

APÉNDICE 1

Especies con sus usos y números de individuos en los sitios de estudio

APPENDIX 1

Species with their uses and number of individuals in the study sites

| Familia | Nombre científico | Uso | MA | MF | SM | BTS |
|-----------------|-----------------------------------|------------|-----------|-----------|-----------|------------|
| Anacardiaceae | <i>Metopium brownei</i> | A, F | x | x | x | x |
| Annonaceae | <i>Annona reticulata</i> | | - | x | - | - |
| | <i>Mosannonna depressa</i> | F | x | x | x | x |
| Apocynaceae | <i>Plumeria obtusa</i> | F | - | x | - | x |
| | <i>Cascabela gaumeri</i> | A, F | x | x | x | x |
| Bignoniaceae | <i>Handroanthus chrysantha</i> | A, F | - | - | - | x |
| Boraginaceae | <i>Bourreria pulchra</i> | A, F | x | x | x | x |
| | <i>Bourreria sp.</i> | - | - | x | - | - |
| | <i>Cordia alliodora</i> | A, F | x | x | - | x |
| | <i>Cordia dodecandra</i> | A, F | x | - | - | - |
| | <i>Ehretia tinifolia</i> | A, F | x | - | - | - |
| Burseraceae | <i>Bursera simaruba</i> | A, F | x | x | x | x |
| | <i>Protium copal</i> | A, F | x | x | x | - |
| Canellaceae | <i>Canella winterana</i> | - | x | x | - | x |
| Cannabaceae | <i>Celtis trinervia</i> | A | - | x | - | - |
| Capparaceae | <i>Capparis indica</i> | - | - | - | x | x |
| Celastraceae | <i>Semialarium mexicanum</i> | - | - | x | - | x |
| | <i>Maytenus schippii</i> | - | - | - | x | x |
| | <i>Rhacoma gaumeri</i> | F* | - | - | x | - |
| Ebenaceae | <i>Diospyros bumelioides</i> | A, F* | - | - | - | x |
| | <i>Diospyros salicifolia</i> , | A, F | x | x | x | x |
| Erythroxylaceae | <i>Erythroxylum rotundifolium</i> | F | x | x | - | x |
| Euphorbiaceae | <i>Bernardia mexicana</i> | - | - | - | - | x |
| | <i>Cnidoscolus aconitifolius</i> | A, F* | - | x | x | - |
| | <i>Croton arboreus</i> | - | x | x | x | x |
| | <i>Croton icche</i> | A | x | x | x | x |
| | <i>Croton lucidus</i> | - | - | - | x | x |
| | <i>Croton oerstedianus</i> | A | - | x | x | x |
| | <i>Jatropha gaumeri</i> | F* | x | x | x | x |
| Fabaceae | <i>Acacia centralis</i> | A, F | x | x | x | x |
| | <i>Acacia cornígera</i> | A, F | - | x | x | - |
| | <i>Acacia dolichostachya</i> | A, F | - | x | - | - |
| | <i>Acacia gaumeri</i> | A, F | x | x | x | x |
| | <i>Acacia sp.</i> | - | - | - | - | x |
| | <i>Bauhinia divaricata</i> | A, F | - | - | x | x |
| | <i>Caesalpinia gaumeri</i> | A, F | - | - | x | x |
| | <i>Caesalpinia mollis</i> | F | x | x | x | x |
| | <i>Caesalpinia vesicaria</i> | F | - | - | - | x |
| | <i>Chloroleucon mangense</i> | F | - | x | x | x |
| | <i>Diphysa carthagenensis</i> | A, F | x | x | x | - |
| | <i>Haematoxylum</i> | A, F | x | x | x | - |

