

A PRELIMINARY SYNOPSIS OF THE GENUS RHODODENDRON

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ABSTRACT. A preliminary and partial synopsis of the genus *Rhododendron* (Ericaceae), including supraspecific groups (sections and subsections replacing the series of the older British classification) as well as species, subspecies and varieties is presented. Many new combinations and changes of status are made, and several new taxa, including four new Asiatic species (*R. faucium* Chamberlain, *R. pseudociliipes* Cullen, *R. subansiriense* Chamberlain & Cox and *R. yungchangense* Cullen), are described.

The genus *Rhododendron*, reputedly the largest flowering plant genus in Asia, has never been completely revised. The latest revision of the non-Malesian species was published in 1930 (Hutchinson & Tagg in Stevenson, 1930); and the Malesian species have been revised for *Flora Malesiana* (Sleumer, 1966).

In the past, the Royal Botanic Garden, Edinburgh has been closely involved with the taxonomy of the genus. Much of the work on the newly-introduced Chinese species was done in the early part of this century by the then Regius Keeper, Sir Isaac Bayley Balfour; and after his death in 1919, the work was carried on by his successor, Sir William Wright Smith, and by Harry Tagg, who worked in association with John Hutchinson at Kew to produce *The Species of Rhododendron* (Stevenson, 1930), a taxonomic synthesis of the information available at the end of the great period of *Rhododendron* discovery initiated by Delavay, Forrest and others at the turn of the century. After the publication of *The Species of Rhododendron*, taxonomic work on the genus continued at a reduced rate, with J. M. Cowan and H. H. Davidian producing descriptions of new species and providing revisions of small groups within the genus (cf. Cowan & Davidian, 1947, 1948, 1949, 1951, 1955; Davidian, 1954, 1963).

In 1972 the present authors began work on the genus, in an attempt to provide a classification acceptable to modern standards, and taking into consideration much of the new information (morphological, cytological, anatomical and chemical) that has become available since the 1950s.

The present necessarily incomplete synopsis will provide a framework for a discussion of the taxonomic implications of recent research. This includes an expanding literature on *Rhododendron* phytochemistry (e.g. Harborne & Williams, 1971) and in particular a comprehensive survey, at present largely unpublished, of leaf wax terpenes and hydrocarbons, carried out by Dr B. A. Knights of the Department of Botany, Glasgow University, in conjunction with the Royal Botanic Garden, Edinburgh. Equally, both cytological and anatomical studies (Hayes, Keenan & Cowan, 1951; Janaki-Amal, 1950; Seithe, 1960; Hedegaard, 1968) have made contributions useful to the taxonomy of the genus. This new information has stimulated a reappraisal

on more classical lines, of the available herbarium material, including a search for new characters and a reassessment of those used traditionally for separating the taxa.

SPECIFIC AND INFRASPECIFIC CONCEPTS

In general terms we have used a specific concept deriving from the formulations of Du Roi (1930), and as applied in many modern revisions and Floras (cf. Hedberg, 1950, *Flora Malesiana*, *Flora Europaea*, *Flora of Turkey*, etc.). The use of infraspecific taxa (subspecies, varieties) also conforms with the practice adopted in the above-mentioned works. No attempt has as yet been made to deal with taxa of purely horticultural interest (cultivars), and taxa known only in cultivation, or which appeared as 'rogues' in batches of seed from the wild, are, in general, excluded.

SUPRASPECIFIC CLASSIFICATION

The publication of *The Species of Rhododendron* stabilised the *ad hoc* system of about 45 'Series' devised by Bayley Balfour for dealing with the influx of much new material. This artificial, though in its time useful, system is by now completely obsolete and anachronistic, and has been superseded by the system (more hierarchical and 'natural') developed by Sleumer (1949, 1966). We have used Sleumer's system as the basis for our work, but have made numerous modifications to it.

We are working towards a complete revision of the genus (excluding Sect. *Vireya*—composed of the Malesian species revised by Sleumer); the full results should be published in about 4–5 years. The Philipsons' account of Subsect. *Lapponica* (1975) will be incorporated (as it is in the present synopsis), and the same authors are undertaking the revision of those groups that formed the 'Azalea Series' and their immediate allies the *Ovatum* and *Stamineum* Series in the Hutchinson & Tagg classification.

Formal revisions of sections and subsections will be published as they are completed, beginning in 1978. These will contain the relevant nomenclature and synonymy along with formal descriptions and diagnostic keys for the taxa recognised. A summary of the geographical distribution will be given and, wherever possible, distribution maps will be included.

The synopsis presented here includes major infrageneric taxa based on Sleumer's classification in which subgenera, sections and subsections are recognised. Changes are made where recent studies indicate that they are necessary. A list of species, subspecies and varieties with appropriate synonymy is included for those sections or subsections that have been revised to date, together with the necessary changes in nomenclature. Descriptions are provided for the new taxa. Species, for which no material has been seen and which are not clearly synonymous with other taxa are marked with an asterisk.

The subsections and species of sect. *Rhododendron* (i.e. the greater part of the lepidote species) are listed in what is thought to be an order based on relationships; whereas those of subgenus *Hymenanthes* (in which revision is less complete) are listed in alphabetical order.

SUBGENUS RHODODENDRON

(Subg. *Lepidorrhodium* Koehne)

Section VIREYA Don—Cf. Sleumer, Fl. Males. 6 (1968).

Section POGONANTHUM Don—Not yet revised.

Section RHODODENDRON (Sect. *Lepipherum* Don)Subsect. EDGEWORTHIA (Hutch.) Sleumer (*Edgeworthii* Series)¹R. *edgeworthii* Hooker (*R. bullatum* Franch.; *R. sciaphilum* Ward)R. *pendulum* HookerR. *seingkuense* WardSubsect. MADDENIA (Hutch.) Sleumer (*Maddenii* Series)*Maddenii* GroupR. *maddenii* Hookersubsp. *maddenii* (*R. brachysiphon* [Balf. f. ex] Hutch.; *R. brevitybum* Balf. f. & Cooper; *R. calophyllum* Nutt.; *R. jenkinsii* Nutt.; *R. maddenii* var. *longiflora* Watson; *R. polyandrum* Hutch.)subsp. *crassum* (Franchet) Cullen, **comb. et stat. nov.** (*R. chapaense* Dop.; *R. crassum* Franchet in Bull. Soc. Bot. Fr. 34:282, 1887—basionym; *R. maddenii* var. *obtusifolia* Hutch.; *R. manipurensis* Balf. f. & Watt).*Dalhousiae* GroupR. *excellens* Hemsl. & WilsonR. *nuttallii* Booth (*R. sinonuttallii* Balf. f. & Forr.)R. *dalhousiae* Hookervar. *dalhousiae*var. ***rhabdotum*** (Balf. f. & Cooper) Cullen, **comb. et stat. nov.** (*R. rhabdotum* Balf. f. & Cooper in Notes R.B.G. Edinb. 10:141, 1917—basionym)R. *lindleyi* Moore (*R. bhotanicum* C.B.Cl.)R. *taggianum* Hutch. (*R. headfortianum* Hutch.)R. *liliflorum* Lévl.R. *kiangsiense* FangR. *levinei* Merrill*Megacalyx* GroupR. *megacalyx* Balf. f. & Ward*Ciliicalyx* GroupR. *ciliatum* HookerR. *valentinianum* [Forr. ex] Hutch.R. *fletcherianum* DavidianR. *amandum* CowanR. *burmanicum* Hutch.R. *crenulatum* [Hutch. ex] SleumerR. *scopulorum* Hutch.R. *cuffeanum* [Craib ex] Hutch.R. *formosum* Wallich

¹ The history and nomenclatural validity of the series are somewhat questionable; for the purpose of this synopsis we have taken *The Species of Rhododendron* (Stevenson, ed, 1930) as the earliest valid publication, even though passing references to the series occur in the literature from 1916 onwards.

var. *formosum* (*R. formosum* var. *salicifolium* C.B.Cl.; *R. gibsoni* Paxton; *R. iteaphyllum* Hutch.)

var. *inaequale* (Hutch.) Cullen, **comb. et stat. nov.** (*R. inaequale* Hutch. in Notes R.B.G. Edinb. 16:75, 1919—basionym).

