

NEW SPECIES OF PORTULACA FROM
SOUTHEASTERN POLYNESIA

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NEW SPECIES OF PORTULACA FROM SOUTHEASTERN
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This report is based on the collections of *Portulaca* (Portulacaceae) made by the Mangarevan Expedition of Bernice P. Bishop Museum in 1934. A few other records from Polynesian islands are included. The type specimens are deposited in the herbarium of Bernice P. Bishop Museum.

Portulaca Fosbergii, new species.

Differt omnibus speciebus australiensibus, quae sunt instructae foliis oppositis et pilis axillaribus inconspicuis, seminibus stellulato-tuberculatis. Annuæ, valde ramosa, prostrata usque erecta, usque circa 15 cm longa. Folia plana, opposita vel interdum subopposita, ovato-oblonga vel paene oblonga, apice rotundata vel subtruncata, sicca usque circa 8 mm longa, usque 4 mm lata, 1-2 mm longe petiolata. Pili axillares inconspicui, pauci vel paene nulli, minimi, albidi. Flores terminales, pauci aggregati, sessiles, parvi, lutei. Folia involucrum fingentia nonnulla vel pauca, foliis caulium similia sed paullo majora. Capsula corolla marcescente tecta, circa 4 mm longa, circa medio circumscissa. Semina numerosa, subnitida, renata, a latere subcompressa, circa 1/2-2/3 mm longa et lata, nigra, irregulariter vel subirregulariter stellulato-tuberculata.

Austral Islands: Rurutu, Moerai, top of beach, altitude 1 meter, August 29, 1934, Fosberg no. 11976.

Portulaca Fosbergii variety **major**, new variety.

Major. Folia usque 25 mm longa et usque 18 mm lata, apice interdum emarginata.

Marotiri Islands: Southeastern Islet, on soil and guano on basalt ledges, altitude 75 meters, common between 5-100 meters altitude, July 22, 1934, St. John no. 15677. Austral Islands: Tubuai, Mataura, prostrate, introduced weed, altitude 3 meters, August 15, 1934, St. John and Fosberg no. 16292; Raivavae, Pic Rouge, south side, beach, around house, introduced weed, altitude 2 meters, August 5, 1934, St. John and Fosberg no. 15918. Mangareva: Agakaitai, eastern side of island, basalt ledges, altitude 15 meters, June 8, 1934, St. John no. 14910. Flint Island: coconut plantation, on fine broken

* Mangarevan Expedition Publication 6.

coral, altitude 2 meters, October 16, 1934, St. John and Fosberg no. 17434. Pitcairn Island: in gardens back of Adamstown, prostrate weed, altitude 250 meters, June 14, 1934, St. John no. 15014.

***Portulaca Fosbergii* variety *substellulata*, new variety.**

Tuberculae seminis basi solum *substellulatae*. Flores lutei vel rarius albi.

Fiji: Naiabo Island, on sand or coral beach, altitude 1.5-2 meters, August 7, 1924, E. H. Bryan, Jr. no. 452; Bacon Island, over rough limestone rocks and in small dirt pockets, altitude 5-15 meters, September 5, 1924, Bryan no. 539.

***Portulaca Johnii*, new species.**

Differt ab omnibus australiensibus speciebus, quae instructae sunt foliis oppositis, pilis axillaribus perpauca et capsulis medio circumscissis, seminibus immerso-stellulatis. Annua, adscendens vel subprostrata, valde ramosa, usque circa 45 mm longa, carnosa, radice crassa. Pili axillares perpauca, inconspicui, circa 1 mm longi. Folia plana, opposita, obovata, obovato-oblonga vel obovato-cuneata, apice rotundata vel obtusa, basi petiolatim angustata, magnitudine valde variabilia, circa 7-15 mm longa et 4-15 mm lata. Flores lutei, terminales, pauci aggregati, sessiles. Folia involucrum fingentia foliis caulium similia, sed submajora, non multa. Capsula corolla marcescente tecta, circa 5-6 mm longa, medio circumscissa. Semina nigra, nitida vel subnitida, a latere compressa, circa 2/3 mm longa et lata, stellulis immersis \pm regularibus vel irregularibus ornata.

