



NOTE UPDATE AND CORRECTION

Juveniles of the Torpedo Scad, *Megalaspis cordyla* (Teleostei: Carangidae), schooling with venomous catfishes (Plotosidae): a new case of mimicry and an identification correction

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Smith-Vaniz *et al.* (2018) reported a case of mimicry between juveniles of *Caranx bucculentus* Alleyne & Macleay (Carangidae) and *Plotosus lineatus* (Thunberg) (Plotosidae) in this volume of the *Journal of the Ocean Science Foundation* (p. 82). The identifications were based solely on photographs of schooling juveniles at Lembeh Strait, Indonesia. Soon after the on-line version of the paper became available, new information made it obvious that the carangid had been misidentified. A color image of an approximately 5 cm fork length juvenile of *C. bucculentus* from Western Australia was kindly sent to me by John Pogonoski. This specimen has a much deeper body than the mimic carangid and its coloration is very different. Subsequently, I received 4 color photographs of what was clearly the same carangid illustrated in Smith-Vaniz *et al.* (2018) in association with *Plotosus* schools.

One of these photographs (Fig. 1) shows 17 individuals schooling with the venomous catfishes. The photographs were taken by Neville Ayliffe at Stringer Reef, Sodwana Bay, South Africa (-27.519° , 32.689° or $27^{\circ} 31.14'S$, $32^{\circ} 41.34'E$). Because *C. bucculentus* does not occur in the western Indian Ocean, the identity of the mimic carangid cannot be that species. So what species is it?

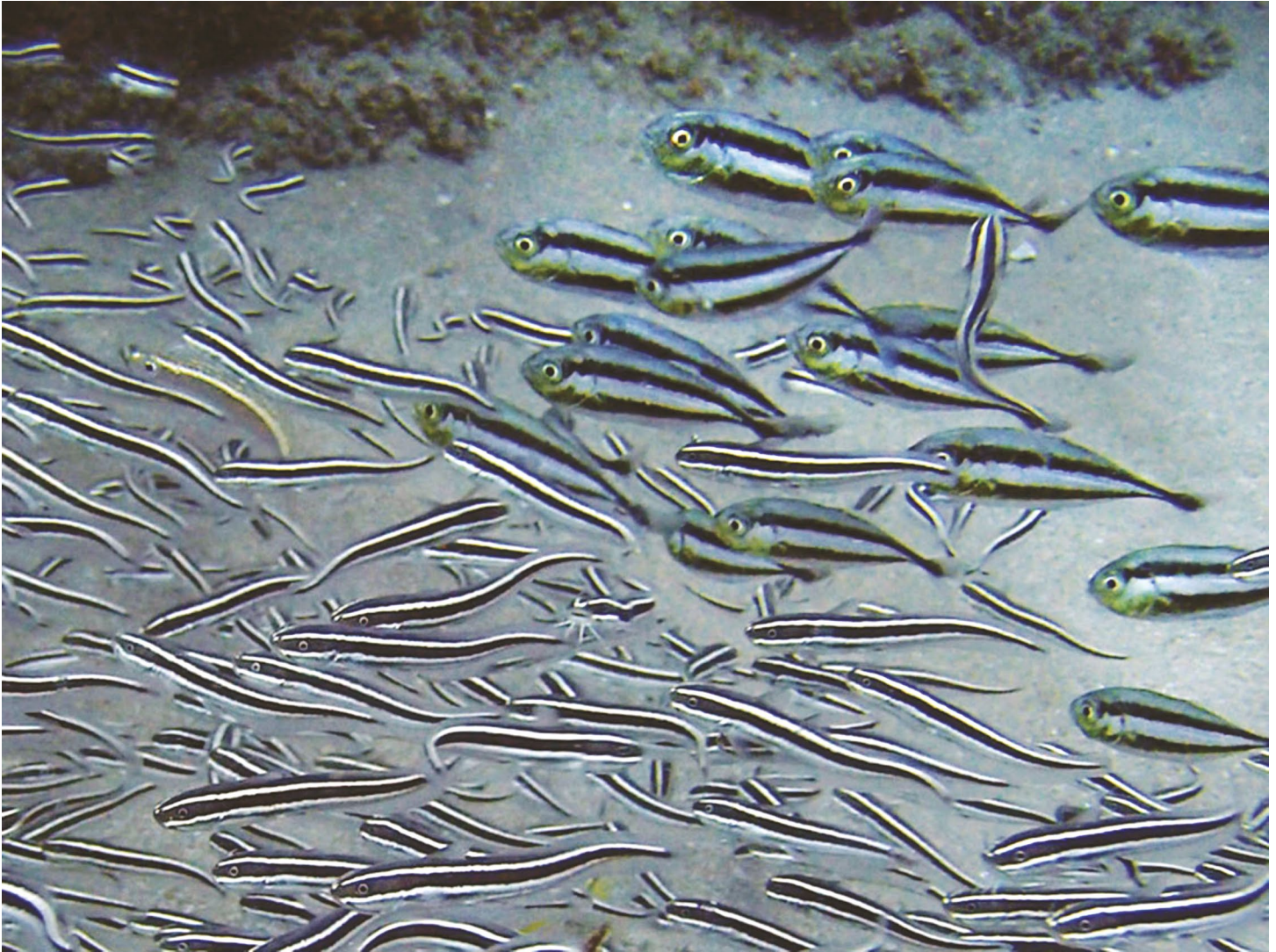


Figure 1. School of swarming juvenile Striped Catfish, *Plotosus lineatus*, together with juveniles of Torpedo Scad, *Megalaspis cordyla* (top right), Sodwana Bay, South Africa (N. Ayliffe).

