

The Identity of *Desmodium purpureum* (Roxburgh) Hooker & Arnott

The identities of some of the species reported from the "Society Islands" by Hooker and Arnott in the Botany of Captain Beechey's Voyage (1830-1841: Society Islands section 1832) have remained doubtful. To the best of our knowledge, no one has systematically examined the eastern Polynesian collections, referred to as from the "Society Islands" by Hooker and Arnott, made, principally by Lay and Collie, on the voyage of Captain Beechey in H.M.S. Blossom. Individual species have been treated by monographers and floristic writers, not always with examination of all of the authentic material.

The herbaria of Wm. J. Hooker and of his colleague G. Walker-Arnott, were originally at Glasgow, and contained the main set of the Beechey Voyage plants. Some duplicates are to be found in the herbaria of the British Museum and Kew, but many species are missing from these sets. In 1965 the phanerogamic herbarium of the University of Glasgow, except for small teaching collections, was transferred to the Edinburgh Botanical Garden on permanent loan.

In the introduction to the Botany of Captain Beechey's Voyage, the authors explain that they are including Easter, Ducie, Elizabeth (Henderson), Pitcairn, "Coral Islands" (various of the Tuamotus), and Tahiti under the heading Society Islands. Precise localization of collections was not then considered essential. Some species were, for example, attributed, both on specimen labels and in their text, simply to "coral islands" of which they visited eight in the Tuamotus.

One name which we have not found in subsequent writings on Pacific islands, and which originated in the Hooker and Arnott work, is *Desmodium purpureum* H. & A. On page 62 they make this combination, citing *Hedysarum purpureum* Roxburgh as basimym, and saying that they have not found it to be previously described. They evidently overlooked the full description in the second

edition of Roxburgh's Flora Indica. They base their transfer on *Hedysarum purpureum* Roxburgh, *Hortus bengalensis* (1814) where the description consists of two symbols, indicating perennial and diffuse. How they could know that their plant was exactly that of Roxburgh is not clear, but the Flora Indica description does fit their plant quite well.

The authorities at Edinburgh kindly sent the Beechey specimen to Kew for our examination. The label is simply "Gambier Islands Beechey". The plant is unquestionably what is now called *Desmodium heterocarpon* (L.) DC. var. *strigosum* v. Meeuwen, widespread in the Indo-Pacific region, usually called, at least in southern Polynesia, *Desmodium polycarpum* (L.) DC. Under this name specimens of the plant have been filed in herbaria from Tahiti and the Marquesas.

It is interesting that by de Candolle in the Prodrômus, 2:334, 337, 1825, both *Desmodium heterocarpon* and *D. polycarpum* are maintained, but *Hedysarum purpureum* Roxb. is not mentioned at all, either as a separate entity or as a synonym. The name, and its derivatives have apparently fallen into disuse. In the Flora of British India (2:170, 1879) Baker places this name in the synonymy of *Desmodium polycarpum* DC.

The following citations indicate what is known of its distribution in southeastern Polynesia. All material examined and cited belongs to the variety *strigosum* van Meeuwen, distinguished by its densely strigose raceme-rhachis, compared with the spreading uncinately pubescent rhachis of var. *heterocarpon*.

SOCIETY ISLANDS: without locality, U. S. Expl. Exped. (US). Tahiti Island: without locality, Anderson s. n. (K); "Capt. Cook" (BM); J.R. & G. Forster (BM); Banks and Solander (BM); Barclay 3288 (BM); Cuming in 1831 (K); Taravao, Bennett in 1829 (K). Raiatea Island: NW de Uturoa, 100 m, Aubert de la Rüe 31 (US).

MARQUESAS ISLANDS: without locality, **Hinds** in 1841 (K); Hiva Oa Island: Puamau, chemin vers Hanaiapa, vallee d'Eiaone, lieu dit Vaipiiafaau, 110 m, **Shäfer 5405** (K).

GAMBIER ISLANDS: without locality, **Beechey** (E); **Agassiz 105** (US); Mangareva Island, pass west of Rikitea, 70 m, **Fosberg 11099** (K), **11098** (US); Point Teone Kura, 90 m, **Fosberg 11119** (K), **11117** (US); Taravai Island, **Quayle**

and **Curtis 470** (K); Akaman Island, 4 m, **St. John 14698** (US).

AUSTRAL ISLANDS: Raivavae Island, Raiunia, 4 m, **St. John** and **Fosberg 15871** (US).

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