Mar. Freshwater Res., 1996, **47**, 309

ILFC Symposium. Early Life History of *Pomatomus saltatrix*: Introduction

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Pomatomus saltatrix (Pisces : Pomatomidae) is a highly migratory, continental-shelf species with a worldwide subtropical distribution that includes the east coast of North America, the Gulf of Mexico, the Mediterranean Sea, the Black Sea, north-western Africa (off the coast of Senegal and Mauritania), the east coast of South America (Colombia to Argentina), the south-east coast of South Africa, and the south-east and south-west coasts of Australia. *Pomatomus saltatrix* is of minor commercial importance over its range, but is of considerable recreational importance, particularly on the east coast of the USA and South Africa and on the east and west coasts of Australia.

Owing to its considerable importance as a recreational species, there have been numerous studies of its biology on a worldwide basis. However, as a result of its widespread geographical distribution, there are varying amounts of information about the life history of the different populations, the best studied being those in the Northern Hemisphere, particularly along the east coast of the USA. In contrast, there is comparatively little or no published information on the early life history of the populations in the Southern Hemisphere. The primary aim of the symposium was to bring together scientists from different countries to report on the data available on the life history of the different populations of *P. saltatrix*, with particular focus on the early life history, and to provide a forum to compare and contrast similarities in life histories of the various populations and to discuss possible reasons for these differences. To this end, papers were presented on aspects of the early life history of *P. saltatrix* populations from the east coast of the USA, Gulf of Mexico, Black Sea, Brazil, South Africa and eastern and western Australia, as well as a general review paper on various life-history parameters of the different populations. In addition, a paper comparing the genetics of the different populations was presented.

Comparison of the different populations showed that there are a number of common features in their early life history; one is the migration of spawning adults counter to the prevailing longshore warm-water boundary current to the spawning grounds, with the eggs and larvae subsequently being advected alongshore in the warm-water current to juvenile nursery habitats. A number of differences were also noted between the populations, particularly the number (one or two) of annual peaks in spawning, the number of juvenile cohorts, and the relative roles of nearshore marine areas and estuaries as juvenile nursery habitats.

One of the major issues that were identified as influencing the early life history of all the populations was the influence of oceanographic features on the longshore movement of larvae as well as on their cross-shelf movement into estuaries, which may be linked to variations in recruitment. Our increased knowledge of the oceanography of boundary currents and their variability, and the widespread availability of satellite images of sea surface temperatures, may increase our understanding the early life history of this species.

The symposium resulted in a series of papers that summarize the present state of knowledge of the early life history of different populations of *P. saltatrix*, a number of them for the first time, and identify the major gaps in our knowledge. They show that, especially for the populations in the Southern Hemisphere, very little is known about the early life history. The symposium organizers hope that the papers presented in this publication will identify areas where more research is needed and will help to focus the direction of future studies, particularly in terms of the importance of the timing and location of sampling and the need to understand the oceanography of the study region.

Acknowledgments

The symposium organizers acknowledge the support of the Australian Society for Fish Biology and the American Fisheries Society, Early Life History Section, for organizing the International Larval Fish Conference, of which this Symposium was a component. We also thank New York Sea Grant Institute, Hudson River Foundation, US Fish and Wildlife Service and US National Biological Service for financial support that facilitated the attendance of speakers at the Symposium.

1323-1650/96/020309$05.00