

# **A Synoptical Classification of the Lamiales**

**Version 2.0  
(in progress)**

**Compiled by  
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**With the help of:**

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**[estimated # species in Lamiales = 22,000]**

The goal of this project is to produce a working infraordinal classification of the Lamiales to genus with information on distribution and species richness. All recognized taxa will be clades; adherence to Linnaean ranks is optional. Synonymy is very incomplete (comprehensive synonymy is not a goal of the project, but could be incorporated). Although I anticipate producing a publishable version of this classification at a future date, my near-term goal is to produce a web-accessible version, which will be available to the public and which will be updated regularly through input from systematists familiar with taxa within the Lamiales. For further information on the project and to provide information for future versions, please contact R. Olmstead via email at [olmstead@u.washington.edu](mailto:olmstead@u.washington.edu), or by regular mail at: Department of Biology, Box 355325, University of Washington, Seattle WA 98195, USA.

**Acanthaceae** (~201/3510) Durande, Notions Elém. Bot.: 265. 1782, nom. cons. – Synopsis compiled by R. Scotland & K. Vollesen (Kew Bull. 55: 513-589. 2000); probably should include Avicenniaceae.

**Nelsonioideae (7/)** Lindl. ex Pfeiff., Nomencl. Bot. 1(1): 10. 8 Dec 1871

Anisosepalum E. Hossain (3) C. Africa  
Elytraria Michx. (17) warm & trop. NW & OW  
Gynocraterium Bremek. (1) trop. S. Amer.  
Nelsonia R. Br. (1) trop. OW  
Ophiorrhizophyllum Kurz (5) SE Asia  
Saintpauliopsis Staner (1) trop. Africa  
Staurogyne Wall. (140) trop. OW & NW

**Thunbergioideae (including Mendoncia) (5/)** Kostel., Allg. Med.-Pharm. Fl. 3: 923. Apr-Dec 1834

Anomacanthus R.D. Good (1) Zaire, Angola  
Mendoncia Vell ex Vand. (60) trop. Amer. & Africa, Madag.  
Meyenia Nees (1) India, Sri Lanka  
Pseudocalyx Radlk. (4) trop. Africa, Madag.  
Thunbergia Retz. (90) trop. OW

**Acanthoideae (189/)** Link, Handbuch 1:500. Jan-Aug 1829

**Acantheae (21/)** Dunmort., Anal. Fam. Pl.: 23 1829

Acanthopsis Harv. (7) S. Africa  
Acanthus L. (30) warm & trop. OW  
Achyrocalyx Benoist (4) Madag.  
Aphelandra R. Br. (175) Trop. Amer.  
Blepharis Juss. (8) OW trop., Medit., S. Africa  
Crossandra Salisb. (50) trop. Africa & Asia, Madag., Arabian Penin.  
Crossandrella C.B. Clarke (2) trop. Africa  
Cynarospermum Vollesen  
Cyphacanthus Leonard (1) Columbia  
Encephalospaera Lindau (2) trop. S. Amer.  
Geissomeria Lindl. (15) Mex., C. Amer., trop. S. Amer.  
Holographis Nees (10) Arid Mexico  
Neriacanthus Benth. (4) trop. Amer.  
Orophochilus Lindau (1) Peru  
Rhombochlamys Lindau (2) Columbia  
Salpixinantha Hook. (1) Jamaica  
Sclerochiton Harv. (12) trop. & S. Africa  
Stenandrium Nees (25) warm S. Amer.  
Streptosiphon Mildbr. (1) trop. E. Africa  
Strobilacanthus Griseb. (1) Panama  
Xantheranthemum Lindau (1) Peru

**Ruelliaeae**

**Ruelliaeae (48/)**

Acanthopale C.B. Clarke (150) OW trop.  
Aechmanthera Nees(3) Himal.  
Apassalus Kobuski (3) SE US, W.I.  
Beniocanthus Heine & A. Raynal (2) Madag.  
Blechum P. Brown (6) trop. Amer.  
Bravaisia DC. (3) trop. Amer.  
Brillantaisia P. Beauv. (9) trop. Africa, Madag.  
Brunoniella Bremek.(6) New Guinea, Australia  
Calacanthus T. Anderson ex Benth. (1) Indomal.  
Clarkeasia J.R.I. Wood  
Dischistocalyx T.Anderson ex Benth. (20) Africa  
Duosperma Dayton(12) trop. & S. Africa  
Dyschoriste Nees (65) warm & trop. NW & OW  
Echinacanthus Nees(4) Himal., China  
Epiclastopelma Lindau (2) trop. Africa  
Eranthemum L. (30) trop. Asia  
Eremomastax Lindau  
Eusiphon Benoist (3) Madag.  
Hemigraphis Nees (90) Asia to New Caledonia  
Heteradelphia Lindau (1) W. Africa

Hygrophila R. Br. (25) trop. OW & NW  
Ionacanthus Beniost (1) Madag.  
Kosmosiphon Lindau (1) trop. W. Africa  
Leptosiphonium F. Muell. (10) Papauasia  
Louteridium S. Watson (6) Mex. & C. Amer.  
Lychniothyrsus Lindau (5) Brazil  
Mellera S. Moore (5) warm Africa  
Mimulopsis Schweinf. (3) trop. Africa, Madag.  
Pararuellia Bremek. (5) Malaysia  
Petalidium Nees (35) trop. & S. Africa, Himal., India  
Phaulopsis Willd. (20) Afr. Mascarenes, India  
Physacanthus Benth. (5) trop. Africa  
Polylychnis Bremek. (2) NE S. Amer.  
Pseudoruellia Benoist (1) Madag.  
Ruellia L. (150) temp. & warm to trop. Amer.  
Ruelliopsis C.B. Clarke (3) trop. & S. Africa  
Sanchezia Ruiz & Pav.(20) trop. Amer.  
Satanocrater Schweinf. (4) trop. Africa  
Sautiera Decne. (1) Timor  
Spirostigma Nees (1) Brazil  
Stenosiphonium Nees (3) India, Sri Lanka  
Stenothyrsus C.B. Clarke (1) Malaya  
Strobilanthes Blume (250) trop. Asia  
Strobilanthopsis S. Moore (5) trop. Africa  
Suessenguthia Merm. (1) Bolivia  
Trichanthera Kunth (2) N. S. Amer.  
Trichosanchezia Mildbr. (1) trop. Peru  
Zygoruellia Baill. (1) Madag.

**Andrographinae (8/)**

Andrographis Wall. ex Nees (20) trop. Asia  
Cystacanthus T. Anderson (10) SE Asia  
Diotacanthus Benth. (2) Indomal.  
Graphandra J.B. Imlay (1) Thailand  
Gymnostachyum Nees (30) India to C Malaysia.  
Haplanthodes Kuntze (4) India  
Indoneesiella Sreem. (2) India  
Phlogacanthus Nees (15) Indomal.

**Justiciinae (103/)**

Afrofittonia Lindau (1) trop. W. Africa  
Ambongia Beniost (1) Madag.  
Ancistranthus Lindau (1) Cuba  
Angkalanthus Balf.f. (2) Socotra, Transvaal  
Anisacanthus Nees (8) SW US, Mex.  
Anisotes Nees (19) trop. Africa, Madag.  
Anthacanthus Nees (?) Unknown  
Aphanosperma T.F. Daniel (1) NW Mex.  
Ascotheca Heine (1) trop. W. Africa  
Asystasia Blume (70) OW trop.  
Ballochia Balf.f. (3) Socotra  
Brachystephanus Nees (10) trop. Africa, Madag.  
Calycacanthus K. Schum. (1) New Guinea  
Carlwrightia A.Gray (23) SW US, Mex, C. Amer.  
Celerina Benoist (1) Madag.  
Centrilla Lindau (?) Unknown  
Cephalacanthus Lindau (1) Peru  
Chalarothyrsus Lindau (1) Mex.  
Chamaeranthemum Nees(4) trop. Amer.  
Chileranthemum Oerst. (2) Mex.  
Chlamydocardia Lindau (4) trop. W. Africa  
Chlamydotachya Mildbr. (1) trop. E. Africa  
Chorisochroa Vollese  
Clinacanthus Nees (2) S. China to Malaysia

