

Jan.13, 1940

Dear Dr. Shreve,

I enclose my list for your 1939 collections and my carbon (which please return) of the list of White plants. This has been a very nice lot of plants to study and really I have gotten a lot out of it. It is great fun to work on the region. I have so many of the types and duplicates of types available that I really feel that I can clean up the taxonomy. I am certain that no other place could be half so good as the Gray Herbarium, as a place at which to write an account of the Chihuahuan Desert. I am more and more impressed by the fact that the valleys in which Monclova and Saltillo are placed do not belong to our area. The flora in these places ~~is~~ is that of Nuevo Leon and Tamaulipas. I'll bet there are over 500 species known only in the valley near M. and S. and not known nor to be expected in our area, otherwise. We should plan to draw our boundary from Carneros Pass along the crests west of Saltillo and along the hills west of Monclova. Many of the plants of the dry lower bahadas about Saltillo we will find are included in our list since they are known from the hills about Carneros and south of Parras, as well as in the range of hills west of the valley. I am certain only of this eastern limit for our region. The southern limit is very important for my work. Please do give me a boundary. How about arbitrarily deciding on the Tropic of Cancer. That would shut out much of the Valle Salado but it would save us deciding whether or no the dry saline plains east of SLP. should be included. You have been down the whole length of our western limit. Can't you give me a boundary there? You have not written me anything about the character of the desert in southern Durango.

With these lists finished, I must now write up the new species,

and then clean up the accumulation of borage-packages on my table. After that, about Feb 1st, I shall be again working on the Goodspeed So. American collections. About April I will be back on the Desert problem and plug away on it until we leave for the field. I shall be with you this coming summer, you may count on that!

With best regards,

Mexican plants collected in 1939 by Forrest Shreve  
determined at the Gray Herbarium by I.M. Johnston  
(all specimens deposited in the Gray Herbarium)

File with  
Plant Lists

FERNS (det. by C.A. Weatherby)

- 9041 Selaginella
- 9112 Cheilanthes leucopoda Link
- 9113 Notholaena Greggii (Nutt.) Maxon
- 9184 Cheilanthes Kaulfussii Kze.
- 9187 Cheilanthes sp. (aff. Ch. microphylla)
- 9190 Notholaena aurea (Poir) Desv. (N. bonariensis)
- 9260 Cheilanthes Kaulfussii Kze.
- 9301 Cheilanthes myriophylla Desv.

CYPERACEAE

- 9198 Eleocharis arenicola Torr.

Commelinaceae

- 9154 Commelina scabra Benth.
- 9170 " "

LILIACEAE

- 9183 Calochortus barbatus (HBK.) Painter
- 9328 Asphodelus fistulosus L. (Glyphosperma Palmeri)
- 9130 Anthericum leptophyllum (Benth.) Baker
- 9149 Anthericum
- 9053 Allium scaposum Kunth

AMARYLLID.

- 7431 Cooperia Drummondii Herb.

IRIDACEAE

- 9208 Sisyrinchium tenuifolium H.&B.

LORANTHACEAE

- 9288 Phorodendron cf. forestierae Rob. & Greenm.

CHENOPODIACEAE

- 9219 Atriplex muricata H.&B.
- 9351 Atriplex obovata Moq.
- 9121 Atriplex canescens (Pursh) Nutt.

AMARANTHACEAE

- 9168 Gomphrena decumbens Jacq.
- 9033 Amaranthus Torreyi (Gray) Benth.
- 8828 Amaranthus crassipes Schlect. (equals J. 7076)

NYCTAGINAC.

- 9125 Mirobilis aggregata Cav.
- 9135 Boerhaavia anisophylla Torr.

PORTULAC.

- 9234 Talinopsis frutescens Gray

PHYTOLAC.

- 9306 Phytolacca octandra L.

CARYOPHYLLAC.

- 9205 Drymaria arenarioides Willd.
- 9302 Drymaria gracilis C.&S.
- 9039 Drymaria villosa Schlecht.
- 9209 Cerdia

RANULACEAE

- 9145 Clematis Drummondii E. & G.
- 9050 Thalictrum pinnatum Wats.

PAPAVERAC.

- 9346 Hunnemannia fumaricaefolia Sweet

CRUCIFERAE (det. by R.C. Rollins)

- 9133 Lesquerella Schaffneri Wats.
- 9324 Lesquerella argyrea (Gray) Wats.
- 9384 Lesquerella Fendleri (Gray) Wats.
- 9032 Lepidium montanum Nutt. var. alyssoides (Gray) Jones
- 9037 Nerisyrenia camporum (Gray) Greene
- 9173 Erysimum arkansanum Nutt.

## RUBIACEAE

9200 *Reseda luteola* L.

## Capparidaceae

9114 *Setchellanthus caeruleus* Brandg.9321 *Cleomella longipes* Torr.

## KRAMERIACEAE

9382 *Krameria Grayi* Rose & Painter

## ROSACEAE

9375 *Lindleya mespiloides* HBK.

9387

## LEGUMINOSAE

9141 *Prosopis dulcis* Kunth9140 *Mimosa zygophylla* Benth.9077 *Mimosa monanctistra* Benth. var.9139 *Mimosa biuncifera* Benth.

9388

9166 *Desmanthus pumilus* (Schl.) Macbr.9366 *Acacia constricta* Benth.9076 *Acacia* mixture    *A. vernicosa* Standl. fruiting branch    *A. constricta* Benth. flowering branch9120 *Acacia Berlandieri* Benth.9362 *Acacia glandulifera* Wats.9381 *Cassia bauhinioides* Gray9146 *Cassia Vogeliana* Schleg.9417 *Caesalpinia sessilifolia* Wats.9096 *Hoffmannseggia multiflora* Wats.9132 *Hoffmannseggia canescens* Fischer9048 *Missolia Wislizeni* Gray9109 *Cassia durangensis* Rose9180b *Trifolium gonocarpum* Lojaccono9043 *Phaseolus Metcalfii* Woot. & Standl.9393 *Astragalus*9445 *Tephrosia Lindheimeri* Gray9300 *Tephrosia littoralis* (L.) Pers.9176 *Phaseolus heterophyllus* Willd.8878 *Tephrosia tenella* Gray9058 *Eysenhardtia spinosa* Engelm.9269 *Eysenhardtia texana* Scheele

9325

"

"

9110 *Brongniartia* sp. flowers needed9369 *Sophora secundiflora* (Ort.) Lag.9234 *Dalea tuberculata* Lag.

