广东省农业科学院>科研进展

动科所科技成果荣登美国《Hatchery International》杂志专题头条

2019-08-14 15:23 作者：动科所

动科所水产研究室王国霞副研究员和彭凯博士共同撰写且已在水产权威学术期刊《Aquaculture》上在线发表的题目为《Evaluation of defatted black soldier fly (Hermetia illucens L.) larvae meal as an alternative protein ingredient for juvenile Japanese seabass (Lateolabrax japonicus) diets》（脱脂黑水虻虫粉作为花鲈幼鱼可替代饲料蛋白质原料的评价）的学术论文于8月8日被国际权威杂志《Hatchery International》作为专题头条新闻进行了通篇报道（https://www.hatcheryinternational.com/study-probes-black-soldier-fly-diet-for-japanese-seabass/）。该文章主要通过饲喂试验研究了脱脂黑水虻幼虫粉替代鱼粉不同水平下对海鲈幼鱼生长性能、体组成、血液代谢、消化酶活性、肝脏和肠道组织结构及脂类代谢相关基因表达的影响，第一次通过摄食量、腹脂指数和营养成分沉积率等指标研究了黑水虻虫粉替代鱼粉对水产动物的影响，结果显示脱脂黑水虻虫粉替代鱼粉的64%对海鲈幼鱼生长，肝脏、肠道组织结构没有显著负面影响，黑水虻幼虫粉脱脂处理后较之前在海鲈饲料中替代鱼粉的比例提高。

《Hatchery International》是美国水产发行量排名前十（Top 10）的前沿杂志，主要刊登全球水产创新性研究成果、鱼虾营养研究新进展、水产养殖、政策法规、生态环保等新闻，备受世界关注。

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Study probes black soldier fly diet for Japanese seabass

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By Ruby Gonzalez

Topics

Fish Nutrition

Research

Prof. Yan-hua Huang, center, giving instructions to her graduate students on how to prepare Japanese seabass diets containing defatted black soldier fly larvae meal. (Credit: Yan-hua Huang)

A study in Guangzhou, China concluded that up to 64 per cent of defatted black soldier fly larvae (BSFL) meal can be used as replacement for

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Evaluation of defatted black soldier fly (*Hermetia illucens* L.) larvae meal as an alternative protein ingredient for juvenile Japanese seabass (*Lateolabrax japonicus*) diets

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ABSTRACT

Defatted black soldier fly larvae meal (DBSFLM) has been shown a promising fish meal (FM) substitute in diets for turbot, rainbow trout, Jian carp, Pacific white shrimp and Atlantic salmon, but it has not been examined as an alternative protein source in Japanese seabass (*Lateolabrax japonicus*) diets. A 56-day feeding trial was conducted to assess the effects of partial replacement of dietary FM with DBSFLM on the growth performance, whole body composition, blood metabolites, digestive enzyme activities, hepatic and intestinal histomorphology, and lipid metabolism related genes expression of juvenile L. *japonicus*. Five isoproteic (39%) and isolipidic (11%) diets were formulated by replacing 0% (FM), 16% (DBSFLM16), 32% (DBSFLM32), 48% (DBSFLM48) and 64% (DBSFLM64) of fish meal. Each diet was randomly assigned to triplicate groups of 30 fish per tank. Fish were fed two times daily to apparent satiation. Results showed that growth performance, somatic indexes, hepatic and intestinal histomorphology, and the intestinal antioxidant and immunity indexes of fish were not affected

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