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Autor: Procter, John

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The endemic flowering plants of the Seychelles: an annotated list

JOHN PROCTER

RÉSUMÉ

L'auteur présente une liste de 72 espèces endémiques des Seychelles. Il donne différentes indications concernant leur distribution et parfois leur écologie.

SUMMARY

The author presents a list of 72 species endemic to the Seychelles. Information is given concerning their distribution and sometimes their ecology.

ZUSAMMENFASSUNG

Der Autor stellt in einer Liste 72, auf den Seychellen endemische Arten zusammen, bespricht deren Verbreitung und teilweise deren Ökologie.

Introduction

The first Seychelles endemic flowering plant to become known in Europe was the palm *Lodoicea maldivica.* It was known, before the Seychelles archipelago itself was discovered, from nuts allegedly washed up on the shores of the Maldive Islands and was richly surrounded by legend. The palm itself was not seen until 1768, by du Barré, the surveyor of a French expedition from Mauritius (Lionnet, 1972). Only one other flowering plant, *Curculigo seychellensis,* was described during the 18th and first half of the 19th centuries. About twenty species were not described until the present century and at least one remains undescribed.

Baker (1877) summarised existing knowledge of the Seychelles flora and his account remains the only published Flora of the archipelago. Hemsley began an enumeration of Seychelles angiosperms in about 1909, in order to incorporate the

considerable body of information resulting from the Percy Sladen Trust Expeditions in 1905 and 1908. Some of his work was published (Hemsley, 1916; Hemsley & Turril, 1917) but it was left to Summerhayes (1931) to summarise Baker's, Hemsley's and later work.

In the 42 years which have passed since Summerhayes' account was published, there have been several collections of flowering plants, but none has been fully published. Vesey-FitzGerald collected between 1936 and 1939 and the bulk of his collections are believed to be in the British Museum and at Kew. Jeffrey (1962) collected for six months in 1960-61. His material is at Kew and duplicates of many of his specimens formed the nucleus of the Seychelles Herbarium. Fosberg collected early in 1970. His material is in the Smithsonian Institution but duplicates of many specimens are in the Seychelles Herbarium. I collected in 1970, 1972 and 1973. My collections are mainly at Kew, with a nearly complete set of duplicates in the Seychelles Herbarium. A partial set of duplicates is in the Herbarium of the Sugar Research Institute, Mauritius. Bernardi collected in 1973, mainly endemics, for the Conservatoire et Jardin botaniques Geneva. There have been other, minor collections, but no information about them is recorded in the Seychelles.

The present list

Summerhayes' list forms the basis for current work on Seychelles botany. Few references are available in the Seychelles and the Seychelles Herbarium does not yet provide an adequate foundation for critical taxonomy. The present list is compiled with these limitations in mind. The main list consists of 72 species, all but 10 of which have been studied in the field within the last three years. Three of the 72 species were collected by Jeffrey in 1960-61 but I have not yet found them. About 7 have not been recorded (unless in an unpublished collection) since the early years of the present century. Twenty-four of the species listed by Summerhayes are here treated as synonyms or are excluded on other grounds. They are listed in the Appendix.

Nomenclature

In the absence of comprehensive references, I have used the 'best' name available. In many cases this is based on a recent determination by Kew or on a published account which I have seen. In other cases the name used by Summerhayes has been retained. Where the name used by Summerhayes is treated as a synonym, this has been noted, but no attempt has been made to give full synonymy. There are few cases in which this treatment will result in confusion.

Local names

The Seychelles Creole language is rich in plant names. Many of these are used critically and do not lead to confusion. The creole names given in this list have been checked many times.

Red book status

The proposed status-rating for IUCN's red book of endangered species has been assessed after a thorough study of each species in the field. It is based not only on the present numerical abundance of each species but on the number of localities from which it has been recorded and on its ecological status within its community.

Distribution and ecology

This is based on my own observations over the past three years, supplemented by evidence from Jeffrey's collecting labels. Island abbreviations are as follows in order of their geographical importance

M	Mahé	N	North
P	Praslin	A	Aride
S	Silhouette	Fr	Frigate
D	La Digue	Co	Cousin
C	Curieuse	Ce	Cousine
F	Félicité		

The distributions given by Summerhayes show that many species appear to have suffered a reduction in range since the early years of this century. This is undoubtedly partly attributable to the forest destruction which took place between 1900 and 1930 (cf. Vesey-FitzGerald 1940; Procter 1971), but it may be partly attributable to some over-enthusiasm by Horne. Such remarks as 'Common in all the islands' or 'In all the islands' can hardly have been true, even before man's arrival in the Seychelles, for such species as *Campnosperma seychellarum, Begonia seychellensis, Gynura sechellensis* or even *Verschaffeltia splendida.* 'Also in Praslin and Curieuse' for *Gastonia sechellarum* may have resulted from a confusion with *Indokingia crassa.* The two species are very similar in the field, especially when young and not in flower.[1]

Ecological notes are given here for only a few of the more noteworthy species. A fuller account is in preparation.

Representation in the Seychelles Herbarium

This account is intended to help field workers in the Seychelles. A full catalogue of the Seychelles' endemics in the world's herbaria is not practicable. Therefore an indication of material available for study in the Seychelles is given. All numbers listed are duplicated in at least one major European or American Herbarium.

Conservation

The Seychelles government has initiated a programme, now in its early stages, for the creation of national parks, forest and nature reserves. It is proposed to protect

[1] A single tree of *Gastonia* has been found in Praslin after this account was written. J. P.

the habitats of almost all the plants in the present list. A small number of species are found only outside proposed national parks. Special measures to protect these species will be urged.

Illustrations

The line drawings have been made from fresh living material, usually from a single specimen. In a few cases it has been necessary to supplement living material with detail from a herbarium specimen. When practicable, the material from which the drawing was made has been preserved as a herbarium specimen.

Dilleniaceae

1. Dillenia ferruginea (Baillon) Gilg (fig. 1)
= *Neowormia ferruginea* (Baillon) Hutch. & Summerhayes, (Summerhayes, 1931).

Local name: bois rouge.
Proposed Red Book status: 3.
Distribution and ecology: widespread M, P, C; local S. Often dominant or co-dominant with palms and other endemics on dry ridges on Praslin and readily colonises scrub in such situations; also present in moister places as an occasional co-dominant with *Northia* etc. on Mahé and Silhouette.
Represented in Seychelles Herbarium by: *Jeffrey 450.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks; can be cultivated readily from seed.

Flacourtiaceae

2. Aphloia seychellensis Hemsley

Local name: bois merle.
Proposed Red Book status: 3.
Distribution: widespread M, P; local S, F.
Represented in Seychelles herbarium by: *Procter 4064, 4139; Jeffrey 726; Fosberg 51978.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Pittosporaceae

3. Pittosporum wrightii Hemsley
= *Pittosporum senacia* Putt. subsp. *wrightii* (Hemsley) Cuf., (Cufodontis, 1955).

Local name: bois joli cœur.
Proposed Red Book status: 2.

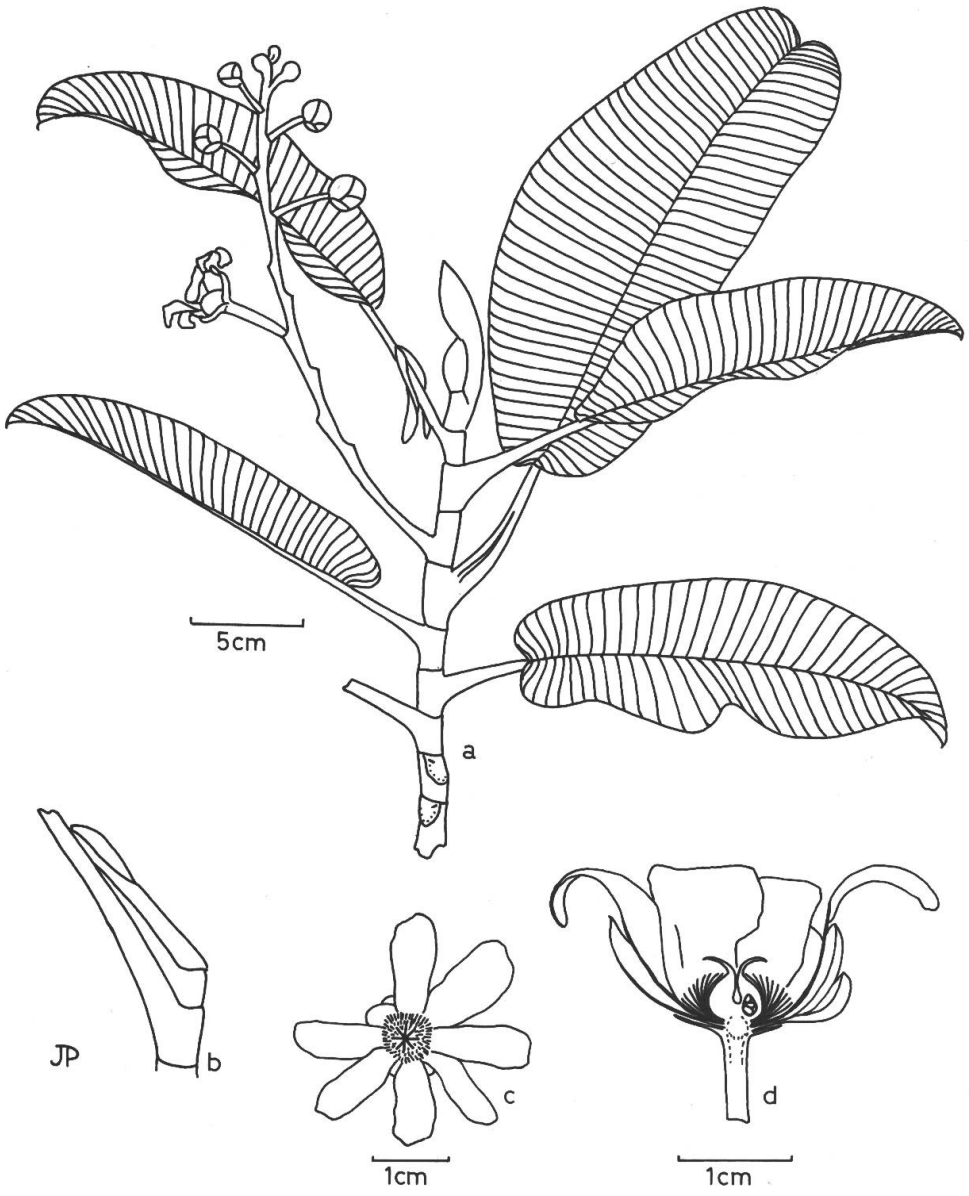

Fig. 1. – *Dillenia ferruginea* (Baillon) Gilg
a, flowering shoot; b, terminal bud detail; c, flower; d, flower l.s.

Distribution: occasional M; frequent S.
Represented in Seychelles Herbarium by: *Procter 4246; Jeffrey 809, 1216.*
Conservation: represented in Morne Seychellois Forest National Park.

Medusagynaceae

4. Medusagyne oppositifolia Baker (fig. 2)

Local name: bois méduse.
Proposed Red Book status: 1***.
Distribution and ecology: six individual plants in one locality M. Apparently extinct in its type locality, but may still possibly be found there or elsewhere. Grows in rocky, inaccessible places at moderate altitudes. Field notes made when *Procter 3991* was collected are reproduced verbatim – 'Tree 9 m high with sinuous stem c. 20 cm in diameter and dense umbrella-shaped crown. Bark fibrous, striate, resembling *Juniperus* or *Cupressus.* Wood hard, dark brown. (See wood specimen). Leaves mid-green, young leaves pale green, senescent leaves bright red, a good field character. Flowers white, petals with a partial rose-pink wash, anthers yellow. Flowers have foetid smell. Young fruits green, with stamens persistent around the bases and stigmas persistent in a crown at the apices. Recently dehisced fruits bright red-brown. Plant apparently flowers and fruits profusely. Growing in deep clefts between granite masses, and crowns thus appearing like shrubs. Near associates were: *Pandanus multispicatus, Randia lancifolia, Dracaena angustifolia, Curculigo seychellensis, Deckenia nobilis, Memecylon eleagni, Erythroxylon sechellarum, Eugenia wrightii, Ficus* sp., *Dillenia ferruginea, Vanilla phalaenopsis.* Alt. 270 m.'
Represented in Seychelles Herbarium by: *Procter 3991.*
Conservation: whole known population in Bernica (proposed) Strict Natural Reserve, lying within Morne Seychellois Forest National Park; can be cultivated with difficulty from seed; wild seedlings rarely or never survive.

