

Gut microbiata of fish and shrimp: A key endpoint for immunity

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Abstract:

Aquaculture is among the fastest growing food-producing industries in the world presently. One of the foremost challenges encountered by the aquaculture sector is infectious diseases problems. In last decade, the gut health became one of the vital research areas in the aquaculture field to overcome these problems. The gut microbiata is known to play crucial roles in development of aquatic animals' immune system and help in optimal nutrient absorption as gut microbiome produce a range of enzymes which contribute to digestion. Thus, the diet is an important environmental factor in shaping aquatic animal's microbiata and thereby gut health. The facts and evidence of various researches on the effects of microbiata on aquatic animal's health, one of the key issues is to understand the dynamics of the gut microbiata in shrimp and fish. Therefore, in-depth understanding the microbiata in shrimp and fish gut can help to enhance both the aquaculture management for higher productivity and the safety of animal as food. In doing so, we should interpret the strong link between gut microbiata communities and immunity of the animal.