

Summary:

The thesis comprises from the introduction and five main parts: three of them are published papers, the rest two are manuscripts prepared for submitting to the scientific journals.

The first two are published phylogenetic studies of the cichlasomatine cichlids based on (1) molecular characters, and (2) both morphological and molecular data with the description of a new genus *Andinoacara*.

The third (3) is the already published description of the new species *Andinoacara stalsbergi* from Peru combining both morphological and phylogenetic approaches and including the detailed phylogeny of the genus *Andinoacara*.

The next unpublished manuscript (4) is the more detailed comprehensive phylogeography of the two non-relative genera (including *Andinoacaras*) of the trans-Andean cichlids. Including all valid species from the majority of their distribution areas it was reconstructed the ancestral area of both genera in the Choco region, Colombia, and revealed the directions of their distribution spreading.

The last (5) unpublished manuscript is the phylogeographical study of the cichlid genus *Serranochromis* from the headwaters of the totally unknown Central Angola. It showed several evidences of the faunal exchange among the adjacent river systems.

Lastly, the thesis is supplemented by several appendices including some additional results produced during the cichlid studies, several popular papers, and some posters presented in international conferences.