Occasional papers of Bernice P. Bishop Museum.

Bernice Pauahi Bishop Museum. Honolulu : Bishop Museum Press.

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Some New Hawaiian Plants.

BY CHARLES N. FORBES.

APRIL, 1909.

THE English system of measurement is retained in the English descriptions to facilitate comparison with descriptions of the Hawaiian plants. The line is one-twelfth of an inch.

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Euphorbia Rockii, sp. nov.

Arbor 1-3.5 m. alta, foliis oppositis, obovato-oblongis, inequalibus, obtusatis, basi rotundatis, $8-12\times2.5-3$ cm. brevissime petiolatis vel sessilibus; cymis axillaribus 3-4 cm. longis, pedicellis 5 mm. longis; involucri campanulati, lobis minimis, lanceolatis, acutis, glandulis transverse oblongis; capsulæ hexagono-obovatis, glabris, 2×2.2 cm.

Type locality, Punaluu Mountains, Oahu, H. I. Forbes & Rock, Sept. 14-21, 1908.

An erect shrub or small tree four to twelve feet high. Leaves opposite, obovate-oblong, obtuse, uneven-sided with a clasping base, nearly sessile, $3-4.5 \times 1-1.25$ inches. Flowers in open axillary cymes, 15-18 lines long. Involucre campanulate, minutely hairy or glabrous on the outside, pubescent on the inside, lobes ovate, minute, glands transversely oblong not appendiculate. Style branches short, nearly free. Capsules large 9×12 lines, on nodding peduncles.

This tree was discovered by Mr. J. F. Rock some two months before the gathering of the type material. The tree is distinguished by its large pink fruits, nearly sessile leaves and by its open cymes.

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EUPHORBIA ROCKII FORBES.



Viola oahuensis, sp. nov.

Caule erecto 15-45 cm., foliis ovatis, serratis, acutis, basi acuminatis, $12-13 \times 5-5.5$ cm., petiolis pennatis 2.5 cm.; stipulis lanceolatis, acuminatis, glandular-serratis, 1.5-3 cm.; scapis umbellato biflores. Sepala lanceolata 8 mm. Petala oblonga vel orbicula, 16 mm. inferiore saccato. Capsula 1 cm. longa.

Type locality, Punaluu Mountains, Oahu. Forbes & Rock, Punaluu Mountains, Sept. 14-21, 1908.

Stem erect, simple or sparingly branched, 6 inches to I foot high. Leaves $4.5-5 \times 2-2.25$ inches, ovate, uneven-sided, glandular-serrate, acute, base acuminate drawn out into a winged petiole of I inch. Stipules lanceolate, glandular-serrate, acuminate, 7-14 lines. Scapes or peduncles one to three on a stem, 9 lines long, with two narrow acute bracts and a reduced leaf, bearing two flowers on peduncles of nearly equal length, about 2 inches, these bracteolate and often with a reduced leaf. Sepals lanceolate, faintly puberulent, 3 lines long. Petals about twice as long, white, broad, oblong to orbicular, the lower saccate, not bearded. Capsule a little over 5 lines long, glabrous.

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VIOLA OAHUENSIS FORBES.



Viola Helena, sp. nov.

Caule erecto 3-6 cm., foliis lanceolatis $7.5-11.5 \times 1.5-2$ cm. dentibus glanduliferis stipulis lineari-lanceolatis, serratis, 8 mm.; scapis bibracteatis umbellato biflores. Sepala lanceolata 4-5 mm. Petala alba, inferiore latissime saccato. Capsula 1 cm. longa, glabra.

Type locality, Wahiawa Mountains, Kauai, H. I. J. M. Lydgate, May, 1908.

