



MEME

Update

Management & Ecology of Malaysian Elephants

Issue 11

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Because we can only manage what we measure — working towards an evidence-based conservation of Malaysian elephants.



ELEPHANT POACHING — It's happening in Peninsular Malaysia.



ELEPHANT TRACKING — Field team's experience with Mek Kemat, the translocated female elephant.



MEME STORIES — TeckWyn and Lisa take us on a journey into the elephant folktales of indigenous tribes and the life of a plant seed.

Killed for its tiny tusk

When MEME started, almost five years ago, I thought that elephant poaching was not a real threat for Malaysian elephants. I knew of some bulls killed for their tusks in the past but I thought they were isolated cases and quantitatively negligible compared with the threat posed by the combination of habitat loss and human-elephant conflict.

Five years on I still think that the low tolerance to conflict is the main threat for Malaysian elephants. But sadly I admit that poaching is also a real – quantitatively very relevant – threat for the population.

In October 2015, our team found the corpse of Awang Teladas, one of the translocated elephants that we track using GPS-telemetry. Awang Teladas face had been cut off with a chainsaw to remove the whole tusks, from their roots. What I found particularly frustrating about Teladas death is that he was a young bull with tiny tusks (see photo below). Unfortunately, even such small tusks are worth more than a majestic forest elephants' life. In the black market, of course.

This is not an isolated case and we are expecting the problem of elephant poaching to worsen in Malaysia in the coming years. The Department of Wildlife and National Parks (Perhilitan) is taking this issue very seriously and we commend them for their professionalism in this matter. Law enforcement is the most effective way to combat elephant poaching but, unfortunately, catching the bad guys red-handed will always be difficult. That's why to succeed we need more – we need to make the killing of elephants socially repudiable and, most importantly, we need to make the consumption of ivory undesirable and completely unacceptable in 21st Century's Asian societies.



Left: image of Awang Teladas in October 2014. Note the small tusks; Right: Awang Teladas skull as found in October 2015. Note that the face has been cut off with a chainsaw.

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Elephants: Humans in Disguise?

By *Teckwyn Lim*

While investigating the history of human-elephant conflict in Peninsular Malaysia I wondered whether attitudes towards elephants vary between different ethnic communities and income groups. I found that while all communities view elephants with respect, some communities have a history of hunting and eating elephants while others have taboos against this. These taboos are reflected by several folk tales suggesting that elephants are sometimes human beings in disguise.

I came across a tale of a man named Bongso of the Chewong tribe in Pahang who had elephants come and eat his banana trees. Bongso speared the elephant in the leg and then chased it into the forest. The elephant led him to Moödn, a faraway land where the elephant removed his *baju* (cloak) and revealed a human form underneath. Bongso went and removed his spear from the leg of the man who forgave him and invited him to stay in the land of the elephants where he was given an elephant *baju* of his own and two wives. From then onwards the Chewong believe that to eat elephant meat is *talaiden* (taboo) and would lead to being attacked and killed by an elephant.

In July this year I visited several Chewong villages in and around Krau Wildlife Reserve and confirmed that they indeed had a taboo against hunting elephant. In contrast, the neighbouring Jahut tribe confided that they had hunted elephants in the past. I wondered whether this was due to the fact that the Chewong lived in very small forest communities compared to the Jahut who were more settled and heard that a similar pattern existed in the north of Perak with the semi-nomadic Jahai having more respect for elephants than the farming Temiar (A. Solana Mena pers. comm.). So I was surprised to find that in the 19th century a Malay informant from Negeri Sembilan had recounted the following tale to William Skeat, a British colonial officer:—

A Malay named Laboh went out one day to his rice-field and found that elephants had been destroying his rice. He therefore planted caltrops of a cubit and a half in length [70-cm spikes] in the tracks of the offenders. That night an elephant was wounded in the foot by one of the caltrops, and went off bellowing with pain.