9340

9343 *Dalea* aff. *D. lutea* Cav.8640 *Dalea leptorhiza* (Aiton)9386 *Dalea capitata* Wats. (includes *D. Lloydii* Rydb)9061 *Dalea nana* (Torr.) Heller9036 *Dalea scoparia* Gray

## OXALIDACEAE

9174 *Oxalis albicans* HBK.

## ZYGOPHYLLACEAE

9389 *Larrea divaricata* Cav. forma9418 *Sericodes Greggii* Gray9383 *Peganum mexicanum* Gray8874 *Kallstroemia*

## BURSERACEAE

9291 *Bursera fagaroides* (HBK.) Engler

## MALPIGHIACEAE

9192 *Aspicarpa Hartwegiana* Juss.

## POLYGALAC.

- 9202 Polygala macrodenia Gray  
 9180a Polygala alba Nutt. var. tenuifolia (Pursh) Blake

## EUPHORBIACEAE

- 9419 Jatropha spathulata Mull.Arg.  
 9104 Cnodoscolus new sp.  
 9263 Croton  
 9455 Croton  
 9081 Croton  
 9116 Croton  
 9447 Euphorbia  
 9142 Euphorbia  
 8678 Acalypha phleoides Cav.  
 9196 Acalypha phleoides Cav. var. hirta (Cav.) Mull.Arg.  
 9136 Acalypha hederacea Torr.  
 9107 Acalypha apparently new

## RUTACEAE

- 9349 Ptelea trifoliata L. var.

## ANACARDIACEAE

- 9373 Rhus Andrieuxii Engelm.

## SAPINDAC.

- 9105 Cardiospermum

## RHAMNACEAE

- 9331 Karwinskia mollis Schl.  
 9126 Colubrina macrocarpa (Cav.) vel valde aff.  
 9103 Colubrina glabra Wats. Seems same as Sonoran and B. Cal. plant.

## CELASTRACEAE

- 9326 Acanthothamnus aphyllus (Schl.) Standl  
 9372 Mortonia Palmeri Hemsl.

## MALVACEAE

- 8869 Anoda Thurberi Gray  
 9164 Anoda  
 9065 Sida procumbens Sw.  
 9064 Abutilon crispum Don  
 9423 Abutilon malacum Wats.  
 9111 Abutilon ?  
 9165 Sphaeralcea angustifolia

~~9454~~ LOGANIACEAE

- 9454 Mentzelia oligosperma Nutt.

## LYTHRACEAE

- 9240 Cuphea

## ONAGRACEAE

- 9248a Jussiaea repens L.  
 9148 Gaura coccinea Nutt.

## UMBELLIFERAE

- 9153 Eryngium Wrightii Gray

## LOGANIACEAE

- 9261 Buddleia tomentella Standley

## OLEACEAE

- 9382a Fraxinus Greggii Gray  
 9134 Menodora scabra (Engelm.) Gray  
 9364 Menodora Coulteri Gray  
 9394 " "

## ASCLEPIADACEAE

- 9312 Metastelma  
 9085 Funstrum linesre (Deerne) Macbr.  
 9049 Asclepias setosa Benth.

## CONVOLVULAC.

- 9323 Cuscuta  
 9169 Ipomoea longifolia Benth.  
 9060 Ipomoea petrophila House  
 9206 Ipomoea muricata Cav. (I. patens House)

CONVOLV.-cont Shreve 4

9051 *Evolvulus rotundifolius* (Wats.) Hall.f.

9210 *Evolvulus alsinoides* L.

HYDROPHYL.

9046 *Nema undulatum* HBK.

BORAGINACEAE

9416 *Heliotropium Greggii* Torr.

9412 "

9117 " (corollas very large)

9115 *Heliotropium globrausculum* (Torr.) Gray

9034 *Heliotropium convolvulaceum* Gray *typicum*

9424 *Heliotropium angustifolium* Torr.

9150 *Cryptantha albida* (HBK.) Jtn.

9411 *Gordia Greggii* Torr.

9118 "

VERBENACEAE

*Lippia lycioides* Steud. ("*ligustrina*" is based on a *Verbena*!) 9123

9400 *Lippia Berlandieri* Schauer

9274 *Lantana involucrata* L.

9072 *Lantana macroboda* Torr.

9199 *Verbena gracilis* Desf.

9344 *Verbena canescens* HBK.

9097 "

9147 *Verbena teucriifolia* M.&G.

7179 *Priva rhinanthifolia* (M.&G) Robins.

9138 *Priva aspera* HBK.

9093 *Bouchea prismatica* var. *brevirostra* Grenzb.

9162 "

8590 *Citharexylum brachyanthum* Gray

9203 "

9122 *Citharexylum* n. sp.

LABIATAE

9167 *Salvia hirsuta* Jacq/

9193 *Salvia axillaris* Moc.&Sess.

9068 *Tetraloes Coulteri* Gray

9404 *Teucrium cubense* L. var.

SOLANACEAE

9433 *Lycium Berlandieri* Dunal

9108 *Solanum rostratum* Dunal

SCROPHULARIAC.

9276 *Bacopa Monniera* (L.) Wettst.

9339 *Lamourouxia tenuifolia* M.&G.

9175 *Castilleja mexicana* Gray

9197 *Castilleja Palmeri* Eastw.

9124 *Leucophyllum laevigatum* Standl.

9101 *Leucophyllum virescens* n. sp.

