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TWO NEW SPECIES OF BUNCHOSIA FROM WESTERN MEXICO

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The genus *Bunchosia* is taxonomically one of the most difficult in the Malpighiaceae and it is not without some trepidation that I venture to describe new species in the group. However, the two species described here seem to be morphologically distinct and geographically disjunct from their closest relatives, which grow in southeastern Mexico and adjacent Guatemala.

Bunchosia mcvaughii W. R. Anderson sp. nov. Fig. 1.

Arbor parva usque 4 m alta, ramis vegetativis sericeis mox glabratis. Lamina foliorum majorum 8–15 cm longa, 2.2–5 cm lata, anguste elliptica vel ovata, basi cuneata vel rotundata, margine saepe crispata, apice acuminata vel rarius acuta vel obtusa, matura supra glabrata, subtus lanata, pilis tenuibus pro parte maxima valde tortuosis aliquot rectis adpressisque pede 0.2 mm longo trabecula usque 2 mm longa, subtus plerumque (non semper) prope basin 2 glandulis et distaliter utrinque sub margine vel inter marginem et costam 1–4 glandulis instructa; petiolus 5–8 mm longus, pertinaciter laxe sericeus vel glabrescens, eglandulosus; stipulae 1–1.5 mm longae, basi petioli portatae. Inflorescentia par pseudoracemorum plerumque terminalis, quoque pseudoracemo 5–10 cm longo, sine foliis vegetativis, laxe sericeo, 8–18 floribus patentibus dispersis saepe decussatis, bracteis 1.5–2.5 (–3) mm longis, triangularibus, tomentosis, persistentibus, eglandulosis, pedunculo nullo vel raro usque 1.5 mm longo, bracteolis 1–2 (–2.5) mm longis, ovatis, ambabus glandula abaxiali excentrica instructis. Pedicellus 6–12 mm longus, laxe et pertinaciter sericeus. Sepala glandulas 2.5–3 mm superantia, 1.5–2.5 mm lata, ovata, abaxialiter sericea vel prope marginem ciliatam glabra, adaxialiter glabra, glandulis 8, 2.5–4 mm longis, ellipicis, distinctis vel in paribus partim connatis, aliquot interdum decurrentibus. Petala flava, glabra, eglandulosa, 4 lateralia reflexa, ungue 2.5–3.5 (–4.5) mm longo, limbo 6–10 mm longo, 5–9 mm lato, eroso, 2 anterioribus quam 2 posterioribus majoribus et profundius concavis; petalum posticum erectum, ungue 3.8–4.5 mm longo, crassissimo, limbo 7 mm longo et 5–6 mm lato, eroso, plano. Filamenta 2.5–3.5 mm longa, glabra, ca 1/3 connata; antherae 1.5–2.2 (–2.5) mm longae, glabrae, connectivo primo rubro-brunneo demum ligno-brunneo, loculis basi pendentibus; pollen globosum, 38–50 μ diametro, 8–9-foratum. Ovarium 2.5–3 mm altum, bicarpellatum, sericeum; styli 2.5–3 mm longi, omnino connati vel apice liberi, glabri vel raro tomentosi, stigmate peltato. Fructus ignotus.

TYPE: MEXICO. Jalisco: "Centro de Investigación y Experimentación de la UNAM," 8 km E of Chamela, lowland forest of *Cordia, Caesalpinia, Thouinidium,* elev 30–50 m, abundant in dense forest shade, 8–10 Dec 1970 flr, *McVaugh 25107* (MICH, holotype).

PARATYPES: MEXICO. Jalisco: Steep forested hills 2–6 km SE of La Manzanilla, above Bahía Tenacatita on the new road to Melaque, with *Brosimum, Orbignya, Hura, Bursera, Cordia,*

elev 200 m or less, locally abundant in deep shady ravine, 6 Dec 1970 flr, *McVaugh 25055* (MICH); mountains 12–15 miles SSE of Autlán, on lumber road to Corralitos, 4–10 miles above (SE of) Ahuacapán, in pine forest zone, elev ca 1500–2200 m, 22–23 Nov 1959 flr, *McVaugh & Koelz 954* (MICH); stream valley crossing the highway to Autlán, 9 miles N of the road junction at the W end of Bahía de Navidad; steep moist ravines, in rich soil, the forest dominated by *Orbignya, Hura, Brosimum,* elev 300 m, 12–13 Dec 1959 flr, *McVaugh & Koelz 1769* (MICH). Colima: Low mountain summits 7 miles N of Santiago, on the road to Durazno, Jalisco; deciduous woodlands, with *Cordia, Brosimum, Platymiscium,* elev 200 m, 10 Dec 1959 flr, *McVaugh & Koelz 1663* (MICH).

