

## Behavior and Ecology of Gibbons on Kled Kaeo Island.

Principal Investigator: Warren Y. Brockelman, CPT, MSC

Associate Investigators: Dennis O. Johnsen, MAJ, VC  
Robert L. Hickman, MAJ, VC  
William L. Wooding, MAJ, VC

Assistant Investigators: James P. Slowey, SFC, E-7  
Ronald E. Marshall, SP5, E-5

OBJECTIVE: The primary objective of placing gibbons on Koh Kled Kaeo was to establish a self sustaining colony under seminatural conditions and to study those aspects of behavior related to reproduction in a free ranging environment.

DESCRIPTION: Field observations are made periodically on the social behavior and ecology of the free ranging gibbons. Special attention is paid to factors that may influence reproductive activity among the animals.

PROGRESS: Twenty adolescent and adult gibbons were introduced onto the island in early 1967. At the present time seven animals remain. There are three heterosexual pairs and a single unpaired male. Deaths from undetermined causes have been responsible for the deaths of six of the original animals, two simply disappeared, and five have been returned to the Laboratory because of antisocial behaviour or medical reasons. The heterosexual pairs are composed of female 6 and male 1, female 18 and male 11, and female 14 and male 19. Male 5 is the single unpaired male.

During the report period two infants were born and the third female on the island was found to be in late gestation. Following the death of female 8, the birth of whose infant was reported in the last annual report, her baby was cared for by her mate, male 19. When male 19 subsequently remated, his new mate, female 14, assumed the task of caring for the infant. Although approximately two years passed before the birth of the first offspring, the fact that all the pairs remaining are reproducing suggests that some degree of normalcy and stability has been achieved on the island. However, the practical problems associated with maintaining these animals are indicated by their high mortality rate and the difficulty we have experienced in detecting and treating their illnesses and determining the causes of their deaths. The elusiveness of free ranging gibbons and the densely overgrown and rugged terrain on the island make it impossible to know the whereabouts of every animal each day and to capture all of them at will. There are probably ecological factors affecting the gibbons in this seminatural environment that are not common to their normal habitat in tall forests. For example there is a much greater opportunity for increased endoparasite exposure because of their greater contact with the ground. The question of whether or not a two to three year adaptive period is required for a colony such as this one to become established is one that can be answered by how well the remaining animals are able to survive.

Because of the departure of the principal investigator, behavioral data for this report is not available. Such observations are therefore limited. The paired gibbons defend a general territory whose boundaries are fluid rather than fixed and which are frequently challenged by members of other pairs or single animals. It is not uncommon for several animals to follow persons from one end of the island to the other. The presence of four new infants offers a unique opportunity to observe their behavioral and social development under circumstances that are much more favorable than feral gibbons in their normal arboreal habitat.