



A Message from the President...



Dear friends and colleagues, I want to begin by saying how wonderful it was to see so many of you at this year's ASP meeting in San Diego, California. I'm sure everyone attending would agree that this was an outstanding meeting both in terms of the scientific content as well as the social program. By most counts the meeting ranks among the largest, if not the largest, of our Society to date with approximately 400 registered individuals in attendance and a total of 237 abstracts. Meeting highlights included a Keynote Address by Dr. Alejandro Estrada, the Distinguished Primatologist Address by Dr. Leanne Nash, the Past President's Address by Dr. Steve Schapiro, and a Featured Speaker presentation by Dr. Jaak Panksepp. There also were a number of special sessions including a meeting-wide interdisciplinary symposium on Emotion Research,

symposia on Ethics in Field Primatology, and Experimental Methods in Field Research, a symposium tribute to Charles Southwick – Celebrating 50+ Years of Primate Field Research, a Statistics for Primatologists Workshop, evening workshops focusing on Learning from Michael the Gorilla, and Zoos as Venues for Scientific Inquiry, and exceptional paper and poster sessions. There also were two pre-conference workshops including a Conservation Education Workshop and a Teaching Primatology Workshop (organized by the ASP Education Committee).

There are many individuals who contributed to the success of the meeting but most certainly, special thanks and recognition goes to Lynne Miller and her Local Arrangements Committee for organizing a wonderful meeting. Similarly, Matt Novak and his Program Committee deserve our thanks and congratulation for arranging a terrific scientific program, and they did an amazing job accommodating the many special programming

requests. I also want to thank the Chairs and members of the Standing Committees, as well as my colleagues on the Board of Directors (Suzette Tardif, Dorothy Fragaszy, Karen Bales, and Tara Stoinski), all of whom contributed to the success of the meeting. Finally, I want to recognize and thank the meeting sponsors, the San Diego Zoo and Mira Costa College. Their support and sponsorship was greatly appreciated.

Turning to another topic of importance, it is time once again to hold the election of ASP officers (President-Elect, Treasurer, and Executive Secretary). I want to thank the Nominations Committee, Suzette Tardif (Chair), Jeff French, Paul Garber, Corrine Lutz, and Carol Shively for their fine work in coming up with a full slate of candidates for the upcoming election. The candidates and their biosketches are listed on page 3 in this Bulletin. Please note that voting will take place via on-line ballot and will run from 15 December 2009 – 31 January 2010.

(cont'd on page 14)

Upcoming Deadlines:

January 8: Preliminary abstracts for symposia, workshops & special sessions for 2010 ASP meeting

Jan. 29: Final abstracts for symposia, workshops, oral presentations, posters & student travel grants for 2010 ASP meeting

January 31: Applications for ASP conservation small grant, conservation award & subscription award

April 2: Applications for the ASP general small grant

For details go to: www.asp.org/grants/index.html

San Diego, CA

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Attendees enjoy the poster session



Icebreaker

Bob Brooks and Carolyn Crockett

Julienne Rutherford, Erin Riley,
Tom Gillespe, and Katie MacKinnonLeanne Nash, the 2008 recipient of
the Distinguished Primatologist Award

Participants in the Charles Southwick symposium

Photo credits:
Santosh
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ASP 2010 ELECTIONS

It is that time again—time to vote for the new ASP officers for 2010-2012 terms. Voting will take place from 15 December 2009 to 31 January 2010 and will be online only.

PRESIDENT ELECT

Karen Bales

Biosketch: Current position: Associate Professor, Psychology, University of California, Davis; Staff Scientist, California National Primate Research Center. Education: BA, University of New Orleans, 1993; MA, University of Tennessee, 1995; PhD, University of Maryland, 2000.

ASP Activities: ASP Treasurer, 2006-present; Editorial Board, American Journal of Primatology, 2009-present; Chair, Membership and Finance Committee, 2006-present; Co-chair, ASP Research and Development Committee, 2004-2006; Member, ASP Research and Development Committee, 2002-2004. IPS Activities: 2003- present, Editorial Board, International Journal of Primatology.

Vision Statement: ASP is a society characterized by scientists from many disparate backgrounds and of many different research orientations. Both our current and past president have focused their attention in promoting integration and communication between members; Dr. Suzette Tardif by creating the ad hoc Committee on Interdisciplinary Representation, as well as the annual Interdisciplinary Symposium; and Dr. Randy Kyes by being a strong voice for habitat country members (which have increased 400% in one year!). These are great legacies and as president I would do my best not to let their efforts go to waste. In my own journal from anthropology to biology to psychology, and from being an undergraduate intern in a zoo, to the lab, to the field, and then back to the lab, I hope that I can understand the points of view of all of these groups.

However, although background and discipline may divide us, all ASP members share certain commonalities – we are all scientists, and we all support our students. Every year the ASP research and development committee receives 50 or more research grant proposals, many of them highly meritorious, and is able to fund only about 7 – sometimes our payline ends up even lower than NIH's. I would like to see the expansion of our ability to support research -- including student research, pilot research, projects which lead to better husbandry and welfare, and just good research in general. The Board of Directors recently approved an ongoing program to fund student travel to the annual meeting, and I'd like to see that grow and find external support. Tied up in all of these ideas is the recruitment of additional sustainable funds to provide for this future programmatic growth, which I hope to also promote.

Mollie Bloomsmith

Biosketch: I am the Director of Behavioral Management at the Yerkes National Primate Research Center where I oversee the enrichment, animal training and socialization programs. My research interests are in social behavior and well-being, as I conduct research to promote the welfare of captive primates in laboratory, zoo and sanctuary settings. I am an Associate Research Professor at Emory University, an Adjunct Professor at the Georgia Institute of Technology, and a Senior Behavioral Scientist at Zoo Atlanta. I am a founding Board member of Chimp Haven, and currently serve as Secretary of the Board. I earned my BS in Animal Behavior at the University of California at Davis in 1982, and my PhD in Experimental Psychology at the Georgia Institute of Technology in 1987.

ASP Activities: I have been actively participating in ASP conferences for more than 20 years. I've enjoyed serving the society by being a member of the Program Committee (1994-1997) and Chair of the Program Committee (1997-2000). As the Chair, I edited two volumes of the American Journal of Primatology which contain abstracts for the annual conference. I have Chaired the ASP Elections Committee (1998), and the Nominations Committee (2006). I also served on an ASP Ad hoc committee as we developed the society's response to the USDA Draft Policy on Environmental Enrichment. I am a frequent Ad hoc reviewer for the American Journal of Primatology as well.

