

Isotopic niches support the resource breadth hypothesis

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© 2016 The Authors. Journal of Animal Ecology © 2016 British Ecological Society Because a broad spectrum of resource use allows species to persist in a wide range of habitat types, and thus permits them to occupy large geographical areas, and because broadly distributed species have access to more diverse resource bases, the resource breadth hypothesis posits that the diversity of resources used by organisms should be positively related with the extent of their geographic ranges. We investigated isotopic niche width in a small radiation of South American birds in the genus *Cinclodes*. We analysed feathers of 12 species of *Cinclodes* to test the isotopic version of the resource breadth hypothesis and to examine the correlation between isotopic niche breadth and morphology. We found a positive correlation between the widths of hydrogen and oxygen isotopic niches (which estimate breadth of elevational range) and widths of the carbon and nitrogen isotopic niches (which estimates the diversity