

S1. List of plant species (≤ 50 cm tall) within different taxonomic families, emerged from the soil seed-bank in primary forests (PF), secondary forests (SF) and old-fields (OF) in Southeast Mexico. Different plant growth-forms are indicated by different letters as follows: EH, epiphytes and hemi-epiphytes; H, herbs; L, woody lianas; P, palms; S, shrubs; and T, trees. Plants emerged directly from the mineral soil in the course of 12 months.

Plant species and/or morphospecies	Family	Successional stage	Growth-form
<i>Abuta panamensis</i>	Menispermaceae	PF	L
<i>Acacia hayesii</i>	Fabaceae	PF	L
<i>Acacia usumacintesis</i>	Fabaceae	PF	T
<i>Acalypha diversifolia</i>	Euphorbiaceae	PF, SF	S
<i>Acanthaceae</i> sp. 1	Acanthaceae	SF	H
<i>Anthurium flexile</i>	Araceae	PF, SF	EH
<i>Anthurium</i> sp. 1	Araceae	PF, SF	EH
<i>Aphelandra deppeana</i>	Acanthaceae	PF	H
<i>Araceae</i> sp. 1	Araceae	PF	H
<i>Bidens pilosa</i>	Asteraceae	OF	H
<i>Bignoniaceae</i> sp. 1	Bignoniaceae	PF	T
<i>Brachiaria decumbens</i>	Poaceae	OF	H
<i>Brosimum alicastrum</i>	Moraceae	PF	T
<i>Calathea inocephala</i>	Marantaceae	PF	H
<i>Calathea macrochlamys</i>	Marantaceae	PF	H
<i>Calliandra</i> sp. 1	Fabaceae	OF	S
<i>Cecropia peltata</i>	Moraceae	PF	T
<i>Celtis iguanaea</i>	Cannabaceae	SF	L
<i>Chamaedorea alternans</i>	Arecaceae	PF	P
<i>Chamissoa altissima</i>	Amaranthaceae	PF	EH
<i>Cissus gossypifolia</i>	Vitaceae	PF	EH
<i>Cissus</i> sp. 1	Vitaceae	SF	L
<i>Commelina</i> sp. 1	Commelinaceae	PF	S
<i>Asteraceae</i> sp. 1	Asteraceae	OF	H
<i>Conostegia</i> sp. 1	Melastomataceae	OF	S
<i>Cupania glabra</i>	Sapindaceae	OF	T
<i>Curcubitaceae</i> sp. 1	Curcubitaceae	SF	EH
<i>Cymbopetalum penduliflorum</i>	Annonaceae	PF	T
<i>Cyperus</i> sp. 1	Cyperaceae	OF	H
<i>Dalbergia</i> sp. 1	Fabaceae	OF	T
<i>Desmodium rastrera</i>	Fabaceae	OF	EH
<i>Desmodium</i> sp. 1	Fabaceae	OF	EH
<i>Doliocarpus dentatus</i>	Dilleniaceae	OF	L

Euphorbiaceae sp. 1	Euphorbiaceae	SF, OF	L
Fabaceae sp. 1	Fabaceae	SF	T
<i>Hamelia patens</i>	Rubiaceae	OF	S
<i>Heliconia</i> sp. 1	Heliconiaceae	SF	H
<i>Ipomoea discolor</i>	Convolvulaceae	OF	L
<i>Iresine arbuscula</i>	Amaranthaceae	PF	T
Loganiaceae sp. 1	Loganiaceae	OF	H
<i>Luehea</i> sp. 1	Malvaceae	SF	T
<i>Lycianthes nitida</i>	Solanaceae	PF	S
<i>Macfadyena uncata</i>	Bignoniaceae	PF	L
<i>Matayba</i> sp. 1	Sapindaceae	OF	T
<i>Mendoncia retusa</i>	Acanthaceae	SF	L
<i>Mikania aromatica</i>	Asteraceae	PF	EH
<i>Mikania</i> sp. 1	Asteraceae	OF	H
<i>Mikania</i> sp. 2	Asteraceae	OF	L
<i>Monstera</i> sp. 1	Araceae	PF	EH
<i>Monstera tuberculata</i>	Araceae	SF	EH
<i>Nectandra salicifolia</i>	Lauraceae	SF	T
<i>Neurolaena</i> sp. 1	Asteraceae	OF	H
<i>Paspalum</i> sp. 1	Poaceae	OF	H
Petridophyta sp. 1	Petridophyta	PF	H
<i>Physalys</i> sp. 1	Solanaceae	OF	H
<i>Piper aequale</i>	Piperaceae	SF	S
<i>Piper hispidum</i>	Piperaceae	SF, OF	S
<i>Piper</i> sp. 1	Piperaceae	SF	S
<i>Polypodium</i> sp. 1	Polypodiaceae	SF	H
<i>Psychotria papantlemsis</i>	Rubiaceae	PF	S
<i>Psychotria chiapensis</i>	Rubiaceae	SF	T
<i>Quararibea funebris</i>	Malvaceae	PF	T
<i>Rhodospatha wendlandii</i>	Araceae	PF	L
<i>Rinorea humilis</i>	Violaceae	SF	T
<i>Rinorea</i> sp. 1	Violaceae	PF	T
<i>Rourea</i> sp. 1	Connaraceae	PF	L
<i>Rourea glabra</i>	Connaraceae	PF	L
Rubiaceae sp. 1	Rubiaceae	OF	H
<i>Schizolobium parahybum</i>	Fabaceae	PF	T
<i>Scleria pterota</i>	Cyperaceae	OF	H
<i>Serjania</i> sp. 1	Sapindaceae	PF	L
<i>Sida rhombifolia</i>	Malvaceae	OF	H
<i>Solanum</i> sp. 1	Solanaceae	SF	L
<i>Spondias radlkoferi</i>	Anacardiaceae	PF	T
<i>Syngonium podophyllum</i>	Araceae	PF, SF	EH
<i>Trichilia erythrocarpa</i>	Meliaceae	SF	T

<i>Trophis racemosa</i>	Moraceae	SF	T
Verbenaceae sp. 1	Verbenaceae	OF	H
<i>Vernonia patens</i>	Asteraceae	OF	S
<i>Vismia camparaguey</i>	Hypericaceae	OF	T
EH sp. 1	Undetermined	OF	EH
Herb sp. 1	Undetermined	SF	H
Herb sp. 2	Undetermined	SF, OF	H
Herb sp. 3	Undetermined	SF, OF	H
Herb sp. 4	Undetermined	SF, OF	H
Herb sp. 5	Undetermined	OF	H
Herb sp. 6	Undetermined	OF	H
Liana sp. 1	Undetermined	SF	L
Liana sp. 2	Undetermined	SF	L
Liana sp. 3	Undetermined	SF, OF	L
Liana sp. 4	Undetermined	OF	L
Liana sp. 5	Undetermined	OF	L
Shrub sp.1	Undetermined	SF	S
Tree sp. 1	Undetermined	SF	T
Tree sp. 2	Undetermined	PF	T
