

Checklist of plant species of the coastal fynbos and rocky headlands, south of George, South Africa

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ABSTRACT

A checklist of vascular plants and cryptograms was compiled for the fynbos and rocky headland communities of the coastal region south of George. The area studied is a 12 km stretch of steep sandstone cliffs forming alternating bays and headlands situated between Glentana and Wilderness. The plant communities of the natural vegetation inhabiting the coastline are a mixture of coastal thicket, riparian thicket, fynbos and rocky headland types. The extent of natural vegetation has been reduced by the spread of agricultural land and urban development and is under further threat from the spread of naturalised alien invader species, particularly *Acacia cyclops*. The checklist records the occurrence of 271 taxa including 16 alien species (6% of taxa). Of the flowering plant species recorded, 6% were regional or local endemics.

INTRODUCTION

The study area is a 12 km section of coastline south of George extending from Rooiklip, southeast of Pacaltsdorp, to Ghwanobaai, 3 km east of Glentana (see Hoare *et al.* 2000 for details). It includes a band of vegetation within 500 m of the high tide mark on steep sandstone cliffs which form alternating bays and headlands. The plant communities of the natural vegetation along the coastline are a mixture of coastal thicket, riparian thicket, fynbos and rocky headland types. The study was confined to the fynbos and rocky headland vegetation. Riparian thicket, dune thicket, dense alien stands and agricultural lands were not sampled. Rainfall along this section of coastline occurs throughout the year, but with three distinct peaks in spring, summer and autumn (Hoare *et al.* 2000). Because of its close proximity to the sea, vegetation structure and composition are greatly influenced by oceanic winds. The extent of the natural vegetation has been reduced by the spread of agricultural land and urban activities and is under further threat from the spread of naturalised alien species, particularly *Acacia cyclops*.

This study area falls into that part of the Fynbos Biome called Limestone Fynbos of the Mossel Bay District (Low & Rebelo 1996) of which \pm 14% is conserved and 40% transformed, although the recent proclamation of the Agulhas National Park may affect these statistics. The particular study area is of interest because of its scenic beauty and its location in the centre of the Garden Route—a popular tourist attraction. Most of the study area is owned by private landowners who have used the land mostly for agriculture (in places agricultural lands extend to within a few metres of the summit of the coastal cliffs), but also for plantation forestry on a

small scale. Urban development occurs in nodes, e.g. Herold's Bay and Victoria Bay. Recreational activities, e.g. fishing, occur on a small scale along the coast. Disturbances related to all these activities have resulted in invasion by alien trees and shrubs, particularly *Acacia cyclops*. *Pinus* species have spread from the plantations and are also a potentially serious threat.

The aim of this work was to provide a checklist of the plant species along this stretch of coastline that can act as a basic reference for floristic and ecological work and as a baseline for future development in the region. This checklist forms a link between checklists and floristic studies done for the Western Cape coastal region (Boucher 1977; Taylor 1985), southern Cape coast (Hellström 1990; Hoare 1994; Van der Merwe 1979) and the Eastern Cape coast (Lubke 1983; Lubke *et al.* 1988; Cloete & Lubke 1999). This provides the opportunity for comprehensive examination of floristic gradients along the coastal region of the Fynbos Biome.

METHODS

Fieldwork was done in all four seasons of the year to cover as many flowering times as possible. Voucher specimens of most taxa were deposited in the National Herbarium, Pretoria, and additional taxa listed were obtained from sight records made during the course of fieldwork. The herbarium collection at PRE was consulted to obtain records of plant species previously collected in the study area, and these were added to the checklist.

RESULTS

The checklist lists 271 taxa comprising nine lichen species, three bryophytes, three pteridophytes, two gymnosperms, 56 monocotyledons and 198 dicotyledons (Table 1). The most commonly represented angiosperm families (Table 2) are Asteraceae (15% of species), Poaceae (7%), Cyperaceae (6%), Fabaceae (6%), Mesembryanthemaceae (5%), Ericaceae (5%) and Crassulaceae (4%). The genera with the most species are *Erica* (11), *Crassula* (11), *Aspalathus* (8) and *Helichrysum* (6). *Ficinia*, *Lam-*

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TABLE 1.—Number of families, genera and species recorded in the vegetation of the coast south of George

| | Families | Genera | Indigenous spp. | Naturalised alien spp. |
|----------------|----------|--------|-----------------|------------------------|
| Lichens | | 4 | 9 | 0 |
| Bryophytes | 3 | 3 | 3 | 0 |
| Pteridophytes | 3 | 3 | 3 | 0 |
| Gymnosperms | 1 | 1 | 0 | 2 |
| Angiosperms | | | | |
| Dicotyledons | 52 | 107 | 187 | 11 |
| Monocotyledons | 10 | 41 | 53 | 3 |
| Total | 69 | 159 | 255 | 16 |

pranthus, *Phyllica* and *Hermannia* were each represented by five species.