- Clistax* Mart. (2) Brazil  
*Codonacanthus* Nees (2) NE India, S. China, Japan  
*Conocalyx* Benoist (1) Madag.  
*Cosmianthemum* Bremek. (8) W. Borneo  
*Cyclacanthus* S. Moore (2) SE. Asia  
*Cylindrosolenium* Lindau (1) Peru  
*Danguya* Beniost (1) Madag.  
*Dasytropis* Urb. (1) E. Cuba  
*Dichazothece* Lindau (1) E. Brasil  
*Di cladanthera* F. Muell. (2) W. Australia  
*Dicliptera* Juss. (150) warm & trop. NW & OW  
*Ecbolium* Kurz (19) trop. & S. Africa, Madag., Socotra, India  
*Filetia* Miq. (8) Sumatra, Indomal.  
*Fittonia* Coem. (2) Peru  
*Forcipella* Baill. (5) Madag.  
*Glossochilus* Nees (2) S. Africa  
*Graptophyllum* Nees (10) Australia, SW Pacific Isl.  
*Gypsacanthus* Lott, Jarmillo & Rzed. (1) Mex.  
*Harpochilus* Nees (3) Brasil  
*Henrya* Nees (2) C. Amer.  
*Herpetacanthus* Nees (10) Panama to Brasil  
*Hoverdenia* Nees (1) Mex.  
*Hypoestes* Sol. Ex R.Br. (40) OW trop.  
*Ichtyostoma* Hedren and Vollesen  
*Isoglossa* Oerst. (50) OW trop. & Arabian Penin.  
*Isotheca* Turrill (1) Trinidad  
*Jadunia* Lindau (1) New Guinea  
*Juruasia* Lindau (2) Brazil  
*Justicia* L. (600) trop. & warm temp. NW  
*Kalbreyeriella* Lindau (3) Panama, Columbia  
*Linariantha* B.L. Burt & Ros.M.Sm. (1) Borneo  
*Mackaya* Harv. (15) Africa  
*Marcania* J.B. Imlay (1) Thailand  
*Megalochlamys* Lindau (3) SW Africa  
*Megalostoma* Leonard (1) C. Amer.  
*Megaskepasma* Lindau (1) Venezuela  
*Mellitacanthus* S. Moore (1) Madag.  
*Metarungia* Baden (3) trop. & S. Africa  
*Mexacanthus* T.F. Daniel (1) Mex.  
*Mirandea* Rzed. (2) Mex.  
*Monechma* Hochst. (60) Africa, India  
*Monothecium* Hochst. (3) trop. Africa, S. India  
*Odontonema* Nees 936 Mex., C. & S. Amer., W. I.  
*Oplonia* Raf. (19) trop. Amer., Africa (extinct?), Madag.  
*Oreacanthus* Benth. (4) C. Africa  
*Pachystachys* Nees (12) trop. Amer.  
*Pelecostemon* Leonard (1) Columbia  
*Peristrophe* Nees (15) trop. OW  
*Phialacanthus* Benth. (5) Himal. to Malay Penin.  
*Podorungia* Baill. (1) Madag.  
*Poikilacanthus* Lindau (6) trop. Amer.  
*Populina* Baill. (2) Madag.  
*Pranceacanthus* Wassh. (1) Brazil  
*Pseuderanthemum* Radlk. (60) trop. OW & NW  
*Pseudodicliptera* Benoist (2) Madag.  
*Psilanthele* Lindau (1) Ecuador  
*Ptyssiglottis* T. Anderson (60) Indomal.  
*Pulchranthus* V.M. Baum, Reveal and Nowicke (4) trop. S. Amer.  
*Razisea* Oerst. (3) C. Amer.  
*Rhinacanthus* Nees (15) trop. OW  
*Ritonia* Benoist (3) Madag.  
*Rungia* Nees (50) trop. OW  
*Ruspolia* Lindau (4) trop. Africa  
*Ruttya* Harv. (3) trop. & S. Africa, Arabian Penin.  
*Samuelessonia* Urb. & Ekman (1) Hispaniola  
*Sapphoa* Urb. (2) Cuba  
*Schaueria* Nees (8) Brazil  
*Sebastiano-Schaueria* Nees (1) Brazil  
*Spathacanthus* Baill. (5) C. Amer.  
*Sphinctacanthus* Benth. (1) NE India to Burma  
*Stenostephanus* Nees (6) S. Amer.  
*Streblacanthus* Kuntze (6) C. Amer.  
*Tessmanniacanthus* Mildbr. (1) trop. Peru  
*Tetramerium* Nees (28) C. Amer.  
*Thysanostigma* J.B. Imlay (2) Thailand, Malayan Penin.  
*Trichaulax* Vollesen  
*Trichocalyx* Balf.f. (2) Socotra  
*Xerothamnella* C.T. White (2) E. Australia  
*Yeatesia* Small (3) SE US, NE Mex.  
**Barleriinae (9/ )**  
*Barleria* L. (250) OW & NW trop.  
*Barleriola* Oerst. (6) W. I.  
*Borneacanthus* Bremek. (6) Borneo  
*Boutonia* DC. (1) Madag.  
*Chroesthes* Beniost (3) China, SE Asia  
*Crabbea* Harv. (12) trop. & S. Africa  
*Hulemacanthus* S. Moore (1) New Guinea  
*Lepidagathis* Willd. (100) warm & trop. NW & OW  
*Lophostachys* Pohl. (15) trop. Amer.  
**Unplaced within Acanthoideae (20/ )**  
*Acanthostelma* Bidgood and Brummitt (1) Somalia  
*Acanthura* Lindau (1) Brazil  
*Aphelandrella* Mildbr. (1) Peru  
*Camarotea* Scott Elliot (1) Madag.  
*Chlamydacanthus* Lindau (4) trop. E. Africa, Madag.  
*Dolichostachys* Benoist (1) Madag.  
*Golaea* Chiov. (1) Somalia  
*Idiacanthus* Leonard  
*Kudoacanthus* Hosok. (1) taiwan  
*Lankesteria* Lindl. (7) trop. Africa, Madag.  
*Lasiocladus* Bojer ex Nees (5) Madag.  
*Leandriella* Benoist (1) Madag.  
*Morsacanthus* Rizzini (1) Brazil  
*Neuracanthus* Nees (20) trop. Africa, Arabian Penin. to India  
*Perenideboles* Ram. Goyena (1) Nicaragua  
*Pericalypta* Beniost (1) Madag.  
*Sphacanthus* Benoist (2) Madag.  
*Vavara* Benoist (1) Madag.  
*Vindasia* Benoist (1) Madag.  
*Whitfieldia* Hook. (10) trop Africa

**Avicenniaceae** 1/4-7 Endl., Ench. Bot.: 314. 15-21 Aug 1841 - clearly belongs within Acanthaceae (Olmstead unpubl., McDade, unpubl.) Avicennia (4-7) warm cosmop

**Bignoniaceae (82/~809) Durande, Notions Elém. Bot.: 265. 1782, nom. cons.** - Synoptical classification by tribe following Gentry 1980, 1992; Spangler & Olmstead 1999, Zjhra et al. 2003, Lohman 2005, Grose & Olmstead, in prep.; Olmstead et al. unpubl.

**Bignoniaceae Dumort., Anal. Fam. Pl.: 23. 1829** (treatment following L. Lohmann, 2005) **(21/367)**

Adenocalymma Mart. ex Meisn. (78) trop Am  
 Amphilophium Kunth (41) trop Am  
 Anemopaegma Mart. ex Meisn. (41) trop Am  
 Arrabidaea DC. (69) trop Am  
 Bignonia L. (28) trop Am (including SE USA)  
 Callichlamys Miq. (1) trop Am  
 Ceratophytum Pittier (= Paragonia Bureau)  
 Clytostoma Miers ex Bureau (= Bignonia L.)  
 Cuspidaria DC. (16) trop Am  
 Cydista Miers (= Bignonia L.)  
 Distictella Kuntze (= Amphilophium Kunth)  
 Distictis Mart. ex. Meisn. (= Amphilophium Kunth)  
 Dolichandra Cham. (9) trop Am  
 Fridericia (= Arrabidaea DC.)  
 Gardnerodoxa Sandwith (= Neojobertia Baill.)  
 Glaziova Bureau (= Amphilophium Kunth)  
 Haplolophium Cham. (= Amphilophium Kunth)  
 Leucocalantha Barb. Rodr. (= Pachyptera DC. ex Meisn.)  
 Lundia DC. (13) trop Am  
 Macfadyena A. DC. (= Dolichandra Cham.)  
 Macranthisiphon Bureau ex K. Schum. (= Bignonia L.)  
 Manaosella J.C. Gomes (1) Bolivia and Brazil  
 Mansoa DC. (11) trop Am  
 Martinella Baill. (2) trop Am  
 Melloa Bureau (= Dolichandra Cham.)  
 Memora Miers (= Adenocalymma Mart. ex Meisn.)  
 Mussatia Bureau ex Baill. (= Bignonia L.)  
 Neojobertia Baill. (2) Eastern Brazil  
 Pachyptera DC. ex Meisn. (4) trop Am  
 Parabignonia Bureau ex K. Schum. (= Dolichandra Cham.)  
 Paragonia Bureau (11) trop Am  
 Perianthomega Bureau ex Baill. (1) SE Brazil, NE Parag. and SE Bolivia  
 Periarabidaea A. Samp. (= Paragonia Bureau)  
 Phryganocydia Mart. ex Bureau (= Bignonia L.)  
 Piriadacus Pichon (= Arrabidaea DC.)  
 Pithecoctenium Mart. ex Meisn. (= Amphilophium Kunth)  
 Pleonotoma Miers (15) trop Am  
 Potamogonos Sandwith (= Bignonia L.)  
 Pseudocatalpa A. H. Gentry (= Paragonia Bureau)  
 Pyrostegia C. Presl (3) trop S Am  
 Roentgenia Urb. (= Bignonia L.)  
 Saritaea Dugand (= Bignonia L.)  
 Spathicalyx J. C. Gomes (= Paragonia Bureau)  
 Sphingiphila A. H. Gentry (1) Paraguay (tentatively placed here by LL)  
 Stizophyllum Miers (3) trop Am  
 Tanaecium Sw (= Bignonia L.)  
 Tynanthus Miers (17) trop Am  
 Urbanolophium Melch. (= Amphilophium Kunth)

