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readily distinguished by the dark, dull colors of the old shell...and by the reddish tint of the membranes at the joints....The lobster is now naturally sluggish, though not too inactive to enter a trap....They frequently dig a shallow hole in the mud under stones, .where they can await the coming change with greater security. (Herrick describes the molting of a male:) The period of uneasiness ended in this lobster by its rolling over on it's side, agitating its appendages and bending its body in the shape of the letter V. Presently the old cuticle began to stretch, the wall of the body pressing against it with considerable force...(it) finally bursts, revealing the brilliant colors of the new shell....The doubled-up forepart of the body is with each effort of the animal more and more withdrawn from the old shell, and this im- Embryo 61 days old; 122 days old; 211 days old. plies the separation of the skin from the complicated linkwork of the internal skel? eton and the freeing of the 28 separate appendages, which are attached to this por? tion of the body, from their old cases, and at the same time the release of the muscles from the internal tendons of the large claws and other parts....The carapace is unbroken, yet the two halves bend as upon a hinge along the median furrow. Pre? sently the pressed-down bases of the antennae, the eyestalks and the bent-down ros? trum of the new shell can be seen. No part of the covering of the large claws or of any of the legs has been split. The muscular masses of the powerful claws have been withdrawn through their narrow openings without a rent. Finally, a few kicks free the anterior half of the body...the lobster gives one or two final twitches and is free. The entire exoskeleton, with the linings of the oesophegos, stomach and intes? tine, comes off as a whole....When the old carapace falls back into its natural po? sition one might...mistake the empty shell for another lobster. The newly molted lobster has a very sleek and fresh appearance and its colors were never brighter or more attractive. It feels limp as wet paper. Every part of the old shell down to a microscopic hair has been reproduced in the new one, but in the latter the fringes of the stiff setae are as soft as silk, the strong ends of the claws, the rostrum, and every spine of the body so soft as to easily bend beneath the finger. The large claws are considerably distorted, as well as some of the other parts, being squeezed and drawn out to an unnatural length. Very soon after molting the lobster is ready to take food, the body owing to the absorption of water, plumps out to its natural shape, and the limit of increase in the volume of the body is reached. The growth of the crustacean takes place during the period of molt, while the new shell is being formed, and not immediately after the ecdysis (molting), as is commonly believed. The rapid swelling out of the body after the old shell is gotten rid of is due to the absorption of water through the new shell into the blood tissues, not to cellu? lar growth, (D.G.Wilder, Canada's Lobster Fishery; "The whole process takes from 5 to 20 minutes...(it) swells in an amazing fashion to reach its new size in 4 to 5 hours. Commercial-sized lobsters grow about 15% in length and 50% in weight at each molt." Mating usually occurs shortly after the female has molted, while she is still quite soft. The male has probably undergone molt several weeks earlier. Otherwise,



there is no set time for mating. In mating, there is no internal fertilization. Herrick: "The male reproductive organs are the testes, the ducts of which open at the base of the last pair of walking legs. The sperm which is inclosed in gelatinous capsules or spermatophores, the secretion of the seminal ducts, is thus ejected in packets. There is no penis." When lobsters copulate, the spermatazoa are received by the fe? male and stored in her seminal receptical situated between the bases of the third pair of walking legs. She may carry this semen with her anywhere from a month to a year, while the yet unfertilized jeggs develop inside h6r. Wilder: "At that time the female releases enough sperm from her sperm sac to fertilize the eggs,...When laying '' Cape Breton's Magazine/13