

Savanna of Belize

Pea Family - Fabaceae

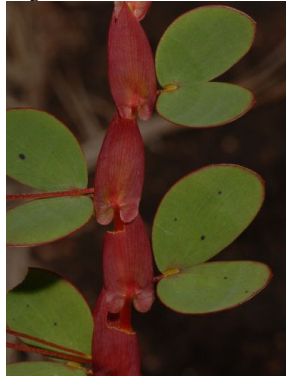


Zoë Goodwin, German Lopez, Sam Bridgewater & David Harris

Photos by Z. A. Goodwin, S. Bridgewater & D. J. Harris. Produced by: Z. A. Goodwin & G. N. Lopez, work supported by the Darwin Initiative. Version 2011/09/07



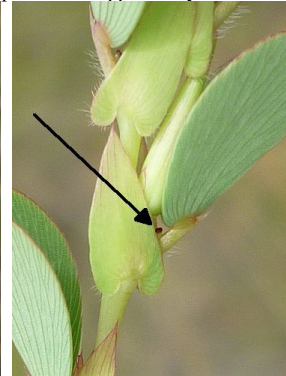
1 *Chamaecrista diphylla*
(Flower)



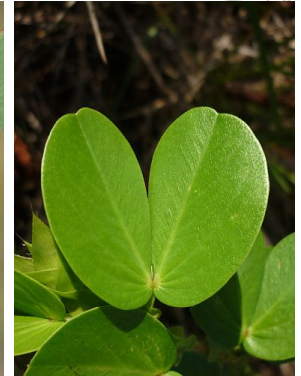
2 *Chamaecrista diphylla*
(Leaves & stipules)



3 *Chamaecrista diphylla*
(Fruit)



4 *Chamaecrista diphylla*
(Gland on petiole)



5 *Chamaecrista rotundifolia*
(Leaf)



6 *C. rotundifolia*
(Stem & stipules)



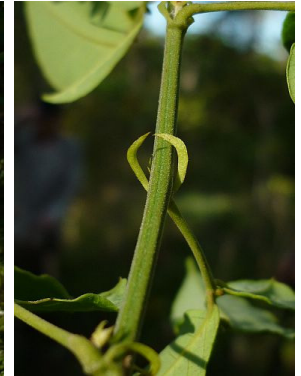
7 *Senna undulata*
(Flower)



8 *Senna undulata*
(Leaf upper surface)



9 *Senna undulata*
(Leaf lower surface)



10 *Senna undulata*
(Stipules)



11 *Chamaecrista desvauxii*
(Flowers)



12 *Chamaecrista desvauxii*
(Fruit)



13 *Chamaecrista desvauxii*
(Leaves)



14 *Chamaecrista desvauxii*
(Leaves & stem)



15 *Chamaecrista fagonoides*
(Flower)



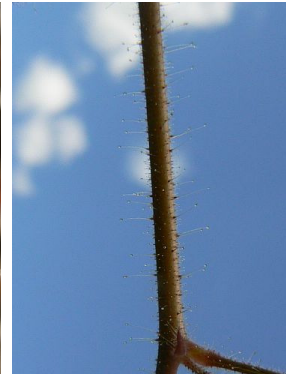
16 *Chamaecrista fagonoides*
(Inflorescence)



17 *Chamaecrista fagonoides*
(Fruit)



18 *Chamaecrista fagonoides*
(Leaf upper surface)



19 *Chamaecrista fagonoides*
(Glandular hairs)



20 *Chamaecrista hispida*
(Flower)

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21 *Chamaecrista hispidula*
(Fruit)



22 *Chamaecrista hispidula*
(Fruit)



23 *Chamaecrista hispidula*
(Leaf upper surface)



24 *Chamaecrista hispidula*
(Leaf upper surface)



25 *Chamaecrista kunthiana*
(Flower)



26 *Chamaecrista kunthiana*
(Leaves)



27 *Haematoxylum*
campechianum (Flower)



28 *H. campechianum*
(Leaf)



29 *Chamaecrista flexuosa*
(Flower)



30 *Chamaecrista flexuosa*
(Leaf)



31 *Chamaecrista flexuosa*
(Stipules & zigzag stem)



32 *Chamaecrista nictitans*
(Flower)



