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Ontogenetic development of the digestive tract in the reared spotted sand bass *Paralabrax maculatofasciatus*larvae

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Histological and histochemical methods were used to describe the development of the digestive tract in spotted sand bass larvae reared under culture conditions. The larvae were kept in six 100-l tanks for 30 days. They were fed with Brachionus plicatilis from day 2 after hatching to day 13; Artemia nauplii from day 12 to day 17; Artemia juveniles and adults from day 14 to day 26; and a semi-dry artificial diet from day 20 onwards. Development of the digestive tract in spotted sand bass followed the general pattern described for other species. At hatching, it consisted of an undifferentiated straight tube laying over the yolk sac. At first feeding (day 2), the yolk sac was partially depleted and the mouth and anus were open. On day 5, the digestive tract was fully differentiated into buccopharynx, esophagus, stomach, anterior intestine, posterior intestine, and rectum. A few days after the onset of first feeding, a PAS-positive reaction was observed in both intestinal mucosae. The liver showed a constant glycogen accumulation after day 4. Formation of several supranuclear ninhydrin-Schiff (NS) positive vacuoles was observed in the enterocytes of the posterior intestine. Large supranuclear vacuoles were present in the enterocytes of the anterior intestine. The gastric glands and pyloric caeca appeared on day 16. Vacuoles of both intestines decreased in size and number with the appearance of gastric glands. A probable modification of the actual feeding schedule of spotted sand bass larvae is proposed.

Palabras clave: histology, larvae, a-amylase, digestive tract, development