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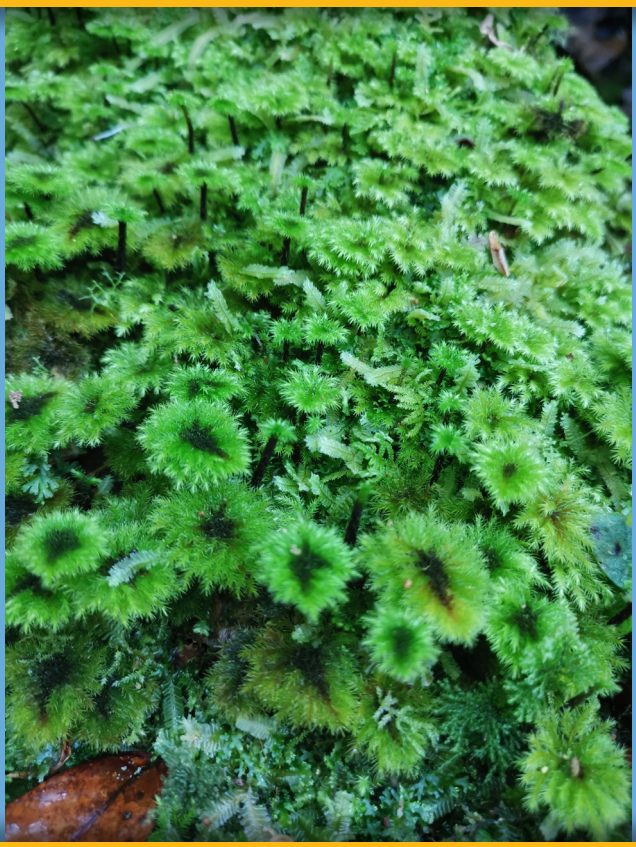


UNIMAS
UNIVERSITI MALAYSIA SARAWAK

INSTITUTE OF
BIODIVERSITY & ENVIRONMENTAL
CONSERVATION

Interested to submit an article?
Email: sywong@unimas.my

Front Cover: *Hypnodendron*. Photo credit @ Wong SY

The 10th International Bornean Frog Race was held on 17th June 2023 at Samajaya Nature Reserve.

A heartfelt thank you to every individual who played a role in making this event a memorable experience.

Category Best Night Photography

1st- Wong Changi 2nd -Xin Yue Lim

3rd - Hashim Mahrin HM - Solomon Hii

Sharizzaty Mohd Rais

Winner of the most number of Amphibian Species

Congratulations to the Winners!!!

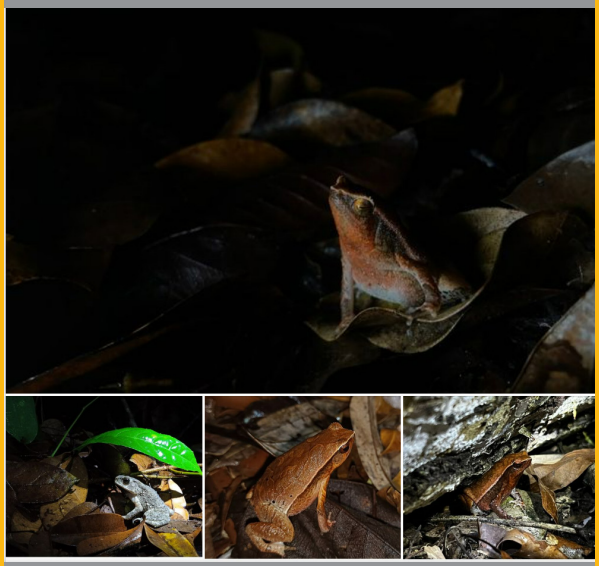
Category Best Amphibian Photo - Mobile Phone

1st - Solomon Hii

2nd - Syarifah Nuriffah Aishah

3rd - Crystalline Kayla

HM - Noor Alia Zainal Abidin



Category Best Amphibian Photo- Camera (DSLR/Mirrorless/Compact Camera)

1st - Hashim Mahrin

2nd - Teo Kuo Leat

3rd -Claudia Saldana

HM - Julia Wee

A talk on Visual Elements in Nature by Siti Shahida binti Kamel

Land of the Rising Sun: In Search of Frogs and the Giant Salamander in Japan by Elvy Quatrin Deka

10 Years of the Frog Race by Indraneil Das

Around the World in 80 Frogs: Tales of Saving Endangered Amphibians by our international speaker, Emeritus Prof. Dr Richard Griffiths

During a visit to UNIMAS on 12 June 2023, the Higher Education Minister, Dato' Seri Mohamed Khaled Nordin, acknowledged the potential of UNIMAS' Institute of Biodiversity and Environmental Conservation (IBEC) to spearhead biodiversity research in the country.