R. johnstoneanum aggregate:

R. johnstoneanum [Watt ex] Hutch. (*R. formosum* var. *johnstoneanum* [Watt ex] Brand; *R. parryae* Hutch.)

R. rufosquamosum Hutch.

R. ciliipes Hutch.

R. walongense Ward

R. dendricola Hutch. (*R. atentsienense* Hand.-Mazz.; *R. notatum* Hutch.; *R. taronense* Hutch.)

R. cilicalyx aggregate:

R. pseudociliipes Cullen (see p. 122).

R. cilicalyx Franchet (*R. missionarum* Lévl.; *R. pseudocilicalyx* Hutch.)

R. roseatum Hutch. (*R. lasiopodium* Hutch.)

R. pachypodium Balf. f. & Sm. (*R. pilicalyx* Hutch.; *R. scottianum* Hutch.; *R. supranubium* Hutch.)

R. lyi Lévl.

R. yungchangense Cullen (see p. 123)

R. fleuryi Dop.

R. horlickianum Davidian

R. carneum Hutch.

R. veitchianum Hooker [*R. cubitii* Hutch.; *R. formosum* var. *veitchianum* (Hooker) Kurz; *R. smilesii* Hutch.]

R. surasianum Balf. f. & Craib

R. ludwigianum Hosseus

Subject. MOUPINENSIA (Hutch.) Sleumer (*Moupinense* Series)

R. moupinense Franchet

R. dendrocharis Franchet

R. petrocharis Diels

Subject. MONANTHA Cullen (see p. 122) (*Boothii* Series *pro parte*; *Triflorum* Series *pro parte*)

R. monanthum Balf. f. & W.W. Sm.

R. flavantherum Ward

R. kasoense Ward

R. concinnoides Ward

Subject. TRIFLORA (Hutch.) Sleumer (*Triflorum* Series *pro parte majore*)

R. zaleucum Balf. f. & W.W. Sm. (*R. erileucum* Balf. f. & Forr.)

R. yunnanense aggregate:

R. tatsienense Franchet (*R. heishuense* Fang; *F. hypophaeum* Balf. f. & Forr.; *R. leilungense* Balf. f. & Forr.; *R. stereophyllum* Balf. f. & W.W. Sm.; *R. tapelouense* Lévl.)

- R. davidsonianum* Rehd. & Wilson (*R. charianthum* Hutch.)
- R. siderophyllum* Franchet (*R. ioanthum* Balf. f.; *R. jahandiezii* Lévl.; *R. leucandrum* Lévl.; *R. obscurum* [Franchet ex] Balf. f.; *R. rubropunctatum* Lévl. & Vant.)
- R. yunnanense* Franchet (*R. aechmophyllum* Balf. f. & Forr.; *R. chartophyllum* Franchet; *R. chartophyllum* forma *praecox* Diels; *R. hormophorum* Balf. f. & Forr.; *R. suberosum* Balf. f. & Forr.)
- R. pleistanthum* [Balf. f. ex] Wilding (*R. yunnanense* Hort., *pro parte*; *R. hormophorum* Hort., *pro parte*)
- R. rigidum* Franchet (*R. caeruleum* Lévl.; *R. eriandrum* [Lévl. ex] Hutch.; *R. hesperium* Balf. f. & Forr.; *R. rarosquameum* Balf. f., *R. sycnanthum* Balf. f. & W.W. Sm.)
- R. oreotrepes* Sm. (*R. artosquameum* Balf. f. & Forr.; *R. cardoeioides* Balf. f. & Forr.; *R. depile* Balf. f. & Forr.; *R. hypotrichum* Balf. f. & Forr.; *R. phaeochlorum* Balf. f. & Forr.; *R. pubigerum* Balf. f. & Forr.; *R. trichopodum* Balf. f. & Forr.; *R. exquisetum* Hutch.)
- R. augustinii* Hemsley
- subsp. *augustinii* (*R. augustinii* var. *yui* Fang; *R. augustinii* var. *azureus* [Chen. ex] Laun.; *R. vilmorinianum* Balf. f., *quoad typ., non pl. cult.*)
- subsp. **chasmanthum** (Diels) Cullen, *stat. nov.* [*R. augustinii* var. *chasmanthum* (Diels) Davidian; *R. augustinii* forma *grandifolia* Franchet; *R. augustinii* forma *subglabra* Franchet; *R. chasmanthoides* Balf. f. & Forr.; *R. chasmanthum* Diels in Notes R.B.G. Edinb. 5:212, 1912—basionym; *R. hirsuticostatum* Hand.-Mazz.]
- subsp. **rubrum** (Davidian) Cullen, *stat. nov.* (*R. bergii* Davidian; *R. augustinii* var. *rubrum* Davidian in R.H.S. Rhod. Yearb. 17:165, 1963—basionym).
- subsp. **hardyi** (Davidian) Cullen, *comb. et stat. nov.* (*R. hardyi* Davidian, Rhododendrons, with Magnolias & Camellias, 1974:47—basionym).
- R. trichanthum* Rehder (*R. villosum* Hems. & Wilson non Roth)
- R. concinnum* Hemsley [*R. apiculatum* Rehder & Wilson; *R. benthamianum* Hemsley; *R. concinnum* var. *benthamianum* (Hemsley) Davidian; *R. concinnum* var. *pseudoyanthinum* (Balf. f. ex Hutch.) Davidian; *R. coombense* Hemsley; *R. hutchinsonianum* Fang; *R. laetevirens* [Balf. f. ex] Hutch.; *R. pseudoyanthinum* [Balf. f. ex] Hutch.; *R. yanthinum* Bur. & Franchet].
- R. amesiae* Rehder & Wilson
- R. searsiae* Rehder & Wilson
- R. polylepis* Franchet (*R. harrovianum* Hemsley)
- R. triflorum* Hooker
- var. *triflorum* (*R. triflorum* var. *mahogani* Hutch.)
- var. **bauhiniiflorum** (Watt ex Hutch.) Cullen, *comb. et stat. nov.* (*R. triflorum* var. *bauhiniiflorum* Watt, *nom. nud.*; *R. bauhiniiflorum* [Watt ex] Hutch. in Stevenson, ed., The Species of Rhododendron 785, 1930—basionym)
- R. ambiguum* Hemsley (*R. chiengshienianum* Fang)

- R. keiskei* Miquel (*R. laticostum* Ingram; *R. trichocalyx* Ingram)
R. lutescens Franchet (*R. blinii* Lévl.; *R. costulatum* Franchet; *R. lemeei* Lévl.)

Subsect. SCABRIFOLIA (Hutch.) Cullen, **stat. nov.** (*Scabrifolium* Series sensu Hutch. in Stevenson, ed., *op. cit.* 600, 1930—basionym; *Virgatum* Series *pro parte*; Subgenus *Pseudorhodorastrum* Sects. *Trachyrhodium* & *Rhodobotrys* Sleumer)

- R. racemosum* Franchet (*R. iochanense* Lévl.; *R. motsouense* Lévl.)
R. hemitrichotum Balf. f. & Forr.
R. mollicomum Balf. f. & W.W. Sm. (*R. mollicomum* var. *rockii* Tagg)
R. pubescens Balf. f. & Forr.
R. scabrifolium Franchet
 var. *scabrifolium*
 var. **spiciferum** (Franchet) Cullen, **comb. et stat. nov.** (*R. spiciferum* Franchet in J. Bot. (Morot) 9:400, 1895—basionym)
 var. *pauciflorum* Franchet (*R. x dielsianum* Hand.-Mazz.)
R. spinuliferum Franchet (*R. duclouxii* Lévl.; *R. fuchsiflorum* Lévl.)

Subsect. HELIOLEPIDA (Hutch.) Sleumer (*Heliolepis* Series)

- R. invictum* Balf. f. & Farrer
R. bracteatum Rehder & Wilson
R. heliolepis Franchet
 var. *heliolepis* (*R. fumidum* Balf. f. & W.W. Sm.; *R. oporinum* Balf. f. & Ward; *R. plebeium* Balf. f. & W.W. Sm.)
 var. **brevistylum** (Franchet) Cullen, **comb. et stat. nov.** (*R. brevistylum* Franchet, in J. Bot. (Morot) 12:261, 1898—basionym; *R. pholidotum* Balf. f. & W.W. Sm.; *R. porrosquamatum* Balf. f. & Forr.)
R. rubiginosum Franchet (*R. catapastum* Balf. f. & Forr.; *R. desquamatum* Balf. f. & Forr.; *R. leclerei* Lévl., *R. leprosum* Balf. f.; *R. squarrosus* Balf. f.; *R. stenoplastum* Balf. f. & Forr.)

