differences in the Mona island iguana *Cyclura cornuta stejnegeri* in different microhabitats in Mona island, PR

Cielo E. Figuerola-Hernández, Elvia Meléndez-Ackerman; University of Puerto Rico

Rock iguanas have a high degree of endemism. Timely research has been directed to endangered species which typically exhibit limited dispersal capabilities, low population numbers and dependency for special habitats for breeding or foraging purposes, this is the case of the Mona rock iguana. The increase of these iguanas in Mona island has been possible in part to the presence of smaller depression sites. Given the distribution of depression forests across the landscape, different-sized depression sites may have distinctive roles in the Mona rock iguana life cycle. Mona Island is located in the middle of the Mona channel, between the coasts of Dominican Republic and Puerto Rico. It is an oceanic island with a subtropical dry forest climate. The largest (93%) habitat type of the island is the limestone rocky "plateau". Another unique habitat type (1%) are the forest depressions located in the plateau. With this study, we want to address the importance of these two sites in regard to habitat suitability and population dynamics of Mona rock iguanas. Our objectives for this study include 1) assessing the reproductive biology of the Mona island iguana, 2) assessing differences in the movement patterns for the different demographic stages of the Mona island iguana between microclimates and 3) assessing the differences in the utilization of the habitat by the Mona iguana between microclimates. The methodology will include visual censuses to determine the distribution of the iguanas in the depression forests and platform, spatial analysis to

develop distribution maps by season, microclimate and by habitat use. Finally, head start iguanas will be used to determine movement patterns of the three life stages in both microclimates with GPS radio collars.

Poster Session #13

Add → P-13-23: Phylogenetic Analysis of Actinomycetes Isolated in Indonesia

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In the framework of joint research project between Indonesia and Japan, we study the phylogenetic analysis of actinomycetes isolated from Indonesia. A total of 3,193 identified actinomycetes were isolated from soil and litter samples collected from 13 botanical gardens and others related area in Indonesia in 2003-2008. Five isolation methods, i.e. SDS-Yeast Extract method, Rehydration-Centrifugation method, Dry Heating method, Phenol method, and Oil-Separation method were performed for isolation. All isolates were identified into the genus level by 16S rRNA gene sequences. Phylogenetic analysis of the isolates using 16S rRNA gene sequence data showed that those isolates consist of 26 families in the Order Actinomycetales, i.e. Family Catenulisporaceae, Corynebacteriaceae, Dietziaceae, Gordoniaceae, Mycobacteriaceae, Nocardiaceae, Tsukamurellaceae, Geodermatophilaceae, “Kineosporiaceae”, Glycomicetaceae, Brevibacteriaceae, Cellulomonadaceae, Dermacoccaceae, Dermatophilaceae, Intrasporangiaceae, Microbacteriaceae, Micrococcaceae, Promicromonosporaceae, Micromonosporaceae, Nocardiodaceae, Actinosynnemataceae, Pseudonocardaceae, Nocardiosporaceae, Streptosporangiaceae, Thermomonosporaceae, Streptomycetaceae; and 1 family in the Order Rubrobacterales, i.e. Family Patulibacteraceae. The number of genera of actinomycetes found in this study are 64 genera. Molecular data detected low similarity values of 16S rRNA gene of more than 30% isolates (less than 98% of BLAST search value) to their closest species in DNA database. Several new genus and new species are proposed.

Poster session #19

Add → P-19-10: You are a world treasure: an international partnership for community-based conservation in Tompotika, Sulawesi, Indonesia

Marcy Summers, Anim Alyoihana, Agustian Laya, Ikhsan Suling, Ritfan Djano, Panji Kresno, and Noval Suling; *Alliance for Tompotika Conservation*

Despite increasing recognition of its importance as a global biodiversity epicenter, Indonesia's natural areas and biodiversity continue to decline at alarming rates. It is widely understood that successful conservation efforts must involve local people as central players; at the same time people near the most diverse and threatened natural areas often lack the technical and financial resources and inspiration to initiate and sustain conservation efforts. We present a partnership model in which conservationists from elsewhere in Indonesia and in the United States have joined together with local conservationists in Tompotika, Sulawesi, to effectively conserve endangered species and tropical forests. Using innovative strategies including Art for Conservation projects, Eco-service tourism, and locally-declared protected areas, the Alliance for Tompotika Conservation/Aliansi Konservasi Tompotika, or “AlTo,” has locally reversed the decline of the endangered maleo bird (*Macrocephalon maleo*), halted poaching of endangered sea turtles, established a new protected forest area, and is helping to build a local constituency for conservation through a popular Conservation Awareness campaign—all through a small and locally-focused partnership of a U.S.-based non-profit organization paired with an Indonesian Yayasan.

Evening events

Time change → 20 July: Emerging technologies for tropical biology and conservation: genomics' Location: Wantilan plenary, 18:30

Time change → 21 July: Australasian Floristic Interchange Group, kickoff meeting (organized by Craig Costion). Location: Jauk room, 18:00