HOST PREFERENCES, COLOUR PATTERNS AND DISTRIBUTION RECORDS OF *PSEUDOCRYPTOCHIRUS VIRIDIS* HIRO, 1938 (DECAPODA, CRYPTOCHIRIDAE)

BY

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ABSTRACT

The coral gall crab *Pseudocryptochirus viridis* is an obligate symbiont of some species of the Indo-West Pacific coral genus *Turbinaria*. The colour pattern variation within the species is illustrated for the first time. Overviews of the coral host species and distribution records are provided, including new records from Indonesia, Malaysia and Australia.

Key words. — Host specificity, Indo-West Pacific, Scleractinia, symbiont, *Turbinaria*

RESUMEN

El cangrejo de agalla *Pseudocryptochirus viridis* es un simbionte obligado de algunas especies del género coralino *Turbinaria* del Indopacífico occidental. Por primera vez se ilustra la variación del patrón de coloración de esta especie. También se presentan sinopsis de los corales que habita y sus registros de distribución, incluyendo nuevos registros en Indonesia, Malasia y Australia.

Palabras clave. — Especificidad huésped-hospedero, Indopacífico occidental, Scleractinia, simbionte, *Turbinaria*

INTRODUCTION

Coral gall crabs (Cryptochiridae) are obligate symbionts of stony corals (Scleractinia), residing in galls or pits in its host. Cryptochirids settle as megalopae on scleractinian corals, and somehow induce the host to grow over and around them (Utinomi, 1944; Castro, 1976). Despite their peculiar mode of life, little is known about their biology and ecology. The taxonomy of the Cryptochiridae was revised

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by Kropp (1990), including a summary of all known coral host genera. Host specificity information at species level, however, remains incomplete.

This paper discusses the coral gall crab *Pseudocryptochirus viridis* Hiro, 1938, associated with stony corals of the genus *Turbinaria* (Dendrophylliidae). The colour patterns of juveniles and adults are described for the first time. An overview of the coral host species and distribution records is provided, including new records for Indonesia, Malaysia and Australia.

**MATERIAL AND METHODS**

Coral gall crabs were collected in Bunaken National Marine Park (N. Sulawesi, Indonesia, Dec. 2008), around Ternate (Halmahera, Indonesia, Oct.-Nov. 2009), in Semporna (E. Sabah, Malaysia, Nov.-Dec. 2010), and around Lembeh Island (N. Sulawesi, Indonesia, Jan.-Feb. 2012). Corals of the genus *Turbinaria* were searched for specimens of *Pseudocryptochirus viridis*. Encountered gall crabs were collected and taken to the field station. After being photographed with a digital SLR camera with a 50 mm macro-lens, the crabs were preserved in 80% ethanol. All material is deposited in the Crustacea collection of the Netherlands Centre for Biodiversity Naturalis in Leiden (formerly Rijksmuseum van Natuurlijke Historie) (coded RMNH.CRUS.D).

**RESULTS**

Order **DECAPODA**

Family **CRYPTOCHIRIDAE** Paul’son, 1875

Genus **Pseudocryptochirus** Hiro, 1938

**Pseudocryptochirus viridis** Hiro, 1938