动物学报 52(Supplement): 439, 2006
Acta Zoologica Sinica

Symposium 24 New directions in avian molt ecology

Introduction

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Comprehension of feather molt and plumage sequences is of fundamental importance in avian biology. Constraints between physiological and ecological requirements have given rise to diverse molt strategies and eco-physiological adaptations that appear in regular patterns in phylogenetically distant but ecologically closely related groups. Earlier studies of molt pattern suffered from the lack of a general model for determining molt parameters (timing and duration) unambiguously, and had to rely on such temporally imprecise categories as post-breeding, complete, prebreeding and partial molt for their comparisons. New concepts and statistical methods introduced over the last two decades have now led to a sound theoretical base for the use of molt parameters in comparative and evolutionary studies.

Ecological and physiological adaptations of feather replacement and evolution of molt strategies in different taxonomic groups were principal themes in this symposium. Conservation issues linked to molt requirements, such as habitat quality, food availability, and identification and protection of molt sites, were also implicated. One of the main papers addressing these last matters, by A.D. Fox on adaptations to balance nutrient budgets during the critical period of wing molt in waterfowl (Anatidae), was given only as an oral address. Its abstract is published in the Abstract volume for the Congress.

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