The 5th International Symposium on Primatology and Wildlife Science

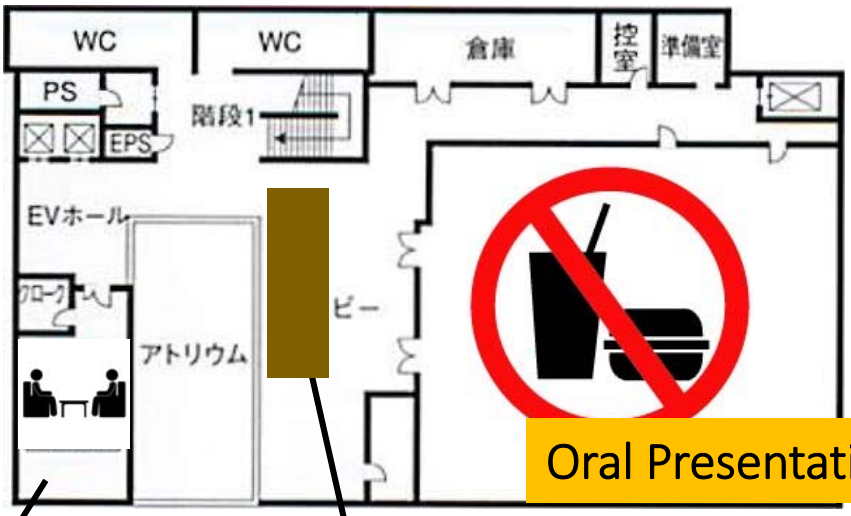
3rd (Thu) – 6th (Sun), March, 2016

Inuyama International Sightseeing Center “FREUDE”

The 5th International Symposium on Primatology and Wildlife Science

March 3rd (THU) - 6th (SUN) 2016., INUYAMA INTERNATIONAL SIGHTSEEING CENTER (FREUDE)

4F



Oral Presentation Room

Interview Room

Registration Desk

3F

Symposium Head Office
(Not Available on 5th)

Nursery Room

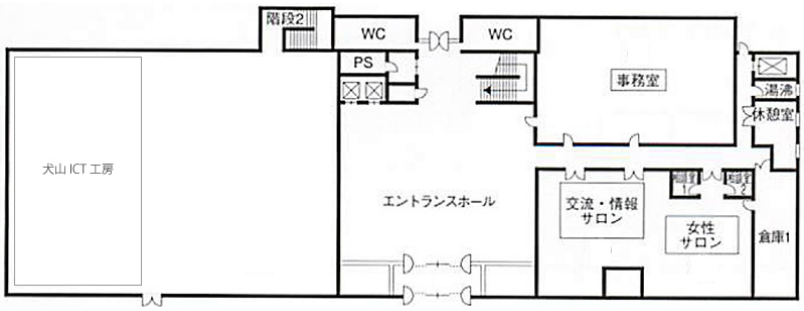
Cloak Room

2F

Lounge (Snacks & Drinks)

Poster Presentation & Social Gathering (dinner party)

1F



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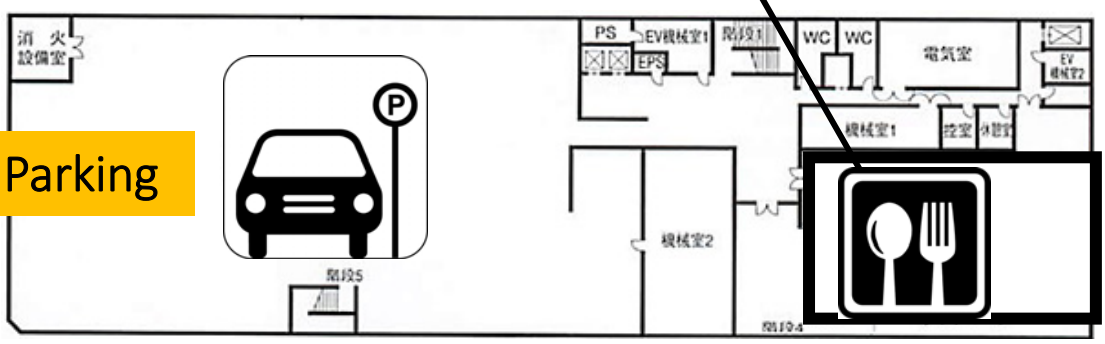
Restaurant “Glanz”
AM10:30-PM 9:00

Car Parking



Special Session "New Horizen for Comparative Cognitive Science :From Single-Celled Organisms to Humans"
第44回ホミニゼーション研究会「比較認知科学の展望：粘菌からヒトまで」

The 5th International Symposium on Primatology and Wildlife Science

	3rd (Thu), March	4th (Fri), March	5th(Sat), March	6th (Sun), March
9:00		Registration: 9:00-9:30	Registration: 9:00-9:30	Registration: 9:00-9:15
		[9:30-10:50] Session 4: Invited Talk and Progress report by PWS students (1) [BERCOVITCH]	[9:30-12:00] [TOMONAGA]	[9:30-12:00] [HATTORI]
		José Alves GOMES (20)	Toshiyuki NAKAGAKI (30)	Kazuo FUJITA (30)
10:00		Tatiana SCHOR (20)		
		Aya YOKOTSUKA (10)	Kazuo OKANOYA (30)	Shinya YAMAMOTO (30)
		Alberto VICENTINI (20)/Kei MATSUSHIMA (10)		
		[10:50-12:00] Session 5: Invited Talk and Progress report by PWS students (2) [HAYAKAWA]	Fumihiro KANO (30)	Naruki MORIMURA (30)
11:00		Frederico Ozanan Barros MONTEIRO (20)		
		Christina WHITEMAN (20)	Nobuyuki KAWAI (30)	Misato HAYASHI (30)
		Natsuko TAJIMA (10)/Kasumi SAKAKIBARA (10)		
		Miho SAITO (10)	Shigeru WATANABE (30)	Crickette SANZ (30)
12:00	Registration: 12:00-13:00	[12:00-13:30] Lunch Break (ブッダセミナー「環境省」、12:00-13:00)	[12:00-13:30] Lunch Break	[12:00-13:30] Lunch Break
13:00	[13:00-13:10] Opening Remarks (Tetsuro MATSUZAWA)			
	[13:10-14:10] Session 1: Recent News and Progress report by PWS Members and students (1) [ADACHI]			
	Takeshi FURUICHI (15)/Chie HASHIMOTO (15)	[13:30-15:30] Session 6: Invited Talk and Progress report by PWS students (3) [MACINTOSH]	[13:30-15:00] [HAYASHI]	[13:30-15:00] [HIRATA]
	Shintaro ISHIZUKA (10)/Kazuya TODA (10)	Akinori TAKAHASHI (20)	Ikuma ADACHI (30)	[13:30-14:00] Poster Award [HAYAKAWA]
14:00	Natsumi ARUGA (10)	Lori SHEERAN (20)		
	[14:10-15:00] Session 2: Recent News and Progress report by PWS Members and students (2) [MORIMURA]	Steve WAGNER (20)	Yuko HATTORI (30)	Masako MYOWA-YAMAKOSHI (30)
	Yumi YAMANASHI (15)/Jie GAO (10)	Liesbeth FRÍAS (10)		
	Duncan WILSON (10)/ Morgane ALLANIC (10)	Cécile SARABIAN (10)	Chris MARTIN (30)	Ralph ADOLPHS (30)
15:00	[15:00-15:20] Coffee Break	Himani NAUTIYAL (10)	[15:00-15:30] Coffee Break	[15:00-15:10] Closing Remark (Tetsuro MATSUZAWA)
	[15:20-17:00] Session 3: Invited Talk by PWS Collaborators [TAKIZAWA]	Raman SUKUMAR (30min)	[15:30-17:00] [YAMAMOTO]	
	Naobi OKAYASU (15)	[15:30-15:45] Coffee Break & Group Photo	Satoshi HIRATA (30)	
	Raymond S. LUMBUENAMO (20min)	[15:45-16:00] Special Talk by Juichi YAMAGIWA (President of Kyoto University)		
16:00		[16:00-17:00] Session 7: Progress Report by PWS Students (L4/L5) [KISHIDA]	Masaki TOMONAGA (30)	
	Masahiko HORIE (30min)	Nobuko NAKAZAWA (15)/Hiroko SAKURAGI (15)		
		Sofi BERNSTEIN (15)/ Sayuri TAKESHITA (15)	Tetsuro MATSUZAWA (30)	
	Colin CHAPMAN (30min)	(15min/person)		
17:00	Poster session 17:00-19:00			
18:00			18:00- Social Gathering (dinner party)	
	(PWS exam Start: 18:30-)			