Vision Statement: Like many of you, I feel that ASP is my “professional home”—it is the place where I have grown up in my career, where I have learned about primates, where I have strengthened my commitment to understanding them, and where I have met colleagues and renewed friendships over the years. I want as many primatologists as possible to have this same feeling of gratitude and loyalty to ASP. ASP is doing so much, so very well. The annual conference is well-attended and is of high quality, the journal is critically important, the grant programs fund valuable investigations, the education programs are significant and expanding, conservation projects around the world are supported, and we are recognizing the contributions of outstanding primatologists. Each of these programs should continue to flourish, and we need to do all of this while remaining fiscally sound. The membership of ASP is diverse—we study and care for primates in many settings, we have different academic backgrounds and perspectives. This diversity is the most fundamental feature of our organization, and it is our greatest strength. I would like to see ASP capitalize on this diversity as we define our role to society at large. We are experts in primatology, but can we make our expertise more available to the citizens of the United States? Can we play a role in informing policy and practice in the United States, or is this not a role we want ASP to take on? Clearly ASP is an organization that is responsive to its membership and is willing to take on new challenges, and I believe this is an important one for our future.

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TREASURER

Allyson J. Bennett

Biosketch: B.S. in Psychology, University of Wisconsin Oshkosh, 1988; M.S. in Psychology, The University of Memphis, 1992; Ph.D. in Psychology, The University of Memphis, TN. 1996; Post Doc, National Institute on Alcohol Abuse and Alcoholism, 1997-2001. Assistant Professor, Department of Physiology and Pharmacology, Department of Pediatrics, Wake Forest University School of Medicine. Wake Forest University Primate Center, Assistant Director for Community Outreach and Education. Research Interests: Behavioral Pharmacology, Development, Cognition, Behavioral Genetics.

ASP Activities: Information & Media Committee, current, Chair, Local Arrangements Committee, 2007, Program Committee

Kimberley A. Phillips

Biosketch: Current position: Associate Professor, Psychology, Trinity University; Adjunct Scientist, Southwest National Primate Research Center, Southwest Foundation for Biomedical Research. Education: BS, Wofford College, 1989; MA, The University of Georgia, 1991; PhD, The University of Georgia, 1994.

ASP Activities: Member since 1990. My service to the society has been focused on the Conservation Committee, where I have served as a committee member, co-chair (2006-2008) and chair (2008-present). Ad hoc reviewer for American Journal of Primatology. IPS Activities: Member of Conservation Committee, 2008 - present.

EXECUTIVE SECRETARY

Carolyn L. Ehardt

Biosketch: My research career has been conducted in each of the major ‘arenas’ that primatologists work within: as a graduate student, I worked with the “semi-captive” Arashiyama West macaques in south Texas; while a faculty member of the University of Georgia, I focused on collaborative and individual projects with captive rhesus macaques and sooty mangabeys at the Yerkes National Primate Research Center; and over the last decade, and as a new faculty member of the University of Texas at San Antonio, I have conducted conservation ecology research at my long-term field site, the Udzungwa Mountains of Tanzania, with the Endangered Sanje mangabey and our newly ‘discovered’ and Critically Endangered kipunji. Although cross-cutting the various environments in which we focus on primates is unusual for an anthropological primatologist, it has fostered appreciation for the variety of methods and perspectives in our field, as well as the value of each for addressing particular research questions and advancing our knowledge about primates. The broad-based experience, I believe, has also contributed in positive ways to my service to ASP over the last 29 years. This has included multiple years on the Research and Development Committee (1980-1984, 1990-1994, 2002-2004), the Conservation Committee (1996-2002), the Nominations Committee (2003-2005), and most recently, my current service on the newly-established Media and Information Committee (to which I hope to bring the perspective gained in my current role as Senior Editor of African Primates, the journal of our IUCN SSC Primate Specialist Group). I was also honored to be one of the two nominees for President Elect of our society in 2006. Once beginning intensive fieldwork in Africa, it has been difficult to participate in ASP at a constant and high level, especially given that we have continued our ‘tradition’ of holding annual meetings in the summer when many of us are in habitat countries – a practice which I believe limits the ability of a number of field primatologists to contribute in a sustained, visible manner. The success of our most recent meeting this past September in San Diego has suggested to me that if we wish to facilitate the broad-based participation of all primatologists in our national society, we should give strong consideration to revisiting the timing of our meetings. I would welcome the opportunity to participate in ASP at the highest level possible, and this includes bringing my diverse background to serving alongside the officers of our society.

ASP Activities: Research and Development Committee, 1980-1984, 1990-1994, 2002-2004; Conservation Committee, 1996-2002; Nominations Committee, 2003-2005; Media and Information Committee (current).

Dee Higley

Biosketch: Bachelor of Science—1980, Brigham Young University; Master of Science—1983, University of Wisconsin – Madison; Doctor of Philosophy—1985, University of Wisconsin – Madison. Current Position, Professor, Department of Psychology, Brigham Young University. Research Specialization and Interests: Developmental Psychobiology and Psychopathology. Current focus is on genetic and environmental influences on development and psychopathological outcomes.

ASP Activities: Dr. Higley attended his first ASP Meeting in 1983 and has attended every meeting except one since. He has organized numerous symposia and workshops over that time. He has served on almost all of the ASP committees, in some cases more than once. Member ASP – 1986-Present; 1998-2000: Member Education Committee; 2000-2003: Member of the Research and Development Committee; 2003-2005: Chairman of the Research and Development Committee; 2004-2006: Member of the Awards Committee; 2006-2008: Member of the Education Committee; 2007-Present: Member of the Ad Hoc Committee for Interdisciplinary Representation; 2008-Present: Member of the Finance Committee; 2008-Present: Member of the Ad Hoc Media and Information Committee; 2009: Ad Hoc Judge of Student Posters and Presentations.

