The spider crab _Pleistacantha moseleyi_ (Miers) is obtained when trawling off the south-east African coast, usually at depths between 330 and 430 m. One male and two female specimens were kept in an experimental tank at the Oceanographic Research Institute, Durban, cooled to the temperature of the deep-water environment inhabited by the crab (13°C); mating was observed on one occasion.

The carapace length from the bifurcation of the rostrum to the posterior margin was 108 mm and 81 mm in the male and female partners respectively. Their exoskeletons were hard, and both specimens had been in captivity for the three months prior to mating, during which time they had not moulted. On 4th September 1969 the female oviposited and started to carry large deep purple eggs in her brood chamber. Five days later the male appeared attracted to this female, apparently after locating her by chance contact. After several unsuccessful attempts the male gripped the female, holding her in his chelae by one chela and a leg, and then proceeded to manoeuvre himself to face her. Once facing the female he released her leg and grasped both of her chelae in his, whereupon the female stopped resisting and extended her abdomen. The male then transferred his grip to the bifurcated rostrum of the female and placed his legs over hers so that both animals now faced each other in a vertical position with the male held off the ground and supported by the female. The female inclined herself slightly backwards and the male inserted his first pleopods into her vulvae. The crabs remained stationary in this position for thirty-seven minutes, after which they separated. No subsequent matings were observed and the female continued to carry her eggs for sixty-seven days until they hatched.

Two interesting points arise from the above account — the mating female was hard, and moreover she was carrying eggs. In fact it is not unusual for female crabs to copulate in the hard-shelled condition as was once thought, and various records of its occurrence in the Majidae and in other crabs are detailed by Hartnoll (1969). However, mating on the part of a berried female has previously been observed only in two species, both of them spider crabs. It is recorded
Mating in Pleustacantha novelyi (Miers).