

"From so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved."

Center for Human Evolutionary Studies

CHES Officers 2014-2015

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Mark your calendars: On **November 7th 2014**, CHES will co-sponsor the inaugural meeting of the Northeastern Primate Ecology, Evolution, and Behavior group (**NPEEBG**). This meeting will be held at Rutgers. The new society will be founded at this meeting. Details will follow.

The Year 2013-2014 was filled with exciting news and events.

A highlight of the academic year was the awarding of an honorary doctorate to **Richard E. Leakey** by Rutgers University. Dr. Leakey is well known for his research on fossil human remains in the Turkana Basin of northern Kenya, and he is currently the Director of the Turkana Basin Institute, run under the auspices of the State University of New York at Stony Brook, where Dr. Leakey is currently employed. Beyond his work in paleoanthropology, Dr. Leakey is also known for his efforts in African mammal conservation, particularly his anti-poaching campaigns in Kenya, and his international efforts to control the illegal trade in products from endangered mammal species.

An interesting point is that Richard's mother, the archaeologist **Dr. Mary Leakey**, was also previously awarded an honorary doctorate by Rutgers University—certainly one of the few times that a mother-son duo has achieved such a distinction. Because the primatologist **Dr. Jane Goodall** has also received an honorary doctorate from Rutgers

also received an honorary doctorate by Rutgers. These honors highlight the international scope and influence of CHES.

In honor of Dr. Leakey, CHES sponsored a luncheon at the Due Mari Restaurant in downtown New Brunswick on Saturday, May 17th. In addition to CHES patrons, graduating Evolutionary Anthropology majors and their parents were invited to meet Dr. Leakey. These majors then finished off the afternoon by attending the Anthropology Department's convocation on Douglass Campus.



Dr. Leakey addresses the luncheon guests as Anthropology undergraduates and CHES member **Dr. Craig Feibel** look on.

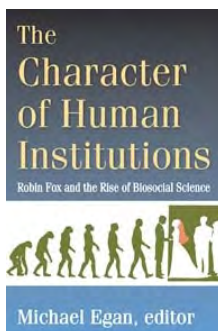
Dr. Leakey with **Dr. Barry Lembersky** and **Ms. Diane Faust**, friends of CHES





Dr. Leakey speaks with several Evolutionary Anthropology undergraduates on the day of their Rutgers graduation.

Earlier in the term, CHES funded the visit and lecture of **Dr. Ann McGrath** from Australian National University. Dr. McGrath, who was situated this year at the Institute for Advanced Studies at Princeton, has completed a video documentary illustrating the struggles between scholars and native people over the fate of the 40,000 year old human burials at Lake Mungo, Australia. These fossil remains are currently the largest and oldest sample of anatomically modern humans found anywhere in the world, but, because of political wrangling over “who owns the past,” they cannot be studied by physical anthropologists or archaeologists. Dr. McGrath subsequently invited CHES member **Dr. Carmel Schrire** to consult with Australian archaeologists, physical anthropologists, and local people over potential ways to preserve the burials and stabilize the site while negotiations over the possibility of studying the fossils and site formation processes take place. Dr. Schrire, who did her doctoral research on the prehistory of Australia, regularly teaches a course on Australasian archaeology at Rutgers.



CHES member **Dr. Robin Fox** has had a Festschrift just published in honor of his looming 80th birthday. The title is *The Character of Human Institutions: Robin Fox and the Rise of Biosocial Science*, Michael Egan, Editor, Transaction Publishers (2014). The forward is written by **Dr. Robert Trivers**.

Highlighted Faculty Research Funded by CHES



In addition to his ongoing research on fluctuating asymmetry in humans in Jamaica, **Dr. Robert Trivers** is also studying behavior in the anolis lizard species *Anolis garmani*. This photo is the largest male—so large that he does not maintain an individual territory, but wanders as he pleases.

Dr. Lee Cronk has been awarded a 3-year, 2 million dollar grant from the John Templeton Foundation for The **Human Generosity Project**. The project will take place at 6 field sites around the world, and will involve professors, graduate students and postdocs from Rutgers, Arizona State, Cambridge University, and the University of Dar es Salaam. CHES funded a pilot project and reconnaissance trips to field sites. Dr. Cronk also delivered 5 presentations during 2013-2014: Generosity without debt (Columbia University); interdisciplinary research on foragers (University of Cologne); forager failure (University of Cologne); framed economic games and the study of social norms (University of Cologne); and towards a theory of culture's influence on behavior (UCLA).

