

BIRDS ALTER HABITAT SELECTION AND PARENTAL CARE BEHAVIOR IN RESPONSE TO EXPERIMENTALLY REDUCED NEST PREDATION RISK

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Avian life history theory has long assumed that nest predation plays a minor role in shaping reproductive strategies. Yet, this assumption remains conspicuously untested by broad experiments that alter environmental risk of nest predation, despite the fact that nest predation is a major source of reproductive failure. We examined whether parents can assess experimentally reduced nest predation risk, preferentially settle in safer environments, and adjust their reproductive strategies to maximize their fitness in these environments. We experimentally reduced nest predation risk and show that 8 species of migratory passerines prefer to nest in areas with reduced risk of nest predation. Parents of 12 species of passerines nesting in these safer environments increased investment in their young through increased egg size, clutch mass, and the rate they fed nestlings, and they also increased investment in female condition by increasing the rates that males fed incubating females at the nest, and decreasing the time that females spent incubating. These results demonstrate that birds can assess nest predation risk at large and that nest predation plays a key role in the expression of avian habitat selection and reproductive strategies.