

Laboratorio de Biología Acuática-UMSNH
Biología Evolutiva y Conservación



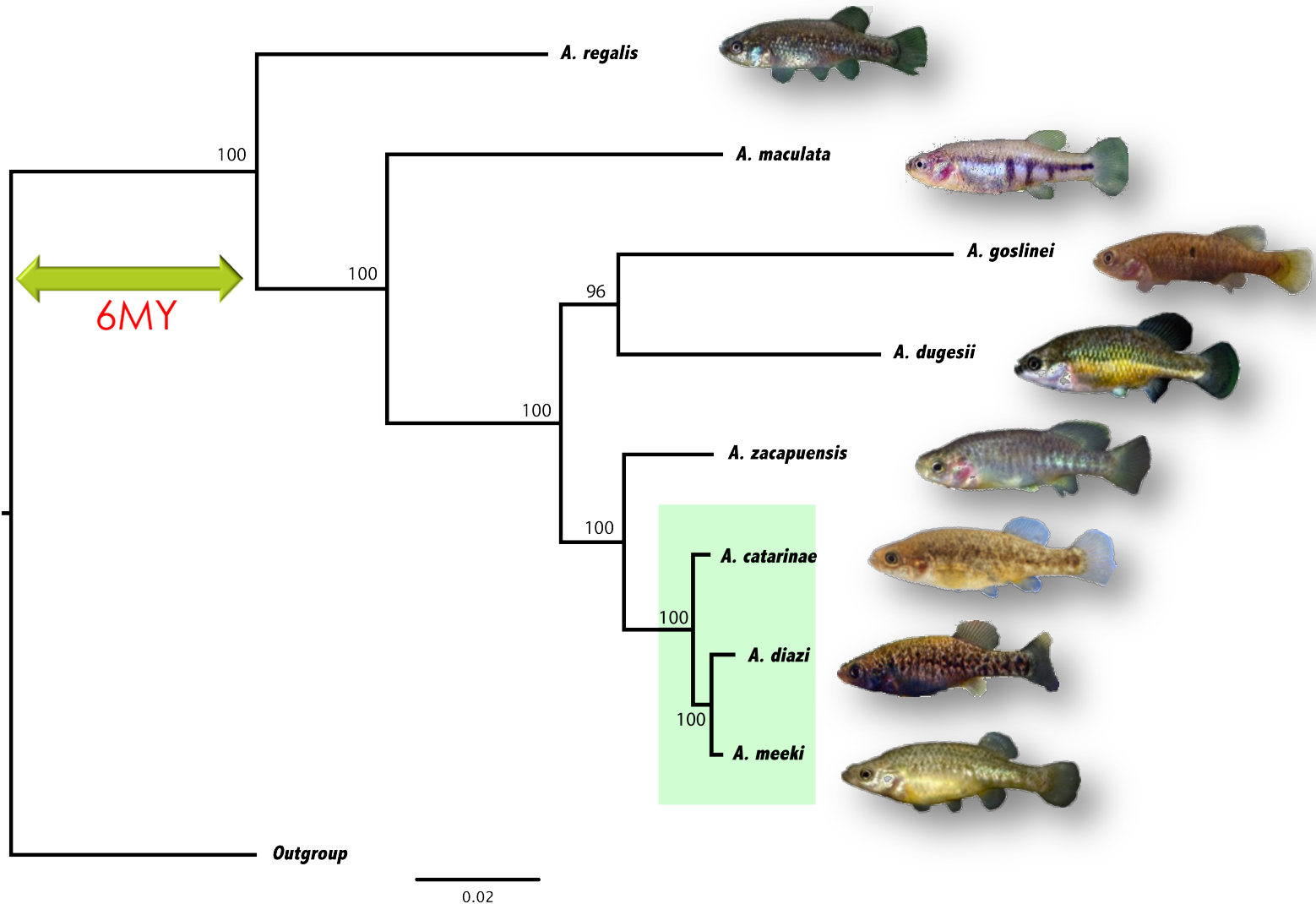
The Hard Life of The *Allotoca* and *Neoophorus* Genus: A Perspective Made From Their Evolutionary History.

