

## Abstract

Aquaculture plays a major role in curbing malnutrition and food insecurity. Nonetheless, aquaculture sustainability is threatened by expensive fish feeds due to the overreliance on fish meal (FM) as the main source of protein. Fish meal is not only expensive but also scarce due to declining capture fisheries and competition from other animal feed producers. This has prompted research on potential FM replacers, amongst them the black soldier fly (BSF) larvae (*Hermetia illucens*). The BSF larvae can effectively convert organic wastes into a potential valuable feed source, and its high nutritional content (crude protein of up to 64% dry matter) is vital for fish feed formulation. Nevertheless, there are no documented studies on the complete replacement of FM in the diets of fish using BSF larvae. Therefore, the current study reviewed 107 research publications related to BSF larvae vis-a-vis fish feeds production to build capacity for existing theories, identify gaps, and suggest new and further research directions, based on the previous studies available in the area of larvae production and utilization in aquaculture nutrition. The study results are expected to help farmers make an informed decision on how to reduce the cost of fish production, increase yields, thus promoting food security, livelihoods, and ecological balance.