Coastal Marine Science 30(1): 238–239, 2006

First documented report on *Solieria robusta* (Greville) Kylin (Gigartinales, Rhodophyceae) in the Philippines

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Received: 26 August 2005; Accepted: 10 November 2005

Abstract — The occurrence of *Solieria robusta* (Greville) Kylin in the Philippines was first reported by Gabrielson and Kraft in 1984; however, they did not include details of the collecting site, nor did they describe or illustrate the species to verify its occurrence. In 2000, Tito and Liao, reported ethnobotanical data on the species without including any description or illustration. This paper, therefore, validates for the first time the occurrence of the species in the Philippines.

Key words: *Solieria robusta*, morphology, vegetative thallus

Introduction

The red seaweed *Solieria robusta* (Greville) Kylin is believed to have originated from the coasts of southern and western Australia (Gabrielson and Hommersand 1982), and was first cited to occur in the Philippines by Gabrielson and Kraft (1984); however, no mention of the collecting site was made, nor the species described to verify its occurrence. In 2000, Tito and Liao claimed to have the first report on the occurrence of *S. robusta* in the Philippines, yet no description or illustration of the species was presented; only ethnobotanical data was included which revealed that, Samal and Tausug natives of Davao and Tawi-Tawi regions, respectively, gather their natural stocks in shallow intertidal areas and sell these in the local markets. The species is consumed fresh as vegetable salad or added to soup dishes.

The following paper is part of our series of studies on the biology and chemistry of the economically important species, *S. robusta*. This report, validates for the first time, the occurrence of the species in the Philippines.

Materials and Methods

Plants were collected from shallow intertidal reef flats in Taluksangay and Arena Blanco areas in Zamboanga province, southwestern Philippines (13°00 N Lat, 122°00 E Long.). They were found in rocky-sandy areas in clear waters, attached to small rocks, coral rubbles, or growing on animals like sponges. Upon collection, the plants were placed in labeled plastic bags, then, washed and mounted in velum paper upon arrival in the hotel room for preparation of exsiccatae materials for depository in the herbarium. Fresh samples were kept in a Styrofoam box for air transport to the laboratory in UP Diliman. These were used for external and internal anatomical examinations using standard taxonomic procedures. Photographs were taken of (a) freshly collected samples, (b) dried mounted herbarium materials, and (c) transverse section of branch.

Results and Discussion

***Solieria robusta* (Greville) Kylin (Figures 1: A–D)**

Plants yellowish brown to reddish, erect, 10–20 cm tall, attached to the substrate by branched holdfast. Stipe less than 1 cm, giving rise to many primary axes that branch out proliferously at the upper half or terminal portion of the thallus. Branching up to 4 orders, radial, umbellate, trichotomous, subdichotomous, opposite, or pinnate. Branches fleshy, terete to compressed, 2.5–3.5 mm across, upcurved, forming rounded axils, generally constricted at the base, and with tapered end. Newly grown apical branchlets appear like stubby spines.

Medulla composed of loosely interwoven filaments, 7–25 μm in diameter. Sub-cortical cells in 2–3 layers, large, isodiametric, commonly 100–120 μm in diameter, and with pit connections. Outer cortical cells in 1–2 layers, small, ovoid, without pit connections.

All materials examined were vegetative. These were collected from shallow intertidal reef flats, on sandy-rocky substrates.

Our materials are of similar stature with those described by Tseng (1983) and Gabrielson and Kraft (1984), which are also, somewhat shorter than those of Min-Thein and Womer-

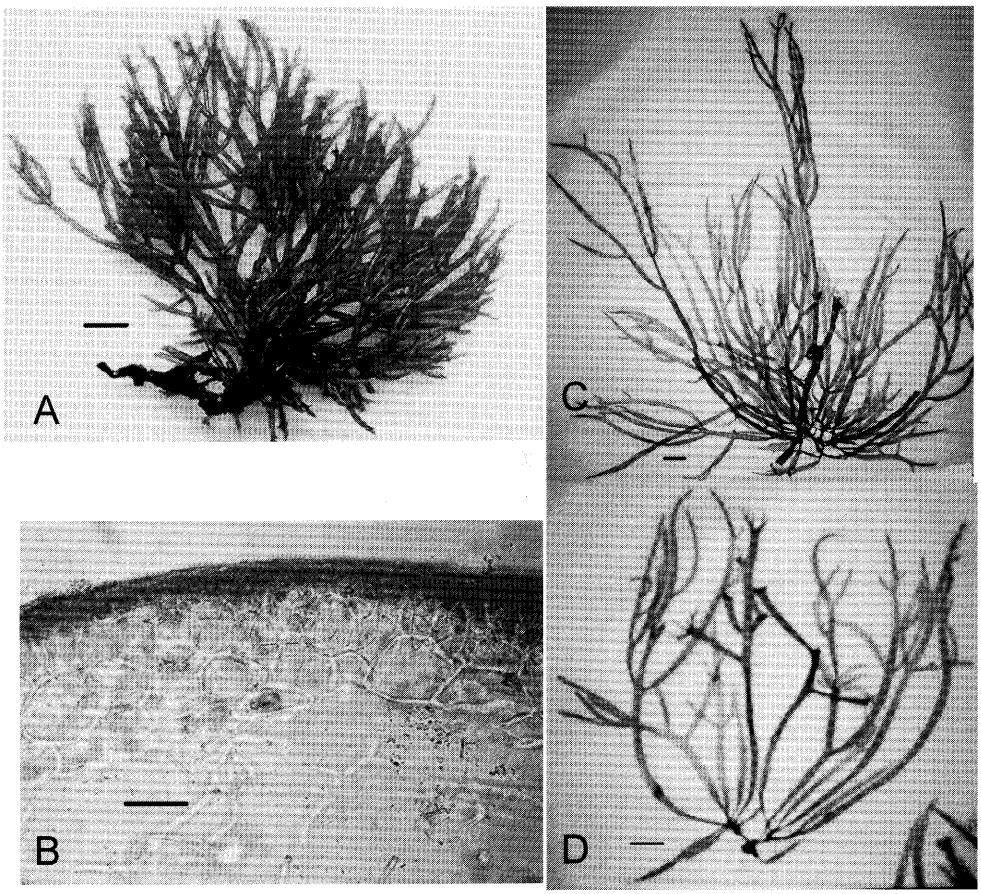

Fig. 1. *Solieria robusta*: A. habit of fresh plant epiphytic on a sponge (scale=1 cm); B, Transverse section of a branch (scale= 100 μm); C, habit of dried, pressed plant (scale=1 cm); D, herbarium material of plant showing umbellate branching pattern (scale=1 cm).

sley (1976) but have more robust and thicker branches. The characteristic umbellate branching where 4–5 branches arise from what seem to be a damaged/wounded branch is evident. However, our specimens are less branched and with shorter laterals. The internal morphology fits well the description of the vegetative thallus of *S. robusta*.

Materials examined (deposited in the G. T. Velasquez Phycological Herbarium of the Marine Science Institute, University of the Philippines): T22335, Taluksangay, Zamboanga (13°6.57′15″N Lat., 122°11′02″E Long), April 24, 2002; T22338, Arena Blanco, Zamboanga, January 22, 2003.

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