2014 ZELNICK AWARD

The Zelnick Award goes each year to support the research of second-year CHES graduate affiliates. This year there were three recipients: **Shahin Alavi**, **Tim Bransford**, and **Rene Studer-Halbach**:



Shahin Alavi is studying diet, cognition, and nutrient cycling in wild orangutans at **Dr. Erin Vogel's** fieldsite in the Tuanan Research Station, Central Kalimantan, Indonesia. He is examining how orangutans move among food resource sites and how their foraging decisions are influenced by energetic state and cognitive processes and memory. Shahin is also investigating the role of orangutans as nutrient vectors in the ecosystem, which has implications for the conservation of these highly endangered great apes.

Tim Bransford (right) is investigating the energetic and nutritional costs of motherhood in wild Bornean orangutans at Tuanan. Females here are faced with a particularly low-quality habitat for reproduction. Tim's research integrates quantitative measures of caloric stress, energy balance, body condition, the weaning process, and macronutrient profiles of foods. The urine samples he is collecting in the field will be analyzed in **Dr. Erin Vogel's** laboratory here at Rutgers.



This summer, **Rene Studer-Halbach** (left) is visiting the University of the Witwatersrand, Johannesburg, South Africa, as well the Transvaal (Ditsong) Museum in Pretoria. Rene will be conducting pilot research on niche structure, competition, and extinction in fossil monkeys, with application to interpreting the fossil history and lifeways of multiple coexisting lineages of fossil humans. Last summer, Rene learned laboratory techniques of stable isotope analysis with **Dr. Julia Lee-Thorp** at Oxford University.

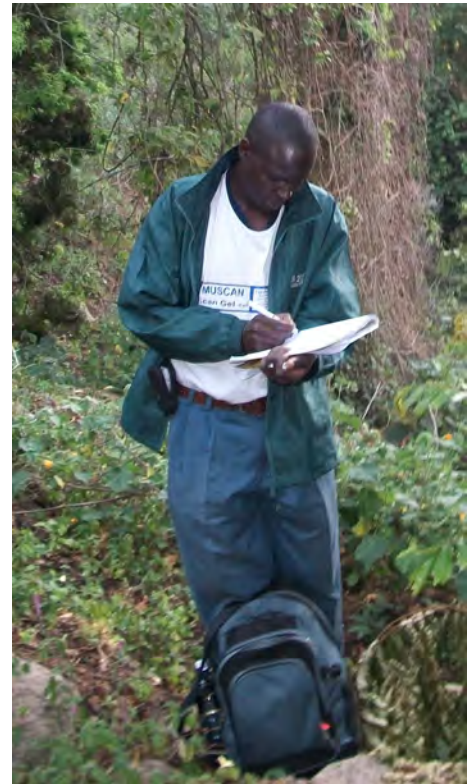
Highlighted Graduate Affiliate Research Funded by CHES

Several CHES graduate affiliates who were supported by CHES in their pilot work were this year awarded external grants to support their dissertation research:

- **Sarah Hlubik** (photo first page of newsletter) received an NSF Doctoral Dissertation Improvement Grant for her research "Finding Prometheus, the Search for Humanly Controlled Fire in the Early Pleistocene at FxJj20 AB, Koobi Fora, Northern Kenya." Sarah uses ethnoarchaeological and microstratigraphic data to investigate the evolutionary significance of fire in both archaeological and modern settings.
- **Darcy Shapiro** was awarded a grant from the Wenner-Gren Foundation for her research "The Functional Anatomy of Trabecular Bone in the Iliac of Living and Fossil Primates." Darcy is combining fieldwork in Hungary with laboratory scanning at the Smithsonian and the University of Texas, Austin.
- **Liz Ballare** received a Fulbright Fellowship to support her research on parasites and rehabilitation among Indonesian orangutans.

• **Shauhin Alavi** received a grant from the International Society of Primatology to support his field research on cognitive foraging in orangutans.

• **Stan Kivai** (right) has received grants from the L.S.B. Leakey Foundation, the Palaeontological Scientific Trust, and Conservation International in support of his field research in Kenya entitled “How do Tana River Mangabeys (*Cercocebus galeritus*) attain foraging efficiency of fallback foods: Effects of Food Mechanics, Nutritional Composition, and Habitat Quality.” Stan’s research will explore how the development of foraging in juveniles overcomes the challenges posed by food properties.

