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Abstracts

FEATURE ARTICLES

TESTS OF ECOLOGICAL, PHENOTYPIC, AND GENETIC CORRELATES OF EXTRA-PAIR PATERNITY IN THE HOUSE SPARROW

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Abstract. We performed a two-year study of extra-pair paternity in the House Sparrow (*Passer domesticus*) to test a suite of hypotheses relating to ecological factors associated with breeding conditions and parental phenotypes and genotypes. Extra-pair fertilizations (EPFs) accounted for 45 of 419 (11%) nestlings and occurred in 33 of 126 (26%) broods. EPFs were not correlated with breeding synchrony or breeding density, although they were significantly more common toward the end of each breeding season. Body size and the size of the bib, a secondary sexual character, were no different between males that were cuckolded and those that achieved full paternity in their nests. Older males were cuckolded as frequently as yearlings, and there was no difference between males that were cuckolded and those that were not with regard to two measures of individual genetic diversity. There was no evidence that females sought EPFs to avoid inbreeding, since EPFs were equally likely to be present among pairs that were closely related and those that were only distantly related, and females were equally related to their extra-pair mates as they were to their within-pair mates. Furthermore, extra-pair sires did not possess alleles that were rare in the population. In sum, despite a substantial sample size, we found few correlates of extra-pair paternity in House Sparrows.

Key words: *ecology, extra-pair paternity, genetics, House Sparrow.*