

Investigating Which Salinity Level is Best for Copepod (*Apocyclops dengizicus*) Survival and Production

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ABSTRACT

Apocyclops panamensis copepod is a zooplankton ranging from 0.1 - 0.04 mm in length and consumes microalgae as a food source. They are commonly found in saline and brackish water habitats. It is the basis of the marine food chain and serves as the primary consumption for fish larvae and filter feeders. Research was conducted to decipher which salinity range is most suitable for copepod production and survival. In this experiment, 2 L bottles were filled with water of differing salinity levels (15%, 20%, 25%) and 2,000 Copepods were added to each bottle. Copepod populations were surveyed on a daily basis through a 1 mL sample. The results indicated that the salinity levels had a major impact on the survival of the nauplii with the 20% salinity level water yielding the most amount of *A. panamensis* at the end of the experiment. These results will be of service to marine aquaculture where nauplii are the primary consumption of fish larvae in the process of larval rearing.

KEY WORDS: Copepods, Salinity, Larval Rearing

ACKNOWLEDGMENTS: The STEP-UP HS program is supported by the National Institutes of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, Grant number: R25DK78386-16.