He highlighted the importance of collaboration between UNIMAS and local universities to advance research efforts in this field. UNIMAS is enthusiastic about working together with other institutes and universities, not only in biodiversity research but also in various other areas of study.

https://www.youtube.com/watch?v=9nvLuQS6adI

The Mini Scientific Expedition to Baleh, Kapit from 8th to 13th May 2023 was a great success. Our heartfelt thanks to Sarawak Energy Berhad (SEB) and WTK who provided crucial resources and logistical support.

We successfully organized a Hands-On-Digital PCR Workshop on 22-23rd May 2023 in collaboration with Stilla Technologies, France and Interscience Sdn. Bhd. The workshop has attracted researchers and staff from Sarawak General Hospital , Universiti Sains Malaysia, Sarawak Forestry Corporation and from various faculties within Universiti Malaysia Sarawak (UNIMAS). We thank Dr Laras Pitayu (France), Mr Ang Thian fu, and Geegee Phang from Interscience S/B.

Thank you to everyone who attended the remarkable event between UNIMAS and MPOGCF at the Exchange Document Memorandum of Agreement (MoA) on 18th May 2023! Your presence and active participation made the collaboration a resounding success.

It was an honor to have the delegation from UN Sustainable Development Solutions Network, Prof Dato' Dr. Woo Wing Thye (Vice President for Asia UNSDSN), Prof. Emeritus Dato' Dr Mazlin Bin Mokhtar & Prof. Dr. Leong Yuen Yong at IBEC.

Michael (Mike) Meredith (July 19, 1943–January 12, 2023)

Mike handled his very last "Boot Camp" in Wildife Study Design and Data Analysis at IBEC, UNIMAS, Kuching, 1-12 August 2022. For those of us who have attended the boot camp, we didn't realise how sick he was as he didn't utter a single word about his health but to sit through the whole workshop in his quiet manner without hesitating to contribute when he was needed to ensure that the workshop ran smoothly. How little did we know that how much he was giving to us, the participants in order for us to progress in our research.

We thank you, Mike, for your passion, for your unselfishness, and for sharing with us, as much as you know. Your kindness, modesty, and joy in teaching will hopefully inspire those who are fortunate to cross path and benefit from your teaching.

Mike was very ill this past year but was organized enough to draft his own obituary.

Here, we use his writings as it is.

I was born at Hereford General Hospital at 11pm on 19 July 1943, in the middle of WWII, and indeed in the middle of an air raid. The local munitions factory was hit, and casualties were being treated on camp beds in the hospital corridors.

My father was in the RAF, the top navigator in Pathfinder Squadron, Bomber Command. We spent the first few years on the farm of my mother's parents. [rain phobia?]

Once the war was over, dad "closed the hanger doors" and left the RAF. He was looking for a farm to rent; the back-up plan was to emigrate to New Zealand. He managed to rent a farm, "Crac-o-Hill", which adjoined a piece of land already owned by his farther, so I did not become a Kiwi!

We moved into the farm in 1946, a year with a very severe winter and deep snow. I remember going out of the back door onto the cleared path and being unable to see over the snow piled on each side. By then I had a little sister, and we melted snow for her baths, as the well water was very hard.

I went to the local village school at Much Dewchurch. A small school with just two classrooms, catering to both primary and secondary pupils when I first went there, though secondary pupils later went to a new secondary school. I remember two teachers, Miss Thompson in the Little Room and Mrs Guillard in the Big Room. Mrs Guillard assured me, "You'll get letters after your name, you mark my words."