Dipterocarpaceae

5. Vateria seychellarum Dyer (fig. 3)
= *Vateriopsis seychellarum* Heim, (Summerhayes, 1931).

Local name: bois de fer.
Proposed Red Book status: 1***.
Distribution and ecology: M, about 5 localities. Horne, quoted by Baker (1877) describes it as already becoming scarce, large trees remaining in the Port Glean (Glaud?) area at altitudes between 200 and 300 m. The fine timber of this species resulted in its virtual extinction from most of its former range, but it has apparently never been recorded from any other island than Mahé. The remaining trees are probably near the upper altitudinal limit of the former range of the species. A group of 10-15 trees exists in the Pérard area of Morne Seychellois Forest National Park at an altitude of about 400 m. The vegetation is secondary forest which has regularly been exploited for cinnamon, thus effectively inhibiting the formation of a forest canopy. Most of the *Vateria* trees have the appearance of

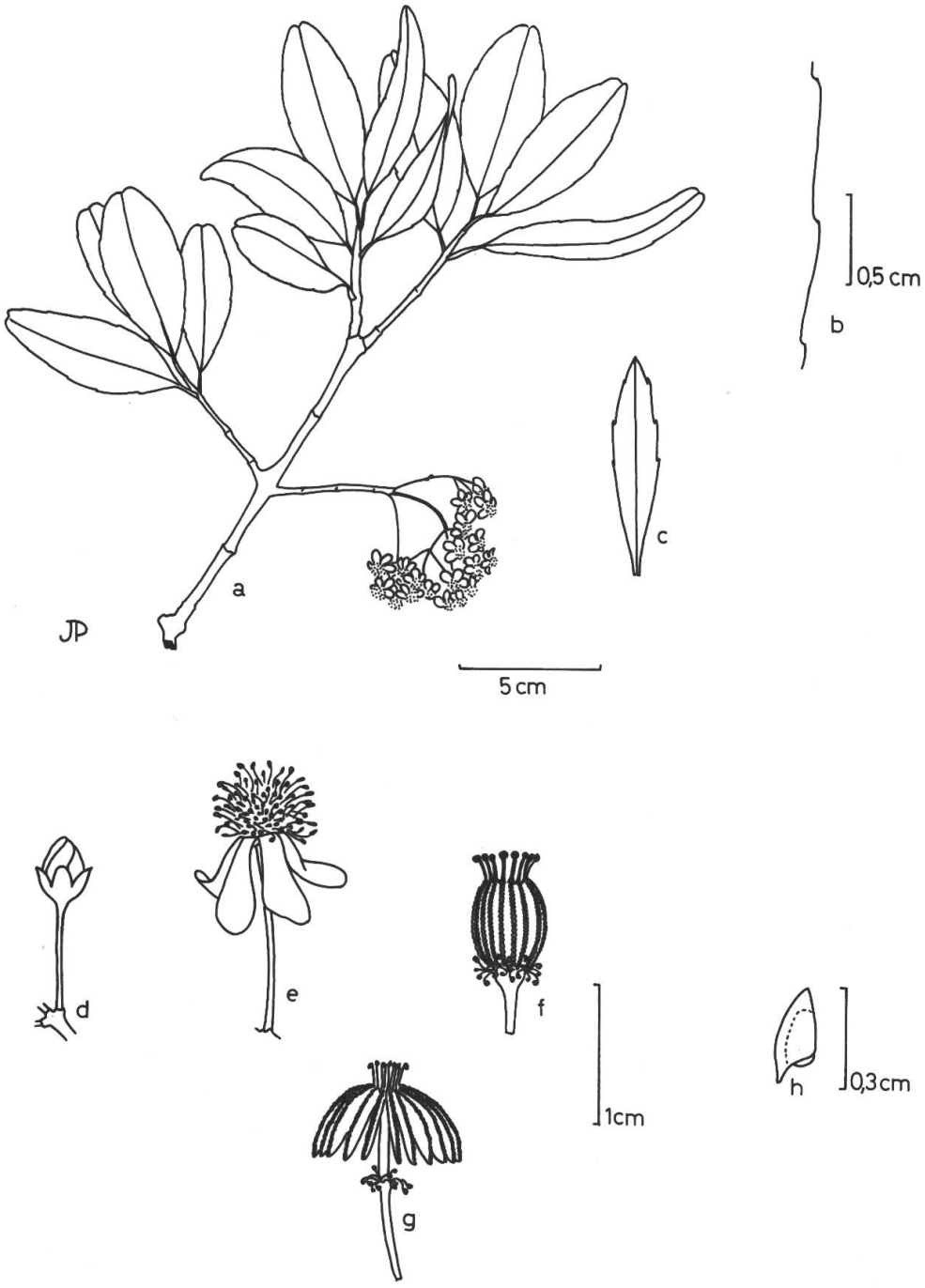

Fig. 2. – *Medusagyne oppositifolia* Baker
a, flowering branch; b, leaf margin; c, leaf of seedling; d, flower bud; e, flower; f, immature fruit; g, fruit after dehiscence; h, seed.

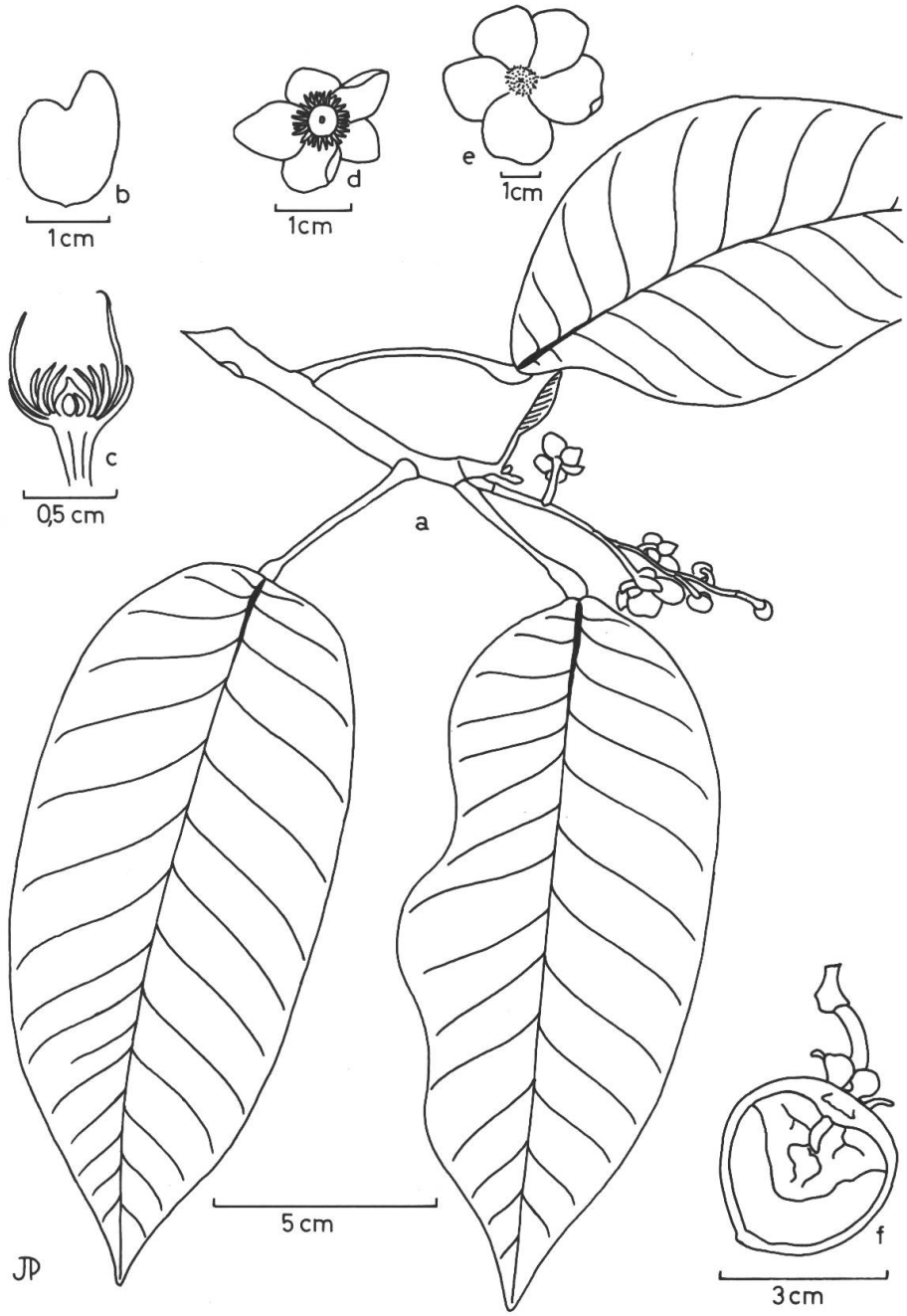

Fig. 3. – *Vateria seychellarum* Dyer
a, flowering shoot; b, petal; c, flower l.s.; d, flower after petals have fallen; e, flower; f, submature fruit l.s.

having regenerated from cut stumps, but a few have only one stem. A few seedlings were observed but there were no young trees. Associated species in approximate order of proximity were:*Albizzia falcata, Verschaffeltia splendida, Timonius sechellensis, Gynura sechellensis, Cinnamomum zeylanicum, Northia hornei, Pandanus sechellarum, Psidium littorale, Artocarpus heterophyllus, Dillenia ferruginea, Protarum sechellarum, Nephrolepis biserrata, Nephrosperma vanhoutteana, Phoenicophorium borsigianum, Dianella ensifolia, Melastoma malabathricum, Colea seychellarum, Erythroxylon sechellarum, Roscheria melanochaetes, Ficus nautarum, Alstonia macrophylla, Angraecum brogniartianum, Dracaena angustifolia, Lantana camara, Lycopodium cernuum, Pandanus hornei, Craterispermum microdon, Lophoschoenus hornei, Eugenia jambos, Bambusa* sp., *Panicum maximum, Elettaria cardamomum, Rubus rosifolius, Stachytarpheta urticifolia, Eugenia caryophyllata, Angiopteris madagascariensis, Clerodendron fallax, Aphloia seychellensis, Premna corymbosa, Campnosperma seychellarum, Eugenia wrightii.*

Represented in Seychelles Herbarium by: *Procter 4529.*

Conservation: whole known population within Morne Seychellois Forest National Park; can be cultivated readily from seed, but seed not often obtainable and young trees often die after a promising start.

Erythroxylaceae

6. Erythroxylon sechellarum O. F. Schulz (fig. 4)

Local name: café marron petite feuille.

Proposed Red Book status: 3.

Distribution: widespread, often in xerophytic communities, M, P, C, D, F; rare S.

Represented in Seychelles Herbarium by: *Procter 4523, 4537; Jeffrey 462, 472, 481, 482, 644.*

Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Balsaminaceae

7. Impatiens gordonii Horne ex Baker

Local name: none.

Proposed Red Book status: 0-1.

Distribution: not known; formerly M, ? S (Summerhayes 1931).

Not represented in Seychelles Herbarium.

Conservation: possibly extinct; may survive within the Morne Seychellois Forest National Park or in the Mt Sebert area.

8. Impatiens thomassetii Hooker fil.

Local name: none.

Proposed Red Book status: 1***.

