

Influence of shell weight on shell selection preference in long clawed hermit crabs, *Pagurus longicarpus*

Hermit crabs choose a new shell as they grow to accommodate their increase in body size. The size of the shell they choose is the primary factor in selection (Gherardi, 2006). The weight of the shell has an effect on energy used for locomotion therefore crabs may use weight as a factor when considering shell selection. The purpose of this study was to look at whether *Pagurus longicarpus*, uses the weight of the shell as a factor when selecting an artificial shell. During this study, shell preference was measured in the long clawed hermit crab *P. longicarpus*. Hermit crabs were given three shells of different weight to choose from. No significant preference was found for any of the three weight classes showing that weight may not be a primary factor in shell selection. Hermit crabs may be considering factors other than metabolic rate when selecting a shell, such as protection from wave action or predation.