ASP SMALL GRANT AWARDS

In 2009, The American Society of Primatologists awarded a total of \$12,719 in Small Grants. Recipients included:

Elsa Addessi, CNR, Istituto di Scienze e Tecnologie della Cognizione (ISTC-CNR), Rome. Intertemporal choices for primary and secondary rewards: how capuchin monkeys and humans discount time with food and tokens (\$1,475)

Melanie Beuerlein, Yale University. The aging male chimpanzee: Investigating changes in reproductive effort and endocrine physiology (\$1,500)

Sharon Kessler, Arizona State University. Using living mouse lemurs to model the origins of primate sociality: do mouse lemurs use vocalizations as a mechanism for recognizing kin and forming social groups? (\$1,500)

Marni LaFleur, University of Colorado, Boulder. Ecology of ringtailed lemurs (*Lemur catta*) at Tsiamampetsotsa National Park, Madagascar (\$1,500)

Mark Laidre, Princeton University. Testing tool-use abilities in mandrills (*Mandrillus sphinx*) (\$1,500)

Amy Porter, University of California, Davis. Effects of ornate hawk eagle (*Spizaetus ornatus*) predation on small-bodied primates in a Peruvian rainforest (\$1,500)

Luca Pozzi, New York University. Molecular systematics and pattern of speciation in cryptic nocturnal primate (genus *Galagoidea*) in eastern Africa (\$1,494)

Laurie Reitsema, The Ohio State University. The isotopic meanings of weaning: a new method for determining age of weaning among primates (\$1,500)

Adam Smith, University of Nebraska at Omaha. The role of oxytocin in the social regulation of stress reactivity in marmosets, *Callithrix penicillata* (\$750)

ASP EDUCATION COMMITTEE STUDENT PRIZE AWARDS

Oral Paper Award

- **Anja Deppe** “Predator recognition in wild brown mouse lemurs (*Microcebus rufus*): field experiments in Ranomafana National Park, Madagascar” <http://www.asp.org/asp2009/abstractDisplay.cfm?abstractID=2597&confEventID=2866>

Poster Paper Award

- **Kira Delmore** “Morphological characterization of a brown lemur hybrid zone (*Eulemur rufifrons x E. cinereiceps*) in southeastern Madagascar” www.asp.org/asp2009/abstractDisplay.cfm?abstractID=2596&confEventID=2697

Honorable Mention - Oral Paper Award (tie)

- **Adam Smith** “Oxytocin and pairing selective sociosexual behavior and social preference in marmosets, *Callithrix penicillata*.” www.asp.org/asp2009/abstractDisplay.cfm?abstractID=2570&confEventID=2890
- **James Fuller** “Kill the infants or not: variation in the occurrence of infanticide in wild blue monkeys” <http://www.asp.org/asp2009/abstractDisplay.cfm?abstractID=2524&confEventID=2834>

Honorable Mention - Poster Paper Award

- **Sharon Kessler** “Do female, captive, gray mouse lemurs (*Microcebus murinus*) use male advertisement calls to recognize male paternal kin?” www.asp.org/asp2009/abstractDisplay.cfm?abstractID=2601&confEventID=2752

Junior Primatologist

- **Fiona McCrossin** “Siamang (*Sympthalangus syndactylus*) social dynamics at the El Paso Zoo before and after the birth of a baby gibbon.” <http://www.asp.org/asp2009/abstractDisplay.cfm?abstractID=2689&confEventID=2672>

ASP AWARDS AND RECOGNITION COMMITTEE

The Awards and Recognition Committee is proud to honor ASP's 2009 award recipients:

Stephen Suomi, Distinguished Primatologist Award
Nenny Babo, Senior Research Scientist Award

Congratulations, Steve and Nenny!

ASP 2010 COMMITTEE PROGRAM REPORT

Before we turn our attention to ASP 2010 in Louisville, the program committee would like to extend its appreciation to everyone who made ASP 2009 in San Diego such a great success. In terms of the number of abstracts it was the second largest meeting in society history with 237 abstracts.

. . . And now, here is something we hope you will really like:

**The 33rd Annual meeting of the
American Society of Primatologists
Will be held June 16-19, 2010,
in Louisville, Kentucky**

The 2010 meeting of the American Society of Primatologists will be held at the historic Seelbach Hilton Hotel in downtown Louisville, Kentucky. We encourage preparation of proposals for symposia and abstracts for paper and poster sessions. In addition to the usual schedule of special lectures, research paper, and other professional events; there will be opportunities to visit the Louisville Zoo and observe training sessions with several species of primates. Those interested in primate sanctuaries will be able to make a special excursion to the Primate Rescue Center near Nicholasville, Kentucky.

Deadlines for Abstract Submission

Preliminary proposals for symposia, workshops and other special sessions are to be submitted to Matthew Novak, Program Committee Chair, by **January 8, 2010** (mfsxnovak@msn.com). Final abstracts for all symposia, workshops, oral presentations, and posters are due **January 29, 2010**.

Featured speakers will include:

2009 Distinguished Primatologist

Stephen J. Suomi

Laboratory of Comparative Ethology,

Eunice Kennedy Shriver National Institute of Child Health and Human Development

NIH, DHHS

“Risk, resilience, and gene X environment interactions in primates.”

also featured

Thomas R. Defler

Universidad Nacional de Colombia

“Forest life: A gringo primatologist in Colombia”

with a meeting-wide interdisciplinary symposia

“Staying healthy in a dangerous world”

organized by John Capitanio

More sessions being discussed, include:

The Primate Fossil Record

Lagothrix

Effects of nutrition on nonhuman primates

Research on Cayo Santiago

Research and care of nonhuman primates in Zoos

Social behavior, infant development, and abnormal behaviors

Studying evolutionary processes

Primate genetics and behavior

(cont'd on next page)

All this plus the silent auction for conservation, and regular poster and paper sessions too . . .

But!

These sessions won't happen without your help. If you would like to contribute to any of these ideas, or have any ideas of your own, we want to hear them. Please get your proposals for special sessions to the program committee chair (mfsxnovak@msn.com) on or before January 8, 2010.

Accommodations and Conference Meetings

The Seelbach Hilton Hotel is offering special rates to participants in the meetings that apply for three days before and after the scheduled dates of June 16-19. Rooms with single or double beds are available for \$125/night with a \$20 charge for each additional person plus taxes. Reservations must be made by May 25, 2010, in order to qualify for the conference rate. The Seelbach provides free shuttle service to and from the airport and a reduced parking rate in the hotel parking garage. Street-level parking is also available near the hotel. All conference sessions and social events will be held at the Seelbach Hilton (www.seelbachhilton.com).

Student travel awards, to continue:

Both the Ruppenthal and the Elizabeth Watts Student Travel Awards will continue this year. Applications for both awards are due on the abstract due date, January 29, 2010.

Ruppenthal Student Travel Awards are available to all students, with consideration being given to students who would otherwise not be able to attend the conference. To be considered, students will submit a copy of both sides of their student identification, a current ASP abstract on which they are first author, a copy of their curriculum VITA and a letter from their direct supervisor or faculty advisor supporting the application.