The 5th International Symposium on Primatology and Wildlife Science
March 3rd - 6th, Inuyama

***FINAL: As of March 7th 2016

Day 1 March 3rd (THU)

Time		Presentation time (min)	title	Speaker	Affiliation
12:00-13:00				Registration	
13:00-13:10		(10)	Opening Remark	Tetsuro MATSUZAWA	PWS Program Coordinator
Session 1: Recent News and Progress report by PWS Members and students (1) / Chair: Ikuma ADACHI					
13:10-14:10	O-1	(15)	Cooperation and competition among female bonobos	Takeshi FURUICHI	Primate Research Institute, Kyoto University
	O-2	(15)	Mixed species associations of guenons in the Kalinzu Forest and the report of the AA Seminar held in Kalinzu in August 2015	Chie HASHIMOTO	Primate Research Institute, Kyoto University
	O-3	(10)	Non-invasive DNA sampling of wild bonobos: progress report	Shintaro ISHIZUKA	Primate Research Institute, Kyoto University
	O-4	(10)	A sex difference of mother-offspring relationships in bonobo patrilineal societies	Kazuya TODA	Primate Research Institute, Kyoto University
	O-5	(10)	Mother-Infant Relationships of Wild Chimpanzees and Environmental Education Program in Kalinzu, Uganda	Natsumi ARUGA	Primate Research Institute, Kyoto University
Session 2: Recent News and Progress report by PWS Members and students (2) / Chair: Naruki MORIMURA					
14:10-15:00	O-6	(15)	Environmental enrichment for zoo animals : from backyard to exhibition	Yumi YAMANASHI	Wildlife Research Center, Kyoto University
	O-7	(10)	The Rock-Paper-Scissors Game in Chimpanzees (Pan troglodytes)	Jie GAO	Primate Research Institute, Kyoto University
	O-8	(10)	Exploring attentional facilitation and disengagement to assess emotional states in captive chimpanzees: Progress Report	Duncan WILSON	Primate Research Institute, Kyoto University
	O-9	(10)	Influence of inter-individual distance on grooming interaction in captive chimpanzees and bonobos: research progress	Morgane ALLANIC	Primate Research Institute, Kyoto University
15:00-15:20			Coffee Break		
Session 3: Invited Talk by PWS Collaborators / Chair: Reiko TAKIZAWA					
15:20-17:00	O-10	(15)	From the World Heritage to Non Protected Area - Recent Challenges on Biodiversity Conservation in Relation to Policy Framework	Naobi OKAYASU	WWF Japan / WRC Kyoto University
	O-11	(20)	Wildlife Habitat Fragmentation in the DRC	Raymond S. LUMBUENAMO	Wildlife Research Center, Kyoto University

	O-12	(30)	Poverty Eradication vs Nature Conservation ~ For the Survival of this Planet	Masahiko HORIE	Ambassador for Global Environmental Affairs
	O-13	(30)	Primate Conservation: What we know, what we do not know, and ways forward	Colin CHAPMAN	McGill University/Wildlife Conservation Society
			17:00-19:00 Poster session		

Day 2 March 4th (FRI)

9:00-9:30			Registration		
			Session 4: Invited Talk and Progress report by PWS students (1) / Chair: Fred BERCOVITCH		
9:30-10:50	O-14	(20)	Electric fish as a model organism for behavioral research (and public exhibition).	José Alves GOMES	Laboratório de Fisiologia Comportamental e Evolução (LFCE), Instituto Nacional de Pesquisas da Amazônia (INPA)
	O-15	(20)	Monkey for dinner? Bushmeat, urbanization and food security in the Amazon.	Tatiana SCHOR	Geography Federal University of Amazonas Center for Cities Study and Research in the Amazon -NEPECAB
	O-16	(10)	Local people's knowledge and perceptions of bonobos in Wamba region, DRCongo	Aya YOKOTSUKA	Graduate School of Asian and African Area Studies, Kyoto University
	O-17	(20)	Diversification in white--sand vegetation in tropical south america – the case of the plant genus Pagamea (Rubiaceae)	Alberto VICENTINI	Instituto Nacional de Pesquisas da Amazônia (INPA)
	O-18	(10)	Comparative genome analysis on captive armadillos	Kei MATSUSHIMA	Wildlife Research Center, Kyoto University
			Session 5: Invited Talk and Progress report by PWS students (2) / Chair: Takashi HAYAKAWA		
10:50-12:00	O-19	(20)	Research in Neotropical primates at the Nacional Primate Center, Brazil	rederico Ozanan Barros MONTEIR(	Universidade Federal Rural da Amazônia (UFRA)
	O-20	(20)	Current threats, challenges and efforts for wildlife conservation in the Eastern Brazilian Amazon	Christina WHITEMAN	Brazilian Institute of Environment and Renewable Natural Resources (IBAMA)
	O-21	(10)	Pair swim analysis of Indo-pacific bottlenose dolphin around Mikura island	Natsuko TAJIMA	Wildlife Research Center, Kyoto University
	O-22	(10)	Who approaches toward swimmers in wild dolphins?	Kasumi SAKAKIBARA	Wildlife Research Center, Kyoto University
	O-23	(10)	Report of Tanzania field tour ~ Nursing strategy of giraffe~	Miho SAITO	Wildlife Research Center, Kyoto University
12:00-13:30			Lunch Break/ (ブッダセミナー「環境省」12:00-13:00)		
			Session 6: Invited Talk and Progress report by PWS students (3) / Chair: Andrew MACINTOSH		
13:30-15:30	O-24	(20)	Bio-Logging: studying wildlife in the ocean from an 'animal's-eye' view	Akinori TAKAHASHI	National Institute of Polar Research
	O-25	(20)	Human and Tibetan Macaque (Macaca thibetana) Interactions in the Valley of the Wild Monkeys, Huangshan, China	Lori SHEERAN	Department of Anthropology and Director of the Primate Behavior and Ecology Program, Central Washington University
	O-26	(20)	Molecular Approaches for Wildlife Conservation and Ecology: Amphibians and Primates Unite	Steve WAGNER	Department of Biological Sciences, Central Washington University
	O-27	(10)	Parasite sharing in sympatric Bornean primates	Liesbeth FRÍAS	Primate Research Institute, Kyoto University

