

A SYNOPSIS OF THE MALESIAN
SPECIES OF POLYSCIAS (ARALIACEAE)

W. R. PHILIPSON

Department of Botany, University of Canterbury, New Zealand

The type species of the genus *Polyscias* (*P. pinnata* J. R. & G. Forst.) is closely related to a small number of Pacific and Indo-Malayan species, several of which have long been in cultivation. This group of species have a distinctive facies but can be defined most readily by the elongated sheathing leaf-base. The genus has usually been extended beyond this group to include other pinnate-leaved members of sub-family *Schefflereae* in which the pedicel is articulated below the flower. There has been uncertainty whether to restrict the genus to species in which the style arms are free or also to include species with connate styles. In his treatment of the New Guinea species, Harms (Bot. Jahrb. 56, 1920: 374—414) does include some species with connate styles within *Polyscias* though also retaining the genus *Kissodendron*, a genus distinguished from *Polyscias* mainly by the united style arms. Bernardi (Candollea 26, 1971: 13—89) resolved this difficulty by uniting *Kissodendron*, and also *Palmervandenbroekia*, with *Polyscias* and this treatment is followed here. As thus defined, the genus comprises rather diverse elements, and these have been given sectional status.

POLYSCIAS

Polyscias J. R. & G. Forster, Char. Gen. (1776) 63, t. 32.

I. Sect. *Polyscias*

1. *Polyscias fruticosa* (L.) Harms in E. & P., Nat. Pfl. Fam. 3, 8 (1894) 45.
2. *Polyscias macgillivrayi* (Seem.) Harms in E. & P., Nat. Pfl. Fam. 3, 8 (1894) 45.
3. *Polyscias verticillata* Stone, J. Arn. Arb. 47 (1966) 272.
4. *Polyscias scutellaria* (Burm. f.) Fosberg, Univ. Hawaii Occ. Pap. 46 (1948) 9.
5. *Polyscias guilfoylei* (Cogn. & Marché) L. H. Bailey, Rhodora 18 (1916) 153.
6. *Polyscias cumingiana* (C. Presl) F.-Vill., Nov. App. (1880) 102.
7. *Polyscias javanica* K. & V., Bijdr. 7 (1900) 13.

2. Sect. *Gelibia* (Hutch.) Philipson, *sect. nov.*

Gelibia Hutchinson, Gen. Fl. Pl. 2 (1967) 57.

8. *Polyscias elegans* (C. Moore & F. v. Muell.) Harms in E. & P., Nat. Pfl. Fam. 3, 8 (1894) 45.

3. Sect. **Eupteron** (Miq.) Philipson, *sect. nov.*

Eupteron Miq., Pl. Jungh. 3 (1855) 420.

Note. Harms (in E. & P., Nat. Pfl. Fam. 3, 8, 1894: 44) employs the name *Cephalopolyscias* for *P. nodosa*, but it is considered that he did not intend this as a sectional name. In his treatments of other genera with sections, he provides sectional names to cover the whole genus and he follows the sectional names with his own as author. In *Polyscias* he uses no other infra-generic names and he does not cite an authority for *Cephalopolyscias*. This name is therefore invalid and a new sectional name (derived from Miquel's genus) is adopted.

9. **Polyscias nodosa** (Bl.) Seem., J. Bot. 3 (1865) 181.

10. **Polyscias florosa** Philipson, *sp. nov.*

Arbor parva, 10 m alta, glabrescens. *Folia* imparipinnata, ad 2 m longa; foliola oblonga c. 22 × 8 cm, chartacea, margine crenato, apice acuminata, basi truncata vel sub-cordata. *Panicula* grandis terminalis. Umbellulae racemosae, pedunculis 10—20 mm longis. Pedicelli 3—5 mm longi. *Calyx* margine undulato. *Petala* 5. *Stamina* 5. *Ovarium* 5-loculare, stylis discretis. *Drupae* sub-globosae, 8 × 6 mm, stylis reflexis.

T y p u s: Luzon, Prov. of Sorsogon, Mt. Bulusan, Aug. 1916, *Elmer 16981* (K).

D i s t r. Philippines, Luzon: Mt. Bulusan, Sorsogon Prov., and Mt. Malinao, Albay Prov.

E c o l. Rarely collected in montane forest (560 m).

N o t e s. The leaves are very similar to those of *P. nodosa*, with which this species has often been confused. However, the pedicellate flowers are quite distinctive. The manuscript name *P. floribunda* appeared on Elmer's herbarium labels, but he later treated this as a synonym of *P. nodosa* (see Leaflets Philip. Bot. 10, 1939: 3809).

11. **Polyscias ledermannii** Harms, Bot. Jahrb. 56 (1921) 409.

12. **Polyscias borneensis** Philipson, J. Bot. 78 (1940) 118.

13. **Polyscias belensis** Philipson, Bull. Brit. Mus. Bot. 1 (1951) 13.

14. **Polyscias philipsonii** Bernardi, Ber. Schweiz. Bot. Ges. 74 (1966) 364.

4. Sect. **Kissodendron** (Seem.) Philipson, *sect. nov.*

Kissodendron Seem., J. Bot. 3 (1865) 201.

