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CHEMISTRY.—*The polymorphic forms and thermotropic properties, of Schiff's bases derived from 3-methoxy-4-hydroxy-5-iodo-benzaldehyde.*<sup>1</sup> RAYMOND M. HANN, Bureau of Chemistry, Department of Agriculture. (Communicated by EDGAR T. WHERRY).

The apparent tendency of Schiff's bases<sup>2</sup> to form isomeric compounds,<sup>3</sup> differing in color, solubility, and other physical properties, has encouraged an extensive study of this class of aldehydic derivatives. These compounds differ in their major physical properties, and some show marked changes in color when recrystallized from different solvents,<sup>4</sup> and even from the same solvent, under varying conditions of concentration and temperature.<sup>5</sup>

Senier and Forster<sup>6</sup> state that Schiff's bases containing a hydroxyl group para to the aldehyde amine linkage are of particular interest in that they yield dimorphic forms on trituration. Senier and Shephard<sup>7</sup> showed that salicylidene metatoluidine, a hydroxy anil of the Schiff base type, exhibited phototropic properties when exposed to actinic light. A little later the same author<sup>8</sup> demonstrated that compounds of this type also showed reversible changes in color upon

<sup>1</sup> Presented at the Milwaukee meeting of the American Chemical Society, September 10-14, 1923.

<sup>2</sup> These bases result from the equimolecular condensation of an aldehyde and a primary amine. Dinroth and Zölppritz, *Ber.* **35**: 984. 1902.

<sup>3</sup> Senier and Shephard, *Journ. Chem. Soc.* **95**: 1944. 1909.

<sup>4</sup> Morgan and Jones, *Journ. Soc. Chem. Ind.* **42**: 92T. 1923.

<sup>5</sup> Senier, Shephard, and Clarke, *Journ. Chem. Soc.* **101**: 1950. 1912.

<sup>6</sup> Senier and Forster, *Journ. Chem. Soc.* **105**: 2462. 1914.

<sup>7</sup> Senier and Shephard, *Journ. Chem. Soc.* **95**: 441. 1909.

<sup>8</sup> Senier and Shephard, *Journ. Chem. Soc.* **95**: 1943. 1909.

BOTANY.—*New species of plants from Salvador. III.*<sup>1</sup> PAUL C. STANDLEY, National Museum.

*Zamia herrerae* Calderón & Standl., sp. nov. (Fig. 1).

Leaves few, the petioles slender, scarcely half the length of the rachis, glabrous, furnished with a few remote stout spines 1–2 mm. long, similar spines present also on the rachis; leaf rachis very slender, about 35 mm. long; leaflets about 50, nearly linear, 15–22 cm. long, 8–13 mm. wide, 17 to 21-nerved, thick, very lustrous, paler beneath, the margins bearing a few distant (about 2 cm. apart) appressed spine-tipped teeth, the lower third of the blade entire, the blades gradually attenuate from the lower third to the tip; inflorescence and fruit unknown.

Type in the U. S. National Herbarium, no. 1,165,680, collected in the vicinity of Sonsonate, Salvador, July 17, 1923, by Dr. Salvador Calderón (no. 1682).

Although known only from sterile material, there is little doubt that the present plant represents an undescribed species of this interesting genus, of which several other Central American representatives are known. This is probably the first *Zamia* to be reported from the Pacific coast of Central America.

The species is named in honor of Sr. Dr. Héctor Herrera of Sonsonate, an enthusiastic scientist and promoter of scientific work, whose delightful hospitality we have experienced upon the occasion of several visits to that city.

*Aeschynomene calderoniana* Standl., sp. nov.

Slender shrub, 1–2 m. high, with few branches, the young branchlets densely puberulent; stipules caducous; petioles short (mostly 6–10 mm.), the leaf rachis 2–5.5 cm. long, finely appressed-pubescent or glabrate; leaflets 5–10 pairs, oval-oblong or oblong-obovate, 9–18 mm. long, 5–8 mm. wide, broadly rounded at apex and obscurely mucronate, obliquely rounded at base, nearly sessile, rather thick, when young sparsely setose-strigose but soon glabrate, the venation beneath laxly reticulate and somewhat prominent, the costa central or nearly so; flowers in few-flowered axillary racemes shorter than the leaves, dark purple, the rachis densely puberulent, the pedicels about 4 mm. long; calyx 2–2.5 mm. long, covered with short appressed whitish hairs; standard petal 6–7 mm. long, suborbicular, densely whitish-sericeous outside, the other petals nearly as long, glabrous; joints of the fruit 1 or 2, semiorbicular or nearly so, 10–15 mm. long, 6–8 mm. wide, thin, nearly smooth, densely whitish-strigillose or finally glabrate.

Type in the U. S. National Herbarium, no. 1,136,211, collected on dry open hillside above Santa Ana, Salvador, January, 1922, by Paul C. Standley (no. 20367).

<sup>1</sup> Published by permission of the Secretary of the Smithsonian Institution. The last preceding paper of this series was published in this Journal, Vol. 13, pp. 436–443.



Fig. 1. *Zamia herrerae* Calderón & Standl.  
(About one-fourth natural size)