1967

Primate Infanticide

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Laboratory Primate Newsletter, 1967, 6, no. 3, 18-19.

PRIMATE INFANTICIDE: A NOTE AND A REQUEST FOR INFORMATION

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The literature on the social relations of macaques and baboons has many references to the protectiveness of adult males toward infants (Mason, 1965). Recently, however, during an experiment on the social relations of irus macaques, I inadvertently filmed an infanticide by an adult male. The experimental procedure had called for a series of dyadic interactions between males and females. In order to control for familiarity, each male was first observed with his female cagemate before he was observed with a strange female. Since this particular male's cagemate had an infant, another female with an infant was chosen to be his stranger. The observations were made in a special observation cage into which the male and female were released almost simultaneously.

When the male was paired with his own female, he displayed the pattern of behavior that is typical of the observation situation: he mounted the female briefly and then set about to explore his surroundings. The infant he ignored completely. When, on the other hand, he was placed with the unfamiliar female, he behaved very differently. After a brief attempt at mounting, he attacked the infant where it lay clutched to its mother's ventral surface. When the mother struggled and attempted to get away, he pinned her on her back and gnawed at the infant. This attack had many surprising characteristics: (1) The male was not a particularly dangerous male. Although a very large animal with very large canine teeth, this male had never done serious harm to another animal, although he had been paired repeatedly with animals of every age and description. He fought less frequently than the average male and had tended always to direct his aggression toward other adult males, not toward females or young animals. (2) His attack was immediate. The male did not explore, did not hesitate; his teeth were into the infant within 5 seconds of the time he first saw it. (3) The attack was very intense. The male could not be deterred from his attack by the methods normally effective in breaking up a serious fight. In the 15 seconds of the attack, the male made three different punctures of the infant's brain case with his canine teeth: one between the infant's jaws and through the roof of its mouth, one just in front of the external ear, and the third just behind the external ear. (4) The attack was selective. The male attacked this infant but did not attack the infant of his cagemate when they were together moments before. (5) The attack was circumscribed. The only injuries to the infant were the three punctures mentioned above and superficial damage to the infant's face apparently made by the male's incisor teeth as he administered the middle canine puncture. The infant's limbs and body were intact.

Such an attack is almost unheard of in wild baboons or macaques. Serious damage to infants has been reported in a confined group of

hamadryus baboons (Zuckerman, 1932) and recently in a wild population of langur monkeys (Sugiyama, 1967). Sugiyama makes the interesting observation that infanticides by male langurs occurred when a male took over another male's group. The new proprietor of the group would set about to kill the infants of the former proprietor. From the point of view of sexual selection, such attacks by males taking over a group are very advantageous to the male because, as Sugiyama points out, "loss of an infant has the effect of advancing the estrus of the female."

For these and other theoretical reasons, infanticides particularly by male monkeys are very interesting. If other investigators will send me accounts of infanticides they may have observed, I will collect them and summarize them in a future issue of the Newsletter. I am particularly interested in the previous history of the relationship between the male, the mother, and the attacked infant, in the method of attack, its duration, and in the location of damage to the infant.

References

Mason, W. A. The social development of monkeys and apes. In Devore, I. (Ed.), Primate behavior. New York: Holt, Rinehart, & Winston, 1965.

Sugiyama, Y. Social organization of hunuman langurs. In Altmann, S. A. (Ed.), Social communication among primates. Chicago: Univ. Chicago Press, 1967.

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PRIMATE NOTES FROM THE SAN FRANCISCO ZOOLOGICAL GARDENS

A colony of squirrel monkeys (Saimiri sciureus) has recently been established on an outdoor island. We thought the colony would be successfully established without artificial heat since the animals were provided with a large shelter and were released on the island on April 14, 1967, when the temperatures were warmer than those recorded by Sharpe and Otis (Lab. prim. Newsltr, 1966, 5 [No. 1], 5-6). However, nine animals out of 21 were lost during the week following an unusually heavy rainy period. The shelter was then heated by means of a kerosene heater and no more losses were recorded.

A male chimpanzee, "Hack," at our zoo is diabetic and is currently being treated satisfactorily with daily oral ingestion of 250 mg. of Diabinese (chlorpropamide).

An apparently notable record is the birth on October 31, 1966, of a black white-handed gibbon (Hylobates lar) to the same parents which raised a baby born to them on June 17, 1965. Parents and both young are all together in the same enclosure and have been continuously. Apparently this is the shortest interval of births recorded.--Ronald T. Reuther, San Francisco Zoological Gardens.