**Catalpeae DC. ex Meisn. (3/12)**

Catalpa Scop. (10) E Asia, N Am  
 Chilopsis D. Don (1) SW US, Mex  
 Chitalpa (= Catalpa X Chilopsis)

Macrocatalpa (Griseb.) Britton (1) Cuba (~Catalpa)

**Oroxyleae Gentry 1980 (4/6)**

Hieris Steenis (1) Penang  
 Millingtonia L.f. (1) SE Asia, Malaysia  
 Nyctocalos Teijsm. & Binn. (3) Indomalaysia  
 Oroxyllum Vent. (1) Indomalaysia

**Old World – Spathodea/Coleeae clade (19/~138)**

**Coleeae Bojer 1837 (5/50)**

Colea Bojer ex Meisn. (21) Madagascar, Mascarenes  
 Ophiocolea H. Perrier (5) Madagascar, Comores  
 Phyllarthron DC. (15) Madagascar, Comores  
 Phylloctenium Baill. (2) Madagascar  
 Rhodocolea Baill. (7) Madagascar

**Old World – Spathodea/Coleeae clade unassigned (14/88)**

Catophractes D. Don (1) tropical & S Africa  
 Dinklageodoxa Heine & Sandwith (1) Liberia  
 Dolichandrone (Fenzl) Seem. (10) E Afr, Indomal, trop. Austral, New Caledonia  
 Fernandoa Welw. ex Seem. (14) Afr, Mad, S China, SE Asia to Sumatra  
 Haplophragma Dop. (=Fernandoa)  
 Heterophragma DC. (2) India, SW Asia  
 Kigelia DC. (2) tropical Africa  
 Markhamia Seem. ex Baill. (10) trop Afr & SE Asia  
 Mayodendron Kurz (= Radermachera)  
 Newbouldia Seem. ex Bureau (1) tropical W Africa  
 Perichlaena Baill. (1) Madagascar  
 Radermachera Zoll. & Moritzi. (17) SE Asia, Malaysia  
 Rhigozum Burch. (7) trop & S Afr, Ethiop, Somal, Madag  
 Spathodea P. Beauv. (1) tropical Africa  
 Stereospermum Cham. (20) trop Afr & Asia  
 Tecomella Seem. (1) Arabia to W India

**New World - Tabebuia /Crescentieae clade (Digitifolieae) (14/~154)**

**Crescentieae G. Don, Gen. Hist. 4: 216, 232. 1837-8 Apr 1838 (3/33)**

Amphitecna Miers (18) tropical Am  
 Crescentia L. (6) tropical Am  
 Enallagma (Miers) Baill. (= Amphitecna)  
 Parmentiera DC. (9) C Am, NW Columbia

**New World - Tabebuia /Crescentieae clade unassigned (11/~121)**

Cybistax Mart. ex Meisn. (1)  
 Ekmanianthe Urb. (2) Cuba, Hispaniola  
 Handroanthus (34) Neotrop.  
 Godmania Hemsl. (2) tropical Am  
 Paratecoma Kuhl. (1) Brazil  
 Romeroa Dugand (1) Colombia  
 Roseodendron (2) Neotrop.  
 Sparattosperma Mart. Ex Meisn. (2) trop. S. Am.  
 Spirotecoma Baill. ex Dalla Torre & Harms (4) Cuba, Hispaniola

Tabebuia Gomes ex DC. (~70) tropical Am  
 Zeyheria Mart. (2) Brazil, Bolivia

**Tecomeae Endl., Gen. Pl.: 711. Jan 1839 (10/51)**

Campsidium Seem. (1) Chile, Argentina  
 Campsis Lour. (2) E Asia, E US

Deplanchea Vieill. (5) Malaysia, Aust, New Cal  
 Incarvillea Juss. (16) Himalaya, C to E Asia  
 Lamiodendron Steenis (1) New Guinea  
 Pandorea (Endl.) Spach (6) E Malay, Austr, New Cal  
 Podranea Sprague (1) tropical to S Africa  
 Tecoma Juss. (12) tropical Am (Andes) to Ariz  
 Tecomanthe Baill. (5) Malaysia, Austr, NZ  
 Tecomaria (Endl.) Spach (2) E & S Africa

**Tourrettiaceae G. Don, Gen. Hist. 4: 215, 231. 1837-8 Apr 1838 (2/4)**

Eccremocarpus Ruiz & Pav. (3) Colombia to Chile  
 Tourrettia Foug. (1) Andes to Mexico

**Jacarandaceae Seem., Ann. Mag. Nat. Hist., ser. 3, 10: 31. Jul 1862 (2/52)**

Digomphia Benth. (3) Guayana highland  
 Jacaranda Juss. (49) Guatemala/Antilles to Argentina  
**Bignoniaceae unassigned to more inclusive clade (7/25)**  
 Argylia D. Don (12) Peru, Chile, Argentina  
 Astianthus D. Don (1) C Am  
 Barnettia (=Santisukia)  
 Delostoma D. Don (4) Andes  
 Neosepicaea Diels (4) N Guinea, Queensl., Moluccas  
 Pajanelia DC. (1) Indomalaysia  
 Pauldopia Steenis (1) NE India to SE Asia  
 Santisukia Brummitt (2) Thailand

**Byblidaceae** (Engl. & Gilg) Domin, Acta Bot. Bohem. 1:3. 1922, nom. cons. (1/2)  
 Byblis (2) Aus, New Guinea

**Calceolariaceae** (3/275) (G. Don) R. Olmstead 1999 (Olmstead et al. 1999) (see Molau 1988)  
 Calceolaria L. (240-270 sensu Molau) C to S Am  
 Jovellana Ruiz & Pav. (6) NZ, Chile  
 Porodittia G. Don (1) Peru

**Carlemanniaceae** Airy Shaw (1964) (APG II, 2002) (2/5)  
 Carlemannia Benth (3) Indomal  
 Silvanthus Hook.f. (2) India to SE Asia

**Gesneriaceae** (~135-140/>3000) – synopsis compiled by **A. Weber**, provisional state 1999 (classification after WIEHLER & BURTT 1995; modified following J. Smith)

**Gesnerioideae** Link, Handbuch I: 505. Jan-Aug 1829

**Gloxiniaceae** (G. Don) G. Don in Sweet, Hort. Brit., ed. 3: 526. late 1839

Achimenes Pers. (24), mainly Mexico and Central America  
 Anodiscus Benth. (1), Peru  
 Bellonia L. (2), Cuba and Hispaniola  
 Capanea Planch. (11), Peru to Guatemala  
 Diastema Benth. (>20), Bolivia to Mexico, Venezuela, Colombia, Ecuador, Peru  
 Eucodonia Hanst. (2), C and S Mexico  
 Gloxinia L'Hér.(15), central America and trop. S America  
 Goyazia Taub. (2), C Brazil  
 Heppiella Regel (4), Peru, W Venezuela  
 Koellikeria Regel (1), C and trop. S America  
 Kohleria Regel (>20) , Peru to Mexico, Venezuela, Trinidad, Guianas  
 Lembocarpus Leeuwenb. (1), Surinam and French Guiana  
 Monopyle Benth. (>27), Bolivia to Guatemala  
 Moussonia Regel (11), Mexico to Panama  
 Niphaea Lindl. (5), Mexico, Guatemala, Venezuela, Peru  
 Pearcea Regel (incl. Parakohleria Wiehler) (17), eastern slopes of the Andes (Colombia, Ecuador, Peru, Bolivia), 1 sp. also on the western slopes (Ecuador)  
 Phinaea Benth. (>16), Mexico to Peru, Venezuela, Cuba, Haiti  
 Smithiantha Kuntze (5), C & N Mexico, Guatemala  
 Solenophora Benth. (> 20), central America

