112

GROWTH RATES OF POLAR MARINE INVERTEBRATES: HOW SLOW IS SLOW?

A Clarke, D K A Barnes

British Antarctic Survey, Cambridge, United Kingdom

It is widely recognised that polar marine invertebrates tend to grow slowly, although the literature does contain scattered references to particular species that are described as growing fast. The data on which these generalisations are based is, however, somewhat sparse and is typically confined confined to a small number of species within a few major groups (notably molluscs and crustaceans). In this paper we compile data for less well studied groups, and compare all available data with growth rates reported for related temperate and tropical species. In particular we examine trends in demosponges, cheilostome bryozoans, patellid gastropods andlarval fish. We show that whilst the mean or median growth rates of polar species are almost without exception slow, there is often overlap with growth rates of related warmer water species. Typically, within major taxa, the fastest growing polar species are an order of magnitude slower than the fastest growing lower latitude species. The slowest growing polar species have shown no measurable increment over a decade and thus have growth rates orders of magnitude slower than the slower temperate and tropical equivalents. The reasons for the slow growth of polar species are discussed.