عنوان مقاله:
Population dynamics of the shrimp Penaeus semisulcatus in the Yemeni Red Sea waters

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خلاصه مقاله:
Length-based analyses were conducted to assess the stock of the green tiger shrimp Penaeus semisulcatus. Monthly carapace length frequency data were collected from commercial catches at two main landing sites on the Yemeni Red Sea coast for eight months. Growth parameters, mortalities, exploitation rate and yield per recruit were estimated for this species in this area. The estimated growth parameters were CL∞ = ۴۴.۶۵ mm, K = ۱.۲ yr-۱ and to = -۰.۱۵ for males and CL∞ = ۵۸.۸ mm, K = ۱.۴ yr-۱ and to = -۰.۱۲ for females. The natural mortality coefficient (M) was estimated as ۲.۱۹ yr-۱ and ۲.۲۷ yr-۱ for males and females respectively. The total mortality coefficient (Z) was ۶.۵۵ yr-۱ for males and ۵.۶۳ yr-۱ for females. The exploitation rate was ۰.۶۷ and ۰.۶۰ for males and females, respectively. Yield per recruit analysis showed that the current exploitation rate will result in higher stock biomass than the maximum exploitation rate.

کلمات کلیدی:
Growth parameters, Mortalities, Exploitation rate, Length of first capture, Yield per recruit