Tuamotu Archipelago: Hiao, Tekotika, on coral rocks in open coconut woods, altitude 1 meter, May 19, 1934, St. John no. 14376; Tepoto, coral shingle, common, (flower open at least until mid-afternoon), altitude 1-2 meters, May 16, 1934, St. John no. 14334; Napuka, coral shingle, near beach, altitude 1 meter, May 15, 1934, St. John no. 14313; ?(without seeds), Anaa, Tukahora, on coral sand, May 13, 1934, St. John no. 14267. Austral Islands: Rimatara, Anapoto, sunny coral sea cliff, altitude 3 meters, September 4, 1934, St. John and Fosberg no. 16902; Raivavae, Motu Tehau, coral gravel, altitude 1 meter, August 11, 1934, St. John and Wight no. 16144; Raivavae, Hotuatua Islet, rocks by shore, altitude 2 meters, August 11, 1934, St. John and Wight no. 16106; Raivavae, northern slope of Mount Hiro, sunny ledge on basalt cliffs, altitude 150 meters, August 10, 1934, St. John no. 16081; Tubuai, Rautaro Islet, in grass at top of inner coral sand beach, altitude 1 meter, August 19, 1934, St. John no. 16388. Mangareva: Taravai, northeastern end, basalt ledges near shore, altitude 4 meters, June 1, 1934, St. John no. 14814; Makaroa, basalt ledges, altitude 4 meters, May 31,

1934, St. John no. 14746; Aukena Island, Point Matakuiti, basalt ledges near shore, altitude 5 meters, May 28, 1934, St. John no. 14638. ?(without seeds), Christmas Island, Motu Tabu, coral gravels, (flowers open all day), October 21, 1934, St. John and C. M. Cooke, Jr. no. 17478.

The native name in the Marquesas and Tuamotus is *pokea*.

Portulaca lutea Solander.

Hawaiian islands, Oahu: Kailua, Popoia Island, bottom of small pit in rocks, altitude 1 meter, November 1932, Fosberg no. 8884; same locality, March 1933, Fosberg no. 10573; same locality, altitude 2 meters, March 1933, Fosberg no. 10572; Laie, Laie Point, on raised coral, April 1934, St. John 10492. Timoe Island, North Islet, on coral sand, altitude 2 meters, June 25, 1934, St. John and Fosberg no. 15223. Austral Islands: Rurutu, Peva, top of coral sand beach, altitude 3 meters, August 28, 1934, St. John no. 16703. Mangareva Island: Point Teauouo, basalt ledges, altitude 5 meters, June 6, 1934, St. John no. 14887; ?(without seeds), northwest side of Mount Duff, moist rocks, top of pass above Rikitea, altitude 120 meters, May 23, 1934, St. John no. 14460; Rikitea, rock ledges and ridges, altitude 90-100 meters, June 1, 1934, Fosberg no. 11097 (axillary hairs very short); ?(without seeds), Vaiatekeua, broken coral, altitude 1 meter, June 6, 1934, Fosberg no. 11158. Henderson Island: northwest end, above landing, ledge on coral cliff, altitude 25 meters, June 21, 1934, Fosberg no. 11350. ?(without seeds), Pitcairn Island: Bounty Bay, littoral rocks, June 15, 1934, Fosberg no. 11338. Galapagos Islands: Chatham Island, Sappho Cove, low bushes on lava, February 1906, Stewart no. 1511.

Portulaca oleracea variety ***granulato-stellulata***, new variety.

Differt typo seminibus granulis basi stellulis ornatis.

Hawaiian islands: Molokai, along road to Maunahui, Kaunakakai, dry stony hillside, altitude 300 meters, December 1932, St. John and others no. 12647; Oahu, Kipapa Gulch, in moderately wet pineapple field, altitude 170 meters, November 1934, Hosaka no. 883; Oahu, weed in pineapple field, Halemano, Wahiawa, June 1931, Hosaka no. 419; Oahu, in Diamond Head Crater, edge of swamp, January 1931, Christophersen and others.

Portulaca samoensis von Poellnitz.

Samoa: Manua, Ofu, trail Ofu to Samoi, on exposed, wind-swept, rocky cliffs, June 1925, Garber no. 1025. Fiji: Karoni, on low rocky islet off northwest point, with tern guano, altitude about 5 meters, August 15, 1924, Bryan no. 481, (plant 15-20 cm high).

Portulaca sclerocarpa A. Gray.

Hawaiian islands: Hawaii, Kilauea Iki, dry cinder fields, December 1931, St. John, Bean, and Hosaka no. 11229.

Portulaca villosa Chamisso.

Hawaiian islands: Kauai, Waimea, Kekaha, sandy flat, altitude 10 meters, December 1931, St. John, Fosberg, and Oliveira no. 13614.

Portulaca species.

Marquesas Islands: Uapou, 1921-1922, Whitney Expedition no. 1034; Hatutaa, October 1929, Adamson no. 4.