

window, the owner removed the monkey seconds after the killing and thus the eating of the prey was interrupted. Here, we report that pygmy marmosets in the Kristiansand Zoo in Norway regularly kill and eat different species of healthy, free-living birds. We present what, to our knowledge, are the first systematic data collected on this behaviour. We describe the patterns of bird consumption by the monkeys. Pygmy marmosets are the smallest monkey species and thus their bird hunting behaviour is especially interesting since they are about the same size as the birds they prey upon. It has been proposed that humans are unique among primates for their ability to hunt prey that equals or exceeds their own body size. We discuss the implications that hunting of prey of equal body size by pygmy marmosets has for human evolution.

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## **Bonobos and Chimpanzees: How Similar Is Their Cognition and Temperament?**

*Esther Herrmann*

Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany  
E-Mail: eherrman@eva.mpg.de

*Key Words:* Cognition · Temperament · Chimpanzees · Bonobos

Despite the evolutionary closeness of bonobos (*Pan paniscus*) and chimpanzees (*Pan troglodytes*), the behaviour of these two *Pan* species differs in crucial ways. A few key differences were revealed when both species were compared on a wide range of cognitive problems testing their understanding of the physical and social world (Herrmann et al., 2010). The tests of physical cognition consisted of problems concerning space, quantity, tools and causality, while those of social cognition covered social learning, communication, and Theory of Mind tasks. A further comparison of bonobos and chimpanzees in two main temperamental components, reactivity and self-regulation (Rothbart and Derryberry, 1981), was conducted to investigate other possible species differences. Subjects were presented with five temperamental tasks. The first two tasks investigated subjects' approach-avoidance behaviour in novel or uncertain situations. A third task tested subjects' inhibitory control skills: apes were required to inhibit a prepotent response for a just-learned successful action and had to find a new solution to a problem. Tasks four and five investigated subjects' attentional control. Apes were either tested for how well they remained focused on a problem despite a sudden distracting noise, or how persistent they were in solving a task in the face of failure. In addition, I will discuss the results in light of socio-ecological differences across the two species and what role temperamental factors might play in explaining any differences we might find across the species with regard to their cognitive performances.

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## **A Large, Continuous, and Stable Population of Eastern Chimpanzees Inhabits the Forests of Northern DR Congo**

*Thurston C. Hicks<sup>a</sup>, Sandra Tranquilli<sup>b</sup>, Hjalmar Kuehl<sup>a</sup>, Genevieve Campbell<sup>a</sup>, Jeroen Swinkels<sup>c</sup>, Laura Darby<sup>d</sup>, Christophe Boesch<sup>a</sup>, John Hart<sup>d</sup>, Steph B.J. Menken<sup>c</sup>*

<sup>a</sup>Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany; <sup>b</sup>University College, London, UK; <sup>c</sup>Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, Amsterdam, The Netherlands; <sup>d</sup>Lukuru Wildlife Research Foundation, DR Congo/USA  
E-Mail: clevehicks@hotmail.com

*Key Words:* Eastern chimpanzees · *Pan troglodytes schweinfurthii*

In 2005, we collected data on encounters with chimpanzees and made counts of their nests on 160 km of line transects and 2,277 km of recce walks across a 55,163 km<sup>2</sup> area in the Central

Uele Region of DR Congo. Our transect data collected in the Bili-Gangu area revealed a nest encounter rate of 2.43 nests per km (CL = 1.79–3.28), higher than at any other site in the DR Congo and comparable to encounter rates at East African sites. On these transects, we found a higher nest encounter rate in the remote forest [3.85 nests per km (CL = 2.51–5.87)] than in the area closer to the road [1.56 nests per km, CL = 1.07–2.26]. On our recce walks across the region, we encountered chimpanzee nests within 13 km of the largest population centres. Finally, when we re-surveyed 27 km of our earlier transects in 2012, we found no decrease in nest encounter rates. Our results suggest that the Central Uele and neighbouring regions are home to one of the largest remaining continuous populations of Eastern chimpanzees, and that in at least some forests the population remains stable as of 2012.

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## **Gestural Communication in Great Apes: Intentionality, Syntax, and Semantics**

*Catherine Hobaiter, Richard Byrne*

University of St Andrews, St Andrews, UK

E-Mail: [clh42@st-andrews.ac.uk](mailto:clh42@st-andrews.ac.uk)

*Key Words:* Chimpanzee · Gestural communication · Great ape · Language origins

We will describe the communication of great apes with particular attention to the development and use of the rich repertoire of gestures employed in intentional communication. We will focus on the gesturing of the free-ranging wild chimpanzees of the Budongo rainforest in Uganda, and will discuss the evidence that gestures are used intentionally by individuals of all ages across a range of contexts, including 'evolutionarily urgent' ones. We will examine the possible explanations for the combination of gestures into sequences, including any evidence for syntactic like structures, persistence following failed communication, and the refinement, through experience, of a large repertoire of available gesture forms to a focused repertoire of regular use. Finally, we will examine the case for meaning in gestural communication, whether individual gesture forms can be said to have specific meanings and, if so, whether these are consistent across signalers. We will discuss whether or not the high levels of flexibility regularly reported in previous studies remain valid in the light of evidence from a wild population, and to what extent any flexible use involves the use of several gesture forms for a single meaning, or a single gesture form for several meanings.

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## **Cultivar Feeding by Chimpanzees: From Community Variation to Conflict Mitigation**

*Kimberley J. Hockings, Matthew M. McLennan*

Oxford Brookes University, Oxford, UK

E-Mail: [khockings@brookes.ac.uk](mailto:khockings@brookes.ac.uk)

*Key Words:* Cultivar · Chimpanzee · Human-primate conflict · Feeding traditions

With the large-scale conversion of natural habitats to other land-uses such as farming, numerous wildlife species are increasingly exposed to novel food sources – cultivated foods. Cultivar feeding by primates is a major source of conflict globally, impacting local livelihoods and impeding conservation. Although endangered, chimpanzees (*Pan troglodytes*) occur in areas of anthropogenic influence throughout tropical Africa. Here, we explore species-wide patterns of cultivar consumption by chimpanzees, and take an in-depth look at differences in cultivar selection in two chimpanzee communities living in forest-farm mosaics in East and West Africa. The avail-