Watts Student Travel Awards are available to students from Mexico and other Latin American countries. To be considered, students will submit a copy of both sides of their student identification, a current ASP abstract on which they are first author, a copy of their curriculum VITA and a letter from their direct supervisor or faculty advisor supporting the application.



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RESEARCH

UPDATE



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Research Small Grant Award Report

Analysis of a brown lemur hybrid zone: what factors are involved in its maintenance?

Kira Delmore
University of Calgary

Background: Recent studies have identified many long-lived and stable animal hybrid zones^{1,2}. Two models have been developed to account for this stability: the tension zone and ecotone models. According to the former, hybrid zones are maintained by a balance between dispersal of parental species into the zone and selection against hybrids². According to the latter, hybrid zones are maintained by ecological selection for hybrids within transitional habitat and for parental species outside the zone².

Objective: A stable hybrid zone exists between two species of brown lemur (*Eulemur fulvus rufus* and *E. cinereiceps*) at Andringitra in southeastern Madagascar^{3,4}. Our primary research objective was to determine how stability is being maintained in this zone, more specifically, to determine if it conformed to the ecotone or tension zone model.

Hypothesis and predictions: Evidence collected from the zone prior to our study supported the ecotone model: hybrids appeared to be as fit as parental species^{4,5} and the zone appeared to coincide with broad ecotones to the northeast and southeast^{6,7}. We tested predictions from these models more directly and conducted sampling on a larger scale. We predicted that if the Andringitra hybrid zone conformed to the tension zone model, it would be (i) narrow relative to the species' range and dispersal distance, (ii) experience high levels of gene flow from parental populations, (iii) be composed of first generation hybrids and parental individuals and (iv) not be associated with an environmental variable. Hybrids within the zone will also (v) be less fit than parental forms. If the Andringitra hybrid zone conformed to the bounded superiority model, we predicted that it would be (i) as wide as the ecological correlate it is associated with, (ii) show limited signs of gene flow between hybrid and parental populations, and (iii) be composed primarily of later generation hybrids and (iv) be associated with an environmental variable. Hybrids within the zone will also (iv) be equally as fit if not more fit than parental forms.

Methods: Data collection – We conducted field work between June and Sept 2008. We established eight sites: four to the northeast of Korokoto (the purported center of the hybrid zone^{3,4} and source of *E. rufifrons*) and four to the southeast of Korokoto (source of *E. albocollaris*). With the help of four veterinarian-trained technicians from the Henry Doorly Zoo in Omaha, Nebraska, we immobilized ten animals at each site. We obtained blood and tissue samples from each animal and measured them for standard morphological variables. We also established nine 10 x 20 m botanical plots at each site with the help of two Malagasy botanical technicians. Plots were located in three microhabitats: ridges, hillsides, and valleys. Standard ecological variables were recorded in each plot. We also extracted climate and spatial variables (e.g., temperature seasonality) from each site using WorldClim 1.4 (www.worldclim.org) and a digital elevation model, respectively. We conducted lab work between Oct and Dec 2008. We used blood and tissue samples obtained during immobilizations to determine the nuclear and mitochondrial genotype of each individual, using 41 microsatellite loci and sequencing the D-loop region of mitochondrial DNA, respectively.

Analysis - We determined hybrid zone width and examined group composition by assigning each individual a (1) phenotypic hybrid score, based on 6 diagnostic traits and (2) genetic hybrid score, based on assignment scores from STRUCTURE⁸. We examined patterns of gene flow by (1) examining population subdivision using an unbiased estimator of F_{ST} in FSTAT⁹ and (2) examining the genetic structure among populations using STRUCTURE. We evaluated fitness morphologically, with body condition (body mass/body length) and a composite body fat scores (skin-fold thickness from 4 regions on the body: hip, abdomen, arm and back) and genetically, by identifying evidence of hybrid deficits (measured as deviations from Hardy-Weinberg equilibrium at microsatellite loci using GENEPOP¹⁰). We identified ecological correlates with a panel regression (genetic hybrid scores were included as the dependent variable, ecological correlates as the predictors and animal ID as a repeated variable).

Results: Preliminary results suggest that the Andringitra hybrid zone conforms to the ecotone model:

- (i) Relative to the entire range of *E. cinereiceps* (100-120 km), the hybrid zone is large following both phenotypic (42.6 km) and genetic (52.8 km) hybrid scores.
- (ii) Gene flow between hybrid and parental forms appeared to be limited: private alleles and morphological traits were observed in hybrid populations and hybrid populations clustered separately from parental forms in an analysis of genetic structure using nuclear genotypes.
- (iii) The hybrid zone was composed mostly of hybrid forms.
- (iv) Ecological correlates were identified: moving north to south in the hybrid zone, habitat quality decreased (e.g. tree height decreased), temperature and precipitation seasonality decreased.
- (v) Hybrids appeared to be equally as fit as parental forms: significant differences were not observed between hybrid and parental forms in relative body mass or composite body fat scores. In addition, deviations from Hardy-Weinberg were absent at each microsatellite loci within each population.

Significance: The identification of private morphological and genetic traits and assignment of hybrids to a separate class in a Bayesian assignment analysis suggests that (i) hybrid populations may be genetically isolated from parental populations and (ii) sequence evolution restricted to hybrid populations may be occurring. Together, these results could suggest that hybrids from Andringitra represent an example of reticulate evolution (i.e., evolution through genetic exchange) that may ultimately result in the production of a new species. These findings provide support for the ever increasing opinion that hybridization among animal taxa is not trivial but represents an important evolutionary force in nature^{11,12}.

