

Antagonistic behavior between two honeycomb cowfish, *Acanthostracion polygonius* Poey, 1876, at Curaçao

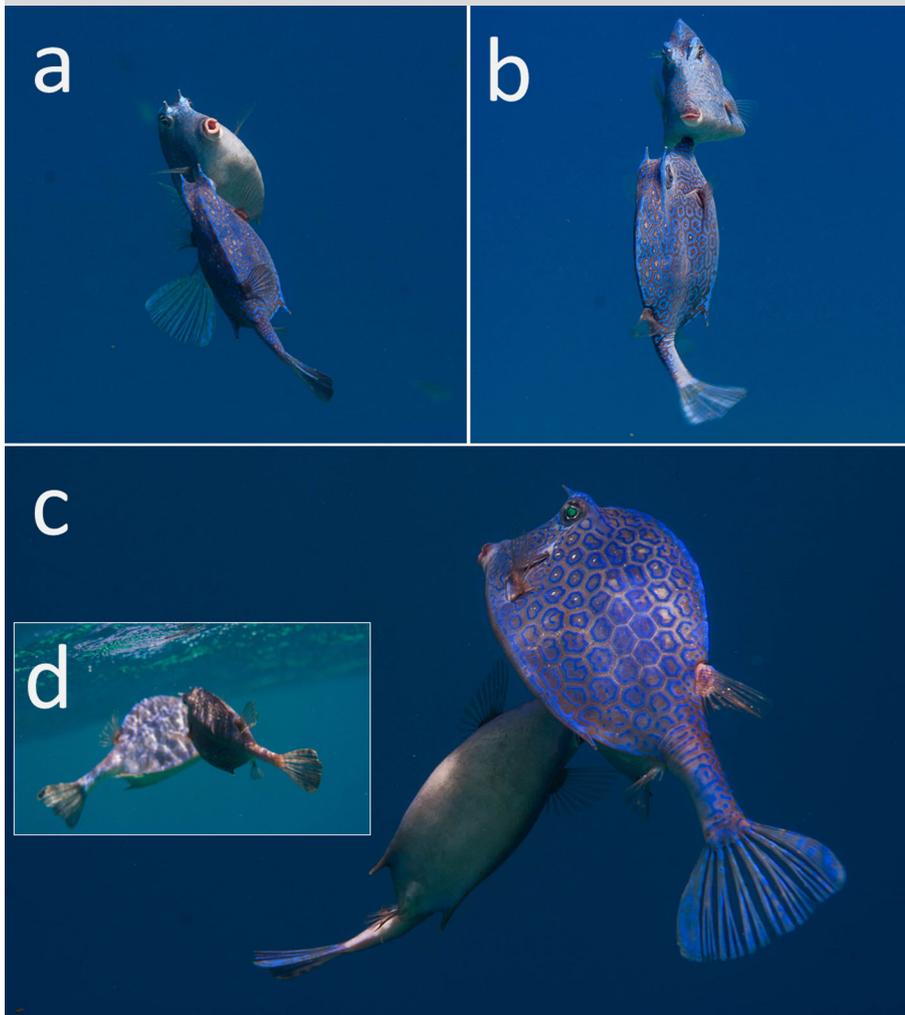


Fig. 1 *Acanthostracion polygonius* displaying aggressive behavior. **a, b** Both individuals flaunting their bright blue colors while taking turns biting each other. **c, d** Smaller fish biting the larger one prior to separating

The honeycomb cowfish, *Acanthostracion polygonius* Poey, 1876 (Ostraciidae) is easily distinguishable from other Caribbean coral reef fish. Both females and males possess a heavy external bony box with uniformly hexagonal scale plates as armor, as well as a pair of spines projecting from the carapace above the eyes and anterior to the \bar{L} fin (Moyer 1984). They are known to feed on a variety of invertebrates, including tunicates, alcyonaceans, shrimps, gastropods, and at least 15 species of sponges (Randall 1967; Wulff 1994).

During a coral reef biodiversity survey at Curaçao (June 2017), two *A. polygonius* individuals were engaged in what appeared to be either a failed mating ritual dance or a male–male territorial dispute (Fig. 1). It is likely that the encounter is that of a male–male confrontation since the distinctive humming sound of the male prior to gamete release was not heard, nor any spawning was observed (Moyer 1984).

The fighting behavior resembled that of *Lactoria diaphana* from the Indo-Pacific; upon seeing each other, the pair proceeded to flash and display their bright neon-blue coloration (Moyer 1984). Aggressively charging each other, they took turns sucking/biting their respective underside belly as they rose in the water column (from 6 m depth) in a circular motion (Fig. 1). Upon reaching the proximity of the surface, with the larger (more dominant) trunkfish attached to the smaller fish, the pair broke off and swam toward the reef in opposite directions. Within the scientific literature, little is known regarding cowfish social structure, reproduction, and territorial competition. This record shines light into a previously known ritual, yet still misunderstood behavior of trunkfishes in the Caribbean.

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Compliance with ethical standards

Conflict of interest The corresponding author states that there is no conflict of interest.

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