Day broke and Laboh set off on the track of the wounded elephant, but lost his way, and after three days and nights journeying, found himself on the borders of a new and strange country. Presently he encountered an old man, to whom he remarked 'Hullo, grandfather, your country is extraordinarily quiet!' The old man replied, 'Yes, for all noise is forbidden, because the king's daughter is ill.' 'What is the matter with her?' asked Si Laboh. The old man replied that she had trodden upon a caltrop. Si Laboh then asked, 'May I see if I can do anything to help her?'

The old man then went and reported the matter to the king, who ordered Si Laboh to be brought into his presence.

(Now the country which Si Laboh had reached was a fine open country on the borders of Siam. It is called 'Pak Hĕnang,' and its only inhabitants are the elephant-people who live there in human guise. And whoever trespasses over the boundaries of that country turns into an elephant.)



Then Si Laboh saw that the king's daughter, whose name was Princess Rimbut, was suffering from one of the caltrops which he himself had planted. He therefore extracted it from her foot, so that she recovered, and the king, in order to reward Si Laboh, gave him the Princess in marriage.

Now when they had been married a long time, and had got two children, Si Laboh endeavoured to persuade his wife to accompany him on a visit to his own country. To this the Princess replied 'Yes; but if I go you must promise never to add to the dish any bamboo-shoots at meal-time.'

On this they started, and at the end of the first day's journey they halted and sat down to eat. But Si Laboh had forgotten the injunctions of his wife, and put bamboo-shoots into the dish with his rice. Then his wife protested and said, 'Did I not tell you not to put bamboo-shoots into your food?' But Si Laboh was obstinate, and merely replied, 'What do I care?' so that his wife was turned back into an elephant and ran off into the jungle. Then Si Laboh wept and followed her; but she refused to return as she had now become an elephant. Yet he followed her for a whole day, but she would not return to him, and he then returned homewards with his children.

This is all that is known about the origin of elephants who are human beings."

There are enough similarities between the this and the Chewong tale to make it most probable that they share a common source. The ethnic affiliation of the protagonist varies depending on who is telling the tale as with the tale of Si Tenggara, the captain of a ship that turned to stone and became Batu Caves, whose race is variously given as Malay or Temuan depending on the race of the informant.

As I continue my investigations into human-elephant interactions among other communities in the peninsula I will be keen to see whether any other communities claim ownership of this intriguing tale.



When elephants still roamed Krau Wildlife Reserve (before the 1980s) the Chewong had to build their houses on even higher stilts!



Tok Kueh, 75, of Kampung Senel, told me that in his youth he and his Chewong family hid up a tree while a herd of elephants passed beneath. They also needed to build tall fences to protect their crops. However, seladang were more feared than elephants.

When a ‘Tropical Plant’ Fruits...

By Lisa Ong

A tree and a boy’s story had been touchingly portrayed in Shel Silverstein’s title “The Giving Tree”. Tree climbing, eating apples and hide-and-seek kept both happy. The boy soon grew up and started demanding from the tree. The tree fulfilled his requests till the very end and it was happy. Simple yet striking, this children’s illustration book reminded us how great a tree is. It left me curious, thinking about what it means to be a tree. I too, grew up like the little boy, and realized the answer is not simple.

Back in the forest, a fruiting episode is hard to come by, and has important effects on animals’ behavior and populations. For many plant species, this reproductive period only lasts a few months; with irregular intervals of as many as 5 to 10 years in between fruiting peaks.

Searching for seeds amongst elephants’ feces has been part of MEME’s ongoing efforts in studying seeds dispersed by elephants. This August, we had some pleasant discovery with the *Irvingia malayana* tree, commonly known as the “Pauh Kijang” in Malaysia or “wild almond” in Thailand.



To monitor for the fruit removal trend of *Irvingia malayana*, we placed camera traps under different trees. In all, nearly one third of the fruits set up were removed. Of the nearly 150 animal visits, only two included elephants feeding on the fruits. Wild boars, on the other hand, were responsible for majority of the fruits removed. The elephants’ footage, albeit rare, allowed me to compare the feeding behavior of elephants and wild boars.