Plant one to two feet high.—Lydgate. Leaves lanceolate, tapering at both ends, glandular serrate, 3-4.5 inches long by 7-9 lines wide, with petioles of 2-3 lines. Scapes or peduncles one or two on a stem, 2-3 lines, with two to three linear bracts, bearing an umbel of two flowers on pedicels of 10-14 lines which have bractlets of about 1 line. Sepals lanceolate, 2 lines. Petals a little more than twice as long, the lower saccate, white, or pale lavender, lower and lateral ones bearded. Capsule glabrous, 7 lines long.

The species is named by Mr. Lydgate for his wife.

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VIOLA HELENA FORBES & LYDGATE.



Hesperomannia Lydgatei, sp. nov.

Arbor 2-3 m. alta; foliis spathulo-ovatis, acutis, basi acuminatis, glabris, 10-22.5 \times 2.5-5.4 cm., petiolis .8-2.5 cm. Capitulum 4-8.5 cm., pedunculibus attenuatis 3.5-4 cm. Involucrum campanulato-turbinatum, interioribus lineari lanceolatis 4-4.5 cm., exterioribus ovato-lanceolatis, brevioribus. Corollie 2-2.5 cm. Stylus 6-7 cm.

Type locality, Wahiawa Mountains, Kauai. J. M. Lydgate, May, 1908.

Six to nine feet, lobelia habit of growth.—Lydgate. Leaves $4-9 \times 1-1.5$ inches with petioles of 6-12 lines, spathulo-ovate to oblong, acute, acuminate at the base, entire, glabrous. Heads 2-3 inches high, four or five in a terminal cluster, on slender peduncles of 1.5 inches. Involucre about 2 inches high, bracts in four to eight rows; outer bracts ovate-lanceolate, inner bracts much longer, linear-lanceolate. Corolla 12 lines, split to near the middle. Anthers 3 lines. Achenes (not mature), pappus pinkish, a little over 9 lines long.

This species is easily distinguished from the other species of Hesperomannia by the long slender peduncles, and by the shape of the leaves which are not dentate.

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HESPEROMANNIA LYDGATEI FORBES.



Lysimachia longisepala, sp. nov.

Folia ovata, acuminata, $11.5-15 \times 5-6.5$ cm., basi acuminata; petiolus tomentosus, 2-3 cm. longus. Flores 2-3, auxillaries; pedunculi tomentosi, • 2-3 cm. longi; calyx lobis 6-8, lanceolatis, 2.5 cm. longis; corolla ovato-lanceolata, 1 cm. longa, filamenta basi dilata, subconnata. Capsula crustacea, 16×10 mm.

A suffruticose plant six inches to three feet in height, usually unbranched, the new growth being tomentose with purplish hairs, becoming glabrous with age. Leaves very dark green above, paler beneath, ovate, acuminate, 4.5-7.5×2-3.5 inches, the base narrowing into a tomentose petiole of 22 lines. Flowers pendulous, one to three in the axils of the upper leaves, on tomentose peduncles 9-14 lines long. Calyx green, marked with deep purple veins, and tomentose on the back with purple hairs, its deeply parted seven (6-8) lanceolate lobes longer than the corolla, 11 Corolla colored as the calyx, its lobes ovate lanceolate, lines. minutely serrate, 5 lines long. Stamens less than one half the length of the corolla, filaments dilated at the base, sub-connate. Style about the length of the corolla. Capsule bottle-shaped, thick, crustaceous, 8 lines long, 5 lines in diameter, tipped by the style of 8 lines in length.

Flowering specimens were first collected when in the company of Mr. J. F. Rock during September, 1908, and eight months later fruiting specimens were collected in the company of Dr. C. M. Cooke and Mr. C. L. Thompson. The plant occurs in wet woods of the Punaluu Mountains, Oahu. Elevation about 2,300 feet.

The difference between this species and the other Hawaiian *Lysimachias* seems almost generic. It is unique among our species for having a longer calyx than corolla, and otherwise differs in its more cylindrical flowers which are twisted tighter in the bud, and in its much larger leaves.

May, 1909.

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LYSIMACHIA LONGISEPALA FORBES. FRUITING STAGE.

