

## Katma Award 2015, to Bailey McKay and Robert Zink

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AWARDS

## Katma Award 2015, to Bailey McKay and Robert Zink

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The Katma Award of the Cooper Ornithological Society is intended to encourage the formulation of new ideas that could change the course of thinking about the biology of birds. This Award, proposed and sponsored by Dr. Robert W. Storer, is to be given to the author(s) of an outstanding paper related to ornithology that offers unconventional ideas or innovative approaches, backed by a well-reasoned argument.

The Cooper Ornithological Society is pleased to present the 2015 Katma Award to **Dr. Bailey McKay**, Chapman Fellow at the American Museum of Natural History, and **Dr. Robert Zink**, Bell Museum at the University of Minnesota, for their iconoclastic paper "Sisyphean evolution of Darwin's finches" which appeared in 2014 in *Biological Reviews* (90:689–698).

Speciation is one of the oldest and most pervasive topics in ornithology. Among the many bird examples that form the foundation of current thinking about the process of speciation and what constitutes a species, no case study has been more influential than that of the Darwin's Finches of the Galapagos Islands. For decades, Darwin's Finches have been the textbook example for morphological evolution in response to changing environments. The Darwin's Finch example is widely presented as an explanation for how microevolution on bill size driven by



**Bailey McKay** 



**Robert Zink** 

natural selection can lead to macroevolution, as ecological types become species. In every current textbook on evolution, the Darwin's Finch example is used to support a process of speciation driven by local adaptation.

In a bold and thought-provoking paper published in 2014 in Biological Reviews, "Sisyphean evolution in Darwin's finches," Bailey D. McKay and Robert M. Zink challenge the fundamental premise of this textbook example of speciation in Darwin's Finches. They present a detailed morphological analysis to complement previous genetic analyses of the six putative species of ground finch in the genus Geospiza that form the Darwin's Finch complex, and report that there is insufficient genetic and morphological divergence among populations to support species-level taxonomic ranks for these finch populations. Instead, in opposition to deep-rooted conventional thinking by evolutionary biologists, McKay and Zink propose that populations of Darwin's finches are "transient morph" that have diverged in bill size and body size under strong selection for ability to use local seed resources, but that shifting adaptive landscapes and gene flow among islands constantly erode morphological and genetic differences among populations and thwart speciation. McKay and Zink call this process of formation and dissolution of locally adapted populations

"Sisyphean evolution" after the Greek king Sisyphus who was condemned to roll a boulder toward the top of a hill only to have it inevitably slide back to where it began. McKay and Zink make a strong case that there is only one species of ground finch, and that rather than unveiling the process of speciation, the Darwin's Finch case study shows that local adaptation and morphological divergence under the influence of natural selection are not sufficient to initiate speciation. In their challenge to entrenched orthodoxy regarding speciation in Darwin's Finches, McKay and Zink are deserving of the Katma Award.

The Katma Award, sponsored by Dr. Robert W. Storer, is intended to encourage the formulation of new ideas that

could change the course of thinking about the biology of birds. It is given to the author(s) of research articles, short communications, or commentaries (e.g., editorials, reviews) of any length published in any scientific venue that offers unconventional ideas or innovative approaches, backed by a well-reasoned argument. The Katma Award is given only when it is merited, no more than once a year. The Award consists of approximately \$2,500 plus a certificate, and is given at the Annual Meeting of the Cooper Ornithological Society. Katma funds also may be used for activities that are consistent with the Award, such as plenary lectures, symposia, and support of publication. A full explanation of the Katma Award was published in 2003, Volume *105*(4):843 of *The Condor*.