	O-28	(10)	Testing Infection-risk Avoidance in Primates	Cécile SARABIAN	Primate Research Institute, Kyoto University
	O-29	(10)	Farming the forest edge: local perception about primate conflict in six high altitude villages in the Garhwal Himalayas, Uttarakhand India	Himani NAUTIYAL	National Institute of Advanced Studies
	O-30	(30)	The evolutionary ecology of tusks in elephants	Raman SUKUMAR	Centre for Ecological Sciences, Indian Institute of Science
15:30-15:45	Coffee Break & Group Photo				
15:45-16:00	**Special Talk by Juichi YAMAGIWA (President of Kyoto University) "What I hope to the future of the fieldwork and PWS endeavor"**				
Session 7: Progress Report by PWS Students (L4/L5) /Chair: Takushi KISHIDA					
16:00-17:00	O-31	(15)	Hair structures of leopard's prey species in Mahale	Nobuko NAKAZAWA	Wildlife Research Center, Kyoto University
	O-32	(15)	Allomothering in wild chimpanzees of the Mahale Mountains National Park	Hiroko SAKURAGI	Wildlife Research Center, Kyoto University
	O-33	(15)	The Vocal Repertoire of Tibetan Macaques: A Quantitative Analysis and a Congeneric Comparison	Sofi BERNSTEIN	Primate Research Institute, Kyoto University
	O-34	(15)	Factors regulating steroid hormones in Japanese macaques and orangutans	Sayuri TAKESHITA	Primate Research Institute, Kyoto University
17:00-19:00 Poster session					

Day 3 March 5th (SAT)

March 5-6: Joint Hosting by "ホミニゼーション研究会"

9:00-9:30	Registration				
Session 9: New Horizen for Comparative Cognitive Science :From Single-celled organisms to Humans 第44回ホミニゼーション研究会「比較認知科学の展望：粘菌からヒトまで」 Chair: Masaki TOMONAGA					
9:30-12:00	O-35	(30)	Physical ethology of single-celled organism	Toshiyuki NAKAGAKI	Hokkaido University
	O-36	(30)	Domestication and song evolution in Bengalese finches	Kazuo OKANOYA	The University of Tokyo
	O-37	(30)	Great apes make anticipatory looks based on false beliefs	Fumihiro KANO	Wildlife Research Center, Kyoto University
	O-38	(30)	Evolutionarily predisposed snake fear: Comparative, Developmental, and Electrophysiological studies	Nobuyuki KAWAI	Nagoya University
	O-39	(30)	Comparative analysis of reinforcing property -Study on pleasure-	Shigeru WATANABE	Keio Unversity
12:00-13:30	Lunch Break				
Chair: Misato HAYASHI					
13:30-15:00	O-40	(30)	Cross-modal correspondences in non-human primates	Ikuma ADACHI	Primate Research Institute, Kyoto University
	O-41	(30)	Rhythmic entrainment : Evolutionary origins of human bonding mechanism	Yuko HATTORI	Wildlife Research Center, Kyoto University

	O-42	(30)	Orangutan Strategies for Solving a Visuospatial Memory Task	Chris MARTIN	Indianapolis Zoo
15:00-15:30	Coffee Break				
Chair: Shinya YAMAMOTO					
15:30-17:00	O-43	(30)	Launch of a new project to study wild horses in Portugal	Satoshi HIRATA	Wildlife Research Center, Kyoto University
	O-44	(30)	Exploring the perceptual world from the comparative-cognitive perspective	Masaki TOMONAGA	Primate Research Institute, Kyoto University
	O-45	(30)	Dialectical perspective of Comparative Cognitive Science	Tetsuro MATSUZAWA	Primate Research Institute, Kyoto University
17:00- Poster session 18:00- Social Gathering					

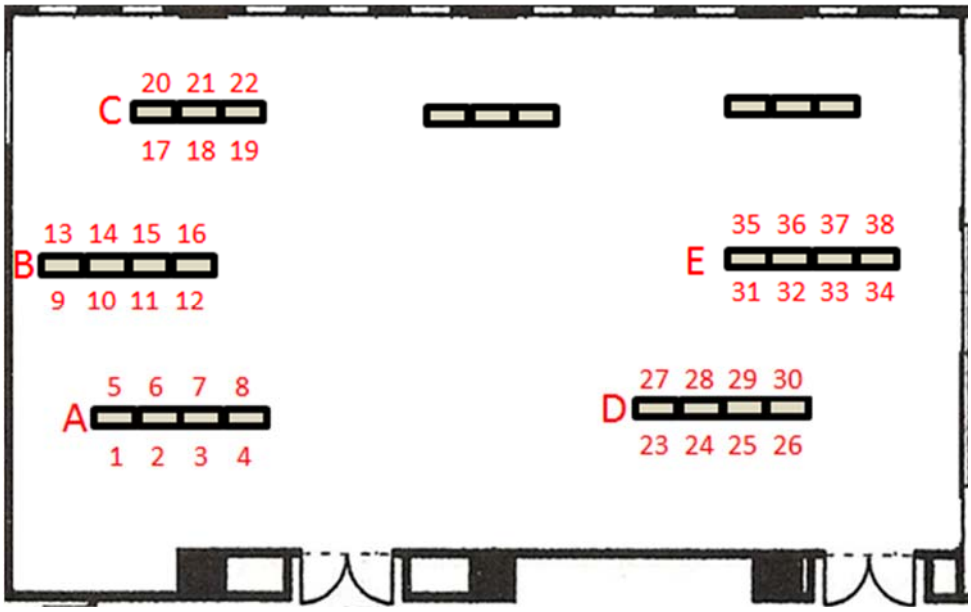
Day 4 March 6th (SUN)

9:00-9:30	Registration				
Chair: Yuko HATTORI					
9:30-12:00	O-46	(30)	Talk on cats and dogs: Comparative cognition in two of our best friends	Kazuo FUJITA	Graduate School of Letters, Kyoto University
	O-47	(30)	Comparative studies with chimpanzees and bonobos on cooperation in the wild and captivities	Shinya YAMAMOTO	Kobe University
	O-48	(30)	Conservation of wild chimpanzees at Bossou, Guinea	Naruki MORIMURA	Wildlife Research Center, Kyoto University
	O-49	(30)	Cognitive development and mother-infant interaction in great apes	Misato HAYASHI	Primate Research Institute, Kyoto University
	O-50	(30)	Modern Environmental Challenges to the Ecological Flexibility of Great Apes	Crickette SANZ	Washington University
12:00-13:30	Lunch Break				
Chair: Satoshi HIRATA					
13:30-14:00	Poster Award Chair: Takashi HAYAKAWA				
14:00-15:00	O-51	(30)	Emergence of Self :Development of Social Cognition from Perinatal	Masako MYOWA-YAMAKOSHI	Graduate School of Education, Kyoto University
	O-52	(30)	Can we study emotions in animals?	Ralph ADOLPHS	California Institute of Technology
		(10)	Closing Remark (Tetsuro MATSUZAWA)		

Poster Presentations (2nd floor)

