

Faeces, feathers and flight: understanding of escape behaviour in incubating Eurasian woodcocks (*Scolopax rusticola*)

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Abstract

Predation is a leading cause of breeding failure as well as adult mortality in majority of bird species, prompting the evolution of various anti-predator behaviours. Among these, cryptic breeding birds often rely on strategies such as nest concealment and reduced activity to avoid detection. However, in some of them were observed also more active responses, such as defecation, when flushed from their nests. In this study, we investigate this behaviour in incubating female Eurasian woodcocks (*Scolopax rusticola*) using a large dataset of nest photographs sourced from various open-source internet platforms. Our analysis reveals that signs of defecation are obvious in 54% of nests photos. Moreover in 67% nests are visible freshly moulted feathers around the nest, indicating possible application of fright moulting — a behaviour not previously documented in this context. We give both these behaviours into the common context and suggests that may primarily serve to aid the female's escape rather than to protect the nest, though their effectiveness as anti-predator strategies remain uncertain. The presence of faeces and feathers may, in fact, increase the risk of nest predation by making the nest more conspicuous to predators. Our findings thus also emphasize the importance of minimising nest disturbance during research to preserve the integrity of nest environment. We show that open-source platforms can provide valuable data for studies of breeding behaviour in wild birds.

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