**Sinningieae**

Paliavana Vand. (8), SE Brazil  
 Sinningia Nees (>60), throughout the Neotropics

Vanhouttea Lem. (6), SE Brazil

**Episcieae**

Alloplectus Mart. (>75), throughout the Neotropics (except SE Brazil)  
 Chrysothemis Decne. (7), Ecuador to Guatemala, C Brazil, the Guianas, Venezuela and Lesser Antilles  
 Cobananthus Wiehler (1), Guatemala  
 Codonanthe (Mart.)Hanst. (>20), throughout the Neotropics  
 Codonanthisp Mansf. (5), Peru to Brazil (Amazon system)  
 Columnea L. s. lat.  
 Bucinellina Wiehler (2) , SW Colombia, NW Ecuador  
 Columnea L. s. str. (>75), C America, Carrib. Islands, Colombia, Ecuador, Venezuela, Guayana Highlands, NE Brazil  
 Dalbergaria Tussac (>120), Bolivia to Guiana Highlands, Mexico, Greater Antilles  
 Pentadenia (Planch.)Hanst. (>35), Bolivia to Mexico  
 Trichantha Hook.f. (>70), Bolivia to Guatemala, Greater Antilles, Guayana Highlands  
 Corytoplectus Oerst. (15), Bolivia to Panama, coastal Venezuela, Guayana Highlands  
 Drymonia Mart. (>140), throughout the Neotropics  
 Episcia Mart. s.l.  
 Episcia Mart. s str. (9), trop. S America to Nicaragua)  
 Alsobia Hanst. (2), Mexico and central America  
 Nautilocalyx [Linden ex] Hanst. (>70), throughout trop. America, except SE Brazil  
 Nematanthus Schrad. (30), S & SE Brazil  
 Neomortonia Wiehler (3), central America and W Colombia

- Oerstedina Wiehler (3), Central America  
 Paradyrmonia Hanst. (>70), throughout the Neotropcis, except SE Brazil  
 Rhoogeton Leeuwenb. (3), British Guiana  
 Rufodorsia Wiehler (4), Costa Rica, Panama
- Beslerieae**  
 Anetanthus Benth. (2), Peru, Bolivia, C Colombia, SE Brazil  
 Besleria L. (>200), throughout the Neotropics, esp. Andes of Colombia and Ecuador  
 Cremosperma Benth. (23), Costa Rica to Andes of Peru  
 Gasteranthus Benth. (35), S Mexico, central America, SW South America to Bolivia  
 Reldia Wiehler (5), Panama to N Peru  
 Resia H.E.Moore (2), Colombia, Venezuela  
 Tylopsacas Leeuwenb. (1), Guayana Highlands
- Napeantheae**  
 Napeanthus Gardn. (>30), throughout the Neotropics
- Gesnerieae**  
 Gesneria L. s. lat.  
 Gesneria L. s. str. (Skog) (46), Carribean islands  
 Pheidonocarpa L. E. Skog (3), Carribean islands  
 Rhytidophyllum Mart. (c. 20), Carribean islands
- Coronantheroideae**
- Coronanthereae**  
 Asteranthera Hanst. (1), Chile  
 Coronanthera C.B.Clarke (11), New Caledonia, one sp. in Solomon Islands  
 Depanthus S.Moore (2), New Caledonia  
 Fieldia Cunn. (1), SE Australia  
 Lenbrassia G.W.Gillett (1), NE Australia  
 Mitraria Cav. (1), Chile, nearby Argentina  
 Negria F. Muell. (1), Lord Howe Island (SW Pacific)  
 Rhabdothamnus Cunn. (1), New Zealand  
 Sarmienta Ruiz & Pav. (1), Chile
- Cyrtandroideae** Burnett, Outl. Bot.: 963, 1095, 1107. Jun 1835
- Epithemateae (= Klugieae)** Klugieae Fritsch in Engl. & Prantl, Nat. Pflanzenfam. 4(3b): 143. Mai 1893  
 Cyrtandromoea (11) SE Asia, Mal  
 Epithema Blume (> 20), S & SE Asia, one sp. in W Africa  
 Gyogyne W. T. Wang (1), S China  
 Loxonia Jack (3), W Malesia (Sumatra, Malay Penins., Borneo)  
 Monophyllaea R. Br. (32), Malesia (Sumatra to New Guinea, S Thailand and Luzon to Java)  
 Rhynchoglossum Blume (c. 12), Malesia (India and S China to New Guinea), 1 (or more?) spp. in C America, Columbia, Venezuela  
 Stauranthera Benth. (5-8), NE India and S China over Malesia to New Guinea  
 Whytockia W. W. Sm. (6), S China, Taiwan
- Didymocarpeae** Endl., Gen. Pl.: 716. Jan 1839  
 Acanthonema Hook.f. (2), trop. W Africa  
 Allocheilos W.T.Wang (2), S China  
 Allostigma W.T.Wang (1), S China  
 Ancylostemon Craib (11), C & S China  
 Anna Pellegr. (3), S China  
 Beccarinda Kuntze (c. 8), NE India, Burma, S China, Hainan, Vietnam, Sumatra  
 Boea [Comm. ex] Lam.(17), S China, NE India, N Thailand, Vietnam, Philipp. Sulawesi, Sumbawa, Flores, Ne Guinea, Solomon Islands, Bismarck and Lousiade Archipelago  
 Boeica C.B.Clarke (9), NE India, Bangla-desh, Burma, S China, Malaysia  
 Bournea Oliv. (2), SE China  
 Briggsia Craib (21), C & S China  
 Briggsiopsis K.Y.Pan (1), S China  
 Calcareoboeca H.W.Wu (1), S China  
 Cathayanthe Chun (1), S China  
 Championia Gard. (1), Sri Lanka  
 Chirita D.Don (>130), S China to Borneo  
 Chiritopsis W.T.Wang (8), S China  
 Colpogyne B.L.Burttt (1), Madagascar  
 Conandron Sieb. & Zucc. (1), China, Taiwan, Japan  
 Corallodiscus Batalin (17), India, Bhutan, Nepal, Sikkim, C & S China  
 Dayaoshania W.T.Wang (1), S China  
 Deinocheilos W.T.Wang (2), S China  
 Deinostigma [W.T.Wang ex] Z.Y.Li (8), W Malesia  
 Didymocarpus Wall. (c. 80), S China to Malay Peninsula and Sumatra  
 Didymostigma W.T.Wang (1), SE China  
 Dolicholoma D.Fang & W.T.Wang (1), SE China  
 Gyrocheilos W.T.Wang (4), S China  
 Haberlea Friv. (2), Balkan Peninsula  
 Hemiboea C.B.Clarke (21), C & S China, N Vietnam, Taiwan, Japan  
 Hemiboeopsis W.T.Wang (1), S China  
 Henckelia Spreng. (Didymocarpus p.p., Loxocarpus, Platyadenia) (c. 180), from S India and Sri Lanka throughout Malesia to New Guinea  
 Hexatheca C.B.Clarke (3), Borneo  
 Hovanella A.Weber & B.L.Burttt (Didymocarpus p.p.) (2), E & C Madagascar  
 Isometrum Craib (13), C China  
 Jancaea Boiss. (1), Greece  
 Lagarosolen W.T.Wang (2), S China  
 Leptoboeca Benth. (4), NE India, Sikkim, Bhutan, Burma, S China  
 Linnaeopsis Engl. (3), E Africa  
 Metabriggsia W.T.Wang (2), S China  
 Metapetrocosmea W.T.Wang (1), S China  
 Nodonema B.L.Burttt (1), trop. W Africa  
 Opithandra B.L.Burttt (9), S China, Japan  
 Orchadocarpa Ridl. (1), Malay Peninsula  
 Oreocharis Benth. (27), C & S China, N Vietnam, Thailand  
 Ornithoboeca [Parish ex] C.B.Clarke (11), S China to N Malay Peninsula  
 Paraboea (C.B.Clarke) Ridl. (>80), Malesia (Sumatra to New Guinea, S Thailand to Borneo)  
 Paraisometrum W.T.Wang (1), S China  
 Petrocodon Hance (1), China  
 Petrocosmea Oliv. (27), S China, NE India, Burma, Thailand Vietnam  
 Phylloboea Benth. (1), Burma  
 Platystemma Wall. (1), Nepal, SW China  
 Primulina Hance (1), S China  
 Pseudochirita W.T.Wang (1), S China  
 Ramonda Rich. (3), Iberian (Pyrenees) and Balkan Peninsula  
 Raphiocarpus Chun (Didissandra p.p.) (11), China, Vietnam  
 Rhabdothamnopsis Hemsl. (1), S China

