

# List of the Flora of Oeno Atoll, Tuamotu Archipelago, South-Central Pacific Ocean

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## Abstract

A brief description of Oeno Atoll is followed by a list of the plants found growing there.

OENO ATOLL is an uninhabited coral island, south of Mangareva, and about 65 miles north-west of Pitcairn Island, and almost at the south end of the Tuamotu Archipelago. One of us (H. St. J.) spent June 23, 1934, exploring it with his assistant, F. R. Fosberg. This was while serving as botanist on the Mangarevan Expedition of the B. P. Bishop Museum.

The atoll is about 2½ miles in diameter, its bounding coral reef enclosing a lagoon. Near the northern edge of the lagoon are two small, sandy islets a few feet above water. The principal islet lies near the centre of the lagoon. Originally this supported a vegetation with shrub thickets and trees. Later, part of the islet was exploited, and in 1902 planted to coconuts. This plantation was infrequently visited by people from the Gambier Is. Other parts of the islet were undisturbed. It was the impression of the collectors that the flora was well preserved, and that few, if any, of the native species were overlooked.

The earlier collection by E. H. Quayle and Curtis of the Whitney Expedition in 1921-23, contained no additional species. Nor did the collection on October 16, 1956, by G. R. Williams, except for a single adventive species of *Brassica*. His collections are preserved in the herbarium of the Dominion Museum, Wellington. The other collections are in the B. P. Bishop Museum.

The known flora consists of 1 alga, 2 ferns, 4 Monocotyledons, and 11 Dicotyledons. Though the floras of most Pacific atolls are monotonous, this one has features of interest. It has an endemic species of *Pandanus*, an endemic variety of *Bidens*, and is the type locality of a forma of *Achyranthes*

## LIST OF THE FLORA

### ALGAE, CYANOPHYCEAE

*Tolypothrix byssoidea* (Hass.) Kirchn.

*St. John & Fosberg* 15,201. Occurring as globules on sand in moist hollows.

### PTERIDOPHYTA

### ASPLENIACEAE

*Asplenium nidus* L.

*Quayle* 409; *St. John & Fosberg* 15,184; *Williams* 3,024. On the ground and on fallen logs. See Brown, Bishop Mus., Bul. 89: 58, 1931; Copeland, Bishop Mus., Occ. Pap. 14: 64, 1938.

## POLYPODIACEAE

**Phymatodes scolopendria** (Burm.) Ching

*Quayle* 400; *St. John & Fosberg* 15,189. On coral sand under trees. See Brown, Bishop Mus., Bul. 89: 97-98, 1931; Copeland, Bishop Mus., Occ. Pap. 14: 74, 1938.

## SPERMATOPHYTA

## PANDANACEAE

**Pandanus feruliferus** St. John, sp. nov.

*St. John & Fosberg* 15,197. This is being described separately, in St. John's revision of *Pandanus*.

## GRAMINEAE

**Lepturus repens** (Forst. f.) R. Br. var. **repens**

*St. John & Fosberg* 15,190; *Williams* 3,022. Tufted on coral sand near beach.

## PALMAE

**Cocos nucifera** L.

Planted for copra production. Reported by Fosberg, 6th Pacif. Sci. Congr., Proc. 4: 503, 1940.

## AMARYLLIDACEAE

**Crinum** sp. (probably *asiaticum*).

*St. John & Fosberg* 15,193. One sterile specimen, planted beside a shanty.

## NYCTAGINACEAE

**Boerhavia diffusa** L. var. **tetrandra** (Forst. f.) Heimerl

*St. John & Fosberg* 15,191; 15,196; 15,203; *Williams* 3,006; 3,025. Repent on coral sand. See Heimerl, Bishop Mus., Occ. Pap. 13: 30, 1937.

**Pisonia grandis** R. Br.

*Quayle & Curtis* 407; *St. John & Fosberg* 15,186. Common as a shrub up to 2 m tall in *Messerschmidia* woods; only one arborescent specimen seen, this 9 m tall, 15 cm in diameter. See Heimerl, Bishop Mus., Occ. Pap. 13: 37, 1937.

## AMARANTHACEAE

**Achyranthes velutina** H. & A. forma *rosea* Suessenguth

*Quayle & Curtis* 408; *St. John & Fosberg* 15,199; *Williams* 3,028. Decumbent on coral sand, in forest openings. Suessenguth, Bishop Mus., Occ. Pap. 12: 5, 1936, listed four collections for his new forma, without designating a type. The specimen, *St. John & Fosberg* 15,199 (BISH) is here chosen as lectotype.

## LAURACEAE

**Cassytha filiformis** L.

*St. John & Fosberg* 15,187; *Williams* 3,026; 3,028. A parasite, trailing on ground and bushes.

## CRUCIFERAE

**Brassica juncea** (L.) Coss.

*Williams* 3,027.

**Lepidium bidentatum** Montin, (*L. bidentoides* F. Br.)

*Quayle & Curtis* 406A; 406B; *St. John & Fosberg* 15,188; *Williams* 3,026; 3,027. On sand flats and sandy openings. See Brown, Bishop Mus., Spec. Publ. 11: 26, 1926; and Bul. 130: 94, 1935.

## SIMAROUBACEAE

*Suriana maritima* L.

*St. John & Fosberg* 15,202; *Williams* 3,091. On coral gravel near beach.

## BORAGINACEAE

*Messerschmidia argentea* (L. f.) Johnston

*Quayle & Curtis* 404; *St. John & Fosberg* 15,194; *Williams* 2,023. The dominant tree, forming forests on coral sands; the largest one 10 m tall, 1.5 m in diameter.

## SOLANACEAE

*Solanum tuamotuense* St. John

*St. John & Fosberg* 15,185; *Williams* 3,021. This species is described in *Journ. Jap. Bot.*, 34: 337-340, 1959.

## RUBIACEAE

*Hedyotis romanzoffiensis* (C. & S.) Fosberg

*Quayle & Curtis* 403; *St. John & Fosberg* 15,192; 15,198; 15,200; *Williams* 3,029. Shrub, on coral shingle. See Bishop Mus., Occ. Pap. 13: 248, 1937.

## COMPOSITAE

*Bidens hendersonensis* Sherff var. *oenoensis* Sherff

*St. John & Fosberg* 15,183 (holotype). Decumbent or erect, under *Messerschmidia* trees. See Sherff, Bishop Mus., Occ. Pap. 12(19): 7, pl. 4, 1937.

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