

南印度洋灰鯖鮫(*Isurus oxyrinchus*)之年齡與成長

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灰鯖鮫(*Isurus oxyrinchus*)是高度洄游的遠洋鯊魚物種，此物種在印度洋之漁業生物學非常少見。本研究為首次針對南印度洋灰鯖鮫年齡與成長的研究。本研究利用臺灣遠洋延繩釣漁船的觀察員於 2013 至 2014 年間於印度洋所蒐集之 124 個樣本(雌魚 53 尾、雄魚 71 尾)進行年齡與成長分析。脊椎骨以 X 光照射後判讀成長帶(含半透明帶與不透明帶)，年齡別體長資料以成長模式套適。雌魚和雄魚的尾叉長(FL)範圍分別為 65-273 公分、90-253 公分。體重(W)與尾叉長關係為： $W = 0.000025FL^{2.787}$ (n=124)。尾叉長和椎徑(R)的關係(雌雄合併)可以下列公式表示： $FL = 20.787 + 8.092R$ (n=124)。

關鍵字: 印度洋, 年齡, 成長, *Isurus oxyrinchus*

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Age and growth of the shortfin mako shark (*Isurus oxyrinchus*) in the South Indian Ocean

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The shortfin mako shark (*Isurus oxyrinchus*), is a highly migratory pelagic shark species. Fishery biology of this species in the Indian Ocean is very little known. This is the first study to estimate age and growth of the shortfin mako shark in the South Indian Ocean. In total, 124 specimens (53 females and 71 males) captured by the Taiwanese longline fishing vessels on board by the observers in the South Indian Ocean from 2013-2014 were used in age analysis. Growth band pairs (including translucent and opaque bands) on vertebral centra were counted from x-ray films and size-at-age data were fitted by growth models. The length ranged from 65 to 273 cm FL and 90 to 253 cm FL for females and males, respectively. The W-FL relation was estimated as: $0.000025FL^{2.787}$ (n=124). The relationship between FL and the vertebral centrum radius (R) (sexes combined) was described using the following equation $FL = 20.787 + 8.092R$ (n=124).

Key words: Indian Ocean, age, growth, *Isurus oxyrinchus*, vertebral centrum
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