

# DISTRIBUTION OF *CLITORIA* (LEGUMINOSAE: PHASEOLEAE: CLITORIINAE) IN THE FLORA MESOAMERICANA AREA

PAUL R. FANTZ<sup>1</sup>

**Abstract.** Documentation data of herbarium specimens examined and distribution of the taxa is presented for the manuscript on *Clitoria* (Leguminosae) submitted for the *Flora Mesoamericana*.

**Keywords:** *Clitoria*, Fabaceae, *Flora Mesoamericana*, Central America, identification key, exsiccatae

The treatment of *Clitoria* L. (Fabaceae) for the *Flora Mesoamericana* was first submitted in 1995 with an updated revision in 2003 (Fantz, ined.). Data from herbarium vouchers examined and distribution records of the taxa are extremely limited in the manuscript as editorial guidelines limited the citation of specimens to one per country or state in México. Although the *Flora Mesoamerica* (FM) website ([www.mobot.org/MOBOT/fm/](http://www.mobot.org/MOBOT/fm/)) has an exsiccatae data base section, current data is sparse, and appears to include primarily collections deposited at MO. The length of time between treatment submission and flora publication has reached a decade, and it is uncertain when the data will be released in print. Data entry of exsiccatae will be time consuming, and it is uncertain when data will be available online or how extensive the exsiccatae will be. Also, it is uncertain whether exsiccatae data will include those collections examined by authors of taxonomic treatments, or additional collections that were not included in their original

study. Botanists working on Central American research projects, who wish to review distributional data in the exsiccatae, will find the FM database cumbersome as well as incomplete. It requires several button clicks to view data on a single specimen. One is unable to search by locality for an overview of specimens of a taxon collected in that area. In addition, there is no indication that the FM exsiccatae is archived in hard copy.

The exsiccatae studied in the development of the treatment of *Clitoria* for the *Flora Mesoamericana* are published herein to assist researchers working on Central American research projects. Included are Central American specimens derived from over 10,200 worldwide collections of *Clitoria* examined and annotated by the author. A key to taxa of *Clitoria* is provided to assist botanists with identifications of their own collections of the genus or in examining collections not found in this list of exsiccatae.

## METHODS

Herbarium vouchers of *Clitoria* from Mesoamerica [southern México (states of Campeche, Chiapas, Quintana Roo, Veracruz, Yucatan) to Panama] cited herein are specimens from 40 international herbaria. All vouchers cited have been identified and annotated by the author. Specimen data presented here includes country, province,

major site, collector(s) and number, and herbaria of deposit. Complete label information is maintained by the author. CIAT collections made from material grown in cultivation in Cali, Colombia are cited herein under the location where seed was collected in the wild. Author abbreviations follow Brummitt & Powell (1992).

The author thanks the curators of the cited herbaria for sending loans or allowing visits and two anonymous reviewers for thoughtful comments on a previous version of the manuscript.

<sup>1</sup> Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695-7609, U.S.A.  
Email: Paul\_Fantz@ncsu.edu

## OBSERVATIONS

Mesoamerica includes a taxonomically diverse group of species within the genus. Primitive subgenus *Bractearia* (Mart. ex Benth.) Fantz includes 30 species of trees, large shrubs and lianas and is predominately South American in distribution. Two species, *C. glaberrima* Pittier (sect. *Brachycalyx* Fantz) and *C. javitensis* (Kunth) Benth. (sect. *Cauliflorae* Fantz), have migrated northward into Panama with sparse distribution elsewhere in Mesoamerica. Subgenus *Clitoria* includes five Paleotropical species. One African species, *C. ternatea* L., has been introduced into the Neotropics through cultivation, but has escaped and currently is known from naturalized populations throughout Mesoamerica. The more advanced subgenus *Neurocarpum* (Desv.) Baker includes 24 species. Two species, *C. falcata* Lam. and *C. guianensis* (Aubl.) Benth. of South American sect. *Neurocarpum* have migrated into Mesoamerica northward to central México. Two species, *C. mexicana* Link and *C. polystachya* Benth., of sect. *Mexicana* Fantz have migrated from Mexico south through Mesoamerica.

Cleistogamy and chasmocleistogamy occurs in Mesoamerican species *C. falcata*, *C. guianensis*, *C. mexicana*, and *C. polystachya*. Cleistogamous flowers commonly are borne at lower nodes before the showy chasmogamous flowers appear. Cleistogamous flowers are inconspicuous, apetalous or with petal remnants within the calyx tube, and bear a minute calyx (tube 4–8 mm long, lobes 2–4 mm long) and bracteoles 3–7 mm long. Chasmocleistogamy does occur, but has been vouchered infrequently, with chasmogamous flowers borne cen-

trally in the plant and cleistogamous flowers borne at lower or apical nodes, or both. Herbarium collections with cleistogamous flowers often were unidentified to species or misidentified to genus prior to the author's study of *Clitoria*.

Fantz (1980, 1981) reported that *Clitoria arborescens* R.Br. (cited incorrectly as *C. arborescens* Ait.) was misapplied to a number of vouchers of *Clitoria javitensis* in Mesoamerica. *Clitoria arborescens* is distributed in northern South America, from French Guiana to eastern Venezuela, with isolated collections from Colombia and northern Venezuela. The name *Clitoria laurifolia* Poir. has been misapplied to specimens of *C. guianensis* and does not occur in Mesoamerica.

Several species have distinct varieties and forms. The rank of *forma* is not recognized by many botanists, but included herein as herbarium vouchers were annotated with form names. The forms represent distinct morphological variation that has led some botanists to assign new varietal or species names in the historical literature, or as annotations on herbarium sheets. For example, *Clitoria falcata* Lam. f. *heteromorpha* (Griseb.) Fantz has an imperfectly formed costa, extending only 1/3 to 2/3 the length of the fruit valve, and is a form found in the Caribbean Islands with one collection each in Guatemala, Honduras and Venezuela. Cauliflorous specimens of *C. javitensis* that lack leaves were cited under the typical infraspecific taxon and highlighted with an asterick (\*) next to the herbarium acronym.

## RESULTS

Taxa are listed alphabetically. Also, distribution data for taxa are presented alphabetically by country, then by province, then by collector(s). Collectors with multiple collections are cited in ascending order by their collection number. Collection dates generally are excluded, but are included when specimens lacked a collection number (*s.n.*, *sine numero*).

Provinces, states, or departments have been bold-faced to allow the reader to overview data quickly. Locality data has been abbreviated for

geographical features cited frequently on collection labels (Table 1). Standard map references (e.g., latitude and longitude) cited by modern collectors are included. Locality data and abbreviations used by collectors were cited as presented on the herbarium label. Elevation and habitat data, included in the floristic treatment, were excluded here. I am willing to share complete data with researchers who request it.

Standard acronyms are utilized for herbarium voucher citations following Holmgren et al.

TABLE 1. Abbreviations used in citing locality data for *Clitoria* herbarium vouchers.

btw	between	mi	mile
ca	<i>circa</i> , approximately	M	Mount
cam.	camino	Mun.	Municipality
carr.	carreta	N	North
Cr	creek	nr	near
cult.	cultivated	R	Rio, Río
E	East	rd	road
hwy	highway	R.	river
Isl.	Island	rte	route
jct	junction	S	South
km	kilometer	s.n.	<i>sine numero</i> , without number
l.c.	<i>loco citato</i> , at the place cited	twd	toward
Lk	Lake	vic	vicinity of, vecindades
Mt	Mountain	W	West

(1990). An acronym followed by a number (e.g., F-3) indicates the number of sheets of a collection in their herbarium. Acronyms followed by a lowercase "m" (e.g., F-m) indicate that the specimen has mixed material of two or more species. Occasionally, duplicates of one collection number are a

mixture of more than one species, so that duplicates in different herbaria represent different species. Mixed collections are cited with the misidentified duplicate vouchers preceded by the word "non" (e.g., BM, F, non C, GH, MO).