Ridleyandra A. Weber & B.L. Burtt (Didissandra p.p.)  
(c. 23), Malay Peninsula, Borneo  
Saintpaulia H. Wendl. (>20), E Africa  
Schizoboea (Fritsch) B.L. Burtt (1), W, C & E Africa  
Streptocarpus Lindl. (>130), Africa, Madagascar,  
Comoro Islands  
Tengia Chun (1), S China  
Tetraphyllum [Griff. ex] C.B. Clarke (2-3), NE India,  
Bangladesh, Thailand, ?Burma  
Thamnocharis W.T. Wang (1), S China  
Trachystigma C.B. Clarke (1), W Africa  
Tremacron Craib (7), S China  
Trisepalum C.B. Clarke (15), S China, Burma,  
Thailand, N Malay Peninsula

**Trichospreae**

Aeschynanthus Jack (c. 150), S China, Nepal, S India,  
Sri Lanka, throughout Malesia to New Guinea,  
Solomon Islands  
Agalmyla Blume (>50), Malesia  
Loxostigma C.B. Clarke (7 or more), NE India,  
Sikkim, Bhutan, Nepal, Burma, S China, N Vietnam

Lysionotus G. Don (c. 30) from N India and Nepal to  
Thailand, Vietnam, S China, S Japan  
Microaeschynanthus Ridl. (1, doubtful), Malay  
Peninsula

**Cyrtandreae**

Cyrtandra J.R. & G. Forst. (>450), Nicobar Islands,  
Sumatra, S Thailand, Taiwan, throughout Malesia to  
the Pacific and Hawaiian Islands  
Rhynchotechum Blume (12), SE Asia, position  
somewhat uncertain, eventually to Didymocarpeae  
Sepikaea Schltr. (1), New Guinea, probably to be  
included in Cyrtandra

**Genera of uncertain position:**

Sanango Bunting & Duke (1), C America, eastern  
slopes of the Andes (Ecuador and Peru), included in  
Gesnerioideae-Gesnerieae by Wiehler (1994), but  
position still doubtful  
Titanotrichum Soler. (1), S China, Taiwan, S Japan  
(accommodated in a monotypic tribe, Cyrtandroideae-  
Titanotricheae, by W.T. Wang)

**Lamiaceae (= Labiatae)** (~252/6700) Genera by subfamily and tribe (after Cantino et al. 1992, 1997, Wagstaff et al. 1997, Olmstead, unpubl.; Cantino pers. comm.). Nomenclature follows Cantino et al 1997; 1998.

**Teucrioideae** (26/~1000)

Aegiphila Jacq. (125-150) trop Am  
Ajuga L. (40-50) mainly Eurasia  
Amasonia L.f. (8) trop Am  
Amethystea L. (1) Asia  
Cardioteucris (= Rubiteucris) Kudo (2) China  
Caryopteris Bunge (7) E Asia  
Clerodendrum L. 400-500 trop/subtrop  
Cyclonema (= Rothea)  
Discretitheca 1 Nepal  
Eplingia (= Trichostema) L. (17) Mexico  
Faradaya F. Muell. (3-18) Indomal/Austral/Polynes  
Glossocarya Wall. ex Griff. (9-13)  
Australia/Indomal/SE Asia  
Hosea Ridl. (1) Indomal  
Huxleya Ewart (1) Australia  
Isanthus (= Trichostema) N Am  
Kalaharia (= Clerodendrum) Africa  
Karomia Dop. (9) Afr/Mad/Viet Nam  
Kinostemon (= Teucrium) China  
Monochilus Fisch. & C.A. Mey. (2) Brazil  
Oncinocalyx F. Muell. (1) Australia  
Oxera Labill. (20) New Caledonia, Vanuatu  
Pseudocaryopteris 3 S China, India, SE Asia  
Rothea 50-60 Afr/Mad/Ind Ocean/S Asia/Indomal  
Rubiteucris 2 E Asia  
Schnabelia Hand.-Mazz. (5) China  
Spartothamnella Briq. (3) Australia  
Tetraclea (2) S. N. Am  
Teucrium Hook.f. (1) New Zealand  
Teucrium L. (200) worldwide mostly temp  
Trichostema L. (17-19) N Am/Bahamas  
Tripora 1 E Asia

**Lamiina ()**

**Scutellarioideae** Prantl, Text-Book Bot.: 293. 1 Mar-15  
Apr 1880. (5/372)

Harlanlewisia (= Scutellaria) Ecuador  
Holmskioldia Retz. (1) Himal  
Perilomia (= Scutellaria) S Am

Renschia Vatke (1) Africa  
Salazaria (= Scutellaria) SW US  
Scutellaria L. (350) worldwide  
Tinnea Kptschy & Peyr. (19) Africa  
Wenchengia C.Y. Wu & S. Chow (1) China

**Clebrookeina**

**Marrubiina** (~56/1090)

Achyrospermum Blume (10) Old World trop  
Acrotome Benth. ex Endl. (8) trop and S. Africa  
Ajugoides Makino (1) Japan  
Alajja Ikonn. (3) C Asia/Afghan/W Himalaya  
Ballota L. (35) Europe/Medit/W. Asia  
Bostrychanthera Benth. (1) China  
Brazoria Engelm. & A. Gray (2) S US  
Chaiturus (~ Leonurus) Ehrh. ex Willd. (1) W Eur to C As  
Chamaesphacos Schrenk ex Firsh. & C.A. Mey. (1) Iran/Afghanistan  
Chelonopsis Miq. (13) Kashmir/Tibet/E Asia  
Colquhounia Wall. (3) Himalaya/SW China  
Craniotome Rechb. (1) Himalaya  
Eremostachys Bunge (5+) Eur - C. Asia  
Eriophyton Benth. (1) Himalaya  
Galeobdolon (= Lamium) W Eur/Iran  
Galeopsis L. (10) temp Eurasia  
Gomphostemma L. (30) SE Asia/Malaysia  
Haplostachys (A. Gray) W.F. Hillebr. (6) Hawaii  
Harmsiella (= Otostegia)  
Hypogomphia 4 C Asia/Afghan  
Isoleucas O. Schwartz (1) Arabia  
Lagochilus Bunge (35) C.As - Iran/Afghan.  
Lagopsis Bunge (4) (=Marrubium?) Siberia/Japan  
Lamiophlomis (=Phlomis)  
Lamium L. (41) N.Af/Eurasian  
Lasiocorys (= Leucas) trop S Af/Socotra/Arab  
Leonotis (Pers.) R. Br. (40) trop, S Af; 1 pantrop  
Leonurus L. (4) temp Eurasia  
Leucas R. Br. (150) Afr/Arabia/Indomal.  
Loxocalyx Hemsl. (2) China  
Macbridea Elliott ex Nutt. (2) SE US  
Marrubium L. (30) Eur/Medit