| | | | | | | |
|----------------|-----------------------------------|-------|---|---|---|---|
| | <i>campechianum</i> | | | | | |
| | <i>Lonchocarpus castilloi</i> | A, F | - | - | x | - |
| | <i>Lonchocarpus guatemalensis</i> | A, F | x | x | x | x |
| | <i>Lonchocarpus rugosus</i> | A, F | x | - | - | - |
| | <i>Lonchocarpus yucatanensis</i> | A, F | x | x | x | x |
| | <i>Lysiloma latisiliquum</i> | A, F | - | x | - | - |
| | <i>Mimosa bahamensis</i> | A, F | x | x | - | x |
| | <i>Piscidia piscipula</i> | A, F | x | x | x | - |
| | <i>Platymiscium yucatanum</i> | A, F | x | x | x | x |
| Lamiaceae | <i>Vitex gaumeri</i> | A, F | x | x | x | x |
| Lauraceae | <i>Licaria coriácea</i> | - | x | - | - | - |
| | <i>Nectandra salicifolia</i> | A, F | x | - | x | x |
| Malpighiaceae | <i>Byrsonima bucidifolia</i> | A, F* | - | - | - | x |
| | <i>Malpighia glabra</i> | A, F* | x | x | x | x |
| Malvaceae | <i>Hampea trilobata</i> | A, F | x | x | x | x |
| Meliaceae | <i>Cedrela odorata</i> | A, F | - | x | - | - |
| | <i>Trichilia pallida</i> | - | x | x | - | x |
| Menispermaceae | <i>Hyperbaena winzerlingii</i> | F* | - | - | - | x |
| Moraceae | <i>Brosimum alicastrum</i> | A, F | x | x | x | x |
| | <i>Ficus obtusifolia</i> | F* | - | - | - | x |
| | <i>Trophis racemosa</i> | A, F | - | - | x | - |
| Myrtaceae | <i>Eugenia capuli</i> | A | - | x | - | - |
| | <i>Eugenia ibarrae</i> | - | x | x | x | x |
| | <i>Eugenia winzerlingii</i> | A, F | - | x | x | x |
| | <i>Myrciaria floribunda</i> | - | x | - | x | x |
| Nyctaginaceae | <i>Neea choriophylla</i> | F* | x | x | x | x |
| Opiliaceae | <i>Agonandra ovatifolia</i> | - | x | x | x | x |
| Phyllanthaceae | <i>Astrocasia tremula</i> | A | - | - | - | x |
| Picramniaceae | <i>Alvaradoa amorphoides</i> | A, F | - | x | - | - |
| Polygonaceae | <i>Coccoloba acapulcensis</i> | A, F | x | x | x | x |
| | <i>Coccoloba cozumelensis</i> | A, F | - | - | x | x |
| | <i>Coccoloba reflexiflora</i> | A | x | - | x | x |
| | <i>Gymnopodium floribundum</i> | A, F | x | x | x | x |
| | <i>Neomillspaughia emarginata</i> | A, F | x | x | x | x |
| Primulaceae | <i>Bonellia flammea</i> | - | - | - | - | x |
| | <i>Bonellia macrocarpa</i> | - | - | x | x | - |
| | <i>Parathesis cubana</i> | F | - | - | - | x |
| Putranjivaceae | <i>Drypetes lateriflora</i> | F | x | x | x | x |
| Rhamnaceae | <i>Rhamnus humboldtiana</i> | F* | x | - | - | x |
| | <i>Krugiodendron ferreum</i> | A, F | x | x | x | x |
| Rubiaceae | <i>Exostema caribaeum</i> | A, F | - | - | - | x |
| | <i>Guettarda gaumeri</i> | - | x | - | x | - |
| | <i>Machaonia lindeniana</i> | A, F | x | x | - | x |
| | <i>Randia aculeata</i> | A, F | x | x | x | x |
| | <i>Randia longiloba</i> | F* | x | x | x | x |
| | <i>Simira salvadorensis</i> | F | - | - | x | - |
| Rutaceae | <i>Amyris elemifera</i> | A, F | - | x | x | x |

| | | | | | | |
|-------------|---------------------------------|-------|---|---|---|---|
| | <i>Casimiroa tetrameria</i> | A, F* | - | - | x | - |
| | <i>Esenbeckia berlandieri</i> | A, F | x | x | x | x |
| | <i>Pilocarpus racemosus</i> | F* | x | x | x | x |
| Salicaceae | <i>Casearia emarginata</i> | A | x | x | x | x |
| | <i>Laetia thamnia</i> | A, F | x | - | x | x |
| | <i>Samyda yucatanensis</i> | A, F* | - | x | - | - |
| | <i>Xylosma flexuosa</i> | A | x | x | - | x |
| Sapindaceae | <i>Exothea diphylla</i> | A, F | x | - | x | x |
| | <i>Melicoccus oliviformis</i> | A, F | - | - | x | x |
| | <i>Thouinia paucidentata</i> | A, F | x | x | x | x |
| Sapotaceae | <i>Manilkara zapota</i> | A, F | - | x | x | x |
| | <i>Pouteria amigdalina</i> | F | - | x | - | - |
| | <i>Sideroxylon obtusifolium</i> | - | - | - | - | x |
| | <i>Sideroxylon salicifolium</i> | A | x | x | - | - |

Uso: A = apícola, F = forestal maderable y no maderable*. Siguiendo la nomenclatura APG. Use: B = beekeeping, F = forest timber and non-timber *. Following the APG nomenclature.

Fuentes= Souza-Novelo, Suárez-Molina & Barrera-Vasquez, 1981; Escalante-Rebolledo, 2000; Arellano-Rodríguez et al., 2003; Porter-Bolland, 2003; Vester & Navarro-Martínez, 2007; Zamora-Crescencio, Flores-Guido & Ruenes-Morales, 2009.