All of the 20 largest genera listed for the Cape flora by Bond & Goldblatt (1984) are represented in this coastal area, as are 13 of the 15 largest families. Of the 16 alien species recorded, *Acacia cyclops* was by far the most abundant.

Some 230 flowering plant species were classified according to phytogeographical range and affinity (Table 3). It was found that 35% are endemic to the Fynbos Biome and 7% are regional (southern Cape) endemics and one was a local endemic—*Silene vlokii*, which has a restricted range from Herold's Bay to Glentana.

DISCUSSION

Asteraceous Coastal Fynbos is defined as having high asteraceous and non-ericaceous ericoid cover and often high grass cover (Cowling 1992). *Phyllica*, *Passerina*, *Agathosma* (and other Diosmiae), *Aspalathus*, *Restio* and *Clifftoria* are listed as dominant genera in this vegetation type (Cowling 1992), a view which is consistent with what was found in the study area (Hoare *et al.* 2000).

A comparison of the flora of the study area with those of the Goukamma Nature Reserve (Table 4) shows that the number of species and genera in the present study area is comparatively high in relation to its size, especially considering that not all vegetation types were sampled. Goukamma Nature Reserve is a larger area but with

TABLE 2.—Families of angiosperms in the study with the highest number of genera and species

| Family | No. genera | No. spp. |
|---------------------|------------|----------|
| Asteraceae | 25 | 39 |
| Poaceae | 12 | 17 |
| Cyperaceae | 8 | 16 |
| Fabaceae | 7 | 16 |
| Mesembryanthemaceae | 7 | 14 |
| Ericaceae | 3 | 13 |
| Crassulaceae | 2 | 11 |
| Iridaceae | 8 | 9 |
| Santalaceae | 3 | 7 |
| Thymelaeaceae | 2 | 5 |
| Sterculiaceae | 1 | 5 |

TABLE 3.—Distribution of angiosperms found in the study area

| Distribution | No. spp. |
|-----------------------------------|----------|
| Endemic to Fynbos Biome | 81 |
| Regional endemics (southern Cape) | 15 |
| Local endemics | 1 |

TABLE 4.—Comparison of the indigenous angiosperm flora of the study area with nearby Goukamma Nature Reserve (Van der Merwe 1979; Hoare 1994)

| | Study area | Goukamma Nature Reserve |
|------------------------------|------------|-------------------------|
| Area (km ²) | 1.9 | 14.6 |
| No. genera | 136 | 121 |
| No. spp. | 254 | 168 |
| No. spp. per genus | 1.7 | 1.4 |
| No. spp. per km ² | 134 | 11.5 |

fewer species, indicating that there is lower diversity in the Dune Fynbos and thicket vegetation of that region compared with the communities along the rocky shore and promontories of this study area. This coastal region therefore has a surprisingly high diversity for such a small area, probably due to its abundance of microhabitats. Further studies encompassing the non-fynbos vegetation types should be carried out to contribute to the knowledge of this relatively understudied and poorly conserved region.

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CHECKLIST

Taxa are arranged alphabetically, and author citations follow Brummitt & Powell (1992). Except for site records, collectors' names and numbers follow the author citation; specimens are housed at PRE. Naturalised alien species are marked with an asterisk*. Abbreviations for collectors' names: Bo, P. Bohnen; Da, G. Davidse; Th, M.F. Thompson; V, J.E. Victor; VFC, C.M. Van Wyk, A. Fellingham & M. O'Callaghan; V&H, J.E. Victor & D.B. Hoare; Wi, I.J.M. Williams.