Biol. Diushi Keri Corona Santiago

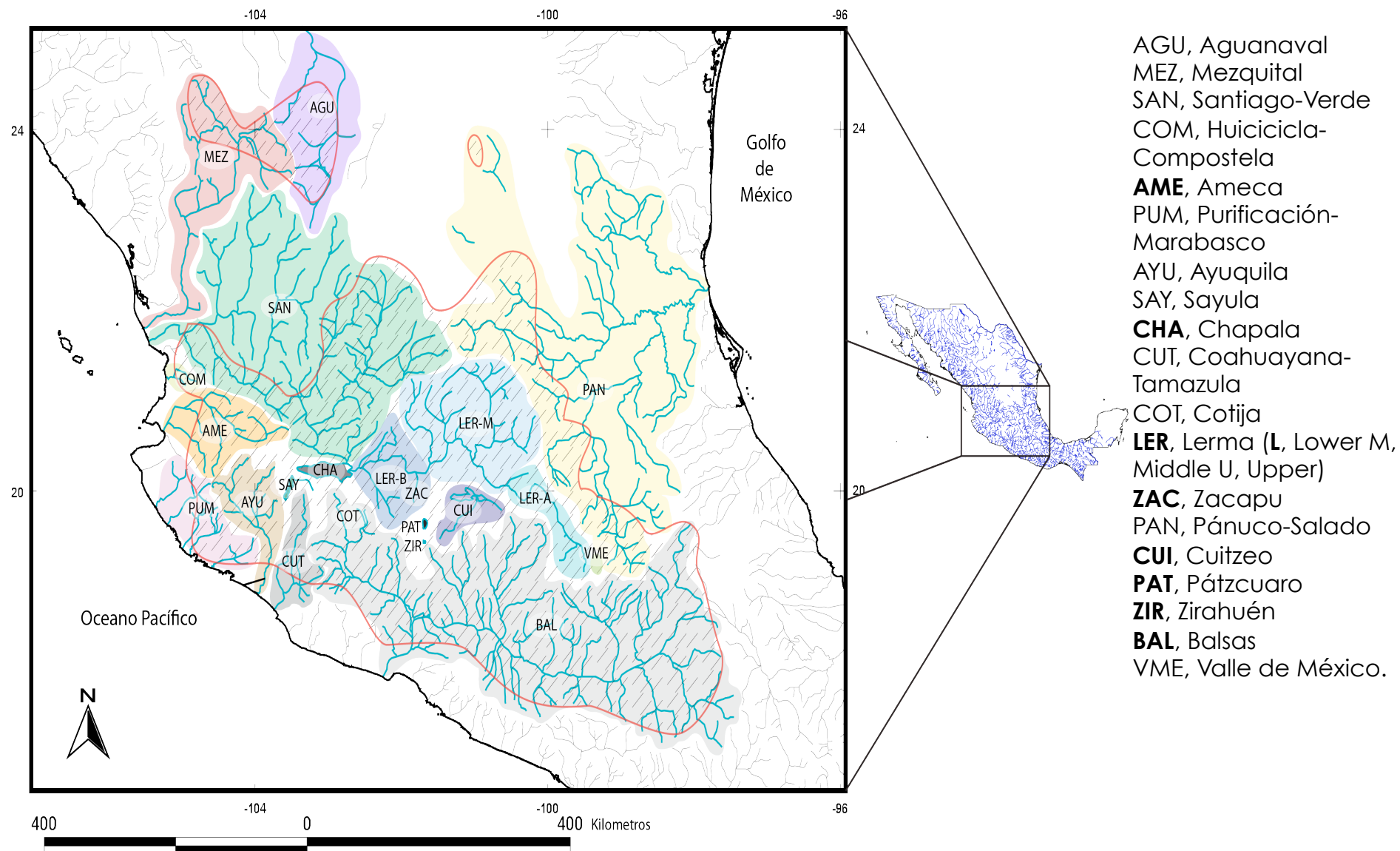


Vienne, September 29, 2012

Allotoca and Neophorus Genus



Allotoca and Neoophorus Genus



Allotoca and Neoophorus Genus

N. regalis

Distribution: Los Reyes