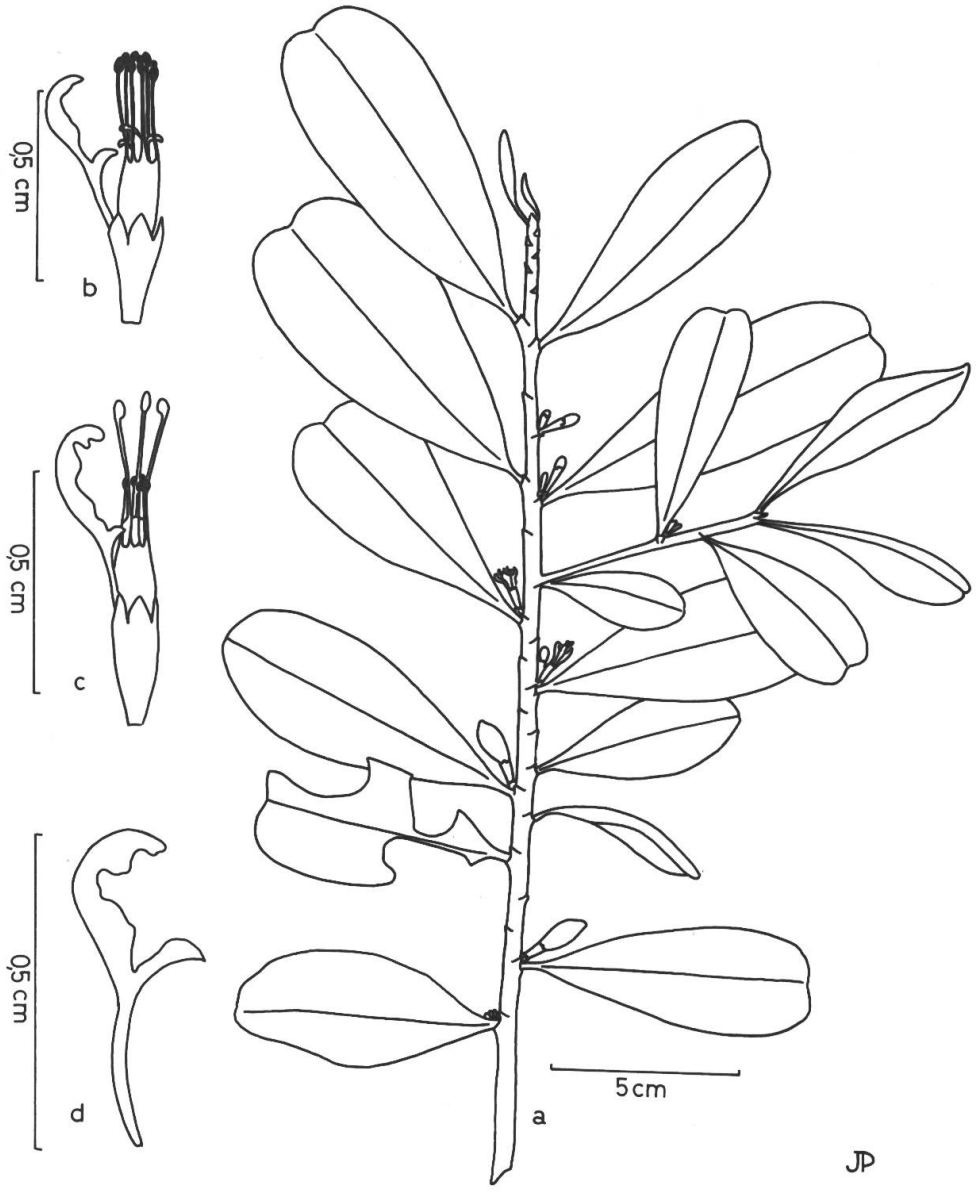

Fig. 4. – *Erythroxylon sechellarum* O. F. Schulz
a, shoot; b, ♂ flower with 4 petals removed; c, ♀ flower with 4 petals removed; d, petal.

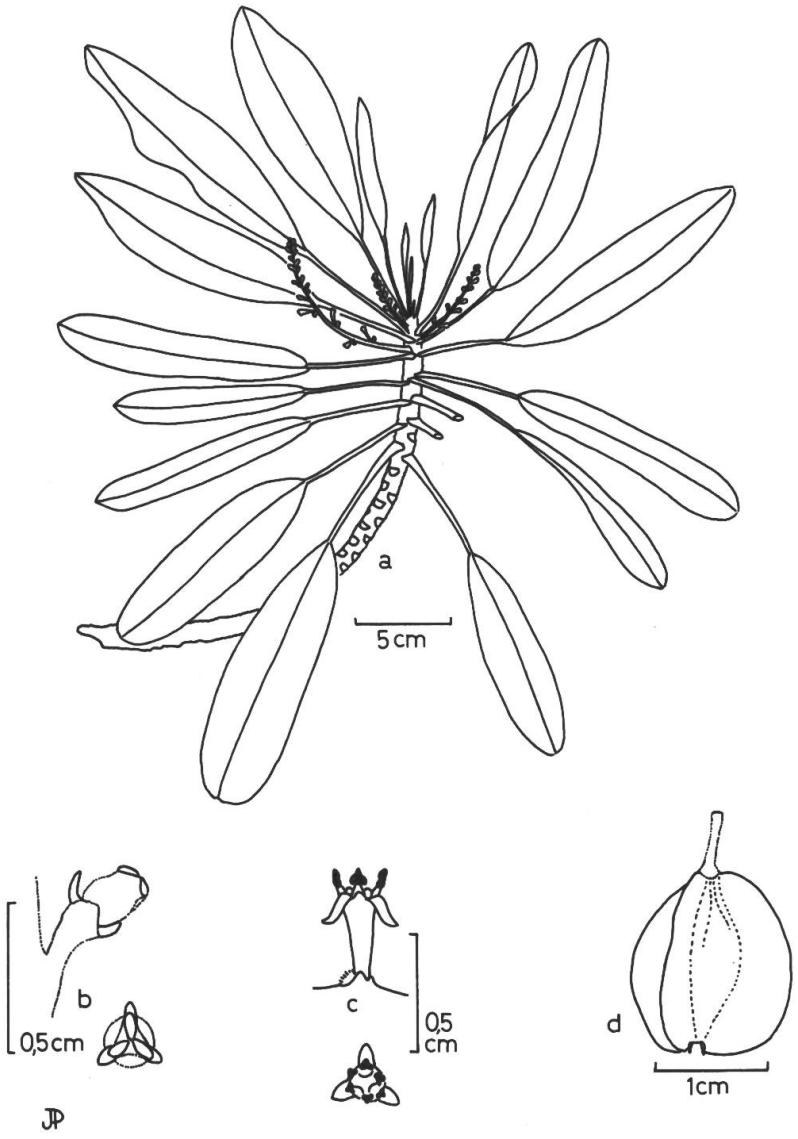

Fig. 5. – *Soulamea terminalioides* Baker
a, flowering shoot ♂; b, ♀ flower; c, ♂ flower; d, fruit.

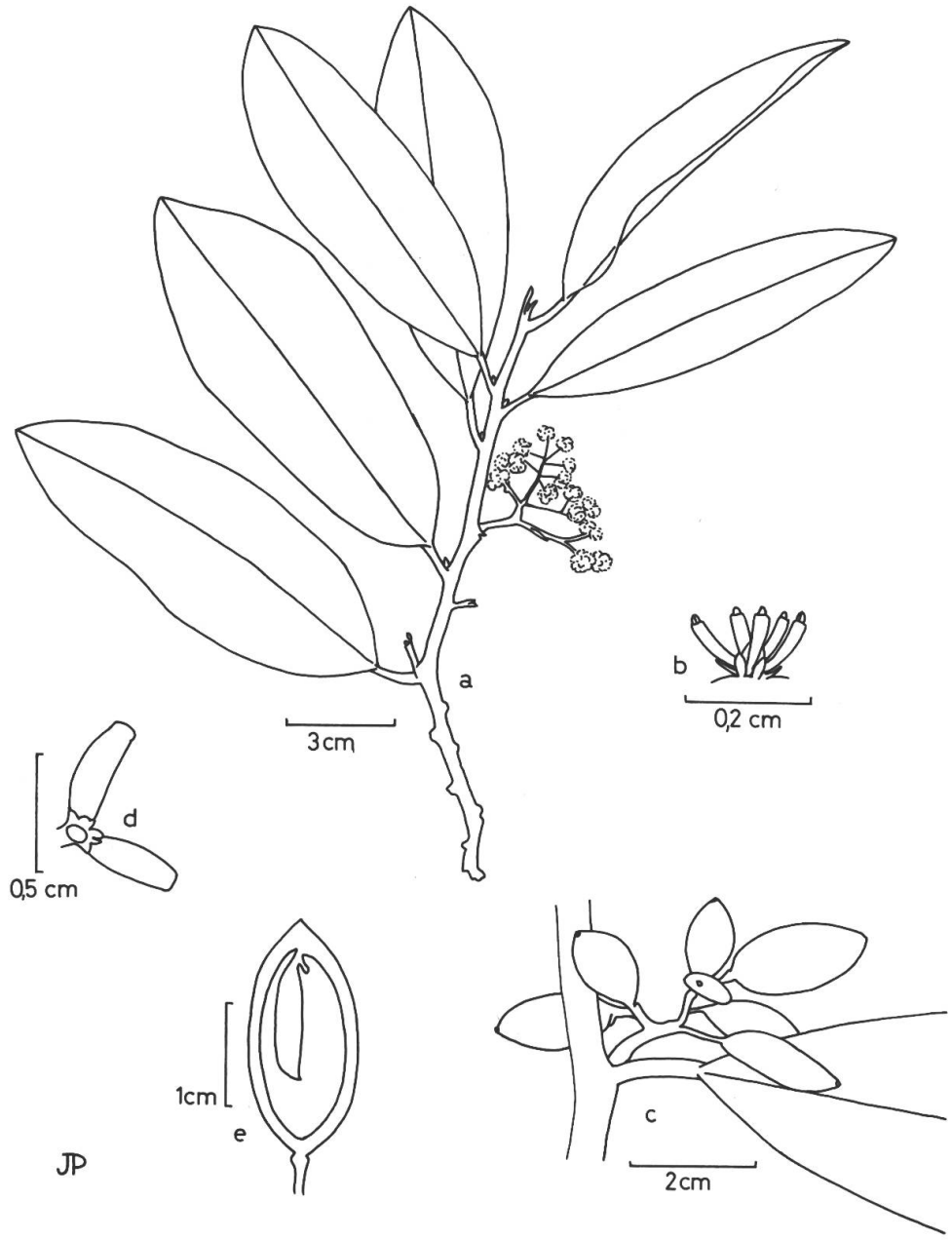

Fig. 6. – *Grisollea thomassetii* Hemsley
a, ♂ shoot; b, ♂ flower; c, ♀ shoot with sub-mature fruits; d, ♀ flower; e, sub-mature fruits l.s.

Distribution: found twice in recent years, M.
Represented in Seychelles Herbarium by: *Procter 3972.*
Conservation: the only known locality for this plant in recent years lies in the Morne Seychellois Forest National Park. It is now in cultivation at Kew.

Simarubaceae

9. Soulamea terminalioides Baker (fig. 5)

Local name: colophante.
Proposed Red Book status: 2.
Distribution and ecology: Local M; formerly S (Summerhayes 1931). A component of xerophytic communities in rocky areas and has therefore probably suffered less from human activity than forest species. Has not recently been observed on Silhouette but may still be present there.
Represented in Seychelles Herbarium by: *Procter 3939, 4239; Jeffrey 572, 645; Fosberg 51986.*
Conservation: represented in Morne Seychellois Forest National Park. Can be cultivated from seed.

Olacaceae

10. Grisollea thomassetii Hemsley (fig. 6)

Local name: no reliable name.
Proposed Red Book status: 2.
Distribution and ecology: rare M; occasional or locally frequent S. A medium-sized tree, probably originally a component of the understory of forest at medium altitudes. Species associated with *Procter 4546* at 420 m in Silhouette were *Colea seychellarum, Dillenia ferruginea, Aphloia seychellensis, Craterispermum microdon, Memecylon eleagni, Tarenna sechellensis, Northia hornei, Pandanus hornei,* etc. Associates of *Procter 4071* at 440 m in Mahé were *Roscheria melanochaetes, Timonius sechellensis, Northia hornei, Indokingia crassa, Canthium carinatum, Phoenicophorium borsigianum, Dillenia ferruginea, Dracaena angustifolia, Colea seychellarum,* etc.
Represented in Seychelles Herbarium by: *Procter 4012, 4015, 4071, 4546, 4547; Jeffrey 697, 807.*
Conservation: represented in Morne Seychellois Forest National Park.

Sapindaceae

11. Allophylus sechellensis Summerhayes

No local name.
Proposed Red Book status: 4.
Distribution: rare M, S, often near sea level.

Represented in Seychelles Herbarium by: *Procter 3999, 4368, 4381, 4469, 4482.*

Conservation: the taxonomy of this species and *A. gardineri* Summerhayes (see Appendix) is unclear and their status must for the time being remain in doubt. Not represented in any proposed National Park or Reserve.

Anacardiaceae

12. Campnosperma seychellarum Marchand (fig. 7)

Local name: bois de montagne.

Proposed Red Book status: 2.

