


RESEARCH ARTICLE



Barramundi (*Lates calcarifer*) from Iraq: a new record for the Arabian Gulf, with a highlight on its genetic origins and description of two skeletal deformities

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ABSTRACT

The natural distribution of *Lates calcarifer* (barramundi or Asian sea bass), ranges from western India, around Sri Lanka to the Bay of Bengal, and through the whole of Southeast Asia to Papua New Guinea and northern Australia. It is not known to be native to the Arabian Gulf, although the species has recently been introduced for aquaculture production in Iran. In 2019, 12 adult barramundi were caught from freshwater in the Shatt al-Arab River, its estuary and marine waters bordering Iraq. This is the first wild-capture record of this species for Iraq's inland waters and the northern Arabian Gulf. The specimens were morphologically described, while genetic structure analyses indicated that the specimens likely originated from Australian and Thailand genetic stocks and thus probably were aquaculture escapees from farmed populations. Among the *L. calcarifer* collected from the freshwater environment on the Shatt al-Arab River, one specimen exhibited saddleback syndrome, and another showed abnormality in the left operculum. The results are interesting and useful in reminding people to prevent aquaculture escapees. The aim of this study was to morphologically describe the specimens and undertake a genetic analysis to determine the likely provenance of the fish.

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Introduction

Lates calcarifer (Bloch 1790), (commonly known as barramundi in Australia or Asian sea bass) is a euryhaline species that inhabits brackish and nearshore marine waters and prefers living in a demersal habitat (Riede 2004) at a depth range of 1–40 m (Whitehead 1984). This species belongs to the family Latidae, which comprises 14 species in three genera distributed globally (Otero 2004; Fricke et al. 2023). It is characterised by a large body, large scales, and voracious feeding habits (Blaber et al. 2008).

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