

Title:

Use of Chlorella for saltwater rotifer (*Brachionus plicatilis*) feeding

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Abstract:

Supply of live feed during fish larval rearing is of key importance to develop intensive aquaculture protocols. Recent work done on pikeperch (*Sander lucioperca*) larvae rearing, have revealed the need to introduce rotifers to their diet during the first feeding stage. The small size of this live feed is the main characteristic that makes them a suitable prey for pikeperch larvae, as opposed to the traditional artemia nauplii. Yet, rotifers nutritional value by itself lacks of essential components, such as essential fatty acids. The diet given to rotifers is the main source of essential nutrients required by the larvae to develop. This trial compared the effects on pike perch larvae survival and development from three rotifers diets, (*Nannochloropsis oculata*, *Chlorella vulgaris*, and a commercial enrichment diet).

Larvae fed on *Chlorella* had the highest survival and faster growth. Such result, might due to the highest (10 times higher) concentration of linoleic acid (LA) found in chlorella as opposed to *Nannochloropsis* and the ability that pikeperch larvae has to synthesized LA into docohexanoic acid. The use of chlorella for rotifer feeding could potential be a good candidate to replace other diets, lowering the production cost and increasing pikeperch larval production.