This species is named in honor of Rogers McVaugh, eminent student of Mexican botany. Its distinctive features will be discussed below.

Bunchosia praecox W. R. Anderson sp. nov. Fig. 1.

Frutex vel arbor 2–6 m alta, ramis vegetativis glabratis. Folia ignota, floribus et fructibus in ramis sine foliis portatis. Inflorescentia plerumque par pseudoracemorum, terminalis vel axillaris, quoque pseudoracemo 0.8–2.5 (–3.5) cm longo, sine foliis vegetativis, sericeo vel dense tomentoso, 3–6 (–8) floribus plerumque decussatis, bracteis 3–3.5 mm longis, triangularibus, sericeis, persistentibus, eglandulosis, pedunculo nullo, bracteolis 2–3 mm longis, ovatis, ambabus (vel interdum tantum una) glandula abaxiali excentrica instructis. Pedicellus 2–3 mm longus (–4 mm fructu), laxe sericeus vel tomentosus. Sepala glandulas ca 2 mm superantia, ca 1.5 mm lata, triangularia, abaxialiter sericea, adaxialiter glabra, glandulis 8, 1.8–2.5 mm longis, obovatis, distinctis. Petala flava, glabra, eglandulosa vel raro quintum basi 1–2 glandulis parvis instructum, 4 lateralia reflexa, ungue 1.5–2 mm longo, limbo 4–6 mm longo, 3–5 mm lato, eroso vel dentato, 2 anterioribus quam 2 posterioribus majoribus et profundius concavis; petalum posticum erectum, ungue 3 mm longo, crasso, limbo 3–3.5 mm longo, 2–3 mm lato, subintegro, plano. Filamenta 2–3 mm longa, glabra, ca 1/3 connata; antherae 1–1.3 mm longae, glabrae, connectivo brunneo demum flavo; pollen globosum, 31–36 μ diametro, 6–7 (–8)-foratum. Ovarium 1.2–1.5 mm altum, bicarpellatum, sericeum; stylus (ex 2 stylis omnino connatis) 2–2.2 mm longus, tomentosus, stigmate bilobo. Fructus aurantiacus, siccus 11 mm longus, 16 mm latus, didymus lobis globosis, laxe sericeus.

TYPE: MEXICO. Jalisco: Along the road from Barra de Navidad to Tequezquitlán, Concepción, and Autlán; grassland with scattered oaks, 15 road-miles N of Navidad, elev 375 m, locally abundant, 8 Apr 1951 flr & frt, *McVaugh 11895* (MICH, holotype).

PARATYPE: MEXICO: Sinaloa: Tropical deciduous forest, *Haematoxylon, Guazuma, Ipomoea, Pachycereus,* and *Pseudobombax,* about 30 miles E of Culiacán along road between Presa López Mateos and Tamazula, Durango, elev 400 m, 18 Mar 1972 flr, *Breedlove 24459* (MICH).

In the taxonomy of Niedenzu (1928), *Bunchosia mcvaughii* and *B. praecox* would be placed in section *Eriothrix* subsection *Eremadenia,* which contains *Bunchosia biocellata* and its close relatives, none of them known from western Mexico. The new species both differ from the rest of the subsection in having both bracteoles of each flower usually glanduliferous. *Bunchosia mcvaughii* is further distinguished by its long narrow leaves, long divergent pedicels, and large flowers, while *B. praecox* is notable for its very short, stout pedicels and its habit of flowering when it is leafless, to which the epithet refers. *Bunchosia mcvaughii* seems to grow in wetter, more wooded habitats than *B. praecox.* The following key distinguishes the new species from each other and from the commonest species of western Mexico, *Bunchosia palmeri* S. Watson, all three having the leaves woolly or tomentose below.

