



THE BIOLOGY OF *PANDALUS BOREALIS* KRÖYER

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Pandalus borealis, a protandrous hermaphrodite, has a discontinuous arctic-boreal distribution. It is confined to waters of salinity 34‰ to 35‰ and of temperature -1° C. to 11° C. It is found on soft muddy substrata in depths ranging from 20m. to 900m. The study of a population off the Northumberland coast extends the knowledge of the biology of this prawn over its entire north-south distribution in the eastern Atlantic. Variations in the life history of populations over this range appear to be related to temperature. While Spitsbergen prawns may live for more than eight years those from Northumberland waters never live for more than three years. Growth rates are correspondingly slower as temperature decreased although the maximum size reached is the same for all except the Northumberland prawns. The latter are significantly smaller than others. The period of time for development of eggs and larvæ increases as the temperature decreases. Egg numbers of Northumberland prawns are much less than those of Norwegian prawns. More than 35% of Northumberland prawns never pass through the male phase. The southern Norwegian population is the only other known to contain primary females and these represent 5% of the population.