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TWO NEW SALVIAS FROM GUATEMALA.

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About a year ago the writer described in these Proceedings¹ a new *Salvia* with handsome blue flowers from Guatemala, collected by Wilson Popenoe of the Office of Seed and Plant Introduction. This species is now being grown for distribution at the Introduction Farm at Yarrow, Maryland, and promises to be an attractive addition to the cultivated *Salvias*. Mr. Popenoe has recently sent for determination another new *Salvia* of the *Fulgentes* group with crimson-scarlet flowers. This is described below as *Salvia popenoei*, and with it another new species of the same group collected in Guatemala several years ago by E. W. D. Holway.

Salvia holwayi Blake, sp. nov.

Herbaceous, probably 1 meter tall or more, the base and lower portion not seen; stem stoutish, brownish, shallowly 4-sulcate, oppositely branched, rather densely hispidulous-puberulous with spreading or reflexed hairs and especially in the grooves hispid-pilose with reflexed to spreading or ascending several-celled hairs, glabrescent below; leaves opposite; petioles slender, 0.8 to 3 cm. long, spreading-puberulous and above hispid-pilose, connected at base by a densely hispid-pilose ring; blades broadly ovate, 4.5 to 8.5 cm. long, 2.8 to 7.5 cm. wide, acuminate, cordate at base, papyraceous, crenate-serrate with blunt depressed teeth, above green, sparsely hispid-puberulous with several-celled ascending hairs, beneath pale green, along the veins and veinlets loosely pilose with lax many-celled hairs; racemes terminating stem and branches, simple, dense, 5.5 to 15.5 cm. long, densely stipitate-glandular and hispid-pilose with several-celled spreading hairs, on a peduncle 1.3 to 6 cm. long; verticels many-flowered, the lowest 1.5 to 2 cm. apart, the others crowded; bracts ovate, quickly deciduous, the uppermost about 4 mm. long; pedicels 4 to 5 mm. long; calyx tubular-

¹ Proc. Biol. Soc. Wash. 32: 187. 1919.

campanulate, in anthesis 9 to 11 mm. long, densely stipitate-glandular and along the veins sparsely hispid-pilose with short several-celled conical mostly eglandular hairs, the upper lip entire, 4 mm. long, its short abrupt acumination about 1 mm. long, the lower lip 2-lobed, 2.5 to 3 mm. long, the lobes deltoid-ovate, abruptly short-pointed; corolla crimson, 2.5 cm. long, pilose toward apex with several-celled hairs, the tube 5 mm. long, the ventricose throat 16 mm. long, the upper lip porrect, 4.5 mm. long, the lower lip rather shorter, spreading, with small lateral lobes; style equalling corolla, short-hispid-pilose toward apex; staminodes clavate-spatulate, 1 mm. long.

Type in the U. S. National Herbarium, no. 862664, collected on the Volcan de Agua, above Santa Maria de Jesus, Guatemala, March 7, 1916, by E. W. D. Holway (no. 579).

Salvia holwayi is a member of the series Fulgentes and most nearly related to *S. adenophora* Fernald, which has the stem and calyx densely pilose with gland-tipped hairs.

Salvia popenoei Blake, sp. nov.

Herb up to 2.6 meters high, apparently little branched, the base not seen; stem quadrangular, 3 mm. thick, glabrous below the inflorescence; leaves opposite, much shorter than the internodes; petioles slender, sparsely puberulous above, 8 to 17 mm. long, connected at base by a hispidulous ring; blades ovate, 5 to 6.5 cm. long, 2.5 to 4 cm. wide, with acuminate entire tip, at base broadly rounded or subcordate, serrate with about 10 pairs of depressed mucronulate teeth, firm-herbaceous, above green or brownish green, glabrous except for sessile glands, beneath much paler green, punctate, glabrous, reticulate-veined, but only the costa and primary nerves prominulous; racemes terminal, simple, on a peduncle 1.8 to 3.2 cm. long, densely stipitate-glandular and sparsely short-hispid-pilose with white gland-tipped one-celled hairs; verticels 1.5 to 2.5 cm. distant, 4 to 10-flowered; bracts deciduous, not seen, those of the lowest whorl sometimes ovate, foliaceous, 12 mm. long; pedicels 4 to 6 mm. long; calyx tubular-campanulate, in anthesis 12 to 15 mm. long, densely stipitate-glandular and sparsely hispid-pilose on the nerves with short conical rarely gland-tipped white hairs, dull green, 15-nerved, the upper lip ascending, about 8 mm. long, entire, attenuate with almost cirrhiform bent tip, the lower lip 2-lobed, about 6 mm. long, the lobes subulate-attenuate from an ovate base; corolla "crimson-scarlet," 2.3 to 2.9 cm. long, glandular-pilose on the upper lip, otherwise glabrous, the tube about 6 mm. long, the ventricose throat about 1.8 cm. long, the upper lip porrect, 5 mm. long, the lower shorter, spreading, with small rounded lateral lobes; style barely exerted, sparsely pilose near apex.

Type in the U. S. National Herbarium, no. 989689, collected along road near Tactic, Alta Verapaz, Guatemala, at an altitude of about 1525 meters, January 9, 1920, by Wilson Popenoe (no. 928).

Closely related to *Salvia puberula* Fernald, of the series Fulgentes, which

has a finely and densely puberulous stem. Its native name in the Kekchi dialect is given by its collector as "tutz unún."

This handsome species will be distributed by the Office of Foreign Seed and Plant Introduction under the No. 49389. Mr. Popenoe considers that it should be tried in the United States as an annual, but that it may prove to be a biennial in Florida and California.