

long; seeds oblong, 1 mm long, lightly reticulate, with small terminal appendage at one end. Fig. 2.

SPECIMENS EXAMINED (in addition to type): Guatemala, road to San Juan Ixcoy, Sierra de los Cuchumatanes, 3700 m, *Molina R.*, *Burger*, and *Wallenta* 16469, F. Mexico, Chiapas, Municipio of La Trinitaria, Monte Bello National Park, 1300 m, 42 km northeast of La Trinitaria, *Breedlove* 27561, DS; same locality, *Breedlove* 21104 and *R. F. Thorne*, DS, *Breedlove* 36937, DS; slopes with Montane Rain Forest, *Liquidambar*, *Magnolia*, *Vochysia*, east of Laguna Tzikaw, *Breedlove* 32254, DS; Laguna Pojoj near Laguna Tsiskaw, *Breedlove* 37070, DS.

In Chiapas, *Thornea calcicola* is a locally abundant shrub often becoming sub-dominant. It occurs in a shrubby evergreen formation reminiscent of an "elfin forest", a modification of the Montane Rain Forest, which occurs on Miocene limestone slopes on the shores of many of the lakes in the Lagos de Monte Bello National Park in south-central Chiapas on the Guatemala border. Associated trees and shrubs include *Rondeletia stenosiphon*, *Podocarpus matudae*, *Cavendishia laurifolia*, *Saurauia scabrida*, *Lyonia squamulosa*, *Litsea*, *Hoffmannia*, *Daphnopsis*, *Tibouchina breedlovei*, *Monnina xalapense*, *Hauya heydeana*, *Zanthoxylon*, *Parathesis chiapensis*, *Polygala floribunda*, and *Miconia laurifolia*.

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A NEW SPECIES OF CHRYSACTINIA (COMPOSITAE: TAGETEAE) FROM SINALOA, MEXICO

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Recent collections from the mountains of northern Sinaloa include a previously undescribed species of *Chrysactinia* A. Gray. As last revised (Blake, 1916), *Chrysactinia* comprised four species of eastern and central Mexico and the southwestern United States. The new species, *C. lehtoae*, is the first *Chrysactinia* known from western Mexico.

Chrysactinia lehtoae differs markedly from previously described taxa. *Chrysactinia pinnata* S. Wats. and *C. truncata* S. Wats. are similar to *C. lehtoae* in having pinnately divided leaves, but leaves of these two species differ from those of *C. lehtoae* in shape of lobes and in distribution and number of oil glands (fig. 1). The two remaining species, *C. mexicana* A. Gray and *C. acerosa* Blake, have short, linear or acicular, entire leaves. *Chrysactinia lehtoae* resembles *C. truncata* in having 13-rayed heads with yellow ligules, whereas *C. pinnata* has 8-rayed heads, and the ligules are bicolored, white above and orange beneath. J. L. Strother (pers. comm.) has indicated that *C. lehtoae* is so different from *C. pinnata* and *C. truncata* that it probably merits separation from these species at the sectional level.

Chrysactinia lehtoae is named in honor of Mrs. Elinor Lehto, Curator of the Herbarium at Arizona State University since 1966. Mrs. Lehto is a student and avid collector of the flora of the southwestern United States and northern Mexico.