Subsect. CAROLINIANA (Hutch.) Sleumer (*Carolinianum* Series)

- R. carolinianum* Rehder (*R. punctatum* Andrews)
R. minus Michx. (*R. cuthbertii* Small)
R. chapmannii Gray

Subsect. LAPPONICA (Hutch.) Sleumer [*Lapponicum* Series; Section *Lapponica* (Sleumer) Philipson]

- R. cuneatum* Sm. (*R. cheilanthum* Balf. f. & Forr.; *R. cinereum* Balf. f.; *R. ravum* Balf. f.; *R. sclerocladum* Balf. f. & Forr.)
R. tsaii Fang
R. intricatum Franchet (*R. blepharocalyx* Franchet; *R. peramabile* Hutch.)

- R. hippophaeoides* Balf. f. & W.W. Sm.
 var. *hippophaeoides* (*R. fimbriatum* Hutch.)
 var. *occidentale* Philipson & Philipson
R. thymifolium Maxim. (*R. polifolium* Franchet; *R. spilanthum* Hutch.)
R. websterianum Rehder & Wilson
 var. *websterianum*
 var. *yulongense* Philipson & Philipson
R. nitidulum Rehder & Wilson
 var. *nitidulum* (*R. nitidulum* var. *nubigenum* Rehder & Wilson)
 var. *omeiense* Philipson & Philipson
R. complexum Balf. f. & W.W. Sm.
R. yungningense Balf. f. (*R. glomerulatum* Hutch.)
R. tapetiforme Balf. f. & Ward
R. dasypetalum Balf. f. & Forr.
R. amundsenianum Hand.-Mazz.
R. fastigiatum Franchet (*R. capitatum* sensu Franchet; *R. nanum* Lévl.)
R. flavidum Franchet
 var. *flavidum* (*R. primulinum* Hemsley)
 var. *psilostylum* Rehder & Wilson [*R. psilostylum* (Rehder & Wilson) Balf. f.]
R. impletum Balf. f. & W.W. Sm., (*R. litangense* [Balf. f. ex] Hutch.; *R. semanteum* Balf. f.)
R. polycladum Franchet (*R. compactum* Hutch.; *R. scintillans* Balf. f. & W.W. Sm.)
R. orthocladum Balf. f. & Forr.
 var. *orthocladum*
 var. *longistylum* Philipson & Philipson
 var. *microleucum* (Hutch.) Philipson & Philipson (*R. microleucum* Hutch.)
R. minyaense Philipson & Philipson (*R. fastigiatum* sensu Hemsley & Wilson)
R. bulu Hutch.
R. telmateium Balf. f. & W.W. Sm. (*R. diacritum* Balf. f. & W.W. Sm.; *R. drumonium* Balf. f. & W.W. Sm.; *R. idoneum* Balf. f. & W.W. Sm.; *R. pyenocladum* Balf. f. & W.W. Sm.)
R. nivale Hooker
 subsp. *nivale* (*R. paludosum* Hutch.)
 subsp. *boreale* Philipson & Philipson (*R. alpicola* Rehder & Wilson; *R. batangense* Balf. f.; *R. nigropunctatum* Franchet; *R. oresbium* Balf. f. & Ward; *R. oreinum* Balf. f.; *R. ramosissimum* Franchet; *R. stictophyllum* Balf. f.; *R. vicarium* Balf. f.; *R. violaceum* Rehder & Wilson.)
 subsp. *australe* Philipson & Philipson
R. burjaticum Malyshev
R. lapponicum (L.) Wahl. [*Azalea lapponica* L.; *A. ferruginosa* Pallas; *A. parvifolia* (Adams) Kuntze; *R. confertissimum* Nakai; *R. palustre* Turcz.; *R. parvifolium* Schmidt]
R. capitatum Maxim. (*R. fastigiatum* sensu Hemsley & Wilson)
R. russatum Balf. f. & Forr. (*R. cantabile* [Balf. f. ex] Hutch.; *R. osmerum* Balf. f. & Forr.)

R. rupicola W.W. Sm.

var. *rupicola* (*R. achroanthum* Balf. f. & W.W. Sm.; *R. propinquum* Tagg)

var. *chryseum* (Balf. f. & Ward) Philipson & Philipson (*R. chryseum* Balf. f. & Ward)

var. *muliense* (Balf. f. & Forr.) Philipson & Philipson (*R. muliense* Balf. f. & Forr.)

Subsect. RHODODENDRON (*Ferrugineum* Series; Subsect. *Ferruginea* Sleumer)

R. ferrugineum L.

R. myrtifolium Schott & Kotschy [*R. kotschyi* Simonkai; *R. ferrugineum* subsp. *kotschyi* (Simonkai) Hayek]

R. hirsutum L.

Subsect. MICRANTHA (Hutch.) Sleumer (*Micranthum* Series)

R. micranthum Turcz. (*R. pritzelianum* Diels; *R. rosthornii* Diels)

Subsect. RHODORAstra (Maxim.) Cullen, **comb. nov.** [Sect. *Rhodorastrum* Maxim., *Rhodo. Asiae Orient.*: 15, 1870—basionym; Subgenus *Rhodorastrum* (Maxim.) C.B.Cl.; *Dauricum* Series]

R. dauricum L.

R. mucronulatum Turcz. [*R. dauricum* var. *mucronulatum* (Turcz.) Maxim.; *R. taquetii* Lévl.]

Subsect. SALUENENSIA (Hutch.) Sleumer (*Saluense* Series)

R. calostrotum Balf. f. & Ward

subsp. *calostrotum*

subsp. **riparium** (Ward) Cullen, **comb. et stat. nov.** [*R. calciphilum* Hutch. & Ward; *R. calostrotum* var. *calciphilum* (Hutch. & Ward) Davidian; *R. nitens* Hutch.; *R. riparium* Ward in Notes R.B.G. Edinb. 16: 180, 1931—basionym; *R. rivulare* Ward non Hand.-Mazz.]

subsp. *riparioides* Cullen (see p. 123)

subsp. **keleticum** (Balf. f. & Forr.) Cullen, **comb. et stat. nov.** (*R. keleticum* Balf. f. & Forr. in Notes R.B.G. Edinb. 13:50, 1920—basionym; *R. radicans* Balf. f. & Forr.)

R. saluense Franchet

subsp. *saluense* (*R. amaurophyllum* Balf. f. & Forr.)

subsp. **chamaeunum** (Balf. f. & Forr.) Cullen, **comb. et stat. nov.** (*R. chamaeunum* Balf. f. & Forr. in Notes R.B.G. Edinb. 13:37, 1920—basionym; *R. charidotes* Balf. f. & Farrer; *R. cosmetum* Balf. f. & Forr.; *R. prostratum* W.W. Sm.)

