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Reproductive behaviour and development of the young of the chacoan peccary (*Catagonus wagneri* Rusconi, 1930) in the Paraguayan Chaco

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Proyecto Taguá, Filadelfia, Boqueron, Paraguay

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Herein, anecdotal information on Taguá reproduction and development is described; findings are compared to reproduction and development of other Tayassuidae species where information is available. The study facility (Proyecto Taguá), located in the Central Paraguayan Chaco, has been described in detail elsewhere (i.e., Handen and Benirschke 1991; Kingswood and Brooks 1991), and is part of the natural range of Taguá, as wild specimens (two adults and a three month old infant) were sighted on the estancia where the study site was located. Semi-captive Taguá were studied for a year (September 1989 to August 1990); study times varied between 0530–2000 hours, though most of the study durations were from 1400–1800 hours. Observations were made from one of two high-seat blinds, and complemented by random observations on foot.

Copulation occurred among adults (male = M1, female = F1) on November 1, 1989, at 1510 hours, with a temperature of 34 °C. Actual conception remained unconfirmed, but F1 gave birth 184 days later. Two days after this copulation (1210 hours, 34 °C), M1 was observed following F1 next to a tajamar (temporary, manmade pond), exhibiting precopulatory behavior. Another male (who was dominant over M1) approached M1 and F1 with his dorsal hair halfway erected. M1 then declined, and the pair exhibited what was probably a submissive behaviour, rooting in tajamar mud, side by side. Then shortly thereafter, M1 sniffed the ano-genital region of another Taguá which proceeded with a head-slice movement against M1. F1 exhibited precopulatory behaviour with an alternate male while in the presence of M1; immediately afterwhich, F1 exhibited precopulatory behaviour with M1. M1 also exhibited precopulation and air-mounting with an alternate female. From these observations, it seems likely that promiscuity was present in both sexes. Due to hierarchial rank or inhibition by the female, some males were unable to proceed with precopulatory behavior. Social order between sexes in Taguá appears to be complex, and remains largely unknown. Precopulatory behavior was observed most frequently from May 9 to June 8, between the hours of 0730–1600, with temperature varying between 16 °C–30 °C.

The earliest recorded age-specific fertility at Proyecto Taguá was a litter of three at a maternal age of 21 months (n = 1). Mayer and Brandt (1982) estimated the youngest pregnant Taguá sow (n = 1) in their study to be 13–18 months of age. Comparatively, the youngest collared peccary sows (n = 2) in Sowls (1966) study gave birth at 13.5 months. White-lipped peccary sows become sexually mature at 18 months (Eisenberg 1989). Litter sizes at Proyecto Taguá ranged from 1 to 4 (N = 9; SD = 1.1; mode = 3); whether or not infanticide occurred is unknown. The findings of Mayer and Brandt (1982) are similar; the average litter size at Proyecto Taguá was 2.33, whereas Mayer and Brandt (1982) had an average of 2.46 (N = 10; r = 1–4; mode = 2–3) for neonatal litters sighted live in the field. Additionally, a mean litter size of 2.17 (N = 29; r = 1–4; mode = 2) was obtained in collared

peccaries (Sowls 1966). Mayer and Brandt (1982) reported 2 fetuses from a pregnant white-lipped peccary sow (N = 1) collected in the Paraguayan Chaco, and indicated that litters of 3 were rare. Frädrich (1972) reported that 9 of 10 white-lipped peccary litters at the Berlin Zoo consisted of twins.

Data were collected daily for specific individuals of the 21 young born at Proyecto Taguá as of August 9, 1990. Learning processes are summarized hereafter (mean age [days] with range [r] when a particular learning process was first observed for n individuals appears parenthetically at the end of each account) as follows: Feeding: mouthing food or maneuvering with nose, but not eating (n = 4; mean = 4.0; r = 2–6); nibbled or chewed food, but no consumption (n = 3; mean = 13.5; r = 13–15); rubbed at top layer of soil with snout (n = 1; mean = 14.0); ate solid food for first time (n = 4; mean = 18.0; r = 17–19); maneuvering food with foot and mouth (n = 4; mean = 26.5; r = 14–39). Litter cohesion: litter of three came to feeding area together for first time (n = 2; mean = 6.0; r = 4–8). Survivorship skills: Taking cover on ground, or behind adult when warning stimulus is elicited (n = 3; mean = 5.1; r = 5–6); eliciting warning stimulus (n = 1; mean = 54.0). Intraspecific competition: individual pushes a younger nursing infant, in order to nurse (n = 2; mean = 13.5; r = 8–19); average proportion of days younger infant was than competitor (n = 2; mean = 0.7; r = 0.6–0.8). Playing: infants play fighting (n = 2; mean = 23.5; r = 22–25). Independence: arriving at feediung area alone, with infants, or staying behind after others left (n = 6; mean = 192.5; r = 70–248).

The infants were able to run within a couple of hours after birth. The pelage was not completely dry prior to first quadrupedal movement. Nursing was done from the side, from the rear, standing up, kneeling on front knees, sitting, or kneeling on all four legs. Standing up from the side was the most frequent position. It was common for infants and older juveniles to nurture infants, much as the adults did. Nurturing Taguá were not always related to the nurtured individual, suggesting that Taguá maintain strong inter-familial group cohesion.

Literature

Eisenberg, J. F. (1989): Mammals of the Neotropics. Vol. 1: The Northern Neotropics. Chicago: University of Chicago Press.

Frädrich, H. (1972): Swine and peccaries. In: Grzimmek's Animal Life Encyclopedia. Ed. by B. Grzimek. New York: Van Nostrand Reinhold. Pp. 76–108.

Handen, C. E.; Benirschke, K. (1991): Giant Chaco peccary: feeding and social behavior of a captive group in a natural habitat. Zoo Biol. 10, 209–217.

Kingswood, S. C.; Brooks, D. M. (1991): Captive management of Taguá (Chacoan Peccary) in Paraguay. Anim. K. Forum 18, 129–132.

Mayer, J.; Brandt, P. (1982): Identity, distribution, and natural history of the peccaries. Tayassuidae. In: Mammalian biology in South America. Univ. of Pittsburgh: Spec. Publ. Serv., Pymat. Lab of Ecol. Vol. 6, 433–455.

Rusconi, C. (1930): Las especies fosiles Argentinas de pecaries (Tayassuidae) y sus relaciones con las del Brasil y Norte America. Ann. Mus. Nac. Hist. Nat. "Bernardino Rivadavia" 36, 121–241.

Sowls, L. K. (1966): Reproduction in the collared peccary (*Tayassu tajacu*). In: Comparative biology of reproduction in mammals. Ed. by I. W. Rowlands. London: Academic Press. No. 15, 155–172.

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