Status and recommendations on marine copepod cultivation for use as live feed

Copepods are important crustaceans studied because of their key role in ecology, trophic biology, fisheries management, in modeling the flow of energy and matter, ecotoxicology, aquaculture and aquarium trade. This paper discusses various aspects of the state of knowledge of copepod culture at large scales and provides the scientific community with ideas and concepts that could improve and quicken the development of copepod mass cultures. As a framework for discussion, we use a conceptual scheme from Teece (1988) and adapted it to our goal: ‘how to capture value from a copepod product’. The suggestions include: 1) optimize cultures by automation and implement recirculation technology for improving water quality; 2) use harpacticoid and cyclopoid copepods in industries that can produce large amounts of these prey on site at any given time; but use calanoid copepods for industries limited in production time and those that export copepod products (e.g. eggs); 3) select preferentially local copepod species and if possible species with lipid conversion capabilities; 4) optimize sex ratio and selection/cross-breeding to develop suitable copepod strains for aquaculture; 5) explore the use of probiotics for improving the fitness of copepod cultures; and 6) encourage copepod producers/retailers to use/develop an efficient sales and marketing strategy.

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Contributors: Drillet, G., Frouël, S., Sichlau, M. H., Jepsen, P. M., Højgaard, J. K., Joarder, A. K., Hansen, B. W.
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