KEY TO TAXA OF *CLITORIA*

1. Leaflets 5–7; inflorescence 1-flowered; bracteoles 5–8 mm wide; legume subsessile, stipe 1–2 mm ..... 2. (*C. ternatea*)
1. Leaflets 3; inflorescence 2-several flowered; bracteoles 1–4 mm wide; legumes stipitate, stipe 4–33 mm ..... 5.
2. Flowers papilionaceous; stamens diadelphous..... 3. (*C. ternatea* var. *ternatea*)
2. Flowers "double," petals 5, standard-like; stamens 10, free ..... 4. (*C. ternatea* var. *pleniflora*)
3. Flowers white with vexillum greenish to greenish-white medially.....  
..... *C. ternatea* var. *ternatea* f. *albiflora* (p. 50)
3. Flowers blue to purple with vexillum yellow to white medially ..*C. ternatea* var. *ternatea* f. *ternatea* (p. 50)
4. Flowers blue to purple .....*C. ternatea* var. *pleniflora* f. *pleniflora* (p. 50)
4. Flowers white..... *C. ternatea* var. *pleniflora* f. *leucopetala* (p. 50)
5. Calyx lobes 9–15 mm; bracteoles 7–14 mm long; fruit costate; staminal sheath 20–40 mm..... 6.
5. Calyx lobes 2–8 mm; bracteoles 3–8 mm long; fruit ecostate; staminal sheath 15–21 mm or 43–49 mm (in *C. javitensis*) ..... 9.
6. Herbaceous vine, stems twining and climbing; leaves petiolate, petiole 2.5–4 cm; leaflets broad to 5 cm wide; peduncle to 15 cm; flowers 4–5 cm, white ..... 7. (*C. falcata*)
6. Shrub, stems erect; leaves subsessile, petiole to 1 cm; leaflets narrow, to 2 cm wide; peduncle less 1 cm long; flowers 5.5–7 cm, bluish-lavender ..... 8. (*C. guianensis*)

7. Legume with prominently raised costa extending the length of the valves; common.....*C. falcata* var. *falcata* f. *falcata* (p. 45)
7. Legume with medial costa extending one-third to two-thirds the length of the valves, or ecostate (often various types on one individual plant); infrequent.....*C. falcata* var. *falcata* f. *heteromorpha* (p. 46)
8. Legumes costate, costa prominently raised, extending nearly the entire length of the valve; common..  
.....*C. guianensis* var. *guianensis* f. *guianensis* (p. 47)
8. Legumes ecostate, or with costa imperfectly formed, weakly raised, extending only one-quarter of the valve to rarely nearly the entire length of the valve (often mixture of costa lengths on one individual plant).....*C. guianensis* var. *guianensis* f. *imperfecta* (p. 47)
9. Flowers 6.5–8 cm, pinkish; calyx tube 17–24 mm long, lobes 4–6 mm long; staminal sheath 43–49 mm long; legume stipe 24–33 mm long; liana .....10. (*C. javitensis* var. *portobellensis*)
9. Flowers 2.5–4 cm long, white or with bluish-purple marginally on banner; calyx tube 7–12 mm long, lobes 2–4 or 5–8 mm long; staminal sheath 15–21 mm long; trees, shrubs or subshrubs.....12.
10. Leaf apex tapering, acuminate; common.....11.
10. Leaf apex truncate to more or less retuse; rare.....*C. javitensis* var. *portobellensis* f. *truncata* (p. 49)
11. Leaf pubescence on lower surface conspicuously pilose to glabrate with age, trichomes on veins spreading to suberect; infrequent.....*C. javitensis* var. *portobellensis* f. *pilosa* (p. 48)
11. Leaf pubescence on lower surface inconspicuously appressed to glabrate, trichomes on veins appressed, non-spreading; common.....*C. javitensis* var. *portobellensis* f. *portobellensis* (p. 48)
12. Tree; larger leaflets to 6–9 cm wide; legumes flat, 110–200 mm long, 16–20 mm wide, stipe 10–12 mm; flowers white with blue-purple marginally on banner; cleistogamy absent....*C. glaberrima* (p. 46)
12. Shrub or subshrub; larger leaflets to 3–6.5 cm wide; legumes turgid, 25–50 mm long, 6–8 mm wide, stipe 4–8 mm; flowers white; cleistogamy present.....13.
13. Flowers 3–4 mm long; calyx lobes 5–8 mm long; inflorescence pseudoracemose; legume dehiscent valves twisting 1–1 ½ turns; subshrub, training to weakly climbing apically.....*C. mexicana* (p. 49)
13. Flowers 2.5–3 cm long; calyx lobes 2–4 mm long; inflorescence paniculate; legume dehiscent valves twisting less than one turn; shrub to 5 m.....*C. polystachya* var. *polystachya* (p. 49)

***Clitoria falcata* Lam. var. *falcata* f. *falcata***

BELIZE (BRITISH HONDURAS). All Pines, *Schipp* 573 (A, BM, F, G, GH, MICH, MO, NY, S, UC). **Belize**: 7 km N de Hattieville, *Sousa et al.* 12059 (MEXU-2). **Stann Creek**: btw Mullins R. & Manatee, *Gentle* 3376 (A, LL, MICH); Mullins R. rd, *Gentle* 8465 (LL); Tipparery rd, 12 mi section Stann-Middlesex rd, *Gentle* 9333 (F, LL, MEXU). **Toledo**: Monkey R., Toledo Dist., *Gentle* 3631 (A, F, MICH, MO, NY, US); Swasey Branch, Monkey R., *Gentle* 3876 (A, MICH, MO, NY); Sacatal, Punta Gorda-Cero rd, *Gentle* 6832 (C, F, LL, MEXU, MO).

COSTA RICA. Oct 1943, *Fernandez s.n.* (NY); cult. at Guapiles from seed collected at Toro Amarillo nr Guapiles, *McKee* 11092 (P); savannas de Boruca, *Pittier* 4713 (G). **Guanacaste**: Lagunas Coyol y Guayabal, La

Cruz, *Gómez-Laurito* 9143 (CR). **Limón**: N shore of R Colorado mouth at Bacia del Colorado, 83°35'30"W, 10°47'40"N, *Davidse & Herrera* 30971 (BM, CR-photocopy, MO). **San José**: El General, *Skutch* 2951 (GH, MO, US); *Yielding* 282 (CR, F).

EL SALVADOR. Conchagua, Gulf of Fonseca, *Barclay* 2710 (BM).

GUATEMALA. **Izabal**: btw Milla 49.5 & Cristina, *Steyermark* 38400 (F) & 38665 (F). **Petén**: Santa Elena, en orillado el cam. para Santa Marta, *Ortiz* 1497 (BM, F, MICH, US). **Retalhuleu**: Retalhuleu, *Standley* 88584 (F). **Suchitepequez**: Finca Moca, *Skutch* 1549 (F, GH).

