

## ***Lethrinus ravus*, a new species of emperor fish (Perciformes: Lethrinidae) from the western Pacific and eastern Indian oceans**

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### **Abstract**

*Lethrinus ravus* is described from localities in the western Pacific. Photographic records also confirm its presence in Western Australia. It co-occurs with and is morphologically very similar to *L. semicinctus* but differs consistently in color pattern and average number of scales in the supratemporal patch of scales. *Lethrinus semicinctus* has a dark oblong blotch under the soft dorsal fin straddling the lateral line and a cluster of darkened scales in front of the base of the pectoral fin while *L. ravus* lacks these markings. *Lethrinus ravus* has black-lined scales that form rows above the lateral line and are scattered below the lateral line; this pattern is absent in *L. semicinctus*. *Lethrinus ravus* also frequently has more scales in the supratemporal patch than *L. semicinctus*. Both *L. semicinctus* and *L. ravus* have a cluster of scales with black lines above the base of the pectoral fin. This shared specialization is unique within *Lethrinus* and is evidence for a sister-species relationship.

**Key words:** Lethrinidae; *Lethrinus ravus*; new species; *Lethrinus semicinctus*

### **Introduction**

Species of the genus *Lethrinus*, the emperor fishes, remain among the most problematic tropical marine coastal fishes to identify (Smith, 1959; Walker, 1975; Sato, 1978; Carpenter & Allen, 1989; Carpenter, 2002). Most of the 29 known species of *Lethrinus* are large and economically important. However, their meristic and morphometric characteristics are conservative making many difficult to differentiate taxonomically. The Lethrinidae is a sister taxon to the Sparidae plus Centracanthidae and together with the Nemipteridae comprise the Sparoidea (Carpenter and Johnson, 2002). The systematic relationships among the five genera of Lethrinidae are as yet unknown, but species of *Lethrinus* are easily distinguished from the other four lethrinid genera (*Gnathodentex* Bleeker, 1873; *Gym-*