33 *Chamaecrista nictitans*
(Fruit)



34 *Chamaecrista nictitans*
(Leaf upper surface)



35 *Chamaecrista nictitans*
(Leaf lower surface)



36 *Chamaecrista nictitans*
(Straight stem)



37 *Hymenaea courabil*
(Flower)



38 *Hymenaea courabil*
(Inflorescence)



39 *Hymenaea courabil*
(Fruit)



40 *Hymenaea courabil*
(Leaf upper surface)

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41 *Aeschynomene histrix*
(Flower)



42 *Aeschynomene histrix*
(Fruits & inflorescence)



43 *Aeschynomene histrix*
(Leaves)



44 *Aeschynomene histrix*
(Leaf lower surface)



45 *Aeschynomene paniculata*
(Flower)



46 *A. paniculata*
(Flower)



47 *A. paniculata*
(Fruit)



48 *A. paniculata*
(Leaf)



49 *A. paniculata*
(Stipule & leaf base)



50 *Stylosanthes guianensis*
(Flower)



51 *Stylosanthes guianensis*
(Leaves)



52 *Stylosanthes ZAG1756*
(Flower)



53 *Stylosanthes ZAG1756*
(Flower & hairs)



54 *Stylosanthes ZAG1756*
(Leaf upper surface)



55 *Stylosanthes ZAG1756*
(Leaf & stipule)



56 *Stylosanthes viscosa*
(Flw & glandular hairs)



57 *Stylosanthes viscosa*
(Flowers & leaves)



58 *Zornia reticulata*
(Flower)



59 *Zornia reticulata*
(Inflorescence)



60 *Zornia reticulata*
(Leaf)

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61 *Crotalaria sagittalis*
(Flower)



62 *Crotalaria sagittalis*
(Fruit)



63 *Crotalaria sagittalis*
(Leaf & sagittate petiole)



64 *Crotalaria sagittalis*
(Leaf & sagittate petiole)



65 *Eriosema crinitum*
(Inflorescence)



66 *Eriosema crinitum*
(Fruit)



67 *Eriosema crinitum*
(Leaf lower surface)



68 *Eriosema crinitum*
(Leaf upper surface)



69 *Eriosema crinitum*
(Geosuffretic stem)



70 *Eriosema crinitum*
(Stipule & hairs)



71 *Clitoria falcata*
(Flower)



72 *Clitoria falcata*
(Immature fruit)



73 *Clitoria falcata*
(Leaf upper surface)



74 *Clitoria falcata*
(Leaflet lower surface)



75 *Clitoria falcata*
(Stipels)



76 *Dalbergia glabra*
(Flowers)



77 *Dalbergia glabra*
(Fruit)



78 *Dalbergia glabra*
(Leaf upper surface)



79 *Dalbergia glabra*
(Leaves lower surface)



80 *Dalbergia glabra*
(Leaves)

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81 *Gliricidia sepium*
(Flowers)



82 *Gliricidia sepium*
(Immature fruit)



83 *Gliricidia sepium*
(Mature fruit)



84 *Gliricidia sepium*
(Leaf upper surface)



85 *Gliricidia sepium*
(Leaf lower surface)



86 *Vigna linearis*
(Flower)



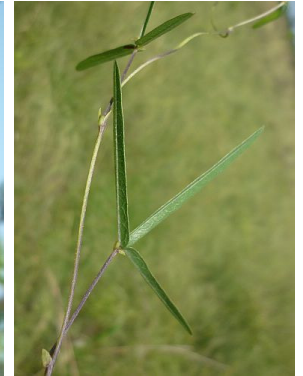
87 *Vigna linearis*
(Flower)



88 *Vigna linearis*
(Immature flower)



89 *Vigna linearis*
(Fruit)



90 *Vigna linearis*
(Leaf)



91 *Vigna linearis*
(Stipules)



92 *Clitoria guianensis*
(Flower)



93 *Clitoria guianensis*
(Opening flower)



94 *Clitoria guianensis*
(Leaves)



95 *Clitoria guianensis*
(Leaf lower surface)



96 *Clitoria guianensis*
(Stipules)



97 *Desmodium incanum*
(Inflorescence)



98 *Desmodium incanum*
(Leaf upper surface)