Distribution and ecology: local M. Baker (1877: 62), presumably quoting Horne, states that *Campnosperma* is 'common in all the islands from the shore to the hilltops. Wood used for making canoes.' The first part of this quotation is repeated by Summerhayes (1931). I have seen no evidence that *Campnosperma* occurred on islands other than Mahé. This species, like *Vateria,* may have suffered from exploitation for timber and later for firewood, but it is likely that its former range was the rain-forest areas of Mahé, from near sea level to about 400 m. It was probably a co-dominant in the canopy of forest on the deeper soils, but is now confined to a few areas of steep and inaccessible ground. Species associated with *Procter 4560* at 370 m in Mahé were *Memecylon eleagni, Roscheria melanochaetes, Timonius sechellensis, Deckenia nobilis, Phoenicophorium borsigianum, Nephrosperma vanhoutteana, Randia lancifolia, Northia hornei, Dillenia ferruginea, Dracaena angustifolia, Canthium carinatum,* etc.

Represented in Seychelles Herbarium by: *Procter 4560; Jeffrey 542, 766, 1215.*

Conservation: represented in Morne Seychellois Forest National Park.

Myrtaceae

13. Eugenia wrightii Baker, including *Eugenia sechellarum* Baker

Local name: bois de pomme.

Proposed Red Book status: 3.

Distribution and ecology: widespread M, P, S, C, F. Variable in habit from an erect understory tree to a prostrate shrub trailing over rocks; leaves variable in shape and size according to altitude and exposure; found from sea level to at least 800 m.

Represented in Seychelles Herbarium by: *Procter 3989, 4019.*

Conservation: represented in the Morne Seychellois and Vallée de Mai Forest National Parks.

Melastomaceae

14. Memecylon eleagni Blume (fig. 8)

Local name: bois calou.

Proposed Red Book status: 3.

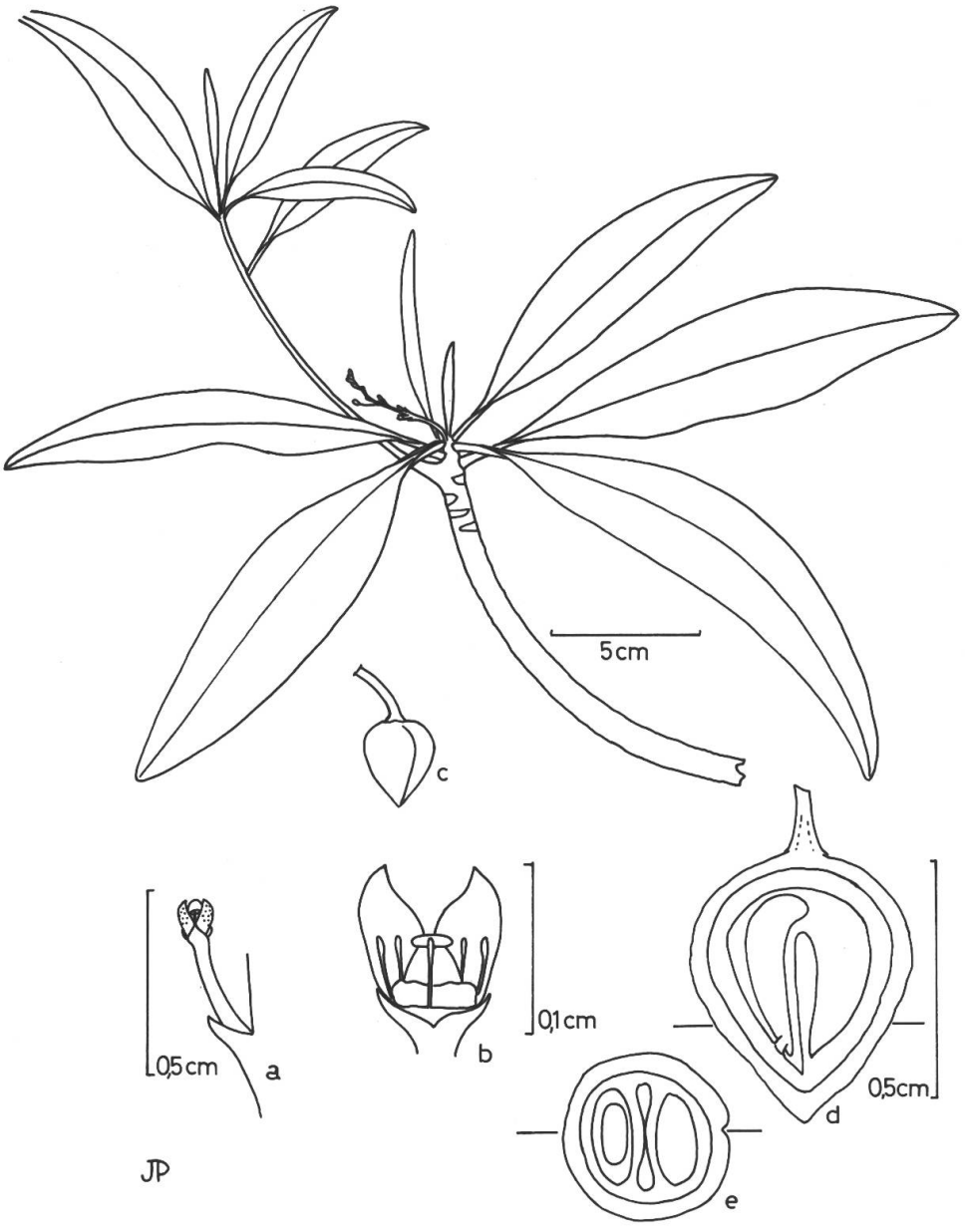

Fig. 7. – *Campnosperma seychellarum* Marchand
a, flower; b, flower with one petal removed; c, young fruit; d, l.s. fruit; e, t.s. fruit.

Fig. 8 – *Memecylon eleagni* Blume
a, shoot; b, sub-mature fruits; c, flower; d, stamen.

Distribution: widespread M, P, S, C, F, D.
Represented in Seychelles Herbarium by: *Procter 3931, 3954; Jeffrey 642, 730; Fosberg 51977.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Begoniaceae

15. Begonia seychellensis Hemsley

Local name: none.
Proposed Red Book status: 2.
Distribution: very locally common M, S.
Represented in Seychelles Herbarium by: *Jeffrey 431, 581, 796.*
Conservation: represented in Morne Seychellois Forest National Park; sensitive to habitat disturbance.

Araliaceae

16. Gastonia sechellarum (Baker) Harms

Local name: bois banane.
Proposed Red Book status: 1.
Distribution: rare M, S, P.
Represented in Seychelles Herbarium by: *Procter 4095; Jeffrey 544.*
Conservation: represented in Morne Seychellois Forest National Park. Difficult to distinguish in the field from the more common *Indokingia crassa* which has the same local name.

17. Geopanax procumbens Hemsley

Local name: none.
Proposed Red Book status: 1.
Distribution: very local S; formerly M (Summerhayes, 1931).
Represented in Seychelles Herbarium by: *Procter 4556; Jeffrey 792.*
Conservation: will be included if the high ridges of Silhouette attain nature reserve status.

18. Indokingia crassa Hemsley

Local name: bois banane.
Proposed Red Book status: 2.
Distribution: frequent M, P, D, F; formerly S (Summerhayes, 1931).
Represented in Seychelles Herbarium by: *Jeffrey 464.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Rubiaceae

19. Canthium carinatum (Baker) Summerhayes

Local name: none.
Proposed Red Book status: 1.
Distribution: very local M.
Represented in Seychelles Herbarium by: *Procter 4070, 4072, 4085.*
Conservation: represented in Morne Seychellois Forest National Park.

20. Canthium sechellense Summerhayes

Local name: none.
Proposed Red Book status: 1.
Distribution: rare M, S.
Represented in Seychelles Herbarium by: *Procter 4078, 4089, 4094, 4522.*
Conservation: represented in Morne Seychellois Forest National Park.

21. Craterispermum microdon Baker (fig. 9)

Local name: bois doux.
Proposed Red Book status: 2.
Distribution: widespread, but nowhere common, M, P, S.
Represented in Seychelles Herbarium by: *Procter 3968, 4013, 4533; Jeffrey 662, 1191, 1226.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

22. Rothmannia annae (Wright) Keay
= *Gardenia annae* Wright, (Summerhayes, 1931).

Local name: bois citron.
Proposed Red Book Status: 2.
Distribution: frequent A; formerly M, P, S (Summerhayes, 1931).
Represented in Seychelles Herbarium by: *Procter 4101, 4102, 4120, 4121, 4435, 4404.*
Conservation: whole known population in Aride Island Special Reserve; can be cultivated readily from seed.

23. Ixora pudica Baker (fig. 10)

Local name: 2.
Proposed Red Book status: 2.
Distribution: occasional on mountain ridges in forest or scrub, M, S.

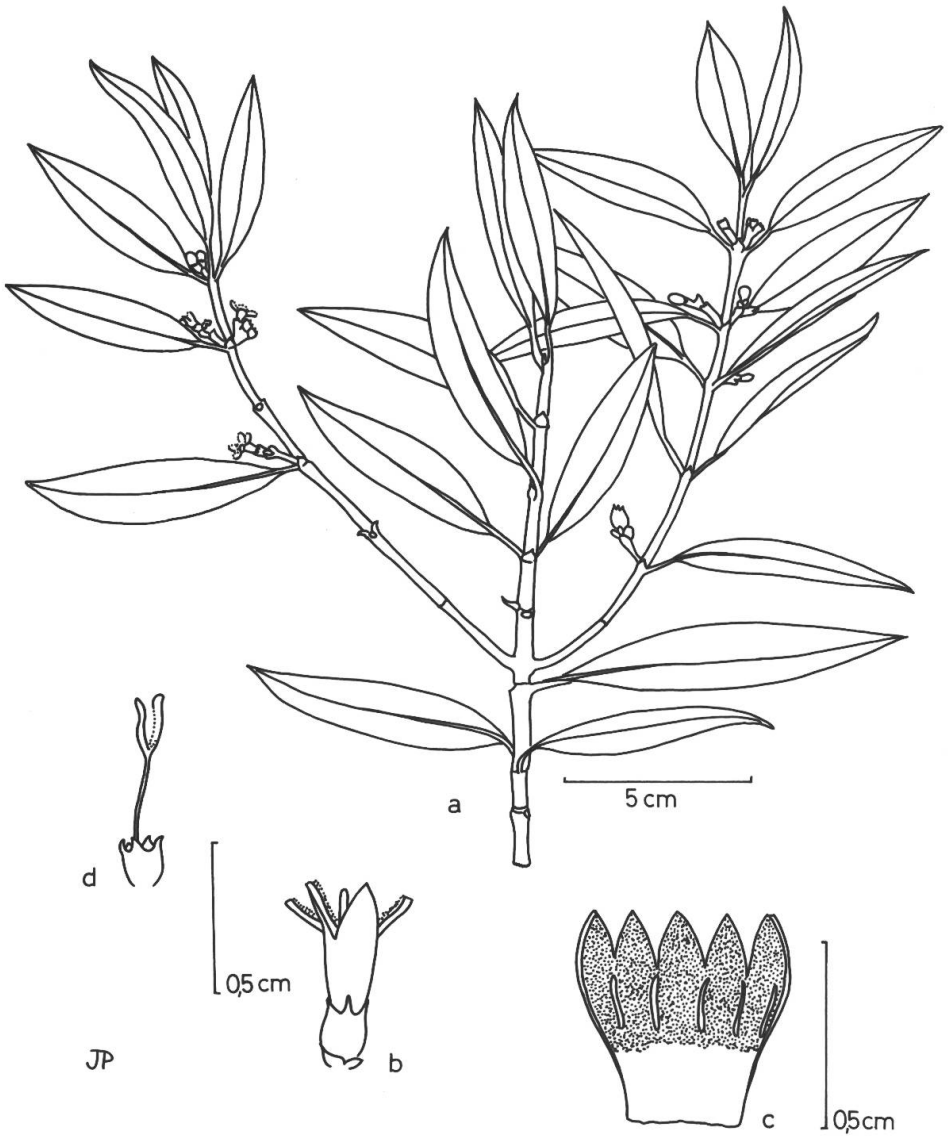

Fig. 9. – *Craterispermum microdon* Baker
a, flowering branch; b, flower; c, open corolla; d, flower (corolla taken away).