A. maculata

Distribution: Magdalena-Ameca Lake

A. goslinei

Distribution: Potrero Grande-Ameca

A. dugesii

Distribution: Middle Lerma

A. zacapuensis

Distribution: Zacapu Basin

A. diazi

Distribution: Pátzcuaro Basin

A. meeki

Distribution: Zirahuén Lake and Opopeo Spring

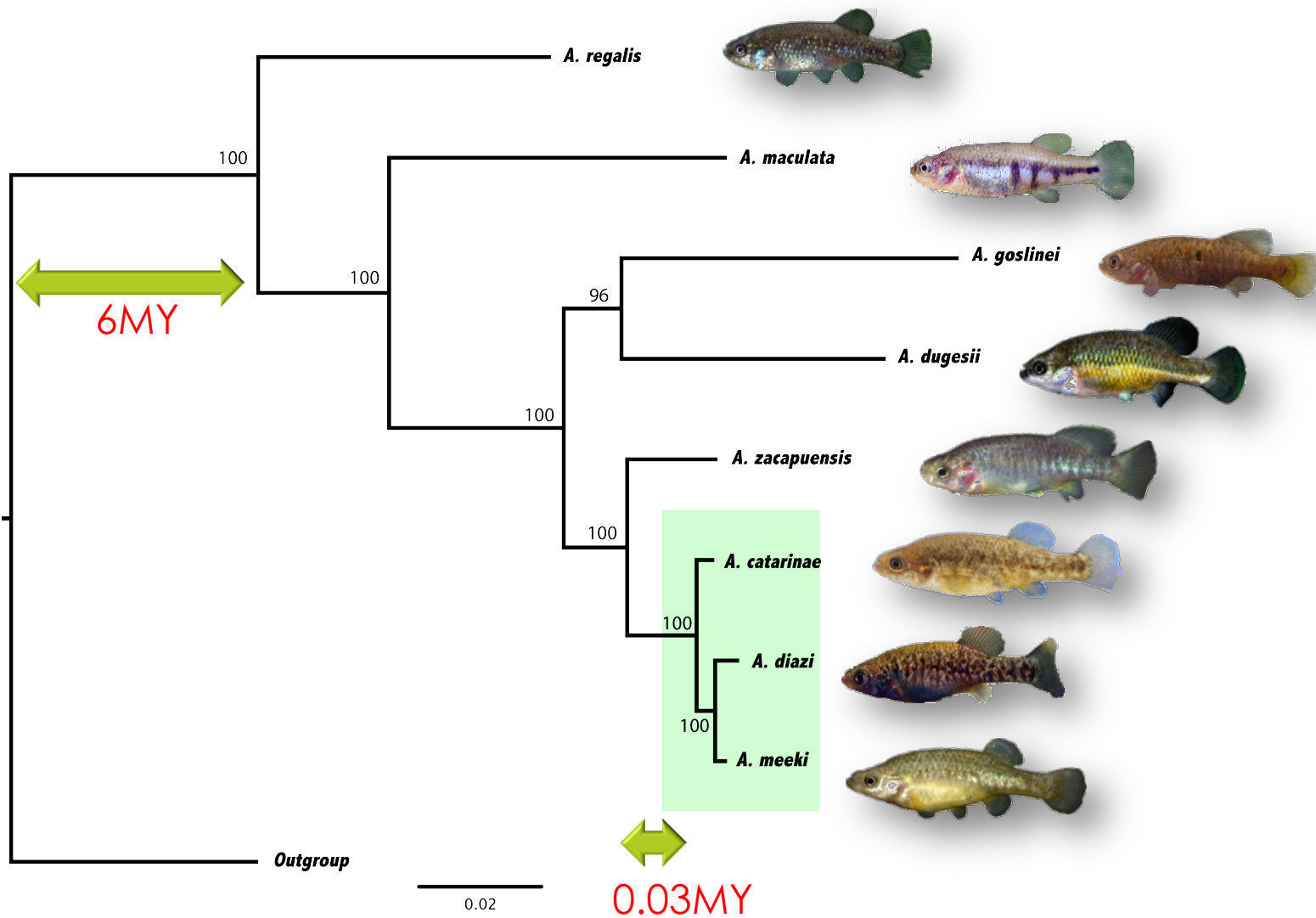
A. catarinae

Distribution: Cupatitzio Sub-Basin

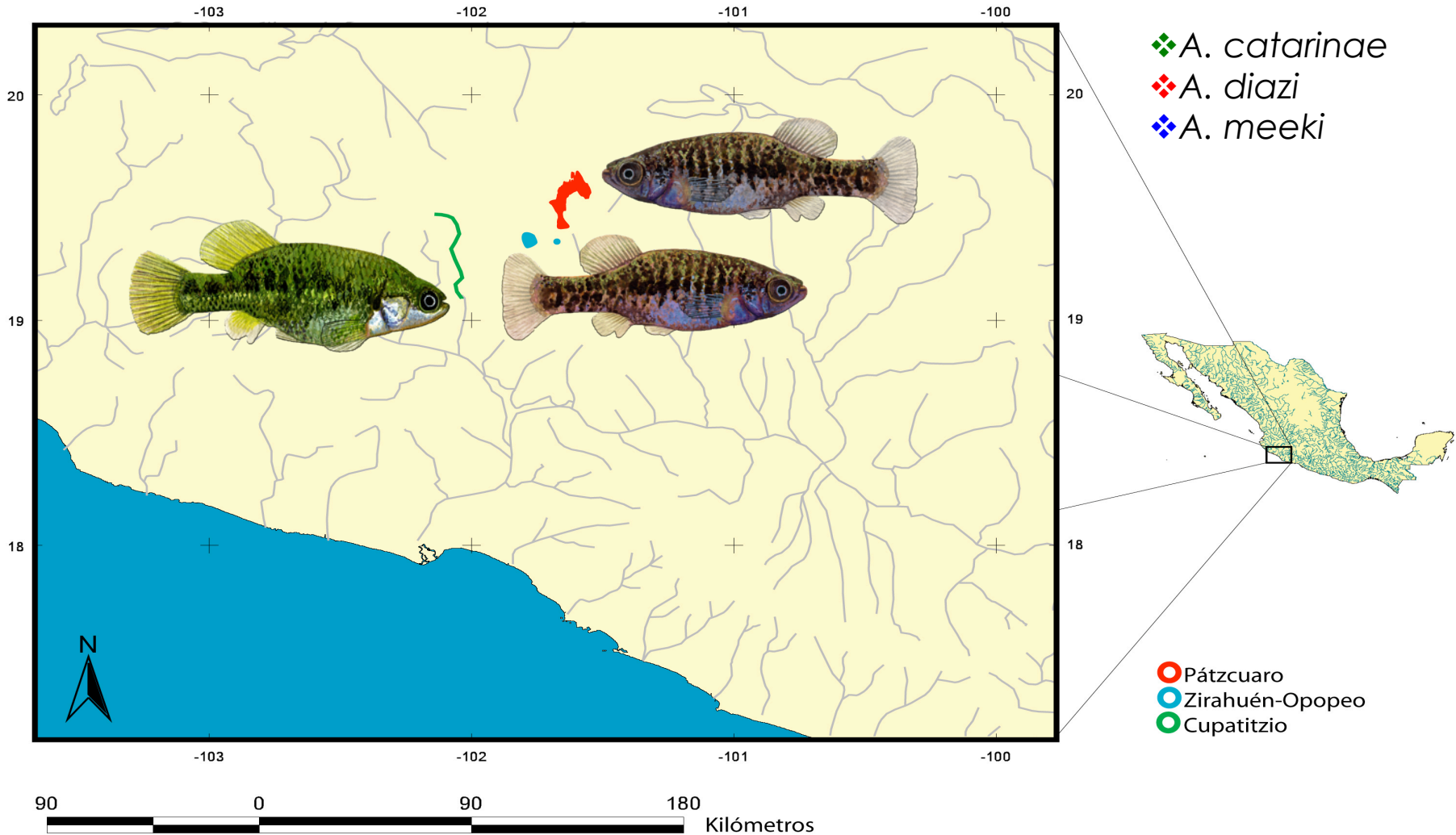


Allotoca catarinae

Allotoca and Neoophorus Genus

