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Lipid requirement in the granulated microdiet for larval rockfish (*Sebastes schlegeli*)

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The optimum lipid requirement in the microdiet for larval rockfish (*Sebastes schlegeli*) was determined. The newly-hatched larvae started to fed on rotifers at one day and ended at six day, and *Artemia* at six day and ended at 10 day until the start of the microdiet feeding experiments at 10 day post hatching (DPH). Rotifers and *Artemia* nauplii were enriched with Selco presso (INVE) before supply. 4509 day DPH larvae were distributed into 15 indoor 70 L square plastic tanks (300 larvae per tank) for the feeding trial. Two sized microdiets (0.31-0.48, and 0.48-0.63 micrometer in diameter) were supplied as fish grew: at 10 and 27 DPH for the former, and 24 and 29 day DPH for the latter. Fish meal, soluble fish protein concentrate, krill meal and wheat gluten were the protein sources in the experimental diets. Alpha-starch and dextrin, and fish oil were used as carbohydrate and lipid sources, respectively in the experimental diets. Five different levels of crude lipid diets ranging from 11 to 23% with 3% increment at the expense of dextrin at a constant crude protein level (52.4%) were prepared in triplicate. The experimental diets were manufactured by Daehan Feed (Incheon, Korea). Survival of larval rockfish ranging from 53.7 to 56.6% was not significantly different between the granulated microdiets containing different levels of crude lipid. Weight gain of larval rockfish fed with 20% lipid diet and was significantly higher than that of fish fed with all other diets, followed by the 23, 17, 14 and 11% crude lipid diets. The optimum lipid requirement in the granulated microdiet was estimated to be 17.3% based on the broken-line analysis of weight gain of larval rockfish.

Biography

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