Chrysactinia lehtoae Keil, sp. nov. (fig. 1). Suffrutex e basi ramosus, caulibus foliosis, usque ad circa 3 dm longis, viridibus vel spadiceis, sexcostatis, glabris. Folia decussata, semel pinnatipartita fere ad nervum medium; bases petiolorum parum expansae, trichomatibus multicellularibus 0.2–0.4 mm longus ciliolatae, lineis connatis ciliolatus connexae; petioli exiles, 4–8 mm longi, adaxiale trichomatibus circa 0.2 mm longis puberuli, abaxiale glandibus pellucidis linearibus 1–4 mm longis punctati; rhachis exiles 10–13 mm longae, angustissime alatae, adaxiale sulcatae et trichomatibus circa 0.2 mm longis puberulae, abaxiale glandibus pellucidis linearibus vel ellipticis 0.5–1.0 mm longis punctatae; foliola 5–9, linearia, 10–22 mm longa, 1–2 mm lata, integra vel minute crenulata, acuminata, cuneata, uninervata, adaxiale nervo medio trichomatibus circa 0.2 mm longis puberulenta, in marginibus ambabus et in pagina abaxiale prope basin glandibus pellucidis ellipticis 0.3–0.7 mm longis punctata. Capitula radiata, solitaria terminaliaque in pedunculis 17–20 mm longis, bracteolas lineares 2–3 mm longas ferentibus. Involucrum campanulatum; phyllaria 13, uniserialia, subaequalia, oblonga 4–5 mm longa, circa 1 mm lata, versus apicem obtusam angustata, basaliter truncata, dorsale convexa, carinata indurataque, margine membranacea, versus apicem trichomatibus multicellularibus circa 0.1 mm longis ciliolata, aliter glabra, glande pellucida elongata mediali solitaria subterminali 2–3 mm longa et in dimidio inferiore uno vel duobus paribus glandium submarginalium linearium seu ellipticorum 0.3–1.0 mm longorum punctata. Flosculi ligulati 13; corollae luteae, tubis 3 mm longis, trichomatibus multicellularibus circa 0.1 mm longis sparse puberulentis, ligulis oblongis 7 mm longis, 2–3 mm latis, ad apicem minute tridentatis, utrinque glabris. Flosculi tubuliflori numerosi; corollae flavae vel flavovirentes, circa 6 mm longae, in tuba et fauce vix differentiatas, trichomatibus multicellularibus circa 0.1 mm longis sparse puberulentas, lobis 5 triangularibus aequalibus ascendentibus 0.5 mm