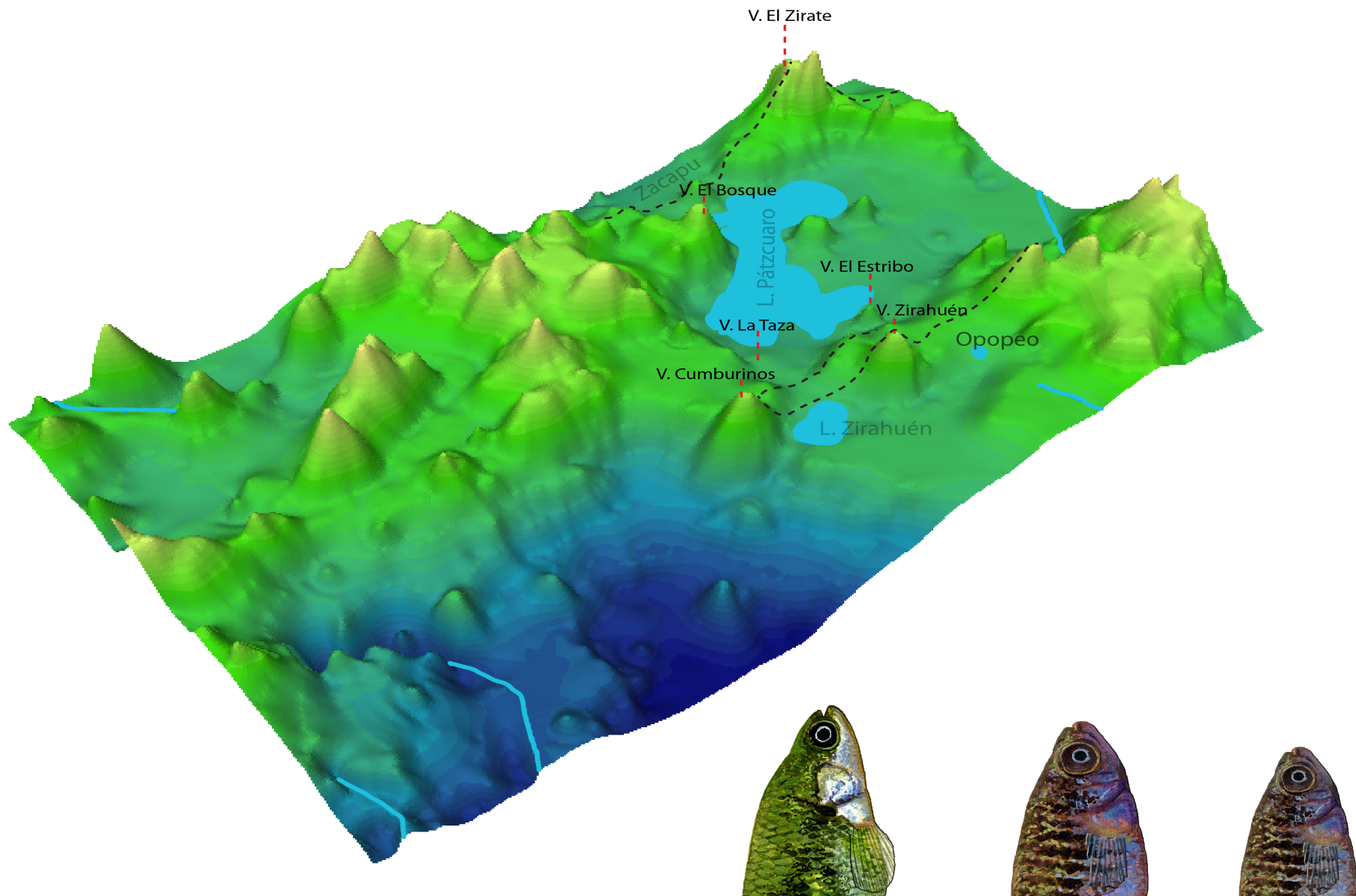


A. diazi, *A. meeki* and *A. catarinae*



A. diazi, *A. meeki* and *A. catarinae*

Michoacán Lakes History



A. diazi, *A. meeki* and *A. catarinae*

Molecular Markers:

