

Validation of *Ocypode celadon* (Crustacea: Brachyura: Ocypodidae), a distinctive ghost crab species from the Indian Ocean

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Abstract. The distinctive green ghost crab, *Ocypode celadon*, was recently described from material from the Indian Ocean by Davie et al. (2026) in the ‘Journal of Zoological Systematics and Evolutionary Research’ (2026). Unfortunately, because the journal is an electronic-only publication and the work did not include a ZooBank registration number, the name is not available for nomenclatural purposes. The present note validates the name *Ocypode celadon* by fulfilling the requirements of the current zoological code.

Key words. Decapoda, zoological nomenclature, unavailable name, International Code of Zoological Nomenclature

INTRODUCTION

The name *Ocypode celadon* was used for a new species of ghost crab from the Indian Ocean by Davie et al. (2026) in the ‘Journal of Zoological Systematics and Evolutionary Research’, 2026: ID 8882236, pp. 1–26. <https://doi.org/10.1155/jzs/8882236>. However, it is unavailable according to the International Code of Zoological Nomenclature (Code) because that article is an electronic-only publication and did not include a ZooBank registration number (LSID). The present note serves to make available the name *Ocypode celadon* by fulfilling the requirements of the Code (ICZN, 1999, 2012).

Type material is deposited in Queensland Museum, Brisbane (QM); Swedish Museum of Natural History, Stockholm (SMNH); Florida Museum of Natural History, Gainesville (UF); Western Australian Museum, Perth (WAM); and Zoological Reference Collection (ZRC), Lee Kong Chian Natural History Museum, National University of Singapore.

TAXONOMY

Infraorder Brachyura Latreille, 1802

Superfamily Ocypodoidea Rafinesque, 1815

Family Ocypodidae Rafinesque, 1815

Ocypode celadon, new species

<http://zoobank.org/urn:lsid:zoobank.org:act:089DD95F-E950-434E-B75A-F43D449F0991>

“*Ocypode celadon*” Davie, Ng & Shih, 2026: 15–17, figs. 5B; 6C, D; 7C, D, H; 8C, D; 9B, E, H; 12 [unavailable].

Material examined. HOLOTYPE: QM-W55057, male (42.3×38.7 mm), Cocos (Keeling): North Keeling Island, 11°49.782'S 96°49.039'E, 8 February 2012. PARATYPES: **South Africa:** WAM-C44845, 5 females (30.9×27.7 mm, 34.5×30.3 mm, 28.8×26.2 mm, 31.6×28.2 mm, 30.6×27.2 mm); 5 males (36.3×32.9 mm, 33.3×29.3 mm, 33.5×31.0 mm, 33.3×29.6 mm, 29.4×26.7 mm); South Africa, Natal, Banga Nek, Kosi Bay, coll. R.W. George, 2 June 1970. **Mozambique:** WAM, 8 females (23.4×19.9–38.5×33.1 mm), Casuamine I., Mozambique, G. Hughes, 9 August 1970; WAM-219-73, 1 male (40.5×36.0 mm), Pomene, Mozambique, P.F. Berry, 25 April 1970. **Kenya:** WAM, female (32.5×27.4 mm), Manda I., Kenya, East Africa, coll. A.J. Bruce, 21 April 1959. **Comoros:** UF-NH13661, 1 male (33.7×29.5 mm), N'Goiya, Mayotte, Comoros, 12.9642°S 45.0864°E, A. Anker & F. Michonneau, 7 June 2008. **Mauritius:** UF-4973, female (29.5×25.8 mm), Cape Malheureux, by Les Carcasailles Apartments, Mascarene Is., Mauritius, 19°59.15'S 57°37.61'E, J. Starmer; UF-4570, 3 females (18.9×16.3 mm, 22.1×18.6 mm, 25.8×22.8 mm), 3 males (15.9×12.8 mm, 17.0×14.9 mm, 17.7×15.7 mm), Cape Malheureux, by Les Carcasailles Apartments, Mascarene Is.,