No.	Name	Title	Date
1	Anna KAWAKITA	Long Term Study of Giraffes and My Vision for the Future in Tanzania and Japan	3rd
2	Ryoma OTSUKA	Gorilla Conservation Through Photography and Filming	4th
3	Yuri KAWAGUCHI	Why do we love babies? : Perception of adult and infant faces in non-human primates	5th
4	Yugo KAWAMOTO	Towards a better understanding of the adaptation mechanism in taste receptors of primates	3rd
5	Mayuko NOMOTO	Physique-related Factors in Provisioned Japanese Macaque and My Research Plan about Forest Elephant	4th
6	Miho TANAKA	Analysis and future of bite scars by cookie cutter sharks on wild indo–pacific bottlenose dolphins	5th
7	Masahiro YAMAGAMI	Study on thing arm throw action of the chimpanzee	3rd
8	Hiroki OKAMURA	The Elucidation of Wild Bonobo's Stress Factors	4th
9	Akiko TAKAHASHI	Changes in the vegetation of Koshima island under high feeding pressure by Japanese macaques	3rd
10	Masayuki TANAKA	Research and education on Asian elephants in Kyoto City Zoo	4th
11	Tatiana SCHOR	Bushmeat prices and Hydrological System in the Tabatinga market, Amazonas, Brazil	5th
12	Himani NAUTIYAL	Winter diet selection and tree species preference by Central Himalayan Langur in and around Kedarnath Wildlife Sanctuary, Garhwal Himalayas, India	3rd
13	Anna-Katharina LABOISSIÈRE	Conservation and wildlife management as an object for the humanities	4th
14	Hiroya TAKIYAMA	Chimpanzees(*PAN TROGLODYTES*), As in humans, Perceive Rhythm Better in Low Pitched Than High Pitched Sounds	5th
15	Maciej TROJAN	Chimpanzees do not use the tit-for-tat strategy during token exchanging in the prosocial paradigm tasks	3rd
16	Maciej TROJAN	Various factors modify the prosocial behavior of chimpanzees in the prosocial paradigm tasks, but motor lateralization kills everything	4th
17	Julie DUBOSCQ	Connecting the dots: linking host behaviour to pathogen transmission	5th
18	Renata MENDONÇA	Mother-offspring interactions before weaning and behavior of immature wild Bornean orangutans (*Pongo pygmaeus morio*) in Danum Valley	3rd
19	Daisuke MURAMATSU	Bluffing and counter-bluffing tactics in fiddler crab contests	4th
20	Yukiko YAMAMOTO	Sound production and ontogenic change in the sound characteristics in the thorny catfish: Application for long-term underwater sound monitoring in Amazon	3rd
21	Claire WATSON	Trying to make pellet diet tastier to marmosets	4th
22	Chloe GONSETH	Distance-specific referential signals in chimpanzees (*Pan troglodytes*)	5th
23	Raquel COSTA	From behavior observation to pattern identification: Preliminary results for personality in capuchin monkeys	3rd
24	Yuta SHINTAKU	Reevaluation of primate specimen collection of Japan Monkey Centre as genetic resources	4th
25	Lucie RIGAILL	Face color indicates female reproductive state but not quality in Japanese macaques (*Macaca fuscata*).	5th
26	Kaori MIZUNO	Novel tasks for Asian elephants: Can they use their trunks to blow out-of-reach food against a wall?	3rd
27	Hideyuki ITO	Mitochondrial DNA sequence diversity of Grevy's zebra for management in captivity	4th

28	Zhijie LIAO	Investigation of social development of rhesus macaque by using social network analysis method	5th
29	Tomoko KANAMORI	Seasonal fluctuations of population density of Bornean orangutans (*Pongo pygmaeus morio*) with fruit availability in Danum Valley, Malaysia	3rd
30	Hikaru WAKAMORI	Comparison of tail-buttocks region of three species of macaques, Macaca mulatta, M. leonina and M. assamensis	4th
31	Souta INOUE	Research of breeding behavior of Manta ray	5th
32	Shoko AYANI	Study of wildlife ecology leeding to conservation	3rd
33	Akito TOUGE	The Evolutionary History of kousa dogwood (*Cornus kousa*): in terms of seed dispersal by animals	4th
34	*Canceled*		
35	LIU Jie	Ecology and Behavior Study on François's langur (*Trachypithecus francoisi*) and Yunnan snub-nosed monkey (*Rhinopithecus bieti*)	3rd
36	Nachiketha RAMAMURTHY	Population dynamics and vocal communication in Asian elephants	4th
37	Josue PASTRANA	Evaluating stress in male Japanese macaques living in two types of outdoor enclosures: vegetated vs. non vegetated/PWS plan proposal	5th



O-11 Invited Speaker

Addressing wildlife habitat fragmentation in the DRCongo through community effective involvement

Raymond S. Lumbuenamo

Changes in land use patterns are responsible not only for almost 20% GHG emission but are also the leading cause of habitat fragmentation, which in turn is one of the leading causes of species extinction. The reduction in fallow time, a consequence of an increasing demand for agricultural land driven by demographic explosion, has overextended the shifting cultivation production model in the DRCongo. The rural migration that has picked pace over the past three decades has exacerbated the situation by taking a big toll on forested areas nearing major roads and cities especially Kinshasa whose impact is felt hundreds of kilometers away, as more and more, new spans of forested areas are converted into farm land and cut for charcoal production.

Massive effects of habitat fragmentation have occurred in the Amazon and in other parts of the tropical forests of the world including Southeast Asia with major consequences on biodiversity erosion, e.g. the dramatic decline of tigers' populations in Sumatra. In contrast, it is often believed that Africa has been spared, probably because deforestation in the Congo Basin still occurs at smaller scales, to supply nearby cities in charcoal or cultivated products.

However, the effects of global changes have become more visible as scientists have developed new methods to quantify and map deforestation and predict their consequences. It is now clear that pressure is mounting, as population, urbanization, industrial agriculture (land grabbing) and mining activities are increasing. The situation could change rapidly and the coming years will be critical for forest resources of the Congo Basin.

It is therefore imperative that these perceived trends be curbed by tackling the problem at its roots: the land use and the production system by the communities.

O-13 Invited Speaker

Primate Conservation: What we know, what we do not know, and ways forward

Colin Chapman

Dept. of Anthropology and McGill School of Environment, McGill University

The world is changing rapidly and on September 30 th, 2014 the World Wildlife Fund announced that the world had lost 52% of is biodiversity. Primate species may also have been lost and it is estimated that close to 50% of the world's primates are at risk of extinction, with 11% critically endangered. The rapid disappearance of tropical forests, the potential impacts of climate change, and the increasing threats to wildlife, makes it imperative that we quantify and better understand wildlife population dynamics. With long-lived animals this requires extensive, long-term data. Here I present data that spans up to 45 years at eight sites to document changes in monkey abundance in Kibale National Park, Uganda. The primates show a complex pattern of change that is dependent on site and species, but all species, except blue monkeys, have colonized extensive areas of regenerating forest, indicating that park-wide populations have been increasing since 1996 census. We consider these changes with respect to forest dynamics, climate change, and disease and evaluate the importance of these factors on global primate populations. While statistics on deforestation and primate population endangerment are grim, there have recently been positive conservation gains globally and, as an illustration of conservation methods and outcomes, I discuss the conservation efforts around Kibale National Park, Uganda.

O-14 Invited Speaker

Electric fish as a model organism for behavioral research (and public exhibition)

José A. Alves-Gomes

Laboratório de Fisiologia Comportamental e Evolução (LFCE), Instituto Nacional de Pesquisas da Amazônia (INPA)

The South American electric fish (Order Gymnotiformes) possess, among their principal diagnostic features, a specialized electrogenic tissue, an electric organ, that generates discharges continually, since from several hours after hatching throughout their entire lives. Concomitantly, the gymnotiforms also have, embedded in their skin, a collection of specialized electroreceptor organs, which monitor the strength (amplitude) and the timing (phase) of the electrical field generated by their electric organ, in the space surrounding the fish. Any type of interference in the otherwise normal pattern of the electric field detected by the array of electroreceptors may become relevant information, as it can imply prey or predator, large or small, soft or hard, fast or slow, or a conspecific male or female. Because the electric organ discharges (EODs) are so vital for the fish, EOD waveforms and their possible variations are of utmost evolutionary relevance, as they become key elements for co-specifics' recognition, sexual selection, reproductive isolation, agonistic interactions, hierarchical settlements, as well as to broadcast internal physiological states, gender and ontogenetic stages. Electrodes placed in the water near the fish can easily capture the EODs of individual fish and the electric signal can be digitized and subsequently visualized at an oscilloscope screen, or played as a sound through a loudspeaker. As consequence, we can "see" and "hear" the EODs of the different species, in real time. This possibility allows us to envision several opportunities to utilize these fish to capture the interest and the curiosity of visitors in scientific exhibitions and museums. Our laboratory in the Amazon has been interested in several aspects of the evolutionary biology of electric fish, from molecular systematics, to biogeography, to behavioral physiology. We also use the electric fish as a biosensor do infer about water quality, once these fish change their EODs' pattern according to physic-chemical status of the water. In this Symposium I will describe our current research interests on electric fish in the Amazon and present a compiled review of our most recent discoveries in each respective field.