HONDURAS. **Choluteca**: 2 km arriba de San Marcos de Colon, *Molina* 5444 (GH, US). **Colon**: R Guaimorento btw old bridge & opening of Laguna Guai-

morento, 4.5 mi NE of Trujillo on rd to Castilla, 15°57'30"N, 85°54'30"W, *Saunders 667* (BM, F, MO, TEX, WIS). **Gracias a Dios:** La Mosquita, Aguas, 15°30'N, 84°20'W, *Clewell 3536* (FSU, MO). **Francisco Morazán:** btw Agua Amarilla y Piedras Gordas, R Yeguaré drainage, 14°N, 87°W, *Molina 1388* (BM) & *1391* (F, GH); aqua abajo de la Quebrada El Gallo, N of Zamorano, R Yeguaré drainage, 14°N, 87°W, *Molina 2596* (F); San Antonio de Oriente, *Rodriguez 673* (F) & *677* (F); San Antonio, *Rodriguez 1469* (F); vic. El Zamorano, *Standley 167* (F); El Quebrado, above El Zamorano, *Standley 319* (F); vic. El Zamorano, *Standley 12542* (F); slope along R Agua Amarilla, NW El Zamorano, *Standley 22875* (F); nr Jicarito, R Yeguaré drainage, 14°N, 87°W, *Williams & Molina 15885* (BM, F, GH). **Olancho:** btw Las Marias & La Colonia, *Blackmore & Heath 1651* (BM).

MÉXICO. **Campeche.** Mun. Francisco Escárcega, a 5 km S de Salsipuedes, *Ramamoorthy et al. 2508* (MEXU). **Chiapas:** Mapastepec, *Hernández 242* (GH); Escuintla, *Matuda 2146* (F, MEXU, MICH, NY, PH); Aguacate Palenque, *Matuda 3786* (MEXU); M Ovando, Escuintla, *Matuda 17083* (F, MEXU, UC); 1 km N de La Victoria, 7 km NNW de Palenque, Mun. Palenque, *Sousa et al. 12414* (BM, MO); Mun. Tapachula, La Trinidad, *Ventura & López 813* (MEXU). **Veracruz:** Mun. Las Choapas, Rancho Gavilan, 3 km antes de llegar a Las Choapas, 17°54'N, 94°6'W, *Calzada 5966* (F); Ejido Tinajas, Tramo Palma Sola-Laguna Verde, 19°45'N, [W coordinates not on label], *Calzada et al. 6362* (MO); Cerro al Sur del Cerro de Los Metates, *Dorantes et al. 954* (F); Trans-isthmus hwy rte 185, 4 km Ne Minatitlan, isthmus Tehuantepec, *King 1050* (MICH). **Yucatan:** Savanna de Lian, Jul., *Linden s.n.* (P).

NICARAGUA. Puerto Cabezas, *MacKee 11236* (P, US); Bihmonia, *Seymour 5718* (MO); Wilder's Switch, *Sluijs 625* (F); Miguel Bikan, *Sluijs 722* (F-2). **Chinandega:** El Polvón, btw Cinco Pinos y el Chaparral, 13°15'N, 86°51'W, *Moreno 11610* (MO); 3-4 km SE de San Pedro de Potrero Grande "Los Laureles", 13°15'N, 86°53'W, *Moreno 11702* (MO); 500 m de Cinco Pinos sobre el cam. a San Francisco del Norte, 13°13'N, 86°51'W, *Moreno 11788* (MO). **Granada:** Isla Zapatera, El Cerro, costado E de la Isla, *Estrada et al. 41* (MO, WIS). **Matagalpa:** 7 km SW de Buenavista, carr. a Matagalpa, 13°15'N, 85°24'W, *Moreno & Robleto 20943* (MO). **Zelaya:** S de Puerto Cabezas, 14°2'N, 83°24'W, *Sandino 3992* (NY); 13.1 km NW of Limbaika on rd to El Empalme, 13°33'N, 84°10'W, *Stevens & Moreno 19466* (MO); ca 1 km E of Lamblaya, 14°1'N, 83°24'W, *Stevens & Moreno 19609* (WIS).

PANAMÁ. 1850, *Halstead s.n.* (NY); *Hayes s.n.* (E); cam. de las sabanas, *Heriberto 160* (NY, US); *Killip 3246* (US); Chiva-Chiva trail, *Stevens 599* (ILL-2); Bellavista,

*Stevens 1107* (ILL). **Chiriquí:** nr Concepcion, *Burt & Koster 142* (LL, MO); David Airport, *Lewis et al. 765* (GH, MO). **Coclé:** W R Guias, *Gentry 5837* (MO); 11 mi E of Antón, 8°23'N, 80°12'W, (Cult. CIAT), *Schultze-Kraft et al. s.n.* (CIAT, ENCB); 71 km E of David, 8°17'N, 81°57'W, 26 Jan 1978, (cult. CIAT 7102), *Schultze-Kraft et al. s.n.* (CIAT, GH); 4 mi W Antón on R Chico, *Tyson & Blum 2599* (MO). **Darién:** vic Veracruz, *Duke 6090* (MO). **Herrera:** 8 mi SW of Las Minas, *D'Arcy & Antonio 13517* (MO); 12 km E of Las Minas, 7°38'N, 80°40'W, (cult. CIAT 7099), *Schultze-Kraft et al. s.n.* (CIAT, MEXU). **Panamá:** nr El Valle, *Burt & Rat-tray 32* (MO); nr La Chorrera, btw Balboa & Chame, *Dodge et al. 16739* (GH, MO); Tocumen, nr radar tower on Ag. Farm, *Dwyer 2993* (MO-2); S of Fort Kobbe & Fort Howard, E of R Venado, 8°54'N, 79°35'W, *Knapp 1892* (LL, MO); NE of Panama City, *Bro. Paul 179* (US); along Corozal rd, nr Panama, *Standley 26803* (US); Tumba Muerto rd nr Panama, *Standley 29791* (US); btw Matias Hernandez & Juan Diaz, *Standley 32066* (US); cam. a Chepo en el centro de Instruccion Militar, *Taylor 125* (MO). **Zona Delcanal:** Ancon, rd to Corozal, *Celestine 37* (US); C-2 nr Madden Wye, *Croat 12617* (F, LL, MO); rd C-21 nr Police Lodge, *Croat 12984* (MO); Pan-American hwy nr La Chorrera, *D'Arcy 9440* (NY); S of Gamboa, *D'Arcy & Antonio 13568* (MO); R Azote, Caballo, *Dodge et al. 16821* (GH, MO-2); rd C-21, *Duke 5772* (GH, MO); rd K5-16, *Duke 8970* (MO); Paraíso, *Dwyer 7155* (GH, MO, US); Paraíso Sta. P.R.R., *Hayes 173* (GH-2) & *798* (NY-2); C2 E of Fort Clayton, *Harvey 5102* (F); E of Curundú, *Harvey 5193* (F) & *5195* (F); Corozal, *Killip 3255* (US); nr Navy Communications Station 0.5 mi S of summit Gardens, *Nee 7385* (TEX); Ancon Hill, *Standley 25204* (MO, US); Balboa, *Standley 25416* (MO, US) & *26062* (US); R Pedro Miguel nr E Paraíso, *Standley 30030* (US); Curundu, survival school area, *Tyson 1302* (FSU, MO, SCZ); Howard Air Force Base nr Red Devil Drop Zone, *Tyson 1867* (FSU, MO, SCZ). **Barro Colorado Island:** shore N of Zetek House, *Woodworth & Vestal 693* (A, F, MO). **San Jose Island:** East harbor, *Harlow 84* (GH); East Bay, *Johnston 195* (BM, GH);

***Clitoria falcata* Lam. var. *falcata* f. *heteromorpha* (Griseb.) Fantz**

GUATEMALA. **Alta Verapaz:** along R Icuolay, N & NW Finca Cubilgüitz to Quebrada Diablo, *Steyermark 44801* (F).