Subsect. FRAGARIFLORA Cullen (see p. 122)

R. fragariflorum Ward

- Subsect. UNIFLORA (Hutch.) Sleumer (*Uniflorum Series, pro parte*)
R. pumilum Hooker
R. pemakoense Ward (*R. patulum* Ward)
R. uniflorum Ward
 var. *uniflorum*
 var. **imperator** (Ward) Cullen, **comb. et stat. nov.** (*R. imperator* Ward in Gard. Chron. 86:229, 1930—basionym)
R. ludlowii Cowan
- Subsect. CINNABARINA (Hutch.) Sleumer (Subgenus *Keysia* Nuttall; Sect. *Keysia* (Nuttall) Maxim.; *Cinnabarinum Series*)
R. cinnabarinum Hooker
 subsp. *cinnabarinum* (*R. blandfordiiflorum* Hooker; *R. roylei* Hooker)
 subsp. **xanthocodon** (Hutch.) Cullen, **comb. et stat. nov.** (*R. cinnabarinum* var. *pallidum* Hooker; *R. cinnabarinum* var. *purpurellum* Cowan; *R. concatenans* Hutch.; *R. xanthocodon* Hutch. in Gard. Chron. 95:409, 1934—basionym)
 subsp. **tamaense** (Davidian) Cullen, **comb. nov.** (*R. tamaense* Davidian, *Rhododendrons*: 54-55, 1972—basionym)
R. keysii Nuttall (*R. igneum* Cowan)
- Subsect. TEPHROPEPLA (Hutch.) Sleumer (Series *Boothii* sensu Hutch., *pro parte*; Series *Boothii* Subseries *Tephropeplum* sensu Cowan & Davidian)
R. xanthostephanum Merrill (*R. aureum* Franchet non Georgi)
R. auritum Tagg
R. tephropeplum Balf. f. & Farrer (*R. deleiense* Hutch. & Ward; *R. spodopeplum* Balf. f. & Farrer)
R. longistylum Rehder & Wilson
R. hanceanum Hemsley
- Subsect. VIRGATA (Hutch.) Cullen, **stat. nov.** (Subgenus *Pseudorhodorastrum* Sect. *Pseudorhodorastrum* Sleumer & Sect. *Rhabdorhodium* Sleumer; *Virgatum Series, pro parte*)
R. virgatum Hooker
 subsp. *virgatum*
 subsp. **oleifolium** (Franchet) Cullen, **comb. et stat. nov.** (*R. oleifolium* Franchet in Bull. Soc. Bot. Fr. 33:235, 1886—basionym; *R. sinovirgatum* Hort.)
- Subsect. GLAUCA Sleumer (*Glaucum Series; Glaucophyllum Series*)
R. glaucophyllum Rehder
 var. *glaucophyllum* (*R. glaucum* Hooker)
 var. *tubiforme* Cowan & Davidian

- R. luteiflorum* (Davidian) Cullen, **stat. nov.** (*R. glaucophyllum* var. *luteiflorum* Davidian in Roy. Hort. Soc. 85:369, 1960—basionym)
- R. charitopes* Balf. f. & Farrer
 subsp. *charitopes*
 subsp. *tsangpoense* (Ward) Cullen, **comb. et stat. nov.** (*R. curvistylum* Ward; *R. tsangpoense* Ward in Gard. Chron. 86:504, 1929—basionym; *R. tsangpoense* var. *curvistylum* [Ward ex] Cowan & Davidian, non Hort.)
- R. shweliense* Balf. f. & Forr.
- R. pruniflorum* Hutch. [*R. sordidum* Hutch.; *R. tsangpoense* var. *pruniflorum* (Hutch.) Cowan & Davidian].
- R. brachyanthum* Franchet
 subsp. *brachyanthum*
 subsp. *hypolepidotum* (Franchet) Cullen, **stat. nov.** [*R. brachyanthum* var. *hypolepidotum* Franchet in J. Bot. (Morot) 12:262, 1898—basionym; *R. charitostreptum* Balf. f. & Ward; *R. hypolepidotum* (Franchet) Balf. f. & Ward]
- Subsect. **CAMPYLOGYNA** (Hutch.) Sleumer (*Campylogynum* Series)
R. campylogynum Franchet [*R. caeruleo-glaucum* Balf. f. & Forr.; *R. campylogynum* var. *celsum* Davidian; *R. campylogynum* var. *charopoeum* (Balf. f. & Forr.) Davidian; *R. campylogynum* var. *cremastum* (Balf. f. & Forr.) Davidian; *R. campylogynum* var. *myrtilloides* (Balf. f. & Ward) Davidian; *R. charopoeum* Balf. f. & Forr.; *R. cremastum* Balf. f. & Forr.; *R. cerasiflorum* Ward; *R. damascenum* Balf. f. & Forr.; *R. glauco-aureum* Balf. f. & Forr.; *R. myrtilloides* Balf. f. & Ward; *R. rubriflorum* Ward]
- Subsect. **GENESTIERIANA** (Hutch.) Sleumer (*Glaucum* Series, *pro parte*; *Glaucophyllum* Series, *Genestierianum* Subseries *pro parte*)
R. genestierianum Forr. (*R. mirabile* Ward)
- Subsect. **LEPIDOTA** (Hutch.) Sleumer (*Lepidotum* Series *pro parte*)
R. lepidotum Wallich (*R. cremnastes* Balf. f. & Farrer; *R. elaeagnoides* Hooker; *R. obovatum* Hooker; *R. salignum* Hooker; *R. sinolepidotum* Balf. f.)
R. lowndesii Davidian
R. cowanianum Davidian
- Subsect. **BAILEYA** Sleumer (*Lepidotum* Series, *pro parte*)
R. baileyi Balf. (*R. thydocum* Balf. f. & Cooper)
- Subsect. **BOOTHIA** (Hutch.) Sleumer (*Boothii* Series, *pro parte*)
R. micromeres Tagg
R. boothii Nuttall (*R. mishmiense* Hutch. & Ward)
R. chrysodoron [Tagg ex] Hutch.
R. sulfureum Franchet (*R. cerinum* Balf. f. & Forr.; *R. commodum* Balf. f. & Forr.; *R. theiochromum* Balf. f. & W.W. Sm.)
R. dekatanum Cowan
R. megeratum Balf. f. & Forr. (*R. tapeinum* Balf. f. & Farrer)
R. leucaspis Tagg

- Subject. TRICHOCLADA (Hutch.) Cullen, **stat. nov.** (Series *Trichocladum* Hutch. in Stevenson, ed., *The Species of Rhododendron*: 746, 1930—basionym; Subgenus *Pseudazalea* Sleumer)
R. lepidostylum Balf. f. & Forr.
R. caesium Hutch.
R. trichocladum Franchet (*R. lithophilum* Balf. f. & Ward; *R. lophotogynum* Balf. f. & Forr. **nomen nudum**; *R. oulotrichum* Balf. f. & Forr.; *R. xanthinum* Balf. f. & W.W. Sm.)
R. mekongense Franchet
 var. *mekongense* (*R. viridescens* Hutch.; *R. rubroluteum* Davidian)
 var. **melinanthum** (Balf. f. & Ward) Cullen, **comb. et stat. nov.** (*R. chloranthum* Balf. f. & Forr.; *R. melinanthum* Balf. f. & Ward in *Trans. Bot. Soc. Edinb.* 27:85, 1916—basionym; *R. semilunatum* Balf. f. & Forr.)
 var. **rubrolineatum** (Balf. f. & Forr.) Cullen, **comb. et stat. nov.** (*R. rubrolineatum* Balf. f. & Forr. in *Notes R.B.G. Edinb.* 12: 160, 1920—basionym)
 var. **longipilosum** (Cowan) Cullen, **comb. nov.** (*R. trichocladum* var. *longipilosum* Cowan in *Notes R.B.G. Edinb.* 19:186, 1936—basionym)

Subject. CAMELLIIFLORA (Hutch.) Sleumer (*Camelliaeflorum* Series)

R. camelliiflorum Hooker (*R. sparsiflorum* Nuttall)

Subject. AFGHANICA Cullen (see p. 122) (*Triflorum* Series, *Hanceanum* Subseries *pro parte*)

R. afghanicum Aitch. & Hemsley

SUBGENUS HYMENANTHES (Bl.) K. Koch

(Subg. *Eurhododendron* Sleumer)

Section HYMENANTHES

Subject. ARBOREA (Tagg) Sleumer (*Arboreum* Series *Arboreum* Subseries)—
 Not yet revised.