- Melittis L. (1) Eur - Iran  
 Metastachyidium Airy Shaw ex C.Y. Wu & H.W. Li (1) C. Asia  
 Microtoena Prain (25) Himalaya-W China  
 Moluccella L. (4) Medit - NW India  
 Notochaete Benth. (1) Himalaya  
 Otostegia Benth. (20) SE trop Af - C Asia  
 Panzerina Sojak (6) Siberia/Mongol  
 Paralanium Dunn (1) SW China  
 Paraphlomis Prain (8) E Asia/Malaysia  
 Phlomidioschema (Benth.) Vved. (1) Iran-W Himalaya  
 Phlomis L. (100) C Asia/China  
 Phyllostegia Benth. (25) Tahiti/Hawaii  
 Physoleucas (= Leucas) Arabia  
 Physostegia Benth. (12) N Am  
 Prasium L. (1) Medit  
 Pseuderemostachys Popov (1) C Asia  
 Pseudomarrubium Popov (1) C Asia ?  
 Roylea Wall. ex Benth. (1) Himalaya  
 Sideritis L. (100) N temp Old world/Macarones  
 Stachyopsis Popov & Vved. (3) C Asia  
 Stachys L. (300) temp World-wide  
 Stenogyne Benth. (25) Hawaii  
 Sulaimania Hedge & Rech.f. (1) Pakistan  
 Suzukia Kudo (2) Ryukyus/Taiwan  
 Synandra Nutt. (1) E US  
 Thuspeinanta T. Durand (2) C Asia/Iran/Afghan  
 Warnockia 1 S US  
 Wiedemannia Fisch. & C.A. Mey. (3) SW Asia
- Colebrookeina – genera of uncertain placement**  
 Anisomeles R. Br. (13) OW trop, Mad, Indom, Aus  
 Colebrookea Sm. (1) India  
 Comanthosphace S. Moore (5) E Asia  
 Epimeredi (= Anisomeles)  
 Eurysolen (or Lamioidae?) Prain (1) SE Asia and Malaysia  
 Eusteralis (= Pogostemon) 96 temp Asia/Aus  
 Leucosceptrum Sm. (3) Himal., China  
 Pogostemon Desf. (71) Indomalaysia  
 Rostrinucula Kudo (2) E Asia  
 Holocheila (Kudo) S. Chow (1) China (= Teucriae?)
- Prostantheroideae (16/239) Leurrss., Handb. Syst. Bot. 2: 1014, 1016. Sep 1882 (14/238)  
 Chloantheae (9/99) Benth. & Hook.f., Gen. Pl. 2: 1132. 1-16 Mai 1876  
 Chloanthes R. Br. (4) Australia  
 Cyanostegia Turcz. (5) Australia  
 Denisonia (=Pityrodia)  
 Dicrastylis J.L. Drumm. ex Harv. (26) Australia  
 Hemiphora (F. Muell.) F. Muell. (1) Australia  
 Lachnostachys Hook. (6) Australia  
 Mallophora Endl. (2) Australia  
 Newcastelia F. Muell. (12) Australia  
 Physopsis Turcz. (2) Australia  
 Pityrodia R. Br. (41) Australia
- Westringieae** Bartl., Ord. Nat. Pl.: 182. Sep 1830. (7/140)  
 Cryphia (= Prostanthera)  
 Eichlerago 1 (= Prostanthera) Australia  
 Hemiantra R. Br. (7) Australia  
 Hemigenia R. Br. (40) Australia  
 Microcorys R. Br. (16) Australia  
 Prostanthera Labill. (45) Australia  
 Westringia Sm. (30) Australia  
 Wrixonia 1 Australia
- Symphorematina** (3/24)  
 Congea Roxb. (7) SE Asia & W. Malaysia  
 Sphenodesme Jack (14) SE Asia & W. Malaysia  
 Symphorema Roxb. (3) Indomal
- Nepetoideae** Kostel., Allg. Med.-Pharm. Fl. 3: 752. Apr-Dec 1834. (/)  
**Mentheae** Dumort., Fl. Belg.: 48. 1827. (/)  
 Acanthomintha A. Gray (3) W. US  
 Acinos (= Clinopodium)  
 Agastache Gronov. (22) N. Amer.  
 Blephilia Raph. (3) E N Am  
 Bystropogon L'Her. (10) Macaronesia  
 Calamintha (= Clinopodium)  
 Cedronella Moench (1) Macaronesia  
 Chaunostoma Donn.Sm. (1) C. Amer.  
 Cleonia L. (2) W Medit.  
 Clinopodium L. (100) N World temp Eurasia  
 Conradina (6) SE US  
 Coridothymus (= Thymbra) Rchb.f. (unknown)  
 Uncertain  
 Cuminia Colla (1) Juan Fernandez Isl.  
 Cunila Royen ex L. (15) N/S Am  
 Cyclotrichium (Boiss.) Manden. & Scheng. (6) SW Asia to Iran  
 Dicerandra Benth. (8-9) SE US  
 Diodeilis (= Clinopodium)  
 Dorystaechas Boiss. & Heldr. ex Benth. (1) W Asia  
 Dracocephalum L. (46) Eurasia, N. Amer.  
 Drepanocaryum Pojark. (1) C Asia  
 Eriothymus (Benth.) Rchb. (1) Brazil  
 Euhesperida Brullo & Furnari (1) Libya & Cyrenaica  
 Gardoquia (= Clinopodium)  
 Glechoma L. (10) temp. Eurasia  
 Glechon Spreng. (6) Brazil, Paraguay  
 Gontscharovia Boriss. (1) C Asia  
 Hedeoma Pers. (38) SW N. Amer. & S. Amer.  
 Hesperozygis Epling (8) Mex. to Brazil  
 Hoehnea Epling (4) S Brazil to N Argentina  
 Horminum L. (1) S Europe  
 Hymenocrater Fisch. & C.A. Mey. (12) SW Asia  
 Hyssopus L. (5) S Europe & Medit. to C Asia  
 Kudrjaschevia Pojark. (4) C Asia  
 Kurzamra Kuntze (1) temp. S. Amer.  
 Lallemania Fisch. & C.A. Mey. (5) Turkey to C Asia & Himal.  
 Lepechinia Willd. (55) warm N. Amer. & S. Amer., Hawaii  
 Lophanthus Adans. (2) unknown  
 Lycopus L. (14) N temp  
 Marmoritis Benth. (5) Pakistan to China  
 Meehanina Britton (2) E Asia, E US  
 Melissa L. (3) Europe to Iran & C Asia  
 Mentha L. (25) temp. OW  
 Meriandra Benth. (2) Ethiopia, Himal.  
 Micromeria Benth. (90) temp. Europe, Canary Isl., W.I.  
 Minthostachys (Benth.) Spach (12) W S. Amer.  
 Monarda L. (20) N Am, Mex  
 Monardella Benth. (20) W N. Amer.  
 Neoepingia Ramam., Hiriart & Medrano (1) Mex.  
 Nepeta L. (250) Eurasia & N Africa  
 Obtegomeria (1) N S Am  
 Origanum L. (36) Eurasia  
 Pentapleura Hand.-Mazz. (1) Kurdistan



Perovskia Kar. (7) NE Iran to NW India  
 Piblephhis Raf. (1) SE US  
 Pitardia Batt. ex Pit. (2) NW Africa  
 Pogogyne Benth. (6) W N. Amer.  
 Poliomintha A. Gray (7) SW N. Amer.  
 Prunella L. (4) N temp. Eurasia & NW Africa  
 Pycnanthemum Michx. (17-21) E N Am  
 Rhabdocaulon (Benth.) Epling (7) trop. S. Amer.  
 Rhododon Epling (1) SC US  
 Rosmarinus L. (2) Medit.  
 Saccocalyx Coss. & Durieu (1) NW Africa  
 Salvia L. (900) OW & NW temp regions  
 Satureja L. (30) OW & NW temp. & warm regions  
 Schizonepeta (Benth.) Briq. (3) temp. Asia  
 Stachydeoma Small (1) SE US  
 Thymbra L. (4) Medit. & S Europe to SW Asia  
 Thymus L. (350) temp. Eurasia  
 Xenopoma (= Clinopodium)  
 Zataria Boiss. (1) Iran, Afghanistan  
 Zhumeria Rech.f. & Wendelbo (1) Iran  
 Ziziphora L. (25) Medit. to C Asia  
 Ocimeae Dumort., Anal. Fam. Pl.: 22. 1829 (52/1458)  
 Acrocephalus Benth. (= Platostoma)  
 Aeollanthus Mart. ex Spreng. (43) trop. & warm  
 Amer.  
 Alvesia Welw. (3) trop. Africa  
 Anisochilus ()  
 Asterohyptis Epling (3) Mex.  
 Basilicum Moench (7) OW trop. to Australia  
 Becium (= Ocimum) Lindl. (10) trop. Africa  
 Benguella G. Taylor (1) Angola  
 Capitanopsis S. Moore (2) Madag.  
 Capitania Schweinf. ex Gurke (1) E Africa  
 Catoferia (Benth.) Benth. (4) C. Amer.  
 Ceratanthus (= Platostoma) F. Muell. ex G. Taylor  
 (10) SE Asia, Malayasia  
 Dauphinea Hedge (1) Madag.  
 Endostemon N.E. Br. (17) trop. & S Africa to India  
 Englerastrum (= Plectranthus) Briq. (20) trop. Africa  
 Eriope Kunth ex Benth. (30) trop. & warm S. Amer.  
 Eriopidion (= Eriope) Harley (1) Venezuela, Brazil  
 Erythrochlamys (= Ocimum) Gurke (5) trop. E Africa  
 Fuerstia T.C.E. Fr. (6) trop. Africa  
 Geniosporum (= Plectranthus) Wall. ex Benth. (25)  
 trop. Africa, Madag., SE Asia  
 Hanceola Kudo (3) China  
 Haumaniastrum P.A.Duvign. & Plancke (23) trop.  
 Africa  
 Hemizygia (Benth.) Briq. (28) trop. & S Africa  
 Holostylon Robyns & Lebrun (3) trop. Africa  
 Hoslundia Vahl (2) trop. Africa  
 Hypenia (Mart. ex Benth.) Harley (24) warm & trop.  
 Amer.  
 Hyptidendron Harley (16) warm & trop. Amer.  
 Hyptis Jacq. (300) warm & trop. Amer., OW trop.  
 Isodictyophorus (= Plectranthus) Briq. (1) W Africa  
 Isodon (Schrad. ex Benth.) Spach (96) warm & trop.  
 Asia & Africa  
 Leocus ()  
 Marsypianthes Mart. ex Benth. (6) trop. Amer.  
 Mesona (= Plectranthus) Blume (3) Asia, Malaysia  
 Neohyptis (= Plectranthus) J.K. Morton (1) Angola  
 Nosema (= Plectranthus) Prain (6) SE Asia, Malaysia  
 Ocimum L. (150) temp. & trop. OW