HONDURAS. **Atlántida:** vic Tela, *Standley 55143* (F, US).

***Clitoria glaberrima* Pittier**

COSTA RICA. ca 2 km SE of R Ciruelas de Miramar via Interamerican Hwy, 10°1'N, 84°43'W, *Burger & Ramirez 4047* (CR-photocopy, F, DUKE, NY); El

Coyolar, *Lankaster 1283* (F, S). **Puntarenas:** Palmar Norte, *Poveda 634* (CR).

EL SALVADOR. La Cebadilla, *Calderón 1228* (GH, NY) and *1428* (MO-2).

GUATEMALA. Intro. en Envoy Java et la Tortuga, *Bernoulli & Cairo 1177* (K).

MÉXICO. **Chiapas:** Mun. Mapastepec, R Testecapa, 10 Km SE of Mapastepec, *Breedlove & Thorne 30757* (MEXU); Piedra Rajada NW de Mapastepec, *Enriquez 6761* (MEXU); Mapastepec, *Hernández X317* (MEXU-2); Pijijiapan, *Matuda 18734* (F, MEXU, NY); S. Benito, *Miranda 1845* (MEXU); nr Tapachula, *Nelson 3841* (US).

PANAMÁ. *Pittier 6647* (US). **Los Santos:** Las Tablas, *Dwyer 1180* (MO). **Panamá:** Toboga Isl., on the Morro, *Hayes 687* (E, K, M); Toboga Isl., *Killip 3180* (US); Isla Tabaquilla, *Duke 5882* (MO); Alhojuela [=Alajuella?], *Bro. Paul 496* (MICH, US); Ag. Exp. Station at Matías Hernandez, *Pittier 6799* (GH, K, M, P, US) **Zona Delcanal:** Farfán Beach Area, 17 Nov 62, *Anonymous s.n.* (FSU, MO); 1 mi beyond Madden Dam Bridge, *Correa & Dressler 353* (DUKE, F-2, MO); hill above Thatcher Ferry Bridge, *Croat 17012* (F, MO, SCZ); Madden Dam, Boy Scout Camp Rd, *Dwyer 8387* (MO) and *9166* (DUKE, LL, MO, NY); Madden Dam, *Dwyer 11967* (MO); l.c., *Lewis et al. 8* (GH, MO, UC, US); Farfan Beach Area, *Tyson 1833* (FSU, MO, SCZ, US) and *1839* (MO); l.c., *Tyson & Blum 2606* (MO, US) and *2618* (MO, US) and *2619* (FSU, MO) and *2620* (FSU, MO, SCZ); l.c., *Tyson et al. 3172* (FSU, GH, MO); Madden Lk, *Witherspoon & Witherspoon 8431* (MEXU, NY); Madden Dam, *Woodson et al. 1553* (GH, MO, US). **Veraguas:** Puerto Mutis, 12 mi S Santiago, *Tyson 6020* (FSU).

***Clitoria guianensis*** (Aubl.) Benth. var.

***guianensis* f. *guianensis***

BELIZE (BRITISH HONDURAS). Big Fall Pine Ridge, Little Cocquericot, Belize R., *Lundell 4394* (F, MICH); nr Manatee Lagoon, *Peck 141* (GH). **Belize:** Western hwy mi 30, The Place, *Whiteford 2502* (BM, MO). **El Cayo:** Mt. Pine Ridge, Habet's rd, Augustine, 16°34'N, 88°45'W, *Hunt 6* (BM, IJ, LL, UC, US); Mt Pine Ridge, nr Blancaneaux Lodge, *Huston 0609* (MO); nr Spanish Lookout, 17°13'N, 88°57'W, *Ratter 5187* (E); San Miguel, *Whiteford 1946* (BM); Mt Pine Ridge, 3 mi SE of Blancaneaux Lodge, *Wiley 369* (MO, SIU-2). **Orange Walk:** 1 mi from tall bridge, Orange Walk, *Dwyer & Berry 15015* (MO). **Stann Creek:** btw Mullins R & Manatee, *Gentle 3381* (A, MICH); Mullins R rd, 4-5 mi N of Melinda Forest Station, *Proctor 36529* (IJ, MO). **Toledo:** nr Jenkins Cr, *Gentle 4088* (A, F, LL, MICH, MO, NY, US).

COSTA RICA. **Guanacaste:** 6 km S de La Cruz, *Lent 96* (CR); Hacienda Orosí, 30 km E La Cruz, cam. al Volcán Orosí, *Madrigal 313* (CR); 10 km E of C1A on rd to Hda. Los Inocentes, *Pohl & Gabel 13562* (F, ISC); Volcán Orosí, *Shannon 5007* (US); 4-6 km S of La Cruz on Pan-American hwy, *Weston 1862* (UC); ca 5 km S of LaCruz on Inter-Amer. hwy. at jct with dirt rd to coast, *Weston 5050* (F).

GUATEMALA. M Rincon, *Friedrichstal 1223* (NY, W); E vic of Vera Paz & Chiquimula, *Watson 483* (GH, US). **ISABAL:** 13 km E of Doña Maria, *Harmon & Fuentes 5874* (UMO). **Petén:** Sabana Zizha, La Libertad, *Lundell 2645* (F, MICH, US); Sabana San Francisco, La Libertad, *Lundell 3653* (A, F, MICH, MO, S, US).

HONDURAS. **Comayagua:** Escuela Nat. de Ciencias Forestales, Siguatepeque, *Burch 6192* (USF). **Copan:** R Copan, ca 4.5 mi NE of Copan, *Poole & Watson 921* (LL); 9 air km NNE of Copan, *Poole & Watson 1093* (LL). **El Paraíso:** 25 km E of El Zamoranovia hwy 4, *Davidse & Pohl 2083* (MO); btw Danli y Jacaleapa, *Molina 7517* (F, US); El Junquillo, *Molina 14171* (F, NY, US). **Francisco Morazán:** Las Mesas, *Molina 296* (F, GH); vic. El Zamorano, *Standley 12157* (F); Las Mesas, *Standley 13877* (F); El Zamorano, along rd to San Antonio de Oriente, *Standley 20933* (F) & *22332* (F). **Olancho:** 2 km SW de Culmi cam. a Catacamas, *Martínez & Téllez 12616* (MEXU).

MÉXICO. **Chiapas:** Montecristo, *Matuda 5935* (F, LL); Cerro de Tonalá, Bergnriesen, *Seler 1894* (GH, NY); La Bondad, 5 km N de Arriaga, *Sousa et al. 7376* (MEXU, NY). **Veracruz:** 17 km NE of Minatitlán, along Trans-Isthmian hwy, rte 185, *King 940* (MICH).

PANAMÁ. 5 mi N of Nata, 1 Apr 1960, *Davis s.n.* (TEX). **Chiriquí:** May 1958, *Wagner s.n.* (M). **Coclé:** Penonome, *Ebinger 1011* (F, MO); btw Penonome & Coclé, *Stern et al. 987* (GH, MO); Penonome, *Williams 99* (NY-2). **Panamá:** Taboga Isl., Cerro Campana, *Barlett & Lasser 16905* (MICH); l.c., *Croat 14192* (MO); l.c., *Dwyer et al. 4844* (MO). **Taboga Island:** *Allen 115* (MO); *Miller Jr. 2022* (US); l.c., *Pittier 3572* (NY).