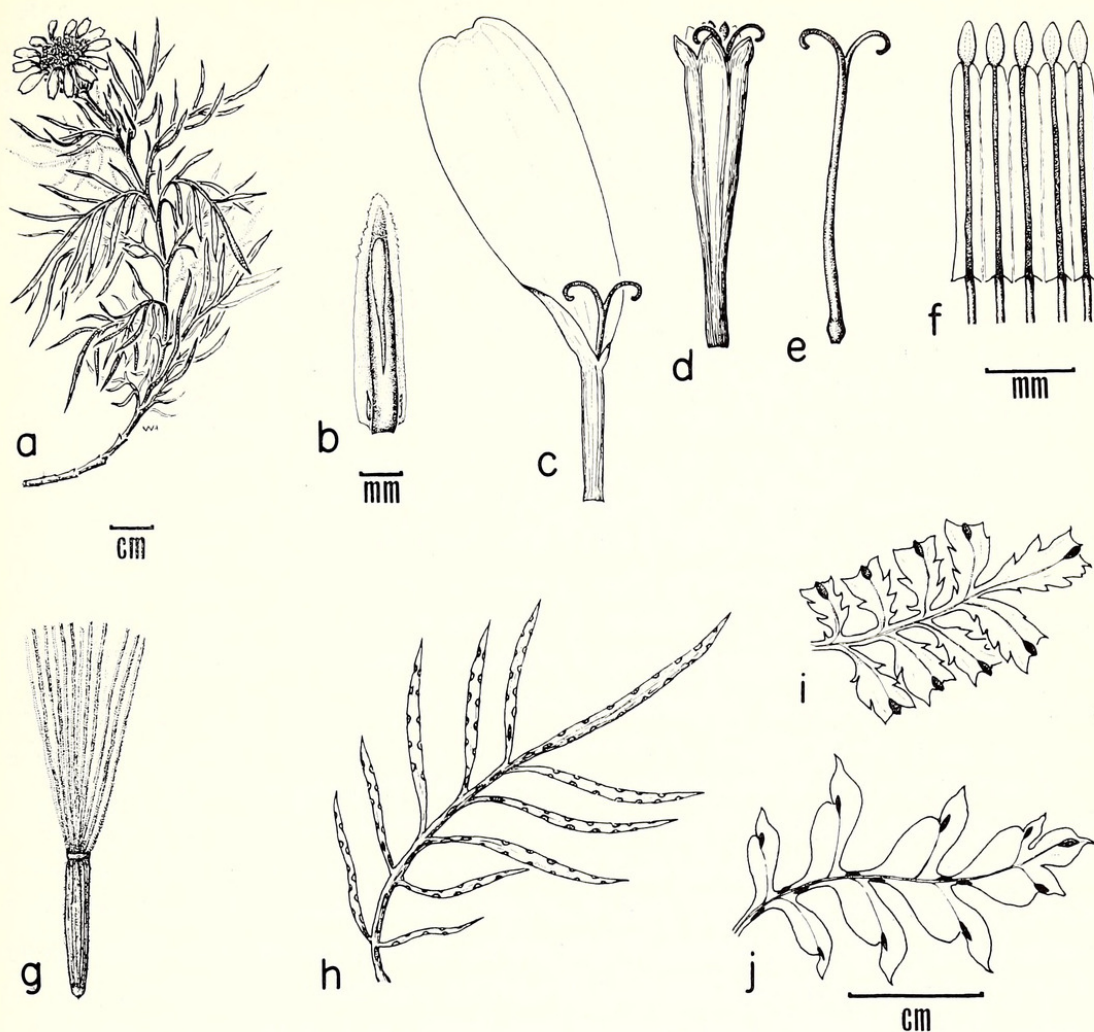


FIG. 1. a—h, *Chrysactinia lehtoae* (Lehto et al. L19551, ASU). a, habit; b, phyllary; c, corolla of ray floret; d, corolla of disc floret; e, style of disc floret; f, anthers; g, achene; h, leaf. i, leaf of *C. truncata* (Stanford et al. 833, ARIZ). j, leaf of *C. pinnata* (Stanford et al. 310, ARIZ). b—e, g all same scale; h—j all same scale.

longis; antherae thecis circa 2.5 mm longis, basaliter minute sagittatae, appendice terminali deltoidea circa 0.5 mm longa; pollinis grana echinata, circa $23\mu\text{m}$ diametro; rami styli recurvati circa 1 mm longi, apicibus truncatis. Achenia flosculorum ligulatorum tubuliflorumque similia, nigra, subcylindracea, vix compressa, 3 mm longa, 0.7 mm diametro, multinervata, trichomatibus usque ad 0.1 mm longis minute puberulenta; carpopodium eburneum glabrum triangulare obliquum 0.3 mm longum et latum; setae capillares pappi 20–30 albae, antorse barbellulatae, usque ad 5.5 mm longae. Chromosomatum numerus ignotus.

TYPE: Sinaloa, 18 mi NE of Choix, very close to Chihuahuan border, ca. $26^{\circ} 50' \text{ N}$, $108^{\circ} 11' \text{ W}$, 1300 m, 25–26 Nov 1975, T. H. Nash, J. J. Landye, and E. Lehto L19551. Holotype: ASU. The type was collected on a limestone outcrop on a steep mountain slope in an open oak-pine forest.

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A NEW SPECIES OF CLAUDOPUS
FROM NORTHERN CALIFORNIA

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Eight species of *Claudopus sensu* Largent and Benedict (1971) have been reported from the Pacific Coast of the United States (Largent and Thiers, 1972). Three of these, *Claudopus nidulans* (Pers. ex Fr.) Karsten, *C. commixtus* Bres., and *C. variabilis* (Pers.) Gillet, have been transferred to *Phyllotopsis*, *Pleurotellus*, and *Crepidotus*, respectively (Singer, 1975). Three, *C. affinis* Kauff., *C. corticinatus* Kauff., and *C. subargillaceus* Kauff., have smooth basidiospores and have been excluded from the rhodophylloid fungi (Largent, 1971). The remaining two, *C. byssisedus* (Pers. ex Fr.) Gillet and *C. avellaneus* Murr., have pinkish, angular basidiospores and are good species of *Claudopus* (Hesler, 1963; Largent, 1974). The former species has been reported from Washington, Oregon, and California (Kauffman, 1929; Largent, 1974); the latter species has been reported from Oregon (Murrill, 1917).

This report contains a description of a previously undescribed species of *Claudopus*, which represents the second verified species of this genus from California. Abbreviations used in the description and methods of measuring the spores will be found in my study of *Claudopus byssisedus* (Largent, 1974). Color terms used in the description are from Kornerup and Wanscher (1961). The terms *pileipellis*, *suprapellis*, *subpellis*, and *stipitipellis* are used in the same sense as Bas (1969).

Claudopus graveolens Largent, sp. nov. Pileus plano-convexus, bicolor, ad centrum pallide griseibrunneus, alibi atrobrunneigriseus, glaber, haud hygrophanus, margine decurvato, integro, non striato. Odore forti, mephitico. Stipes minutus, excentricus vel lateralis, griseibrunneus, strato denso fibrillarum albidis obtectus.

Cheilocystidia sparsa vel abundantia, hyalina, versiformia. Pleurocystidia desunt. Pileipellis bistrata. Trama pilei heterogenea, ex hyphis lati-



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