O-15 Invited Speaker

Monkey for dinner?

Bushmeat, urbanization and food security in the Amazon

Tatiana Schor

Geography Federal University of Amazonas

Center for Cities Study and Research in the Amazon -NEPECAB

Bushmeat is a meal in the Brazilian Amazon and primates are part of the menu. Acess to natural resources such as bushmeat is an important aspect not only in terms of food diversity but also in terms of culture. Prohibition and law enforcmente are insuficient to stop consumption of wild mammals such as primates. The consumption of bushmeat happens not only in community context but is present in local markets of small and medium sized cities. Population growth and agglomeration in cities, especialy in the western part of the Brazilian AmazonAmazonas State, has put pressure on wildlife. It is necessary to understand the market struture and cultural aspects in the contemporary urbanization process in the Amazon in order to build robust conservation politics. To do so we have investigated bushmeat market structure in the Brazil-Colombia-Peru border and in small towns along the Solimoes rivers relating quantity, price, species, hydrology and alimentary habits. Our results have shown that bushmeat market is strongly related to the hydrological system, to the fish market, to cultural habits more than to food security. The monetarization of social relations has permited the consolidation of bushmeat market in the Amazonian cities. The focus of the talk will be to present the results and open the debate on wildlife conservation in a context of bushmeat consumption.

O-17 Invited Speaker

Diversification in white--sand vegetation in tropical South America – the case of the plant genus *Pagamea* (Rubiaceae)

Alberto Vicentini

Instituto Nacional de Pesquisas da Amazônia

The flora of the Guiana Shield contains several plant lineages that are restricted to white-sand vegetation, some of which are widespread in tropical South America. Here, the history of diversification of one of these lineages, the genus *Pagamea* (Rubiaceae), is reconstructed through phylogenetic hypotheses. Data from chloroplast (rps16 and rpl20-rps12) and nuclear (ITS) markers were incongruent, with ITS found to be more consistent with morphological criteria to delimit species. Reconstruction of the ancestral area for the genus was ambiguous, with both the western Guiana Shield and the Atlantic coastal areas containing early divergent lineages, but most speciation events appeared to have happened in the western Guiana Shield where most extant diversity is present. Dispersal events into the western Amazon and the Andes (1.5-4.5Ma) and the eastern Guiana Shield (0.4-2.2Ma) were followed by speciation events in these regions. Dispersal events between the Amazon and Atlantic rainforest occurred at least three times independently. However, dispersals into new areas were limited, and most regions were found to be phylogenetically clustered. Altitudinal and habitat shifts happened multiple times independently, but ecological traits were found to be phylogenetically conserved, implying that such shifts were not the cause of lineage divergence. The result that most speciation events happened in the western Guiana Shield, where white-sand habitats predominate in both lowlands and highlands, and which has been less affected by Pleistocene climatic change, coupled with the result that ecological traits are phylogenetically conserved, suggests that the diversification of *Pagamea* may have been related primarily to the patchy distribution of white-sand vegetation.

O-24 Invited Speaker

Bio-Logging: studying wildlife in the ocean from an ‘animal’s-eye’ view

Akinori Takahashi

National Institute of Polar Research

The fundamental approach to studying wildlife is the detailed direct observation of the study species. However, the direct observation of free-ranging animals is not always easy in their natural environment. This is especially the case for marine animals, which range widely over the open ocean and dive to great depths. To overcome the challenge of observing free-ranging marine animals, the National Institute of Polar Research has devoted its major effort toward the development of ‘bio-logging'. This approach uses small instruments (such as accelerometers or GPS recorders) that can be attached on animals to record their behaviour while moving freely. Now, the diversification and miniaturization of bio-logging instruments offers unique opportunities to study various biological aspects of wildlife in the ocean. Especially, recent developments in camera/video recorders open up new opportunities to study not only the behaviour, but also an animal's surrounding environment from an ‘animal's-eye' view. This enables us to integrate the behaviour and ecology of animals into its environmental/social context. I report such examples from our recent work on the foraging behaviour of penguins, which aims to better understand the effects of climate and marine environmental changes on Antarctic wildlife.

O-25 Invited Speaker

Human and Tibetan Macaque (*Macaca thibetana*) Interactions in the Valley of the Wild Monkeys, Huangshan, China

Lori K. Sheeran

Department of Anthropology and Museum Studies and Primate Behavior and Ecology Program, Central Washington University

For 30 years, primatologists have studied Tibetan macaques at the Valley of the Wild Monkeys, Mt. Huangshan, China. These combined data have yielded insights into the species' ecology, behavior, and evolution. This talk highlights findings from the past 12 years of collaborative, international fieldwork focused on human-monkey interactions at this macaque tourism site. In the 1990s park staff designed provisioning and tourism programs intended to limit visitors' opportunities to interact with monkeys and to encourage monkeys' "natural" foraging and ranging behaviors. Our data collected from monkeys, visitors, and park staff indicate that some management methods are ineffective with respect to visitor safety, and range restriction practices curtail monkeys' foraging and grooming patterns. The site layout intensifies macaque aggression and stress, particularly in one provisioning area that is flanked on two sides by visitors. Visitors largely ignore park staff's admonitions against feeding monkeys, and park signage is ineffective in regulating visitor behaviors or informing visitors about ways to reduce negative interactions with monkeys. The majority of macaque-human interaction sequences in our dataset are instigated by visitors and are prolonged by their tendency to mimic monkeys' threat behaviors, thereby escalating the intensity of the inter-species interaction, sometimes to the point of attack by the monkeys. Immature monkeys are sometimes the recipients of redirected adult male monkey aggression, particularly in the provisioning area where visitors most frequently provide monkeys with small quantities of nutrient-dense foods such as chips, candy, nuts, and fruit. Opportunities exist to better manage visitors' behaviors and to improve what visitors learn about this monkey species and other wildlife. Implementation and monitoring of our recommendations may reduce the likelihood of negative encounters between visitors and aggressive monkeys, while reducing monkeys' stress levels and facilitating more species-typical behaviors.

O-26 Invited Speaker

Molecular Approaches for Wildlife Conservation and Ecology: Amphibians and Primates Unite

Steve Wagner

Department of Biological Sciences, Central Washington University

We use a variety of molecular approaches to address ecological and conservation questions. We have a developed a number of non-invasive sampling methods that take advantage of quantitative and traditional PCR for detection of species-specific markers from DNA found in the environment (eDNA). We have employed these techniques to investigate pathogens of amphibians as well as distribution and occupancy of amphibians. In addition, we have taken an eDNA approach to understand primate distribution and occupancy of New World primates by the sampling of plants putatively chewed by primates. Further, we have been using High-throughput DNA sequencing to understand the microbiome of primates and their potential for transference of bacteria to among congeners and other taxa. Maintenance of a species core microbiome may be important for individual long-term health and survival.