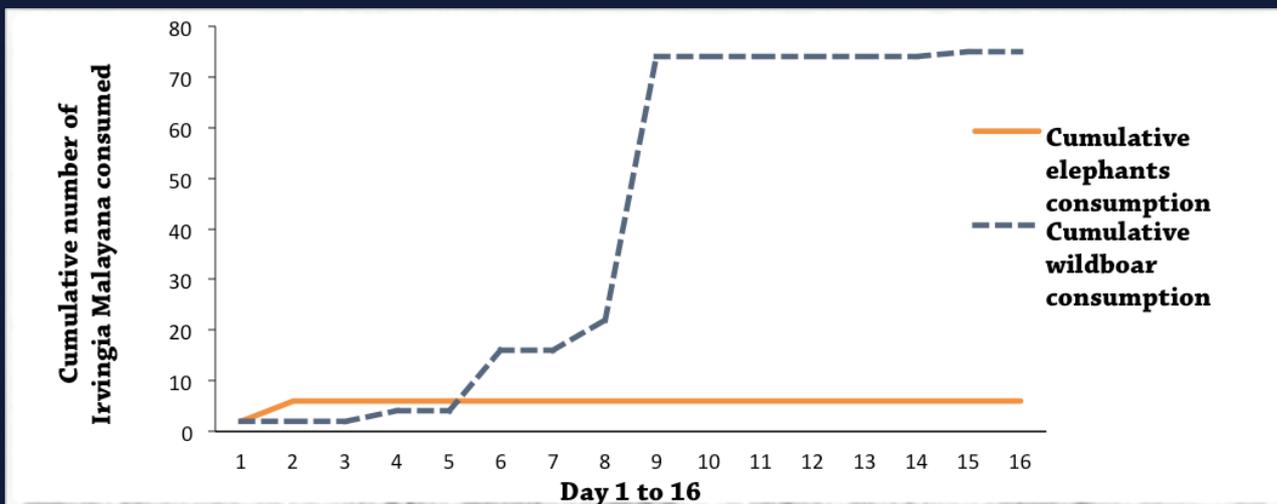


Asian elephant and wild boar caught on camera feeding on the fruits.

Most of our experimentally setup fruits were consumed by wild boars. *Irvingia malayana* comprise approximately 70% oil, mainly of which are saturated fatty acids. This explains well why wild boars had been foraging for the oil rich seeds, cracking the seed cases and chewing on the seeds incessantly.

Elephants, on the other hand, swallowed the fruits whole. Unlike those destroyed by wild-boars, these seeds would be carried and dispersed far away from the parent tree.

Does this make wild boars a competitor to elephants' food resource? Worry not. Elephants love fresh fruits between 1 to 2 days old, while wild boars mainly fed on old ones (refer to graph). These rotting fruits help reduce the effort required for wild boars to access the seeds. Both setups that captured elephant events saw no wild boar foraging subsequently. This may be a sign of elephants' presence indirectly affecting that of wild boars'.

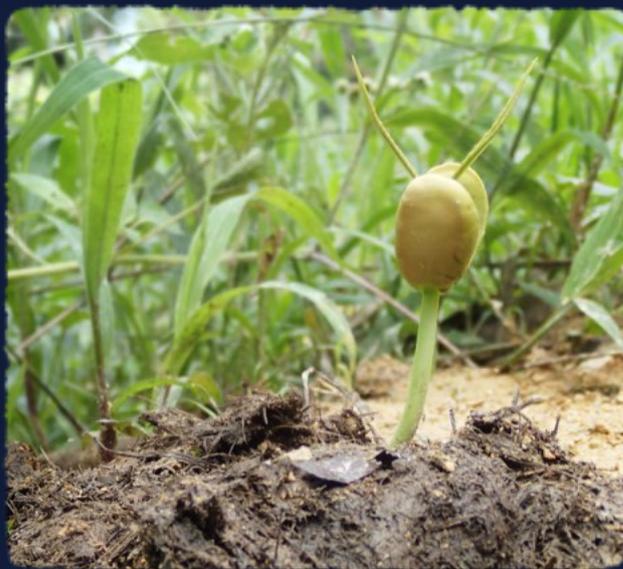


Ever wonder why a tree would produce so many fruits? With the wild boars, we observed what is known as “predator satiation”. This is an adaptation in which the *Irvingia malayana* has evolved, alike other plants, to increase the survivorship of its offspring via high population density.

