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"1 More about ..' ' the "f"i" Lobster "e big claws of the male were not used to seize any part of the fe- 'male during the act of mating. In most cases the four small legs and the third maxillipeds of the male were placed over the back of the fe? male and used to roll the female over. In other cases the small legs were placed over the back of the female which was picked up by the third maxilli- "peds and rotated until the female was completely turned over. When the female /lobster was very soft-shelled it showed no resistance to the turning and then 'remained motionless' on its back with the claws extending straight in front, ap? pearing dead except that all the swimraerets were kept in motion. Later, after being out of its shell for 12 to 20 hours and beginning to become paper shelled, it would slip away (often by a flip of its tail) when the male attempted to turn it over. Hard-shelled males mated with very soft-shelled females. There seems to be little doubt that mating in the lobster is usually accomplished, if at all, very shortly after the female has moulted, in the great majority of cases less than twelve hours and in almost all cases less than 24 hours after the female has moulted. (Although) the biting and crushing claws of the males...are never used to hold the female dur? ing mating, when two males are present with a soft-shelled female, fighting often occurs previous to mating. In such a case the hardness of shell and size of the claws determines which male proves superior and mates with the female. Again after mating, the male usually stands guard over the female, attempting to keep other males from mating with her. In such cases the tendency is for the female to be fer? tilized by males with the largest claws. In all cases the animals mated head to head, the large claws of the male stretched out in front and sometimes resting on the passive claws of the female while the small legs were used for clasping. Usually mating was accomplished with the male up? permost, but in one case mating took place while both were almost vertical, standing on their rostra, and in another case both lay on their sides. At first each animal kept its abdomen extended, with the swimmerets waving furiously, and during this stage the first copulatory appendages of the male were probably inserted into the annulus of the female. There followed a final shorter period, lasting approximately from 15 to 20 seconds, during which the abdomen of the male was clamped down upon the female.,, both of the first pair of copulatory appendages were inserted into the annulus of the female. The exact method of transfer of the spermatophores from the openings on the fifth legs to the annulus of the female was not definitely deter? mined. After mating a soft gelatinous substance could be noted over the opening of the annulus of the female. This jelly gradually hardens to such an extent that if much of it is left, it would be impossible after 9 or 10 hours for the copulatory appendages of a male to be inserted into the annulus of the female. Long periods may elapse before the sperm is used for fertilizing the eggs of the fe? male. In certain warmer regions of the gulf of St, Lawrence at least a large percen? tage of the female lobsters, that moult and presumably mate in July or August, ex? trude eggs a month or t vo later. Other females extrude eggs while in the old shelled condition during the following July a year after mating. Still others,



especially some of the very large berried females observed at Grand Manan, have spent at least two years since moulting and presumably matingj and yet carry fertile eggs. Thus,.., we must conclude that the sperm can retain their vitality in the female annulus for at least two years.... Female lobsters can lay a normal supply of eggs, fertilize them from the stock of sperms in the seminal receptacle and still have so many sperms left that we were unable to tell the difference between the contents of the seminal receptacle of a lobster which had laid and fertilized eggs and those of a female in which none of the sperm had been so used, • • ,Although as a general rule a female lobster moults shortly after the hatching of eggs and there is no case on re? cord of a lobster's laying several batches of eggs between successive moults,..,data undoubtedly indicate that a single copulation can provide sperm only part of which DONUT QUEEN Sydney River Shopping Plaza For Your New Dress • Coat • Sportswear Nathanson's LADIES MBAR Charlotte Street Sydney 'xx A • Ttte??, TaRt Fftu.r - '