O-30 Invited Speaker

The evolutionary ecology of tusks in elephants

Raman Sukumar, Karpagam Chelliah

Centre for Ecological Sciences, Indian Institute of Science

Tusk is sexually monomorphic in the proboscideans that are ancestral to both the African elephant *Loxodonta africana* and Asian elephant *Elephas maximus*. Tusk continues to remain monomorphic in the African elephant but has become sexually dimorphic in the Asian elephant. Fisher proposed that sexually selected male display traits originate in both the sexes but are suppressed in the females by modifier genes, when the trait becomes deleterious to females. Thus, sexually antagonistic selection on a trait and sex-specific gene expression can lead to the evolution of sexual dimorphism. Tusk, therefore could be a sexually selected male trait that evolved according to the Fisherian model. Intriguingly, tuskless males occur at very high frequencies in some Asian elephant populations. The tusked and tuskless male morphs could be alternate male mating strategies, occurring at evolutionarily stable frequencies. Alternatively, the observed male tusk dimorphism, could be a consequence of artificial selection against tusked individuals, due to selective hunting of tusked males. Furthermore, male African elephants are more intensely poached for ivory than female elephants. Yet the frequency of tuskless individuals has increased more rapidly among females than in male African elephants. In essence, sexual dimorphism could be evolving among such poached populations. Empirical studies in an Asian elephant population also found that expression of musth in male elephants was a more important determinant of female choice as compared to possession of tusks. In this talk we discuss the evolutionary ecology of tusks in elephants, shaped through a combination of natural selection, sexual selection and artificial selection.

O-35 Invited Speaker

Physical ethology of single-celled organism

Toshiyuki Nakagaki

Hokkaido University

We report here that ability of information processing in single-celled organisms like amoebae (Physarum) and ciliates (Paramecium) is higher than we had thought. Physarum amoeba found the optimal path when it obtained the multiple locations of food. A simple mathematical model for the path finding was proposed in terms of differential equations. As well as the path-finding ability, the organism was able to anticipate the next timing of periodic climate change after experienced some periodic changes of climate, and to show a kind of behaviors that seemed to be 'indicisive' when it encountered the presence of a chemical repellent, quinine. We indicated that a simple dynamics was enough to reproduce these observed behaviors. Mathematical modeling is helpful to understand the mechanism of behavioral smartness in slime mold. Capacity of memory and learning was also studied in ciliate, another major group of single-celled organism. We propose 'physical ethology' of cell.

O-42 Invited Speaker

Orangutan Strategies for Solving a Visuospatial Memory Task

Christopher Martin

Indianapolis Zoo

The popular game known as Concentration, in which players search for matching pairs among a grid of face-down cards, provides a robust platform for examining visuospatial memory in a simple, nonverbal way. Orangutans(n=5) at the Indianapolis Zoo were given a modified version of the Concentration Game in which three cards were shown face-down on a computer screen, two of which matched each other while the third was a foil. Subjects overturned two cards at a time by touching them, with trials terminating in a food reward if the overturned cards matched, or reverting to their face-down position if they did not. A constraint was experimentally imposed on the game whereby the first two cards touched would never match, resulting in an optimal search strategy composed of touching the first two cards, followed by the third, followed by the card among the first two cards that matched the third. Findings showed that three of five subjects utilized the optimal search strategy more often than would be expected by chance, but also perseverated on specific patterns of choice sequences rather than flexibly adjusting behavior from trial to trial to minimize the overall number of card flips. The observed tendency of orangutans to rely on a prescriptive choice strategy instead of adaptively updating their solution in light of evidential developments is consistent with findings from prior studies on orangutan strategies for solving invisible displacement tasks.

O-50 Invited Speaker

Modern Environmental Challenges to the Ecological Flexibility of Great Apes

Crickette Sanz, David Morgan

Washington University in St. Louis

Great apes have a long evolutionary history of adjusting to fluctuating environments, but basic questions remain as to how gorillas and chimpanzees cope with modern environmental disturbances such as mechanized logging. Most studies of apes and forestry have compared areas with different logging histories, rather than documenting the responses of local ape populations to timber extraction as it occurs. In this study, we documented the arrival, progression, and departure of mechanized logging activities in an active forestry concession in northern Republic of Congo. Our aim was to not only document the impacts of logging on sympatric gorilla and chimpanzee populations, but also to determine the factors driving their abundance in the region. This was accomplished by surveying ape nests and human signs encountered along line transects over the course of an eight year study. A total of 12,467 ape nests were detected over 1,068 km of transects, and complemented by information on ape ecology from our ongoing study of habituated apes and tree distribution from forestry inventories. We found that abundance of chimpanzee nests was predicted by human impacts and feeding trees, and that gorilla abundance was predicted by stage of logging and heterogeneity of vegetation. Chimpanzees shifted away from forestry activities to nearby “refuge areas" of lower human disturbance, whereas gorillas were attracted to the dense undergrowth of previously logged forests. We also detected an enduring legacy of logging impacts on ape habitats and nesting. Together, these results demonstrate the importance of the ecological flexibility and advanced cognitive capacities of great apes in coping with environmental disturbance. However, the diverse community of primates residing in the Congo Basin are facing a myriad of threats to their long-term survival for which there is no historical precedent. Results of this research and additional field studies are being used to develop evidence-based conservation initiatives to mitigate these threats and ensure the preservation of our closest living relatives.

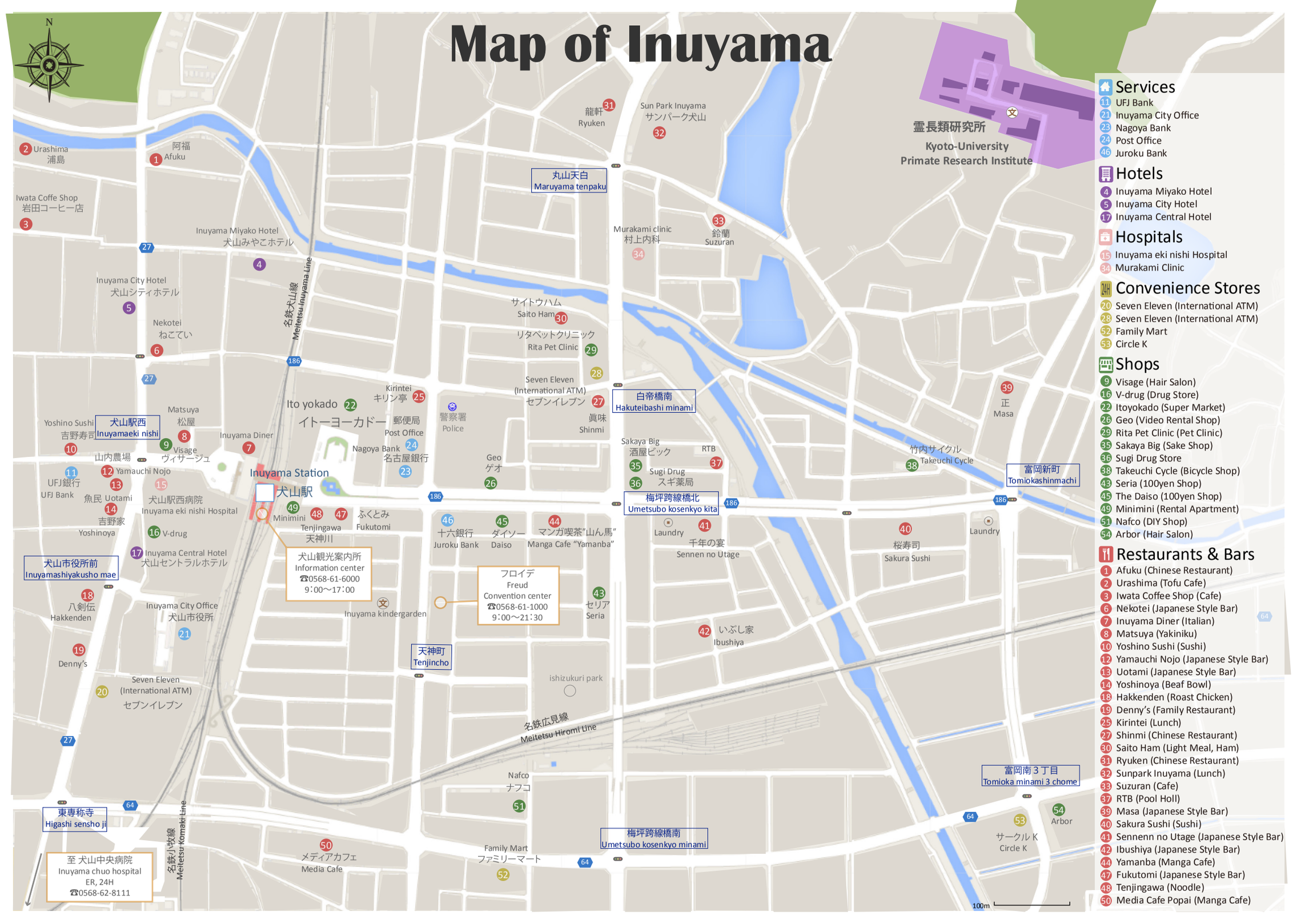
O-53 Invited Speaker

Can we study emotions in animals?

