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メタデータ	言語: 出版者: 琉球大学21世紀プログラム 公開日: 2007-06-26 キーワード (Ja): キーワード (En): 作成者: Rahman, Md.Saifur, Uehara, Tsuyoshi メールアドレス: 所属:
URL	<a href="http://hdl.handle.net/20.500.12000/630">http://hdl.handle.net/20.500.12000/630</a>

**PS-2 Effects of temperature on gametes aging and fertilization success of two sea urchin species**

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Three experimental designs were conducted to determine the viability of gametes from two sea urchin species, *Echinometra mathaei* (Em) and *Tripneustes gratilla* (Tg). Dry sperm was preserved at 5°C in 1-6 days after spawning. The fertilization capacity of dry sperm was examined with the fertilization membrane formation by artificially insemination. The longevity of diluted sperm and eggs was observed at 20, 25 and 30°C in various durations (sperm: 5, 45 and 85 min; eggs: 1, 3, 6, 12 and 24 hrs). Dry sperm of Em has longer liability than the sperm of Tg. Fertilization capability of Em sperm showed nearly constant (100%) with time at 20 and 25°C when decreased rapidly at 30°C. In case of Tg sperm, fertilization capacity declined gradually with time at 20°C and decreased sharply at 25 and 30°C. When compare the eggs longevity of above two species, the fertilization ability of Em and Tg eggs were 12 and 6 h, respectively. Most of Em and Tg eggs preceded normal development less than 6 and more than 3h, respectively. These findings will help to demonstrate in terms of fertilization strategies of two sea urchins species.