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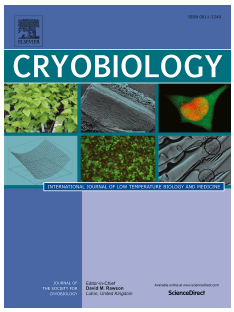

First steps towards *Echinometra lucunter* embryo cryopreservation

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First steps towards *Echinometra lucunter* embryo cryopreservation.

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Abstract:

We have studied the sensitivity to cryoprotecting agents of different embryos of the local sea urchin, *Echinometra lucunter* which is the species used for embryo-larval bioassays in Brazil. We have located significant differences between both species sensitivity to cryoprotecting agents; while for *P. lividus* propylene glycol was the less toxic compound for most development stages, whereas for *E. lucunter* is was the most toxic and the least toxic was Dimethyl sulfoxide. There is a significant difference between development stages as well; in the case of *P. lividus*, the blastula embryo was the most resistant to the cryoprotecting agents, meanwhile for *E. lucunter*, it was the fertilized oocyte. This is a very promising result, a really early embryo that is not extremely sensitive to Me_2SO. Our next aim is to develop a cryopreservation protocol for *E. lucunter* early embryos and test them in an embryo-larval bioassay.

Keywords: Sea urchin, cryopreservation, cryoprotecting agents, marine invertebrate, embryos.