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**PE-8 Artificial insemination and early embryonic development of the mangrove crab *Perisesarma bidens* (De Haan)**

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Crabs are the predominant animal groups of the mangrove ecosystem and they play a significant ecological role in the structure and function of the mangrove. The aim of the study was to explore the method of artificial insemination and early embryonic development of the mangrove sesamid crab *Perisesarma bidens* (De Haan). Observations were made on the fertilization of the eggs of this crab by artificial insemination until hatching. The female extruded the eggs into the abdomen 30 to 48 hours after copulation. The unfertilized eggs were collected 3 to 8 hours after laying from the female and kept them 80% FSW. Sperm were removed from the spermatheca of the same female and diluted 80% FSW for insemination. The unfertilized eggs and sperm were mixed and shaken well in glass beaker for artificial insemination. The eggs were rinsed 3 to 5 times with 80% FSW after five minutes of mixing with sperm and ovum and incubated in 100 ml flat cylindrical culture bottles containing 70 ml of 80% FSW at 25°C temperature in water baths. The first fertilization membrane was observed three minutes after insemination. The other two outer layers of the egg which were observed after 15 to 20 minutes of mixing. All an average sixty five percent of fertilized eggs were hatched as 1<sup>st</sup> zoea larvae at the end of 18 days of incubation. So it is feasible to produce embryos by artificial insemination with optimum period between May to September.