

Viewpoint: On Pacific Bluefin Tuna (*Thunnus orientalis* Temminck and Schlegel 1844)

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A biologist whose career spans several decades will most likely find the scientific name of the species on which she or he first worked has been changed. With the use of modern information technology, and better species identification and description tools including genetics, marine fish taxonomy has greatly improved the rate of success in naming valid species, which is now better than 90% (Eschmeyer *et al.* 2010). A particular example of a trend that Eschmeyer *et al.* (2010) identified was a change in treatment of the idea of subspecies. Historically, they noted that subspecies were designated when naming closely related populations that showed very minor differences and which did not overlap in their distribution. Recently, however, previous subspecies were most likely to be named as full species if their populations displayed consistent differences, did not overlap geographically and had confirmed genetic differences.

An illustration of a previous subspecies that has, since 1999, been considered a valid full species is *Thunnus thynnus orientalis*, once considered a subspecies of *Thunnus thynnus* but now separated from the Atlantic bluefin tuna which is named *Thunnus thynnus*. The previous *T. thynnus orientalis* is now named *T. orientalis* (Temminck and Schlegel, 1844). According to Collette (1999, p. 156) "... the morphological differences between Atlantic and Pacific bluefins (shape of the dorsal wall of the body cavity in large specimens and numbers of gill rakers) coupled with the molecular data suggests separation of these bluefins as separate species, *T. thynnus* and *T. orientalis*, rather than subspecies." The Food and Agriculture Organization of the United Nations lists the English language common name of *T. orientalis* as "Pacific bluefin tuna." In a recent issue, Asian Fisheries Science published a paper by Seki *et al.* (2016) that assigned the species name *Thunnus thynnus* (Linnaeus 1758) and common name "northern bluefin tuna" to a study that probably concerned *Thunnus orientalis*. The fish used in the study were collected in the wild from Nagasaki, Japan, thus precluding other bluefin tuna species.

Information about the species name change and much other current knowledge about *T. orientalis* can be found in the recent full profile published online by AsiaPacific-FishWatch, a project of the Asian Fisheries Society (<http://www.asiapacfish.org/index.php/species/item/27-pacific-bluefin-tuna>). The profile covers information on sustainability, production, supply chains and markets, environment and climate, and biology.

Key words: *Thunnus orientalis*, Pacific bluefin tuna, Japan, systematics, AsiaPacific-FishWatch, valid name

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