

MALE LIFE HISTORY AND SOCIAL STRUCTURE OF WILD JAPANESE MACAQUES

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Among wild Japanese macaques, male life history traits such as tenure in a troop and dominance rank structure tend to be similar between study populations irrespective of habitat differences. While males transfer throughout their lives alone and voluntarily, only prime adult males takeover an alpha rank when groups contain few males but most males immigrate into a group at very low rank. Male dominance hierarchy is stable during their tenure and males usually rise in rank as more dominant males emigrate or die. Most males in any rank eventually emigrate from a group with an average of 3 years of tenure and males at higher rank do not tend to stay longer in a group than subordinate males. As they mature, males get more chances of transferring into troops higher up in the male hierarchy, and their ranks basically tend to be associated with male age. Since these aspects of male life history should bring difficulties for adult males to immigrate into a troop with relatively large number of troop males, it would be expected that socioeconomic sex ratio (SSR) skews to females in larger troops within a local population in a same habitat. In this review, these troop variations are confirmed among two wild populations of Japanese macaques, using published troop composition data of Yakushima and Hakusan which represent warm and cool temperate forest habitat, respectively. This analysis shows that inter-troop variations in troop composition especially in SSR are maintained by accumulative effects of male inter-troop movement among wild Japanese macaques.

Keywords: Japanese macaques, Male life history, Troop composition, Dominance hierarchy