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The Chimpanzees of Bossou and Nimba

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In southeastern Guinea, on the border of Liberia and the Ivory Coast, some 2,500 humans live as close neighbors to a group of chimpanzees named for the village that the two species share: Bossou. In the 1960s, the pioneering Adriaan Kortlandt tested the reaction of the chimpanzees to encountering a stuffed leopard, but it was in 1976 that the major scientific importance of the Bossou population began to be realized when Yukimaru Sugiyama launched a systematic observation of their ecology and behavior. Sugiyama was soon joined by others including Tetsuro Matsuzawa (1986) and Tatyana Humle (1995). Research on this population has been year-round since the 1990s. International and multifaceted, it includes a substantial amount of non-invasive experimentation and a large commitment to conservation management. The objects of this intense research activity are a community that was never counted at more than 23 and is now a mere 13. But if the Bossou population is tiny, its story is fascinating.

The Bossou chimpanzees occupy 6 km² of sacred forest and farm bush almost a day's journey from any others of their species, and in apparent response to their strange isolation they challenge various demographic and behavioral generalizations. Compared to other wild chimpanzees they reproduce fast and early (average first birth at 10.6 years), and there are hints of male transfer: 6 adolescent males have disappeared (as if by emigration) and 2 adult males immigrated separately for a few months each. Curiously no females have immigrated, so for a 27-year period up to 2003, most of the breeding was by the same 7 adult females. But despite (or maybe because of?) its cultural inbreeding, this little group has developed a particularly rich set of socially learned traditions, and it is those that are the focus of more than half the 40 chapters of *The Chimpanzees of Bossou and Nimba*.

Much of this material has been published elsewhere, but Matsuzawa, Humle and Sugiyama have made a major contribution by assembling 29 authors in an integrated and wide-ranging account of the culture and behavior of Bossou chimpanzees. While traditions such as pestle-pounding, algae-scooping and arboreal ant-dipping get individual chapters, nut-smashing has such great ecological and evolutionary significance that the editors award it a kaleidoscope of perspectives including detailed biogeographies, experimental work in captivity, rich observational detail, field experiments and much cognitive analysis. Given that a plausible model of hominin origins involves a small population evolving by allopatric speciation from a chimpanzee-like ancestor, this rich and well-rounded account should be equally appreciated by primatologists and anthropologists.

The editors deserve congratulations for two special contributions that complement this satisfyingly balanced and integrated book. First, *The Chimpanzees of Bossou and Nimba* comes with a video offering hours of high-class viewing. Its 7 sections include not just the details of tool-using at Bossou but a vivid portrayal of social life. For teachers, these superb clips go a long way towards justifying the horrendous price of the book.

Second is the fact that concerns related to conservation permeate the book in intellectually interesting and practically important ways. They are found in discussions of the relationships between humans and chimpanzees, chimpanzee health, interactions between Bossou and other chimpanzee communities, tree-planting, crop-raiding, health monitoring, genetic analysis, conservation education, ecotourism, the status of primates throughout the Guinea region, and even in the laterality of nut-smashing: I was fascinated to learn that although chimpanzees are rarely ambidextrous when hitting with a stone, those who are forced to shift their hand preference as a result of being snared do so without any loss of efficiency. If the Bossou population survives in Guinea, they will certainly owe the current research team. Even if they go extinct in the wild, they will live forever through the careful documentation of this appealing volume.

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