



Floristic discoveries from the LNG Pipeline in Papua New Guinea: *Macaranga esseriana* sp. nov. (Euphorbiaceae), and noteworthy records for twelve taxa from the southern provinces

WAYNE TAKEUCHI

Harvard University Herbaria (retired), 22 Divinity Avenue, Cambridge, MA 02138, USA; email: wtnewguinea@hotmail.com

Abstract

Macaranga esseriana is described from previously unknown habitats along the LNG Pipeline in Papua New Guinea. Noteworthy records from the southern provinces are also presented for 12 taxonomically significant species, including *Aceratium pittosporoides* (Elaeocarpaceae), *Coelospermum salomoniense* (Rubiaceae), *Discocalyx latepetiolata* (Myrsinaceae), *Dysoxylum pettigrewianum* (Meliaceae), *Elaeocarpus bilobatus* (Elaeocarpaceae), *E. lingualis*, *Helicia acutifolia* (Proteaceae), *Macaranga tsonane* (Euphorbiaceae), *Marsdenia grandis* (Apocynaceae), *Phyllanthus papuanus* (Phyllanthaceae), *Radiogrammitis ornatissima* (Grammitidaceae), and *Syzygium ubogoensis* (Myrtaceae).

Key words: *Aceratium*, *Coelospermum*, *Discocalyx*, *Dysoxylum*, *Elaeocarpus*, floristic records, *Helicia*, karst, *Macaranga*, *Marsdenia*, *Phyllanthus*, *Radiogrammitis*, *Syzygium*

Introduction

Although Papua New Guinea (PNG) is often the subject of negative and sensationalised reports, ironically the island-state is one of the most progressive in the Pacific basin, with GDP (gross domestic product) growth rates comparable to mainland China (World Bank Group in Papua New Guinea 2011).

Like its better known neighbor to the south (Australia), PNG has a commodities-based economy, with hydrocarbons and gold underpinning an ongoing resource boom which is rapidly transforming the emerging nation. Current developments are primarily being driven by the PNG LNG Pipeline, a liquified natural gas venture spearheaded by Exxon Mobil and destined to become the costliest infrastructure initiative in Papuasias history.

The LNG facilities presently under construction will connect into the most extensive hydrocarbon reserves in Oceania. This undertaking will involve crossing 700 km of logistically formidable terrain, including world class formations of doline karst and rugged mountain barriers which only the size of the financial rewards could rationalise (total outputs of US\$ 99 billion are expected over a 30-year project life; Acil Tasman 2009, Oil Search 2010). The environments scheduled for anthropogenic impacts are either historically unknown to biological science or poorly documented.

In 2008, the author was a participant on the terrestrial surveys for the LNG Pipeline Environmental Impact Statement (EIS). The multidisciplinary study components included botany, entomology, herpetology, ichthyology, mammalogy and ornithology. The EIS recommendations for environmental mitigations were approved by the PNG government in October 2009. A massive 4-year construction schedule has since been initiated, with first production expected by 2014 (Oil Search 2010).