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**Nitrite toxicity in juvenile Goodeinae fishes *Skiffia multipunctata* (Pellegrin, 1901) and *Goodea atripinnis* (Jordan, 1880)**

R.A. Rueda-Jasso, A. de los Santos-Bailon, A. Campos-Mendoza

**Summary**

Lethal concentration (LC50) and sub-lethal effects of NO<sub>2</sub>-N on the endemic viviparous fishes ***Skiffia multipunctata*** (Pellegrin, 1911) (SM; considered threatened under Mexican regulations) and ***Goodea atripinnis*** (Jordan, 1880) (GA; without conservation status) were determined. LC50/96 hr values were 0.002 and 0.359 mg NO<sub>2</sub>-N/L for SM and GA, respectively. Sub-lethal exposure resulted in swelling of the gill epithelium, hyperplasia, fusion of the primary and secondary lamellae, erythrocyte pyknosis, and aneurysms with respiratory stress responses at 0.0012 and 0.244 mg NO<sub>2</sub>-N/L for SM and GA. The study demonstrates that sensitivity of both species is strongly related to the conservation status and acceptable nitrite concentrations, which are clearly below those permitted by the Mexican national water quality norm for wildlife preservation. Therefore, this norm is not adequate protection for these species, and where other threatened species may also be affected. Adequate criteria for nitrites in Mexican waters should include the data of all threatened endemic species.