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Mauritius, 19°59.15'S 57°37.61'E, J. Starmer. **Tanzania:** UF-2361, 1 male (19.4×16.8 mm), 3 females (20.6×17.5 mm, 24.5×21.3 mm, 38.2×33.4 mm), Bawe I., Zanzibar, Tanzania, C. Meyer, 15 January 2000. **Seychelles:** SMNH 13766, 1 male (30.3×26.4 mm), 3 females (21.5×18.4 mm, 33.0×28.2 mm, 37.2×33.0 mm), Long Island, Seychelles, H. Sundberg, 2 April 1935; SMNH 13767, male (40.3×35.9 mm), female (41.8×35.6 mm), Long Island, Seychelles, H. Sundberg, 3 April 1935; SMNH 13751, 2 males (44.0×38.3 mm, 42.9×37.8 mm), Frigate Island, Seychelles, H. Sundberg, 11 April 1935. **Cocos (Keeling) Islands:** QM-W55068, 1 male (42.3×38.5 mm), Cocos (Keeling) Islands: North Keeling Island, 11°49.782'S 96°49.039'E, 08.02.2012; ZRC 2019.1574, 3 males (32.1×27.7 mm, 36.9×31.7 mm, 39.5×35.1 mm), 2 females (36.7×32.2 mm, 39.5×34.0 mm), Cocos (Keeling) Islands: southern beach of Direction Island, Cocos Keeling 2011 Expedition, 21 March 2011; ZRC 2019.1576, 1 male (36.1×31.5 mm), Cocos (Keeling) Islands: West Island, Trannies Beach, Christmas Island & Pulu Keeling Expeditions 2010–2012, 8 February 2012; ZRC 2019.1578, 1 male (39.6×34.8 mm), Cocos Keeling: Alor Penyu, West Island, 12°09.511'S, 96°49.249'E, Cocos Keeling 2011 Expedition, 20 March 2011; ZRC 2019.1579, 2 females (26.2×22.6 mm, 34.5×30.3 mm), Cocos (Keeling) Islands: West Island, Trannies Beach, 11 February 2012; ZRC 2019.1580, 1 female (40.7×36.7 mm), Cocos Keeling: North Keeling, 8 February 2012; ZRC 2019.1581, 2 males (24.7×21.9 mm, 33.6×29.5 mm), 1 female (25.9×22.6 mm), Cocos (Keeling) Islands: Settlement, West Island, 12°11.343'S 96°49.714'E, 20 March 2011; ZRC 2019.1582, 3 males (19.0×16.5 mm, 43.6×39.4 mm, 38.8×33.8 mm), 2 females (40.5×35.2 mm, 41.2×36.5 mm), Cocos Keeling: Tanjong Puji, West Island, 12°11.589'S 96°51.549'E, 19 March 2011; ZRC 2019.1583, 5 males (41.9×38.7 mm, 41.8×38.4 mm, 42.8×36.5 mm, 40.9×37.1 mm, 45.6×41.3 mm), 2 females (40.2×35.8 mm, 38.1×33.7 mm), Cocos (Keeling) Islands: North Keeling Island, 11°49.782'S 96°49.039'E, 8 February 2012. **Christmas Island:** QM-W55067, 1 male (32.7×30.0 mm), Ethel Beach, 10°27.805'S 105°42.443'E, 3 January 2012; QM-W55066, 2 males (38.7×36.0 mm, 38.7×35.9 mm), 1 female (25.4×22.5 mm), Flying Fish Cove, 10°25.815'S 105°40.180'E, 20 March 2011; QM-W55065, 1 female (31.6×27.8 mm), Ethel Beach, 10°27.805'S 105°42.443'E, 28 March 2011; QM-W55058, 1 male (42.2×38.3 mm), Dolly Beach, Christmas Island, 10°31.272'S 105°40.512'E, 29 January 2010, P. Davie & P. Ng; QM-W55061, 1 male (29.1×26.6 mm), Waterfall Beach, Christmas Island, 23 January 2010, P. Davie & P. Ng; ZRC 2010.0008, 1 male (42.7×38.8 mm), Dolly Beach, Christmas Island, 10°31.272'S 105°40.512'E, 29 January 2010, P. Davie & P. Ng; ZRC 2019.1575, 1 male (32.6×29.9 mm), Christmas Island: road towards Christmas Is. Resort, 10°27.213'S 105°42.239'E, Christmas Island 2012 Expedition, 3 February 2012; ZRC 2019.1577, 1 male (35.7×32.2 mm), 1 female (35.5×31.0 mm), Christmas Island: Greta Beach, 10°30.127'S 105°40.475'E, Christmas Island 2012 Expedition, 15 February 2012; WAM-C44844, male (35.6×31.5 mm) Flying Fish Cove, Christmas Island, G. Morgan, 22 February 1987.

Diagnosis. Carapace slightly wider than long (1.1–1.2 times), finely granular over dorsal surface. Eyestalks prolonged distally beyond cornea in a long stylus in mature adults. Supraorbital margin with inner part lateral to base of rostrum relatively flat or only weakly concave, not forming obvious concave cup; outer lateral margin oblique relatively straight or weakly concave to exorbital angle. Exorbital angles broadly triangular and weakly directed laterally in large specimens. Carapace marginally broadest at exorbital angles in larger specimens, or at about anterior third in smaller. Palm of major chela appears higher; height c. 1.1–1.2 × length (length in midline from base of gape to indent of articulation versus maximum vertical height); fingers also appear shorter, broader than *O. ceratophthalmus*; granulation on outer face of major chela prominent, coarse, more sparsely granular; spination of lower margin strong, blunted, more distally pointed; alternating but more even in size than *O. ceratophthalmus*; lower margin of chela broadly evenly convex. Stridulatory crest superior half composed of c. 15–16 widely spaced chitinous tubercles; mostly broadly transverse becoming narrower ventrally. Ventral half marked by c. 20–22 much finer transverse striae, closely spaced initially but interspaces widening ventrally to be similar to anterior part; relatively narrower anteriorly forming obvious waist at transition point; becoming broadest at about tubercles 13–17, then narrowing quickly. Minor chela ventral margin spines lower, blunter, more distally pointed than *O. ceratophthalmus*. Male first gonopod apically narrowed, corneous tip well defined, projecting distally; subapical thumb well-developed, triangular, projecting more laterally than distally.