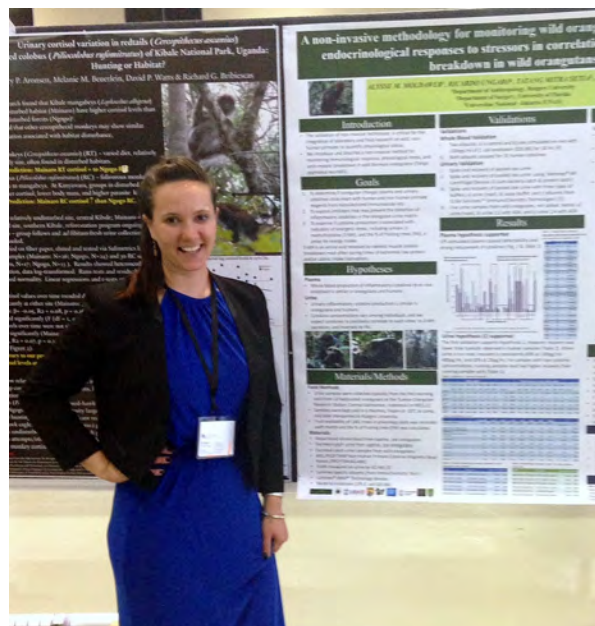


Mareike Janiak (left) collects a primate fecal sample at La Suerte Biological Field Station in Costa Rica. Mareike is studying the foraging and physiological strategies of mantled howler and white-faced capuchin monkeys. The DNA she will extract in the laboratory from these samples will allow her to clarify how the digestive enzymes that break down foods are adaptively shaped by the nature of the foods eaten.

New graduate student **Alex Pritchard** is spending the summer of 2014 doing pilot research at **Dr. Ryne Palombit’s** baboon project field site. Alex is developing a dissertation project focused on questions surrounding cognition, personality, and social behavior in the socially complex olive baboons.



Alyse Moldawer (right) presents a poster at the 2014 meeting of the American Association of Physical Anthropologists in Calgary, Canada. Other CHES graduate affiliates who presented included **Liz Ballare**, **Melanie Crisfield**, **Didik Prasetyo**, **Alex Pritchard**, and **Rene Studer-Halbach**.



Susan Coiner-Collier participated this year in the "Smithsonian Institution's "The Scientist is In" program. was one of the scientists in the Smithsonian. Armed with casts of skeletal material, she interacted with visitors to the Smithsonian, explaining the evolution of diet and morphology in humans and their ancestors.

ALUMNI NEWS: CHES funded Rutgers graduates have recently obtained tenure-track academic positions. **Dr. Drew Gerkey** is a tenure-track assistant professor in the Department of Anthropology at Oregon State University. **Dr. Bria Dunham** is a clinical assistant professor in Boston University's School of Public Health

Recent Publications by CHES faculty and graduate affiliates:

Dr. Susan Cachel. 2013. "Natural history intelligence and hominid tool behavior" In *Tools of the Trade: Methods, Techniques, and Innovative Approaches in Archaeology*. Calgary: U of Calgary Press.

Dr. Susan Cachel & Dr. J.W.K. Harris 2013. The paleobiology of *Homo erectus*: Implications for understanding the adaptive zone of this species. In *Companion to Human Evolution*, S. McBrearty, ed. San Diego, CA: Cognella, Inc.

Dr. Susan Cachel 2013. A review of *Early Miocene Paleobiology in Patagonia: High-Latitude Paleocommunities of the Santa Cruz Formation*. In *PaleoAnthropology* 2013:85-87.

Dr. Lee Cronk & B.L. Leech 2013. Human cooperation at the National Evolutionary Synthesis Center. *Evolutionary Anthropology*, 22:159-160.

Lisa Danish & Dr. Ryne Palombit. 2014. "Following," an alternative mating strategy used by male olive baboons (*Papio hamadryas anubis*): Quantitative behavioral and functional description. *International Journal of Primatology*.

Alyse Moldawer et al. 2014. A non-invasive methodology for monitoring wild orangutans' physiological and endocrinological responses to stressors in correlation to skeletal protein breakdown in wild orangutans. *American Journal of Physical Anthropology* 58:188.

Dr. Ryne A. Palombit. 2014. Sexual conflict in nonhuman primates. *Advances in the Study of Behavior*, 46:191-280.

Alexander Pritchard et al. 2014. Discriminating behaviors to measure personality traits in free-ranging Tibetan macaques. *American Journal of Physical Anthropology*, 58:211-212.

Montserrat Soler, Frank Batiste & Dr. Lee Cronk. 2014. In the eyes (and ears) of the beholder: Receiver psychology and human signal design. *Evolutionary Anthropology*, in press.

Rene Studer-Halbach 2014. Carbon and nitrogen isotope analysis of modern fauna at Laetoli, Tanzania. *American Journal of Physical Anthropology*, 58:248-249.

Dr. Erin Vogel et al. 2014. Do Bornean orangutans (*Pongo pygmaeus wurmbii*) in a peat-swamp habitat experience energetic stress during periods of fruit scarcity? *American Journal of Physical Anthropology*, 58:262.

Dr. Jinchuan Xing et al. 2013. Genomic analysis of natural selection and phenotypic variation in high-altitude Mongolians. *PLoS Genetics* 9(7): e1003634.

S. Wang et al. & **Dr. Jinchuan Xing** 2013. Apparent variation in Neanderthal admixture among African populations is consistent with gene flow from non-African populations. *Genomic Biology and Evolution* 5(11): 2075-2081.



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