15. **Polyscias bipinnata** (Gibbs) Philipson, *comb. nov.*

Kissodendron bipinnatum Gibbs, Arfak (1917) 161.

16. **Polyscias zippeliana** (Miq.) Valetton, Bull. Dépt. Agr. Ind. Néerl. 10 (1907) 42.

17. **Polyscias royenii** Philipson, *sp. nov.*

Arbor humilis tomento rufo ubique persistente. *Folia* imparipinnata, c. 1 m longa; foliola oblongo-ovata, ad 24 × 11 cm, coriacea, apice attenuata vel apiculata, basi truncata vel sub-cordata. *Panicula* terminalis ad 60 cm longa. *Calyx* 5-dentatus, furfuraceus. *Petala* 5. *Stamina* 5. *Ovarium* 2(3)-loculare, stylis connatis. *Drupae* rotundae compressae, 7—9 × 8—10 mm, stylopodio projecto.

T y p u s: New Guinea, Cycloop Mts., *van Royen 3754* (L).

D i s t r. New Guinea: from the Cycloop Mts. to the Eastern Highlands District.

E c o l. Terrestrial or epiphytic in primary or secondary montane forest, 1200—2400 m.

Note. A species readily characterized by the sympodial monocaul habit with thick leathery leaflets, a large rigid furfuraceous inflorescence, and large compressed black fruits with a glaucous bloom.

18. *Polyscias schultzei* Harms, Bot. Jahrb. 56 (1921) 410.

19. *Polyscias australiana* (F. v. Muell.) Philipson, *comb. nov.*

Hedera australiana F. v. Muell., Fragm. 4 (1864) 120.

var. **disperma** (F. v. Muell.) Philipson, *comb. nov.*

Kissodendron australianum (F. v. Muell.) Seem. var. *dispermum* F. v. Muell., Descr. Notes Papuan Pl. 5 (1877) 88.

5. Sect. **Palmervandenbroekia** (Gibbs) Philipson, *sect. nov.*

Palmervandenbroekia Gibbs, Arfak (1917) 162.

20. *Polyscias sleumeri* Philipson, *sp. nov.*

Frutex c. 1.5 m altus, rufo-tomentosus. *Folia* imparipinnata, c. 35 cm longa; foliola oblonga, ovata vel elliptica, ad 16×6 cm, chartacea, apice attenuata vel apiculata, basi rotundata vel cuneata. *Umbella* composita terminalis brevis, rufo-tomentosa. *Calyx* 5-dentatus. *Petala* 5. *Stamina* 5. *Ovarium* 2-loculare, stylis connatis. *Drupae* rotundae vel ovoideae, compressae, 5—6×5 mm, stylopodio projecto.

T y p u s: Vogelkop Peninsula, Ije River valley, *van Royen and Sleumer 7590* (L).

D i s t r. New Guinea: West Irian, Vogelkop Peninsula, Ije River; Northern Distr. Cycloop Mts.

E c o l. Undergrowth in primary forest, 450—1000 m.

N o t e. The flowers are creamy white, the fruit dark red.

21. *Polyscias jacobsii* Philipson, *sp. nov.*

Frutex usque ad 3 m. altus, furfuraceus. *Folia* imparipinnata, c. 45 cm longa; foliola oblonga vel elliptica, c. 12×4 cm, chartacea, apice attenuata vel caudata, basi truncata vel cuneata. *Umbella* composita laxa terminalis ramulosis sub anthesi plus minusve glabris. *Calyx* 5-dentatus. *Petala* 5. *Stamina* 5. *Ovarium* 2-loculare, stylis connatis. *Drupae* rotundae compressae, 8×9 mm, stylopodio projecto.

T y p u s: Papua, Mt. Bosavi, *Jacobs 8862* (L).

D i s t r. New Guinea, Papua, Mt. Bosavi.

E c o l. On old well-drained volcanic soil in primary mixed forest, mostly on ridges and upper slopes, 1600—2100 m.

N o t e. An aromatic single-stemmed shrub. The flowers are white and the fruit dark purple.

22. *Polyscias palmervandenbroekii* Bernardi, Candollea 26 (1971) 16.

23. *Polyscias vogelkopensis* Philipson, *sp. nov.*

Frutex parvus c. 1 m altus. *Folia* imparipinnata magnitudine variantia; foliola elliptica vel ovata, 3—12×1.2—4 cm, chartacea, apice attenuata vel apiculata, basi cuneata. *Umbella* composita parva pedicellis glabris. *Calyx* 5-dentatus. *Petala* 4 vel 5. *Stamina* 4 vel

5. *Ovarium* 2-loculare, stylis connatis. *Drupae* ovoideae compressae, 5 × 4 mm, stylopodio projecto.

T y p u s: West New Guinea, Vogelkop Peninsula, Netti Range, *van Royen and Sleumer 7887* (L).

D i s t r. New Guinea: West Irian, Vogelkop Peninsula, Netti Range and Aifat River.

E c o l. Primary submontane forest (*Nothofagus*, *Castanopsis*, Conifer); heath vegetation; or in open places, 1200—2000 m.

N o t e s. A delicate shrub, often unbranched. The material from Aifat River has larger leaves than that from the Netti Range. The flowers are cream or light yellow, and the fruits orange with black stylopodium.