***Clitoria guianensis*** (Aubl.) Benth. var.

***guianensis* f. *imperfecta*** Fantz

HONDURAS. **Francisco Morazán:** San Antonio de Oriente, *Rodriguez 654* (F-2). **El Paraíso:** 20 km N de Yuscarn, btw El Empalme y Quebrada El Muro, 14°N-87°W, *Molina 4005* (F, GH); vic Quebrada de Dantos, 5 km S of Ojo de Agua, *Standley et al. 1283* (F).

MÉXICO. **Veracruz:** nr San Jose del Carmen on Tabasco border, *Davis & Kincaid 55-33* (TEX).

***Clitoria javitensis*** (Kunth) Benth. var.***portobellensis*** (Beurl.) Fantz f.***pilosa*** Fantz

PANAMÁ. Isla de Coiba, *Antonio* 2296 (MO); *Cuming* 1142 (BM; not GH, K); Sotto Caballo, *Smith et al.* 3319 (PH); Obispo, *Standley* 31689 (US). **Chiriquí:** Corotu, 6 m SW of airport of Puerto Armuelles, *Busey* 399 (MO); Quebrada Manzanillo, 9 km S x SW of Puerto Armuelles, *Busey* 733 (MO); Burica Peninsula, Quebrada Guanabanito beyond La Represa, 2 mi SW of Puerto Armuelles, *Liesner* 121 (LL, MO). **Colón:** Juan Mina Plantation, R Chagres, vic above Gamboa, *Allen* 4114 (G, MO). **Darién:** R Sambu, 0.5 mi above R Vendao, *Duke* 9262 (MO, NY, US); vic of Piñas, *Duke* 10617 (MO); Garachine, *Pittier* 5513 (US). **Panamá:** Isla del Ray, *Duke* 9529 (MO); R Pasiga to above waterfall on 2<sup>nd</sup> main fork, *Gentry* 2279 (MO). **Zona Delcanal:** vic Gamboa, *Allen* 3931 (Holotype: G-26, hb. Delessert. Isotype: MO); Gamboa pipe line, on Tropic Test Center lands, 2 km S from main dirt rd, *Correa & Haines* 481 (MO); btw Summit & Gamboa, *Greenman & Greenman* 5239 (MO); nr Gorgona, *Guillard* 2405 (US); edge Chagres R. nr Gatun, *Hayes* 679 (NY); Gamboa rd, *Jones* 268 (US); Chiva-Chiva Trail, Red Tank to Pueblo Nuevo, *Piper* 5107 (US); Empire to Mandinga, *Piper* 5140 (US); Culebra, *Pittier* 2231 (US); btw Gorgona & Mamei, *Pittier* 2405 (GH, NY); Gamboa, *Schmalzel* 489 (MO); Chagres R. Bridge, Gamboa, *Schmalzel* 1256 (CM, MO-2); Las Cascadas Plantation, nr summit Canal Zone, *Standley* 29557 (US). **Barro Colorado Island:** N of 1<sup>st</sup> cove S of #8 Rear Light, *Croat* 5285 (MO-2); nr Colorado point, *Schmalzel* 258 (MO); shore in front of Fuertes House, *Wetmore & Abbe* 6A (GH-2, MO). **San Jose Island:** Guayaquil-viken, 1852, *Andersson s.n.* (S); along M-area road, N half of isl., *Erlanson* 177 (GH); airstrip, *Johnston* 538 (GH); Mareno Valley below Red Hill, *Johnston* 628 (GH); Area 7C, S of Spring Ravine on Canyon Rd., *Johnston* 1351 (GH).

***Clitoria javitensis*** (Kunth) Benth. var.***portobellensis*** (Beurl.) Fantz f.***portobellensis***

COSTA RICA. Boca Culebra, *Pittier* 12342 (CR,P). **Puntarenas:** Tinco Station, btw R Esquinos & Palmar sur de Osa, *Allen* 5711 (FLAS); ca 5 km W of Rincon de Osa, Osa Peninsula, 8°42'N, 83°31'W, *Burger & Liesner* 7247 (F); S of Quepos nr Quepos & R Naranjo, 9°7'N, 84°8'W, *Burger et al.* 10558 (F-2, MEXU); Isla del Caño, 17 km NW of Pta Llorona in Corcovado Nat. Park, Osa Peninsula, 8°42'N, 83°52'W, *Janzen* 11614 (MO); btw Parrita y Esterillos, *Jimenez* 3901 (BM, F, GH); Manuel Antonio, rd to Puerto Quepos, *Khan et al.* 455 (BM\*).

PANAMÁ. *Cowell* 419 (NY); Panamá or Colombia?, *Cuming* 1142 (GH, K-2); *Sinclair s.n.* (K); Cana and vic, *Williams* 755 (NY). **Colón:** nr Salamanca, 8 mi E of Transisthmian hwy, *Gentry* 6704 (MO); Peluca, ca 27 km from Transisthmian hwy on rd to Nombre de Dios, trail to R Boqueron, *Kennedy* 2642 (MO); 10 mi SW of Puerto Bello, 2–4 mi from coast, *Liesner* 1084 (MO). **Darién:** Ensenada del Guayabo, 18 km SE de Jaqué, *Garwood et al.* 118 (BM); l.c., *Garwood* 723 (MO); Quebrada Sierra from R Tuira to track of Chevy Expedition, btw los R Cube & R Punusa, *Gentry* 4438 (MO); nr Yaviza, *Gentry* 13489 (ENCB, CAL, MO); R Tuira btw Boca de Cupe & Yape, *Gentry & Mori* 13524 (MO); Mannene to R Cuasi mouth, *Kirkbride & Bristan* 1402 (MO); Lucuti, Chepigana Dist., *Terry & Terry* 1372 (A, F, MO); R Cocalito, *Whiteford & Eddy* 106 (MEXU, MO). **Panamá:** btw Mt. Hope & Santa Rita Trail, *Cowell* 68 (NY) & 82 (NY); btw R Bayano Dam & Cañitas, *D'Arcy* 9409 (MO); El Llano-Carti-Tupile rd, 12 km above Pan-Am hwy, *Dwyer & Nee* 11980 (MO); nr Arenosa, S shore Gatan Lk N of Chorreroc, 79°55'W, 9°5'N, *Hamilton & Stockwell* 3119 (IJ); sabanas nr Chepo, *Hunter & Allen* 92 (G, MO); Isla Salaga, Pewlas Isl, 8°38'N, 79°5'W, *Knapp* 3280 (MO). **Zona Delcanal:** Frijoli station, *Croat* 13223 (MO); Navy Pipeline rd, 3.7 km N of Gate at Gamboa, *Croat* 32972 (MO); W. arm of Quebrada Salamanca, *Dodge et al.* 17007 (G-2, GH, MO); Pipe Line rd, 3 mi N of Gamboa, *Gentry & Dwyer* 3563 (F); pipeline rd, 2.4 mi N of Gamboa, *Gentry* 6531 (F, MO, USF); btw Pipeline Rd & Frijoles, *Gentry* 7465 (MO); Frijoli station, *Hayes* 492 (BM, E, K, M); btw Alhajueta & El Vigia, *Pittier* 2368 (US-frag.); vic Agua Clara Reservoir nr Gatun, *Pittier* 2652 (F,NY,S,US); Las Cascadas Plantation, *Standley* 29557 (US). **Barro Colorado Island:** *Aviles* 85a (MO); isl. nr lights on way to Pearson Trail, *Bangham* 599 (A,F); *Brown* 101 (F) & 136 (F); Tom Barbour Trail 1000, 25 yds S of trail along ridge, *Croat* 4216 (DUKE, F, MO, NY, SCZ); clearing nr dock, *Croat* 4615 (MO); Fairchild Point, *Croat* 4853 (F, MO); SW corner isl. at M trail end, *Croat* 4967 (MO); NE corner of Orchid Isl., *Croat* 5067 (MO); Peña Blanca Point, *Croat* 5333 (MO-2); NE corner of S cove N of Burrunga Pt., *Croat* 5595 (MO); Buena Vista Reach, S of Fairchild Point, *Croat* 6605 (MO); Peña Blanca Point across from front of #8 light, *Croat* 6734 (MO); N end of laboratory clearing, *Croat* 7071 (MO) & 7077 (MO); forest N of animal cages, *Croat* 7091 (\*MO); large cove SW of Slothia Isl., *Croat* 7340A (MO); clearing N of dock, *Croat* 7732 (MO); jct Fairchild, Wheeler, & Lathrop trails, *Croat* 7929 (MO); Lathrop trail, *Croat* 8497 (MO); nr end of Armour Trail, *Croat* 8289 (MO); *Croat* 8905 (MO); Donato Trail nr Lutz Cr, *Croat* 9310 (\*MO); E edge of Orchid Isle, *Croat* 12847 (MO); *Duke* 15039(2) (NY); *Dwyer* 8452 (GH,MO); *Frost* 82-1/2 (F); btw the station and Point Salud, *Graham* 204 (GH); Van Tyne Trail, *Hunnell*

