

和歌山県沿岸に設置された表層型浮魚礁周辺におけるカツオの移動, 食性, 肥満度および成熟

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Migration, diet, condition factor and maturation of skipjack tuna *Katsuwonus pelamis* associated with the surface fish aggregating devices on the coast of Wakayama, Japan

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Abstract

The migration, diet, condition factor and maturation of skipjack tuna *Katsuwonus pelamis* associated with surface fish aggregating devices (FADs) were examined on the coast of Wakayama, Japan. 126 fish were tagged and released with dart tags around the FADs, and 39 fish (31.0%) were recaptured along the Pacific coast of Japan. Among the 39 fish recaptured, 25 fish (64.1%) were recaptured around the FADs where they had been released, and the elapsed number of days between release and recapture was 10.9 ± 8.3 (mean \pm standard deviation). Stomach contents analyses indicated that the percentage of fish with prey items in the stomach (feeding incidence) was 0–28.6% for each daily sample. Ovarian histological observations indicated that a total of 76.9% fish were in the immature phase, although those in the post-ovulated phase were also observed (5.5%). Accordingly, the results of the present study suggest that the area around the FADs is not necessarily a feeding ground for skipjack tuna, and that spawning is limited around the FADs, although the FADs showed fish aggregating effects.

和歌山県沿岸の表層型浮魚礁周辺で漁獲されたカツオの移動, 食性, 肥満度および成熟を調べた。浮魚礁での標識放流後に再捕された39個体のうち, 25個体が放流元の浮魚礁での再捕であった。胃内容物分析では, 各漁獲日における餌生物の摂餌個体率は0–28.6%であった。卵巣の観察では, 未熟段階が全体の76.9%と多く, 産卵可能な状態の個体は少なかった。以上より, 浮魚礁は高い集魚効果が示唆されたが, その周辺は必ずしも摂餌場となっているとは限らず, 産卵規模は小さいと考えられた。