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ABSTRACTS

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Primates: a photographic summary

Lynette Shanley

Lyn Shanley will present 24 slides of primates, pictures taken by Michael Turco

The International Primate Protection League (IPPL) and Michael P. Turco, internationally renowned nature photographer, have created an extraordinary and poignant collection of primate portraits, celebrating the striking beauty, diversity, and unique personalities of these intelligent creatures. Turco's magnificent images bring apes, monkeys, and lemurs into brilliant focus and include species rarely captured on camera, such as one of the only photographs in the world of an adult pig-tailed langur in the wild. You'll also see a riveting photo of a rescued blind white-handed gibbon from IPPL's sanctuary, just one illustration from IPPL's decades of work protecting primates from abuse and exploitation.

From a playful Bornean orangutan juvenile to an intimate family gathering of Angolan colobus monkeys, you'll be eye-to-eye with these remarkable primates, and in their eyes, we can see much of ourselves.

The Conservation of Vietnam's Limestone Langurs

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The six 'limestone langurs' all occur in mainland South East Asia, in northern Vietnam, Laos and southern China, and are so named from their association with karst limestone habitats. The limestone langurs are listed on the IUCN Red List as vulnerable (*Trachypithecus laotum*, Laos langur), endangered (*T. francoisi*, Francois's langur; *T. hatinhensis*, Hatinh langur) and critically endangered (*T. delacouri*, Delacour's langur; *T. poliocephalus*, Cat Ba langur; *T. leucocephalus*, White-headed langur). There is also an enigmatic all-black form, which may be either a further species or a melanistic morph of *T. hatinhensis.*

Vietnam has a total of 24 primate species, including four of the limestone langurs. In the 2008-2010 list of 'The World's 25 Most Endangered Primate Species', five Vietnamese primates are featured, including two limestone langurs (*T. delacouri* and *T. poliocephalus*). However, all Vietnamese limestone langurs have a decreasing population trend, and are predominantly threatened by hunting for use of the animal in traditional medicines, as well as for meat. Infrastructure and development, namely tourism and mining of karst, is also impacting on the langurs' habitat, and causing disturbance. Many of the langurs now survive in fragmented populations, meaning that there is a danger of inbreeding and consequent genetic degradation within subpopulations.

To date there have been few studies on the limestone langurs, but detailed research is now planned on the behavioural ecology of *T. delacouri*, including the first ever reintroduction of captive-bred individuals to the wild.

From this research, guidelines for future re-introductions of the species will be formed, to further the conservation of *T. delacouri*, and contribute to our understanding of Vietnamese primates and their habitats, to ensure their continued survival.

Distribution of *Presbytis* species in Northern Borneo and the Ecology of *P. hosei* in the Baram region, Sarawak

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This study consists of a study on the historical (from 1800-1960s) and current distribution (from 1960s-present) of leaf monkeys in Borneo and northern Borneo (Sarawak and Sabah), and also on the ecology of *P. hosei* in Baram, Sarawak. For historical distribution, I reviewed historical records from the British Museum (Natural History) (Napier, 1985), Sarawak Museum, Kuching, and other related materials. For the current distribution I reviewed the related literatures, conducted interviews, and also primate surveys. I conducted 39 surveys covering a total distance of 99 km in 19 different sites within Baram consisting of 120.5 hours. The surveys were conducted between 3rd March 2008 and 29th March 2009. The finding shows that the leaf monkeys were absent or probably have gone extinct from many areas, including in 7 out of 15 areas visited. The general distribution maps plotted indicate that the distribution of the leaf monkeys in Borneo have shrunken tremendously and the reasons are deforestation (human habitation, agricultural activities, logging), and hunting. The once much wide-spread populations have also become fragmented in many regions throughout Sarawak. *P. hosei* in the Baram region seems to be sympatric with *P. chrysomelas* in the Niah and Lambir hills area, and in Ulu Tinjar it is sympatric with *P. rubicunda* on Mt. Dulit only. The home range for *P. hosei* groups in the Sg. Dapui area are exclusive and overlap only with other primate species like the macaques (*M. nemestrina, M. fascicularis*), and Bornean gibbons (*Hylobates muelleri*), but not with each other. There was no hybrid zone detected in the Baram region.