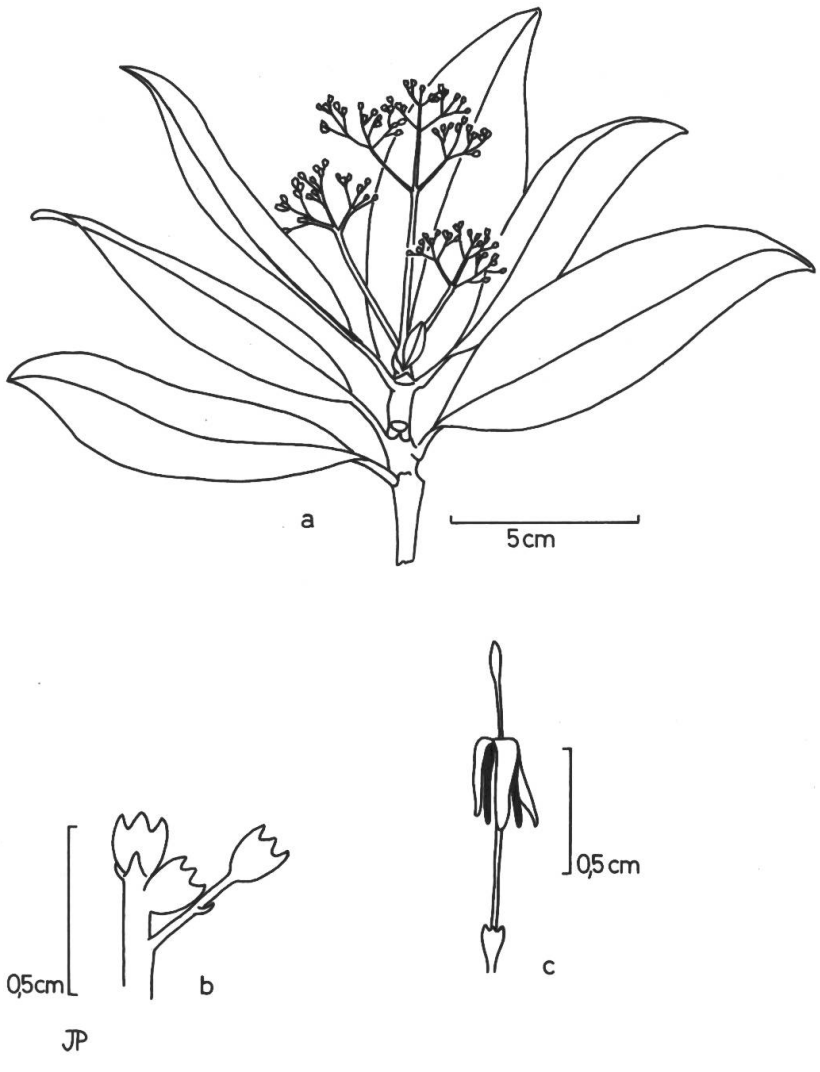

Fig. 10. – *Ixora pudica* Baker
a, flowering branch; b, detail of a part of the inflorescence; c, flower.

Represented in Seychelles Herbarium by: *Procter 4083, 4087, 4538, 4563; Jeffrey 516, 813, 1220.*

Conservation: represented in Morne Seychellois Forest National Park.

24. Psychotria dupontiae Hemsley

Local name: no reliable name.
Proposed Red Book status: 2.
Distribution: Local M, S.
Represented in Seychelles Herbarium by: *Procter 3976, 3932; Jeffrey 415, 667, 723.*
Conservation: represented in Morne Seychellois Forest National Park.

25. Psychotria pervillei Baker
= *P. affinis* Baker, (Summerhayes, 1931).
= *P. pallida* Hemsley, (Summerhayes, 1931).

Local name: bois couleuvre.
Proposed Red Book status: 2.
Distribution: occasional in forest M, P, S.
Represented in Seychelles Herbarium by: *Procter 4011, 4017, 4018, 4066, 4068, 4093; Jeffrey 467, 1189 (P. affinis).*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks. Further work on the taxonomy of this group may result in the reinstatement of one or both of the species that here are treated as synonyms. They are very difficult to distinguish both in the field and in the Herbarium.

26. Psychotria sechellarum (Baker) Summerhayes

Local name: none.
Proposed Red Book status: 1.
Distribution: very local in forest M, S.
Represented in Seychelles Herbarium by: *Procter 4073, 4084; Jeffrey 800.*
Conservation: represented in Morne Seychellois Forest National Park.

27. Randia sericea (Baker) Hemsley

Local name: manglier grand bois.
Proposed Red Book status: 1.
Distribution: very local in exposed situations M, S.
Represented in Seychelles Herbarium by: *Procter 4080, 4513; Jeffrey 461, 768.*
Conservation: represented in Morne Seychellois Forest National Park.

28. Tarenna sechellensis (Baker) Summerhayes

Local name: bois dur bleu.
Proposed Red Book status: 2.
Distribution: occasional M, P, D, F, C; locally frequent S.
Represented in Seychelles Herbarium by: *Procter 4006, 4090.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

29. Timonius sechellensis Summerhayes (fig. 11)

Local name: bois cassant de montagne.
Proposed Red Book status: 3.
Distribution: widespread M, S; local P.
Represented in Seychelles Herbarium by: *Procter 4540; Jeffrey 669; Fosberg 51972.*
Conservation: represented in Morne Seychellois Forest National Park.

Compositae

30. Gynura sechellensis (Baker) Hemsley (fig. 12)

Local name: jacobé.
Proposed Red Book status: 2.
Distribution: occasional M, S.
Represented in Seychelles Herbarium by: *Procter 3991, 4539; Jeffrey 372, 429.*
Conservation: represented in Morne Seychellois Forest National Park.

31. Vernonia sechellensis Baker

Local name: none.
Proposed Red Book status: 0-1 or 4.
Distribution: not known, formerly M (Summerhayes, 1931).
Not represented in Seychelles Herbarium.
Conservation: possibly extinct. Herbarium material should be re-examined critically.

Myrsinaceae

32. Rapanea seychellarum Mez

Local name: none.
Proposed Red Book status: 1***.
Distribution: three localities M; formerly S (Summerhayes, 1931); a small tree in *Northia* – etc., forest at high altitudes.

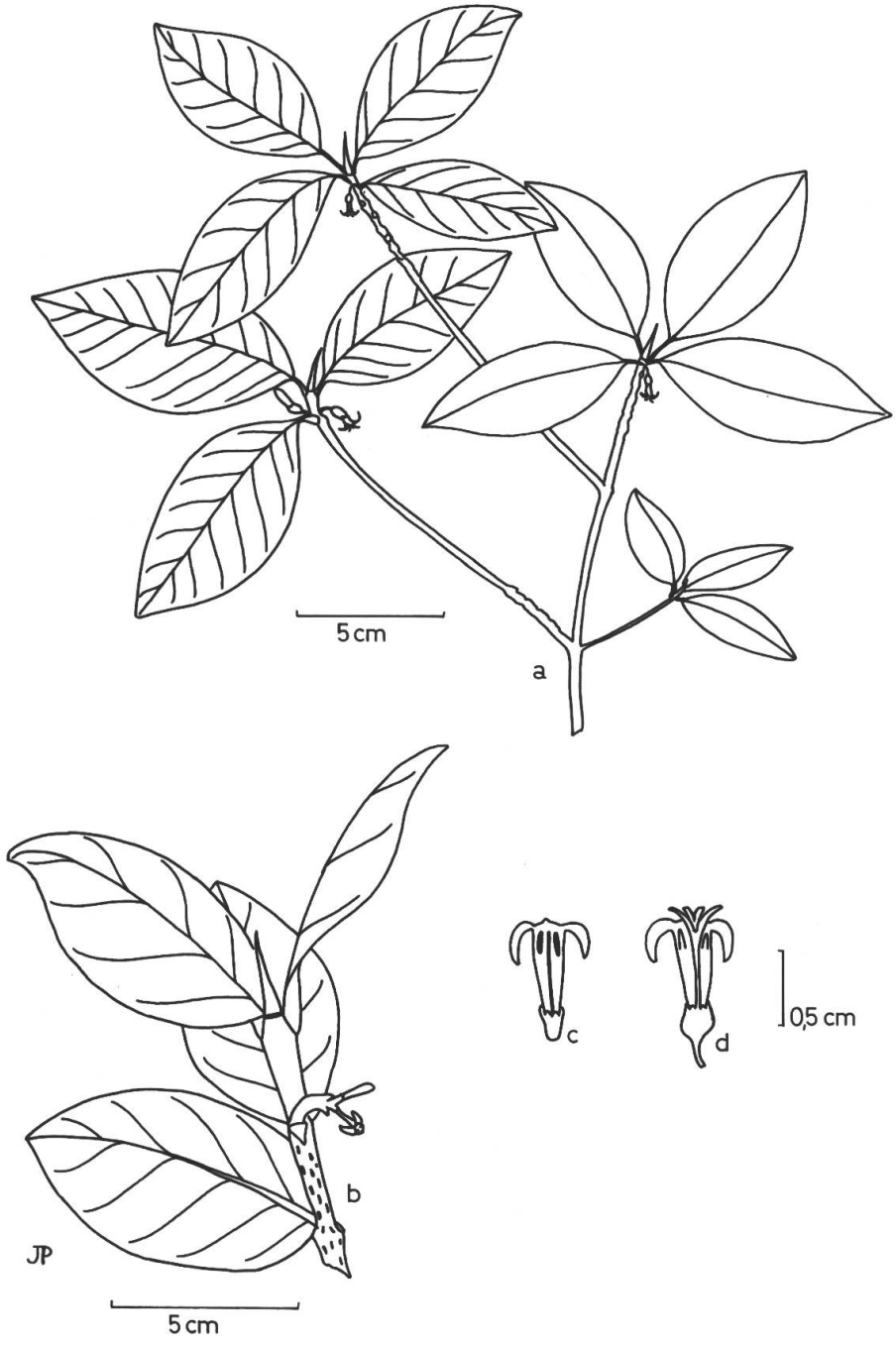

Fig. 11. – *Timonius sechellensis* Summerhayes
a, ♀ shoot; b, ♂ shoot; c, ♂ flower; d, ♀ flower.

Fig. 12. – *Gynura sechellensis* (Baker) Hemsley
a, shoot; b, floret; c, fruiting capitulum.

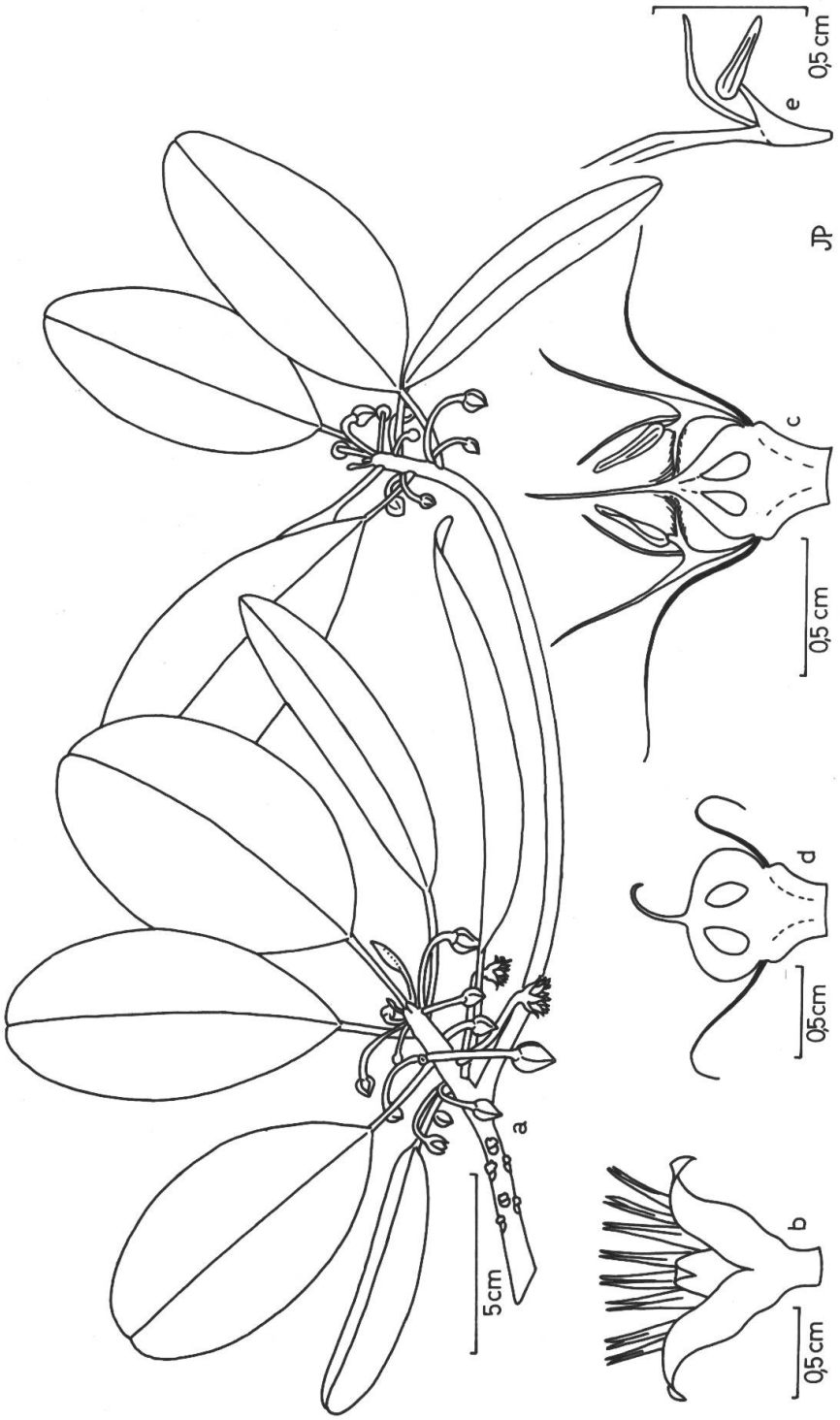

Fig. 13. – *Mimusops sechellarum* (Oliver) Hemsley
a, flowering branch; b, flower; c, flower l.s.; d, young fruit; e, segment of corolla-tube.

