

**REPRODUCTIVE SUCCESS OF FEMALE TAIWANESE MACAQUES (*MACACA CYCLOPIS*)**H-H. Su

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Reproductive success of animals living in groups could be under the influence of both ecological and social factors. This study was aimed to investigate what ecological and/or social factors affect the reproductive success of female Taiwanese macaques living in female-bonded groups. Field observation on a group of wild Taiwanese macaques at Fushan Experimental Forest was conducted from August 1998 to July 2009. Information on the group size and composition was collected whenever they were tracked. Birth date, sex and mortality of infants were recorded for each adult female. Data on feeding activities and agonistic interactions of females were collected for a year. A total of 61 infants were produced in the group during the study period. Among which, 43 infants with information for the completed inter-birth interval and survivorship to one year of age were used in a generalized linear mixed model analysis to assess female reproductive success. Effects of group size, number of close kin, sex of infant, and mother's age, social rank, agonism involved, time spent on fruit and feeding rate over caterpillars on the female reproductive success were evaluated, and the identity of mothers was treated as a random effect in the model. The number of close kin of a female was significantly related to her inter-birth interval ( $F=6.69$ ,  $P<0.05$ ). Females who had more close kin had shorter inter-birth intervals. The survivorship of infant up to one year of age was however not related to any factor that was tested.

Keywords: reproductive success, social animal, close kin, *Macaca cyclopis*