16424 (\*GH); *Hunnell* 16425 (GH); shore nr Gatun Lk, E of laboratories, *Killip* 40030 (MO-2,US); lab clearing, *Montgomery* 74 (MO); Lutz Trail, *Schmalzel & Aide* 244 (MO); E of dock, *Shattuck* 312 (F, MO); *Stevens* 58 (ILL); N of boat dock, *Stoutmire* 2051 (\*MICH); Wheeler Trail, *Wetmore & Abbe* 6 (F, GH, MO); l.c., *Wetmore & Woodworth* 64 (A, F); Zetek trail, *Wetmore & Woodworth* 71 (A, F); shore nr lab, *Wilson* 23 (F, MO); cove N of lab, *Woodworth & Vestal* 347 (A, F) & 488 (A); cove W of Drayton House, *Woodworth & Vestal* 598 (A, F); 2<sup>nd</sup> point E of Peña Blanca, *Woodworth & Vestal* 675 (A, F, MO); shore nr lab, *Woodworth & Vestal* 735 (A, F); *Zetek* 15002 (F-frag.). **San Jose Island:** East Harbor, *Erlanson* 35 (G, GH, NY, US); East Point nr Quarry, *Johnston* 670 (GH-2, MO).

***Clitoria javitensis*** (Kunth) Benth. var.

***portobellensis*** (Beurl.) Fantz f.

***truncata*** Fantz

PANAMÁ. **Zona Delcanal:** Barro Colorado Isl., *Brown* 185 (Holotype: F 1004739).

***Clitoria mexicana*** Link

EL SALVADOR. **Morazán:** Finca of General J. T. Calderón, Montes de Cacaguatique, 13°46'N, 88°13'W, *Tucker* 784 (F, ISC, UC, US).

GUATEMALA. *Tonduz* 865 (GH). **Chiquimula:** Montaña Castilla, vic of Montana Ceballos, along R Lucia, 3 mi SE of Quezaltepeque, *Steyermark* 31258 (F). **Huehuetenango:** bank of Malacatancito, *Molina & Molina* 26595 (ENCB, F, MICH); Cerro Victoria, across from Finca San Rafael, Sierra de los Cuchumatanes, *Steyermark* 49595 (F). **Jalapa:** Volcan Jumay above La Laguna, 1 mi N of Jalapa, *Steyermark* 32300, (F). **Santa Rosa:** Buena Vista, *Heyde & Lux* 4144 (G-3, GH, M). **Solola:** SE of Pueblo San Jorge, *Hatch & Wilson* 302 (F). **Zacapa:** Sierra de las Minas, trail btw R Hondo & mt summit at Finca Alejandía, *Steyermark* 29636 (F) & 29756 (NY = data 29636, non F); along Rillito del Volcán de Monas, Sierra de Las Minas, *Steyermark* 42354 (F).

HONDURAS. **Francisco Morazán:** R Yequare, btw Agua Amarilla y Piedras Gordas, 14°N-87°W, *Molina* 1388 (F, GH); vic Mt Uyuca btw El Empalme Tatumbla & Piedra Herrada, 26 km rd to Zamorano, *Molina* 18403 (F, G, GH, NY); El Chorrito, cerro de Hule 20 km s of Tegucigalpa, *Molina* 18472 (F, G-2, GH, NY); Chauite, *Rodriguez* 902 (F); slopes Cerro de Uyunca, vic El Valle Encantado, *Standley et al.* 903 (F) & 923 (F); nr R Agua Amarilla above El Zamorano, *Standley* 13832 (F, NY, US) & 13912 (F, MICH, NY); N slope of Montaña Uyuca, nr beginning of Tatumbla Rd, 5-7 km E of Tatumbla, *Williams et al.* 42840 (F).

MÉXICO. **Chiapas:** 4 mi N of Jitotol on rd to Pueblo Nuevo Solistahuacán, Mun. Jitotol, *Breedlove* 12025 (ENCB, F, LL, US, WIS); Lago de Montebello, 25 mi E of Trinitaria, Mun. La Trinitaria, *Breedlove* 15001 (US); Comitán R at sumidero, Lagos de Montebello, 42 km NE of La Trinitaria, Mun. La Trinitaria, *Breedlove & Thorne* 21274 (MEXU, MO); E of Pueblo Nuevo Solistahuacán, Mun. Pueblo Nuevo Solistahuacán, *Breedlove & Thorne* 21326 (MEXU); S of Bachajón, Mun. Chilón, *Breedlove* 22194 (MEXU, MICH, MO); Montebello, Montebello Nat. Park, Mun. La Trinitaria, *Breedlove & Dressler* 29576 (MEXU, MO); SE of Cerro Baul on border of Oaxaca, 17 km NW of Rizo de Oro on rd to Colonia Figueroa, Mun. Cintalapa, *Breedlove* 44386 (MEXU); 5 km SE of Jitotol along rd to Bochil, Mun. Jitotol, *Breedlove* 52672 (MEXU, NY); nr Laguna de Montebello, *Brenan et al.* 14432 (MEXU); Pueblo Nuevo Solistahuacán, *Miranda* 5647 (MEXU).

