Parent-Absent Begging in Eastern Bluebirds: Structural Characteristics, Environmental Correlates, and Parental Responses

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Traditional begging signals given by the altricial young of birds serve to communicate need to parents and solicit provisions during feeding visits. Such signals often incur costs, like predation costs, which should hypothetically limit their prevalence. Counterintuitively, however, there also exist a great number of taxa whose young beg in the absence of their parents. There has been much debate in the literature regarding the costs, functions, and structures of those signals with little clear synthesis. This system presents an interesting insight into how, at both the evolutionary and individual nestling levels, behaviors such as begging may be modulated in response to shifting natural history trade-offs. Here, I conduct an exploratory study of parent-absent begging (PAB) in a species in which it has not been officially documented. I find evidence in the observed patterns of PAB that such begging may result from errant responses to stimuli potentially representing parental visits, possibly a result of a decreased “stimulus threshold” in hungrier nestlings and greater cognitive constraints on younger nestlings. I also find that the structures of PAB bouts have characteristics consistent with adaptations meant to prevent predator localization. Finally, I do not detect a significant cost to giving PAB, potentially as a result of these adaptations, or because of limitations of this study. Broadly, the present study provides an insight into a model system for understanding behavioral tradeoffs, findings which could ultimately be upscaled to understand population-level responses to shifting environments.

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