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Cannibalism in juvenile black rockfish, *Sebastes schlegelii* (Hilgendorf, 1880), reared under controlled conditions

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Abstract

Laboratory experiments were conducted to determine the influences of size difference, fish density, shelter density, starvation time and light intensity on cannibalism among the fry of black rockfish, *Sebastes schlegelii*. Cannibalism of black rockfish did not occur at any level of other factors without sufficient size difference. Cannibalism rate did not exceed 0.45 when size difference was less than 25 mm. Starvation seemed to be a primary stimulus for cannibals to practice cannibalism. Cannibalism rate increased significantly after cannibals were starved for 12 h. Also, shelter density and light intensity significantly influenced cannibalism. A higher shelter density of (8 per tank) or a suitable light intensity (0.2 Klux) reduced the occurrence of this behavior significantly. In addition, interactive effects between size difference and shelter density, size difference and starvation time, starvation time and shelter density, starvation time and light intensity were confirmed on cannibalism rate. However, fish density (of prey)