The *Irvingia malayana* is also food for other frugivores such as orang utans, and muntjacs. In our study, there were footages of muntjacs, long-tailed macaques, mouse-deers and bats around the *Irvingia malayana* tree, with no consumption observed.

Unlike many other fruit trees whose recruitment abilities are in jeopardy, the conservation status of *Irvingia malayana* is of least concern (IUCN 2.3). The petering out of seed dispersers abridge plants' dispersal ability. It is one of the key threats to ecological resilience and biodiversity loss.

Around the mineral licks, a few *Irvingia Malayana* seedlings had germinated amongst cracked opened seed cases in elephants' dung. What a joy! This is not a common sight across all field sites. Let us hope one of these young ones will survive through its adulthood.



Mek Kemat's Story

by *Alicia Solana Mena*

Mek Kemat is a female who was captured in July 2013 in Kuala Berang and upon her release in Terengganu, a GPS collar has been deployed on her to track her movements. It has been two years now that we followed in her steps every month. Must not be easy for a female to start a new life after being displaced from her family. I guess for an elephant the concept of 'home' is 'wherever your family is'; therefore she lost her group and her home, and had to start a new adventure alone.



Since then, Kemat has travelled a wide range of territories through an array of landscapes, roaming dozens of kilometers and somehow she seemed to have fixed her attention on the state of Kelantan, one of the states with the highest deforestation rate and palm oil plantations.

Although it may seem surprising, most of the time the elephants do not seek or choose to establish in a primary forest. In Malaysia, primary dipterocarp forests are dominant and the associated vegetation does not provide much food for them if not some young shoots of grasses. It is not as attractive for them as we thought. They prefer to forage in secondary forests and its boundaries, potentially due to the clearing of vegetation more sunlight can be received so elephants might find more grasses and 'juicier' species. Same goes for cash crop species. The young tree of rubber and oil palm are attractive for them; the banana seems to be a temptation too, so fibrous and watery. In the middle of the plantations there are always patches of forest

where to hide during the hottest hours so it becomes much frequented by elephants, despite it not seemingly an ideal habitat.

Jamie, who works on the movement of MEME's elephants, informed me that the GPS of Mek Kemat had shown repeated points around Lake Kenyir in Terengganu.

Elephants make very irregular movements, and even now we are still trying to figure out what makes them move in one direction or another or why suddenly walking so fast and crossing even states, walking more than 10 kms in a day through dense forest, or simply staying 2 days in the same valley? Since we are comparing movement of local and translocated elephants sometimes it can be difficult to determinate what factors are relevant to understand their sudden movements, even more if they are lone individuals, without a group to influence the decisions they make. With calves the pace is probably is slower. Two days with little movement can be normal, three days without moving is less normal. We must rush in these cases when the movements stops. We decided to search for her the following day.



It has happened before in the case of some males that what we find is sadly their bodies, poached to get their tusks. No matter how fast we reach, it was always too late. Being a female elephant, with no tusks or better said got so tiny 'thush' that hardly protruding their mouth, they have lesser 'value', but you never know, much less when it comes to 'our' elephants so we must be cautious and find them fast to check whether they are fine.

We left that same day in the afternoon from Gerik (Perak) to reach Kg Basong (Terengganu) at night. The next day we took a boat that would take us one hour to the southwest of Lake Kenyir. The edge of the lake borders Taman Negara. Several years ago the border of the lake was cleared so even now you still find abandoned logging roads, logged areas and old signs of human presence.