99 *Desmodium incanum*
(Leaf lower surface)



100 *Centrosema* sp. ZAG1719
(Inflorescence)

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101 *Centrosema* sp ZAG1719
(Flower)



102 *Centrosema* sp ZAG1719
(Leaf upper surface)



103 *Centrosema* sp ZAG1719
(Leaf lower surface)



104 *Desmodium barbatum*
(Inflorescence)



105 *Desmodium barbatum*
(Leaf upper surface)



106 *Desmodium barbatum*
(Leaf lower surface)



107 *Desmodium barbatum*
(Stipule)



108 Unknown ZAG1280
(Flower)



109 Unknown ZAG1280
(Inflorescence)



110 Unknown ZAG1280
(Fruit)



111 Unknown ZAG1280
(Leaf upper surface)



112 Unknown ZAG1280
(Leaf lower surface)



113 *Tephrosia nitens*
(Flower)



114 *Tephrosia nitens*
(Inflorescence)



115 *Tephrosia nitens*
(Fruit)



116 *Tephrosia nitens*
(Leaf upper surface)



117 *Tephrosia nitens*
(Leaf lower surface)



118 *Tephrosia nitens*
(Stipules)



119 *Alysicarpus vaginalis*
(Inflorescence)



120 *Alysicarpus vaginalis*
(Upper leaf surface)

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121 *Alysicarpus vaginalis*
(Lower leaf surface)



122 *Alysicarpus vaginalis*
(Stipules)



123 *Macroptilium gracile*
(Flower)



124 *Macroptilium gracile*
(Flower)



125 *Macroptilium gracile*
(Flower)



126 *Macroptilium gracile*
(Fruit)



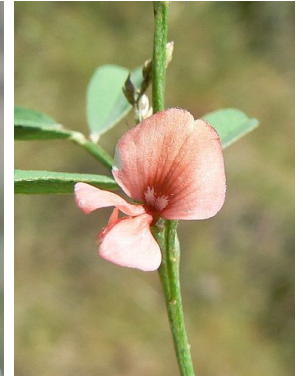
127 *Macroptilium gracile*
(Narrow leaf form)



128 *Macroptilium gracile*
(Broad leaf form)



129 *Macroptilium gracile*
(Stipules)



130 *Tephrosia* sp. ZAG1729
(Flower)



131 *Tephrosia* sp. ZAG1729
(Fruit)



132 *Tephrosia* sp. ZAG1729
(Leaf upper surface)



133 *Tephrosia* sp. ZAG1729
(Leaf lower surface)



134 *Lonchocarpus* sp.
ZAG1704 (Inflorescence)



135 *Lonchocarpus* sp.
ZAG1704 (Lf upper)



136 *Lonchocarpus* sp.
ZAG1704 (Lf lower)



137 *Lonchocarpus* sp.
ZAG1704 (Lflt upper)



138 *Lonchocarpus* sp.
ZAG1704 (Lflt lower)



139 *Lonchocarpus* sp.
ZAG1704 (Stipules)



140 *Pachyrhizus* sp.
(Leaf upper surface)

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141 Pachyrhizus sp.
(Leaf upper surface)



142 Pachyrhizus sp.
(Leaf lower surface)



143 Inga pinetorum
(Leaf upper surface)



144 Inga pinetorum
(Leaflet lower surface)



145 Inga pinetorum
(Gland)



146 Inga sp.
(Leaf upper surface)



147 Inga sp.
(Leaflet upper surface)



148 Inga sp.
(Leaflet lower surface)



149 Inga sp.
(Gland)



150 Inga sp.
(Gland & winged rhachis)



151 Pithecellobium
lanceolatum (Flower)



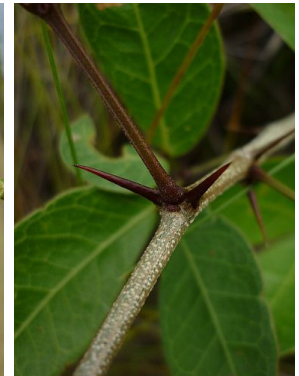
152 P. lanceolatum
(Fruit)



