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Sustainable Aquaculture for a Secure Future

Title: Larval development of the Mexican Snook, *Centropomus poeyi* (Teleostei: Centropomidae)

Author(s): Kole M. Kubicek¹, Carlos Alfonso Álvarez-González², Rafael Martínez-García², Wilfrido Miguel Contreras-Sánchez², Camilo Pohlenz³ and Kevin W. Conway¹

- 1. Department of Wildlife and Fisheries Sciences and Biodiversity Research and Teaching Collections, Texas A&M University, College Station, TX, 77843.
- 2. Laboratorio de Acuicultura Tropical, División Académica de Ciencias Biológicas. Universidad Juárez Autónoma de Tabasco, Villahermosa, Tabasco, Mexico C.P. 86039.
- 3. Fish Nutrition Laboratory, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, TX, 77843. Phibro Animal Health Corporation. Guadalajara, JA 44130 México.

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Abstract:

We document for the first time the early ontogeny of *Centropomus poeyi* based on captive raised material representing 0-19 days posthatch (dph). The achievement of early developmental landmarks (i.e., yolk-sac depletion, flexion, development of fins) and changes in pigmentation are described (1.4 mm NL-10.6 mm SL; 0-19 dph) and documented for a subset of individuals using high quality photographs. The ontogeny of the viscerocranium is also described (2.4 mm NL-10.6 mm SL; 6-19 dph). Development in *C. poeyi* occurs over a short period with attainment of the juvenile stage (i.e., full complement of fin rays present in each fin) occurring by 6.9 mm SL. The ontogeny of external pigmentation in *C. poeyi* is marked by two trends throughout growth: (1) a decrease in pigmentation dorsally; and (2) an increase in pigmentation ventrally along the midline. Development of the viscerocranium begins with the appearance of the maxilla and dentary in individuals of 2.4 mm NL,

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coinciding with the depletion of the yolk-sac. By 10.6 mm SL all bones of the viscerocranium are present and teeth are present on all teeth-bearing bones of the adult. Aspects of early development in *C. poeyi* are compared with the congeners *C. undecimalis* and *C. parallelus*.

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