Biology and Culture of Asian Seabass Lates calcarifer

Editor **Dean R. Jerry**



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Centre for Sustainable
Tropical Fisheries and Aquaculture
School of Marine and Tropical Biology
James Cook University
Townsville, QLD
Australia



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Preface

The Asian seabass (Lates calcarifer) is an euryhaline fish species within the Family Latidae that is distributed from the Persian Gulf, throughout southeast Asia, India, northern Australia, Papua New Guinea and the western Pacific. Throughout its range the species has many common names including barramundi (Australia), plakapong (Thailand), koduva (Sri Lanka), kalaanji (Malaysia), pandugappa and chonak (India), apahap (Philippines) and siakap (Indonesia), to name but a few, and is of significant cultural and economic importance, both as an important fishery, as well as being increasingly commercially farmed.

As well as the species' economic importance, due to its relatively unique life-history whereby the species exhibits protandry (sex reverts from male to female as it ages), is catadromous (spawns in marine conditions and then may undergo part of its juvenile development in freshwater), whilst also being an ecologically important keystone predator species, L. calcarifer has received substantial scientific attention. Consequently, there has been a plethora of publications generated on the genetics, ecology, physiology, and aquaculture of L. calcarifer. However, to date, there has been neither scientific synthesis nor embodiment of information on this species' biology and ecology, as well as its aquaculture exploitation. The aim of this book therefore was to bring together the accumulated knowledge on L. calcarifer that is current and in a form that can be easily accessed by biologists, aquaculturists and university students. Of particular emphasis in the book is the science behind aquaculture of this species, as interest in farming of L. calcarifer is rapidly increasing with the species now commonly farmed outside its natural range in North America, Europe and southern Australia.

Finally, as a note to readers, a large body of the scientific knowledge related to the biology, ethylogy and ecology of *L.calcarifer* is derived from Australian research and as the book was being edited and compiled it became very obvious that Australian seabass populations may not be indicative of the wider species as whole. There presently are critical knowledge gaps for *L. calcarifer* in south-east Asia and other parts of its distribution. Anecdotal reports exist of populations which are purely marine,

are not completely protandrous and that exhibit different morphology and/ or behaviour. Therefore the editor feels that it is critical in the future that more scientific effort is devoted to understanding the species outside of Australia. This is essential not only for the conservation of the species, but also deeper understanding may identify traits and characteristics useful for aquaculture exploitation.

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Dean R. Jerry

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