

## ***Torpedo formosa* sp. nov., a new species of electric ray (Chondrichthyes: Torpediniformes: Torpedinidae) from Taiwan**

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### **Abstract**

A new species of torpedo ray, *Torpedo formosa*, **sp. nov.**, is described from specimens collected from northeastern Taiwan. The new species is placed in the subgenus *Tetronarce* based on a uniform purplish dorsal coloration and the absence of papillae around the spiracles. It is distinct from the sympatric *T. tokionis*, the only other known *Torpedo* (*Tetronarce*) species from the western North Pacific, by a disc that is wider than long, a shorter tail, a greater number of spiral valve turns, and its dorsal coloration. It has been misidentified as *T. nobiliana*, but is distinguished from it by having longer snout and spiracle lengths, a lower vertebral count, and a caudal fin height that is greater than the distance from the first dorsal origin to the caudal fin origin. This new species, at present, is known only from the northeast coast of Taiwan between Keelung and Suao primarily at depths of less than 300m.

**Key words:** Electric ray, Torpedinidae, *Torpedo*, new species, Taiwan

### **Introduction**

The genus *Torpedo* Duméril, 1806, consists of 21 valid species, two dubious species, and possibly three undescribed species (Compagno, 2005). Two subgenera are generally recognized, *Torpedo* Duméril, 1806 and *Tetronarce* Gill, 1862. The subgenus *Tetronarce*, with 10 valid species, can be distinguished from *Torpedo* by the absence of papillae around the spiracles and a uniformly drab, often dark brown to purplish-black dorsal coloration (Fraser-Brunner, 1949; Stehmann & Bürkel, 1984; Carvalho *et al.*, 2002). In addition, the *Tetronarce* tend to occur primarily on continental slopes and around oceanic islands (Compagno, 2005). Those members of the subgenus *Torpedo*, by contrast, have papillae around the spiracles, are often ornately colored on their dorsal surface, and are usually found on continental shelves (Carvalho *et al.*, 2002).