京都府沖における雄ズワイガニのモモガニ出現率および齢期別最終脱皮率 東海林明,山﨑淳,熊木豊,宮嶋俊明 日水誌. 87(4),357-366(2021)

## The occurrence rates of adolescent with hard shell and terminal molt of male snow crab *Chionoecetes opilio* in the Sea of Japan off Kyoto Prefecture

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Snow crab *Chionoecetes opilio* is among the most important species for the Danish seine fishery in the western Sea of Japan. The caught males are divided into "kata-gani" and "mizu-gani" based on shell condition, which reflects the time elapsed since last molt. The former have a hard shell, indicating more than one year since last molt; the latter are postmolt (new and soft shell) males. The kata-gani are classified into "tate-gani" (adult, terminally molted males) and "momo-gani" (adolescent, pubertally molted males). The occurrence rates of momo-gani and terminal molt are important in estimating male stock abundance. We investigated kata-gani and mizu-gani collected in the Sea of Japan off Kyoto prefecture to examine occurrence rates of momo-gani and terminal molt probability. The annual occurrence rate of momo-gani fluctuated sharply, with clear decreases in the monthly frequency between fishery seasons. The terminal-molt rates of males entering the 90-109 mm and 110-119 mm carapace width groups were significantly elevated. Tate-gani stock estimation by three scenarios of different terminal-molt rates indicated that carapace size of tate-gani became smaller as a result of increasing individual number of the small instar group and total stock weight was reduced by higher terminal-molt rates.

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