ACANTHACEAE

9128 *Ruellia nudiflora* (E. & G.) Urban

9399 *Dyschoriste linearis* (T.&G.) Kuntze

9178 *Dyschoriste decumbens* (Gray) Ktze

9310 *Anisacanthus quadrifidus* (Vahl.) Standl.

8381 *Siphonoglossa pilosella* Torr.

PLANTAGINACEAE

8672 *Plantago mexicana* Link

9171 "

RUBIACEAE

9102 *Randia Pringlei* Gray

9129 *Houstonia rubra* Cav.

9316 *Bouvardia ternifolia* (Cav.) Schl.

8796 *Crusea subulata* Gray

9207 *Crusea tricocca* (T.&G.) Heller

9272 unrecognized fruiting shrub



COMPS. cont

SHREVE 6

- 9078 *Zexmenia brevifolia* Gray  
9422 " "  
9363 " "  
9377 *Viguiera Greggii* (Gray) Blake  
8710 *Viguiera dentata* (Cav.) Spreng.  
9413a *Viguiera stenoloba* Blake  
9336 " "  
8779 " " forma  
9267 *Verbesina serrata* Cav.  
9352 *Flourensia cernua* DC.  
9313a " "  
9180 *Flourensia dentata* Blake  
9378 *Zinnia juniperifolia* Gray  
9355 *Zinnia acerosa* (DC.) Gray  
8871 *Simsia amplexicaulis* (Cav.) Pers.  
9421 *Helianthus ciliaris* DC.  
9172 *Zaluzania globosa* Sch. Bip. var. *myriophylla* (Sch. Bip.) Sharp  
9315 *Zaluzania Robinsonii* Sharp  
9385 *Zaluzania mollissima* Gray  
9322 *Ratibida columnaris* (Sims) Don  
9353 *Dicranocarpus parviflorus* Gray  
9100 *Parthenium hysterophorus* L.  
9293 *Perymenium parvifolium* Gray  
9185 " "  
9257 *Montanoa purpurascens* Rob. & Greenm.  
9278 *Montanoa perfoliatum* HBK.  
9432 *Montanoa ramosissima* DC. topotype  
9155 *Berlandiera lyrata* Benth.  
8899 *Heterospermum pinnatum* Cav.  
9233 " "  
9182 *Dahlia coccinea* Cav.  
9297 *Bidens aurea* (Aiton) Sherff  
9152 *Lygodesmia ramosissima* Greenm.  
9395 *Pinaropappus roseus* Less.  
9311 *Trixis angustifolia* DC.  
9264 " "  
9382a *Gochnatia hypoleuca* (DC.) Gray  
8662 *Perezia Parryi* Gray  
9361 " "

*Dalea tuberculata* Sept. 1, 39, 11 mi. E. of La Punta  
no number on label of the above cited collection.

*Dodonaea viscosa* Jacq.

*Heimia salicifolia* (HBK.) Link Lythraceae (fl. yellow)

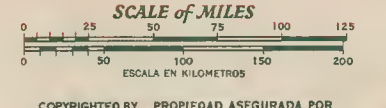
No label received with two above

293 numbers





Look for the sign of the Red Triangle  
Official Road Map  
Carta Oficial de Carreteras  
**MEXICO**  
REPUBLICA MEXICANA



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Legend

- IN MEXICO, GUATEMALA, HONDURAS, EL SALVADOR AND BRITISH HONDURAS. THE NATIONAL HIGHWAYS ARE SHOWN IN RED.**
- ROADS AND ROUTES ARE KNOWN BY THEIR TERMINAL NAMES. AS FOR INSTANCE: MEXICO-NEW LAREDO HWY.
- Paved: Macadam, Surface Treated.
  - Improved: Gravel, Stone, Shell, Topsoil-Sandily.
  - Slightly Graded: Impassible in rainy weather.
  - Floor Dirt Road.
  - Under construction in under study. Make local inquiry.
  - Dependable Trails.
  - 125 Approximate mileage distances between stars appear IN RED.
  - 201 Green figures indicate approximate kilometers.
- IN THE UNITED STATES MAIN THROUGH ROUTES ARE SHOWN IN RED.**
- Paved: Asphalt, Brick, Concrete, Macadam, Surface Treated.
  - Improved: Gravel, Stone, Shell, Topsoil-Sandily.
  - Graded and Graded Earth Road.
  - Dirt Road.
  - Scheduled for construction. Make local inquiry.
  - State highway numbers are shown in circles ON ROADS.
  - U.S. Highway numbers are shown in shields ON ROADS.
  - 97 Accumulated mileage distances between stars appear IN RED ADJACENT TO ROADS.
- Populations of Cities and Towns 1930 Census. Poblacion de Ciudades, etc., segun Censo de 1930
- 0 to 2,500
  - 2,500 to 5,000
  - 5,000 to 10,000
  - 10,000 to 25,000
  - 25,000 to 50,000
  - 50,000 to 100,000
  - 100,000 to 500,000
  - Over Más de 500,000
  - State Capital, Capital de Estado
  - National Capital, Capital Nacional
  - Port of Entry, Puerto de Migración

Explicación

- EN MEXICO, GUATEMALA, HONDURAS, EL SALVADOR Y BELICE. LA RED DE CARRETERAS NACIONALES APARECE EN ROJO.**
- CARRERAS Y CAMINOS SE DESIGNAN POR LOS NOMBRES DE LAS CIUDADES PRINCIPALES. POR EJEMPLO: CARRETERA MEXICO-NEW LAREDO.
- Pavimentado: Perfectamente transitible.
  - Mejorada: Transitible en todo tiempo.
  - Medioscapajada: Transitible solamente en tiempo seco.
  - En malas condiciones.
  - En construcción ó en estudio. Informese en la localidad.
  - Caminos de herradura facilmente recorribles.
  - 125 Los números rojos representan la distancia, EN MILLAS, entre dos ciudades importantes marcadas con estrellas. Los números verdes indican KILOMETROS aproximados.
  - 201 Las distancias kilométricas en los centros mismos son a la Ciudad de Mexico.
- EN LOS ESTADOS UNIDOS. LAS RUTAS DIRECTAS APARECEN EN ROJO.**
- Pavimentado: Asfalto, Ladrillo, Concreto, Macadam, Petrolizado.
  - Mejorada: Grava, Piedra, Cascajo, Topsoil.
  - Terrefundido ó disecado. Transitible solamente en tiempo seco.
  - En malas condiciones.
  - Proyecto de construcción para 1932. Informese en la localidad.
  - Los números de las Carreteras Nacionales se encuentran dentro de un escudo ó en las esquinas de las carreteras.
  - 97 Los números rojos representan la distancia, EN MILLAS, entre dos lugares marcados con estrellas.

