ABSTRACT

Some aspects of the biology of Melongena melongena (L.) are described with special reference to its feeding, reproduction and population dynamics.

The species of bivalves used for food are listed and the method of attack is described. The proboscis is inserted between the valves of a feeding animal and the flesh is rasped until the animal is killed, after which more vigorous feeding actions remove the remaining flesh. The anatomy of the Odontophoral Mass is described.

The anatomy of the reproductive ducts of the adults and the structure of the egg capsules are described. The latter are laid in strings of which one end forms an anchor piece which is buried in the substratum. Embryonic development takes approximately twenty-eight days. There are no food eggs and "embryonic cannibalism" was never observed.

The process of embryonic development is described. The velum is retained at hatching and veligers are released from the capsules. In the laboratory settlement was observed to occur not longer than two days after escape from the capsule.

The majority of animals in the intertidal population of M. melongena were less than 60 mm. long. It was estimated that animals grew to this length after approximately twenty-four months in the intertidal region. The intertidal population was composed

of animals between 30 mm. and 60 mm. at the beginning of the spawning season and these animals had an average growth increment of 0.38 mm./week. During the spawning season the population was supplemented by new animals which had a higher growth increment of 0.85 mm./week. These animals grew rapidly and gradually combined with older animals while the latter disappeared from the population. Thus every year the intertidal population was replaced by new animals during and after the spawning season which were in turn replaced the following year.