Represented in Seychelles Herbarium by: *Procter 4079, 4513, 4569.*
Conservation: in Morne Seychellois Forest National Park.

Sapotaceae

33. Mimusops sechellarum (Oliver) Hemsley (fig. 13)
= *M. decipiens* Hemsley, (Summerhayes, 1931).
= *M. thomassetii* Hemsley, (Summerhayes, 1931).

Local name: bois de natte.
Proposed Red Book status: 2.
Distribution and ecology: occasional M, S, F. This fine timber tree must formerly have been a major component of forests at altitudes from near sea level to about 450 m. On Mahé it is now found only as a stunted relict on rocky outcrops. (It is, for example, present on Mt Sebert, the type locality of *Medusagyne* and is a member of the mountain-top community where *Medusagyne* now grows.) On Silhouette, *Mimusops* may still be found as a large, erect tree, but the forest communities in which it grows now contain many introduced and naturalised species such as *Hevea, Albizzia falcata, Adenanthera pavonina,* etc. Extensive stands of *Mimusops* are reported to have been felled on Marianne Island to provide firewood in the 1920's (H. Dauban, personal communication). From field evidence at present available, there seems no good reason to believe that there is more than one species, varying in habit and leaf shape and texture according to habitat. *Mimusops* grows readily from seed.
Represented in Seychelles Herbarium by: *Procter 3937, 4558; Jeffrey 551, 568, 621, 1187, 1217.*
Conservation: represented in Morne Seychellois Forest National Park. Cultivated in Vallée de Mai Forest National Park.

34. Northia hornei (Hartog) Pierre (fig. 14)
= *N. confusa* Hemsley, (Summerhayes, 1931).

Local name: capucin.
Distribution and ecology: locally abundant M, S; occasional P, F, C. An impressive dominant of forests at the highest altitudes, here rarely growing more than about 12 m high. Is also found at much lower altitudes, e.g. on Praslin and Curieuse and probably in south Mahé, which may indicate that *Northia* was a component of the forests at medium as well as high altitudes. The more important woody associates of *Northia* in a largely undisturbed stand at about 700 m on Mahé were: *Cinnamomum zeylanicum, Roscheria melanochaetes, Cyathea sechellarum, Pandanus sechellarum, Dillenia ferruginea, Psidium littorale, Melastoma malabathricum, Aphloia seychellensis, Verschaffeltia splendida, Psychotria sechellarum,* etc. *Northia* is very variable in habit and leaf-shape according to age and habitat. From field evidence at present available, there seems no good reason to believe that there is more than one species. *Northia* grows readily and rapidly (at least for the first ten years or so) from seed.

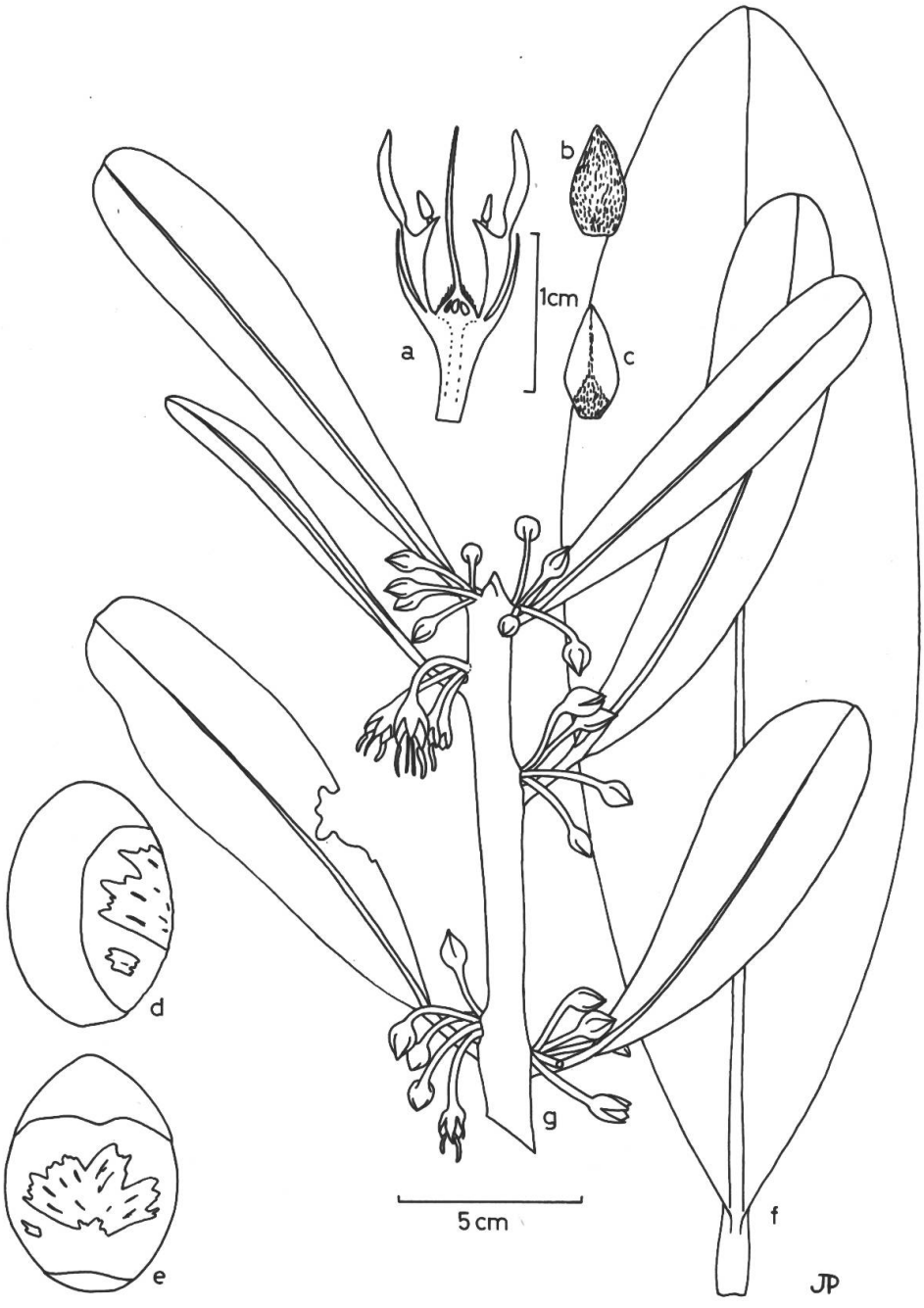

Fig. 14. – *Northia hornei* (Hartog) Pierre
a, section of flower; b, outer perianth segment; c, inner perianth segment; d, e, seed; f, leaf from shoot low in crown; g, flowering shoot from upper crown (a, b, c, same scale; d, e, f, g, same scale).

Represented in Seychelles Herbarium by: *Procter 3978; Jeffrey 1171, 1230.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks; also cultivated in Vallée de Mai Forest National Park.

Ebenaceae

35. Maba seychellarum Hiern (fig. 15)

Local name: bois sagaie.
Proposed Red Book status: 2.
Distribution: local M, P, S, F, in xerophytic communities.
Represented in Seychelles Herbarium by: *Procter 3929, 3949; Jeffrey 1190.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Apocynaceae

36. Carissa sechellensis Baker
= *C. edulis* Vahl subsp. *inermis* M. Pichon var. *sechellensis* (Baker) M. Pichon.

Local name: bois sandal.
Proposed Red Book status: 1***.
Distribution: very local, S; formerly M (Horne in Summerhayes, 1931).
Represented in Seychelles Herbarium by: *Procter 4016, 4555.*
Conservation: habitat will be included if parts of Silhouette attain nature reserve status; the wood is highly aromatic when burned and is used on Silhouette island as a mosquito repellent and occasionally in Hindu funeral pyres. For this reason the species (or var.) is in danger and a special effort is needed to protect it.

Asclepiadaceae

37. Toxocarpus schimperianus Hemsley

Local name: none.
Proposed Red Book status: 1.
Distribution: now confined to C; formerly M (Summerhayes, 1931).
Represented in Seychelles Herbarium by: *Procter 4219; Jeffrey 1231.*
Conservation: habitat will be included if Curieuse Island attains nature reserve status.

Bignoniaceae

38. Colea seychellarum Seem
= *C. pedunculata* Baker, (Summerhayes, 1931).

Local name: bilimbi marron.

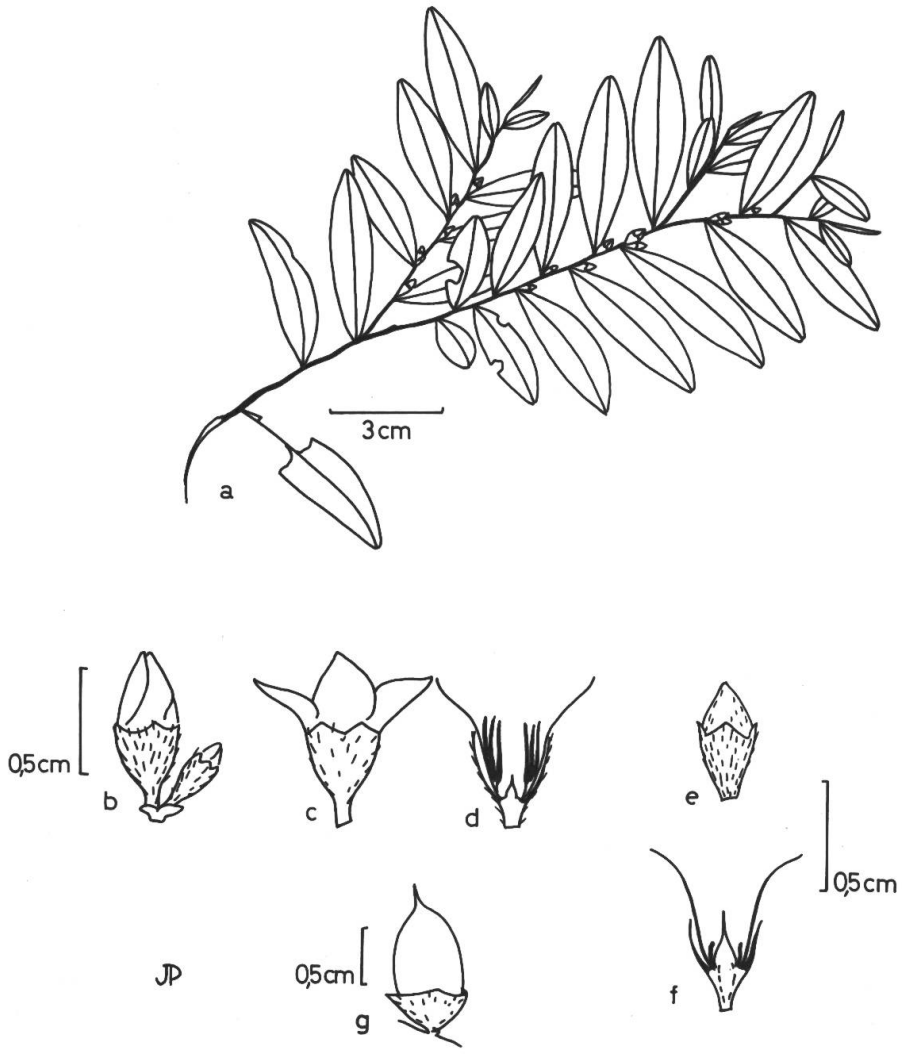

Fig. 15. – *Maba seychellarum* Hiern
a, ♂ flowering shoot; b, ♂ buds; c, ♂ flower; d, ♂ flower l.s.; e, ♀ bud; f, ♀ flower l.s.; g, fruit.

