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The stable isotope of nitrogen in an experimental culture of *Ulva* spp. and its assimilation in the nutrition of white shrimp *Litopenaeus vannamei*, Baja California Sur, Mexico

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Stable nitrogen isotope ratios have been used to study the incorporation of nitrogen into the food webs of marine systems. Some species of algae can be cocultured with shrimp, resulting in a sustainable alternative to reduce or eliminate the use of commercial food. One option is the development of *Ulva* spp. in open air-ponds under a rigorous control of water quality. Recently, the coculture of *Ulva* spp. and juvenile shrimp (in aquaria and open-air ponds) has shown, under stereomicroscope observation, that the crustaceans were feeding on the *Ulva* spp.. The consumption of commercial food <I 200%; "> and *Ulva* spp. by juvenile shrimp has been evaluated to establish the uptake of nitrogen into tissues of this crustacean. The muscle tissue of juvenile shrimp initially assimilated nitrogen from commercial feed and later the cocultured shrimp assimilated nitrogen from the *Ulva* spp., which demonstrated the potential application of live and fresh diets and the optimization of their use in diets containing very low levels or no commercial food.

Palabras clave: shrimp, seaweeds, Stable nitrogen isotope, *Ulva* spp., commercial food

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