153 P. lanceolatum
(Leaf upper surface)



154 P. lanceolatum
(Leaf lower surface)



155 P. lanceolatum
(Stipular spines)



156 Acacia collinsii
(Inflorescence)



157 Acacia collinsii
(Fruit)



158 Acacia collinsii
(Petiolar glands)



159 Acacia collinsii
(Stipular thorns)



160 Calliandra houstoniana
(Inflorescence)

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161 Calliandra houstoniana (Fruit)



162 Calliandra houstoniana (Leaf upper surface)



163 Mimosa albida (Inflorescences)



164 Mimosa albida (Mature fruit)



165 Mimosa albida (Immature fruit)



166 Mimosa albida (Leaves)



167 Mimosa albida (Stem detail)



168 Mimosa albida (Petiole detail)



169 Mimosa bahamensis (Fruit)



170 Mimosa bahamensis (Leaves)



171 Mimosa cf. somnians (Inflorescences)



172 Mimosa cf. somnians (Leaf)

Notes on this guide: This photoguide covers only the some of the common species of Fabaceae found in the lowland savannas of Belize, there are additional species recorded in the lowland savanna and in the Mountain Pine Ridge savannas that are not currently covered by this photoguide. Please consult to Goodwin *et al.* (In Press) A checklist of the vascular plants of the lowland savannas of Belize, Central America. Phytotaxa.

Additional notes on Habit & Identification: The species in this photoguide are arranged approx. by subfamily, flower colour & number of leaflets. The 3 subfamilies have distinctive flower types: **Caesalpinioideae** (1-40) **Faboideae** (41-142) & **Mimosoideae** (143-172). All Fabaceae have compound, alternate leaves and stipules however sometimes the number of leaflets maybe reduced so that a leaf appears simple **Alysicarpus vaginalis** (119-122) & **Crotalaria sagittalis** (61-64). All of the Mimosoideae have 2 pinnate leaves except the genus **Inga** (143-150). **Vigna linearis** (86-91) is very difficult to differentiate from the narrow-leaved form of **Macroptilium gracile** (123-129) without fruit or flowers, **M. gracile** often has no leaves when flowering. **Inga pinetorum** (143-145) has 4 obovate leaflets. Two species of **Pachyrhizus** (140-142) have been collected in the savanna, however they are difficult to differentiate without flowers & fruit.

For further information please visit:

www.eeo.ed.ac.uk/sea-belize

This guide has been produced as part of Darwin Initiative Project 17-022 Conservation of the Lowland Savannas of Belize



List of Species by Number of

Leaflets:

1 Leaflet

Alysicarpus vaginalis 119-122

Crotalaria sagittalis 61-64

2 Leaflets

Chamaechrista diphylla 1-4

Chamaechrista rotundifolia 5-6

Hymenaea courabil 37-40

Zornia reticulata 58-60

3 Leaflets

Centrosema sp. ZAG1719 100-103

Clitoria falcata 71-75

Clitoria guianensis 92-96

Desmodium barbatum 104-107

Desmodium incanum 97-99

Eriosema crinitum 65-70

Macroptilium gracile 123-129

Pachyrhizus sp. 140-142

Stylosanthes guianensis 50-51

Stylosanthes sp. ZAG1756 52-55

Stylosanthes viscosa 56-57

Unknown ZAG1280 108-112

Vigna linearis 86-91

4 Leaflets

Chamaechrista desvauxii 11-14

Chamaechrista fagonoides 15-19

Chamaechrista hispidula 20-24

Inga pinetorum 143-145

Pithecellobium lanceolatum 151-155

Senna undulata 7-10

6 Leaflets

Chamaechrista kunthiana 25-26

>6 Leaflets & 1 Pinnate

Aeschynomene histrix 41-44

Aeschynomene paniculata 45-49

Chamaechrista flexuosa 29-31

Chamaechrista nictitans 32-36

Dalbergia glabra 76-80

Gliricidia sepium 81-85

Haematoxylum campechianum

27-28

Inga sp. 146-150

Lonchocarpus sp. ZAG1704 134-139

Tephrosia nitens 113-118

Tephrosia sp. ZAG1729 130-133

>6 Leaflets & 2 Pinnate

Acacia collinsii 156-159

Calliandra houstoniana 160-162

Mimosa albida 163-168

Mimosa bahamensis 169-170

Mimosa somnians 171-172