



### **REVIEW ARTICLE**

# Krill gives positive effects on **performance**, **quality** and **health** in salmonids

The review summarized the documented benefits of Antarctic krill products (krill meal, krill oil and krill hydrolysate).

#### **18 STUDIES**

**13** Atlantic salmon (Salmo salar)

**5** Rainbow trout (Oncorhynchus mykiss)



# Past, present and potential future studies with krill in salmonids



## Storebakken, T. (1988).

The possibility for using krill as a feed ingredient for fish started in the late 1970s and early 1980s, which was nicely reviewed by (Storebakken, 1988) in an attempt to explore krill's nutrient values, such as high palatability, and its ability to enhance feed intake and increase growth performance in salmonids.

## Highlights from limited studies:

HIGHER FEED INTAKE
BETTER GROWTH

The interest in KM has steadily increased over the years, with the number of studies increasing accordingly in the scientific literature, covering aspects to test the effects on growth performance, fillet quality, robustness in terms of organ health. and ability to cope with stress such as sea water transfer stress etc. The studies conducted are mainly focused on the sea water phase, which is the most challenging phase in the production cycle of salmonids, covering the stages from sea water transfer, and grower to slaughter phases. The current review article provides an updated knowledge on the usage of krill in salmonid aquaculture diets.

Recommendations

 Include KM in sustainable diets (low FM and FO) and determine the effects on feed intake and growth performance throughout the production cycle

• Studies in freshwater phase

• Effects of KM on broodstock and egg quality, followed by testing the resilience in juveniles

 Studies to understand the underlying mechanisms on the benefits of krill towards organ health (heart, skin, gills, liver etc.).

• Effects of KM in challenge trials (virus/bacterial infections/sealice)