

**Australasian Primate Society  
2008 Conference**



**Program & Abstracts**

# 2008 Conference Program

Saturday 4<sup>th</sup> October - The Armoury, SA Museum, North Terrace, Adelaide

TIME	EVENT	DURATION
9:00am	Welcome <i>Carla Litchfield</i>	10 mins
9:10am	Top 25 Most Endangered Primates <i>Colin Groves</i>	40 mins
9:50am	Update on what GrASP-Australasia has been working on in the last couple of years; projects supported with Great Apes; upcoming Year of Gorilla 2009 <i>GrASP-Australasia board: Leif Cocks, Tony Gilding, Colin Groves &amp; Carla Litchfield</i>	40 mins
10:30am	Morning Tea	30 mins
11:00am	Behavioural budgets and census counts of Proboscis Monkeys ( <i>Nasalis larvatus</i> ) in Sabah, Malaysia <i>Heather Leason</i>	20 mins
11:20am	Madagascar primates <i>Christine Baker</i>	20 mins
11:40am	Conservation Psychology in the zoo and natural environments <i>Carla Litchfield</i>	20 mins
12:00pm	Night-time in the Zoo: A review of nocturnal studies of captive animal populations <i>Corinne Mensforth</i>	20 mins
12:20pm	Lunch	1 hour
1:40pm	The Australian Orangutan Project - Project Update and Current Objectives <i>Leif Cocks</i>	20 mins
2:00pm	The process for releasing a zoo-bred Sumatran Orangutan <i>Pongo abellii</i> at Bukit Tigapuluh National Park, Jambi, Sumatra <i>Kylie Bullo</i>	20 mins
2:20pm	Behavioural interactions between Orangutans and Siamangs in a mixed-species exhibit <i>Elissa Pearson</i>	20 mins
2:40pm	Afternoon Tea	30 mins
3:10pm	Has the face recognition system evolved to support social interactions? <i>Jessica Taubert</i>	20 mins
3:30pm	Captive Primate Nutrition <i>Thomas Banhazi</i>	20 mins
4:00pm	APS Annual General Meeting	

**Top 25 Most Endangered Primates**  
Colin Groves  
Australian National University

Every two years, at the International Congress of Primatology, a meeting is held to determine which primate species (occasionally subspecies) should be on the "25 most endangered" list, and this list is then announced with great publicity. In the past, the compilation and publication of the list has had some beneficial effects; some species have received greater conservation attention, enabling them to be removed from the list. There is also a political aspect to it: in some cases, all primates in a particular region are in fact endangered, but one of them is chosen to highlight the plight of the region in general (examples might include the Tana River gallery forests in Kenya, or Ranomafana National Park in Madagascar).

The 2008 list includes five species from Madagascar, six from the mainland of Africa (strictly speaking, one of them -- the Cross River gorilla -- is "only" a subspecies), 11 from Asia (again, one of them, the Western Purple-faced langur, is presently classified as "only" a subspecies), and three from the Neotropics.

Asia is the only continent where more than 50% of the primate taxa classified as Endangered. This reflects both the habitat destruction caused by the dense and still growing human populations, and the intense hunting for traditional medicines. Even here, however, there are a few bright spots, such as the successful 11th-hour intervention by Chinese primatologists on the Hainan gibbon.

Some groups of primates are inherently vulnerable, notably the Red Colobus of Africa, because of their behaviour, and the "limestone langurs" of Indochina, because of their small ranges, both of which make them uniquely susceptible to hunting.

**Update on what GRASP-Australasia has been working on in the last couple of years; projects supported with Great Apes; upcoming Year of Gorilla 2009**

GRASP-Australasia Board: Leif Cocks, Colin Groves & Carla Litchfield

GRASP is an innovative and ambitious project of UNEP and UNESCO with an immediate challenge - to lift the threat of imminent extinction faced by gorillas, chimpanzees, bonobos and orangutans. The great apes are on the very edge of extinction. Time is not on our side. GRASP is a dynamic alliance of many of the world's leading great ape research and conservation organisations.

This session will be presented by members of the Board of GRASP-Australasia. It is intended to be an informal session, providing:

- an overview of GRASP and GRASP-Australasia
- an update on GRASP-Australia funded projects
- future projects to be funded
- call for partnerships in funding future projects

**Behavioral Budgets and Census Counts Of Proboscis Monkeys  
(*Nasalis larvatus*) In Sabah, Malaysia**  
Heather C Leason  
Australian National University

This paper will discuss the activity budget of the proboscis monkey living in one male groups in the Lower Kinabatangan Wildlife Sanctuary and surrounding region, Sabah, Malaysia.

The current activity budget is compared to the data collected by Boonratana, prior to mass tourism and oil palm plantation expansion in the area. Boonratana (1993) found ingestion to be 10% of the activity budget and this study found it to be 11.5% during Full Day Follows (FDF) and 13.7% during census on the Menanggul river. Boonratana found resting to be 22%, this study 52.4% during FDF and 38.6% during census. Boonratana found 18.2% travel, this study FDF 23.8% and 20.6% during census. In regard to vocalization and vigilance Boonratana found <1% and 27.8% respectively where as this study for FDF found 3.2% and 5% respectively and for census found 3.7% and 6.4% respectively. This study found play to occur in sub-adults and adults of the species for 26 bouts in FDF while play by adults is not recorded by other researchers of this species.