Ralph Adolphs

California Institute of Technology

In his seminal book, "The expression of the emotions in man and animals," Charles Darwin argued for apparent homologies between the emotions of humans and those of many other mammals, inferred from their behavioral expressions. However, some current views in psychology and neuroscience argue that we should not scientifically apply the word "emotion" to nonhuman animals at all. I disagree with this latter view, and will provide an initial sketch of emotions that considers them as functional states applicable to all complex animals. An essential part of this view is the need for strong distinctions between emotions, their behavioral expression, and their conscious experience. Another essential part of this view is the need for comparative studies across different species, in order to glean the general functional principles that characterize emotions.


Map of Inuyama
N
Services
11 UFJ Bank
21 Inuyama City Office
23 Nagoya Bank
24 Post Office
46 Juroku Bank
Hotels
4 Inuyama Miyako Hotel
5 Inuyama City Hotel
17 Inuyama Central Hotel
Hospitals
15 Inuyama eki nishi Hospital
34 Murakami Clinic
Convenience Stores
20 Seven Eleven (International ATM)
28 Seven Eleven (International ATM)
52 Family Mart
53 Circle K
Shops
9 Visage (Hair Salon)
16 V-drug (Drug Store)
22 Itoyokado (Super Market)
26 Geo (Video Rental Shop)
29 Rita Pet Clinic (Pet Clinic)
35 Sakaya Big (Sake Shop)
36 Sugi Drug Store
38 Takeuchi Cycle (Bicycle Shop)
43 Seria (100yen Shop)
45 The Daiso (100yen Shop)
49 Minimini (Rental Apartment)
51 Nafco (DIY Shop)
54 Arbor (Hair Salon)
Restaurants & Bars
1 Afuku (Chinese Restaurant)
2 Urashima (Tofu Cafe)
3 Iwata Coffee Shop (Cafe)
6 Nekotei (Japanese Style Bar)
7 Inuyama Diner (Italian)
8 Matsuya (Yakiniku)
10 Yoshino Sushi (Sushi)
12 Yamauchi Nojo (Japanese Style Bar)
13 Uotami (Japanese Style Bar)
14 Yoshinoya (Beaf Bowl)
18 Hakkenden (Roast Chicken)
19 Denny's (Family Restaurant)
25 Kirintei (Lunch)
27 Shinmi (Chinese Restaurant)
30 Saito Ham (Light Meal, Ham)
31 Ryuken (Chinese Restaurant)
32 Sunpark Inuyama (Lunch)
33 Suzuran (Cafe)
37 RTB (Pool Holl)
39 Masa (Japanese Style Bar)
40 Sakura Sushi (Sushi)
41 Sennenn no Utage (Japanese Style Bar)
42 Ibushiya (Japanese Style Bar)
44 Yamanba (Manga Cafe)
47 Fukutomi (Japanese Style Bar)
48 Tenjingawa (Noodle)
50 Media Cafe Popai (Manga Cafe)
霊長類研究所
Kyoto-University
Primate Research Institute
丸山天白
Maruyama tenpaku
白帝橋南
Hakuteibashi minami
梅坪跨線橋北
Umetsubo kosenkyo kita
梅坪跨線橋南
Umetsubo kosenkyo minami
富岡新町
Tomiokashinmachi
富岡南３丁目
Tomioka minami 3 chome
天神町
Tenjincho
犬山駅西
Inuyamaeki nishi
犬山駅
Inuyama Station
犬山市役所前
Inuyamashiyakusho mae
東専称寺
Higashi sensho ji
至 犬山中央病院
Inuyama chuo hospital
ER, 24H
☎0568-62-8111
犬山観光案内所
Information center
☎0568-61-6000
9:00〜17:00
フロイデ
Freud
Convention center
☎0568-61-1000
9:00〜21:30
名鉄犬山線
Meitetsu Inuyama Line
名鉄小牧線
Meitetsu Komaki Line
名鉄広見線
Meitetsu Hiromi Line
100m

Introduction to the Program

Leading Graduate Program in Primatology and Wildlife Science (PWS)

While working towards Kyoto University's mission statement of the well-being of the world, **the Leading Graduate Program in Primatology and Wildlife Science (PWS)** strives for many other goals. This program also aims to foster the type of individual that will have the ability to make quick judgement of one's environment, the ability to design the future of global society, while all at the same time nurture a leader-type of individual who will be indispensable for oversea expansion.

(Japanese) primatology originated from Japan, and plays a big role in leading this unique academic study to the world. During the recent years, an emerging field of academic study called **"Wildlife Science"** that targets endangered species has been on the verge of establishment. **With fieldwork as its foundation, a comprehensive understanding of the human mind, body, life and genome, as well as engaging in hands-on activities that aims for a "the well-being of the world" are all vital to this establishment.**

While being the front line of an academic field, in Japan this field has a shortage of three important careers that is not lacking in the West. **(1) Conservation specialists of international organization(s) such as the United nations and NGO**; **(2) Curators of museums, zoos, aquariums, and the like, as well as one that can develop and/or expand a museum or zoo as a "field museum" in a specific habitat**; and **(3) Outreach workers that invests a great length of time in outreach activities in a specific countries and societies.** While providing a foundation for new research, education and hands-on experience, this program aims to nurture a global leader that interconnects this academic field and one's accomplishments.

For further details on the program, please refer to our HP（**http://www.wildlife-science.org/**）

1

Conservation specialists of international organization(s) such as the United Nations and NGO

Significant international contributions: Produce an individual that acquires expertise, high linguistic skills, and experience in fieldwork

2

Curator (Zoo, Museum, Aquarium, and the like) (Ph.D. level curator)

A career path in specialized knowledge, demonstrating one's experiences, and contributing to society

3

Outreach workers investing a great length of time in outreach activities in a specific countries and societies

Expanding Kyoto University's tradition: Identifying the needs through on-site field of view; a leader who can propose significant contributions to Japan

To enhance a connection with the next generation by creating an organization that facilitates a mutual relationship

PWS Core Staff Members / Collaborators

Supervisors / Mentors

The curriculum of a practitioner that acquired "internationality"

- ◆Hands-on fieldwork
  - Domestic fieldwork
  - International fieldwork
- ◆Acquiring the skills / Knowledge that becomes the foundation for fieldwork
- ◆Relationship with International Organizations
- ◆Training at domestic facilities
- ◆Language Learning

External Evaluation Committee

International Organizations

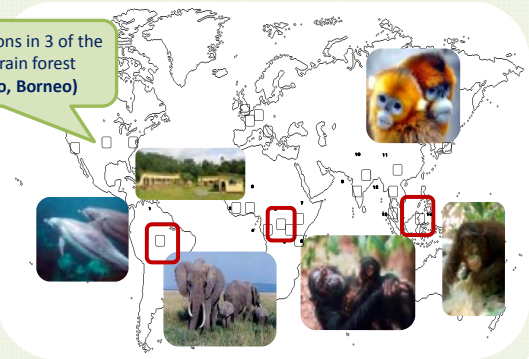
English achievements received by entrance exam, education, and degree through the "Global 30" Project