Subject. ARGYROPHYLLA (Tagg) Sleumer (*Arboreum* Series *Argyrophyllum* Subseries *pro parte*)—Not yet revised

Subject. AURICULATA (Tagg) Sleumer (*Auriculatum* Series)—Not yet revised

Subject. BARBATA (Tagg) Sleumer (*Barbatum* series *Barbatum* & *Glischrum* Subseries *pro parte*)

R. barbatum [Wallich ex] G. Don (*R. lancifolium* Hook. f.)

R. smithii Nuttall (*R. argipeplum* Balf. f. & Cooper)

R. exasperatum Tagg

R. erosum Cowan

R. succothii Davidian

- Subject. **CAMPYLOCARPA** (Tagg) Sleumer (*Thomsonii* Series *Campylocarpum* & *Souliei* Subseries; Subject. *Souliea* Sleumer)
R. souliei Franchet (*R. cordatum* Lévl.)
R. wardii W.W. Sm.
 var. *wardii* (*R. croceum* Balf. f. & W.W. Sm.; *R. astrocalyx* Balf. f. & Forr.; *R. prasinocalyx* Balf. f. & Forr.; *R. orestereum* Balf. f. & Forr.; *R. litiense* Balf. f. & Forr.; *R. gloeoblastum* Balf. f. & Forr.)
 var. **puralbum** (Balf. f. & W.W. Sm.) Chamberlain, **comb. et stat. nov.** (*R. puralbum* Balf. f. & W.W. Sm. in Notes R.B.G. Edinb. 9:266, 1916—basionym)
- R. campylocarpum* Hook f.
 subsp. *campylocarpum*
 subsp. **caloxanthum** (Balf. f. & Farrer) Chamberlain, **comb. et stat. nov.** (*R. caloxanthum* Balf. f. & Farrer in Notes R.B.G. Edinb. 13:238, 1922—basionym)
 subsp. **telepeum** (Balf. f. & W.W. Sm.) Chamberlain, **comb. et stat. nov.** (*R. telepeum* Balf. f. & W.W. Sm. in Notes R.B.G. Edinb. 13:61, 1920—basionym; *R. panteumorphum* Balf. f. & W.W. Sm.)
- R. callimorphum* Balf. f. & W.W. Sm.
 var. *callimorphum* (*R. cyclium* Balf. f. & Forr.; *R. hedythammum* Balf. f. & Forr.)
 var. **myiagrum** (Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.** (*R. myiagrum* Balf. f. & Forr. in Notes R.B.G. Edinb. 13:52, 1920—basionym)
- Subject. **CAMPANULATA** (Tagg) Sleumer (*Campanulatum* Series)—Not yet revised
- Subject. **FALCONERA** (Tagg) Sleumer (*Falconeri* Series)—Not yet revised
- Subject. **FLORIBUNDA** Sleumer (*Arboreum* Series *Argyrophyllum* Subseries *pro parte*)—Not yet revised
- Subject. **FORTUNEA** (Tagg) Sleumer (*Fortunei* Series)—Not yet revised
- Subject. **FULVA** (Tagg) Sleumer (*Fulvum* Series)—Not yet revised
- Subject. **GLISCHRA** (Tagg) Chamberlain, **stat. nov.** (Series *Barbatum* Tagg Subseries *Glischrum* Tagg in Stevenson, ed., The Species of *Rhododendron* 135, 1930—basionym; *Barbata* Subsection *pro parte*)
R. kuluense Chamberlain, **nom. et stat. nov.** (*R. glischrum* Balf. f. & W.W. Sm. var. *adenosum* Cowan & Davidian in Notes R.B.G. Edinb. 21:147, 1953—basionym)

- R. glischrum* Balf. f. & W.W. Sm.
 subsp. *glischrum*
 subsp. **glischroides** (Tagg & Forr.) Chamberlain, **comb. et stat. nov.**
 (*R. glischroides* Tagg & Forr. in Stevenson, ed., *The Species of Rhododendron* 137, 1930—basionym)
 subsp. **rude** (Tagg & Forr.) Chamberlain, **comb. et stat. nov.**
 (*R. rude* Tagg & Forr., *l.c.* 141, 1930—basionym)
R. vesiculiferum Tagg
R. habrotrichum Balf. f. & W.W. Sm.
R. crinigerum Franchet
 var. *crinigerum* (*R. ixenticum* Balf. f. & W.W. Sm.)
 var. *euaдениum* Tagg & Forr.

Subsect. **GRANDIA** (Tagg) Sleumer (*Grande Series*)—Not yet revised

Subsect. **IRRORATA** (Balf. f.) Sleumer (*Irroratum Series Irroratum Subseries*)

- R. aberconwayi* Cowan
R. annae Franchet (*R. laxiflorum* Balf. f. & Forr.; *R. hardingii* Forr.)
R. araiophyllum Balf. f. & W.W. Sm.
R. wrayi King & Gamble (*R. dubium* King & Gamble; *R. corruscum* Ridley)
R. korthalsii Mig.
R. irroratum Franchet
 subsp. *irroratum* (*R. ninguenense* Hand.-Mazz.)
 subsp. **pogonostylum** (Balf. f. & W.W. Sm.) Chamberlain, **comb. et stat. nov.** (*R. pogonostylum* Balf. f. & W.W. Sm. in *Trans. Bot. Soc. Edinb.* 27:210, 1917—basionym; *R. adenostemomum* Balf. f. & W.W. Sm.)
 subsp. **kontumense** (Sleumer) Chamberlain, **comb. et stat. nov.**
 (*R. kontumense* Sleumer in *Blumea*, Suppl. 3:54, 1946—basionym; (*R. langbianense* [Chev. ex] Dop.; *R. atjehense* Sleumer)
R. lukiangense Franchet (*R. gymnanthum* Diels; *R. ceraceum* Balf. f. & W.W. Sm.; *R. admirabile* Balf. f. & Forr.; *R. adroserum* Balf. f. & Forr.)
R. excelsum Chev.
R. tanastylum Balf. f. & Ward
 var. *tanastylum* (*R. ombrachares* Balf. f. & Ward; *R. cerochitum* Balf. f. & Forr.)
 var. **pennivenium** Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.**
 (*R. pennivenium* Balf. f. & Forr. in *Notes R.B.G. Edinb.* 13:55, 1920—basionym)
R. agastum Balf. f. & W.W. Sm.
R. leptopeplum Balf. f. & Forr.
R. kendrickii Nuttall (*R. pankimense* Cowan; *R. shepherdii* Nuttall)
R. ramsdenianum Cowan
R. anthosphaerum Diels (*R. hylothreptum* Balf. f. & W.W. Sm.; *R. eritimum* Balf. f. & Forr.; *R. chawchiense* Balf. f. & Farrer; *R. persicinum* Hand.-Mazz.)

- R. papillatum Balf. f. & Cooper (*R. epapillatum* Balf. f. & Cooper)
 R. spanotrichum Balf. f. & W.W. Sm.
 R. mengtszense Balf. f. & W.W. Sm.
 *R. brevinerve Chun & Fang

Subsect. MACULIFERA (Tagg) Sleumer (*Barbatum* Series *Maculiferum* Subseries)

- R. longesquamatum Schneider
 R. ochraceum Rehder & Wilson
 R. strigillosum Franchet
 R. pachytrichum Franchet
 R. maculiferum Franchet
 subsp. maculiferum
 subsp. **anhweiense** (Wilson) Chamberlain, **comb. et stat. nov.** (*R. anhweiense* Wilson in J. Arn. Arb. 6:163, 1925—basionym)
 R. morii Hayata
 R. pseudochrysanthum Hayata
 R. pachysanthum Hayata
 *R. chihsinianum Chun & Fang

Subsect. NERIIFLORA (Tagg) Sleumer (*Neriiflorum* Series)—Not yet revised

Subsect. PARISHIA (Tagg) Sleumer (*Irroratum* Series *Parishii* Subseries—Not yet revised)

Subsect. PONTICA (Tagg) Sleumer (*Ponticum* Series)—Not yet revised

Subsect. SELENSIA (Tagg) Sleumer (*Thomsonii* Series *Selense* & *Martinianum* Subseries; *Barbatum* Series *Crinigerum* Subseries *pro parte* & *Glischrum* Subseries *pro parte*; Subsection *Martiniana* Sleumer)

- R. esetulosum Balf. f. (*R. manopeplum* Balf. f. & Forr.)
 R. erythrocalyx Balf. f. & Forr. (*R. beimaense* Balf. f. & Forr., *R. rymbomorphum* Balf. f. & Forr., *R. eucallum* Balf. f. & Forr., *R. truncatulum* Balf. f. & Forr.)
 R. martinianum Balf. f. & Forr.
 R. selense Franchet
 subsp. selense (*R. pagophilum* Balf. f. & Ward; *R. axium* Balf. f. & Forr.; *R. metrium* Forr.; *R. chalarocladum* Balf. f. & Forr.; *R. nanothamnum* Balf. f. & Forr.; *R. probum* Balf. f. & Forr.)
 subsp. **dasycladum** (Balf. f. & W.W. Sm.) Chamberlain, **comb. et stat. nov.** (*R. dasycladum* Balf. f. & W.W. Sm. in Notes R.B.G. Edinb. 10:98, 1917—basionym; *R. rhaibocarpum* Balf. f. & W.W. Sm.; *R. dolerium* Balf. f. & Forr.)
 subsp. **setiferum** (Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.** *R. setiferum* Balf. f. & Forr. in Notes R.B.G. Edinb. 11:137, 1919—basionym; *R. vestitum* Tagg & Forr.)
 subsp. **jucundum** (Balf. f. & W.W. Sm.) Chamberlain, **comb. et stat. nov.** (*R. jucundum* Balf. f. & W.W. Sm. in Notes R.B.G. Edinb. 9:242, 1916—basionym; *R. blandulum* Balf. f. & W.W. Sm.)