This paper will also discuss group counts and total monkey counts taking during monthly censuses completed between June 2003 - July 2004. The changes from the current study and Boonrantana's study and tourist aspects will be discussed.

In regard to tourism there was a negative correlation between the number of tourist boats present on a river and the number of proboscis monkeys visible per kilometer of census (Spearman's  $\rho = -.249$ ,  $p = .015$ ). I will discuss the differences from the budget reported by Boonratana and attempt to explain why activities appear different between the two studies. The full activity budget on the three main rivers will be described in detail and discussed.

Key Words: Proboscis monkey, odd nosed monkey, behavior

# Madagascar Primates

Christine Baker

## Conservation Psychology in the zoo and natural environments

Carla Litchfield

University of South Australia & ZoosSA

Conservation psychology is a relatively new area that applies principles of psychology toward the goal of changing non-sustainable human behaviour in order to protect the natural environment and conserve diminishing natural resources. Although conservation psychology primarily focuses on human attitudes and behaviour, historically ZoosSA has been strongly linked with psychologists who focus on the behaviour and cognition of animals in the zoo setting, with a view to enhancing psychological wellbeing or 'quality of life' and ensure maintenance of behavioural diversity. This presentation will consider how zoos might change attitudes and ultimately behaviour of visitors to make a positive impact on the environment.

## Night-time in the Zoo: A review of nocturnal studies of captive animal populations

Corinne L. Mensforth  
University of South Australia

Behavioural studies of captive primate populations housed in zoos are most often concentrated on the behaviour displayed while on exhibit and in the public view. However many Australian zoo animals spend up to two-thirds of their time in night quarters, or off-exhibit areas during zoo closing hours (approx. 17:00 - 08:00 hours). In North American and European zoos the time that animals spend off-exhibit has been estimated to be even greater due to the temperate climate of these regions; up to 70-80% of their time is spent off-exhibit. These two zoo environments can greatly differ, with exhibits in zoos leaning towards more naturalistic settings while off-exhibit areas are still being designed with concrete floors and metal bars. There has been little study of animal behaviour in off-exhibit areas, or of the conditions experienced by animals and keepers in these areas. This paper will discuss what work has been done previously, what needs to be done in the future, and a short discussion on the topic.

## The Australian Orangutan Project - Project Update and Current Objectives

Leif Cocks

President, Australian Orangutan Project

The orangutans' rainforest is disappearing at an overwhelming rate with the remaining forest being degraded by drought and forest fires.

We need to recognise the massive amount of suffering being inflicted on a species that is 97% genetically identical to humans. Orangutans are highly intelligent animals. Their intelligence is comparable to that of a five or six year old child. Surely these self-aware animals deserve the right to live and to be free from torture and exploitation? Protecting the orangutan also protects the surrounding ecosystem and myriad of endangered and exotic species. Saving the orangutan saves the forest. None of us want to have to tell our children or grandchildren that we were around for the last decade of the orangutans but we weren't quite able to get our act together to save them.

The Australian Orangutan Project, through its work, supports many other orangutan conservation organizations. AOP is a non profit organisation staffed by volunteers to raise funds and collect donations for Orangutan Conservation and habitat protection. Other than a part-time administrator and part-time book keeper, there are no salaries paid to AOP volunteers and most services are donated. Therefore a very high percentage of your donations go straight to organisations involved in the active welfare of Orangutans and on habitat protection.

This paper will give an overview of the work of AOP to save the orangutan.

## The Process for releasing a zoo-bred Sumatran orangutan *Pongo abellii* at Bukit Tigapuluh National Park, Jambi, Sumatra

Kylie Bullo  
Perth Zoo

This paper describes the release of a 14 year old Perth Zoo female Sumatran Orangutan (*Pongo abellii*) into Bukit Tigapuluh National Park (BTP NP) in Jambi, Sumatra in November 2006. This site is run by the Sumatran Orangutan Conservation Programme (SOCP) and Frankfurt Zoological Society (FSZ). A population of ex-captive Sumatran orangutans is being established as the wild population was hunted to extinction in the 1800s. Almost 100 orangutans have been released as of August 2008. Orangutans are followed by trackers until they are assessed as being capable of surviving in the wild. Temara was the first ever zoo bred orangutan to be released into the wild. This national park is protected by eight Wildlife Protection Units. Each unit consists of four men that patrol the park and report any illegal activities to the authorities.

Leif Cocks (Exotic Curator, Perth Zoo) and Kylie Bullo (Senior orangutan keeper, Perth Zoo), travelled with Temara to Jambi for her release. Kylie Bullo stayed for two months after Temara's release and followed Temara every day with her trackers to record her behaviour and activity levels. Temara is still being followed daily and her behaviour is recorded every two minutes. Perth Zoo Primate staff members have returned to BTP NP numerous times to assess Temara's condition and observe her behaviour in the forest.