Proposed Red Book status: 2.
Distribution: widespread but nowhere common M, S, as an understory tree in forest at medium altitudes or in rocky places.
Represented in Seychelles Herbarium by: *Procter 4516; Jeffrey 466.*
Conservation: represented in Morne Seychellois Forest National Park.

Labiatae

39. Achyrospermum seychellarum Baker

Local name: none.
Proposed Red Book status: 1.
Distribution: S (one locality in recent years); formerly M (Summerhayes, 1931).
Represented in Seychelles Herbarium by: *Jeffrey 1149.*
Conservation: will be included if parts of Silhouette attain nature reserve status.

40. Coleus subfrutectosus Summerhayes

Local name: none.
Proposed Red Book status: 1.
Distribution: N; formerly M, S (Summerhayes, 1931).
Represented in Seychelles Herbarium by: *Jeffrey 652.*
Conservation: no current proposal for a nature reserve on North Island; the species may still exist on Silhouette.

Nepenthaceae

41. Nepenthes pervillei Blume

Local name: liane pot-à-eau.
Proposed Red Book status: 2.
Distribution and ecology: very locally abundant M (about 10 localities), S (2 localities). A component of the vegetation of rocky areas at medium or high altitudes which are exposed to mist-laden winds. The more important associates of *Nepenthes* at a locality at c. 700 m on Mahé were: *Phoenicophorium borsigianum, Erythroxylon seychellarum, Northia hornei, Dillenia ferruginea, Scleria angusta, Psidium littorale, Aphloia seychellensis, Dianella ensifolia, Timonius sechellensis, Randia sericea, Roscheria melanochaetes, Pandanus sechellarum,* etc. In another, more exposed locality at 500 m, with much bare rock, where *Nepenthes* is particularly well represented, the community is dominated by *Pandanus multispicatus,* with abundant *Lophoschoenus hornei, Memecylon eleagni,* frequent *Mimusops sechellarum, Pandanus sechellarum, Canthium bibracteatum* and local *Gleichenia dichotoma,* etc. *Randia sericea* is present in this community but is rare. The theory that *Nepenthes* and *Randia sericea* are constant and perhaps even obligate associates, due to Horne (cf. Baker, 1877: 151) and elaborated by Vesey-FitzGerald (1940), seems not to be borne out by the present distribution and ecology of the

two species. The most that can be said is that they appear to have similar ecological requirements.

Represented in Seychelles Herbarium by: *Jeffrey 559; Schmidt-Hollinger 82, 83, 84, 85, 86, 87, 93, 95, 97, 98;* Coll. unknown s.n.

Conservation: represented in Morne Seychellois Forest National Park.

Loranthaceae

42. Loranthus sechellensis Baker

Local name: none.

Proposed Red Book status: 0-1.

Distribution: unknown; formerly M, S (Summerhayes, 1931) and P, C (Melville, 1970).

Not represented in Seychelles Herbarium.

Conservation: possibly extinct.

Euphorbiaceae

43. Excoecaria benthamiana Hemsley

Local name: bois jasmin.

Proposed Red Book status: 2.

Distribution: local M, in forest or open communities on ridges; one locality P, in forest.

Represented in Seychelles Herbarium by: *Procter 3938, 4264; Jeffrey 767.*

Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

44. Drypetes riseleyi (Hemsley) A. Shaw
= *Riseleya griffithii* Hemsley (Summerhayes, 1931).

Local name: bois marais petite feuille.

Proposed Red Book status: 2.

Distribution and ecology: very local M, S. Although not described until 1917, must have been an important component of forest at medium altitudes. Its fine-grained, light, white timber is said to have been much in demand for oars. At Casse Dents, Mahé, 390 m, it is associated with *Northia hornei, Dillenia ferruginea, Vateria seychellarum, Pandanus hornei,* etc.

Represented in Seychelles Herbarium by: *Procter 3983, 3984; Jeffrey 797.*

Conservation: represented in Morne Seychellois Forest National Park.

Moraceae

45. Ficus bojeri Baker

No distinctive local name.

Proposed Red Book status: 2 (but see below).

Distribution: occasional in forest M, S, D, F.
Represented in Seychelles Herbarium by: *Procter 3936, 4074, 4557; Jeffrey 432, 1170.*
Conservation: represented in Morne Seychellois Forest National Park.
Note: the distribution, taxonomy and status of several of the figs is not yet clear.

Orchidaceae

46. Agrostophyllum occidentale Schlechter (fig. 16)

No local name.
Proposed Red Book status: 2.
Distribution: occasional in forest as an epiphyte, rarely on rocks or fallen logs, M, S.
Represented in Seychelles Herbarium by: *Jeffrey 732.*
Conservation: represented in Morne Seychellois Forest National Park

47. Angraecum maheense Schlechter

No local name.
Proposed Red Book status: 0-1.
Distribution unknown, formerly M, (Summerhayes, 1931).
Not represented in Seychelles Herbarium.
Conservation: possibly extinct.

48. Bulbophyllum scandens Rolfe

No local name.
Proposed Red book status: 0-1.
Distribution unknown: formerly M, S, (Summerhayes, 1931).
Not represented in Seychelles Herbarium.
Conservation: possibly extinct.

49. Bulbophyllum intertextum Lindley
= *B. seychellarum* Reichenb. fil., (Summerhayes, 1931).

No local name.
Proposed Red Book status: 2.
Distribution: local M, S.
Represented in Seychelles Herbarium by: *Jeffrey 546, 794.*
Conservation: represented in Morne Seychellois Forest National Park.

50. Eulophidium seychellarum Rolfe ex Summerhayes
= *Eulophia seychellarum* Rolfe ex Summerhayes, (Summerhayes, 1931).

No local name.
Proposed Red Book status: 0-1.

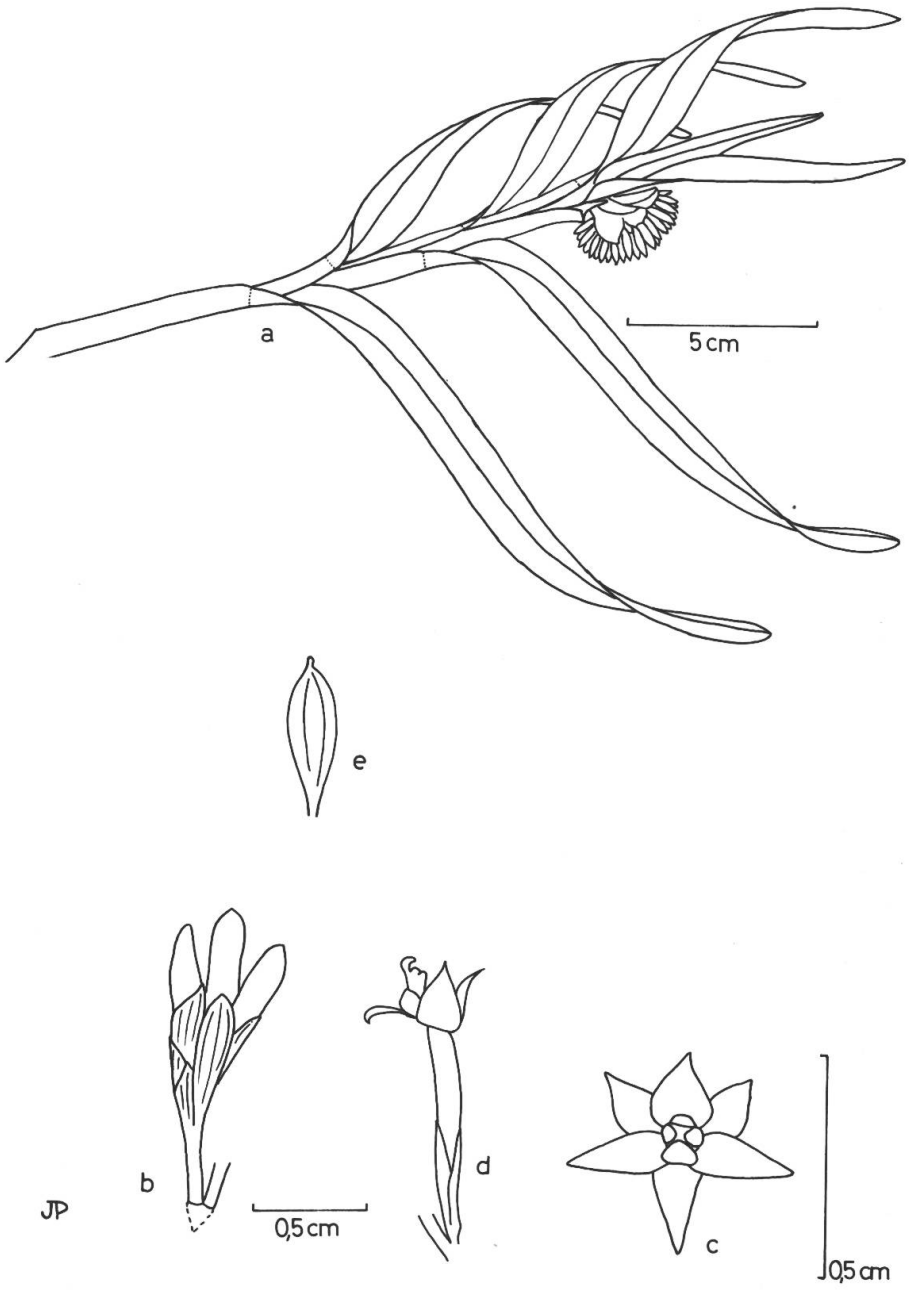

Fig. 16. – *Agrostophyllum occidentale* Schlechter
a, flowering shoot; b, detail of the inflorescence; c, flower, front view; d, flower in profile.

Distribution unknown; formerly M, (Summerhayes, 1931).
Not represented in Seychelles Herbarium
Conservation: possibly extinct.

51. Malaxis seychellarum (Kraenzl.) Summerhayes (fig. 17)
= *Microstylis seychellarum* Schlechter (Summerhayes, 1931).

No local name
Proposed Red Book status: 2.
Distribution: local M, S.
Represented in Seychelles Herbarium by: *Procter 4512; Jeffrey 452, 456, 552.*
Conservation: represented in Morne Seychellois Forest National Park.

52. Platylepis sechellarum S. Moore ex Baker

No local name.
Proposed Red Book status: 0-1.
Distribution unknown; formerly M, S, (Summerhayes, 1931).
Not represented in Seychelles Herbarium.
Conservation: possibly extinct; but an orchid *(Procter 4570),* not in flower, which may be this species, has recently been found on Mt Harrison, Mahé, at 500 m.

53. Vanilla phalaenopsis Reichenb. fil. (fig. 18)

Local name: vanille sauvage.
Proposed Red Book status: 3.
Distribution: widespread but local M, P, S, F.
Represented in Seychelles Herbarium by: *Jeffrey 731.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Hypoxidaceae

54. Curculigo rhizophylla (Baker) Dur. & Schinz

No distinctive local name.
Proposed Red Book status: 3.
Distribution and ecology: widespread M, P, S, C; local D. Habitat varies from open exposed eroded stony red soil on Curieuse Island to deep humic soil under dense forest on Mahé and Praslin. Leaf size varies according to habitat from c. 20 cm to c. 1.5 m length and 0.5 to 15 cm breadth. Leaf tips frequently take root on touching the ground
Represented in Seychelles Herbarium by: *Procter 4272, 4545.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Fig. 17. – *Malaxis seychellarum* (Kraenzl.) Summerhayes
a, whole plant; b, flower in profile; c, flower, front view; d, young fruit; e, distal view of fruit.

