

**MALE REPRODUCTIVE SUCCESS AND MASTURBATION BEHAVIOR OF JAPANESE MACAQUES IN ARASHIYAMA E TROOP**

E. Inoue

*Kyoto University, Kyoto, Japan*

*Presenter's Email: [inoue@jinrui.zool.kyoto-u.ac.jp](mailto:inoue@jinrui.zool.kyoto-u.ac.jp)*

Male reproductive success is not always correlated with male dominance rank when dominant males cannot monopolize the copulation. I observed sexual behavior and analyzed paternity in Arashiyama E troop, in which the number of females simultaneously in estrus is large and dominant males cannot monopolize the estrous females. Central adult (high-ranking) males did not attain high reproductive success and peripheral adult (low-ranking) males attained higher reproductive success. Although central males copulated with females, almost the copulation was observed when fertilization was unlikely. I also analyzed male masturbation which is suggested to be a reproductive strategy for flushing low-quality sperm. I observed 149 cases of male masturbation behavior, and 47 cases were accompanied by ejaculation. Eleven of 12 males performed masturbation behavior and 10 males ejaculated by masturbation. Three of these males used only the right hand, while one used only the left hand. Masturbation frequency was high at the beginning and the end of the mating seasons, when copulation frequency was low. The frequency of ejaculation by masturbation was not correlated with male dominance rank, but was negatively correlated with the frequency of ejaculation by copulation. Ejaculation frequency by masturbation was not correlated with the number of infants. These data suggest that female mate choice affected male reproductive success and ejaculation by male masturbation may be a strategy for flushing low-quality sperm.

Keywords: Japanese macaque, reproductive success, masturbation, sexual behavior