A Lone Male Chimpanzee in the Wild: The Survivor of a Disintegrated Unit-group

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ABSTRACT. K Group, originally one of the two major study groups of chimpanzees since 1965 in the Mahale Mountains National Park, western Tanzania, was almost extinct by 1983: at most seven individuals remained in the group at the beginning of 1983. K Group continued to exist for more than four years, but in 1987 a male was left alone at the age of 15 after all the other chimpanzees of the group emigrated or disappeared. Since then he has been observed sporadically for more than five years only within the former range of K Group, without having any contact with the many resident chimpanzees of the neighboring M Group, the other major study group. The present observations reconfirm the strong philopatric tendency of adult male chimpanzees.

Key Words: Chimpanzee; Pan troglodytes schweinfurthii; Social structure; Group disintegration; Transfer.

INTRODUCTION

Long-term observations on wild chimpanzees (Pan troglodytes schweinfurthii) have been made since the 1960s in both the Gombe and Mahale Mountains National Parks, western Tanzania (GOODALL, 1986; NISHIDA, 1990). Although no male chimpanzee, except for a few dependent immatures, has been seen to transfer from one unit-group (=community) to another, female chimpanzees, by contrast, frequently leave their natal groups and join other groups at adolescence and sometimes repeatedly transfer accompanied by their dependent young (NISHIDA & KAWANAKA, 1972; NISHIDA, 1979; PUSEY, 1979; UEHARA, 1981; GOODALL, 1983, 1986; KAWANAKA, 1984; TAKAHATA & TAKAHATA, 1989; NISHIDA et al., 1990). Intergroup relationships, in particular between males, are generally aggressive and include fatal attacks (GOODALL et al., 1979; NISHIDA, 1979). The basic social unit of the chimpanzee is regarded as being patrilocal (NISHIDA, 1979) or patrilineal (ITANI, 1980; KAWANAKA, 1984; but see SUGIYAMA, 1989 for a small, isolated population of P. t. verus).

K Group was originally one of the two major study groups since 1965 at Mahale (NISHIDA, 1979). By 1983, however, it became almost extinct (NISHIDA et al., 1985, 1990: for a brief summary, see below). K Group continued to exist for more than four years, but in 1987 the last male of the group was left alone after all the other individuals emigrated or disappeared. Still, he has been seen sporadically for more than five years since then. Such a life style of male chimpanzees has never been recorded before. Here we describe
the final process of disintegration in K Group as well as the association and ranging patterns of the last male in relation to other chimpanzees, and discuss the implications of the group's disintegration and the lone male's life style in light of the social structure of wild chimpanzees.

METHODS

Chimpanzees of K and M Groups were provisioned with sugarcane and bananas and habituated in 1966 and 1968 respectively. All the chimpanzees of these two groups have been individually recognized, although artificial feeding, practiced mainly at the two research camps (Kansyana and Myako: Fig. 1), was drastically reduced since 1981 and has been completely abandoned since 1987 (NISHIDA, 1990). In the earlier periods of research

![Fig. 1. Home ranges of the chimpanzee groups in the 1970s, locations of the two research camps (Kansyana and Myako), and observation points of Limongo between 1983 and 1992. Solid circles indicate the observation points of Limongo during Period I (between January 1983 and August 1987) and open circles during Period II (between September 1987 and December 1992). The solid circle at Myako Camp represents three separate cases and the open circle at Kansyana Camp seven separate cases, respectively. Each circle only shows the spot where Limongo was first seen on respective days. M Group has expanded its range further north since the 1980s to include the former exclusive range of K Group (NISHIDA et al., 1985).]