LICHENS

- Cladonia aggregata (Sw.) Nyl., V 327
- Cladonia Chasmariae sp., V 328
- chlorphaea (Floerke) Spreng., V 325
- Cocciferae sp., V 326
- confusa R.Sunt., V 324
- coniocraea (Floerke) Spreng., V 328b
- Pycnporus sp., V 545
- Teloschistes flavicans (Sw.) Norm., V 546
- Usnea rubicunda Stirt., V 547

BRYOPHYTES

- FUNARIACEAE Funaria hygrometrica Hedw., V 290

PHYLLOGONIACEAE

- Catagonium nitens (Brid.) Card. subsp. maritimum (Hook.) S-H.Lin, V 352

POTTIACEAE

- Tortella xanthocarpa (C.Muell.) Broth., V 303

PTERIDOPHYTES

ADIANTACEAE

- Cheilanthes hirta Sw. var. hirta, V 367

ASPLENIACEAE

- Asplenium rutifolium (P.J.Bergius) Kunze, V 351, 366

SCHIZAEACEAE

- Schizaea pectinata (L.) Sw., V 317

GYMNOSPERMS

PINACEAE

- Pinus *pinaster Aiton
*radiata D.Don

ANGIOSPERMS: MONOCOTYLEDONS

ASPHODELACEAE

- Anthericum cooperi Baker, V 561; V&H 43

CYPERACEAE

- Ficinia albicans Nees, V&H 83
cf. gracilis (Poir.) Schrad., V 259, 321, 329, 359
laciinaria (Thunb.) Nees, Da 33719
nigrescens (Schrad.) J.Raynal, V 261, 285; V&H 68
repens (Nees) Kunth, V 292

- Fuirena hirsuta (P.J.Bergius) P.L.Forbes, V 306

- Isolepis tenuissima (Nees) Kunth, V 288

- Mariscus congestus (Vahl) C.B.Clarke, V 557

- thunbergii (Vahl) Schrad., V 282

- Pycreus polystachyos (Rottb.) Beauv. var. polystachyos, V 287

- Schoenoxiphium sparteum (Wahlenb.) C.B.Clarke, Da 33726

Tetrapanax

- bolusii C.B.Clarke, VFC 234
compressa Turrill, V 246; V&H 40
cuspidata (Rottb.) C.B.Clarke, V 242; V&H 78
microstachys (Vahl) Pfeiffer, V 309, 316, 333

- Trianoptiles capensis (Steud.) Harv., V 289

HYACINTHACEAE

- Lachenalia bulbifera (Cyr.) Engl., VFC 170

- Ornithogalum sp.