Octomeron (= Plectranthus) Robyns (1) trop. Africa  
 Orthosiphon Benth. (40) OW trop.  
 Peltodon Pohl (5) Brazil, Paraguay  
 Perrierastrum Guillaumin (1) Madag.  
 Platostoma P. Beauv. (5) OW trop.  
 Plectranthus L'Her. (200) warm & trop. OW  
 Puntia Hedge (1) C Somalia  
 Pycnostachys Hook. (37) trop & S Africa, Madag.  
 Rabdosiella (= Plectranthus) Codd (2) S Africa, N  
 India  
 Rhapsiodon Schauer (1) Brazil  
 Solenostemon (= Plectranthus) Thonn. (10) trop.  
 Africa  
 Symphostemon (= Plectranthus) Hiern (2) Angola  
 Syncolostemon E. Mey. (10) SE Africa  
 Tetradenia Benth. (9) trop. Africa, Madag.  
 Thorncroftia N.E. Br. (3) Transvaal  
**Elsholtzieae** Burnett, Outl. Bot.: 971. Jun 1835 (6/57)  
 Collinsonia L. (4) E N Am  
 Elsholtzia Willd. (35) OW trop.  
 Keiskea Miq. (5) Asia  
 Mosla (Benth.) Buch.-Ham. ex Maxim. (10) E Asia,  
 Malaysia  
 Perilla L. (6) India to Japan  
 Perillula Maxim. (1) Japan  
 Lavanduleae Caruel in Parl., Fl. Ital. 6: 53. Sep 1884  
 (1/30)  
 Lavandula L. (30) Atlantic isl., Medit. to Somalia &  
 India  
 Sabaudia (= Lavandula) Buscal. & Muschl. (2) NE &  
 SE trop. Africa  
 Nepetoideae genera of uncertain placement  
 Bovonia Chiov. (1) Zaire  
 Heterolamium C.Y. Wu (1) China  
 Ombrocharis Hand.-Mazz. (1) China  
**Viticoideae** (3/260)  
 Petitia Jacq. (2) W.I.  
 Pseudocarpidium Millsp. (8) W.I.  
 Teijsmanniodendron Koord. (14) SE Asia, Malaysia  
 Vitex L. (250) temp. & trop. NW & OW  
**Uncertain affinity within family**  
 Acrymia Prain 1 Malaysia  
 Adelosia Blume 1 Madagascar  
 Archboldia E. Beer & H.J. Lam (1) New Guinea  
 Callicarpa L. (140) warm & trop. NW & OW  
 Cornutia L. (12) trop. Am  
 Cymaria Benth. (2-3) SE Asia, Indomal.  
 Garretia H.R. Fletcher (1) SE Asia, Indomal.  
 Geunsia (= Callicarpa)  
 Gmelina L. (35) SE Asia, Indomal., Africa, Mascarenes  
 Hymenopyramis Wall. ex Griff. (6) India, SE Asia  
 Neorapinia Moldenke (1) New Caledonia  
 Paravitex H.R. Fletcher (1) SE Asia  
 Peronema Jack (1) SE Asia/Indomal.  
 Petraeovitex Olive (8) Indomal /Pac.Is/Phillipines  
 Premna 200 trop/subtrop Af/Asia/Aust  
 Pseudochamaesphacos ?  
 Pygmaeopremna (= Premna?)  
 Tectona L.f. (3) trop. Asia  
 Tsoongia Merr. (1) SE Asia  
 Viticipremna Lam. (5) Indomal., Australia

**Lentibulariaceae** Rich. in Poit. & Turpin, Fl. Paris 1: ed. fol. 23, ed. qu. 26. 1808, *nom. cons.* (4/310) See Müller et al. 2004.  
 Byblis (2) Aus, New Guinea  
 Genlisea A. St.-Hil. (21) trop Am, trop & S Af, Mad  
 Pinguicula L. (74) Am, Medit, circumbor  
 Utricularia L. (215) cosmop, esp trop

**Linderniaceae** (13/~194)

Artanema D. Don (4) trop Afr, Asia  
 Chamaegigas Dinter (1) Namibia  
 Craterostigma Hochst. (9) Yemen, trop & S Af, Ind  
 Crepidorhopalon Eb. Fisch. (28) trop & S Af, Mad  
 Hartliella Eb. Fisch. (4) C Af (Congo, Katanga)  
 Hemiarthena Benth. (1) Q'land (= Lindernia?)  
 Legazpia Blanco (1) SE As, Micrones, N Guin (= Torenia?)  
 Lindernia All. (~100) Eur, trop Af, Mad, SE As, N, C, & C. Am.  
 Picria Lour. (1) Indomal. (= Curanga)  
 Pierranthus Bonati (1) SE As  
 Schizotorenia T. Yamaz. (2) SE As (= Lindernia?)  
 Scolophyllum T. Yamaz. (2) SE As (= Lindernia?)  
 Torenia L. (40) SE As, Af, Mad

**Martyniaceae** Horan., Char. Ess. Fam.: 130. 1847, *nom. cons.* (4/17) (sensu H.-D. Ihlenfeldt, pers. comm.)

Craniolaria L. (3) S. Am.  
 Ibicella Van Eselt. (3) warm and trop. Am  
 Martynia L. (1) Mex  
 Proboscidea Schmidel (10) warm Am

**Oleaceae** Hofmanns. & Link Fl. Portug. 1:62. 1809. (25/600+) provided by Eva Wallander (eva.wallander@systbot.gu.se)  
 6/14/00

Comments: Note that *Dimetra* and *Nyctanthes* now, without doubt, belong to Oleaceae (not Verbenaceae). The subfamilies Jasminoideae and Oleoideae have been abandoned because Jasminoideae is paraphyletic. The Oleoideae is monophyletic but now recognised as tribe Oleae, with its former tribes as subtribes.

Fontanesieae

Fontanesia (1-2) SW Asia (and Sicily) and China

Forsythieae

Abeliophyllum Nakai (1) Korea  
 Forsythia (11) E Asia and SE Europe (1 sp.)

Jasmineae

Jasminum (200+) Tropical and subtropical parts of the Old World  
 Menodora (22) Subtropical North America, central and S South America, and S Africa

Myxopyreae

Dimetra (1) Thailand  
 Myxopyrum (4) Tropical SE Asia  
 Nyctanthes (2) Tropical and subtropical SE Asia

Oleae

Ligustrinae

Ligustrum (45) Temperate to tropical parts of the Old World, except Africa  
 Syringa (20) Mainly subtropical parts of Eurasia

Schreberinae

Comoranthus (3) Madagascar and the Comores  
 Schrebera (4) Tropical parts of Africa and India

Fraxininae

Fraxinus (50) Mainly temperate and subtropical regions of the Northern Hemisphere

Oleinae

Chionanthus (100) Tropical and subtropical Africa, America, Asia, and Australia  
 Forestiera (15) Subtropical North America, West Indies, and N South America  
 Haenianthus (3) West Indies  
 Hesperelaea (1, extinct) Mexico  
 Nestegis (5) New Zealand and Hawaii (1 sp.)  
 Noronhia (41) Madagascar  
 Notelaea (12) Australia and Tasmania  
 Olea (40+) Tropical and subtropical parts of the Old World  
 Osmanthus (30) Subtropical parts of E Asia and North America (1-2 spp.)  
 Phillyrea (2) Mediterranean region to W Asia  
 Picconia (1) Macaronesia  
 Priogymnanthus (2) South America

**Orobanchaceae** Vent., Tabl. Règne Vég. 2:292. 1799, *nom. cons.* (65/1538) Synoptical classification following Young et al. 1999, Olmstead et al. 2001, Wolfe et al. 2005, Bennett & Mathews, unpubl., and D. Nickrent, pers. comm.

