

## **EFFECTS OF PRE-WEANING FEEDING FREQUENCY ON GROWTH, SURVIVAL, AND DEFORMATION OF SENEGALESE SOLE, *SOLEA SENEGALENSIS* (KAUP, 1858)**

**Sofia Engrola\*, Luis E.C. Conceição, Paulo J. Gavaia, M. Leonor Cancela and Maria T. Dinis**

*CCMAR, Universidade do Algarve, Campus de Gambelas, 8005-139 Faro, Portugal*

(Received 10.7.04, Accepted 29.8.04)

Key words: feeding frequency, growth, malformations, Senegalese sole, survival

### **Abstract**

Despite much interest in the production of Senegalese sole (*Solea senegalensis*) in southern Europe, weaning of this species onto artificial diets is problematic and varying results are obtained. The aim of this study was to test two feeding frequencies during a 13-day pre-weaning period and assess their impact on the growth and survival of Senegalese sole. Postlarvae were fed *Artemia metanauplii* with a peristaltic pump every hour for 12 hours per day or twice daily (morning and late afternoon). Both groups were suddenly weaned onto a commercial diet for an additional 30 days. At the end of the experiment, the relative growth rate and final dry weight were significantly higher and the survival significantly lower in the 12-hour treatment than in the twice-daily treatment. The feeding frequency had no effect on condition factor. The incidence of deformities was about 80% in both treatments.

---

\* Corresponding author. Tel.: +351-289-800900; fax: +351-289-818353; e-mail: sengrola@ualg.pt