HYPOXIDACEAE

- Empodium sp., V 207

- Spiloxene trifurcillata (Nel) Fourc., V 335

IRIDACEAE

- Babiana fourcadei G.J.Lewis, V 349

- Bobartia aphylla (L.f.) Ker Gawl., V 307, 540; V&H 47

- Chasmanthe aethiopica (L.) N.E.Br., VFC 171

Freesia

- alba (G.L.Mey.) Gumbleton

- leichlinii Klatt, V 296

- Gladiolus floribundus Jacq. subsp. floribundus, Th 609

- Hesperantha falcatula (L.f.) Ker Gawl., V 213

- Micranthus alopecuroides (L.) Rothm., V 558

- Tritoniopsis antholyza (Poir.) Goldblatt, V 495

JUNCACEAE

- Juncus

- acutus L. subsp. leopoldii (Parl.) Snog., V 345

- dregeanus Kunth, V 286, 534

ORCHIDACEAE

- Disperis capensis (L.) Sw. var. capensis, V 238

- Heschelianthe hians (L.f.) Rauschert, V 529, 533

POACEAE

- Cynodon dactylon (L.) Pers., V 516

Eragrostis

- capensis (Thunb.) Trin., V 503

- plana Nees, V 511

Ehrharta

- calycina J.E.Sm., V 513

- capensis Thunb., V 513b, V&H 80

- erecta Lam. var. erecta

- *Lolium perenne L., V 524

Paspalum

- *dilatatum Poir., V 522

- distichum L., V 517

- Pentaschistis eriostoma (Nees) Stapf

- Polypogon strictus Nees, V 350

- Setaria sphacelata (Schum.) Moss var. sphacelata, V 523

Sporobolus

- africanus (Poir.) Robyns & Tournay, V 518

- virginicus (L.) Kunth

- Stenotaphrum secundatum (Walt.) Kuntze

- Themeda triandra Forssk., V 510

- Tribolium uniolae (L.f.) Renvoize, V&H 81

PONTEDERIACEAE

- *Eichhornia crassipes (Mart.) Solms-Laub., V 562

RESTIONACEAE

- Hypodiscus willdenowia (Nees) Mast., Da 33722

- Ischyrolepis triflora (Rottb.) Linder

- Restio triticeus Rottb., V 253, 254, 320; V&H 36

- Thamnochortus cinereus H.P.Linder, V 308; V&H 45

DICOTYLEDONS

ACANTHACEAE

- Hypoestes aristata (Vahl) Roem. & Schult. var. thiniorum Balkwill, V 341

AZOACEAE

Tetragonia

- fruticosa L., V 273

- decumbens Mill.

- spicata L.f. var. spicata, V 338

- virgata Schltr., V&H 42

ANACARDIACEAE

Rhus

- crenata Thunb., V 302

- glauca Thunb., VFC 177

- lucida L. forma lucida, V 208

APIACEAE

- Centella virgata (L.f.) Drude, V 319

APOCYNACEAE

- Astephanus marginatus Decne.

- Sarcostemma viminale (L.) R.Br.

