

Gibbon Menstrual Cycle and Breeding Study

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OBJECTIVE: In this study the reproductive cycle of the female gibbon and semen of the male gibbon are characterized and related to other physical parameters of breeding performance with the ultimate goal of obtaining reproduction of the gibbon in a laboratory environment.

DESCRIPTION: Data characterizing the female menstrual cycle has been obtained by daily vaginal swabbing and visual observation for the presence of blood and measuring the degree of vulvar eversion in females believed to be reproductively normal.

PROGRESS: The degree of variation in the length of the menstrual cycle and the duration of menstrual bleeding confirms previous observations that regularity in the gibbon is a yet to be discovered exception to the rule that the gibbon has a completely irregular menstrual cycle. By broadly generalizing, it appears as if the duration of the cycle is commonly 19–23 days, with the menstrual flow occupying from 2–4 days of this cycle Table 1. Periods of amenorrhea, lasting up to 116 days, seem to be multiples of the basic cycle time interval. These periods of amenorrhea also occurred most frequently during the months of April through September, so it may be that gibbons tend to be more reproductively quiescent during these months. Table 2. Two baby gibbons were born during the report period from a total of eight breeding pairs present in the laboratory. One of these babies was born prematurely and did not survive.

Table 1. Chronological Characteristics of the Menstrual Cycle in Seven Gibbons

#	D ₁	I ₁	D ₂	I ₂	D ₃	I ₃	D ₄	I ₄	D ₅	I ₅	D ₆	I ₆	D ₇	I ₇	D ₈	I ₈	D ₉	I ₉	D ₁₀	I ₁₀	D ₁₁	I ₁₁	D ₁₂	I ₁₂	D ₁₃	I ₁₃	D ₁₄	I ₁₄	D ₁₅	I ₁₅	D ₁₆	I ₁₆		
B7	1	87	2	17	3	23	4	82	4	18	2	28	3	24	2	21	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B14S	2	114	2	27	2	21	1	29	3	19	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B88	3	20	2	105	1	32	2	15	3	70	2	14	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B66S	3	17	3	17	3	40	3	21	1	20	4	18	3	18	2	19	2	18	2	21	3	19	4	—	—	—	—	—	—	—	—	—	—	—
B70	2	114	1	22	2	116	1	26	2	25	2	(Outside cage 9 Jan 71)		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B85	1	17	1	18	1	33	2	18	3	18	3	32	5	14	4	38	3	20	3	15	3	20	3	16	3	16	3	17	2	19	2	18	3	—
P7	1	18	1	67	3	54	3	22	3	26	3	17	5	15	3	39	3	39	3	17	4	—	—	—	—	—	—	—	—	—	—	—	—	—

D₁ & D₂ = Duration of menses in days

I₁ & I₂ = Interval between menses in days

Table 2. Frequency of menstruation in Seven Gibbons from January through December 1970

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Frequency of blood	7	7	6	3	2	10	4	4	4	7	11	7