Only two other carangid genera include species with the combination of a long straight lateral line that ends at or in front of the second dorsal-fin origin and the curved part of the lateral line moderately to strongly arched. Of the five species of *Alepes*, only *A. melanoptera* (Swainson) has the curved part of the lateral strongly arched below the spinous dorsal fin. In the western Indian Ocean region this species is known only from the Persian Gulf and lacks scutes that form a strong median keel (see below). In contrast, the Torpedo Scad, *Megalaspis cordyla* (Linnaeus), has a very strongly arched lateral line with the curved part almost entirely below the spinous dorsal fin and the species is widely distributed throughout the Indo-West Pacific. Adults of *Megalaspis* lack the dark stripes of the juveniles and have very wide lateral-line scutes with strongly pointed spines that form a distinct medial keel extending on to the caudal peduncle, and the posterior 8–10 dorsal-fin and anal-fin rays form detached finlets (Smith-Vaniz 1999, Randall 2005, Allen & Erdmann 2012). Unfortunately, no preserved museum specimens of *Megalaspis* similar in size to juvenile *Plotosus* are available for comparison. The finlets would likely not be well-developed or observable in small juveniles and the wide scutes are difficult to see even in underwater photographs of swimming adults. The scutes are not in good focus in any of the mimic carangid photographs, but close

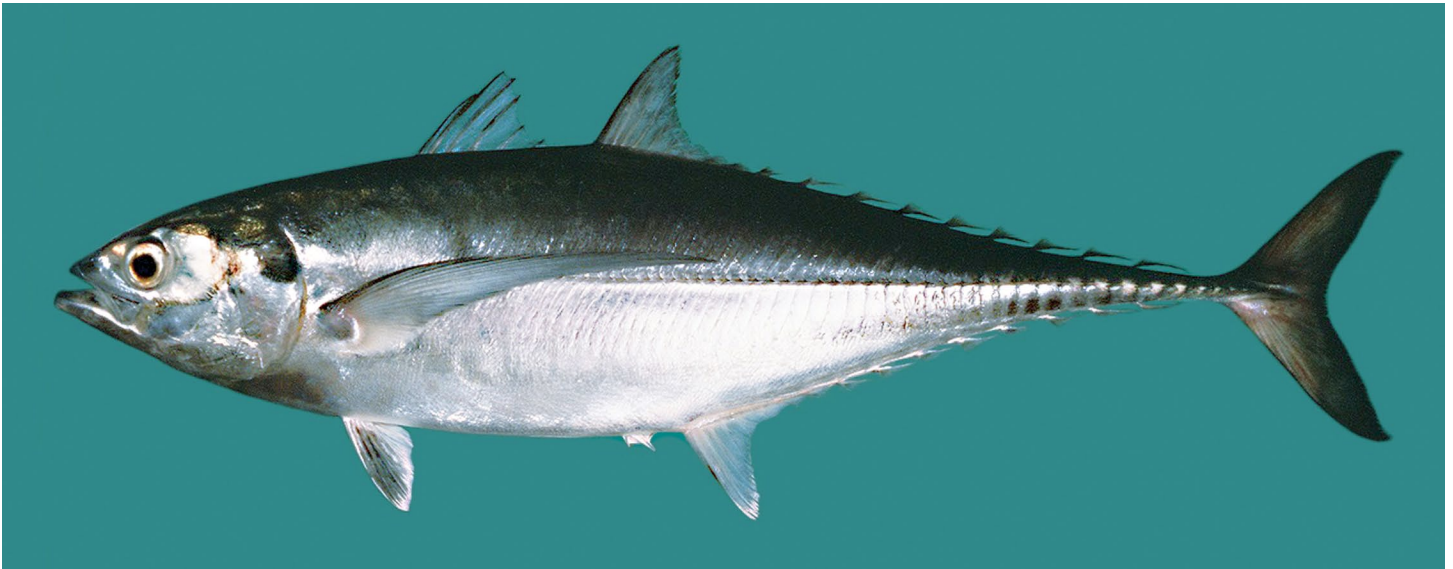


Figure 2. *Megalaspis cordyla*, BPBM 29824, 494 mm SL, Lombok, Indonesia (J.E. Randall).

examination of one fish in Smith-Vaniz *et al.* (2018, p. 83, fig. 1) shows the position and strong arch of the curved lateral line exactly as in Torpedo Scad adults and the straight portion of the lateral line shows evidence of a strong medial keel. Thus, there is little doubt that the identity of the mimic carangid is *Megalaspis cordyla*. Adults of this schooling species (Fig. 2) are anatomically adapted for a pelagic environment, and it is surprising that until now the association of small juveniles with demersal venomous catfish schools was undocumented.

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