This study also focused on the ecology (group size, group composition, intra-group spacing), activity patterns, feeding ecology, and home range) of *P. hosei* at Sg. Unin and Sg. Dapui, both in Baram. I used manual observation, video and voice recording. A total of 5 *P. hosei* groups were observed during the study. The smallest number of individuals in a group unit observed was 3 and the biggest group was 8. All of these groups were led by one alpha male. 5 types of calls have been recorded and identified during this study and they are categorised as the social calls (travel or grouping call; warning or threat call); alarm or flee calls (male and female calls); and intimate or play calls. A total of 14 plant species from 10 families have been recorded to be eaten by *P. hosei* at Sg. Unin and Sg. Dapui. Parts of plants eaten include young leaves, seeds, and unripe fruits and plants eaten include both dipterocarp and liana species. The monkeys drink from small streams known as salt spring. And at my study site in Sg. Dulit, the main contact zone for *P. hosei* and other animal species is at the salt spring area. Generally *P. hosei* selected their sleeping sites next to the river banks, either river tributaries, or the main river itself.

Kalaweit – Gibbon sanctuary

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Kalaweit (meaning "gibbon" in the Dayak language) is the world's largest gibbon rehabilitation and conservation sanctuary, currently protecting approximately 250 gibbons and siamangs. Kalaweit was founded in Indonesia by Aurélien "Chanee" Brulé in 1999 to rescue captive gibbons, often from appalling living conditions. After a comprehensive rehabilitation process and individually-tailored medical plans, healthy gibbons are returned to the wild.

Kalaweit has recognised that the fundamental risk to gibbons and other animal and plant species is the wide-scale destruction of their habitat and the disruption of their natural eco-systems. In partnership with the Indonesian government and various communities in Borneo and Sumatra, Kalaweit has established a number of reserves to be protected from the palm-oil industry, poachers and inappropriate development. These reserves are completely staffed by Indonesians, and are actively moving towards self-sustainability, with solar energy providing for their energy needs and vegetable gardens growing food for their rehab animals.

Kalaweit's phenomenal success in gaining support from Indonesian communities is largely due to "Radio Gibbon", a vibrant music station with a huge local following in the regions in which it operates. DJs intersperse music and entertainment with much-needed environmental education – as a result, nearly 60% of the animals received at Kalaweit Borneo are there directly because of the intervention of Kalaweit FM listeners.

Observations of Individual Hand Preference in Wild Groups of White-Faced Sakis (Pithecia pithecia) in Suriname

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Individual handedness is well observed in humans and some primates. Unlike other primates, however, humans show a consistent hand preference across a variety of tasks, and a distinct right-handed skew at the population level. Although there are a moderate number of published studies, primate handedness literature is unbalanced by the large number of studies done on a few species.

No previous studies have addressed hand preference in wild White-faced sakis (Pithecia pithecia). We followed three habituated groups of White-faced sakis in Suriname, and recorded hand individual preferences for 6 different hand behaviours.

There was no consistent hand preference across a range of uni-manual behaviours for any individual. Likewise, there were significantly more ambidextrous individuals in the population than expected (x^2 (df=2) = 11.2, P=0.004), and thus, no population level handedness.

Our findings support the notion that lateralization of hand function is extremely unusual in primates and contributes good baseline data to the debate of primate hand lateralization.

Preliminary data on behaviour and home range of *Nomascus sp*. in Ratanakiri Province, North East Cambodia

Jane Flanagan

During three months in the first half of 2010, I collected ethological and home range data on a group of gibbons in NE Cambodia. It was originally thought that gibbons in this area belong to *Nomascus gabriellae*; recently it has been proposed that they in fact represent a new species, *Nomascus annamensis*.

The focal group studied was a habituated group consisting of an adult male, adult female, juvenile and infant. Data were collected using instantaneous time sampling methods, and a GPS to determine the Universal Transverse Mercator (UTM) location of individuals. The data will provide an insight into the focal groups' diet and ecology, canopy use, home ranging patterns and general behavioural repertoire (represented within activity budgets).

This research is ongoing and is currently being completed within a Master of Arts (Biological Anthropology) at the Australian National University

The work of the International Primate Protection League – IPPL

Lynette Shanley

Lyn Shanley will present a wonderful powerpoint presentation of IPPL which also looks at problems that have an effect on primates in captivity and the wild. It also goes into myths about bush meat trade etc.

IPPL is known for its work in fighting primate smuggling as well as running a gibbon sanctuary.

Do great apes really look to humans for help in the object-choice task?

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A puzzling finding in comparative psychology is that great apes are unable to comprehend simple human cooperative gestures. No more is this evident than in the object-choice task in which an experimenter hides a reward in one of two containers and then provides a gesture, such as pointing, to indicate where the reward is hidden. Apes fail miserably to find the reward whereas many other animal species succeed. Recent evidence, however, suggests apes fail the object-choice task because they are invariably tested with an unsuitable method compared to the one typically used with other animal species. In support of this argument, I will discuss new findings from a study designed to pinpoint the methodological problems of the object-choice task that is conducted with great apes.