The southern part of the lake, called Lawit, has always given me a strange feeling of being in a 'apocalyptic' era... besides the hot weather and huge 'beaches', old timber processing plants after the extraction, there were reminiscences of giant trees that have been dragged by the stream of overflowed rivers, leaving an air of post-destruction. We used one of the old logging roads to approach the forest, luckily, as we walk deeper into the vegetation the cooling temperatures is a great relief. Once you go into that forests you crash into another world.

Although the collar GPS coordinates pointed just 100 m from the shore of Sungai Lawit we couldn't go by boat. After months with no rain the water level was so low and our boatman Kamarul dropped us a few kilometers from the location. It was not a problem, the trail was easy and being so recent we found the tracks of Kemat and what looked like a group of friends! Something that really catches my attention is that translocated adult or subadult females

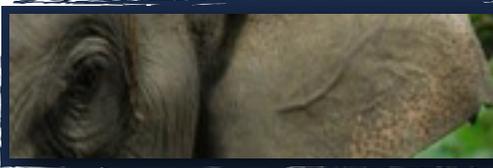
show certain difficulties to join another group. From our list of collared elephants I followed a total of 8 female elephants with the same characteristics; for a period of half a year, there was little suggestion that new family ties were created. We have no solid information yet, I have only my perception, what I share here is what I interpreted and is that females which have been separated from their families might need many years to join a new group or to start their own. All translocated adult females still seemed to be alone with no fixed group joined. Don't know the reason, if a new group don't accept them maybe because would involve some 'competition'?; or instead a problem of the individual who has difficulty to follow a new group because it is not their original family?



There it was the GPS housing, dropped from the collar on the ground. No wonder as it has been two years already, the estimated lifetime that lasts a GPS collar in good condition.

We reach here together so far Mek Kemat. After taking a look around, I can see it is not a bad place at all, beautiful forest, river nearby, plenty of food... Even better was that she joined a family group from the signs around us. They took direction South to Taman Negara, its not a bad place for our paths to separate. You have provided us for two years with valuable information about your movements, behaviour, hormones samples, diet, parasites and more and we are very grateful Kemat.

I really hope you join a definitive group, settle and strengthen ties with them. A female elephant should not be alone, who knows what dangers you will face out there! Better with a group beside you to lend you a hand when you need it... right?



A Reed dwarf snake (*Pseudorabdion longiceps*) found in an elephant dung during a sampling activity. Species identified as a common species by Mary-Ruth Low of NUS.



Walking in the footsteps of the largest animal on land can be dangerous and mythical at the same time.

At Sira Gajah for the first time in 3 years, camera traps were stolen. Whats more alarming was one of them was mounted >4m above ground on this tree. Elephants and other animals regularly visit the site and it has become one of the largest attraction for BTFC, thus it should be protected effectively to safeguard long term species conservation.



Dayang Siput was the latest addition of non-translocated elephant collared from Sg Siput. Special thanks to the Perak Elephant Unit for their time and effort.

November saw the worst episode of haze ever recorded in Asian history. The long term impact on human health is evident however the impact on ecosystem remains unaccountable. Today our skies has resumed to its former glory but may it be a reminder for us that the blanket smog will return year after year, and that we should continue to demand for a healthy future.



Nagu interviewing members of the community indigenous community about their views on Malaysia's Protected Areas.



Clockwise: - (a) The Elephant Conservation Group (ECG) met at Singapore Zoo this year with elephant conservation projects from nine Asian countries working on a common theme. MEME, En. Salman and En. Adha from DWNP on the left. (b) MEME went on its second work retreat since its inception, thanks to YSD for the support; team members discussed about the progress and future of the project while enjoying the lovely Cameron Highlands; (c) Maintaining a project is not an easy task, we would like to take this opportunity to commend the efforts Nurul (in picture) and Praveena has put in to keep MEME team up and running!



It was a great honour to have Dr Lim Boo Liat (in middle) give a talk at UNMC in November. The event was attended by many young graduates and conservation experts alike that respected Dr Lim's life-long work for conservation. In picture, members from Rimba, MEME, Traffic and UM.

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