- ASTERACEAE**
Arctotheca prostrata (Salisb.) Britten, VFC 185
Athanasia trifurcata (L.) L., V 509
Athrixia capensis Ker Gawl., V 541
Berkheya armata (Vahl) Druce, V 531
Chrysanthemoides monilifera (L.) Norl. subsp. pisifera (L.) Norl., V 262
Cineraria britanniae Hutch. & R.A.Dyer, V&H 39, 71
Cullumia bisulca (Thunb.) Less.
Disparago kraussii Sch. Bip., V 502; V&H 58
Elytropappus rhinocerotis (L.f.) Less., V 548
Eriopephalus africanus L., V 244; V&H 33
Felicia
 amoena (*Sch.Bip.*) Levyns, subsp. latifolia *Grau*, V 536
 filifolia (*Vent.*) Burtt Davy, subsp. bodkinii (*Compton*) *Grau*, V 300
Gazania rigens (L.) Gaertn. var. uniflora (*L.f.*) Rössler, V 294; V&H 75
Gerbera serrata (Thunb.) Druce, V 239; V&H 66
Helichrysum
 anomalam *Less.*, V 240, 514
 asperum (*Thunb.*) Hilliard & B.L.Burtt var. glabrum Hilliard, V 532
 cymosum (*L.*) D.Don subsp. cymosum, VFC 227
 felinum *Less.*, V 322
 odoratissimum (*L.*) Sweet, V 564
 teretifolium (*L.*) D.Don, V 235
Metalasia
 acuta *Karis*, V 217
 pungens D.Don, V 247; V&H 52, 54b
Oedera
 capensis (*L.*) Druce, V 236
 imbricata *Lam.*, V 267
Othonna carnosa *Less.*, var. carmosa, V 370
Plecostachys serpyllifolia (Berg.) Hilliard & B.L.Burtt, V 301
Printzia polifolia (L.) Hutch., V 323
Relhania
 calycina (*L.f.*) L'Hér. subsp. calycina, V 364
 pungens L'Hér. subsp. pungens, V 501
Senecio
 angulatus *L.f.*, V 348
 deltoideus *Less.*, VFC 183
 ilicifolius *L.*, V 508
Stoebe
 microphylla DC., V 357; V&H 72, 82
 plumosa (*L.*) Thunb., V 304
Syncarpha
 canescens (*L.*) B.Nord.
 paniculata (*L.*) B.Nord.
Tarchonanthus camphoratus L., V 34; V&H 44
Ursinia
 heterodonta (DC.) N.E.Br., V 252, 528
 saxatilis N.E.Br., V&H 34
BRASSICACEAE
Heliophila subulata DC., V 334, 527
CAMPANULACEAE
Lightfootia
 divaricata *H.Buek* var. debilis (*Sond.*) Adamson, VFC 95
 fasciculata (*L.f.*) A.DC., V 500
CARYOPHYLLACEAE
Silene vlokii Mass., V 864
**Spergula arvensis L., V 214*
CELASTRACEAE
Cassine papillosa (Hochst.) Kuntze
Pterocelastrus tricuspidatus (Lam.) Sond., V 299
Putterlickia pyracantha (L.) Szyszyl., V 549
CHENOPodiaceae
Sarcocornia natalensis (Ung.-Sternb.) A.J.Scott var. *natalensis*
CONVOLVULACEAE
Falkia repens L.f., V 281
CRASSULACEAE
Adromischus caryophyllaceus (Burm.f.) Lem., V 552; V&H 37
Crassula
 atropurpurea (*Haw.*) Dietr. var. atropurpurea, V&H 38
 biplana *Haw.*, VFC 169
 decumbens Thunb. var. brachyphylla (Adamson) Tölken, V 215
 lactea Soland., V 344
 nudicaulis *L.* var. nudicaulis, V 553
 orbicularis *L.*, V 297
 rubricaulis Eckl. & Zeyh., V 343
 rupestris Thunb. subsp. rupestris, V 551
 southii *Schönland* subsp. *sphaerocephala* Tölken, V 223
 subulata *L.* var. *fastigiata* (*Schönland*) Tölken, V 382
DROSERACEAE
Drosera sp., V 318
EBENACEAE
Diospyros
 dichrophylla (*Gand.*) De Winter, V 209
 lycioides Desf. subsp. *lycioides*, V&H 49
Euclea
 crispa (*Thunb.*) Guerke subsp. *crispa*, V 368
 natalensis A.DC. subsp. *obovata* F.White, V&H 41
ERICACEAE
Blaeria ericoides L., V 543
Erica
 canaliculata Andr., V 212
 discolor Andr. var. discolor, V 233, 293
 formosa Thunb., V 243, 323, 355; V&H 25, 46
 glandulosa Thunb. var. *glandulosa*, V 555; V&H 48
 hispidula *L.* var. *hispida*, V 258, 356
 imbricata *L.*, V 354
 peltata Andr., V&H 26
 speciosa Andr., V 241
 triceps Link, V 559
 versicolor Wendl.
 sp., V&H 24
Salaxis axillaris (Thunb.) G.Don, V 258, 530
EUPHORBIACEAE
Clutia
 alaternoides *L.* var. *brevifolia* Sond.
 laxa Sond., VFC 218
Euphorbia cf. *cateriflora* N.E.Br., V 272
FABACEAE
Acacia
 *cyclops G.Don, V 360
 *mearnsii De Wild., V 257; V&H 54a
Amphithalea fourcadei Compton, V 358
Aspalathus
 alopecurus Benth., V 353; V&H 56
 asparagoides *L.f.* subsp. *asparagoides*, V&H 21
 asparagoides *L.f.* subsp. *rubro-fusca* (Eckl. & Zeyh.) R.Dahlgren, V 331
 ciliaris *L.*, V 526, V 544
 florifera R.Dahlgren, V 248
 kougaensis (R.Dahlgren) R.Dahlgren, V 266; V&H 22
 laricifolia P.J.Bergius subsp. *laricifolia*, V&H 55
 nigra *L.*
Indigofera heterophylla Thunb., V 271; V&H 59, 77
**Lotus subbiflorus Lag., V 505*
Rhynchosia
 capensis (*Burm.*) Schinz, V 315
 ciliata (Thunb.) Schinz
**Vicia sativa L., V 381, 560*
FUMARIACEAE
**Fumaria muralis Koch* subsp. *muralis*, V 211
GENTIANACEAE
Chironia baccifera L., V 336
GERANIACEAE
Pelargonium
 candicans Spreng., V 280
 capitatum (*L.*) L'Hér., V&H 74
 caucalifolium Jacq. subsp. *convolvulifolium* (Kunth) J.J.A.van der Walt, V 538
 fruticosum (Cav.) Willd., V 311
LAMIACEAE
Stachys graciliflora Presl, VFC 164
LAURACEAE
Cassytha ciliolata Nees, V 227; V&H 76
LOBELIACEAE
Lobelia
 bicolor Sims, V&H 61
 coronopifolia *L.*, V 255, 537
 erinus *L.*, V 520
 tomentosa *L.f.*
Monopsis unidentata (Dryand.) E.Wimm. subsp. *unidentata*, V 515
MALVACEAE
Anisodontea scabrosa (L.) Bates, V 279
Hibiscus aethiopicus L. var. *ovatus* Harv., V&H 57

MESEMBRYANTHEMACEAE

Carpobrotus
deliciosus (*L.Bolus*) *L.Bolus*, V 305
edulis (*L.*) *L.Bolus*, V 210