References:

1. Barton NH, Hewitt GM. 1985. Analysis of hybrid zones. *Ann Rev Ecol Syst* 16:113.
2. Moore WS. 1977. An evaluation of narrow hybrid zones in vertebrates. *Q Rev Biol* 52:263.
3. Sterling EJ, Ramaoson MG. 1996. Rapid assessment of the primate fauna of the eastern slopes of the Réserve Naturelle Intégrale d'Andringitra, Madagascar. *Fieldiana: Zoology* 85:293.
4. Wyner YM, Johnson SE, Stumpf RM, DeSalle R. 2002. Genetic Assessment of a white-collared x red-fronted lemur hybrid zone at Andringitra, Madagascar. *Am J Primatol* 57:51.
5. Dowling TE, Secor CL. 1997. The role of hybridization and introgression in the diversification of animals. *Annu Rev Ecol Syst* 28:593.
6. Johnson SE. 2002. Ecology and Speciation in Brown Lemurs: White-collared Lemurs (*Eulemur albocollaris*) and Hybrids (*Eulemur albocollaris* X *Eulemur fulvus rufus*) in Southeastern Madagascar. Ph.D. dissertation, University of Texas.
7. Goodman SM, Razafindratsika VR. 2001. Introduction. In *Inventaire biologique du Park National de Ranomafana et du couloir forestier qui la relie au Parc National d'Andringitra* (eds. SM Goodman and VR Razafindratsita). Recherches pour le Développement, Série Sciences Biologiques, vol 17, pp 1-18. Centre d'Information et du Documentation Scientifique et Techniques, Antananarivo.
8. Pritchard JK, Stephens M, Donnelly P. 2000. Inference of population structure using multilocus genotype data. *Genetics* 155:945.
9. Goudet J. 1995. FSTAT, a computer program to test F-statistics. *Journal of Heredity* 86:85-486.
10. Raymond M, Rousset F. 1995. GENEPOL (version 1.2): population genetics software for exact tests and ecu minicisms. *Journal of Heredity* 86:248-249.
11. Dowling TE, Secor CL. 1997. The role of hybridization and introgression in the diversification of animals. *Annu review of ecology and systematics* 28:593-619.
12. Mallet J. 2007. Hybrid speciation. *Nature* 446:279-283.



Eulemur cinereiceps male



Photo credits: Kira Delmore

CONSERVATION

UPDATE



Photo credit: Gary Sullivan

Conservation Small Grant Award Report

*Microhabitat selection, feeding ecology, and activity patterns of western hoolock gibbons (*Hoolock hoolock*) in a teak plantation*

Alice A. Brindle, Md. Anwarul Islam, Vincent Nijman

Department of Anthropology and Geography, School of Social Sciences and Law, Oxford Brookes University, Gypsy Lane Campus, Headington, Oxford OX3 0BP, United Kingdom

Understanding how species interact with the biotic and abiotic attributes of their habitats is essential for the implementation of appropriate wildlife conservation efforts [Medley 1993; Wu and Smeins 2000; Santos et al. 2002]. This issue is particularly pressing for endangered species living in agricultural landscapes where conservationists must balance the environmental needs of wildlife with the livelihood needs of farmers [Schroth et al. 2004]. Western hoolock gibbons (*Hoolock hoolock*) are just such an endangered species, with some populations living in timber plantations rather than natural forests (pers. obs.). Our current understanding of how western hoolock gibbons survive in fragmented agroforests is poor. To partially fill this knowledge gap, we examined the microhabitat preferences, feeding ecology, and activity patterns of a group living in a 65 ha teak (*Tectona grandis*) plantation (centered on 24°22'N, 91°47'E) within Kalachara Forest Beat of north eastern Bangladesh.

The teak plantation is surrounded by rice paddy fields, tea estates, and houses, and is separated from the nearest neighboring forest, also a teak plantation, by ~50 m. The teak trees are interspersed with planted and naturally growing trees mainly consisting of jarul (*Lagerstroemia speciosa*), chapalish (*Artocarpus chaplasha*), garjan (*Dipterocarpus turbinatus*), sal (*Shorea robusta*), and fig (*Ficus* spp.). Only one group of gibbons lives in the plantation. The group consists of four individuals: an adult male and female, a juvenile male ~4 - 5 years old based on size and color, and an infant close to weaning ~2 years old. Local people enter the plantation daily to collect forest products, herd cattle, bury their dead, and perform religious ceremonies. Illegal loggers harvest teak trees during the night.

We studied the gibbon group during May, June and July of 2009. We trekked from approximately 6:45 hrs each morning until we located the group and then followed them until we lost contact, the gibbons fell asleep in a sleeping tree, or heavy rain occurred. We used instantaneous scan sampling in three minute intervals to collect behavioral data on each visible group member recording the behavior of each gibbon as moving, resting, feeding, grooming, playing, vigilant, singing, calling, or other [Altmann 1974; Martin and Bateson 1993]. During feeding bouts, we recorded the food item as fruit, leaves, vines, flowers, bamboo, invertebrates, or unknown. During each scan, we identified at least to genus the tree each gibbon was in and visually estimated the tree's canopy connection with others. We divided the forest fragment into 50 m² quadrats and recorded the quadrat location of each gibbon during each scan sample using a global positioning device. The home range of the group included all quadrats in which we took a scan sample of the gibbons at least once. We measured the distance each quadrat was from forest edge, rice paddy fields, tea estates, and houses by overlaying the gibbon's home range grid onto a satellite image (taken March 4th 2005). We quantified levels of forest disturbance due to wood harvesting activities by walking the forest trails and counting the number of stumps and cut trees we found. The study complied with the research ethics protocols approved by the Oxford Brookes University Research Ethics Committee and the legal requirements of Bangladesh.

To determine the intensity in which the gibbons used each quadrat within the forest fragment, we counted the number of scan samples we took in each quadrat and then categorized the quadrats into areas of low (<1%), medium (1% - 3%), and high (>3%) relative habitat use. We collected 18 habitat attributes for each quadrat in the group's home range: forest edge distance, rice paddy field distance, tea estate distance, house distance, altitude, cut tree count, canopy connectivity, chapalish proportion, fig proportion, dawa proportion (*A. lakoocha*), bolos proportion (*Sapium baccatum*), kakra proportion (*Lagerstroemia speciosa*), garjan proportion, sal proportion, ton proportion (*Toona ciliata*), ironwood propor-

tion (*Xylia kerrii*), and teak proportion. The tree proportions are the proportion of scan samples taken in each gradrat for which the gibbons were located in the tree species. We carried out a principal component analysis on the microhabitat attributes to aid in data reduction and used the eight extracted principal components in a stepwise discriminant analysis to make a model to discriminate between quadrats used by the gibbons low, medium, and high amounts based on the micro-habitat characteristics of the quadrats.

Like all gibbons, our focal group was frugivorous but unlike their conspecifics in protected forests they fed on large proportions of invertebrates (20.7% of feeding bouts), particularly teak skeletonizer caterpillars (*Hyblea purea*), rather than foliage to supplement their fruit intake [Islam and Feeroz 1992; Chivers 2000; Ahsan 2001; Österberg 2006]. The group used forest interior habitat with low food tree availability most intensely. They used this interior habitat more often than expected for resting, grooming, singing, and playing and used the forest edge with high food tree availability (specifically fig and kakra trees) more often than expected for feeding. They also fed less and rested more, travelled shorter distances, possessed a smaller home range, used fewer sleeping trees, and sang on fewer days than groups in protected forests [Islam and Feeroz 1992; Ahsan 2001; Österberg 2006].