**Veracruz:** orillas del R Pisquia, *Baez* 646 (F); Texolo, *Boege* 2035 (GH); vic d'Orizaba, Jul 1866, *Bourgeau s.n.* (P-2); Valle de Cordoba, *Bourgeau* 2042 (P); vic d'Orizaba, *Bourgeau* 3172 (P); poblado La Paz, carr. Coatepec-Huatusco, *Calzada* 2013 (F, NY); Jardin Botanico Fco. Javier Clavijero, 3 km W de Xalapa, carr. Xalapa-Coatepec, *Calzada et al.* 3068 (F, NY); cumbres de Maltrata, Mun. Maltrata, *Hernández & Trigos* 1287 (F, NY); Mirador, *Liebmann* 5127 (C) & 5128 (C-2, F, S, US-2,W); *Linden* 689 (MICH); 9 km al E de Xalapa, Mun. Xalapa, *Lopez* 399 (F, GH); nr Zacualpan, 1907, *Purpus s.n.* (UC) & 1903 (E) & 6621 (UC); nr Rancho Viejo, *Purpus* 11180 (MICH) & 16212 (A, F, US); Barranca, N of Nogales, *Reddick* 149 (US); Mirador, *Sartorius s.n.* (NY) & 78 (W); btw Jalapam et Hautepeque vel nr San Andres, *Schlede & Deppe* 225 (HAL-3); Ocotepec, Mun. de Jalcingo, *Ventura* 1670 (NY, UMO, US); La Florida, Mun. de Atzalan, *Ventura* 5658 (MICH); Mirador, *Wawra* 1000 (W).

NICARAGUA. **Estelí:** 8 km sobre la carr. a San Nicolás, San José de la Laguna, 12°58'N, 86°20'W, *Moreno* 12669 (MO); Quetzalcayán al E del Cerro Tisey, 12°59'N, 86°24'W, *Moreno* 17844 (ISC). **Jinotega:** ca 4.7 km S of Jinotega on old road to Hwy 3 near Matagalpa, 13°2'N, 86°0'W, 1150-1250m, 25 Aug 1978, *Stevens* 10101 (MO, NCSC). **Madriz:** Costado Oeste del Cerro El Apante, *Grijalva* 935 (DUKE). **Matagalpa:** El Ocotál, 4 km al S de la Ciudad de Matagalpa, 12°52'N, 85°55'W, *Moreno* 17659 (CAL); Jinotega Rock Quarry, ca 5 km NW of Sta. Maria de Ostuma, *Williams et al.* 27964 (F).

***Clitoria polystachya*** Benth. var. ***polystachya***

COSTA RICA. **San José:** rd from Frailes to Tarvaca, *Lent* 1164 (F, GH, IJ, NY, US); 2 km N of Frailes towards Santa Elena, *Wilbur* 26251 (C, CR-xerox, DUKE, MO, NY).



GUATEMALA. y Setas, *Conduk 778* (US); nr Chinantá, Jul 1860, *Hayes s.n.* (GH). **Chiquimula**: Cerro Brujo, vic R Negro, below Montaña Montenegro, *Steyermark 30925* (F). **Huehuetenango**: bank of Malacatan-cito, *Molina & Molina 26599* (ENCB, F, MICH); Cerro Victoria, vic Finca San Rafael, Sierra de los Cuchumatanes, *Steyermark 49577* (F, US). **Solola**: Volcan San Pedro, N facing slope towards Lago de Atitlan, *Steyermark 47200* (F, NY, US). **Zacapa**: Sierra de las Minas, nr summit of ridge below Finca Alejandria, *Steyermark 29756* (F, non NY = 29636); along Rillito del Volcán Monas, *Steyermark 42423* (A, F).

HONDURAS. **El Paraíso**: Colinas rocosas de Quebrada, El Muro, *Molina 2803* (US); R Yequare, ca 6 km N of Manzalagua, 14°N, 87°W, *Williams 18260* (F, GH, US). **Francisco Morazán**: nr San Antonio, *Molina 334* (F, GH); i.c., rd. Valle de Angeles, *Molina 387* (F); San Antonio, *Rodriguez 1465* (F).

MÉXICO. **Chiapas**: 6-8 km W of Teopisca on side of Cerro Chenek'ultik, Mun. Totolapa, *Breedlove 27046* (MEXU, MO, NY); Paraje Granadilla, 34 km W de San Cristobal de las Casas, Mun. Zinacantán, *Hernández & Ton 572* (ENCB); Mun. Zinacantán, *Laughlin 1201* (ENCB, F, US); Nuevo Amatenango, *Matuda 4771* (GH, MICH, MO, NY); mts nr Hacienda Monserrate, *Purpus 331* (US) & *10561* (M, NY, UC); El Rosario, Mun. Motozintla, *Ventura & López 3894* (MEXU). **Veracruz**: vic of d'Orizaba, *Bourgeau s.n.* (P); Mirador, Cordillera, *Galeotti 3290* (Syntype of syn. *C. multiflora*: BR); Mirador, 3600', Aug., *Sartorius s.n.* (US); La Florida, Mun. Atzalan, *Ventura 1527* (F, MICH, MO, US).

NICARAGUA. **Estelí**: lado S del Cerro Tomabú, por el valle Las Cuevas, 13°01'N, 86°16'W, *Moreno 18480* (NCSC); cam. a San Nicolás, entrando por Santa Cruz fila La Estrechura, 12°58'N, 86°19'W, *Moreno 21996* (MO); new rd from hwy 1 to San Nicolás, ca km 135.5 and ca. 10.6 km W of bridge at La Trinidad, *Stevens 10327* (MO). **Matagalpa**: Sta. Mariá de Ostuna, *Molina 31615* (F); Cerro El Apante Grande, ca 2 km al S de Matagalpa, *Soza et al. 122* (MO); Finca Sta. Maria de Ostuna, Cordillera Central, *Williams et al. 28005* (F).

PANAMÁ. **Zona Delcanal**: Madden Dam, Boy Scout Rd, *Dwyer 9166* (DUKE, LL, MO). **Chiriquí**: Boquete, *Davidson 784* (Holotype of syn. *C. velutina*: F 934654. Isotypes: A, MO 1172499); Cerro de Lino, above El Boquete, *Pittier 3025* (US).

***Clitoria ternatea*** L. var. ***pleniflora*** Fantz f. ***leucopetala*** Fantz

MÉXICO. **Chiapas**: cult. Escuintla, *Matuda 16425* (MEXU).

***Clitoria ternatea*** L. var. ***pleniflora*** Fantz f.

***pleniflora***

BELIZE (BRITISH HONDURAS). Indian Church, Guamil, *Arnason & Lambert 17592* (MO).

COSTA RICA. **Puntarenas**: cult.[?] nr Sierpe on rd from Palmar to Sierpe, 8°52'N, 83°28'W, *Burger et al. 12342* (CR); *Khan et al. 113* (CR, MEXU).

***Clitoria ternatea*** L. var. ***ternatea*** f.

***albiflora*** (Voigt) Fantz

BELIZE (BRITISH HONDURAS). **Corozal**: Corozal Dist., *Gentle 167* (F, MICH-2, MO, NY).

GUATEMALA. **Petén**: La Libertad, *Lundell 3731* (F, MICH).

MÉXICO. **Chiapas**: Cult. Acalan, *Hernández 113* (GH); cult. Escuintla, *Matuda 16425* (F). **Quintana Roo**: cult. Parque Chankanab, Isla de Cozumel, *Cabrera et al. 9824* (MEXU).

***Clitoria ternatea*** L. var. ***ternatea*** f. ***ternatea***

BELIZE (BRITISH HONDURAS). *IDRC Forage Legume Project CF-51* (NCSC, cult. CIAT 9336); Stann Cr, *Robertson 121* (BM). **Belize**: St. John's campus, Belize City, *Dwyer 14687* (MO). **Corozal**: Cerro Maya Ruins, Lowry's Bight, *Crane 133* (LL); Corozal, *Gentle 32* (F) & *4783* (F, MICH, NY, WIS). **El Cayo**: Little Cocquericot, Belize R., *Lundell 4412* (F, LL, MICH).

