

Study shows species can change

December 8 2011

A study of South American songbirds completed by the Department of Biology at Queen's University and the Argentine Museum of Natural History, has discovered these birds differ dramatically in colour and song yet show very little genetic differences which indicates they are on the road to becoming a new species.

"One of Darwin's accomplishments was to show that species could change, that they were not the unaltered, immutable products of creation," says Leonardo Campagna, a Ph.-D biology student at the Argentine Museum of Natural History in Buenos Aires, who studied at Queen's as part of his thesis. "However it is only now, some 150 years after the publication of his most important work, [On the Origin of Species](#), that we have the tools to begin to truly understand all of the stages that might lead to speciation which is the process by which an ancestral species divides into two or more new species."

For decades scientists have struggled to understand all of the varied forces that give rise to [distinct species](#). Mr. Campagna and his research team studied a group of nine species of South American seedeaters (finches) to understand when and how they evolved.

The study found differences in male reproductive plumage and in some key aspects of the songs that they use to court females. Now, the group is looking to find the genes that underlie these differences, as these so-called [candidate genes](#) may well prove to be responsible for the evolution of a new species. This will allow researchers to gain insights into evolution.

"Studies like ours teach us something about what species really are, what processes are involved and what might be lost if these and other species disappear."

The findings were recently published in [Proceedings of The Royal Society](#).

Provided by Queen's University

Citation: Study shows species can change (2011, December 8) retrieved 14 August 2024 from <https://phys.org/news/2011-12-species.html>

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