These results suggest the group limited their daily activity compared to conspecifics living in protected habitat. This could be in response to the high levels of human and agricultural disturbance inside and surrounding the plantation or in response to limited canopy connectivity and isolation from neighboring gibbon groups. Other primate species show similar responses to human encroachment and habitat fragmentation with guenons (*Cercopithecus* spp.) eating less fruit and more invertebrates and leaves, mitered leaf monkeys (*Presbytis melalophos*) resting and feeding less, and gibbons (*Hylobates* spp.) resting more, and singing, feeding, and travelling less [Johns 1986; Tutin 1999; Nijman 2001]. In conclusion, by modifying their behaviors western hoolock gibbons can reside at least for a short number of years inside teak plantations but would likely benefit from conservation efforts aimed at protecting food and sleeping trees from being harvested, maintaining high canopy connectivity, and limiting human disturbances within the forest.

This research was supported by grants from the American Society of Primatologists and Oxford Brookes University. We thank Sarah B. Karr and Shyamol Deb Barma for their field assistance, and the Forest Department of Bangladesh and the Wildlife Trust of Bangladesh, for granting us permission to research the gibbons.

REFERENCES

- Ahsan MF. 2001. Socio-ecology of the hoolock gibbon (*Hylobates hoolock*) in two forests of Bangladesh, In: Chicago Zoological Society, editors. The Apes: Challenges for the 21st Centruy, Brookfield Zoo, May 10-13, 2000, Conference Proceedings. Brookfield: Chicago Zoological Society. p 286-299.
- Altmann J. 1974. Observational study of behaviour: sampling methods. Behaviour 49:227-267.
- Chivers DJ. 2000. The swinging singing apes: fighting for food and family in far-east forests. In: Chicago Zoological Society, editors. The Apes: Challenges for the 21st Century, Brookfield Zoo, May 10-13, 2000, Conference Proceedings. Brookfield: Chicago Zoological Society. p 1-28.
- Islam MA, Feeroz MM. 1992. Ecology of hoolock gibbon of Bangladesh. Primates 33:451-464.
- Johns AD. 1986. Effects of selective logging on the behavioral ecology of west Malaysian primates. Ecology 67:684-694.
- Martin P, Bateson P. 1993. Measuring behaviour: an introductory guide, second edition. Cambridge: Cambridge University Press. 242 p.
- Medley KE. 1993. Primate conservation along the Tana River, Kenya: an examination of the forest habitat. Conserv Biol 7:109-121.
- Nijman V. 2001. Effects of behavioural changes due to habitat disturbance on density estimation of rain forest vertebrates, as illustrated by gibbons (primates: Hylobatidae). In: Forest (and) primates: conservation and ecology of the endemic primates of Java and Borneo, Tropenbos Foundation. Wageningen: Tropenbos International. p 33-42.
- Österberg P. 2006. Habitat requirements and the effects of forest fragmentation on the western hoolock gibbon (*Hoolock hoolock hoolock*) in Lawachara National Park, Bangladesh. MSc thesis, Oxford Brookes University, Oxford.
- Santos T, Tellería JL, Carbonell R. 2002. Bird conservation in fragmented Mediterranean forests of Spain: effects of geographical location, habitat and landscape degradation. Biol Conserv 105:113-125.
- Schroth G, da Fonseca GAB, Harvey CA, Gascon C, Vasconcelos HL, Izac AN. 2004. Agroforestry and Biodiversity Conservation in Tropical Landscapes. Washington DC: Island Press. 575 p.
- Tutin CEG. 1999. Fragmented living: behavioural ecology of primates in a forest fragment in the Lopé Reserve, Gabon. Primates 40:249-265.
- Wu XB, Smeins FE. 2000. Multiple-scale habitat modeling approach for rare plant conservation. Landscape and Urban Planning 51:11-28.

ASP MEETINGS

MINUTES FROM THE 2009 ASP EXECUTIVE COMMITTEE MEETING San Diego, CA

President Randy Kyes called the Executive Committee Meeting to order at 5:00 PM September 19, 2009. Attending: Randy Kyes, Karen Bales, Jeff French, Charlie Menzel, Tara Stoinski, Cory Ross, Kim Phillips, Russ Tuttle, Suzette Tardif, Matt Novak.

Randy opened the meeting by thanking everyone for their efforts over the past year.

The Chairs gave the following reports:

Membership and Finance Committee, Karen Bales, Chair.

Overall, finances and membership are in good shape. After several years of declining membership, 2009 saw an increase. As of September 15, 2009, the Society is up 10% in full members over the previous year; 15% in student members; and 400% for complementary members. Reasons for increase likely included: 1) meeting location; 2) the formation of a Subcommittee for Recruitment and Retention consisting of Erin Sullivan, Justin McNaught and Jessica Vandelleest. Subcommittee created a mailing list of 4,500 individuals and sent an invitation from Randy to join ASP and information on the annual meeting. Additionally, postcards and posters about the meeting were created and distributed at relevant scientific meetings. Similar postcards have been created for the 2010 meeting. Karen recommended to the Board

of Directors that this subcommittee be continued for the next 5 years at a funding level of \$2000 per year. A report on ASP membership was completed by Sarah Carnegie.

It was recommended to reduce the member price of ASP books from \$45 to \$30 for Volumes 3 and 4 or both for \$50. All books will be sent to Steve Schapiro.

All of the funds in the Ruppenthal Fund have been distributed and the Watts Fund has approximately \$5000 remaining. There was considerable discussion on how to continue to support student travel when both these funds are depleted. A motion was made by Jeff French to recommend to the Board of Directors that 25% of meeting surplus from the previous conference be dedicated to student travel to conference in the subsequent year. This would be capped at \$5000 and whatever is not spent will be rolled over to future years. Vote: unanimous.

All the money in the minority fund has been spent. It was recommended that a poster describing how the money was distributed be submitted to the poster session.

Conservation Committee, Kim Phillips, Chair

Conservation awards were made in May 2009. Ten of 40 applicants received funding totaling \$12,719. There was one nomination for the subscription award, Javier Enrique Garcia Villalba, from the Universidad Colombia. There were three nominations for the conservation award. The committee recommended that Claudia Gomez from

Nicaragua receive the Conservation award.