◆General admission to the Division of Biological Science, Graduate School of Science, Kyoto University (Entrance exam in August, Enrollment in April)

◆International enrollment from Spring and Fall of 2009: entrance exam for foreign students only

Facilities for International Collaborations

We have field stations in 3 of the largest tropical rain forest **(Amazon, Congo, Borneo)**



Domestic Facilities for Fieldwork Courses

The enrollment process of the Leading Graduate Program in Primatology and Wildlife Science

The Leading Graduate Program in Primatology and Wildlife Science (PWS) is a 5-year program. Students approved to join the PWS program from their first year of Master's program will progress from L1, L2, L3, L4, L5, and will complete the program in 5 years.
The PWS program is completed by students parallel to their existing Kyoto University master's and doctoral programs. Therefore, students do not need to change their supervisor or section/laboratory to join PWS. However, there are **two necessary** conditions for eligibility:

1. A graduate student of Kyoto University:
It is required to become a graduate student of the Division of Biological Science, Graduate School of Science (Kyoto University). However, we are in the process of adjustment for students of other graduate departments to enroll in our program, so please do not hesitate to inquire.
2. To apply and receive approval to enroll into our program:
The process is the same for both Japanese natives and foreign students. Eligible students: 1st year Master's students (will be called L1 student), or a doctoral students (will be called L3 student). Annually, we will disclose the guidelines for applicants in mid-January, and administer the entrance exam in the beginning of March.

Curriculum

Leading Graduate Program in Primatology and Wildlife Science (PWS)

The following contents show the curriculum and schedule that the Leading Graduate Program in Primatology and Wildlife Science offer. Credits obtained through the mandatory courses can also be used as credit for Graduate School of Science, Kyoto University.

NOTE: Course schedules are subject to change. For more information, refer to the following site: **http://www.wildlife-science.org/en/curriculum/**

Please contact the following e-mail address for any questions about the curriculum of PWS: **info@wildlife-science.org**

MANDATORY COURSES (corresponds to Master course)

◎Interdepartmental Exchange "Inter-lab"

To obtain a general idea of the diverse areas of study in the Division of Biological Science, Kyoto University. Visit the following facilities in succession: Kyoto City Zoo, Center for Ecological Research (KU), Research Reactor Institute (KU), Seto Marine Biological Laboratory (KU), Primate Research Institute (KU), Japan Monkey Centre

Apr. 4th–9th, 2016

◎KOSHIMA Field Science Course

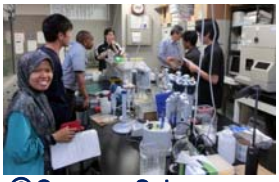
To learn the basis of wildlife research. Conduct observation on wild Japanese macaques (protected species) in Koshima, the birthplace of Japanese primatology. Required to develop independent research topic (e.g., Identification of food items in feces)

PRI: Apr. 24th–30th, 2016
WRC: May 5th–11th, 2016

◎YAKUSHIMA Field Science Course

To learn the basis of wildlife research. Conduct fieldwork on animals/plants in Yakushima, a UNESCO World Heritage Site. English is the official language in this course to facilitate exchange of ideas with international participants, e.g. from Tanzania, India, Malaysia and elsewhere. Samples collected during the course will be used in the following Genome Science Course.

Spring: May 21st–27th, 2016
Fall: Oct. 16th–22nd, 2016



◎Genome Science Course

Complementary to the Yakushima Field Science Course. Designed for participants who expect to engage in both laboratory work and fieldwork. Beginner (direct sequencing) and advanced (next generation sequencing) courses are available. English is the official language as in the previous course. The samples from Yakushima will be used to perform various experiments and analyses. Students give a poster presentation at the international symposium scheduled on the last day of this course.

Spring: May 30th–Jun. 3rd, 7th, 2016
Fall: Oct. 24th–28th, 2016

◎Zoo/Museum Course

To obtain practical experience in environmental education in the field of primatology/wildlife science as well as to learn to work as a curator, one of the three exit points of the PWS program. This course provides lectures by zoo technicians and practical training as zookeepers.

Place: Japan Monkey Centre

Spring: TBD (June, 2016)
Fall: TBD
(February or March, 2017)

◎Comparative Cognitive Science Course / Animal Welfare Course

To learn the basis of comparative cognitive science. Understand the procedures in cognitive experimentation and behavioral observation. Work with:

- Chimpanzees & Horses (Primate Research Institute): Comparative Cognitive Science Course
- Bonobos (Kumamoto Sanctuary): Animal Welfare Course

Comparative Cognitive Course: TBD (August, 2016)
Animal Welfare Course: TBD (November, 2016)

◎ SASAGAMINE Field Science Course

(Non-snow season / Snow Season)

To learn survival skills as the basis for future fieldwork. Activities include:

- Wildlife observation
- Climbing Hiuchi Mountain (2,420m)
- Night-time bivouac practicum (improvised encampment)

Place: Kyoto University Sasagamine Hütte (cabin) in Myoko-kogen (plateau at 1,300m elevation), Nigata Prefecture

Non-snow Season:
Summer: TBD (July, 2016)
Autumn: TBD (October, 2016)
Snow Season: TBD (March, 2017)

◎Fieldwork (designed by each PWS student)

To develop skills in planning projects aimed at one or more of the three exit points (goals) of the PWS program (i.e., conservation specialization, curation, outreach). Required to design/conduct individual overseas training projects.

EXAMPLES (Academic Year 2015):

Aug. 20th – Sep. 27th, 2015 (L1@Mikurajima "御蔵島"):
Observation of pair swimming and individual identification of Indo pacific bottlenose dolphin around Mikura island

Sep. 22nd– Dec. 6th, 2015 (L2@DR Congo):
The study on developmental factors of female natal emigration in patrilocal society

Sep. 8th, 2015 – Jan. 12th, 2016 (L3@Gabon):
Infection-risk avoidance experiments in papionini and hominidae

Jul. 10th, 2015 – Feb. 15th, 2015 (L4@Tanzania):
Social interactions between infants and non-parents in wild chimpanzees

Many group fieldworks are designed by Students.
- JIGOKUDANI
- Kids Jamboree@ TOKYO
- SHODOSHIMA
- TAKASAKIYAMA
- San Francisco

LONG-TERM INTERNSHIP TRAININGS (corresponds to Doctoral course)

◎Conservation Biology Internship Training

UN-related organizations and NGOs

◎Animal Welfare Internship Training

Museums, Zoos and Aquariums

◎Social Outreach Internship Training

Outreach activities in specific countries and societies

LIBERAL ARTS SUBJECTS

◎Buddha Seminar

- Lectures from WWF officers, ambassadors, governors, etc.
- Official language: not specified

◎Asura International Seminar

- Lectures from researchers, government officials from the United Kingdom, Congo, Brazil, Butan, etc.
- Official language: English

LANGUAGE LEARNING

"Self-Study Paradigm"
"Hands-on Experience through Fieldwork"

Students are required to become proficient in at least one foreign language in addition to their native language. English is required for all students whose native language is not English. International students whose native language is English are required to master another language of their choice. Students are also strongly recommended to learn a second foreign language.

The International Symposiums on Primatology and Wildlife Science

- The 1st: Mar. 06–08, 2014
- The 2nd: Aug. 29–30, 2014
- The 3rd: Mar. 05–08, 2015
- The 4th: Jul. 21–22, 2015
- The 5th: Mar. 03–06, 2016
- The 6th: Sep. 12–15, 2016
- The 7th: TBD (March, 2017)