APÉNDICE 2

Especies con mayor valor de importancia relativo (VIR) en las cuatro condiciones de muestreo (MA, MF, SM y BTS)

APPENDIX 2

Species with greater relative importance value (VIR) in the four sampling conditions (MA, MF, SM and BTS)

| MA *(10/56) | Especie | Área basal relativa | Frecuencia relativa | Abundancia relativa | VIR |
|--------------|-----------------------------------|------------------------|------------------------|------------------------|-------|
| | <i>Lonchocarpus guatemalensis</i> | 41.48 | 3.88 | 43.83 | 89.19 |
| | <i>Bursera simaruba</i> | 15.27 | 3.88 | 7.39 | 26.53 |
| | <i>Nectandra salicifolia</i> | 6.3 | 3.1 | 10.96 | 20.36 |
| | <i>Esenbeckia berlandieri</i> | 5.74 | 3.88 | 6.9 | 16.51 |
| | <i>Croton arboreus</i> | 4.29 | 3.88 | 5.19 | 13.36 |
| | <i>Lonchocarpus yucatanensis</i> | 2.66 | 3.88 | 3 | 9.54 |
| | <i>Gymnopodium floribundum</i> | 1.78 | 3.88 | 1.95 | 7.6 |
| | <i>Thouinia paucidentata</i> | 1.91 | 3.88 | 1.22 | 7 |
| | <i>Croton icche</i> | 1.73 | 3.1 | 1.46 | 6.29 |
| | <i>Cascabela gaumeri</i> | 1.76 | 3.1 | 0.65 | 5.51 |
| MF *(10/65) | <i>Bursera simaruba</i> | 17.39 | 3.82 | 8.22 | 29.43 |
| | <i>Lonchocarpus yucatanensis</i> | 9.67 | 3.82 | 13.7 | 27.18 |
| | <i>Lonchocarpus guatemalensis</i> | 7.8 | 3.05 | 12.33 | 23.19 |
| | <i>Esenbeckia berlandieri</i> | 6.89 | 3.05 | 7.22 | 17.17 |
| | <i>Neomillspaughia emarginata</i> | 3.8 | 3.05 | 9.96 | 16.81 |
| | <i>Thouinia paucidentata</i> | 5.89 | 3.82 | 5.48 | 15.19 |
| | <i>Lysiloma latisiliquum</i> | 11.66 | 0.76 | 1.37 | 13.79 |
| | <i>Piscidia piscipula</i> | 6.1 | 2.29 | 2.37 | 10.75 |
| | <i>Diospyros salicifolia</i> | 3.03 | 3.82 | 3.86 | 10.7 |
| | <i>Cascabela gaumeri</i> | 4.15 | 3.05 | 2.12 | 9.32 |
| SM *(10/63) | <i>Lonchocarpus yucatanensis</i> | 14.47 | 3.73 | 15.11 | 33.31 |
| | <i>Lonchocarpus guatemalensis</i> | 8.92 | 3.73 | 13.43 | 26.08 |
| | <i>Bursera simaruba</i> | 11.74 | 3.73 | 4.11 | 19.58 |
| | <i>Hampea trilobata</i> | 7.13 | 2.99 | 7.14 | 17.25 |
| | <i>Esenbeckia berlandieri</i> | 4.58 | 2.99 | 9.15 | 16.72 |
| | <i>Gymnopodium floribundum</i> | 6.65 | 2.99 | 3.53 | 13.17 |
| | <i>Thouinia paucidentata</i> | 5.24 | 3.73 | 2.94 | 11.91 |
| | <i>Drypetes lateriflora</i> | 3.23 | 1.49 | 6.88 | 11.61 |
| | <i>Neomillspaughia emarginata</i> | 2.17 | 2.99 | 5.63 | 10.78 |
| | <i>Manilkara zapota</i> | 6.61 | 2.24 | 1.51 | 10.36 |
| BTS *(10/73) | <i>Lonchocarpus yucatanensis</i> | 16.98 | 2.81 | 14.4 | 34.19 |

| | | | | |
|--------------------------------|-------|------|-------|-------|
| <i>Pilocarpus racemosus</i> | 4.4 | 1.69 | 15.66 | 21.75 |
| <i>Esenbeckia berlandieri</i> | 10.84 | 2.81 | 7.04 | 20.69 |
| <i>Manilkara zapota</i> | 11.15 | 2.25 | 3.48 | 16.87 |
| <i>Thouinia paucidentata</i> | 6.98 | 2.81 | 5.78 | 15.57 |
| <i>Drypetes lateriflora</i> | 2.62 | 2.81 | 7.99 | 13.42 |
| <i>Krugiodendron ferreum</i> | 3.72 | 2.81 | 4.03 | 10.56 |
| <i>Bursera simaruba</i> | 5.93 | 2.81 | 1.66 | 10.41 |
| <i>Amyris elemifera</i> | 3.15 | 2.25 | 3.56 | 8.96 |
| <i>Gymnopodium floribundum</i> | 3.51 | 2.25 | 2.45 | 8.21 |

* 10 especies con mayor VIR/de total de todas las especies por cada condición (MA, MF, SM y BTS).

* 10 species most VIR/total of all species for each condition (MA, MF, SM and BTS).