I was a rather delicate child, but things improved with time. A bad stammer was effectively cured by a speech therapist. I had recurrent tonsillitis, and had tonsils removed at age 9. I got a mysterious infection – probably some form of TB – and a nurse came in 3 times a day to give me penicillin injections (no oral antibiotics in those days!) At about the same time, most of my father's cattle also suddenly began to show an immune reaction to TB; a disaster, as their milk could not be sold as TB free, and dad disposed of the herd. [Heaf test]

After primary school, I got a scholarship to Monmouth School. The first year was exciting, with lots of new subjects, but in Form 2, I hit teachers of French and Latin who made it as dreary as they could! (Maths and science were still okay though.) My marks went down, and I was regularly the dumbo at the bottom of the class. I managed to get 10 O-level GCEs (including French!), so went on to Form 6. Here I stretched the mould a little bit by insisting on doing 4 A-levels – physics, chemistry, biology and maths. I was told that biologists didn't need maths, and indeed the biology and maths classes were scheduled to clash. So I went to biology lessons during the term and caught up with the maths assignments in the holidays.

My A-level grades were good enough to stay on for a 3rd year in Form 6 and to apply for Cambridge. I was accepted, and even awarded grant of £40 a year. The Cambridge decision came mid-year, so we had plenty of opportunity to do fun things in the lab. Mr Peace asked each of us to find a statement in the inorganic chemistry textbook which didn't look right, and devise and run an experiment to test it. About half of our experiments showed that the book was wrong! I tested the statement that phosphorous and hydrogen did not react directly to form phosphine, which is also wrong. That period had a major influence on my attitude to science!

At Cambridge, I joined the evangelical Cambridge Inter-Collegiate Christian Union, and formed close friendships with two others in Caius college, Richard Brown and Tony Bishop. Biology in those days involved lots of anatomy and histology, hence drawing, and I can't draw, so opted for chemistry. Not spectacularly good at that, and ended up with a II2 degree.

I planned a career as a teacher. But before going off to do a postgraduate teaching diploma, I took a gap year. I wanted to do voluntary work for the first part of the year and get a job to earn a bit of money in the second part. VSO would not take on folks for less than a year, so I ended up with Community Service Volunteers, teaching English to boys newly-arrived from South Asia at Washwood Heath Secondary School in Birmingham. They were nice kids and keen to learn, but the classroom

was chaotic, with lots of squabbling and even fist-fights, always justified by "He swear my mother!".

Around the middle of the year, I quit CSV and got a job, working night shifts at Cadbury's in Bournville. They were preparing stuff for the Christmas market, and the first issue was to find a task I could do given my appalling manual dexterity. I ended up on the line packing Lucky Numbers: two "3"s and a "19" into each tin that came past on the conveyor.

At the end of 1966, I resumed study, with a Post-Graduate Certificate in Education at the University of Birmingham School of Education. The Nuffield Foundation was funding development of new approach to science teaching based on discovery learning, and the science teaching courses at Birmingham were based on this. I found this very much in line with my views on how science should be taught, and enjoyed the courses very much.

After gaining my PGCE, I got a job at Burnley Grammar School, moving to "the north" for the first time. The science department was introducing Nuffield methods, and my training fitted right in. It was an enjoyable time, though I fear I was rather unconventional in my approach to kids and organisation of class activities. When the head of department announced that they were going to drop the Nuffield approach and go back to the old cram-and-regurgitate teaching, I decided to quit.

In Burnley, I had been introduced to caving by Form 6 pupils at the school and joined the Burnley Caving Club. The National Scout Caving Centre had just been set up at Whernside Manor and needed a Chief Instructor. I got a summer instructor job at the Centre and applied for the post. I was appointed and worked as Chief Instructor for 4 years together with Ben Lyon as Warden.

In 1970, Whernside was just starting. The accommodation was ready, but we were only doing a few courses, weekend introductory courses giving young people a first taste of caving. By the end, we were offering specialist courses in cave science and cave leadership. The instructing staff had grown from just Ben and myself, to include two more full-time instructors. But this was time of rapid inflation, and our salaries were not keeping pace. [Traveller?] I wrote a detailed letter outlining the problem to the bosses at the Scout Association; I took umbrage when everybody's salaries were increased except mine! I left Whernside in 1974.

