

BIXACEAE LIPSTICKTREE FAMILY

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Trees, shrubs, or rhizomatous herbs. LEAVES alternate, from simple, entire and palmately veined to palmately lobed or palmately compound, often with a mucilaginous epidermis; stipules well developed. INFLORESCENCES panicles, racemes, or cymes, sometimes appearing before the leaves. FLOWERS perfect, actinomorphic or zygomorphic; sepals and petals 5, distinct; stamens numerous, arranged in 2-5 groups, sometimes borne on a nectariferous disk; ovary superior, carpels 2-5, styles 1 scarcely lobed, the ovules numerous. FRUITS loculicidal capsules. SEEDS with oily, proteinaceous, or starchy endosperm. --3 genera, 12 spp., chiefly of tropical and subtropical regions.

Amoreuxia Moc. & Sessé ex DC.

Herbaceous perennials, the rootstock starchy to woody. LEAVES long-petioled, subentire or deeply parted into 5-9 lobes, orbicular to reniform. INFLORESCENCES cymes, terminal, few-flowered. FLOWERS zygomorphic, 5-8 cm in diameter; sepals linear to oblong-ovate, imbricate; petals showy, flesh-salmon, yellow, to orange-salmon, the lateral petals with 1 conspicuous maroon mark at the base, upper petals with 2 conspicuous maroon marks at the base; stamens unequal, in 2 sets, the filaments and anthers of the lower set slightly longer and tinged with maroon or cream; anthers with 2 apical pores; ovary with 3 carpels. FRUITS globose to ellipsoid, pendulous, the exocarp woody at maturity, endocarp very thin, transparent. SEEDS reniform, subglobose, or globose, the seed coat subglabrous, pilose, or strigose; endosperm oily. --4 spp; sw U.S., n Mex. through C. Amer. to Colombia and Peru, also on Curacao. (for P. J. Amoreux). Sprague, T. 1922. Kew Bull. 1922(3):97-105. Poppendieck, H. 1981. Flora Neotropica Monogr. 27:18-26.

1. Capsules ellipsoid, 4.5-8 cm long; seeds globose; ovary densely silky; arillode loosely fitting and often shed before dehiscence of capsule; lower set of anthers cream-colored or light maroon; leaves 5-7(-9)-lobed *A. gonzalezii*
- 1' Capsule broadly ovoid, 2-4.2 cm long; seeds strongly reniform; ovary densely puberulent-papillose; arillode closely fitting and persistent; lower set of anthers dark maroon; leaves (5-)7-9-lobed *A. palmatifida*

Amoreuxia gonzalezii Sprague & Riley (for Gonzalez Ortega). Saiya. --LEAVES cuneate to broadly cuneate, (5-)7(-9)-lobed, 2.6-5.5 cm long (not including 3-10 cm long petiole), 4.7-8.5 cm wide. FLOWERS 7-8 cm long, 6-8 cm wide; sepals long-pilose; petals pale yellow-salmon or deep salmon tinged with maroon, the basal spots pale maroon; upper anthers cream, the lower set of anthers cream or pale maroon; ovary densely silky. CAPSULES ellipsoid, striated longitudinally (less so in ours). 5.7-8 cm long, 2.3-3.9 cm wide, long-acuminate, short-pilose. SEEDS globose, black, dull, 4.7 mm long, 4.3 mm wide; seed coat light brown, easily detached, sparsely short-pilose, the hairs often forked. --Limestone hills and granitic slopes; Pima and Santa Cruz cos., to be expected in Cochise Co.; 1310 m (4300 ft); Jul-Sep; Baja C., Sin., Son., Mex.

Amoreuxia palmatifida Moc. & Sessé (palmately divided). Saiya, Tamaquí. --Leaves narrow to broadly cuneate, 7(-9)-lobed, 2.2-5.3(-8) cm long (not including 3-10 cm long petiole), 4-7.7(-13.5) cm wide. FLOWERS 4.3-6 cm long, 4.5-6.4 cm wide; sepals puberulent; petals yellow or salmon-orange to salmon-maroon, with deep maroon basal spots; anthers all dark maroon or only the lower set dark maroon; ovary

densely puberulent-papillose. CAPSULES broadly ovoid, not noticeably striated longitudinally, 2-3.6 cm long, 2-2.6 cm wide, short-acuminate, puberulent. SEEDS reniform, black, shiny, 5.3 mm long, 3.3 mm wide; seed coat light brown, strigillose, closely fitting and persistent. -- Dry rocky slopes and mesas; Cochise, Pima, and Santa Cruz cos.; 800-1500 m (2600-4900 ft); Jul-Sep; Mex. to C. Amer. and Colombia.

