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AQUACULTURE & FISHERIES INNOVATION LAB

RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Feminization of young common Snook *Centropomus undecimalis* (Bloch 1792) using 17 β -estradiol

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Abstract: Common snook *Centropomus undecimalis* is a protandric fish with a high commercial importance and aquacultural potential in Mexico and the United States. Several studies indicate that females have higher growth capacity than males. For this reason, the objective of this research was to evaluate the effect of a 17 β -estradiol (E2) diet supplementation on sex proportion for this species. In this sense, an experimental study was conducted where fish were fed for different time periods (7, 14, 21, 28, 35, and 42 days) with food impregnated with 50 mg of E2/Kg, and one control diet without the presence of the steroid. After feeding times, fish were raised for additional 204 days with the control diet to evaluate sex proportion, growth and survival. Our results showed that fish fed with E2 for 21 days or more had the highest female sex proportion (93-100%), while the control group showed the highest male proportion (100%). The highest growth (weight and total length) was detected in fish fed with E2 for 21 days (193.11 \pm 1.83 mm and 28.56 \pm 0.63 g) compared with the rest of the treatments. Survival did not show statistical differences between treatments (92-

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98%). We conclude that high percentage of *C. undecimalis* females can be obtained when fish are fed for 21 days or more with artificial food supplemented with E2.

This abstract was excerpted from the original paper, which was in the *Revista Ciencias Marinas y Costeras* (2012), 4: 83-93.

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