Whernside had organised an expedition to the Grenoble region in France [and met the Petzl family], and I took a shine to the place. Leaving Whernside [Mum's death], I upgraded my motorbike and set off to spend the summer bumming around France. In the autumn, I gravitated towards Grenoble and got a job with the Inlingua School there, teaching English mostly to individuals students and some small groups of adults. I linked up with a local caving group at the Foyer des Jeunes de Seyssins, and was caving almost every weekend that I lived there! [Gouffre Therese]

[Became fluent in French. Was my choice of France really to prove that my learning problems were due to lousy teaching, ie, one in the eye for Mr Piddington?]

After a few years in Grenoble I was getting itchy feet again. A look around the map, and Salzburg seemed attractive: surrounded by big limestone massifs and with an active caving club. I talked to Petzl about business in Austria, and took a course of 40 one-on-one lessons in German at the Inlingua School.

I set off for Salzburg and pitched up in the dental surgery of Willie, the president of the Landesverein für Höhlenkunde in Salzburg. He sent me off to Heimstrasse 2, a kind of 'safe house' for cavers run by Helga and Fritzi, which was to be my home for the next few years. My German was still not good, but after 3 weeks sitting around Heimstrasse, I suddenly started speaking German!

Gusti Kaufmann, who ran a small skiing shop in Salzburg, became the Petzl importer for Austria, and I worked for her as travelling salesman, visiting sports stores all over Austria to sell Petzl gear and Francital skiing jackets.

The caving scene here was different to Grenoble. There were few caves that could be done in a weekend, so trips were several days long and correspondingly infrequent. But we did make some nice discoveries, notably the connection between Gamsloecher and Kolowratshoehle, with a whole system of horizontal passages on the way.

In 1980, my old friend Ben Lyon, together with Andy Eavis, organised an expedition to the caves of Mulu National Park in Sarawak, and invited me to join the team. Of course I said "yes", but it meant a 3-month absence from work, so I quit my role in Salzburg after negotiating to go work at Petzl headquarters as export manager on my return.

There had been delays in setting up the expedition, so when we went in December 1980, our first few weeks were spent exploring well-known caves around Bau. We did get to Mulu before the end of the year, as promised, and had an inebriated Christmas at the Berawan longhouse at Long Terawan.

The Mulu expeditions have been well documented, so not much need to repeat here. I was lucky enough to be in the second team to visit Sarawak Chamber, the largest known underground cavity, though perhaps unlucky enough to be accompanied by a film crew!

Back in Europe, I took up residence in an apartment in Paul Petzl's house, closer to the office but a long way from old friends in Seyssins. The regular caving we had done during my first stint in Grenoble didn't take off again.

I worked as export manager and translator, with some responsibility for product development for 4 years. During that time, exports expanded enormously, going I think for about 10% of total production to more than half, while Petzl's overall output was expanding exponentially, as the firm branched out into climbing harnesses and climbing and caving helmets.

When the Mulu '84 expedition was planned, I again joined the team. This time I was able to take time off from my job rather than quitting. Again, refer to existing documentation for details of the expedition's work. At the end of the expedition, we sat down with the head of parks, at that time Dr Paul Chai, and asked what the department want us to do next. We were thinking in terms of the next expedition, but Paul relied that they wanted one person to come for several years and help them develop tourist facilities in Mulu. I raised my hand!

We needed to put together financing for this, as the Sarawak Government had no money for it. But Ken Scriven, head of WWF Malaysia, was keen to help. I returned to France and continued with the export job at Petzl. January 1985 was really cold, with the thermometer below -20° every morning when I went out to work. I decided I needed to move to warmer climes and set a deadline of March to get things together for Mulu. But in the meantime there had been a major falling out between Sarawak Government and WWF: at the end of the month I got an aerogramme from Paul, telling me they still wanted me to come, but it must not have anything to with WWF!

I'd already resigned my job with Petzl, and new folks had been appointed, and booked flights. So I was now searching the Situations Vacant columns for options. I found that the Centre for British Teachers were recruiting Brits to teach English in elite science schools in Malaysia. That's how I found myself teaching English as a foreign language at Sekolah Menengah Sains in Raub, Pahang for just over a year.

