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***Teinobasis fatakula* sp. nov. (Zygoptera: Coenagrionidae), found on 'Eua Island, Kingdom of Tonga**

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Abstract

A recent study of the 'Eua Island in the Kingdom of Tonga has yielded a small Odonata fauna including the new species *Teinobasis fatakula* (Holotype ♂: Kingdom of Tonga, 'Eua Island, 21.3781° S, 174.9346° W, elevation 175 m; 14 July 2012, M. Marinov leg.). Because 'Eua has aquatic habitats unique within the Kingdom of Tonga, the new species is very likely endemic to that island and represents an extension of the verified range of the genus of at least 2800 km.

Key words: dragonflies, Odonata, *Teinobasis*, Tonga, 'Eua Island

Introduction

The Kingdom of Tonga consists of various island types grouped into three clusters. From north to south, these are the Vava'u group, the Ha'apai Group, and the Tongatapu Group, of which Tongatapu Island contains the capital city Nuku'alofa. These islands all have coralline soils, low relief, and very limited surface water.

The western part of the kingdom is a linear chain of presently active volcanic centers, sometimes referred to as the Tofua chain. There are five volcanic islands, three of which are active and the remaining two have a very youthful topography, suggesting young but prehistoric activity. The significance of geologically very young volcanic activity is that the accumulated ash of this sort of volcano is very porous for many years, and rainfall passes immediately into groundwater, resulting in a near lack of surface streams. A nearby example of a very young volcanic center almost entirely lacking surface streams is Savai'i Island in the Samoa group.

The third type of island is the lone island 'Eua, which is underlain by early Cenozoic, deeply weathered volcanic ash. 'Eua Island, is a 19 km long, tilted plateau reaching over 200 m elevation, and is the only island of this type within the Kingdom of Tonga. The clay-rich, low-porosity soil supports numerous small streams and a well-developed subtropical forest. The neighboring Fijian island group has abundant and widespread habitats of this type. The nearest Fijian island with habitats similar to those of 'Eua is Kadavu, which is approximately 800 kilometers to the northwest. The isolation of 'Eua, with its stream habitats resulting from special soil characteristics, makes it an attractive target for odonatological studies.

Marinov (2012) provided the most recent study on the Odonata of the Kingdom of Tonga. During a trip in 2010, in the low-lying islands of the northern Vava'u group and the southern Tongatapu Island, he added seven species to the existing list of nine species. The odonates reported so far are widespread, mainly lacustrine species typical of other low-lying southwest Pacific islands.

Marinov (2013) visited 'Eua on the 13th through 17th of July, 2012, and surveyed several aquatic habitats. He found eight odonate species on the island, including *Teinobasis fatakula* sp. nov., which is restricted to a specific forested habitat (see below). The new species had been taken in 1972 by N. L. H. Krauss, but without detailed locality data.

Teinobasis fatakula sp. nov. Figure 1 (a–g)

Holotype ♂: Kingdom of Tonga, 'Eua Island, stream within the borders of 'Eua National Park & plantation;