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The potential of crude palm oil as a dietary lipid source in the practical diets of hybrid grouper (*Epinephelus fuscoguttatus x Epinephelus lanceolatus*)

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The present study was carried out to evaluate the long term feeding (four months) of crude palm oil-based (CPO) diets to hybrid grouper (*Epinephelus fuscoguttatus x Epinephelus lanceolatus*). Five isolipidic (16%) and isoproteic (50%) practical diets were formulated to contain different replacement level of fish oil with crude palm oil. A control diet was supplemented with 100% fish oil labelled as FO and the rest of the experimental diets were labelled as 25CPO, 50CPO, 75CPO and 100CPO indicating 25, 40, 75 and 100% replacement of fish oil with CPO. The initial fish (approximately 200 g) were randomly distributed into groups of 30 fish in square cages (2.0 m depth and 1.5 m diameter) in the sea. The triplicate groups of hybrid grouper were fed once a day at apparent satiation level. Growth measurement was carried out on a monthly basis. At the end of the feeding trial, fish fillets were subjected to sensory evaluation analysis. No significant differences ($p>0.05$) in terms of growth among fish fed with various experimental diets with weight gain and SGR ranging from 171.43% (75CPO)-181.63% (50CPO) and 0.83 ± 0.01 - $0.86\pm 0.02\%$ /d, respectively. Survival rate of fish were considered very high during this four months feeding trial with values above 93%. Based on the 5-point hedonic scale of acceptance test, all fillets were neither liked nor disliked by the panelists. There is no particular trend of acceptance in all attributes among the fish fillets implying fillets of fish fed with CPO are well received by the consumers.

Biography

Rossita Shapawi is currently working at Borneo Marine Research Institute, Universiti Malaysia Sabah, Malaysia.

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