Meanwhile, Paul had negotiated with the Sarawak Timber Industry Development Corporation, a government owned body with close links to the Forest Department, to employ a speleologist and second them to Forestry. So as soon as I could escape my contract with CfBT, in September 1985, I joined STIDC and went off to Mulu.

[lots of things, VIP visit by Sultan of Johor, trail construction, guides training and management, left warden's job to escape admin →development officer, ….]

[got IBM PC in 1987, played with programming in C and Pascal]

It looked as if the development work in Mulu would be completed by the end of 1989, so I send in my letter of resignation. There were delays, so I ended up in Mulu for the first few months of 1990 – unpaid – to finish up the work on Wind Cave.

For the next year I worked with Richard Hii and Tropical Adventure, helping/ hoping to expand the market for his Mulu products in Europe. Tourism to Mulu though was already increasing with big players involved, and it wasn't easy re-routing tourists to Tropical Adventure.

Meanwhile, Liz Bennett of the New York Zoological Society (as WCS was formerly known) had been asking the Forest Department what projects NYZS could help them with. One was a faunal survey and preparing a management plan for the newly gazetted Batang Ai National Park. At that time, Sarawak was getting a lot of criticism from conservationists for its logging policy, and bringing in outside consultants was tricky. I was one person acceptable to the Department and with the basic background to do the job, though I had never before carried out a faunal survey. The Liz Claiborne & Art Ortenberg Foundation provided a grant for a 2-year project, so from mid 1991 I worked for Wildlife Conservation International, the international arm of NYZS.

In Mulu, I had spent lots of time walking forest trails, either as part of my work – to get to key sites – or during time off and greatly enjoyed it. Now I had the chance to do more: the usual daily routine during a field trip was a pre-dawn start, the a 2-km stomp up the nearest hill recording all the wildlife seen. I worked with a team of local people and, after a couple of false starts, got together a good team, with Kaya and Anggai as assistant data collectors. All very enjoyable, but my first attempt at a faunal survey, and we made a few beginner's mistakes. Orangutan were the key target species, and we planned to use distance sampling to estimate density, but only ended up with 17 observations after 2 years work by 3 people – at least 60 are needed to get a good estimate with distance sampling. Still, we did get some good estimates for other species.

We used boats to get to the field sites, and did most of our transects within 2 km of the river. Unfortunately, up until "confrontasi" between Malaysia and Sukarno's Indonesia in the early 60s, these areas had been farmland: cleared, burned and planted with rice. So all but two of our transects were in old secondary forest; the primary forest was further from the river, and only one of our camp sites gave any information on that.

I had envisaged working closely with the Forest Department on the detailed prescription for managing the new park, but their attitude was "you prepare a management plan, and we'll decide if we want to implement it." I prepared a draft plan, which has never been formally approved, though many of the recommendations have in fact been implemented.

[Working with Melvin]

[Living on a jelatong moored to "Pulau Mike"… happy times!]

After Batang Ai, the next project was to review plans for a wildlife sanctuary in the Lower Kinabatangan in Sabah. This had been proposed on several occasions over the years, but never gazetted. This time the permanent secretary at the ministry wanted to push it through and a faunal survey and management plan were part of the effort. This was a WCS project, NYZS reabsorbing WCI to form the new organisation, again financed by the Liz Claiborne & Art Ortenberg Foundation. For the field work, I was based at Sukau, where a local tour company allocated me a chalet, and commuted between there and Kota Kinabalu.

I enjoyed the field work, rooting around in my little boat on the river or from the landward side, using my scrambler. And again I completed a draft management plan for the proposed sanctuary for the Sabah Wildlife Department. Unfortunately, the permanent secretary retired, and other changes in the political landscape meant that the sanctuary was not gazetted until several years later, and the management

plan never implemented.

In the second half of 1994, I returned to UK. I got a hernia repaired, worked for a few months for Lyon Equipment, and finished off the research project for my MBA. Meanwhile, work was going on to set up a WCS project in Lao PDR, where I would run a component on management planning for their newly-gazetted protected areas. The main project was to be funded by the John D. and Catherine T. MacArthur Foundation, and my component by the Ortenberg Foundation again.