The committee recommended that ASP continue its IUCN member. Membership in the Bushmeat Crisis Task Force a non issue as the organization is now defunct.

The committee asked that the link on the website for AMAZON.com to be more prominent. They also are considering raising funds via selling photos via an on-line auction but copyright issues are still being addressed.

Publication Committee. Jeff French, Chair

American Journal of Primatology is doing well, submission rates are up 10% from last year and the journal has a 43% final rejection rate. In 2008, the journal was under its page allocation, which is of concern to the publisher.

Hits on the webpage are up 10%. As the webpage was last updated five or six years ago, the Publication Committee recommends that the Society redesign the webpage for a sum of no more than \$3000.

Research and Development Committee, Charlie Menzel, Chair

Committee reviewed 56 grant applications for small research grants program and recommends 10 projects totaling \$14,214 be considered for funding. The committee feels that individuals submitting grants from habitat country should be provided with more detailed feedback on their submission, perhaps from the ASP sponsor on their grant. The group discussed whether research grants should be

ASP MEETINGS

restricted to PhD candidates and the group unanimously agreed no.

Education Committee, Cory Ross, Chair

There was no teacher workshop this year primarily because of timing of the meeting. Instead, members of committee went to Lynne Miller's son's elementary school. They presented to 270 students (9 classrooms). Cory is already in discussions with 2010 meeting chair about teacher workshop for next year. Activities at the 2009 conference include the student competition (67 submissions), a student luncheon organized by Dee Higley to discuss obtaining grants, and a statistics workshop. The committee plans to repeat the latter two at next year's meeting. These activities could be advertised on the website and potentially videotaped and shown on ASP webpage or youtube.

Program Committee, Matt Novak, Chair

Abstract submissions for the 2009 conference were high at approximately 240. Based on the need to have abstracts into publisher by March 5, 2010 tentative date for abstract deadline for 2010 meeting is Friday, January 29, 2010. This date will be firm and there will not be extensions. The group discussed how to handle increases in number of abstracts. Possible solutions included adding a day to the meeting, adding a session to the meeting, adding more posters but with a cap on the total number.

Awards and Recognition Committee, Russ Tuttle, Chair

Three individuals were nominated

for the Distinguished Primatologist Award and the committee made a recommendation for one to receive the 2009 award. The remaining two nominees will be placed in consideration for 2010. The group decided not to accept additional nominations in 2010 and will post this on the ASP website. The committee also recommended an individual to receive the Senior Research Scientist Award.

Other business

Randy let the executive committee know that the board would be discussing whether the current Ad Hoc standing committees, 1) Media and Information and 2) History and Records, be made into a full standing committee. Also, follow up on the formation of an ad hoc standing committee on captive care was discussed. Kim Philips asked the Board of Directors to discuss whether it would be appropriate for her project on academic genealogies of primatologists to include an interactive webpage that would be hosted on the Primate Information Network (PIN).

Meeting adjourned at 7:35 PM.

*Membership renewal
for ASP for 2010 is
now open at
www.asp.org
in the members only
section.*

*Renew soon to pre-
vent a break in your
subscription!*

BOARD OF DIRECTORS MEETING

President Randy Kyes called the ASP Board of Directors Meeting to order at 5:00 PM September 20, 2009. Attending: Randy Kyes, Dorothy Fragaszy, Tara Stoinski, Karen Bales, Suzette Tardif.

The following recommendations were made:

Recommendation: The Membership and Finance committee recommended continuing the Recruitment and Retention subcommittee for five years, carrying forward any remaining funds from previous year's budget for next year. Action: Approved.

Recommendation: The Executive Committee recommended the Society raise funds for student travel by dedicating 25% of meeting surplus from the previous conference for student travel to conference in the subsequent year. This would be capped at \$5000 and whatever is not spent will be rolled over to future years. Action: Approved with the decision to retain these funds in the Ruppenthal Fund. An email will be sent to the membership informing that this Fund currently has a zero balance but the Society has agreed to maintain the fund beyond the extent of the endowment. Additional funds will be raised from percentage of profits from future meetings and donations. Action: Approved.

Recommendation: The Publication Committee recommended a redesign of the ASP web page with funding up to \$3000. Action: Approved.

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Recommendation: The Research and Development recommended 10 projects totaling \$14,241 be considered for funding. Action: Nine projects totaling \$12,719 were approved.

Recommendation: The Conservation Committee recommended a subscription award be given to Javier Enrique Garcia Villalba of the Universidad Colombia and a conservation award be given to Claudia Gomez of Nicaragua. Action: Approved.

Recommendation: Geneology project run by Kim Philips be incorporated into an interactive website and placed on Primate Information Network. Action: Approved placing project on PIN but project needs to contact anyone who submitted information to get their permission for their information to be hosted on a publically available website.

Recommendation: The Awards and Recognition Committee nominated Steven Suomi for the Distinguished Primatologist Award and the Nenny Babo for the Senior

Research Scientist Award. Action: Approved.

Other business: Suzette formed a nomination committee consisting of Suzette, Jeff French, Paul Garber, Corrine Lutz, Carol Schively. Nominees for the 2010 election have been screened, selected and contacted. All have agreed to run. Randy Kyes will set up election committee by November and oversee voting. Announcement to entire membership in November via email and fall bulletin.

The BOD discussed ASP's possible membership in the American Institute of Biological Sciences (AIBS; www.iabs.org): Membership is \$200/year for institutions with less than 1,000 members, which would provide us with seat on Board of Directors. There was a motion to join at the \$200 membership level, which was seconded. Doree will be the representative.

The BOD discussed future standings of existing ad hoc committees. Randy recommended we keep Media and Info and History and

Records as ad hoc standing committees and add Captive Care Committee as ad hoc committee during Doree's term. Once all three ad hoc committees are formed, Randy will work on constitutional amendments to have them become official standing committees by end of Doree's first term. ASP representative to AALAC would be chair of Captive Care Committee. It was recommended that Mollie Bloomsmith, who proposed the Captive Care Committee, work with NPRC representatives on planning session at the next ASP meeting to create an agenda for the committee.

Karen Bales will distill the membership report to publish in AJP and discuss this possibility with the Wiley Liss representatives. The BOD directors decided to remove the ASP bulletin as benefit from membership and approved giving \$500 to the History and Records Committee to purchase equipment to record meetings.

Meeting adjourned 7:12 pm.