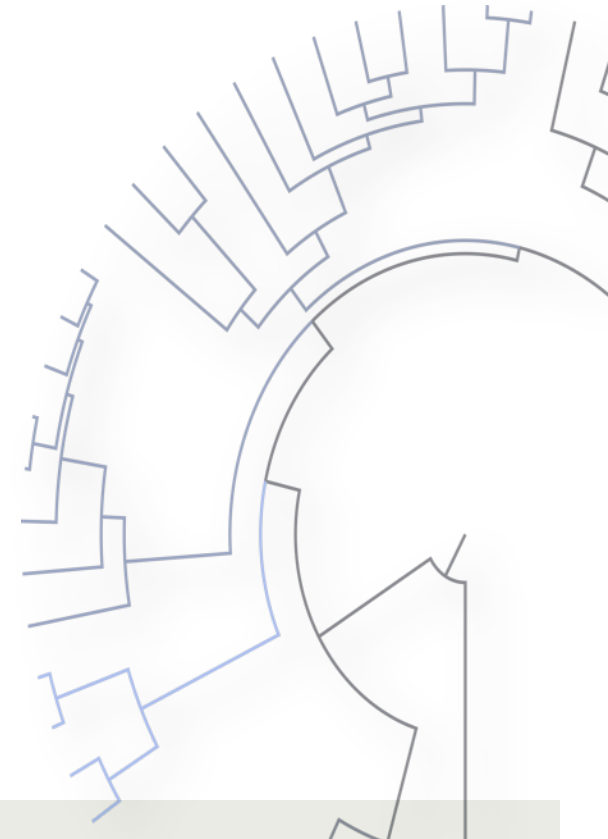
Microsatellites
Cytochrome *b*

Methodology

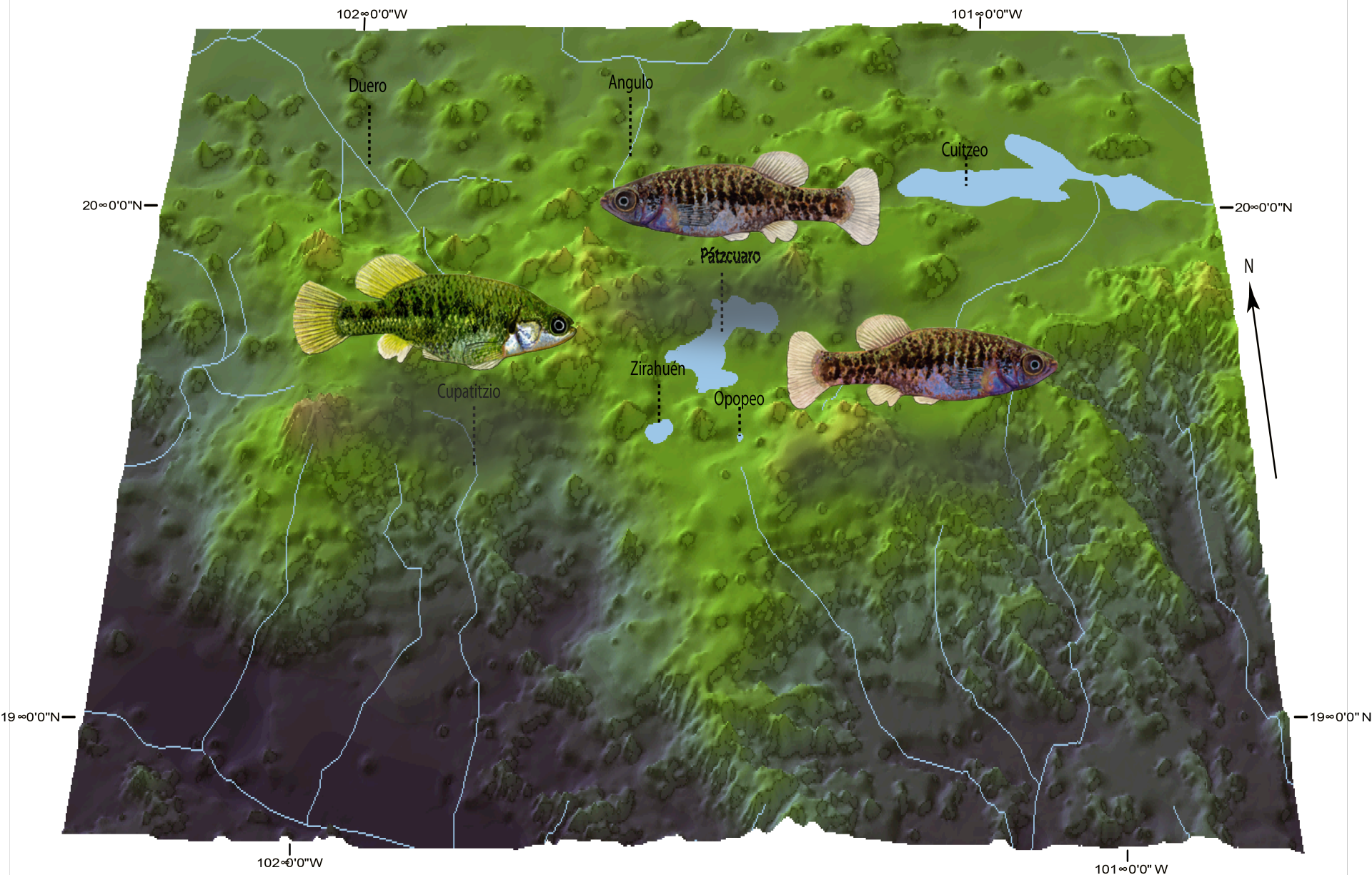
Population Genetics.