Thus the beginning of 1995 saw me flying in to Lao PDR to begin work. Unfortunately, it didn't go smoothly at the start. The government saw WCS as a cheap way to get input for EIAs for the dam projects they were pushing for, and we spent a lot of time doing work in and around potential dam catchment areas. In the middle of the year, I took my leave and went to Madagascar, where I worked with WWF on possible show cave development. While I was away, the whole Lao project almost collapsed, as our office was broken into and the entire grant – which happened to be in cash in a cupboard – stolen.

By the end of the year, I was still not getting my project together, and actually sent in a resignation letter. I was asked to wait a month and the Asia Director, Alan Rabinowitz, had some hard talks with the government. The MacArthur grant was for "Lao PDR and Myanmar", and the Myanmar government were very keen to work and cooperate with us: Alan threatened to pull WCS out of Lao all together, and subsequently the government went along with what we wanted to do. Early in 1996, I was able to move to Luang Nam Tha and start work in the Nam Ha protected area.

This was to be a community-based project, and the first job in the field was to visit as many communities as possible. Road conditions were lousy, so we purchased two scramblers, for myself and my local counterpart, Phaivanh. We later expanded the team with folks from the Provincial Agriculture and Forest Office and two German volunteers; then we got a Toyota Hi-Lux, which was an excellent vehicle.

The main push was for community-based conservation, with local communities managing their own natural resources sustainably. A lot of the obstacles to doing this were of a more general nature, and we found ourselves helping with issues tangential to resource management. The incidence of Malaria was very high in the area. The Health Department could supply mosquito nets for everyone, but not impregnated nets: the chemical needed was priced in US dollars, and Lao folks were not allowed to handle USD. So I ended up buying the stuff in Vientiane – a $25 bottle was enough for a whole village – and passing it to the Health Department. We were well inside the Golden Triangle, and opium was grown everywhere. In some villages, opium addiction was a problem, with almost all the men and many women being addicted. This applied to one of the key villages in the core area, and they actually requested a detox session. Again the Health Department got involved, while we provided the logistics. I remember going around all the pharmacies in town buying up their whole stock of injectable Valium to help those with the worst withdrawal symptoms!

Meanwhile, in Sarawak the Wildlife Master Plan had been approved and an implementation unit was being set up in the Forest Department with the participation of Liz Bennett and WCS. They needed a Training Officer. And I was getting increasingly frustrated in Lao, because the problems facing me were the same-old same-old problems that I hadn't been able to solve in the past. So I handed over leadership of the Luang Nam Tha project towards the end of 1998 and moved back to Sarawak.

I worked under Braken at this stage, and Cynthia Chin and Jason Hon were around too. They will likely have stories to tell, so I will not go into details.

Lincoln University (NZ) were working with the Sarawak Tourism Ministry to provide a Certificate in Conservation and Ecotourism Management aimed at park staff. It was a modular programme based at the forestry training centre. Their first country manager, an Australian, upset a few people and after 2 years his contract was not renewed, so I got the job, leaving WCS employ, albeit temporarily.

In fact, the project did not continue for the full 2 years of my contract and wound up in mid-2002; I guess I could have stayed on and demanded my salary be paid, but instead I decided to quit.

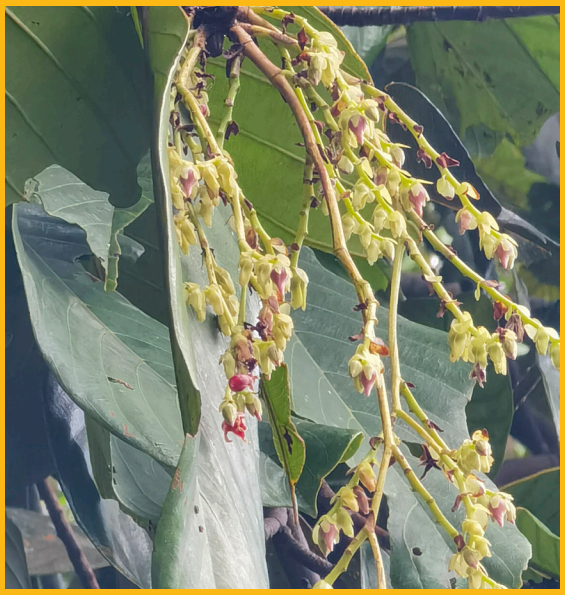
So early 2003 saw me back with WCS. WCS projects in Sarawak included a contract with Samling to assist with wildlife monitoring and management in a concession in Ulu Baram, so I spent many happy days trekking around Ulu Baram and doing transect surveys. Liz Bennett left Malaysia in 2003 and Melvin Gumal took over as Director of the WCS Malaysia Program.

