

Osmoregulation and adaptive radiation in the ovenbird genus *Cinclodes* (Passeriformes: Furnariidae)

Sabat, P.

Maldonado, K.

Canals, M.

Del Rio, C. Martinez

1. The genus *Cinclodes* is unique among passerines because it includes two species that can be considered marine/coastal and also includes several species that inhabit freshwater streams or that shift habitats between terrestrial/fresh water and marine habitats. The *Cinclodes* clade satisfies two criteria of an adaptive radiation: it is monophyletic and it experienced recent speciation accompanied by rapid phenotypic diversification. 2. We focused on the osmoregulatory traits of five *Cinclodes* species to determine if the clade also satisfies the criterion of adaptive phenotype-environment correlation that characterizes adaptive radiations. We used the $\delta^{13}\text{C}$ of tissues to estimate reliance on a marine diet. We predicted that $\delta^{13}\text{C}$ would be positively correlated with the renal traits responsible for urine concentration (relative kidney size, fraction of the kidney comprising medulla, and number of medullary cones per unit of kidney mass). 3. Our analyses confirmed these hypotheses. We conclu