LARVAL DISTRIBUTION OF TAILOR (*Pomatomus saltatrix*: PISCES) OFF WESTERN AUSTRALIA

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ABSTRACT

This study aimed at determining the spatial and temporal distribution of *Pomatomus saltatrix* larvae off the temperate coast of Western Australia by examining sets of existing, archived ichthyoplankton samples. These samples covered several years, encompassed a range of sampling techniques (oblique, vertical, surface and neuston tows), and covered the spawning area hypothesised by Lenanton *et al.* (1996) for *P. saltatrix* off Western Australia. Overall, from a total of 19 246 fish larvae examined, only 31 *P. saltatrix* larvae were found. These larvae were found in an area offshore of Geraldton and in the waters around Rottnest Island. Sizes of *P. saltatrix* larvae ranged from 3.4mm to 19.5mm body length. *P. saltatrix* larvae were present in samples taken in January, March, April and May, suggesting spawning during summer and autumn. *P. saltatrix* larvae were typically found in surface waters on the continental shelf (<200m). Larval age was estimated using an existing length-age regression published from the stock of *P. saltatrix* occurring on the east coast of the United States of America. Age estimates ranged from 7 to 31 days after hatching. The AusCONNIE oceanographic connectivity interface was used to identify potential source areas for these larvae and thereby allow inference of where mature *P. saltatrix* may be spawning. The AusCONNIE output suggested that wind-driven currents associated with southerly wind stress may play a role in larval transport in summer, and the influence of the southward flowing Leeuwin Current may be more important in autumn. Overall, the results of the study provide support for the hypothesis of Lenanton *et al.* (1996) that *P. saltatrix* spawns in temperate shelf waters of W.A. in summer and autumn.