Phylogenetic Reconstruction

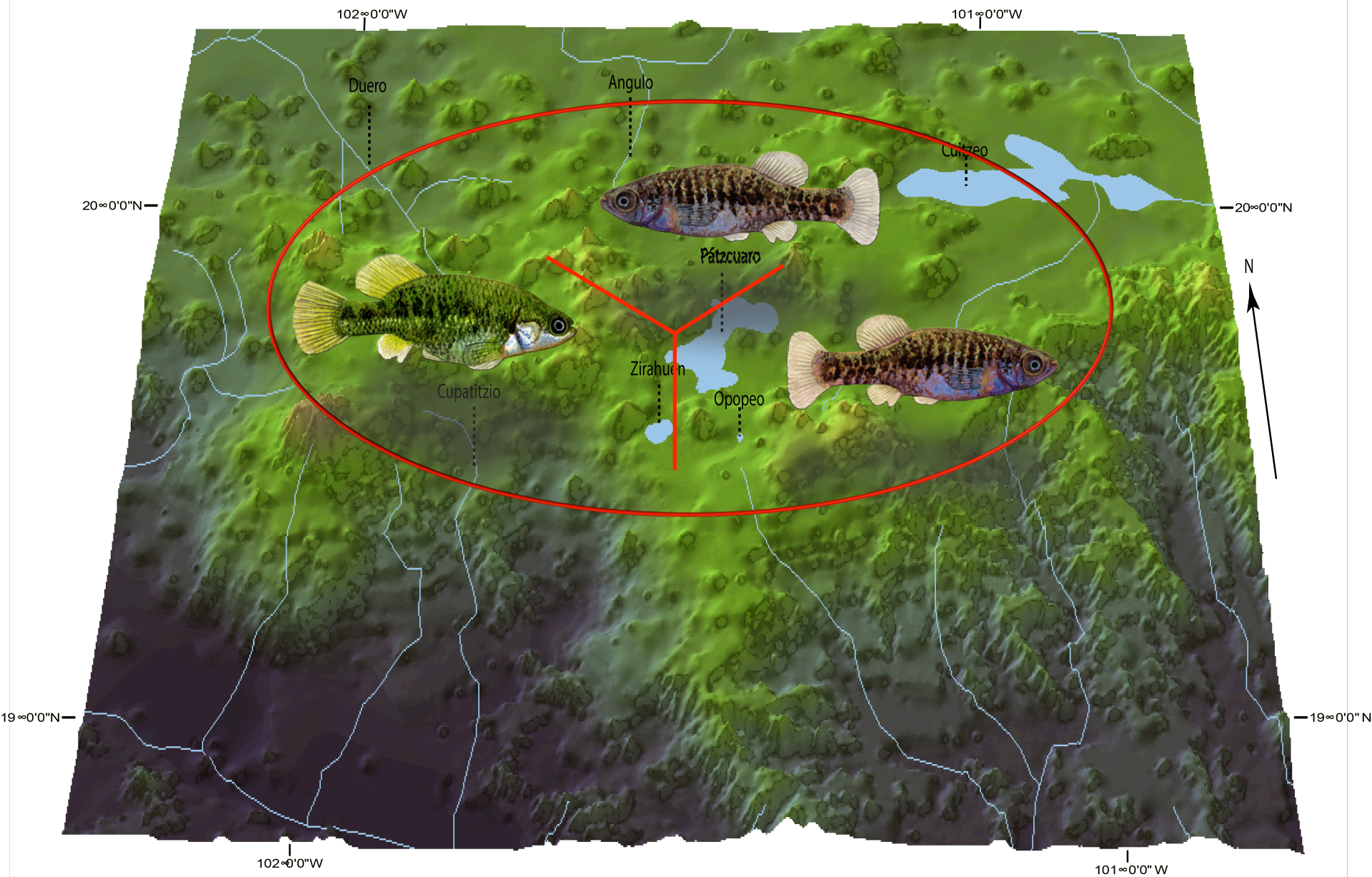
Phylogeographic Reconstruction



A. diazi, *A. meeki* and *A. catarinae*



A. diazi, *A. meeki* and *A. catarinae*



Results

Group extremely closed
>Interspecific Limits

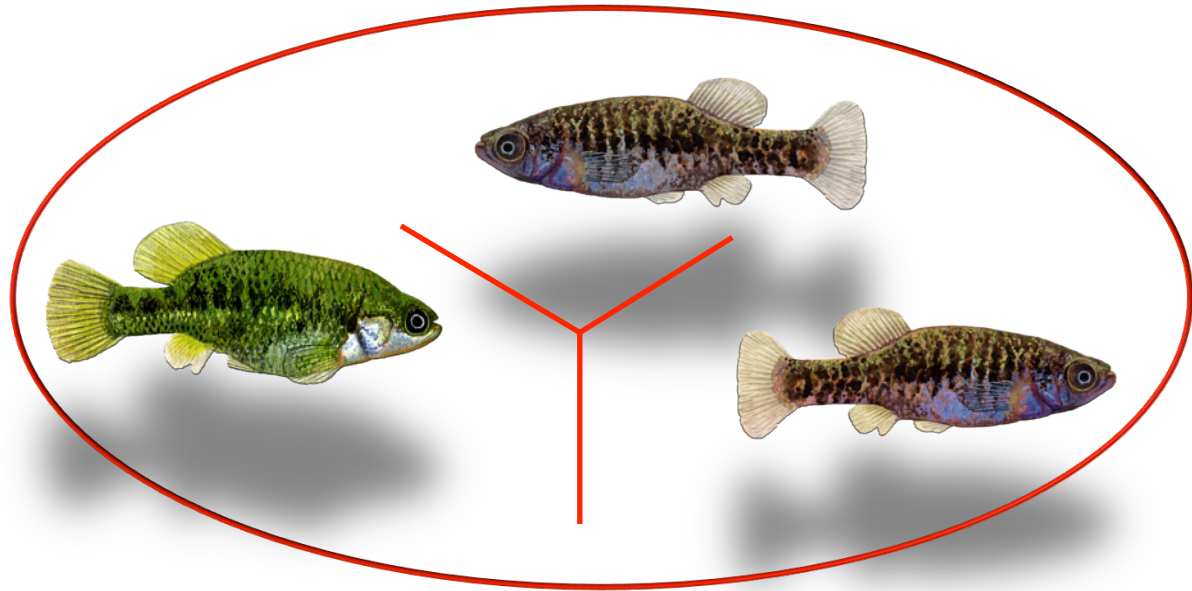
Low Genetic Diversity

90% Shared Haplotypes

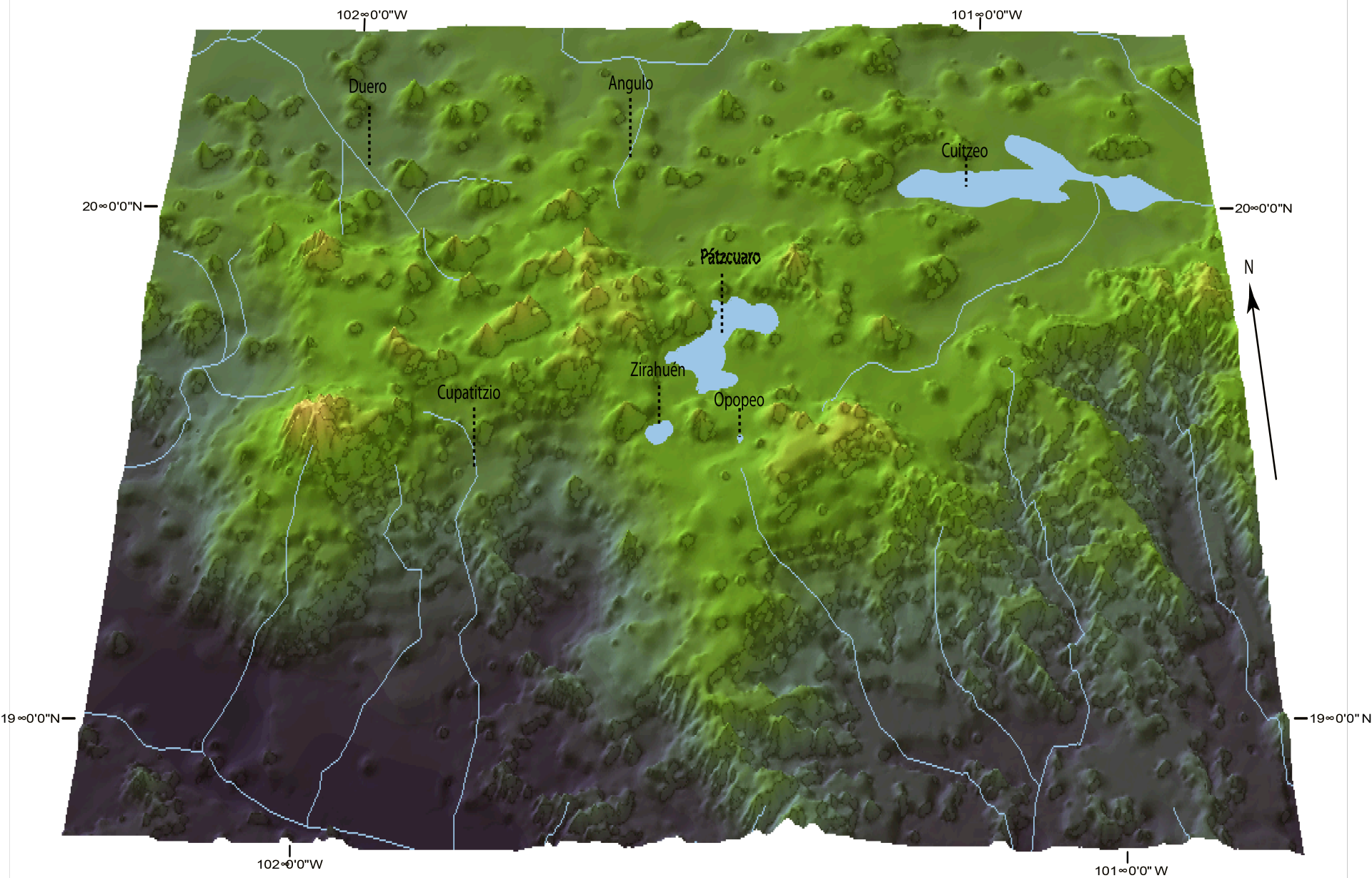
Endogamy

Recent Time of Divergence
>30,000 Years

Low Effective Population Size



Results



Actually

Top If Off!!!

Very Low Number of Individuals

Contamination

Reduction of Habitats

Exotic Species

Climatic Change



What is the direction of the genus?

Acknowledgment

- Aquatic Biology Laboratory of UMSNH
- Omar Domínguez Domínguez
- Goodeid Working Group
- Poecilia Scandinavia and Nederland
- American, German, French, Japanese and British Associations of Viviparous Fish.
- Chester Zoo.
- Haus des Meeres

Thank you!

