

# The genus *Basilichthys* (Teleostei: Atherinopsidae) revisited along its Chilean distribution range (21° to 40° S) using variation in morphology and mtDNA

Véliz, David

Catalán, Laura

Pardo, Rodrigo

Acuña, Patricio

Díaz, Angie

Poulin, Elie

Vila, Irma

There is still doubt as to the number of species of the freshwater Chilean ichthyofauna, 64 % of which have conservation problems. One of the groups is that of the silversides of the genus *Basilichthys*. Three morphological species of this genus have been described in Chile with disjoint distributions: *Basilichthys semotilus*, *B. microlepidotus* and *B. australis*; the latter two overlap in distribution only in the Aconcagua River and are not easily distinguishable by morphological and meristic characters. In order to evaluate the efficacy of identification of these species by molecular techniques, we analyzed the sequence of 9 % of the mitochondrial DNA (Control Region and COI) of individuals from the Loa River (21°41' S) to the Valdivia River (39°50' S), adding meristic features for *B. microlepidotus* and *B. australis* in order to study population variation to clarify the taxonomy of the native species of the genus. The phylogenetic analysis showed that the individuals of *Basilichthys semot*