SHORT COMMUNICATIONS

Laboratory and Feral Hybridization of *Ateles geoffroyi panamensis* Kellogg and Goldman 1944 and *A. fusciceps robustus* Allen 1914 in Panama

RICHARD N. ROSSAN and DAVID C. BAERG
Gorgas Memorial Laboratory

ABSTRACT. A viable, male progeny resulted from a two-year captive pairing of a male red spider monkey (*A. g. panamensis*) and a female black spider monkey (*A. f. robustus*). While the pelage colorations of the parental species are distinctive, the offspring was intermediate in appearance during maturation. Such hybridization apparently occurs naturally in Panama; two feral spider monkeys, captured from an area of sympatry in the Province of Panama east of the Canal Zone, were characteristic of the laboratory cross.

INTRODUCTION

According to HANDLEY (1966), *Ateles geoffroyi panamensis* is one of three subspecies of red spider monkeys found in Panama, whereas the black spider monkey is represented only by *A. fusciceps robustus*. The former inhabits primarily the central and western portion of the country, while the latter is restricted to the eastern sector. Gross identification of the Panamanian *Ateles* is based on hair color and facial pigmentation, and is consistent for males and females; detailed descriptions of the subspecific patterns are given by KELLOGG and GOLDMAN (1944). Their reproduction has been studied by EISENBERG (1973).

No interbreeding among *Ateles* species was reported in a check list of primate hybrids compiled by CHIARELLI (1971). Our observations on this occurrence in Panama are presented herein.

RESULTS AND DISCUSSION

The male parent, *A. g. panamensis* (Fig. 1A), was acquired as an adult in November, 1967 from an undetermined locality in Panama. The female *A. f. robustus* (Fig. 1B), also purchased as an adult in December, 1966, was collected from Chepo (50 km northeast of Panama City). In November of 1968, both monkeys were transferred from Gorgas Memorial Laboratory (GML) in Panama City to a secluded animal holding facility in rural Chorrera; there they were placed in a single gang cage (Fig. 1D). Other monkeys, as well as domestic animals, were housed adjacently in the Chorrera compound.

Although no copulation was noted for the pair (having been attended daily), two years later in December, 1970 a full term male offspring was born. A weight of 1.6 kg was recorded at seven months, indicating normal growth (Fig. 1C). Through that

Fig. 1. **A**: *Ateles geoffroyi panamensis*, male parent. **B**: *A. fusciceps robustus*, female parent. **C**: Hybrid male, 7 months old (loss of right foot due to trauma). **D**: Gang cage used for pairing. **E** and **F**: Apparent feral hybrids, juvenile males.

time, he possessed a rufous cast restricted to the ventral aspect. This gradually darkened over the next four years, resulting in a greater resemblance to the mother. The non-pigmented circumorbital skin and muzzle, typical of *A. g. panamensis*, remained evident. Fertility of the hybrid has not been determined.

Free hybridization in Panama is exemplified by the two juvenile male spider monkeys shown in Figures 1E and 1F. Although the precise location of capture cannot be documented, they were obtained in Chepo and a nearby settlement, Pacora, both approximating an area of overlap of red and black spider monkey populations. A total of 15 *A. geoffroyi* and 59 *A. fusciceps* have been received by us from these sites over the past nine years. In field observations, GALINDO (pers. commu.) has noted such sympatry in the forests east of Chepo from the El Llano Carti road to the Icanti River (Aguas Claras) where there was a wide spectrum of pelage and facial skin coloration for spider monkeys, giving further evidence for interbreeding and with retention of fertility; skin and skull specimens are on deposit at GML.

While mating has occasionally occurred within our respective groups of *A. geoffroyi* and *A. fusciceps*, this was a first attempt at heterologous pairing. Others also have recorded hybridization of *Ateles* species in laboratory colonies (BERNESTEIN, pers. commu.) and among subspecies of *A. geoffroyi* (GRAY, pers. commu.). The present report additionally demonstrates that interbreeding appears under natural conditions. However, collection records as given by HALL and KELSON (1959) and at our laboratory (unpublished data) show that integrity of *A. geoffroyi* and of *A. fusciceps* is maintained outside the zones of cohabitation, supporting the validity of their designation as separate taxonomic entities.

REFERENCES

CHIARELLI, B., 1971. Check-list of primate hybrids. *Laboratory Primate Newsletter*, 10: 1–11.

EISENBERG, J. F., 1973. Reproduction in two species of spider monkeys, *Ateles fusciceps* and *Ateles geoffroyi*. *J. Mammal.*, 54: 955–957.

HALL, E. R. & K. R. KELSON, 1959. *The Mammals of North America*. Vol. 1. Ronald Press, New York, 546 p.

HANDLEY, C. O., JR., 1966. Checklist of the mammals of Panama. In: *Ectoparasites of Panama*, R. L. WENZEL & V. J. TIPTON (eds.), Field Museum of Natural History, Chicago, pp. 753–795.

KELLOGG, R. & E. A. GOLDMAN, 1944. Review of the spider monkeys. *Proc. U. S. Nat. Mus.*, 96: 1–45.

—Received *June 28, 1975*; Accepted *September 27, 1975*

Authors' Address: RICHARD N. ROSSAN and DAVID C. BAERG, *Gorgas Memorial Laboratory, P. O. Box 2016, Balboa Heights, Canal Zone.*