

Abstract 30:

Effect of diet composition on energy utilisation efficiency in striped catfish (*Pangasius hypophthalmus*)

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This study aims to assess the effect of diet composition on the relationship between retained energy (RE) and digestible energy (DE) intake (*i.e.*, the maintenance energy requirements and the slope [kg_{DE}]); to quantify the energy utilisation efficiency of digestible energy intake in striped catfish (*Pangasius hypophthalmus*). To achieve these aims, a 63-day experiment was conducted on striped catfish (29.1 g). A total of 4 diets were studied at 2 feeding levels, low vs. high (12 vs. 22 $\text{g}\cdot\text{kg}^{-0.8}\cdot\text{d}^{-1}$, respectively), which resulted in a 4×2 factorial design. The four diets had contrasting inclusion levels of protein, fat and carbohydrate. Non-starch polysaccharides were digestible in striped catfish with the digestibility ranging from 33.6% to 71.0%. By conducting the regression between retained energy and digestible energy intake over diets, the energy utilisation efficiency for striped catfish was estimated at 71% through the equation: $\text{RE} = -42 (\text{se } 9.2) + 0.71 (\text{se } 0.049) \text{ DE intake}$, ($R^2 = 0.95$). Diet composition did not affect the relationship between retained energy and digestible energy intake.