- R. bainbridgeanum Tagg & Forr.
 R. hirtipes Tagg
 R. dasycladoides Hand.-Mazz.
 R. calvescens Balf. f. & Forr.
 var. calvescens
 var. **duseimatum** (Balf. f. & Forr.) Chamberlain, **comb. nov.** [*R. duseimatum* Balf. f. & Forr. in Notes R.B.G. Edinb. 13:41, 1920—basionym; *R. selense* Franchet var. *duseimatum* (Balf. f. & Forr.) Tagg]

Subsect. TALIENSIA (Tagg) Sleumer (*Lactea* Subsection, *Taliense* Series, *Lacteam* Series)

- R. codonanthum Balf. f. & Forr.
 R. detersile Franchet
 R. bureavii Franchet (*R. cruentum* Lévl.; *R. bureavioides* Balf. f.)
 R. elegantulum Tagg & Forr.
 R. adenogynum Diels (*R. adenophorum* Balf. f. & W.W. Sm.)
 R. detonsum Balf. f. & Forr.
 R. balfourianum Diels
 R. elementinae Forr.
 R. principis Bur. & Franchet (*R. vellereum* Tagg)
 R. aganniphum Balf. f. & Ward
 var. aganniphum (*R. schizopeplum* Balf. f. & Forr.; *R. glaucopeplum* Balf. f. & Forr.; *R. fissotectum* Balf. f. & Forr.; *R. doshongense* Tagg)
 var. **flavorufum** (Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.** (*R. flavorufum* Balf. f. & Forr. in Notes R.B.G. Edinb. 11:65, 1919—basionym)
 R. nakotiltum Balf. f. & Forr.
 R. taliense Franchet
 R. sphaeroblastum Balf. f. & Forr.
 R. alutaceum Balf. f. & W.W. Sm.
 var. alutaceum (*R. triplonaevium* Balf. f. & Forr.; *R. tritifolium* Balf. f. & Forr.)
 var. **russotinctum** (Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.** (*R. russotinctum* Balf. f. & Forr. in Notes R.B.G. Edinb. 11:127, 1919—basionym; *R. iodes* Balf. f. & Forr.)
 R. roxieanum Forr.
 var. roxieanum (*R. recurvum* Balf. f. & Forr., incl. var. *oreonastes* Balf. f. & Forr.; *R. peocilodermum* Balf. f. & Forr.; *R. aischropeplum* Balf. f. & Forr.)
 var. **cucullatum** (Hand.-Mazz.) Chamberlain, **comb. et stat. nov.** (*R. cucullatum* Hand.-Mazz. in Anz. Akad. Wiss. Wien No. 4-5, 1921—basionym; *R. porphyroblastum* Balf. f. & Forr.; *R. coccinopeplum* Balf. f. & Forr.)
 var. **globigerum** (Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.** (*R. globigerum* Balf. f. & Forr. in Notes R.B.G. Edinb. 13:259, 1922—basionym)
 R. proteioides Balf. f. & W.W. Sm. (*R. lampropeplum* Balf. f. & Forr.)
 R. bathyphyllum Balf. f. & Forr.

- R. phaeochrysum* Balf. f. & W.W. Sm.
 var. *phaeochrysum* (*R. dryophyllum* Balf. f. & Forr.)
 var. **agglutinatum** (Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.**
 (*R. agglutinatum* Balf. f. & Forr. in Notes R.B.G. Edinb. 12:88, 1920—basionym; *R. lophophorum* Balf. f. & Forr.;
R. syncollum Balf. f. & Forr.; *R. dichropeplum* Balf. f. & Forr. & Forr.; *R. dumulosum* Balf. f. & Forr.)
 var. **levistratum** (Balf. f. & Forr.) Chamberlain, **comb. et stat. nov.**
 (*R. levistratum* Balf. f. & Forr. in Notes R.B.G. Edinb. 11:88, 1919—basionym; *R. helvolum* Balf. f. & Forr.; *R. intortum*
 Balf. f. & Forr.; *R. aiolopeplum* Balf. f. & Forr.; *R. vicinum*
 Balf. f. & Forr.; *R. sigillatum* Balf. f. & Forr.; *R. dryophyllum*
 sensu Cowan & Davidian, *pro parte majore*)
R. traillianum Forr. & W.W. Sm.
 var. *traillianum*
 var. **dictyotum** (Balf. f. & Tagg) Chamberlain, **comb. et stat. nov.**
 (*R. dictyotum* [Balf. f. ex] Tagg in Notes R.B.G. Edinb. 15:
 309, 1927—basionym)
R. lacteum Franchet
R. wightii Hook. f.
R. beesianum Diels (*R. colletum* Balf. f. & Forr.; *R. emaculatum* Balf. f.
 & Forr.)
R. dignabile Cowan
R. pronum Tagg & Forr.
R. faberi Hemsl.
 subsp. *faberi* (*R. faberioides* Balf. f.; *R. wuense* Balf. f.)
 subsp. **prattii** (Franchet) Chamberlain, **comb. et stat. nov.** [*R. prattii*
 Franchet in J. Bot. (Morot) 9:389, 1895—basionym]
R. rufum Batal. (*R. weldianum* Rehder & Wilson)
R. przewalskii Maxim.
R. wasonii Hemsl. & Wilson
R. wiltonii Hemsl. & Wilson
R. coeloneuron Diels
R. recurvodes Tagg & Ward
R. dunicola Tagg & Forr.
R. mimetes Tagg & Forr.
 var. *mimetes*
 var. *simulans* Tagg & Forr.
R. pomense Cowan & Davidian
 **R. leei* Fang
 **R. purdomii* Rehder & Wilson
 **R. kansuense* Millais
 **R. wallaceanum* Millais
 Subsect. THOMSONIA (Tagg) Sleumer (*Thomsonii* Series *Thomsonii* &
Cerasinum Subseries)
R. bonvalotii Bur. & Franchet
R. cerasinum Tagg
R. populare Cowan
R. lopsangianum Cowan

- R. viscidifolium* Davidian
R. thomsonii Hook. f.
 subsp. *thomsonii*
 subsp. **candelabrum** (Hook. f.) Chamberlain, **comb. et stat. nov.**
 [*R. candelabrum* Hook. f. in *Rhododendrons Sikkim Himalaya* t. 29 (1851)—basionym; *R. thomsonii* Hook. f. var. *pallidum* Cowan]
R. hylaeum Balf. f. & Farrer
R. faucium Chamberlain, (see p. 124)
R. subansiense Chamberlain & Cox, (see p. 124)
R. hookeri Nuttall
R. meddianum Forr.
 var. *meddianum*
 var. *atrokermesinum* Tagg
R. cyanocarpum (Franchet) W.W. Sm.
R. eclecteum Balf. f. & Forr.
 var. *eclecteum* (*R. brachyandrum* Balf. f. & Forr.)
 var. *bellatulum* [Balf. f. ex] Tagg
R. stewartianum Diels (*R. aiolosalpinx* Balf. f. & Farrer; *R. niphobolium* Balf. f. & Farrer)
R. euryisiphon Tagg

Subsect. WILLIAMSIANA (Cowan & Davidian) Chamberlain, **stat. nov.** (*Ser. Thomsonii* Tagg Subseries *Williamsianum* Cowan & Davidian in *Rhodo. Yearb.* 6:180, 1952—basionym)
R. williamsianum Rehder & Wilson

SUBGENUS PSEUDANTHODENDRON Sleumer—Not yet revised

SUBGENUS ANTHODENDRON (Reichenb.) Endl.—Not yet revised

SUBGENUS AZALEASTRUM Planchon—Not yet revised

SPECIES OF DOUBTFUL RELATIONSHIPS

- R. bivelatum* Balf. f. Formerly included in the Triflorum Series, this species is referable to none of the subsections of Section *Rhododendron* here recognised; it is known from only one poor specimen, and may well be a chance hybrid between *R. augustinii* subsp. *chasmantum* and some other species.
R. chrysolepis Hutch. Known only from one fruiting specimen from the wild and one or two doubtful cultivated ones. Formerly placed in Boothii series *Tephropeplum* subseries, but, without more material, of doubtful affinity.
R. coxianum Davidian. Certainly belonging to Subsect. *Maddenia* Ciliicalyx group. Collected in fruit; cultivated specimens do not match the wild material, which probably belongs to *R. formosum*.
R. lucidum Nuttall. Based on material without either flowers or fruits; probably *R. camelliiflorum* (Subsect. *Camelliiflora*).