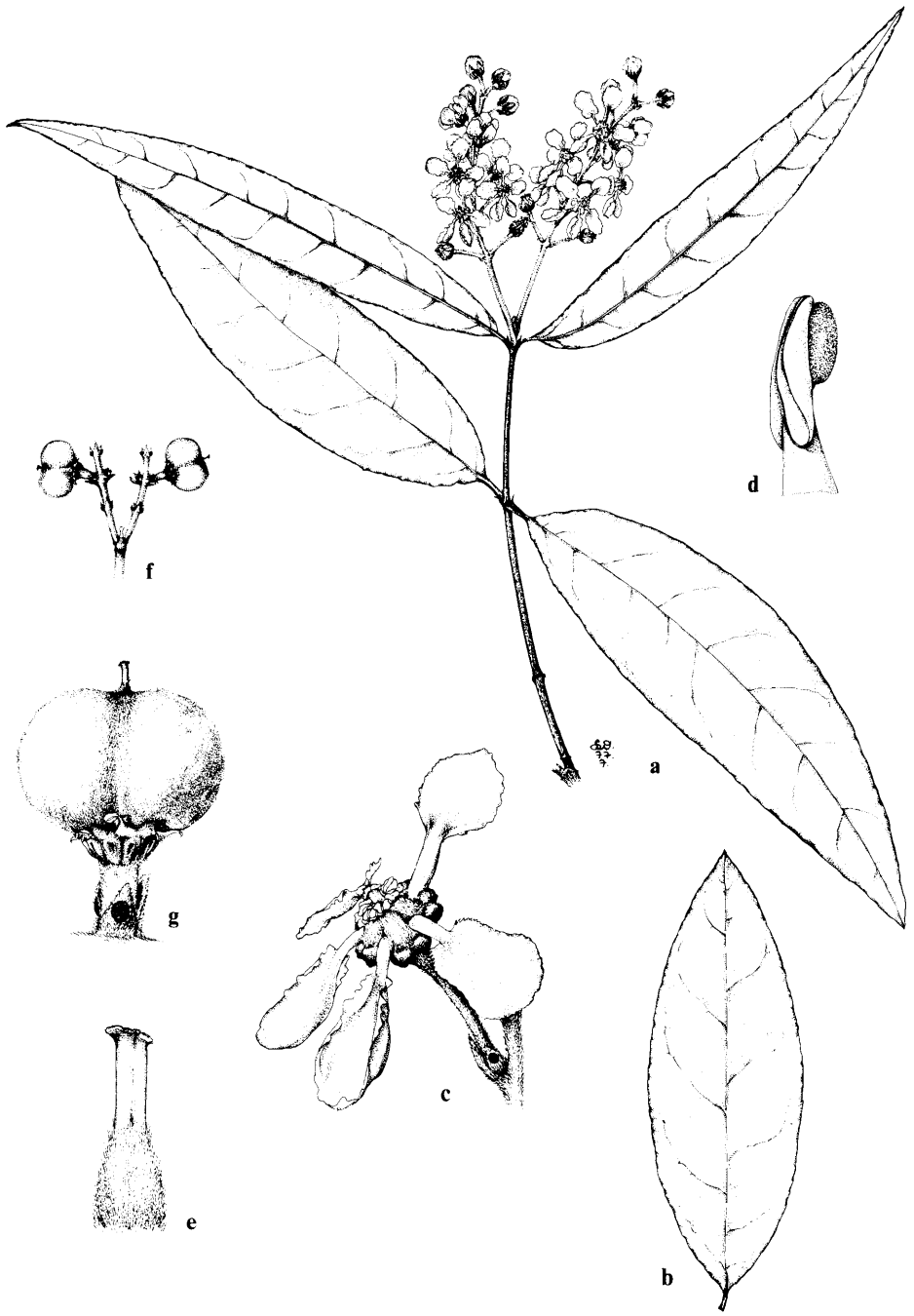

FIG. 1. *Bunchosia mcvaughii* and *B. praecox*. a–e, *B. mcvaughii*: a) flowering branch, × 0.5; b) shorter leaf, same collection, × 0.5; c) flower, × 2; d) stamen, × 10; e) gynoecium, × 5. f-g, *B. praecox*: f) infructescence, × 0.5; g) fruit, × 2. Drawn from the types by Karin Douthit.

1. Ovary (not style) glabrous; only 1 of each pair of bracteoles glanduliferous; sepals glabrous or at most ciliate on the margin. *B. palmeri.*
1. Ovary densely sericeous; both bracteoles usually glanduliferous; sepals abaxially sericeous.
   2. Plants leafy when flowering; pseudoraceme 5–10 cm long, with 8–18 flowers; pedicel 6–12 mm long; calyx glands 2.5–4 mm long, often partly connate in pairs; limb of the lateral petals 6–10 mm long; anthers 1.5–2.2 (–2.5) mm long. *B. mcvaughii.*
   2. Plants leafless when flowering; pseudoraceme 0.8–2.5 (–3.5) cm long, with 3–6 (–8) flowers; pedicel 2–3 mm long (–4 mm in fruit); calyx glands 1.8–2.5 mm long, distinct; limb of the lateral petals 4–6 mm long; anthers 1–1.3 mm long *B. praecox.*

LITERATURE CITED

Niedenzu, F. 1928. Malpighiaceae *in* A. Engler: Das Pflanzenreich IV. Vol. 141 pp. 1–870.