

**B101**      **Breeding Ecology of Black-billed Magpies in Korea (*Pica pica sericea*)**

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As a beginning of a longterm project, a preliminary field study was conducted on the general breeding ecology of black-billed magpies on the campus of Seoul National University and comparisons were made with the magpie populations in Europe (*P. p. pica*) and North America (*P. p. hudsonia*). Breeding success in 1998 measured to be 2.2 survived chicks/successful nest and the fledging success was 0.5 fledglings/marked nestling. Breeding success was lower than those of other subspecies (3.3 for *P. p. pica*; 4.0 for *P. p. hudsonia*). A large number (41%) of the nests failed during breeding season, and the main causes of breeding failure were nest desertion (17%), chick's death due to starvation, disease, etc. (10%), egg inviability (7%) and tree fall (7%). Unlike *P. p. pica*, we found no trace of predation during nestling period. Predation seemed to occur after chicks fledged. The domed structure of nest may effectively prevent predation on nestlings. Territory distribution, territory size, and distance between nests of *P. p. sericea* were closer to those of *P. p. hudsonia* than *P. p. pica*. This supports the result of recent molecular research that *P. p. sericea* is phylogenetically closer to *P. p. hudsonia* than *P. p. pica*.

**B102**      The selective response to parent call of black tailed gull(*Larus crassirostris*) chicks by learning

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The selection of the parental voice in black-tailed gull(*Larus crassirostris*) chick was investigated in a three choice apparatus. 8 chicks were learned two false of the parental mew call on a different distance at the same dB. The experiments showed that chicks selected the parent voice of a near distance between 3-7days after hatching from their eggs. The chick has two different vocal signals classed as according to physical character (number of elements call; graduation of frequency and duration; type of harmony) and behavioral functions: begging call, isolation call. The begging call is used mainly when chicks beg food. The isolation call is the most frequently used response to the parent mew call. The significance of selective response to parent mew call was means of social relationship among other nest chicks, particularly between parents and chicks.