- R. wongii* Hemsley & Wilson. Based on extremely poor material; probably the same as *R. ambiguum* (Subsect. Triflora).
R. imberbe Hutchinson (Subsect. Barbata). A hybrid of *R. barbatum*.
R. diphrocalyx Balf. f. (Subsect. Glischra). Unplaced.
R. spilotum Balf. f. & Farrer (Subsect. Glischra). Unplaced.
R. dimitrium Balf. f. & Forrest (Subsect. Irrorata). Unplaced.
R. inopinum Balf. f. (Subsect. Taliensia). A hybrid of *R. wasonii* only known in cultivation.
R. paradoxum Balf. f. (Subsect. Taliensia). A hybrid of *R. wiltonii* only known in cultivation.
R. comistenum Balf. f. (Subsect. Taliensia). Probably a member of Subsect. Neriiflora.
R. microgynum Balf. f. & Forrest (including *R. perulatum* Balf. f. & Forrest & *R. gymnocarpum* [Balf. f. ex] Tagg) (Subsect. Taliensia). A member of Subsection Neriiflora allied to *R. sanguineum*.
R. circinnatum Cowan (Subsect. Taliensia). Probably a member of Subsection Campanulata.

NEW TAXA

Subsect. *Monantha* Cullen, Subsect. nov.

Frutices, saepe epiphyticae. *Squamae* magnae, planae, late marginatae, saepe inequales. *Inflorescentia* 1-3-floris. *Corolla* lepidota, lutea (in sicco saepe viridulo-lutea) vel raro purpurea, tubulosa, lobis vix patulis. *Stamina* stylusque e corolla exserta. *Stylis* impressus. *Capsula* lepidota.

Typus Subsectionis: *R. monanthum* Balf. f. & W. W. Smith.

Subsect. *Fragariflora* Cullen, Subsect. nov.

Suffrutices humiliae. *Folia* parva, crenulata, subtus conspicue nervosa. *Squamae* vesiculosae. *Inflorescentia* 2-3-floris. *Calyx* conspicuus, 5-lobatus. *Corolla* \pm rotata, tubo brevi, lobis patulis. *Stylus* impressus, quam staminibus longior. *Capsula* lepidota.

Typus Subsectionis: *R. fragariflorum* Ward.

Subsect. *Afghanica* Cullen, Subsect. nov.

Suffrutex humilis. *Folia* coriacea. *Inflorescentia* racemosa, elongata, 12-16-floris, rachidi elongato, conspicuo. *Corolla* tubo brevi, lobis patulis. *Stamina* non declinata. *Stylus* impressus, ante anthesin conspicue deflexus. *Capsula* lepidota.

Typus Subsectionis: *R. afghanicum* Aitchison & Hemsley

R. pseudocillipes Cullen, sp nov (Subsect. Maddenia)

Frutex, 0.6-2 m. *Rami* juveniles setoso-ciliati, ciliis plerumque caducis. *Folia* anguste elliptica vel anguste obovata, basim versus cuneata, apice acuta, 40-60(-80) \times 16-27 mm, subtus brunnea, laxe lepidota. *Inflorescentia* 1(-2)-floris, pedicellis lepidotis. *Calyx* variabiliter lobatus vel disciformis, lobis plerumque eciliatis. *Corolla* alba vel subrosea, (50-)55-65(-70) mm, tubo 25-35 mm, basin versus pubescens, tota laxe lepidota. *Stamina* 10.

Ovarium in stylum gradatim angustatum. *Capsula* lepidota, oblongo-cylindrica, 15–20 mm.

China. Yunnan, eastern flank of the N'Maikha-Salween Divide, 26° 20' N, v 1929, *Forrest* 17900 (holo. E).

This new species, which occurs in NW Yunnan and adjacent Burma, is represented by many gatherings and is easily identifiable by its 1-flowered inflorescences and small leaves. The material put together here has been variously identified (by Hutchinson and others) as *R. ciliicalyx*, *scottianum*, *ciliipes* (a paratype!), *dendricola*, *notatum* and *supranubium*. It closely approaches Hutchinson's concept of *R. supranubium* (as deduced from his description and specimens annotated by him)—a high-alpine plant with 1-flowered inflorescences—but, unfortunately, the type of this name does not agree, so a new name is necessary.

***R. yunchangense* Cullen, sp. nov.** (Subsect. *Maddenia*)

Frutex, 0.8–1.3 m. *Rami juveniles* setoso-ciliata, ciliis variabiliter persistentibus. *Folia* anguste elliptica vel anguste obovata, basim versus cuneata, apice obtusa, 70–100 × 28–38 mm; supra atroviridia, glabra, elepidota, marginibus ciliatis, ciliis caducis; subtus pallide glauca, papillosa, squamis laxis, luteis, inequalibus provisa. *Petoli* lepidoti, setosi. *Inflorescentia* 2–4-floris, pedicellis sparse lepidotis. *Calyx* conspicuus 5-lobatus, lobis oblongis, obtusis, c. 7 mm longis, ciliatis. *Corolla* c. 60 mm, tubo 32 mm, alba, infundibuliformi-campanulata, extus glabra atque elepidota. *Stamina* 10. *Ovarium* in stylum gradatim angustatum; stylo ± elepidoto. *Capsula* lepidota, oblongo-cylindrica, 12–16 mm.

China. Yunnan, ranges N of Yunchang-fu, 25° 12' N, shrub of 4 feet, flowers white faintly flushed rose on exterior, fragrant; on cliffs and in side valleys, 7–8000 feet, *Forrest* 25446 (holo. E); ditto, fruiting, *Forrest* 25772.

Known only from the type and its re-collection in fruit, this is a very distinct species, characterised by its very individual calyx, glabrous and elepidote corolla, and elepidote style. The plant in cultivation under *Forrest* 25446 is the quite different *R. chrysodoron* (Subsect. *Boothia*).

***R. calostrotum* Balf. f. & Ward subsp. *riparioides* Cullen, subsp. nov.** (Subsect. *Saluensia*)

A subsp. *calostroto* squamis in pagina inferiora folii planis, foliis 22–33 mm differt.

China. Yunnan, on the Shui-lu-shan, west of Wei-hsi, 27° 12' N, 99° 12' E, 13,000 ft, June 1924, *Forrest* 25503 (holo. E).

A rather distinct variant of *R. calostrotum*, known from a number of specimens collected around Wei-hsi in northwest Yunnan; its longer leaves with flat scales on the lower surfaces distinguish it from the other subspecies.

R. subansiriense Chamberlain & Cox, sp. nov. (Subsect. Thomsonia)

R. hookeri, affinis sed ovario dense tomentosum.

Frutex vel arbor, ad 14 m alta. *Truncus* ad 60 cm diam.; cortex cinereus vel griseo-lateritius, laevis. *Gemmae foliosae* c. 3×0.8 cm, cuspidatae. *Folia* oblonga 7-10.5 \times 2-3.5 cm, 3-3.5-plo longiora quam lata, apice rotundata, apiculata, basi plus minusve rotundata, margine recurvata non undulata; lamina glabriuscula, ad paginam inferiorem glandulis sessilibus unoquoque pilo vestigiali praedito. *Petiolii* 1-1.5 cm longi, glabri. *Inflorescentia* densa, saltem 15-flora; rhachis c. 5 mm longa; pedicelli 7-10 mm longi, glabri. *Calyx* 4-5 mm longus, cupulatus, lobis rotundatis, ciliatis. *Corolla* c. 40 mm, tubuloso-campanulata, carnosa, saccis nectariferis depressis, coccinea, intus maculis purpureis paucis provisa. *Ovarium* dense tomentosum eglandulosum. *Capsula* ignota.