- 1-2 Sta. Cecilia Pinar
- 3-4 La Soana, Dgo.
- 5-6 Cuicatlan
- 7-8 San Juan de los Rios
- 9-10 Victoria (Ciudad de Leon)
- 11-12 La Purisima
- 13-14 Francisco Zaca
- 15-16 Rancho Alegre
- 17-18 Potrero S.L.P.
- 19-20 San Vicente
- 21-22 Saltillo S.L.P.
- 23-24 Salavillo Zac
- 25-26 Pico de los Bocas
- 27-28 Pico de Surra
- 29-30 San Diego, Dgo.
- 31-32 Jimenez, Coah.

Route 1 from Shreveport  
1939

Gulf of Mexico

Gulf of Campeche

Gulf of Tehuantepec

816-East 2nd Street  
Tucson, Arizona  
Nov. 3, 1940

Dr. I.M. Johnston,  
Arnold Arboretum,  
Jamaica Plains,  
Massachusetts.

Dear Dr. Johnston:

Dr. Shreve read your letter to me some time ago and I am very happy to hear that you found such a Bonanza of plants in northwestern Coahuila, despite the other misfortunes that befell your party.

I suppose you have heard about our trip through Dr. Shreve. I can assure you it was about as interesting and varied a trip as I have ever made, and I have been in southwest China, Formosa and the southwestern deserts on several trips of my own. I don't believe Dr. Shreve will take the Buick '37 on such a trip again. We could have made much better progress in his 1925 Willys-Knight. By rights one ought to have a car with a foot and one-half clearance and then you could go almost anywhere.

I have prepared a sketch map showing our trip and an itinerary that may be useful to you.

Concerning the plants that Dr. Shreve sent off last week to you and which you are probably just beginning to examine I wish to say that I believe the customary 15 cents per plant for Mexican plant material is a reasonable price for material as selective and rare as I trust you will find this lot to be.

As I am unemployed at present and pretty low in cash I shall anxiously await your reply.

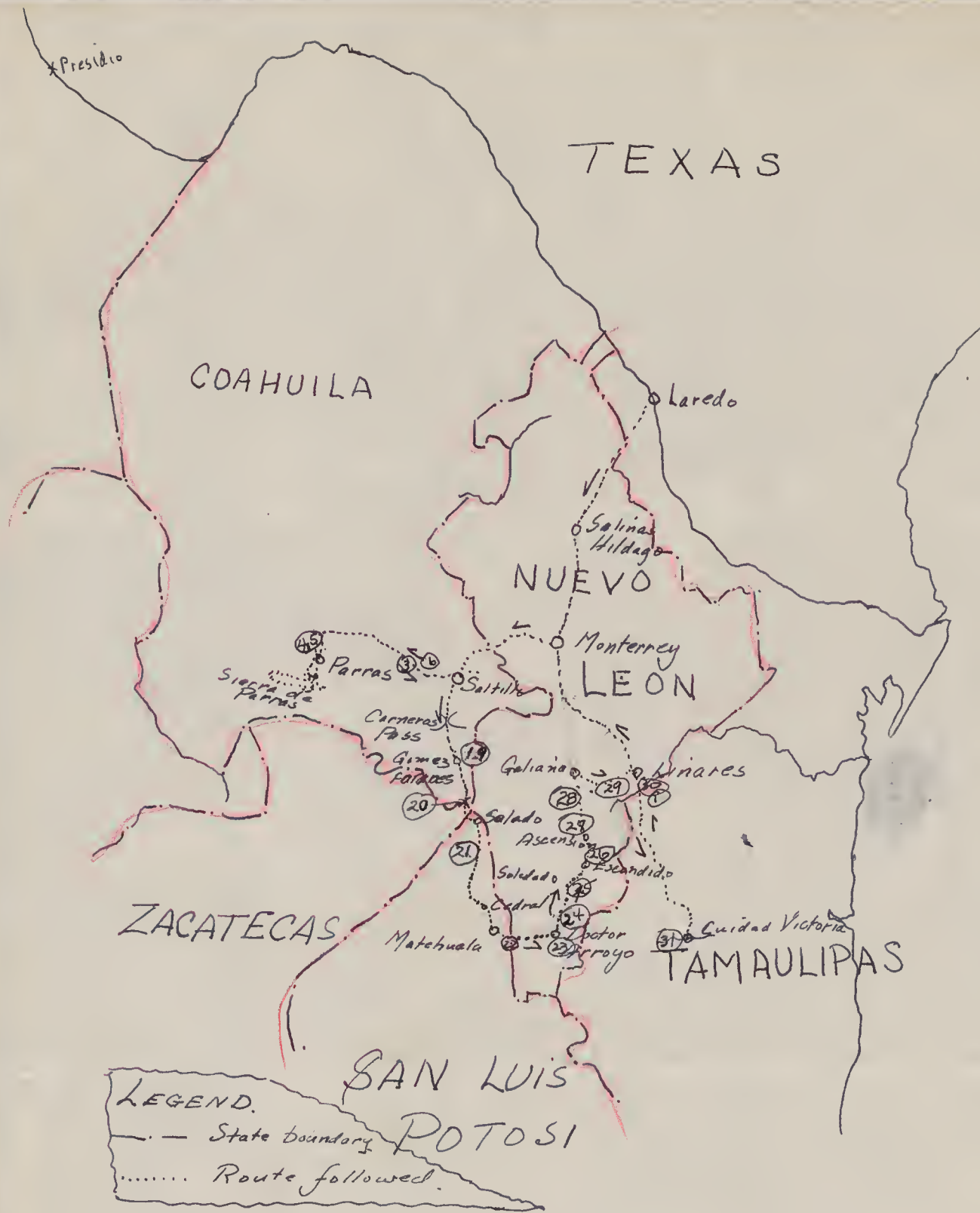
Give my best regards to my good friend Dr. Metcalf.

