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Stock Assessment and Management of the Egyptian Sole *Solea aegyptiaca* Chabanaud, 1927
(Osteichthyes: Soleidae), in the Southeastern Mediterranean, Egypt

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Abstract: Aspects of the population dynamics of the Egyptian sole, *Solea aegyptiaca*, which is a commercially important endemic and demersal flatfish species in the Egyptian Mediterranean waters, were described based on materials collected monthly between February 2004 and May 2005 from the fishing harbor at Port Said city. Age and growth studies based on sagittal otoliths revealed that this species is relatively fast growing with a maximum age of 4 years. Marginal increment analysis suggested that bands on sagittae are deposited once a year during the winter. Mean back-calculated total lengths ranged from 17.75 cm at age I to 28.22 cm at age IV. Growth was best described by the von Bertalanffy growth model as $L_t = 30.9 (1 - e^{-0.53(t + 0.33)})$. Estimates of total, natural, and fishing mortality were 2.56, 0.75, and 1.81 year⁻¹, respectively. The high value of exploitation rate ($E = 0.71$) indicated that this species is suffering from high fishing pressure. The yield per recruit analysis suggested that the *S. aegyptiaca* stock in the Eastern Mediterranean, Port Said region needs development of a management strategy to conserve and optimize its yields.

Key Words: Mediterranean, Port Said, *Solea aegyptiaca*, Soleidae, age and growth, stock assessment, reference points, management

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