

Characteristics of the scalloped spiny lobster *Panulirus homarus* (Linnaeus) in the South coast lobster fishery

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The spiny lobster, *Panulirus homarus* (Linnaeus), fishery was assessed based on the length frequency data in the South Coast, which is a major lobster fishing area of Sri Lanka. The required length frequency data (carapace length and total length) were collected from the commercial catches at landing sites and the collecting companies from Weligama to Kirinda biweekly during 2009. The ELEFAN 1 sub-routines in the FISAT II computer software package was used to determine the asymptotic coefficient (L_{∞}) and growth coefficient (K) of lobster stock. This species contributes to the lobster fishery of the South coast by accounting for 86% of the total catch. Nearly all the lobsters measured were in the carapace length range from 5 to 10 cm. In the sampled landings, 36% of *P. homarus* were below the applicable legal minimum length. The number of small sized lobsters represented in the catch was higher from October to January of the respective year. The length frequencies appear indicative of high levels of exploitation. This is in the sense that large lobsters were generally absent in the catches. The von Bertalanffy constants and other indicators of growth performance are as follows:

Species	Sex	CL_{∞} (cm)	TL_{∞} (cm)	K (/yr)	K (/mth)	$CL_{\infty}.K/2$ (cm/mth)
<i>P. homarus</i>	Females	13.0	36.0	0.48	0.040	0.26
	Males	13.4	36.1	0.51	0.043	0.28

P. homarus recruit to the fishery at 1 year of age at lengths of around 5-5.5 cm. The recruits contribute to the catches for the following year by which time those surviving will have reached lengths of about 8-8.5 cm. Larger lobsters make only negligible contributions to the landings. These findings are suggestive of high levels of exploitation.

Keywords: scalloped spiny lobster, *Panulirus homarus*, growth performance

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