



## On the identity of Collingwood's Pill-Making Crab, *Sphaerapoeia collingwoodii* Collingwood, 1868 (Crustacea: Decapoda: Brachyura: Dotillidae)

MARTYN E. Y. LOW<sup>1</sup> & PETER K.L. NG<sup>2</sup>

<sup>1</sup> Department of Marine and Environmental Sciences, Graduate School of Engineering and Science, University of the Ryukyus, 1 Senbaru, Nishihara, Okinawa 903-0213, Japan. E-mail: m.low@me.com

<sup>2</sup> Tropical Marine Science Institute and Department of Biological Sciences, National University of Singapore, Kent Ridge, Singapore 119260, Republic of Singapore. E-mail: dbsngkl@nus.edu.sg

### Abstract

The genus- and species-group names *Sphaerapoeia collingwoodii* were made available in an account of the voyage of the *H.M.S. Serpent* by Collingwood (1868) for a species of intertidal ocyrodoid crab found in Singapore, Labuan (Borneo) and Johore (Peninsular Malaysia). The names were used in Collingwood (1868) on the basis of a letter to him from Bate, who never published these names himself. Based on the morphological, ecological and locality notes given by Collingwood (1868), we identify *Sphaerapoeia collingwoodii* with the dotillid *Scopimera intermedia* Balss, 1934. We enact Article 23.9.2 of the Code to reverse precedence of these names, thereby making *Scopimera intermedia* Balss, 1934, a *nomen protectum*, and *Sphaerapoeia collingwoodii* Collingwood, 1868, a *nomen oblitum*.

**Key words:** *Scopimera intermedia*, *Sphaerapoeia collingwoodii*, Dotillidae, *H.M.S. Serpent*, Cuthbert Collingwood, *nomen protectum*, *nomen oblitum*, Article 23.9, ICZN, Code

Cuthbert Collingwood (1826–1908) joined the *H.M.S. Serpent* during its voyage from Hong Kong to Southeast Asia (see McMillan 2001). Collingwood published on both zoology and botany (e.g., see Collingwood 1861; 1879), and an account of the ethnographical, botanical and zoological observations made during the *Serpent's* voyage was published in Collingwood (1868), which interestingly includes the first published account of the mutualistic relationship between sea anemones and anemone fishes (see Fautin & Allen 1992).

Collingwood (1868) also made some detailed carcinological observations. On pages 288–291, Collingwood (1868) gives an account of what he calls the “pill-making crab”, the text of which we reproduce in full:

“A curious little Crab is common upon the sandy beaches everywhere on these coasts. I observed it abundantly at Labuan, and at Singapore and Johore, and other places, where, immediately after the tide has gone down, the smooth beach is covered with loose, powdery sand and holes of various sizes, from such as would admit a small pea to those big enough for a large filbert, but usually of the former dimension. A closer examination showed that little radiating paths converged among the litter of sand to each hole, and that the sand itself was in minute balls or concretions of size proportionate to the calibre of the holes. The rapidity with which the shore was covered with myriads of such concretions was very surprising, as at first there appeared no living thing to which they might be attributed. I naturally supposed that the little crab inhabiting the hole had ejected the sand in little balls in the construction of his habitation; but an approaching footstep was an immediate signal for the disappearance of the little creatures. By remaining quite quiet, however, on a patch 30 to 40 feet square, which was covered with their holes, I was able to watch their remarkable habits. On the first approach, a peculiar twinkle on the sand was visible, which required a quick eye to recognise as a simultaneous and rapid retreat of all the little crabs into their holes, not a single one remaining visible. Kneeling down and remaining motionless for a few minutes, I noticed a slight evanescent appearance, like a flash or bursting bubble, which the eye could scarcely follow. This was produced by one or more of the little crabs coming to the surface, and instantly darting down again, alarmed at my prox-