quantities of moving water from which these filter feeders obtain nourishment. However some studies have reported populations that do not migrate with the tide. The life of Donax is generally 2-3 years with one or two spawning periods per year. Primary spawning occurs in February and in Florida a second spawning may occur in June. The peak seasonal abundance tends to occur in June and July. Maximum densities of Donax Texanianus in Panama City, FL was 2,050 animals/m².

Few studies are available documenting the effects of beach nourishment on Donax. Reilly and Bellis (1978, 1983), reporting on the effects of nourishment on a North Carolina beach found that following a December nourishment event, Donax were not found in the nourished area until the following July. These were young believed to be transported in by the longshore currents and it was suggested that the adults were killed by burial in the offshore area.

Ocypode Quadrata (Ghost Crab)

These animals burrow in the dry beach although they lay their eggs in water. The older crabs tend to burrow higher on the beach than the young animals. Their diet varies from dead plant and animal material to live Donax and Emerita. Although seen frequently during the daytime, they are primarily nocturnal.

Only the studies of Reilly and Bellis (1978, 1983) have evaluated the effects of beach nourishment on ghost crab populations. Their limited data indicated that the summer following nourishment, there was a 50% lower population. Their interpretation was that, since the material was placed below a level that would cause direct burial and since the crabs could probably burrow up through placed sand, it is likely that the reduced population was a result of emigration of the crabs due to a reduced food supply.

A Case Study: Panama City, FL

Saloman (1976), Culter and Mahadevan (1982) and Saloman, et al. (1982) have reported on extensive biological studies in conjunction with the 1976 nourishment of some 300,000 cubic meters placed along the beaches of Panama City.

Saloman (1976) conducted a pre-nourishment baseline study in 1974-1975 and documented the effects of Hurricane Eloise (September, 1975) on the biota. It