Etymology. The name is in reference to the typical green colour of this species. The French word “Celadon” has become famous as the name of a pale, jade-green pottery glaze, but it apparently has its origin from the name of the shepherd, Celadon, a character in Honoré d'Urfé's French romance, ‘L'Astrée’ (1627), who wore pale green ribbons. The name is used as a noun in apposition.

Remarks. *Ocypode celadon*, new species, is morphologically closest to *O. ceratophthalmus* (Pallas, 1772) and *O. urvillii* Guérin, 1829, but can easily be separated by characters in the cheliped, especially in form of the stridulatory crest, as well as the shape of the supraorbital margin, male first gonopod and the live coloration (see Davie et al., 2026: table 3). These differences are supported by genetics, with their cytochrome c oxidase subunit 1 (COI) clearly different (Davie et al., 2026: figs. 1, 2). A detailed discussion of the differences between these three taxa can be found in Davie et al. (2026).

Biogeographically, *O. celadon*, new species, is a western Indian Ocean taxon that is present on the continental margin of East Africa, and on oceanic islands as far east as Christmas Island. *Ocypode ceratophthalmus* can co-occur with *O. celadon*, new species, on Indian Ocean islands but is otherwise the dominant species along the continental margins from the central northern Indian Ocean and western Pacific. The third species, *O. urvillii*, appears to be a wholly insular taxon with a wide distribution stretching from the eastern

Indian Ocean to the central Pacific (see Davie et al., 2026: fig. 11). All three species are known to be sympatric on the beaches of Cocos (Keeling) Islands and Christmas Island in the north-eastern Indian Ocean.

LITERATURE CITED

- Davie PJF, Ng PKL & Shih H-T (2026) A review of the widespread Indo-West Pacific ghost crab, *Ocypode ceratophthalmus* (Pallas, 1772) (Crustacea: Decapoda: Ocypodidae) complex, with the description of a new species. *Journal of Zoological Systematics and Evolutionary Research*, 2026: 8882236. <https://doi.org/10.1155/jzs/8882236>.
- Guérin FE (1829–1830) Crustacés et Arachnides. In: Duperrey LI (ed.) Voyage autour du monde, exécuté par Ordre du Roi, sur la corvette de Sa Majesté, la *Coquille*, pendant les années 1822, 1823, 1824 et 1825, sous le Ministère et Conformément aux Instructions de S.E.M. le Marquis de Clermont-Tonnerre, Ministre de la Marine; et publié sous les Auspices de son Excellence Mgr le Cte de Chabrol, Ministre de la Marine et des Colonies. Zoologie. Arthus Bertrand, Paris, vol. II(2), i–xii + 9–56 pp.; Crustacés pls. 1–5.
- ICZN, International Commission on Zoological Nomenclature (1999) International Code of Zoological Nomenclature. International Commission of Zoological Nomenclature. Fourth Edition. Adopted by the XXI General Assembly of the International Union of Biological Sciences. International Trust for Zoological Nomenclature, in association with the British Museum (Natural History), London, 338 pp.
- ICZN, International Commission on Zoological Nomenclature (2012) Amendment of Articles 8, 9, 10, 21 and 78 of the International Code of Zoological Nomenclature to expand and refine methods of publication. *Zootaxa*, 3450: 1–7.
- Latreille PA (1802) Histoire Naturelle, générale et particulière. Des Crustacés et des Insectes. Ouvrage faisant suite à l'Histoire Naturelle générale et particulière, composée par Leclerc De Buffon, et rédigé par C. S. Sonnini, membre de plusieurs Sociétés savantes. Famille naturelles de genres. Tome troisième. Dufart, Paris, xii + 13–467 pp.
- Pallas PS (1772) *Spicelegia Zoologica*. Quibus novae imprimis et obscurae Animalium Species. Iconibus, descriptionibus atque commentariis illustrantur. Fasculus nonus. Prostant apud Gottl. August. Lange, Berolini, pp. 83–84 ; pl. 5 ; figs. 7, 8.
- Rafinesque CS (1815) *Analyse de la Nature ou Tableau de l'Univers et des Corps organisés*. Aux dépens de l'auteur, Palermo, pp. 12–24.