The 25 most endangered Primates: 2010

Colin Groves

Australian National University

Every two years, a list is produced, and heavily publicised, of the 25 most endangered species (sometimes subspecies) of primates. The list is always, of necessity, rather politicised: it tends to highlight species that have been neglected, or are representatives of the Primate species in ecosystems which are endangered as a whole, as well as species that truly are in imminent danger of disappearing. Frequently the strategy works, and intensive conservation attention is turned in new directions: for example, when the Cross River gorilla was placed on the list, the efforts of a rather small number of individuals were suddenly boosted by international cooperation. In other cases, there have been setbacks, most notably in Madagascar where recently a conservation-conscious government was overthrown in a coup, and the retention of four species of lemurs on the list, and the appearance for the first time of a new entry, may help to focus national and international attention on the problems.

Putative Hominoids on Flores island, Indonesia

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At the time of the discovery of *Homo floresiensis* an interesting idea was aired from time to time: could *Homo floresiensis* be the remains of a putative creature known as 'ebu gogo' by the Nage people of Flores? Professor Gregory Forth published a book in 2008 in which he presents a detailed investigation of putative short bipedal hominoid-type creatures reported from all regions of Flores. His interviews with informants were collected between 1984 and 2005, and the accounts are remarkably consistent. He presents a final discussion on the concordance between these images and *Homo floresiensis*. Forth and I now present the results of our subsequent joint investigations into this question.

Psychopathology in Great Apes: An investigation into trauma, attachment and psychological wellbeing

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Data relating to the rearing status of captive Gorillas (*Gorilla gorilla gorilla*), Chimpanzees (*Pan troglodytes),* and Orangutans (*Pongo pygmaeus)* will be analysed examining the occurrence of behavioural irregularities as indicators of psychopathology. This research will examine psychological pathology within the context of disrupted attachment in the mother-infant dyad in Great Apes.

The effects of Hand-Rearing versus Mother-Rearing have been heavily documented in existing literature, although a thorough examination of stereotypies within and across species of Apes has not been examined in detail. This research aims to a) identify stereotypies and abnormal behaviours as they occur across captive species; b) differentiate the aetiology of these behavioural irregularities (captive effects from rearing and attachment behaviours; c) determine the long-term effects of stereotypic behaviours on reproductive success and maternal capacity.

These data will be examined through a trans-species psychology lens using a human model of psychology and its application to the evolution of psychopathology across phylogenetically related species. This research will be ongoing and forms the sub-thesis component of the Masters of Arts (Biological Anthropology).

Gorilla dental diversity and phylogeography

Varsha Pilbrow

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In this paper I use molar morphometrics to address the issue of gorilla population systematics and phylogeography. I took dental samples of 323 adult gorillas from their current distribution in equatorial Africa and divided them into 14 populations. Discriminant analyses and Mahalanobis distances were used to study population structure.

Results revealed that: (1) the West and East African gorillas are distinct from each other, (2) the Cross River gorillas are well separated from the rest of the western gorillas, (3) gorillas from the Virunga mountains and the Bwindi Forest can be differentiated from the lowland gorillas of Utu and Mwenga-Fizi, (4) the Tshiaberimu gorillas are distinct from the other East African gorillas, and the Kahuzi-Biega gorillas are affiliated with them. The study supports the species-level distinction of *Gorilla gorilla* and *Gorilla beringei*, with *G. g. diehli, G. g. gorilla, G. b. graueri, G. b. beringei*, and possibly, *G. b. rex-pygmaeorum* as subspecies.

Statistical correlations between dental distances, geographic distances and altitude indicate that isolation-by-distance models cannot adequately explain gorilla patterns of population divergence, but altitudinal segregation provides a better explanation. I suggest that gorilla phylogeography was affected by Plio-Pleistocene climatic fluctuations and local orographic activity in Africa. I propose that West Africa was at the historic centre of gorilla distribution and experienced drift-gene flow equilibrium, whereas Nigeria and East Africa were at the periphery, where climatic stability and altitudinal variation promoted drift and genetic differentiation. This understanding of gorilla phylogeography has implications for gorilla conservation and helps to understand the distribution of sympatric chimpanzees and Plio-Pleistocene hominins.

The Colobus Trust

Lynette Shanley

This presentation is about the wonderful work of the Colobus Trust in Diana, Kenya.

The Colobus trust runs an emergency rescue service and veterinary clinic for injured primates and deals with the problems that non human primates are facing due to humans.

They install colobridges across busy roads, get speed limits enforced where there are monkeys, work to get power lines insulated to stop deaths from electrocution and work with local wood carvers to use specially grown exotic woods rather than the trees that form the monkeys home.

They also do much more which will be covered in the presentation.

There is no doubt that their work helps primate populations and offers assistance to injured primates.