PROTEIN DIGESTIBILITY OF SOME FEED INGREDIENTS IN DIETS FOR BLACK TIGER SHRIMP (*Penaeus monodon*, Fabricius) AND BANANA PRAWN (*Penaeus merguiensis*)

Juadee Pongmaneerat*1, Pitchaya Chainark*2 and Twee Chindamaikut*3

*1 Department of Fisheries, Jatujak, Bangkok, 10900 Thailand
*2 Phangnga Coastal Fisheries Research and Development Center, Thaimuang, Phangnga, 82120
*3 Kung Krabaen Bay Royal Development Study Center, Ampoe Tamai, Chantaburi 22000

ABSTRACT

The protein digestibility of feed ingredients including fish meal, defatted soybean meal, wheat gluten, corn meal, shrimp head meal, meat&bone meal and squid meal was evaluated in Black tiger shrimp (*Penaeus monodon*, Fabricius) and Banana prawn (*Penaeus merguiensis*). The average weight of shrimp used for evaluating were 2.75±0.05 g and 2.76±0.02 g, respectively. Seven diets, basal and test diets (basal diets substituted with 30% of each various feed ingredients), were fed to the experimental shrimps for 8 weeks.

The results showed that protein digestibility of those respective feed ingredients were 89.08±0.02, 88.92±0.34, 86.15±0.56, 60.18±0.74, 63.17±1.60, 63.80±0.47 and 80.88±1.09 percentage for black tiger shrimp. While, those in banana prawn were 91.54±0.02, 89.65±0.84, 86.27±1.14, 62.75±0.21, 63.11±0.55, 63.56±0.23 and 81.01±0.37 percentage, respectively. Indicating that both black tiger shrimp and banana prawn can efficiently digested the protein ingredients from fish meal, defatted soybean meal, wheat gluten and squid meal. The protein digestibility of fish meal and defatted soybean meal was higher than wheat gluten and squid meal. While the protein ingredients from corn meal, shrimp head meal and meat&bone meal are less efficiently digested in both shrimps. In addition, the good growth and feed performance of all experimental shrimps were noticed.

Keywords: Protein digestibility, Feed Ingredients, Black tiger shrimp (*Penaeus monodon* Fabricius), Banana prawn (*Penaeus merguiensis*)