Yours very sincerely,

*Ernest R. Tinkham*

Ernest R. Tinkham

*File  
under Forest Shreve*



Map Showing Route Taken by Shreve-Tinkham  
 Expedition to Northeastern Mexico in August 12-  
 Sept 15, 1940.

Itinerary of the Shreve-Tinkham Expedition to Northeastern

Mexico, August 12 to September 15, 1940

August 12- left Tucson, Arizona

August 13- left El Paso Texas

August 14- left Alpine, Texas

August 15- left Eagle Pass, Texas

August 16- left Laredo, Texas

August 17- left Monterrey, Nuevo Leon, Mexico arrived Saltillo.

August 18- in Saltillo

August 19- left Saltillo, camped half mile south Gomez Farias

August 20- left Gomez Farias, camped Coahuila-Zacatecas boundary

August 21- left boundary and camped about 5 miles south of Salado

August 22- left Salado and camped about 9 miles east of Matehuala

August 23- left Matehuala and camped mile south of Doctor Arroyo

August 24- left Doctor Arroyo camp and camped 6 miles north Doctor Arroyo just west of Peña Nevada.

August 25 - Left Peña Nevada camp and camped about 16 miles north of Doctor Arroyo and about 8 miles south of Soledad

August 26- Left camp and camped 4 miles north of Escondida, N. Leon

August 27- left Escondida camp and camped 4 miles northwest Ascension at 6800 feet

August 28- Left Ascension camp and made camp about 5 miles north west of Rancho Pabillo and some 13 miles from Galiana south

August 29- left camp and stopped for the night in Galiana canyon about four miles down canyon from Iturbide

August 30- left canyon camp and spent night in Canada Courts, Linares

August 31- left Linares and made camp in canyon three miles west of Ciudad Victoria

Sept. 1--- left Victoria camp and spent night in Canada Courts, Linares

Sept. 2---- left Linares and made Huizache Courts, Saltillo

Sept. 3---- left Saltillo and camped on desert 44 miles NW. Saltillo

Sept. 4---- left desert camp and made camp 6 miles north of Parras

Sept. 5---- went to the Sierra de Parras, camp the same

Sept. 6---- left Parras camp and camped at road junction 36 Mi. NW. Saltillo

Sept. 7-----arr. Saltillo Sept 8. in Saltillo

Sept. 8 ---- left Saltillo stayed in California Courts, Monterrey.

Sept. 10 ---- left Monte rrey and made Laredo.

Sept. 11 --- left Laredo and camped Nueces River some 30 miles NW.

Uvalde, Tex. Sept 12 camped Ozona, Tex., Sept 13 camped north end Davis Mts., Sept. 14 in El Paso, Sept. 15 arr. Tucson.

MEXICAN plants collected by Shreve & Tinkham in 1940  
determined at the Gray Herbarium by I.M. Johnston Jan. 1942

GNETACEAE

- 9588 *Ephedra aspera* Engelm.  
9655 " "

MONOCOT Misc.

- 9605 *Agave falcata* Engelm  
9652 *Nolina* no fl. nor fruit, leaves only *Paysonia longissima* Torr  
9662 *Tillandsia recurvata* L.  
9825 *Tradescantia*  
9574 *Anthericum stenocarpum* Baker  
9723 " "  
9668 *Asphodelus fistulosus* L.  
9739 *Spiranthes cinnabarina* Ll. & Lex.  
9871 " "  
9704 palm leaf only  
9685 " " "

GRAMINAE det by Swallen

- 9608 *Aristida pansa* Woot. & Standl.  
9734a " "  
9593 " "  
9839 *Aristida adscencionis* L.  
9576 *Stipa eminens* Cav.  
9893 *Heteropogon contortus* (L.) Beauv.  
9582 " "  
9717 *Sorghastrum nutans* (L.) Nash  
9777 *Beauveria filiformis* (Fourn.) Griff.  
9751 *Scleropogon brevifolius* Phil.  
9739 *Sitanion hystrix* (Nutt.) Smith  
9838 *Pappophorum Wrightii* Wats.  
9834 *Pappophorum bicolor* Fourn.  
9904 " "  
9905 *Hilaria mutica* (Buckl.) Benth.  
9743 *Triodia avenacea* HBK.  
9735 *Lycurus phleoides* HBK.  
9715 *Andropogon saccharoides* Sw.  
9829 *Trichachne insularis* (L.) Nees  
9899 *Trichachne californica* (Benth.) Chase  
9607 *Muhlenbergia villiflora* Hitchc.  
9749 " "  
9719 *Muhlenbergia dubia* Fourn.  
9654 *Muhlenbergia rigida* (HBK.) Kunth  
9651 " "  
9591 *Muhlenbergia* sp. perhaps new, but very near *M. monticola* Buckl.  
9623 *Sporobolus poiretii* (R. & S.) Hitchc.  
9821 *Panicum Hallii* Vasey  
9897 " "  
9820 *Triodea mutica* (Torr.) Scribn.  
9891 " "  
9824 *Triodea grandiflora* Vasey  
9575 " "  
9826 *Bouteloua breviseta* Vasey  
9837 *Bouteloua barbata* Leg.  
9653 *Bouteloua uniflora* Vasey  
9592 *Bouteloua curtipendula* (Michx.) Torr.  
FAGACEAE det C.H. Muller  
9702 *Quercus Canbyi* Trel.  
9793 *Quercus polymorpha* C. & S.  
9734 *Quercus cordifolia* Trel.  
9675 *Quercus intricata* Trel.  
9876 " "

Marled Jan 19, 1942

*Paysonia longissima* Torr

## FAGAC.-cont.

- 9888 *Quercus intricata* Trel.  
 9686 *Quercus Tinkhami* Muller n. sp.

