

Video no youtube: https://youtu.be/CKFY_SDpBJ4

Fontes de dados

Ebird até março 2021

Inverno - maio a julho

Verão - outubro a fevereiro

Modelagem

19 variáveis bioclimáticas 1970-2000 worldclim 2.1 2.5 arcmin

Biomod2 maxent ensemble modeling script Hannah Owens gist

Do neotropical flycatchers exclude each other in breeding and wintering grounds?

Autores

Yasmin Coutinho yasmin.cout@gmail.com

Nicole Araújo nrmaraujo@gmail.com

Rafaella Dias rafaella.dds.14@gmail.com

Letícia Oliveira leticiabiotech@gmail.com

Roberto Cavalcanti rbcer10@gmail.com

Several recent studies have highlighted the important and poorly known migrations of flycatchers within the Neotropics. The city of Brasília is in the core area of the Cerrado region of Central Brazil, where we find both summer migrants such as the Crowned Slaty Flycatcher (*Griseotyrannus aurantioatrocristatus*) and winter migrants such as the Vermilion Flycatcher (*Pyrocephalus rubinus*). We made behavioral observations on both species since 2019, which suggest that summer migrants are dominant over the Vermilion Flycatcher, and in one case excluded it from an area used by both species cited above. We investigated whether there is evidence for non-overlap in the summer and winter distributions of these species, using records from the eBird database for South America through March 2021. Although we understand these records may contain data from various populations, including those with distinct migratory patterns, we decided a first cut with a general analysis would be useful. We modeled winter and summer potential distributions using the Biomod2 package from R 4.0, and the environmental data from Worldclim version 2.1 bioclimatic variables for 1970-2000 at 2.5 arc-minutes resolution. We drew on a script posted by Hannah Owens in gist, for a maxent ensemble modeling. Our results show clear differences between species in winter potential occurrence, with the Crowned Slaty Flycatcher present in the Amazonian region and the Vermilion

Flycatcher further west towards the Andes. In summer both species have a predicted range in Southern Brazil, Argentina, Paraguay and Bolivia, but the Crowned Slaty Flycatcher is predicted to have higher preference in the western part of the range, while the Vermilion Flycatcher has a non-overlapping preferred predicted area in the eastern part of the range. These results suggest there may be indeed distinct ranges between these flycatchers of very similar size and feeding habits.

Migrations hotspots biodiversity flycatchers competition