

Alisa Wetchawat 2010: Silver Pomfret (*Pampus argenteus* Euphrasen, 1788) Resource and Fishery in Don Sak District, Surat Thani Province. Master of Science (Fishery Management), Major Field: Fishery Management, Department of Fishery Management. Thesis Advisor: Miss. Idsariya Wudtisin, Ph.D. 110 pages.

A study of silver pomfret (*Pampus argenteus* Euphrasen, 1788) Resource and Fishery in Don Sak District, Surat Thani Province was conducted by investigating the population biology from 773 fish samples. The sampling was conducted monthly during November, 2007 to October, 2008. The results showed that fork length and weight ranged from 9.6 to 20.8 cm. and 23.05-276.60 g. Sex ratio of male : Female was 1:0.47. Length-weight relationships of male and female were  $W=0.0284FL^{3.0160}$  and  $W=0.0248FL^{0.0248}$ , respectively. The growth pattern of both sexes was isometric. Size at first maturity of male was 16.01 cm and female was 18.12 cm. Annual average gonadosomatic index of male and female were 0.35 and 0.99, respectively. The highest peak of spawning period was found during September to February in both sexes. Growth parameters, which is asymptotic length ( $L_{\infty}$ ) of female silver pomfret, was 21.74 cm. Also, curvature parameter (K) was  $0.81 \text{ yr}^{-1}$ . The arbitrary age at zero length was -0.0137 year. In male, the  $L_{\infty}$  was 18.21 cm, K was  $1.4 \text{ yr}^{-1}$  and  $t_0$  was -0.0095 year. Questionnaires were used among 42 fishermen for analyzing their opinions, fishing activities, fish utilization and cost-benefit for management purposes. Results on fishing activities and fish utilization showed that fishermen approximately operated push net and gill net at 25 and 20 days per month respectively. The total investment cost and income of push net were 3,225,773 and 4,875,184 baht per year. Gill net fishermen had total investment cost 751,367 baht per year and income 979, 226 baht per year. Overall results of fishing activities and fishermen perspectives study illustrated that in Don Sak District, this species have been highly exploiting because it has high profit return and could be caught all season and all areas. Conservation guidelines should be set and fishery measures should be seriously applied for conservation and sustainable use of silver pomfret in Don Sak.

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Thesis Advisor's signature