## POLYGONACEAE

- 9738 *Eriogonum undulatum* Benth.  
 9906 *Eriogonum rotundifolium* Benth.  
 S.9561 *Eriogonum Abertianum* Torr.  
 9789 *Polygonum*

## AMARANTHACEAE

- 9832 *Froelichia gracilis* (Hook.) Moq.  
 9635 *Alternanthera repens* (L.) Kuntze

## NYCTAGINACEAE

- 9871 *Boerhaavia anisophylla* Torr.  
 9894 *Anulocaulis eriosolenus* (Gray) Standley  
 9900 *Selinocarpus angustifolius* Torr. var.

## CAROPHYLLACEAE

- 9601 *Paronychia albomarginata* Core  
 S. 8669 *Scropulliphila Parryi* (Hemsl.) Jtn.  
 S.8674 *Cordia glauca* Hemsl.

## CRUCIFERAE det Rollins

- 9637 *Lesquerella argyrea* (Gray) Wats.  
 9597 *Lesquerella Fendleri* (Gray) Wats.  
 9887 " "  
 9624 *Lepidium montanum* Nutt. bar. *allyssoides* (Gray) Jones  
 9886 *Streptanthus stenophyllus* Rollins, n. sp.  
 9640 *Nerisyrenia Castillonii* Tollins?  
 9748 " "  
 9583 *Nerisyrenia camporum* (Gray) Greene  
 9660 *Eruca sativa* (L.) Gars.  
 9746 *Synthlipsis Greggii* Gray  
 9642 *Asta Schaffneri* (Wats.) Schulz

## PAPAVERACEAE

- 9708 *Hunnemannia fumariaefolia* Sweet

## CAELIFLORACEAE

- 9657 *Koeberlinia spinosa* Zucc.

## PLATANACEAE

- 9794 *Platanus mexicana* Motie.

## CRASSULACEAE

- 9691 *Echevaria Schaffneri* (Wats.) Rose?  
 9698 " "  
 9672 " "

## ROSACEAE

- 9859 *Lindleya mespiloides* HBK.  
 9865 *Cowania plicata* Don.  
 9867 *Cercocarpus breviflorus* Gray

## LEGUMINOSAE

- 9780 *Desmodium psilophyllum* Schlect. det Schubert  
 9780 *Desmodium neomexicanum* Gray "  
 9869 *Dalea eriophylla* Wats.  
 9737 *Dalea* sterile but evidently related to the above sp. and  
 certainly undescribed.  
 S.9935 *Dalea lasianthera* Gray  
 9603 *Dalea pogonanthera* Gray  
 9689 *Dalea Shrevei* Jtn. n. sp.  
 9732 " "

- 9763 " " type  
 9726 *Dalea* aff. *D. Hemsleyana*, apparently n. sp.  
 9714 *Cologania*  
 9811a *Eysenhardtia polystachya* (Ort.) Sarg.  
 S.9922 *Indigofera Lindheimeriana* Scheele  
 9721 *Indigofera ornithopodioides* C. & S.

## LEGUMINOSAE-cont

- 9700 *Cercis canadensis* L.  
 9687 *Sophora secundiflora* (Ort.)Lag.  
 9761 *Prosopis dulcis* Kunth.  
 9661 " "  
 S.9947 *Prosopis glandulosa* Torr.  
 9823 *Calliandra eriophylla* Benth.  
 9801 *Pithecellobium flexicaule* (Benth.) Coulter  
 9798 *Pithecellobium brevifolium* Benth.  
 9810 " "  
 9568 " "  
 9858 *Acacia glandulifera* Wats.  
 9854 *Acacia Farnesiana* (L.)Willd.  
 9807 *Mimosa monancestra* Benth.  
 9884 *Cassia demissa* Rose very hairy form.  
 9745 *Cassia bauhinoides* Gray  
 9769 *Cassia Lindheimeriana* Scheele  
 9818 *Cassia Greggii* Gray  
 9566 " "  
 9603a *Cassia Painteri* (Britt.  
 9673 " "  
 9811 *Caesalpinia mexicana* Gray  
 9901 *Hoffmannseggia densiflora* Benth.  
 9600 *Hoffmannseggia canescens* Fisher

## KRAMERIACEAE

- 9812 *Krameria ramosissima* (Gray) Wats.

## OXALIDACEAE

- 9781 *Oxalis albicans* HBK.

## LINACEAE

- 9577 *Linum rupestre* Engelm.  
 S.9968 " "  
 9649 *Linum scabrellum* Planch.

## ZYCOPHYLLACEAE

- 9845 *Larrea divaricata* Cav.  
 9846 *Sericodes Greggii* Gray  
 9615 *Peganum mexicanum* Gray

## RUTACEAE

- 9764 *Ptelea trifoliata* L. var.  
 9866 " " "

## MALVIGHIACEAE

- 9857 *Mascagnia lilacina* (Wats.) Niedenz.

