

## *Iniforis reevei* (Mollusca: Triphoridae), a new marine species record for the Hawaiian Islands<sup>1</sup>

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While collecting micromollusks from beach drift at a site east of the Sharks Cove area on the island of O'ahu following a high surf event, the first author recovered a single specimen of a distinctive species of Triphoridae that did not match any currently identified from the Hawaiian Islands. The spindle-shaped, golden-colored shell tapered both basally and distally, with a contrastingly dark coloration on the siphonal canal (Fig. 1), making it immediately distinctive within the local triphorid assemblage.

A photomicrograph of this specimen was sent to the second author, who confirmed that it represented *Iniforis reevei* (Deshayes, 1863), a widespread species with a range extending across the Indo-Pacific region. Based on personal observations of specimens by the second author, we can include within this distribution records from the Red Sea, Reunion, New Caledonia and Taiwan. Specimens are never observed in large numbers, which aligns with the apparent rarity of this triphorid on O'ahu.

### *Iniforis reevei* Deshayes, 1863      **New State Record**

*Triphoris reevei* Deshayes, 1863: 101, pl. 21, fig. 25–26. Type-locality: Reunion.

*Triphoris reevei* Deshayes, 1863: Martens 1880: 282.

*Iniforis reevii* (Deshayes, 1863) [sic]: Jousseume 1898: 71.

*Trifora reevei* Deshayes, 1863: Viader 1937: 43.

*Iniforis reevei* (Deshayes, 1863): Dekker & Orlin 2000: 24.

*Mastonia reevei* (Deshayes, 1863): Chang & Wu 2005: 33, fig. 70.

*Triphora reevei* Deshayes, 1863: Jay 2007: 39, fig. 25–27, 54.

*Iniforis* sp.: Severns, 2011: 234, pl. 100, fig. 7.

*Iniforis reevei* is a newly confirmed record for the Hawaiian Islands, although it is not the first time that the species has been figured based on a local specimen. Hemmes *et al.* (1997, fig. 62) figured and discussed this species as the unidentified “chocolate siphon triphora” and noted that his group at the University of Hawai'i Hilo had taken 4 specimens at a depth of 15 m off Honaunau, on the leeward coast of Hawai'i island. Subsequently, Severns (2011: 234, pl. 100, fig. 7) figured one of these Honaunau specimens as “*Iniforis* sp.” In neither of these previous cases was a species identification provided.

*Iniforis reevei* was originally described from Reunion Island, in the Western Indian Ocean. The holotype specimen could not be located by Jay (2007), who designated a

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1. Contribution No. 2022-001 to the Hawaii Biological Survey.

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**Figure 1.** *Iniforis reevei* Deshayes. Specimen with damaged aperture and partially missing protoconch (brown when intact), from USA, Hawai'i, O'ahu.

neotype, also from Reunion. This neotype, along with additional specimens from Reunion held in the Muséum national d'Histoire naturelle, in Paris, has been examined by the second author as part of a larger study of triphorid holotypes held in that institution

(Albano *et al.* in press), and forms the basis for our determination of the O<sup>ʻ</sup>ahu specimen.

The opinion as to the generic placement of this species has varied widely among authors over time. It was originally placed in *Triphoris* (Deshayes, 1863), an invalid subsequent emendation of *Triphora* Blainville, 1828, then later transferred to *Iniforis* by Jousseume (1898). Other authors continued to assign it to *Triphora* using the unjustified emendations *Triforis* (Martens, 1880), and *Trifora* (Viader, 1937), until it was moved back to *Iniforis* by Dekker & Orlin (2000), then to *Mastonia* by Chang & Wu (2005). Although Chang & Wu did not provide any justification for their transfer of this species to *Mastonia*, this assignment is currently adopted in the online World Register of Marine Species, a widely consulted global authority file. Jay (2007), in his review of Triphoridae described from Reunion, placed all the species involved back in their original genera, thus moving *reevei* back into *Triphora*, a genus that has served over time as a polyphyletic dumping ground for a disparate array of taxa. Overall, this species seems to us to fit best in *Iniforis*, in agreement with the placement by Jousseume (1896), Dekker & Orlin (2000), and Severns (2011), based on the presence of a hole in the peristome which does not have a connection to the aperture. In *Mastonia*, by contrast, this sinus has a small canal or slit which connects to the aperture.

Based on current records, it seems likely that *I. reevei* will eventually be shown to occur as small, localized populations throughout the main Hawaiian Islands.

*Material examined.* HAWAIIAN ISLANDS: **O<sup>ʻ</sup>ahu**: limestone basin E. of Sharks Cove, 21°39'09"N, 158°03'42"W, 1 specimen (6.2 mm, missing protoconch and with aperture damaged): USA, Hawai'i, O<sup>ʻ</sup>ahu, 23 Feb 2019, in beach drift after high surf event, D.A. Polhemus (in D. A. Polhemus collection, catalog number POL-SHL-2019-0001, to be deposited in the Bishop Museum).

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