Melvin was keen that we get the most information out of all the data WCS had collected over the years, and the job of improving our analysis methods fell to me. In 2003 I attended a data analysis workshop at WCS HQ at Bronx Zoo. We later refined that and added new teaching activities, and it developed into the Boot Camp.

I finally retired from WCS at the end of 2007 and put lots of energy into the Boot Camps under the aegis of BCSS. Since 2009 we have run 49 Boot Camps in 13 countries, and I have been involved with all but 2 of them. 796 people have taken part at one point or another. In addition, we have run 36 short workshops on specialist aspects of wildlife data analysis: Bayesian analysis with JAGS, Simulations and Modelling, Data Exploration and Display in R, and GIS with QGIS and R; 6 of them facilitated by international experts.

A major push was to develop a team of assistant instructors, and trainer training courses led by Ian Signer were key to this. So far, our team comprises 27 members including me as a Workshop Coordinator, and they lead by Ngumbang Juat as their Chief Instructor. Ngumbang assisting me since beginning of first Boot Camps and involves in all specialist workshops.

We have started to build up an international team of instructors. Our partners include WCS, WWF, FFI, HarimauKita, WildTeam, UWICER, SCB, ATBC, Conservation Leadership Programme, Friends of Nature, and universities and government agencies in the region.



Rubroshorea scaberrima, Julau

Will Borneo mast this year?

Wong Sin Yeng

Evidence is building that the lowland forests of Borneo – which is to say the dipterocarps – are at the start of a mass-flowering this year, and with that the promise of a mast season. The last significant masting was seven years ago and since then although there have been a few localized flowering events, most recently during MCO, there has been no state-wide (let alone Borneo-wide) flowering of the dipterocarp forests. Although the full range of factors triggering a mass-flowering is still contested, it is widely accepted that a universal contributor is a sharp but not overly protracted dry spell is a critical aspect of what is likely a highly complex and non-uniform process (Appanah 1993; Ashton et al. 19880; Harrison et al. 2005; Kurten et al. 2017; Sakai 2002; Sakai et al. 1999).

The first intimations that a significant flowering event was building came from observations at Landeh F.R. where *Rubroshorea stenoptera*, one of three species of engkabang occurring there, was observed in bud in late May. Early in June flowers were observed on *R. splendida*, and then in mid-June reports of flowering started to come from the Kanowit and Song drainages, and from longhouses in the Julau study area of my SRDC project reporting mass flowering of dipeterocarps, including species vital for tengkawang fat production: *R. macrophylla* and *R. scaberrima* (see: Chocolate and lipstick – two unexpected "forest products", IBEC Bulletin 3(3) September 2022: 9 – 15 & Untangling the oil-nuts – Genomics of Engkabang, IBEC Bulletin 3(4) December 2022: 13–15). In the meantime. My doctoral student Ogary reported that *R. macrophylla* was blooming at Kubah N.P., and during a visit to Sibu more flowering was observed. Additionally, several large trees of *Rubroshorea leprosula* in the Bau area are budding, and during the recent 'Frog Race' (see this issue of the IBEC Bulletin) *Shorea seminis* was seen to be flowering Sama Jaya Nature Reserve.

Aside from *Shorea* and its immediate allies (see: Changes to the taxonomy of *Shorea*, IBEC Bulletin 4(1) March 2023: 9–11), large populations of *Dryobalanops lanceolata* along the road to Sematan are currently showing buds, as are the few larger trees of *D. rappa* at Sama Jaya N.R.

In conclusion, thus far, there is evidence of widespread flowering from the eastern Rejang basin to Sematan in the far west of Sarawak. Updates to follow.

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Rubroshorea splendida, Landeh F. R.

Fallen young flowers of *Rubroshorea stenoptera* - Landeh F.R.

Rubroshorea leprosula, Bau

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