COSTA RICA. **Cartago**: cult. Turrialba, *Barrus 386* (CR); cult. Instituto Interamericano de Ciencias Agrícolas, Turrialba, *Córdoba 640* (CR). **Guanacaste**: M.A.G. Exp. Station, Finca Taboga, *Janzen 168* (MO, UMO). **Limón**: vic Westfalia just S of Limón, *Almeda et al. 3219* (MEXU); cult. Limón, La Zona, *Iruiois* [?] *1309* (F); ca 6 km SE of Limón, *Wilbur et al. 23310* (DUKE); Puerto Limón, *Wilbur 30698* (DUKE). **Puntarenas**: Pigres, Bahía de Nicoya, *Davidse & Pohl 1407* (GH); *Khan et al. 113* (BM); *Lehmann 1734* (BM, G); *Rowlee & Rowlee 63* (NY).

EL SALVADOR. vic San Salvador, *Benson 303* (NY); i.c., *Berendsohn 305* (MO); i.c., *Salter 18* (ASU); i.c., *Standley 20595* (GH).

GUATEMALA. St. Tomas, *Friedrichsthal 144* (W); Suchitepequez, *IDRC Forage Program CF-78* (NCSC; cult. CIAT 9343). **Guatemala**: *Aguilar 546* (F). **Izabal**: cult., vic Quirigua, *Standley 24325* (GH). **San Marcos**: nr Ayutla, *Standley 68832* (F). **Zacapa**: vic Zacapa, *Pittier 1738* (BM, C, NY); i.c., *Standley 73598* (F); cult. Teculután, *Steyermark 29160* (F).

HONDURAS. **Atlántida**: vic Tela, *Mitchell 15* (F, GH); cult. Lancetilla Valley, nr Tela, *Standley 53437* (F). **Cortés**: alrededores de La Lima, 12 km E de San Peblo

Sula, *Buesco 36* (BM); vic La Lima, *Standley & Chacon 7273* (F). **Islas de la Bahía:** nr Roatán on Isl. of Roatán, *Harmon & Dwyer 3929* (ENCB, MO, UMO); Isla de Roatán, *Nelson & Romero 4520* (MO). **Valle:** Amapala, *Rodriguez 3335* (F, GH, UC). **Yoro:** nr Progreso, *Standley 54974* (F).

MÉXICO. **Campeche:** cult. Estación "Cayal", Pro-nase, *García et al. 263* (ENCB); cult., Chan Laguna, *Lundell 1022* (F, GH, MICH, MO, NY). **Chiapas:** Tuxtla Gutiérrez, Mun. Tuxtla Guniérrez, *Breedlove 20057* (MEXU, MO); Centro Arqueológico Bonampak, *Meave et al. B422* (MEXU) & *B632* (MEXU). **Quintana Roo:** en las Ruins de Konhulich, *Cabrera & Durain 635* (BM); l.c., Mun. Othon P. Blanco, *Calzada et al. 6202* (UC); Isla de Cozumel, Mun. Cozumel, 20°22'N, 87°00'W, *Flores & Ucan 8939* (UC); *IDRC Forage Program CF-545* (NCSC, cult CIAT 9432); Zona arqueológica Kohunlich btw carr. Chetumal-Escárcega, *Moreno 873* (MEXU); ruinas de Kohunlich, a 44 km a W de Ucum, *Téllez & Martínez 1024* (BM, CM-m, MEXU); Hotel Paradise, a las afueras de Chetumal, *Téllez & Caberero 3130* (GH). **Veracruz:** Ciudad Alemán, 18°41' N, *Calderon 1939* (A,MICH,MO); 16.5 km N of Tempoal, *FAO-L 68* (UMO); cult., Boqueron

carr. Jalapa, *Rosas 663* (GH). **Yucatan:** Izamal, 1888, *Gaumer s.n.* (F); *Johnston s.n.* (F, NY).

NICARAGUA. **Chinandega:** Corinto, *Wall 383* (S). **Estelí:** Mun. Pueblo Nuevo, Valle Matapalo, 6 km al NE de Pueblo Nuevo, 13°23'N, 86°32'W, *Moreno 3039* (MO). **Managua:** Reparto Belmonte, NW de Ciudad de Managua, *Araquistain 25* (DUKE, MEXU, MO, TEX); Managua, *Grant 1077* (A,F); Hwy 2 (carr. Sur) 2 km SSW of hwy 12 (carr. Vieja a Leon) jct, 12°96'N, 86°19'W, *Stevens 9054* (MO). **Rivas:** Isla Ometepes Volcán Concepción, cam. de "Los Hatillos" a "Altagracia," 11°34'N, 85°35-39'W, *Robledo 1100* (ENCB, MO).

PANAMÁ. Apr 1852, *Andersson s.n.* (S); Breyas, 8 Feb 1926, *Mell s.n.* (NY). **Bocas del Toro:** Water Valley, vic Chiriqui Lagoon, *Wedel 1771* (GH, MO); Little Bocas, vic Chiriqui Lagoon, *Wedel 2511* (GH, MO). **Panamá:** Vieja Cantera de Betonia, *Carrasco 47* (F, MO); Sabanas RR. NE of Panama City, *Paul 158* (I); ca de la Playa de Pta. Paitilla, *Taylor & Correa s.n.* (MO). **Zona Delcanal:** along La Cruces Trail, *Hunter & Allen 740* (GH, MO); La Boca, *Mori & Kallunki 3685* (MO); Balboa, *Wall 383* (S).

#### LITERATURE CITED

- Brummitt, R.K. and C.E. Powell. 1992. Authors of Plant Names. Royal Botanical Garden, Kew.
- Fantz, P.R. 1980. Flora of Panama: *Clitoria*. Ann. Missouri Bot. Garden 67:582-593.
- Fantz, P.R. 1981. Taxonomic notes on new taxa of *Clitoria javitensis* (Leguminosae) and the exclusion of var. *glabra* Sagot. Sida 9:159-171.
- Fantz, P.R. Accepted. *Clitoria* L. Flora Mesoamericana (3)1, mss. ined.
- Holmgren, P.K., N.H. Holmgren, and L.C. Barnett. 1990. Index Herbariorum. New York Botanical Garden, New York.

#### INDEX TO THE EXSICCATAE

##### *Clitoria*

<i>falcata</i> var. <i>falcata</i> f. <i>falcata</i> .....	45	<i>javitensis</i> var. <i>portobellensis</i> f. <i>truncata</i> .....	49
<i>falcata</i> var. <i>falcata</i> f. <i>heteromorpha</i> .....	46	<i>mexicana</i> .....	49
<i>glaberrima</i> .....	46	<i>polystachya</i> var. <i>polystachya</i> .....	49
<i>guianensis</i> var. <i>guianensis</i> f. <i>guianensis</i> .....	47	<i>ternatea</i> var. <i>pleniflora</i> f. <i>leucopetala</i> .....	50
<i>guianensis</i> var. <i>guianensis</i> f. <i>imperfecta</i> .....	47	<i>ternatea</i> var. <i>pleniflora</i> f. <i>pleniflora</i> .....	50
<i>javitensis</i> var. <i>portobellensis</i> f. <i>pilosa</i> .....	48	<i>ternatea</i> var. <i>ternatea</i> f. <i>albiflora</i> .....	50
<i>javitensis</i> var. <i>portobellensis</i> f. <i>portobellensis</i> .....	48	<i>ternatea</i> var. <i>ternatea</i> f. <i>ternatea</i> .....	50