A New Species of Garnotia from Rarotonga

By LEO D. WHITNEY
HAWAII AGRICULTURAL EXPERIMENT STATION

Garnotia rarotongensis, new species (fig. 1).

Plantae perennae, culmi caespitosi 20-30 cm. alti glabri, vaginae glabrae jugulae pilose 10-35 mm. longae, auriculae acuminatae 1-2 mm. longae, ligulae 1-2 mm. longae, laminae involutae vel planae 10-20 cm. longae scabre in superficiebus glabrae in paginis inferioribus, paniculae strictae 8-15 cm. longae, spiculae 3-5-4 mm. longae pilose ad basem, glumae aequae 3-5-4 mm. longae 3-nerviae primae aristis 5 mm. longis secundae aristas 2 mm. longis, lemmae 3-5-4 mm. longae glabrae vel scabre in apices, aristae 10-12 mm. longae geniculatae, paeae 3 mm. longae acuminatae glabrae vel pilose.

Tufted perennial; culms ascending, unbranched, 20-30 cm. tall, glabrous; sheaths striate, short, 10-35 mm. long, pilose at throat and on the collar, glabrous otherwise, with membranaceous, acuminate, straight, 1-2 mm. long auricles; ligule conspicuous, membranaceous, fimbriate, 1-2 mm. long; blades usually involute, occasionally flat and 1-2 mm. wide, 10-20 cm. long, glabrous on lower surface, scabrous on upper; panicles rather strict, 8-15 cm. long with ascending, closely appressed, few-flowered, 1-3 mm. long branches; spikelets pilose at base with short, sparse hairs not over 0.3 mm. long, somewhat compressed, 3-5-4 mm. long borne in pairs on angled, sparsely scaberulous, rather slender, unequal pedicels, the shorter ones 1-2 mm. long, the longer 3-5-5 mm. long; glumes equal, 3-5-4 mm. long, 3-nerved, scabrous on the nerves, glabrous or minutely scaberulous between them, first glume with awn 5-6 mm. long, the second flat or depressed on back with awn 2-4 mm. long; lemmas rounded on back, minutely scaberulous at tip and otherwise glabrous, acuminate, 3-3-5 mm. long, acuminate with twisted 8-5-12 mm. long awn; paeae 3 mm. long, acuminate, pilose along edges and tip.


This species is related to several other endemic Polynesian Garnotias. It differs from all of them in the membranaceous 1-2 mm. long auricles and the conspicuous 1-2 mm. long ligules. It resembles G. stricta Brandt. in the short sparse hairs at the base of the spikelet but is entirely different otherwise. It differs from G. raiateensis J. W. Moore in the longer unbranched culms, longer involute leaf blades, shorter hairs at base of spikelet and larger glumes with longer awns. It is closest to G. sandwicensis Hillebr., but differs from it in the previously mentioned auricles and ligules,
more slender, fewer-flowered panicles, more slender pedicels, somewhat compressed spikelets and shorter hairs at base of spikelet.

Figure 1.—*Garnotia rarotongensis*: a, habit; b, spikelet; c, second glume; d, first glume; e, ligule and auricles.