## POLYGALACEAE

- 9692 *Polygala scoparia* HBK.  
 9817 *Polygala*  
 7872 *Polygala*  
 9809 *Polygala glandulosa* HBK.  
 9697 *Polygala macradenia* Gray  
 9757 *Polygala alba* Nutt. var  
 9736 " " "

## EUPHORBIACEAE

- 9758 *Euphorbia acuta* Engelm.  
 9729 *Euphorbia cinerascens* Engelm.  
 9596 *Euphorbia antisyphilitica* Zucc.  
 9740 *Euphorbia campestris* C. & S.  
 9849 *Acalypha hederacea* Torr.  
 9808 *Croton Torreyanus* Mull.Arg.  
 9766 *Croton fruticulosus* Torr.  
 9663 *Croton dioicus* Cav.  
 9806 *Cnidoscolus inermiflorus* Jtn.  
 9572 *Stillingia Treculiana* (Mull. Arg.) Jtn.  
 9782 *Tragia teucrifolia* Scheele

- SAPINDACEAE  
 9795 *Neopringlea integrifolia* (Hemsl.) Wats.
- ANACARDIACEAE  
 9707 *Rhus Andrieuxii* Engelm.  
 9767 *Rhus pachyrrhachis* Hemsl.
- CILIASTRACEAE  
 9604 *Mortonia Palmeri* Hemsl.  
 9570 *Schaefferia cuneifolia* Gray
- RHAMNACEAE  
 9879 *Ceanothus Greggii* Gray
- MALVACEAE  
 9580 *Hibiscus Coulteri* Gray  
 9847 *Hibiscus denudatus* Benth. var. *involucellatus* Gray  
 1905 *Sida acuta* Burm.  
 9803 " "  
 9567 *Malvastrum coromandelianum* (L.) Garcke  
 9619 *Sphaeralcea hastulata* Gray  
 9844 " "  
 9889 *Sphaeralcea angustifolia* (Cav.) Don
- VIOLACEAE  
 S. 9931 *Hybanthus verticellatus* (Ort.) Baill.
- TURNERACEAE  
 9569 *Turnera diffusa* Willd.
- LYTHRACEAE  
 9791 *Heimia salicifolia* (HBK.) Link
- LOASACEAE  
 9908 *Mentzelia humilis* (Gray) Darl.?  
 9678 *Mentzelia hispida* Willd.
- ONAGRACEAE  
 9621 *Gaura coccinea* Nutt.  
 9610 " "  
 9744 *Oenothera tubicula* Gray
- PLUMBAGINACEAE  
 9768 *Plumbago scandens* L.
- OLEACEAE  
 9759 *Fraxinus cuspidata* Torr.  
 9570a *Fraxinus Greggii* Gray
- LOGANIACEAE  
 9701 *Buddleia tomentella* Standl.  
 9822 *Buddleia marrubifolia* Benth.  
 9863 *Emorya suaveolens* Torr.
- APOCYNACEAE  
 9833 *Macrosiphonia macrosiphon* (Torr.) Heller  
 9885 *Mandevilla Karwinskii* (Mull. Arg.) Hemsl.
- ASCLEPIADACEAE (det R.C. Foster)  
 9312 *Metastelma Pringlei* Gray ?  
 9694 " " !  
 9684 " " !  
 9688 *Asclepias Linaria* Cav.  
 9907 *Asclepias brachystephana* Engelm.
- CONVOLVULACEAE  
 9616 *Cuscuta glabrior* (Engelm.) Yunk.  
 9753 *Dichondra argentea* Willd.  
 9690 *Ipomoea heterophylla* Ort.
- PRIMULACEAE  
 9880 *Gilia rigidula* Benth.  
 9765 *Gilia incisa* Benth.
- HYDROPHYLLOIDEAE  
 9606 *Nama hispidum* Gray, var. *gypsicola* Jtn. topotype  
 S. sine no. *Nama undulatum* HBK. 5 mi. N. of Sta. Rita, Zac. Sept. 7, '38



## HYDROPHYLLAC.-cont

- 9665 *Nama Palmeri* Gray  
 9641 " "  
 9864 *Nama flavescens* Brandg.  
 9896 *Nama stenophyllum* Gray

## BORAGINACEAE

- 9613 *Cryptantha albida* (HBK.) Jtn.  
 9843 *Coldenia mexicana* Gray  
 9585 *Coldenia Greggii* (Torr.) Gray  
 9666 *Coldenia Purpusii* Brandg.  
 9639 *Coldenia canescens* DC.  
 9770 *Antiphytum heliotropioides* DC.  
 9860 " "  
 9816 *Heliotropium confertifolium* Torr. var.  
 9586 *Heliotropium angustifolium* Torr.  
 9800 *Cordia Boissieri* DC.  
 9571 " "

## VERBENACEAE

- 9747 *Verbena teucrifolia* M. & G.  
 9728 *Verbena Shrevei*, n. sp.  
 9784 *Lantana achyranthifolia* Desf.  
 9682 *Lippia macrostachya* (Torr.) Wats.  
 9813 *Lippia Berlandieri* Schauer  
 9579 " "

## LABIATAE

- 9711 *Salvia new?*  
 9667 *Salvia ovatifolia* Epling  
 9870 *Salvia coahuilensis* Fern.  
 9752 *Salvia reflexa* Hornem.  
 9814 *Salvia bellotaefolia* Benth.  
 9638 " "  
 9861 *Salvia Greggii* Gray  
 9681 *Salvia Keerli* Benth.  
 9733 *Salvia Regla* Cav.  
 9898 *Tetradlea Coulter* Gray  
 S.9917 *Isanthus brachiatus* (L.) BSP.  
 9617 *Teucrium cubense* L. var.  
 9713 *Monarda citriodora* Cerv.  
*Hedeoma pruinatum* n. sp. 9779a  
 9756 *Hedeoma Shrevei* n. sp.  
 9573 *Hedeoma Drummondii* Benth. mixed with *Verbena*  
 9779 *Scutellaria Drummondii* Benth.  
 9724a " "

## SOLANACEAE

- 9634 *Lycium leiocarpum* Jtn.  
 9630 *Lycium modestum* Jtn.  
 9632 *Lycium Berlandieri* Dunal  
 9855 " "  
 9798 *Chamaesaracha Coronopus* (Dun.) Gray  
 9903 *Chamaesaracha conoides* (Moric.) Britt.  
 9633 *Solanum triquetrum* Cav.  
 9804 *Solanum verbascifolium* L.  
 9602 *Physalis hederifolia* Gray  
 9590 *Physalis mollis* Nutt. var. *parvifolia* Rydb.  
 9628 *Physalis longifolia* Nutt.