The roots, young leaves, flowers, fruits and seeds of both species were a food source to tribes in southwestern U.S. and northern Mex.

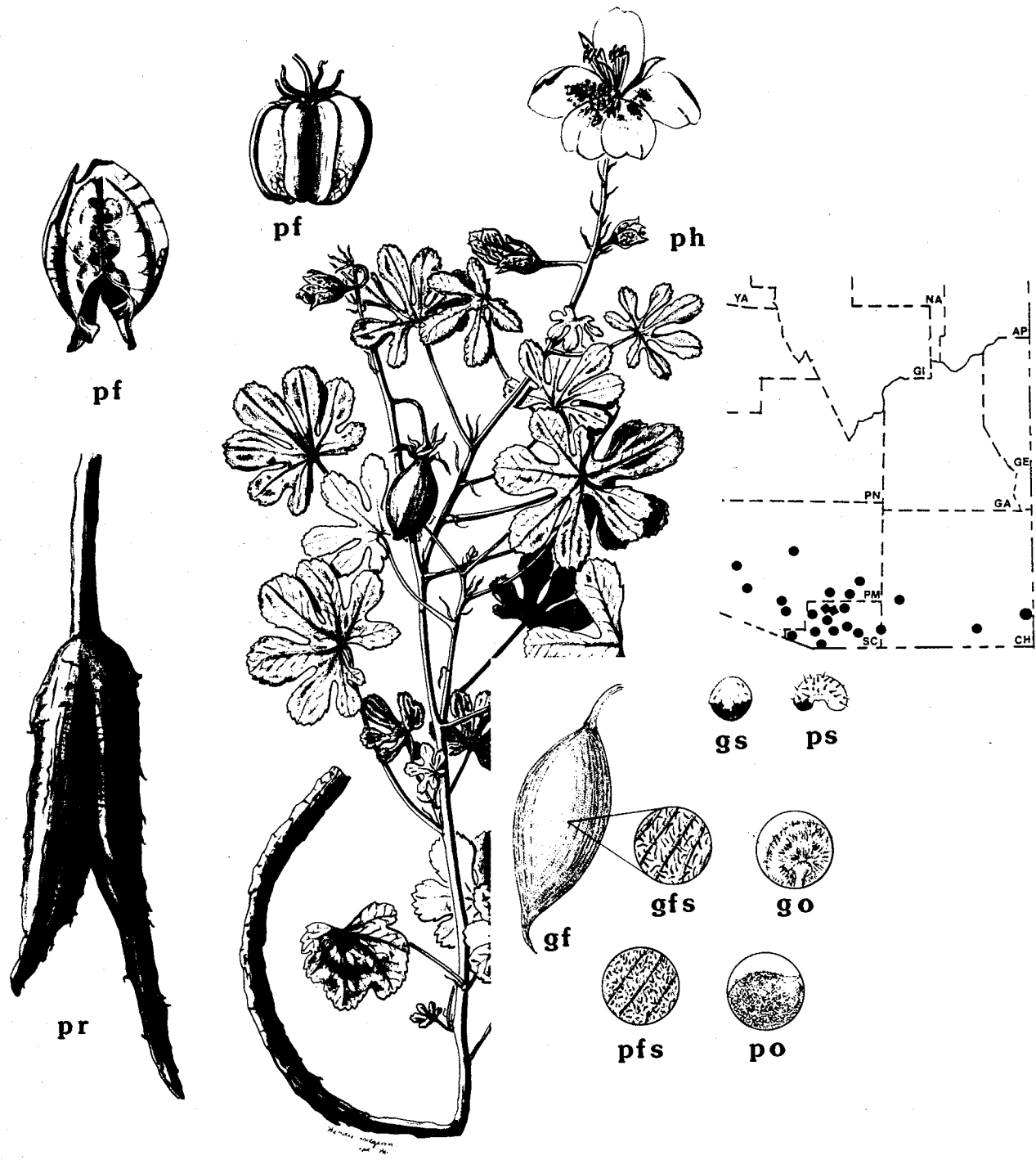


Figure 1. p = *A. palmatifida*: pf=fruit(x.8), pr=root(x.5), ph=habit(x.5), ps=seed with overlying seed coat(x1.8), pfs=fruit surface(x2), po=ovary(x2.5); distribution in map insert = circles. g = *A. gonzalezii*: gf=fruit(x.5), gs=seed with overlying seed coat(x1.5), gfs=fruit surface(x2), go=ovary(x2.5); distribution in map insert = diamonds.