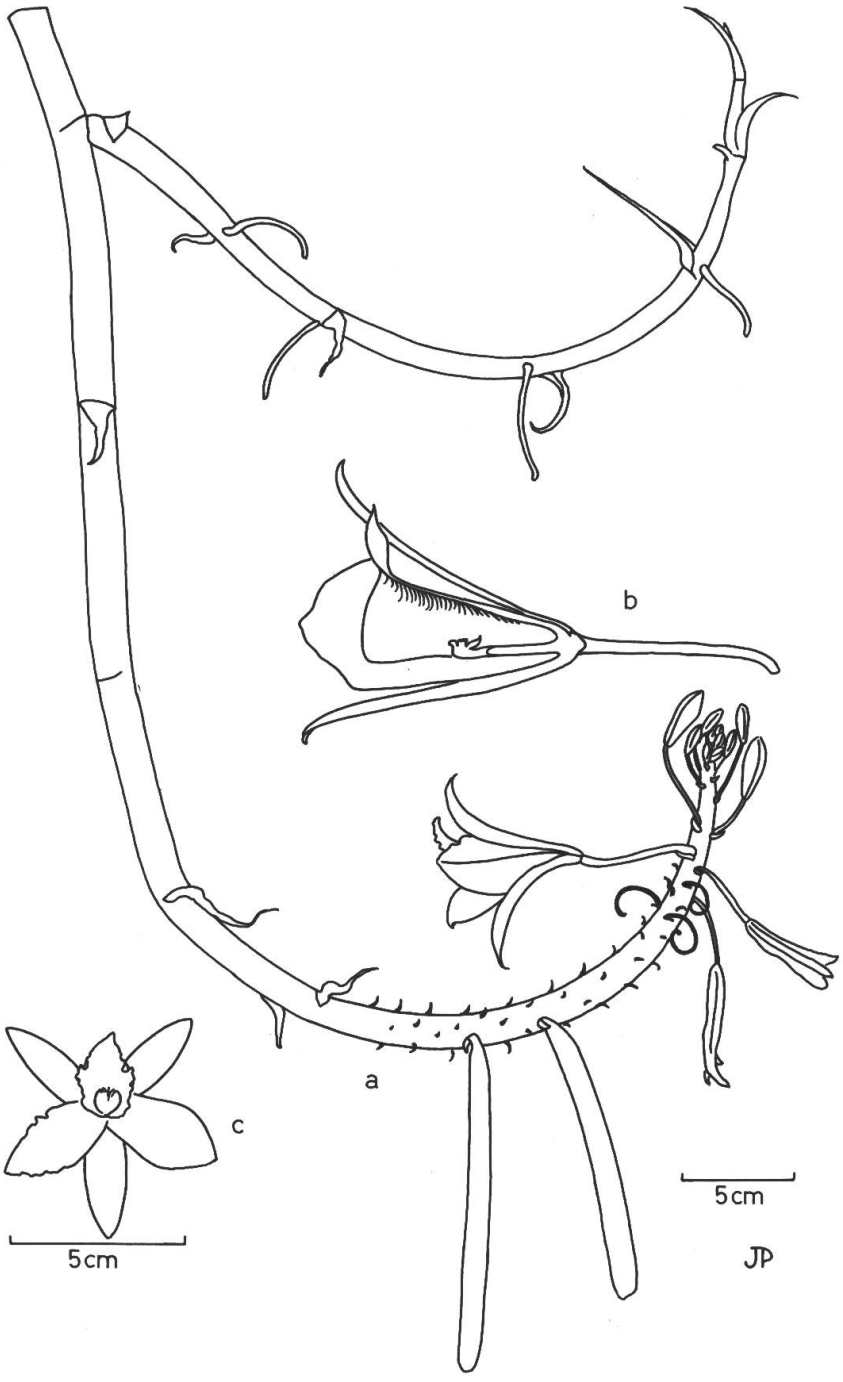

Fig. 18. – *Vanilla phalaenopsis* Reichenb. fil.
a, flowering shoot; b, flower l.s.; c, flower, front view.

55. Curculigo seychellensis Bojer

Local name: coco marron.
Proposed Red Book status: 3.
Distribution and ecology: widespread M; local S; probably introduced P, Fr. Under a dense forest canopy forms clumps up to 1 m diameter at base and 2.5 m high but in exposed sites may reach only 0.5 m in height. Found in many situations but usually where there is an accumulation of humus; does not colonise eroded red soil (cf. *C. rhizophylla*). May formerly have occurred on Praslin but the present population there was introduced by the Forest Division of the Department of Agriculture in about 1961.
Represented in Seychelles Herbarium by: *Jeffrey 484.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks (probably introduced into the latter); can be cultivated from suckers or 'splits' from clumps.

56. Curculigo sp.

No distinctive local name.
Proposed Red Book status: 1.
Distribution and ecology: four localities, M; under *Northia* – etc. forest at high altitudes or secondary scrub derived from forest at medium altitudes. Apparently not as variable as the other two species.
Represented in Seychelles Herbarium by: *Procter 4485, 4514, 4571;* (believed to be represented at Kew by *Vesey-FitzGerald 5479* and *Jeffrey 701*).
Conservation: whole known population within Morne Seychellois Forest National Park.

Palmae

The biology and ecology of the six endemic monotypic genera of Seychelles palms were described by Bailey and Vesey-FitzGerald (in Bailey, 1942) and it is not proposed to add to their account in a list of the present type.

57. Deckenia nobilis (Moore) Wendl. ex Balf.

Local name: palmiste.
Proposed Red Book status: 3.
Distribution: widespread but local M, P, S, D, F, C.
Not represented in Seychelles Herbarium.
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks; can be cultivated readily from seed.

58. Lodoicea maldivica (J. F. Gmelin) Pers.

Local name: coco de mer.
Proposed Red Book status: 2.

Distribution: local P, C. Cultivated M, S, F, D, Fr.
Not represented in Seychelles Herbarium.
Conservation: represented in Vallée de Mai Forest National Park. Can be cultivated readily from seed. This famous palm is protected both by law and by sentiment but the demand for nuts by tourists and others constitutes a threat to the species. The slow-moving biology of coco de mer, however, will give ample time to devise a management scheme which will allow a crop of nuts to be harvested while ensuring that enough remain in the forest for adequate regeneration.

59. Nephrosperma vanhoutteana (Wendl. ex van Houtte) Balf.

Local name: latanier millepatte
Proposed Red Book status: 3.
Distribution: widespread M, P, S; rare C.
Represented in Seychelles Herbarium by: *Jeffrey 408.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

60. Phoenicophorium borsigianum (K. Koch) Stuntz
= *Stevensonia grandifolia* J. Duncan ex Baker.
= *Phoenicophorium sechellarum* Wendl., (Summerhayes, 1931).

Local name: latanier feuille.
Proposed Red Book status: 3.
Distribution: widespread M, P, C, F, D; local S; probably introduced Fr.
Represented in Seychelles Herbarium by: *Jeffrey 471, 643.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

61. Roscheria melanochaetes (Wendl.) Wendl. ex Balf.

Local name: latanier hauban.
Proposed Red Book status: 3.
Distribution: medium and high altitudes in forest M, S; rare P.
Represented in Seychelles Herbarium by: *Jeffrey 728.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

62. Verschaffeltia splendida Wendl.

Local name: latanier latte.
Proposed Red Book status: 2.
Distribution: local at medium altitudes M, P, S.
Not represented in Seychelles Herbarium.
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Pandanaceae

63. Pandanus balfourii Martelli

Local name: vacoa de rivière.
Proposed Red book status: 3 (but see below).
Distribution: widespread, usually on coast, sometimes inland M, P, S, D, C, Fr, F, A, Co, Ce.
Represented in Seychelles Herbarium by: *Jeffrey 631, 692; Fosberg 52092.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks and Aride and Cousin Special Reserves. May be con-specific with the widespread *P. odoratissimus* Balf., in which case should be deleted from this list.

64. Pandanus hornei Balf.

Local name: vacoa parasol.
Proposed Red Book status: 2.
Distribution: local at medium altitudes, often in river valleys, M, P, S, C.
Represented in Seychelles Herbarium by: *Jeffrey 460.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

65. Pandanus multispicatus Balf.

Local name: vacoa de montagne.
Proposed Red Book status: 2.
Distribution: local, sometimes very locally abundant, M, P, S, C.
Represented in Seychelles Herbarium by: *Jeffrey 557, 563.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

66. Pandanus sechellarum Balf.

Local name: vacoa marron.
Proposed Red Book status: 3.
Distribution: widespread M, P, S; local D.
Represented in Seychelles Herbarium by: *Jeffrey 1224.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Araceae

67. Protarum sechellarum Engler

No local name.
Proposed Red Book status: 2.

Distribution: local, usually in forest, M, P, S.
Not represented in Seychelles Herbarium.
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Triuridaceae

68. Seychellaria thomassetii Hemsley

No local name.
Proposed Red Book status: 1***.
Distribution: found only once in recent years, M.
Not represented in Seychelles Herbarium.
Conservation: the only known locality for this plant in recent years lies in the Morne Seychellois Forest National Park.

Cyperaceae

69. Lophoschoenus hornei (C. B. Clarke) Stapf
= *Schoenus xipholepis* Summerhayes (Summerhayes, 1931).

Local name: l'herbe rasoir.
Proposed Red Book Status 3.
Distribution: widespread and locally abundant M, P, C; local S.
Represented in Seychelles Herbarium by: *Procter 4468.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

70. Thoracostachyum angustifolium C. B. Clarke

No local name.
Proposed Red Book status: 2.
Distribution: local M, P, S.
Represented in Seychelles Herbarium by: *Procter 4029, 4217; Jeffrey 1228.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

71. Thoracostachyum floribundum (Ness) C. B. Clarke

No local name.
Proposed Red Book status: 2.
Distribution: local M, P, S, D, C.
Represented in Seychelles Herbarium by: *Procter 3997, 4237.*
Conservation: represented in Morne Seychellois and Vallée de Mai Forest National Parks.

Gramineae

72. Garnotia sechellensis Hubbard & Summerhayes

No local name.
Proposed Red Book status: 1.
Distribution: rare M, S, (three localities only), but believed to be very locally abundant on a few inaccessible cliffs high up on Mahé (seen through binoculars).
Represented in Seychelles Herbarium by: *Procter 4476, 4488; Jeffrey 1142.*
Conservation: the two known Mahé localities are in Morne Seychellois Forest National Park.

Appendix

Plants listed by Summerhayes (1931) as endemics but which are excluded from the present list or are treated as synonyms. Further work is required, either in herbaria and libraries or in the field, before these species can be admitted to the Seychelles list.

Dilleniaceae

1. **Neowormia ferruginea** (Baillon) Hutchinson & Summerhayes = *Dillenia ferruginea* (Baillon) Gilg

Rhizophoraceae

2. **Cassipourea paradoxa** Alston (= *C. gummiflua* Tul.)

Sapindaceae

3. **Allophylus gardineri** Summerhayes

Myrtaceae

4. **Eugenia sechellarum** Baker = *E. wrightii* Baker

Rubiaceae

5. **Gardenia annae** Wright = *Rothmannia annae* (Wright) Keay
6. **Oldenlandia hornei** Baker = *O. macrophylla* DC.
7. **Psychotria affinis** Baker = *P. pervillei* Baker
8. **Psychotria pallida** Hemsley = *P. pervillei* Baker

Sapotaceae

9. **Mimusops decipiens** Hemsley = *M. sechellarum* (Oliver) Hemsley
10. **Mimusops thomassetii** Hemsley = *M. sechellarum* (Oliver) Hemsley
11. **Northea confusa** Hemsley = *N. hornei* (Hartog) Pierre

Bignoniaceae

12. **Colea pedunculata** Baker = *C. seychellarum* Seem.

Acanthaceae

13. **Justicia gardineri** Turrill

Euphorbiaceae

14. **Phyllanthus schimperianus** Hemsley = *P. casticum* Willem.
15. **Riseleya griffithii** Hemsley = *Drypetes riseleyi* (Hemsley) A. Shaw

Moraceae

16. **Bosqueia gymnandra** Baker
17. **Ficus sechellarum** Summerhayes

Orchidaceae

18. **Bulbophyllum seychellarum** Reichenb. fil. = *B. intertextum* Lindley
19. **Eulophia seychellarum** Rolfe ex Summerhayes = *Eulophidium seychellarum* Rolfe ex Summerhayes
20. **Microstylis seychellarum** Schlechter = *Malaxis seychellarum* (Kraenzl.) Summerhayes

Palmae

21. **Phoenicophorium sechellarum** Wendl. = *P. borsigianum* (K. Koch) Stuntz

Cyperaceae

22. **Hypolytrum seychellense** C. B. Clarke
23. **Schoenus xipholepis** Summerhayes = *Lophoschoenus hornei* (C. B. Clarke) Stapf

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Address of the author: 3, Kingsknowe Crescent, Edinburgh EH14 2JZ, Scotland/UK.