## SOROPHULARIACEAE

- 9731 *Gerardia Greggii* Wats.  
 9618 *Maurandya antirrhiniflora* H.&B.  
 9670 *Castilleja mexicana* (Hemsl.) Gray  
 9627 *Castilleja lanata* Gray  
 9741 *Pentstemon perfoliosus* Jtn. ined.  
 9856 *Leucophyllum griseum* Jtn.  
 9762 *Leucophyllum zygophyllum* Jtn.

2683

" "

## SCROPH.- cont.

- 9695 *Leucophyllum pruinosum* Jtn.  
 9682a " "  
 9797 *Leucophyllum fruticosum* (Berl.) Jtn.

## ACANTHACEAE

- 9802 not recognized  
 9773 *Ruellia nudiflora* (Eng. & Gray) Urban, var. *occidentalis* Leonard  
 9850 *Dyschoriste decumbens* (Gray) Kuntze  
 9680 *Anisacanthus quadrifidus* (Vahl) Nees  
 9785 *Tetramerium hispidum* Nees  
 9681 *Carlowrightia* all G.H. material off on loan.

## BIGNONIACEAE

- 9705 *Chilopsis linearis* (Wav.) Sweet  
 9760 " "  
 9848 *Tecoma incisum* (Rose & Standl.) Jtn.

## LENTIBULARIACEAE

- 9923 S. *Utricularia subulata* L.

## RUBIACEAE

- S. 9916 *Houstonia angustifolia* Michx.  
 9783 " "  
 9599 *Houstonia rubra* Cav.  
 9643 *Houstonia acerosa* Gray  
 9862 *Bouvardia ternifolia* (Cav.) Schl.  
 9648 " "  
 9584 " "

## LOBELIACEAE

- S. 9156 *Lobelia fenestralis* Cav.  
 S. 9287 " "  
 9724 *Lobelia gruina* Cav.

## COMPOSITAE

- 9581 *Chaetopappa modesta* (DC.) Gray Asterioids  
 9620 *Aplopappus venetus* (HBK.) Blake  
 9842 *Aplopappus trianthus* Blake  
 9696 *Gutierrezia lucid* Greene  
 S. 9943 *Gutierrezia texana* (DC.) T. & G.  
 9840 *Gutierrezia eriocarpa* Gray  
 9710 *Baccharis neglecta* Britt.  
 9788 *Heterotheca Chrysopsidis* DC.  
 9720 *Grindelia tenella* Steyerl.?  
 9787 " " !  
 9874 *Selloa glutinosa* Spreng. Eupatorioids  
 9706 *Stevia purpurea* Pers.  
 9709 *Stevia*  
 S. 9921 *Eupatorium serotinum* Michx.  
 9853 *Eupatorium betonicifolium* Mill.  
 9626 *Eupatorium Greggii* Gray  
 9727 *Eupatorium Wrightii* Gray  
 9712 *Vernonia Greggii* Gray Vernonioids  
 9819 *Tridax procumbens* L. Helianthoids  
 9786 *Calea Zacatechichi* Schl.  
 9659 *Sclerocarpus*?  
 9611 *Dicranocarpus parviflorus* Gray  
 9622 *Ratibida columnifera* (Nutt.) W. & S.  
 9716 *Sclerocarpus uniserialis* (Hook.) B. & H.  
 9647 *Verbesina Rothrockii* Rob. & Greenm.  
 S. 8380 *Simsia calva* (Gray & Engelm.) Gray  
 8827 *Simsia amplexicaulis* (Cav.) Pers.  
 9878 *Flourensia ilicifolia* Brandg.  
 9625 *Helianthus ciliaris* DC.  
 9756a *Helianthella mexicana* Gray  
 9650 *Viguiera stenoloba* Blake  
 9587 *Zexmenia brevifolia* Gray

## Compositae- cont.

- 9612 *Thelesperma scabridulum* Blake topotype  
 9873 *Thelesperma longipes* Gray  
 9636 *Zinnia acerosa* (DC.) Gray near type locality  
 9614 " "  
 9792 *Zinnia multiflora* L.  
 S. 9977 *Pectis angustifolia* Torr. Dyssodioids  
 9831 *Pectis angustifolia* Torr. var. *subaristata* Gray  
 9841 *Dyssodia Thurberi* (Gray) Robins.  
 9645 *Dyssodia pinnata* (Cav.) Robins.  
 9664 *Dyssodia setifolia* (Lag.) Robins.  
 9815 *Dyssodia micropoides* (DC.) Loesn.  
 9836 *Nicolletia Edwardsii* Gray  
 9718 *Tagetes lucida* Cav.  
 9646 *Porophyllum filifolium* Gray  
 9877 *Chrysactinia mexicana* Gray  
 9644 " "  
 9609 *Sartwellia humilis* Jtn Helenioids  
 9754 *Flaveria anomala* Robins.  
 9676 *Florestina tripteris* DC.  
 9589 *Palafoxia texana* DC.  
 9775 *Helenium amphibolum* DC.  
 9750 *Actinea odorata* (DC.) Kuntze  
 9656 *Actinea scaposa* (DC.) Kuntze, var. *linearis* (Nutt.) Robins.  
 9658 *Bahia absinthifolia* Benth.  
 9895 " " var. *dealbata* Gray  
 9742 *Psilostrophe gnaphalodes* DC.  
 9703 *Gaillardia*  
 9629 *Cirsium* Thistles  
 9902 *Senecio* Senecioids  
 9852 *Varilla mexicana* Gray  
 S. 8914 *Bartlettia scaposa* Gray  
 9755 *Haploesthes Greggii* Gray, var. *multiflora* Jtn.  
 9677 *Gochnatio hypoleuca* (DC.) Gray Mutisioids

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Sterile material

- 9803a *Pluchea odorata* (L.) Cass.  
 9803b apparently member of *Tutaceae* but I cant match it.  
 980c family not recognized.