Delosperma

edwardsiae *L.Bolus*, V 218, 221, 269, 270; V&H 31
litorale (*Kensit*) *L.Bolus*, V 219, 550; V&H 79

Disphyma crassifolium (*L.*) *L.Bolus*, V 268

Drosanthemum

brevifolium (*Aiton*) *Schwantes*, V 222
sp., V&H 63

Lampranthus

conspicuus (*Haw.*) *N.E.Br.*, V 260; V&H 64
dependens (*L.Bolus*) *L.Bolus*, VFC 180
sociorum (*L.Bolus*) *N.E.Br.*, V&H 32
stipulaceus (*L.*) *N.E.Br.*, V 230
sp., V 220

Conophytum bilobum (*Marloth*) *N.E.Br.*, VFC 176

Ruschia tenella (*Haw.*) *Schwantes* V 565; V&H 65

MYRICACEAE

Myrica quercifolia *L.*

MYRTACEAE

**Leptospermum laevigatum* (*Caertn.*) *F.Muell.*, V 264

OLEACEAE

Olea exasperata *Jacq.*

OXALIDACEAE

Oxalis spp., V 310, 224

PLANTAGINACEAE

**Plantago lanceolata* *L.*, V 525

PLUMBAGINACEAE

Limonium scabrum (*Thunb.*) *Kuntze* var. *scabrum*, V&H 60

POLYGALACEAE

Muraltia ericoides (*Burm.f.*) *Steud.*, V 499

Polygala

fruticosa *P.J.Bergius*, V 295
microlopha *DC.* var. *gracilis* *Levyns*, V 314
myrtifolia *L.*, V 346

PRIMULACEAE

**Anagallis arvensis* *L.*, V 291, 519

PROTEACEAE

**Hakea sericea* *Schrad.*, V 361

Protea neriiifolia *R.Br.*, V 237

Leucadendron salignum *P.J.Bergius*, V 263

RANUNCULACEAE

Knowltonia vesicatoria (*L.f.*) *Sims* subsp. *grossa* *H.Rasm.*, V 340

RHAMNACEAE

Phyllica

axillaris *Lam.*
var. *axillaris*, VFC 174
var. *maritima* *Pillans*, VFC 228
confusa *Pillans*, V&H 50
purpurea *Sond.* var. *pearsonii* *Pillans*, V 245
strigulosa *Sond.*, V&H 29

ROSACEAE

Cliffortia

falcata *L.f.*, V 265
serpyllifolia *Cham.* & *Schlechtd.*, V 228, 542
sp., V 313

RUBIACEAE

Anthospermum
aethiopicum *L.*, V 249, 512
prostratum *Sond.*, V 251

RUTACEAE

Agathosma
apiculata *G.F.W.Mey.*, V 275
capensis (*L.*) *Dümmer*, V 312
ovata (*Thunb.*) *Pillans*, V 232, 337
Euchaetis burchellii *Dümmer*, Wi 2310

SANTALACEAE

Colpoon compressum *P.J.Bergius*, V 229, 342
Thesodium

fragile (*Thunb.*) *Sond.*
microcarpum (*A.DC.*) *A.DC.*, V 231, 298
podocarpum (*A.DC.*) *A.DC.*, V 278

Thesium

lisae-mariae *Stauffer*, V 330
nigromontanum *Sond.*, V&H 51
sertulariastrum *A.W.Hill*, V 226
virgatum *Lam.*, V&H 28

SAPOTACEAE

Sideroxylon inerme *L.* subsp. *inerme*, V&H 67

SCROPHULARIACEAE

Graderia scabra (*L.f.*) *Benth.*, Bo 8157
Phyllopodium rustii (*Rolfe*) *Hilliard*, V 284

Sutera

hispida (*Thunb.*) *Druce*, VFC 163a
sp., V 277, 339

SELAGINACEAE

Selago
corymbosa *L.*, V 554, 563
dregei *Rolfe*, VFC 209
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SOLANACEAE

Solanum rigescens *Jacq.*, VFC 178

STERCULIACEAE

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angularis *Jacq.*, V 256, 535
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THYMELAEACEAE

Passerina
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Struthiola

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TILIACEAE

Grewia occidentalis *L.*, V 521

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VISCACEAE

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Zygophyllum morgiana *L.*, V 274, 369