

## SEARRP Science Meeting

### Day 1 – SEARRP science

- 10.30 Arrival, registration & coffee
- 11.00 Welcome & update on SEARRP, Sabah and the CCI
- John Pyle & Glen Reynolds (Welcome & SEARRP update) 5 mins
  - Datuk Sam Mannan (Conservation & forest management in Sabah) 10 mins
  - Agnes Agama & Jen Lucey (Policy & Knowledge Exchange) 15 mins
  - Mikey O'Brien & Katie King (New SEARRP website & procedures) 15 mins
  - Rosie Trevelyan & David Coomes (Introduction to the Cambridge Conservation Initiative) 10 mins
- 11.55 Short break
- 12.00 Short talks Session 1 (10 mins each + 2 mins questions)
- Benny Yeong (Nottingham/SEARRP)
  - Terhi Riutta (Oxford/Imperial)
  - Natalia Ocampo Peñuela (ETH-Zurich)
  - Matheus H Nuñez (Cambridge)
  - Louise Ashton (NHM)
  - Sabine Both (Aberdeen)
  - Christopher Philipson (Dundee)
- 13.30 Lunch
- 14.30 Short talks Session 2 (10 mins each + 2 mins questions)
- Kalsum Mohd. Yusah (UMS)
  - Sarah Scriven (York)
  - Luke Evans (CAO)
  - Sarah Luke (Kent/Cambridge)
  - Ed Turner (Cambridge)
  - Eleanor Slade (Oxford/Lancaster)
  - Kevin Darras (Göttingen)
- 16.00 Summary of Sessions 1 & 2 (Mikey)
- 16.15 Coffee break
- 16.30 Future opportunities (Glen)
- Incl. broad overview of the Aceh Project – history, landscape, opportunities, relevance to development of RSPO guidelines, institutional set-up and funding
  - Aims for Day 2 (Mikey & Katie)
- 17.00 Reception & interaction time
- 18.30 End of Day 1

## Day 2 – The proposed Aceh Project

8.30	Pre-meeting briefing for breakout discussion group leaders (briefing led by Glen, Mikey & Katie)
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9.00 Aims for the day (Mikey & Katie)  
Revisiting plans for the Aceh project and outlining opportunities for collaborative science

9.30 Breakout discussion groups – research objectives for Aceh:  
Each group to identify 3 research priorities that will impact design considerations  
Group 1 – Jen Lucey  
Group 2 – Jane Hill  
Group 3 – Roger Kitching  
Group 4 – Rosie Trevelyan  
Group 5 – Agnes Agama

11.00 Coffee (during which discussion group leaders to summarise key points)

11.30 Summary findings from Discussion Groups (Jen, Jane, Roger, Rosie and Agnes)

13.00 Wrap-up & next steps (Glen & Mikey)

13.15 Closing – John Pyle

13.20 End of meeting

## **Presentation summaries**

### **Benny Yeong (University of Nottingham/SEARRP)**

*The effects of forest fragmentation on the regeneration of Dipterocarps in Sabah, Malaysian Borneo*

### **Terhi Riutta (University of Oxford/Imperial)**

*Complete carbon budget in logged and old-growth tropical forests in Malaysian Borneo*

### **Natalia Ocampo Peñuela (ETH-Zurich)**

*Evaluating forest connectivity for animal-assisted seed dispersal in Borneo: Insights for sustainable oil palm landscapes*

To improve our understanding of the impacts of oil palm mosaics on frugivorous communities, and design better oil palm landscapes, we will model changes in habitat availability, species distribution and functional connectivity of frugivorous forest vertebrates in Borneo. Models will be tested and calibrated using bird surveys and tracking data.

### **Matheus H Nuñez (University of Cambridge)**

*Aboveground biomass estimation in oil palm plantations at single tree level with LiDAR data*

Investigating aboveground carbon stock in oil palm plantation is crucial to predict carbon losses caused by land-use change. We present a study on the estimation of aboveground carbon in oil palm plantations at single tree level using airborne laser scanning (ALS) and compare the results to an area-based approach and field data.

### **Louise Ashton (Natural History Museum)**

*Functional redundancy in ants, other invertebrates and vertebrates*

Using a large-scale ecological manipulation experiment, we investigated the roles of ants in resource removal in tropical rainforest and examined the capacity for functional redundancy between ants, other invertebrates and vertebrates.

### **Sabine Both (University of Aberdeen)**

*Plant functional traits across a land-use gradient in Sabah, Borneo*

Selective logging leads to changes in tree species composition, altering trait expression and potentially ecosystem functioning. Trade-offs among functional traits reveal major plant strategies that can give insight into the consequences caused by logging. We sampled more than 20 functional traits in 300 tree species and investigate the functional composition of the tree communities along a land-use gradient.

### **Christopher Philipson (Dundee University)**

*Forest dynamics in 20 years of forest monitoring (provisional title – to confirm)*

**Kalsum Mohd. Yusah (Universiti Malaysia Sabah)**

***Effects of forest fragmentation and El-Nino on ant communities from different forest strata***

Differences in forest fragment sizes and extreme weather events can combine to have huge impacts on biological communities. Ants were collected from the forest canopy and leaf litter before and shortly after experimental fragmentation at SAFE sites, Sabah. The second sampling session coincided with the 2015 El-Nino event. Canopy ants were affected negatively both by forest fragmentation and the El-Nino event, with the smaller fragments most strongly affected.

**Sarah Scriven (Universit of York)**

***Testing the benefits of High Conservation Value (HCV) areas for landscape connectivity***

Roundtable on Sustainable Palm Oil (RSPO) voluntary certification standards require areas of rainforest with High Conservation Values (HCVs) to be conserved. We use remotely-sensed landcover data to assess the quality and placement of HCV areas on Borneo, and examine the benefits of these HCV areas for landscape connectivity using metapopulation models.

**Luke Evans (Carnegie Airborne Observatory)**

***Remote-sensing based conservation***

Utilising remote sensing datasets to examine the effects of habitat traits on faunal behaviour and ranging in Sabah, Malaysia.

**Sarah Luke (University of Kent/University of Cambridge)**

***Design and restoration of riparian buffer strips in oil palm plantations***

My current research considers how to design and restore riparian buffer strips in oil palm plantations, with the aim of striking the best balance between the needs of biodiversity, water quality and palm oil yield.

**Ed Turner (University of Cambridge)**

***Managing for diversity within oil palm landscapes***

We will present findings from the Biodiversity and Ecosystem Function in Tropical Agriculture (BEFTA) Project, which has experimentally manipulated understory complexity within oil palm plantations. We will also introduce our new study (The Riparian Ecosystem Restoration in Tropical Agriculture (RERTA) Project) which will trial different management options for restoring riparian areas in oil palm.

**Eleanor Slade (University of Oxford, Lancaster University)**

***UNDP Project: Biodiversity conservation in multiple-use forest landscapes in Sabah***

**Kevin Darras (Göttingen University)**

***EFForTS: Ecological and Socioeconomic Functions of Tropical Lowland Rainforest Transformation Systems (Sumatra, Indonesia)***

We will present the core design of EFForTS in its four land-use systems, as well as the oil palm enrichment and the oil palm management experiments. The publication outcomes and main findings of the project will be presented briefly.