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The Relationships between Length-Weight, and Meat Yield of Freshwater Crayfish, *Astacus leptodactylus* Eschscholtz, in the Ađın Region of Keban Dam Lake

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Abstract: The relationships between length-weight, and meat yield of freshwater crayfish, *Astacus leptodactylus*, in the Ađın Region of Keban Dam Lake, were investigated. In both sexes a linear relation was found between carapace length and wet body weight ($r^2_{\text{males}} = 0.923$ and $r^2_{\text{females}} = 0.882$). In addition, regression coefficients (slopes) showed that negative allometric body weight increase occurs in both sexes (slope males = 2.66 and slope females = 2.51). For a certain size range (46-58 mm carapace), the abdomen width of females was found to be significantly larger ($P < 0.001$) than that of males. However, the chelae width, chelae length and cheliped length of males were found to be significantly larger and longer ($P < 0.001$ for each case) than those of females. Although there was not a significant difference in the abdomen meat yield between males and females ($P > 0.05$), there was a significant difference in the chelae and total meat yield between males and females ($P < 0.001$ for each case) in favour of the former. In the present study, it was also observed that negative allometric growth occurs in the abdomen meat of both sexes which should be considered in the determination of harvesting time in the management of crayfish farms.

Key Words: crayfish, *Astacus leptodactylus*, length-weight, meat yield, allometric growth

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