Photo credit: Richard Arnold

PRESIDENT'S LETTER (cont'd from page 1)

Finally, I want to remind you that next year's ASP meeting will be held in Louisville, Kentucky from 16-19 June 2010. Planning is already well underway with an abstract submission deadline of 29 January 2010. Please check out additional details regarding the meeting in the pages of this Bulletin. And as always, be sure to visit the ASP website for current updates on the meeting.

As I bring this message to a close, I

want to take this opportunity, once again, to thank you all for your continued support of ASP - through your membership, your service to the Society, your donations, and your participation at the annual meeting.

I wish you all happy holidays and all the very best in the coming year 2010.

- Randy Kyes

UPCOMING MEETINGS

THIRD ANNUAL ENRICHMENT EXTRAVAGANZA, AN ENVIRONMENTAL ENRICHMENT AND BEHAVIORAL MANAGEMENT SYMPOSIUM
Date: April 15, 2010
Sponsor: New Jersey Association for Biomedical Research and Merck & Co., Inc
Location: National Conference Center at the Holiday Inn, East Windsor, NJ

WHAT IS PRIMATE CONSERVATION? 10TH ANNIVERSARY CONFERENCE, MSC IN PRIMATE CONSERVATION
Date: April 23 2010 –April 25, 2010
Sponsor: Oxford Brookes University
Location: Anthropology Centre for Conservation, Environment, and Development, Oxford Brookes University

ANIMAL TRANSPORT ASSOCIATION (AATA) ANNUAL CONFERENCE
Dates: May 9, 2010 - May 12, 2010
Sponsor: Animal Transport Association
Location: Marriott Harbor Beach Resort and Spa, Fort Lauderdale, Florida
Website:
<http://www.aata-animaltransport.org/>

THE 15TH BIENNIAL SCIENTIFIC MEETING OF THE INTERNATIONAL SOCIETY FOR COMPARATIVE PSYCHOLOGY
Dates: May 19-21, 2010
Location: Awaji Yumebutai Internat'l Conference Center, Hyogo, Japan
Website:
www.comparativepsychology.org/

AMERICAN SOCIETY OF PRIMATOLOGISTS
Dates: June 16, 2010 - June 19, 2010
Sponsor: American Society of Primatologists
Location: Louisville, Kentucky
Website: <http://www.asp.org/meetings/index.html>

INTERNATIONAL PRIMATOLOGICAL SOCIETY XXIII CONGRESS
Dates: September 12, 2010 - September 18, 2010
Sponsor: International Primatological Society
Location: Kyoto University, Kyoto, Japan
Website: <http://www.ips2010.jp/>

For job opportunities, visit: <http://pin.primate.wisc.edu/jobs/list/avail>

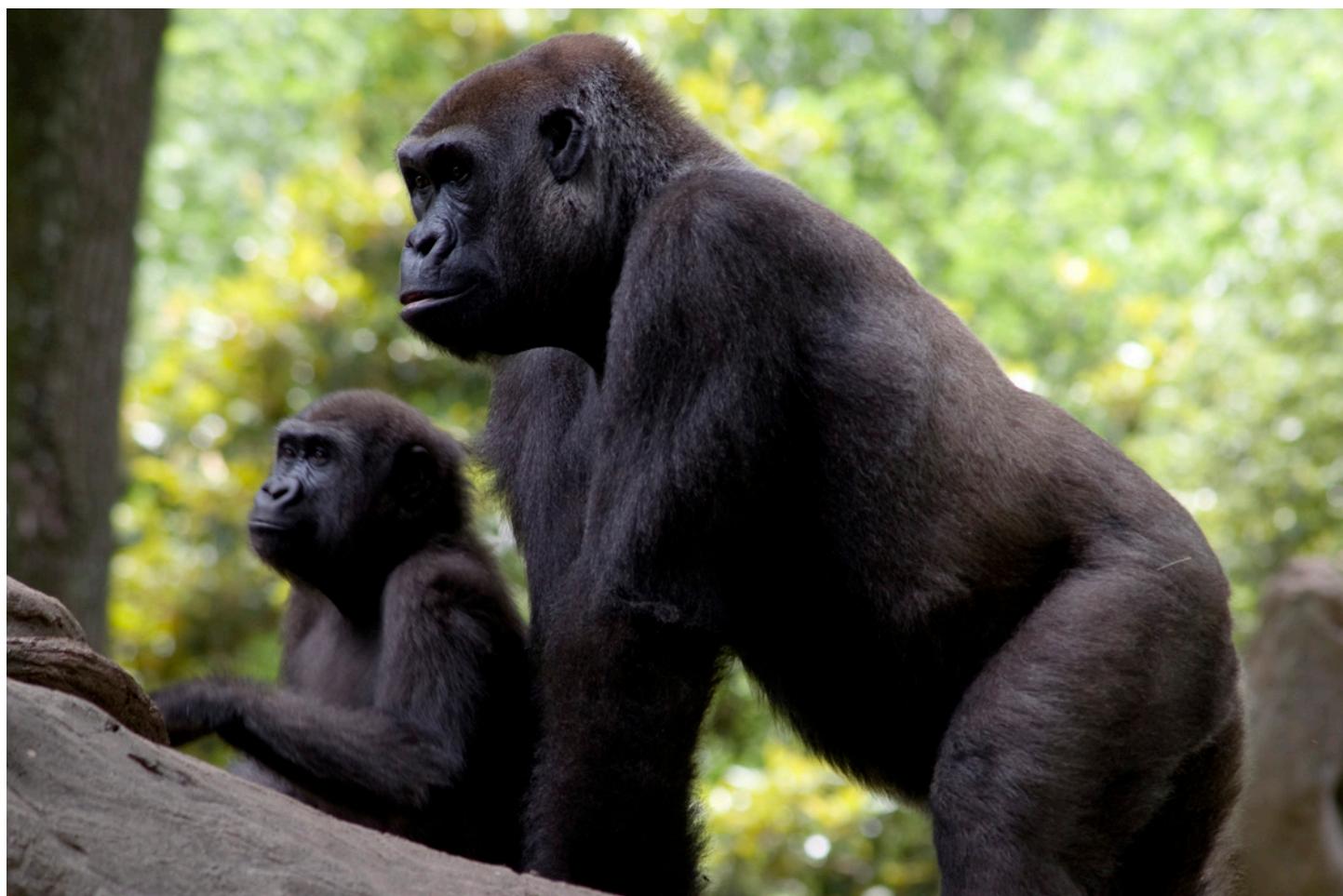


Photo credit: Adam Thompson, Zoo Atlanta