NE India. Arunachal Pradesh, ridge SE of the Apa Tani valley, Subansiri Division, mossy rain forest, 2600-2800 m, 18 iv 1965, Cox & Hutchinson 418 (holo. E). Cult., Glendoick, ii 1976, C 10670, E.

R. subansiriense forms with *R. hylaeum*, *R. faucium* and *R. hookeri* a distinct group of species within Subsect. *Thomsonia*, defined by the presence of fasciculate leaf hairs with punctate bases. The deep red corollas distinguish *R. subansiriense* from *R. hylaeum* and *R. faucium* and the eglandular, though densely tomentose, ovaries separate it from all these species. The red-flowered forms of *R. hookeri* that might be confused with *R. subansiriense* may almost always be also distinguished by the more substantial, better-developed fasciculate leaf hairs. *R. kendrickii* (Subsect. *Irrorata*), with which there is at least a superficial resemblance, has also been collected in the Apa Tani Valley (Cox & Hutchinson 416) but there is an altitudinal separation between the two species: *R. kendrickii* apparently occurs only between 2300 and 2450 m and even there is a rare plant. *R. subansiriense* on the other hand is evidently common within the upper altitudinal range of 2600-2800 m. The total geographical range of the species is uncertain as it is at present only known from the type locality.

R. subansiriense has been established in cultivation and has so far proved winter hardy in the milder parts of Britain. As it flowers and produces its first flush of leaves early, it is susceptible to frost damage but in more favourable sites, as in Cornwall and Argyll, apparently recovers quickly. In cultivation it produces an erect-growing shrub and soon develops characteristic smooth peeling bark. It flowered for the first time in a cool greenhouse at Glendoick, Perthshire in February 1976, 11 years after its introduction, probably at an age of about 15 years from germination. As this plant (specimen C 10670) matches the wild collected type well there is every reason to expect that it breeds true from seed.

R. faucium Chamberlain, sp. nov. (Subsect. Thomsonia)

R. hylaeo affinis sed ovario dense stipitato-glanduloso et foliis paucioribus lamina gradatim decrescente.

Frutex vel arbor, 1.5-6.5 m alta. *Truncus* ad 15 cm diam.; cortex griseo-lateritius, laevis. *Gemmae foliosae* c. 2 cm longae, cuspidatae. *Folia* oblanceolata, 7-12 \times 2.5-3.5 cm, apice rotundata, plerumque lamina gradatim decrescente, margine recurvata; lamina glabriuscula, ad paginam inferiorem

glandulis sessilibus praedita. *Petiole* 0.7–1.5 cm longi, stipitato-glandulosi, saepe breviter alati. *Inflorescentia* densa, 5–10-flora; rhachis 8–10 mm longa; pedicelli 5–10 mm longi, glabri vel glandulosi vel pilis dendroideis obsiti. *Calyx* 3–5 mm longus, lobis chartaceis glanduloso-ciliatis. *Corolla* 35–45 mm longa, campanulata, carnosa, saccis nectariferis depressis, pallide rosea vel alba roseo-suffusa, rare sulphurea, purpureo-maculata. *Ovarium* dense stipitato-glandulosum, 5–7-loculatum. *Capsula* cylindrica, c. 15 × 7 mm. S Tibet. Pome province, Layoting, Tongyuk Chu, 2750 m, 12 iii 1947, Ludlow, Sherriff & Elliott 12019 (holo. E). Also represented at Edinburgh by numerous collections of Ludlow *et al.* (12045, 12208, 12290, 12313, 12514, 13559, 13593, 13596, 13610, 13611, 13643, 13755) and Kingdon-Ward (5732, 6064, 6401)—all from Tibet.

The characteristic sessile 'glands' or hair bases on the lower surface of the leaves coupled with the smooth bark link this species with *R. subansiriense* and *R. hookeri* as well as with *R. hylaeum*. However the complete fasciculate hair characteristic of the group is only rarely persistent in *R. faucium*. *R. faucium* is restricted to the Tsangpo Gorge and surrounding area in S Tibet and is clearly a western vicariad of *R. hylaeum* which occurs in NW Yunnan and adjacent NE Upper Burma and SE Tibet. *R. hylaeum* proper may be distinguished from *R. faucium* as follows: leaves broader, lamina 3.5–5.7 cm wide, usually broadest at about the middle of the leaf; petioles terete, never flattened or winged; ovaries glabrous.

R. faucium is in cultivation at Edinburgh raised from seed under the following numbers: LSE 12019, 12045, 12208 and a Kingdon-Ward collection from the Tsangpo Gorge. The last mentioned has reached a height of at least 5 metres and has a loose growth form with several trunks from a single stock. The above plants were wrongly labelled either *R. 'irroratum Series'* or '*R. hylaeum*'. Indeed I suspect that many of the plants in cultivation as *R. hylaeum* are in fact referable to *R. faucium*, as the two are easily confused. The species is apparently fairly hardy.

REFERENCES

- COWAN, J. M. & DAVIDIAN, H. H. (1947). A review of Rhododendrons in their series, 1. The Anthopogon alliance. *Rhodo. Yearb.* 2:55–86.
 —(1948). *Op. cit.*, 2. The Boothii, Glaucum, Lepidotum alliance, *l.c.* 3: 51–112.
 —(1949). *Op. cit.*, 3. The Campanulatum and Fulvum series *l.c.* 4:159–182.
 —(1951). *Op. cit.*, 4. The Thomsonii series. *l.c.* 6:116–183.
 —(1955). *Op. cit.*, 6. The Lacteam series. *l.c.* 10:122–155.
 DAVIDIAN, H. H. (1954). *Op. cit.*, 5. The Campylogynum and Saluenense series *Rhodo. & Camellia Yearb.* 8:75–98.
 —(1963). *Op. cit.*, 7. The Triflorum series. *l.c.* 17:156–222.
 DU RIETZ, E. (1930). The fundamental units of biological taxonomy. *Svensk Bot. Tidskr.* 24:333–426.
 HARBORNE, J. B. & WILLIAMS, C. A. (1971). Leaf survey of flavonoids and simple phenols in the genus Rhododendron. *Phytochemistry* 10:2727–2744.

- HAYES, S., KEENAN, J. & COWAN, J. M. (1951). A survey of the anatomy of the *Rhododendron* leaf in relation to the taxonomy of the genus. *Notes R.B.G. Edinb.* 21:1-34.
- HEDBERG, O. (1950). Afro-alpine vascular plants: a taxonomic revision. *Symb. Bot. Upsal.* 15.
- HEDEGAARD, J. (1968). Beiträge zur Kenntniss der Morphologie von *Rhododendron* Samen. *Rhodo. Immergrüne Laubgeh.* 1968:7-178.
- HUTCHINSON, J.—see Stevenson (1930).
- JANAKI-AMAL, E. K., ENOCH, I. C. & BRIDGEWATER, M. (1950). Chromosome numbers in species of *Rhododendron*. *Rhodo. Yearb.* 5:78-98.
- PHILIPSON, M. N. & PHILIPSON, W. R. (1975). A revision of *Rhododendron* section *Lapponica*. *Notes R.B.G. Edinb.* 34:1-72.
- SEITHE, A. (1960). Die Haarformen der Gattung *Rhododendron* L. und die Möglichkeit ihrer taxonomischen Verwertung. *Bot. Jahrb. Syst.* 79: 297-393.
- SLEUMER, H. (1949). Ein System der Gattung *Rhododendron*. *Bot. Jahrb. Syst.* 74:511-552.
- (1968). *Rhododendron*; in *Flora Malesiana*, Ser. 1, 6:474-668.
- STEVENSON, J. B., ed. (1930). *The Species of Rhododendron*. London.
- TAGG, H.—see Stevenson above.