

## Gibbon Growth and Development Study

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**OBJECTIVE:** The production of gibbons from the gibbon menstrual cycle and breeding program has offered a unique opportunity to measure certain parameters of growth and development in animals where birthdates are known. The purpose of this study is to relate distinctive development features to the age of these young gibbons so that the age of animals with unknown birthdates may be accurately determined.

**DESCRIPTION:** Growth and development is measured by body weight, dentition, whole body radiographs, and sexual development evaluated at quarterly intervals.

**PROGRESS:** Skeletal radiographs have been made quarterly on gibbon Pc-1 at 39, 42, 45 and 48 months of age. No readily detectable skeletal changes, such as closure of epiphyseal plates in bones that are being checked, occurred between the age of 3 and 4 years. Between 36 and 48 months of age Pc-1 gained 0.7 kg. to reach a final weight in December, 1971 of 4.9 kg. Significant developments in dentition occurred during this time. They were:

Age	Dental Formula			
	Incisors	Canines	Premolar	Molar
36 mos	$\frac{1 \ 2}{1 \ 2}$	$\frac{(1^*)}{(1)}$		$\frac{(1) \ (2) \ 1}{(1) \ (2) \ 1}$
39 mos	$\frac{1 \ 2}{1 \ 2}$	$\frac{(1)}{(1)}$		$\frac{(1) \ (2) \ 1}{(1) \ (2) \ 1 \ 2}$
42 mos	$\frac{1 \ 2}{1 \ 2}$	$\frac{(1)}{(1)}$	$\frac{\text{---}}{1}$	$\frac{(1) \ 1 \ 2}{(1) \ 1 \ 2}$
45 mos	$\frac{1 \ 2}{1 \ 2}$	$\frac{(1)}{(1)}$	$\frac{1 \ 2}{1 \ 2}$	$\frac{1 \ 2}{1 \ 2}$
48 mos	$\frac{1 \ 2}{1 \ 2}$	$\frac{(1)}{1}$	$\frac{1 \ 2}{1 \ 2}$	$\frac{1 \ 2}{1 \ 2}$

\* circled figures are juvenile teeth.