Although it will be some time before we can establish firm conclusions, the release of Temara, a captive-bred Sumatran orangutan from Perth Zoo into Bukit Tigapuluh National Park, has so far proven to be successful. Temara has exhibited numerous behaviours that indicate she will be able to survive successfully in the wild including:

- excellent nest building skills
- travelling in the canopy, does not come down to the ground
- the ability to forage for food
- refusing supplement food from her trackers during the fruiting season
- is of sound mental health and appears calm and confident in BTP NP

Elissa Pearson

### **Part one. Behavioural interactions between Orangutans and Siamangs in a mixed-species exhibit**

The aim of this research was to conduct a scientific analysis of the behaviour of, and interactions between, orangutans (*Pongo abelii*) and siamangs (*Symphalangus syndactylus*) within a mixed-species exhibit. Participants included a male and female pair of orangutans and siamangs. Data were collected using instantaneous scan sampling on behaviour, location, and intra- and inter-species proximity. This allowed assessment of the compatibility of the species, the frequency and nature of interactions, activity levels, use of space, and overall impact on animal welfare. Observations were conducted over 180 hours during zoo opening times. Results indicated a highly successful mixed-primate exhibit, with frequent affiliative interactions, particularly between the female orangutan and siamang pair, accounting for an average of 6% of the female orangutan's daily activity. Participants utilised the majority of the exhibit, without segregation by species, although a lack of arboreal preference did emerge. This was particularly pertinent for the orangutans who spent 85% and 73% of their time, for the male and female respectively, on the ground or low jetty area. This suggests mixed-primate exhibits can be successful when appropriate individuals are selected, although both species would benefit from exhibit redesign to incorporate more climbing structures and greater useable arboreal space. Following the conclusion of the study the male siamang was injured by the female orangutan, resulting in a temporary separation of species. A major implication for animal welfare in relation to this incident is that mixed-species exhibits require constant and ongoing supervision even when the group appears cohesive and stable.

### **Part two. Orangutan conservation: The role of captive populations and the need for human attitude and behaviour change**

This presentation will discuss a plan for PhD research arising from the prior study. This research will specifically focus on the role captive populations can play in ongoing orangutan conservation efforts and the requirement for human attitude and behaviour change in order to secure a future for orangutans in the wild. A theoretical rationale for this research will be provided as well as proposed methodology, with opportunity provided for comment and feedback.

## Has the face recognition system evolved to support social interactions?

Jess Taubert<sup>1</sup> and Lisa A. Parr<sup>2</sup>

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Humans are experts at recognising faces. A current debate in the human literature is focused on whether this remarkable skill is dependent on extensive practice. The expertise hypothesis assumes face recognition is a general process that functions in a uniform way across the primate order. More recently, it has been acknowledged that our behavioural response to face stimuli cannot be explained entirely by extensive practice. Instead the face recognition system is more likely to be the result of a complex, bi-directional relationship between our environment and our genes. Theories that describe an innate representation of face stimuli often assume that the face recognition system evolved in response to the demands of social living.

To better understand how social living might have shaped our ability to process face stimuli we have compared the performance of three primate species (*Homo sapiens*, *Ateles geoffroyi*, and *Macaca mulatta*) on a face matching task. These three species differ in the organisation of their social communities.

Furthermore it has been inferred from previous demonstrations of poor performance that the macaque face recognition system may function differently from those of other primates. We used a standard marker of face processing, known as the composite-face effect, to see if the differences measured between species could be mapped on to differences in social organisation and/or visual experience.

The results indicate that all three species process face stimuli in a similar way. More importantly the results support the assertion that visual experience alone cannot predict the sensitivity of our face recognition system. Instead, the comparative approach implemented here provides preliminary evidence that the face recognition system coevolved with social organisation.

## Captive Primate Nutrition

Thomas Banhazi

The study conducted at Adelaide Zoo in the 1990's consisted of two parts:

1. Evaluation of diet offered
2. Improved diet formulation

A review of the documented nutritional requirements for primates was undertaken, and an analysis of the diets offered was then compared with those known requirements.

Protein deficiency was identified as a major nutritional problem in the present diets, and low energy density was also seen to be problematic, although the restrictions of captive environments should be taken into account, when assessing the potential impacts of increasing the dietary energy levels. A marked deficiency of vitamins A and D was seen in all diets and to a lesser extent, riboflavin, vitamin E, magnesium, manganese and occasionally iron, were also deficient. The vitamin C, potassium and zinc content of all diets appeared satisfactory.

An ingredient analysis was undertaken and revealed that the most expensive, banana and vegetable mix, contributed very little to the protein content, or any other major nutrient content, of the diet and therefore could potentially be replaced without affecting the nutritional value of the diet.

A computer-aided diet formulation package was utilised to improve the diet formulation, based on the known requirements, and a refined process used in diet preparation. This resulted in the formulation of diets which improved nutrition for the primates at a more cost-effective rate with reduced labour. A process for continual monitoring and improvement was proposed.