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Presbytis entellus: Birth in a Free-ranging Primate Troop

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ABSTRACT. During a 20-month study of two troops of *P. entellus* in a village habitat in West Bengal one of seven births was observed. The female came down to the ground 21 minutes prior to parturition and returned to the trees 19 minutes later. She was accompanied by two adult females; there was no adult male present in the troop. The amount of time spent on the ground was significantly greater than expected for that time of year.

Between January 1971 and August 1972, seven births occurred in two troops of langur monkeys (*Presbytis entellus*) living in two villages of Singur "Thana", approximately 40 km NNW of Calcutta, in West Bengal, India (OPPENHEIMER, 1973). These two troops had an average size of 12 during the study (range 10 to 15). Each troop had one adult male, except for the Apurbapur troop, which was without an adult male from 25 June 1971 to 18 January 1972. Neither troop had juvenile or subadult males. Both troops were observed from three to seven days a week by separate teams of observers. Team members worked in shifts which varied in the amount of overlap.

On 7 September 1971, the Apurbapur troop was observed from 1035 to 1815 hours. All the troop members (four adult females, four juveniles, and two infants of four and approximately six months age) remained up in the trees from 1035 till 1555, though prior to 1215 two of the adult females had not been observed. At 1545 the troop moved to a grove of predominantly mango trees, and five minutes later they were eating leaves in a drumstick tree (Moringaceae: *Moringa oleifera* Lam.).

At 1600 a pregnant female came down to the ground. She sat there until 1612, at which time she lay down on her left side. At this point, two other adult females started to watch the female on the ground, and at 1615 they also came down and sat near her feet. At 1621 the expectant mother made movements indicating pain or uneasiness, but remained on her side. A few moments later the black furred infant emerged head first and the mother sat up. The two other adult females remained seated near the mother, but started to look around as if they had just become aware of their exposure on the ground. At 1625 the mother brought the infant to her chest and by 1630 the infant had started to suckle. This continued until 1640 when all three females climbed back into the drumstick tree. The mother sat with her infant until 1650, when she started to groom it. Grooming continued up to 1700 when the troop's rest period ended, and the troop moved from the "mango" grove to a bamboo grove nearby. During this progression the infant clung to its mother's venter. No observation was made of the placental membranes.

During the month of September, the Apurbapur langurs spent less than 0.5% of their daylight hours on the ground; only one-third of this time was spent resting and

two-third were devoted to travel. On 7 September, the langurs, i.e. the three females, spent 1.2% of their time on the ground and none was devoted to travel. This was significantly more time than the average for the month ($p<.005$), and stresses the importance of coming down to the ground for parturition.

The observations reported here share some similarities to those made in captivity by MCKENNA (1974). MCKENNA observed a *P. entellus* female give birth on the floor of her enclosure at 0822 hour. She was accompanied by a two-year old female. The female gave birth while lying on her side (left), though after three-quarters of the infant had emerged, she got up on all fours. The placenta was expelled three minutes after birth. MCKENNA also observed that the female inserted her fingers into the vulva and later used her hands to help the emerging infant. Such activities were not recorded by the field observers in this study, though it is possible they occurred. In the captive situation, MCKENNA reports that juvenile females approached and smelled the infant within 15 seconds after birth, a juvenile female was able to hold the infant a quarter of an hour later, and that during the birth process the other members of the langur colony were tense and excited. Contacts or attempts to make contact with the infant by other troop members did not occur here within 39 minutes after birth. Also, other than the accompaniment of the two adult females, the other troop members continued with their previous activities.

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