Orobanchaceae sensu stricto

Boschniakia (4) Himal, N Asia, NW N Am  
 Cistanche (16) Med, Ethiopia, India, to W China  
 Conopholis (2) E US to Panama  
 Diphelypaea (2?) Asia  
 Epifagus (1) E N Am  
 Kopsiopsis (2) W N Am (= Boschniakia)  
 Mysorrhiza (= Orobanche)

Orobanche (100-150) temp & warm N Hemisphere  
 Xylanche (2) Himal to Taiwan (= Boschniakia)  
 New World hemiparasite plus Pedicularis clade  
 Agalinis (40) trop & warm Am  
 Adenostegia (= Cordylanthus)  
 Castilleja (200) most W N Am, also E N Am, Euras, C Am, Andes  
 Clevelandia (1) Baja Ca (= Castilleja)

- Cordylanthus (18) W N Am  
 Esterhazyia (5) Bolivia, Brazil  
 Gentrya (= Castilleja)  
 Gerardia (= Agalinis)  
 Lamourouxia (28) Mex to Peru  
 Macranthera (1) SE US  
 Ophiocephalus (1) Baja Ca (= Castilleja)  
 Orthocarpus (9) W Am  
 Pedicularis (350) N hemisphere, 1 sp in Andes  
 Phtheirospermum (7) E As  
 Seymeria (25) S N Am  
 Triphysaria (5) W N Am
- Africa/SW Asia clade  
 Aeginetia L. (3) Indomal, E As  
 Alectra (40) Africa/Asia  
 Buchnera (100) warm O&NW (16 NW)  
 Cynium (15) warm AF (~Escobedia)  
 Escobedia (6) trop Am  
 Graderia (5) Af & Socotra  
 Harveya (40) trop & S. Af, Mascarenes  
 Hyobanche (7) S Af  
 Melasma (20) trop Af, Am  
 Radamaea (5) Madagascar  
 Sopubia (60) trop OW to S Af  
 Stellularia (= Buchnera)  
 Striga (~40) OW trop to S Af  
 Velloosiella (3) Brazil (~Melasma)  
 Xylocalyx (5) Somalia, Socotra
- Cyclocheilaceae  
 Asepalum (1) NE & E Af  
 Cyclocheilon (3) NE Af
- Nesogenaceae  
 Nesogenes A. DC. (8) E Afr, Mad, India, Pac Is
- European clade  
 Bartsia (60) Eur, Af mt, Andes (not mono-  
 Bennett&Mathews)  
 Bellardia (1) Med  
 Bungea (2) SW As to China  
 Euphrasia (~170) N temp, Malaysia, NZ, S Am (only  
 Eurasia? Nickrent)  
 Fistularia (= Rhinanthus)  
 Lathraea (7) Eurasia  
 Macrosyringion (= Odontites)  
 Melampyrum (35) N temp  
 Odontites (30) W & S Eur to W As  
 Orphantha (= Odontites)  
 Parentucellia (2) Med & SW As  
 Rhynchocorys (6) S Eur to Iran  
 Rhinanthus (45) N hemisphere, esp Eur  
 Siphonidium (= Euphrasia)  
 Tozzia (1) Alps, Carpathians
- Orobanchaceae placed in tree, but unassigned to above  
 clades  
 Brandisia (13) Burma China  
 Cymbaria (4) Eurasia
- Lesquereuxia (1) E Medit (= Siphonostegia?)  
 Lindenbergia (15) Himal to trop Afr/Asia  
 Monochasma (4) E As  
 Schwalbea (1) E US  
 Siphonostegia (3) Med & E As
- Genera not sampled in phylogenetic studies and unassigned  
 for that reason.
- Buchnereae (25/352)  
 Aureolaria (11) E US, Mex  
 Buttonia (3) trop & S Af  
 Centranthera (9) China to Australia  
 Gerardiina (2) trop & S. Af  
 Leptorhabdos (1) Cauc, Iran, C As, Himal  
 Micrargeria (4) trop Af, India  
 Nothochilus (1) Brazil  
 Physocalyx (2) Brazil  
 Rhamphicarpa (6) trop & S Af, India, Austral  
 Rhapsispermum (1) Madag (=Pseudomelasma?)  
 Silviella (2) Mex  
 Tetraspidium (1) Madagascar
- Orobancheae (15/210)  
 Christisonia (17) SW China, SE As  
 Gleadovia (6) W Himal, W. China  
 Mannagettaea (3) W China to E Siberia  
 Necranthus (1) Turkey  
 Phacellanthus (1) E As  
 Phelypaea (4) Medit  
 Platypholis (1) Japan  
 Tienmuia (1) E China (~Phacellanthus)
- Rhinantheae (21/944)  
 Omphalotrix (1) NE As
- Unassigned:  
 Ancistrostylis (1) Laos  
 Brachystigma (1) SW US  
 Cyniopsis (3) trop Africa  
 Dasistoma (1) E N Am  
 Ghikaea (1) trop Africa  
 Hedbergia (1) trop Africa  
 Leucosalpa (3) Madagascar  
 Madgalenaea (1) SE Brazil  
 Micrargeriella (1) trop E Africa  
 Nothobartsia (1) Medit  
 Parastriga (1) trop Africa  
 Pettimenginia (2) S China, SE Asia  
 Pseudobartsia (1) China  
 Pseudomelasma (1) Madagascar  
 Pseudosopubia (7) trop Africa  
 Pseudostriga (1) SE Asia  
 Pterygiella (3) China  
 Sieversandreas (1) Madagascar  
 Spirostriga (1) California to Baja Ca  
 Thunbergianthus (2) Africa  
 Velloosiella (3) Brazil  
 Zizangia (1) China

**Paulowniaceae** Nakai J. Jap. Bot. 24:13, 1949. (1/6)  
 Paulownia Siebold & Zucc. (6) E Asia

**Pedaliaceae** R.Br. Prodr. 519. 1819. *nom.cons.* (13/70) (sensu H.-D. Ihlenfeldt, pers. comm.. 2001)  
 Pedalioideae (of Pedaliaceae s.l.) 12/70  
 Ceratotheca (5) trop and S. Af.  
 Dicerocaryum (3) S. trop. Af.  
 Harpagophytum (2) S. Af. Madagascar

Holubia (1) S. Af.  
Josephinia (4) Kenya to Somalia  
Linariopsis (2-3) W and SW trop Af.  
Pedaliodiscus (1) E Af  
Pedalium (1) OW trop – *P. murex* edible  
Pterodiscus (13) trop and S. Af.

Rogeria (4) Brazil, trop and S. Af.  
Sesamothamnus (6) trop Af.  
Sesamum (19) OW trop. And S. Af.  
Uncarina (13) Madagascar

**Phrymaceae** Shcauer in DC. Prodr. 11:520. 1847. *nom. cons.* (11/195)

Berendtiella (4) C Am  
Dodartia (1) S Russia, W As  
Elacholoma (1) C Aus  
Glossostigma (6) Aus, NZ, Af, Ind  
Hemichaena (1) C Am  
Lancea (2) Tibet, China

Leucocarpus (1) trop Am  
Mazus (20) E & SE As, Indomal, Aust  
Mimulus (150) Am, Asia, S Af  
Peplidium (7) Aus, Ind, Af  
Phryma (2) E Asia, E N Am

**Plocospermataceae** Hutch. Fam. Fl. Pl. ed. 3 469. 1973. (1/1)

**Plocospermum (1) Mex, Guatemala**

**Schlegeliaceae** (A.H. Gentry) Reveal Phytologia 79:74. 1996. (3/20) formerly of Bignoniaceae and may still be close

Gibsoniothamnus (7) Mexico to C Am  
Schlegelia (12) tropical Am  
Synapsis (1) Cuba

Thomandersia Baill. (6) trop Af

**Scrophulariaceae** Durande Notions Elém. Bot.: 265. 1782. (52/1681) Synoptical classification by tribe. Following Wettstein (1891), Barringer (1993), Olmstead et al. 2001, Kornhall et al., 2001, 2004, Oxelman et al. 2005.

Aptosimeae (4/44)

Anticharis (14) Af to Mal  
Aptosimum (20) Africa  
Peliostomum (7) trop & S Af  
Stemodiopsis (3) Africa

Buddlejaceae (5/~110)

Buddleja (98) Neotrop (63) S Af (10) As (25)  
Chilianthus (?) ?  
Emorya (2) Tex., Mex.  
Gomphostigma (2) S. Af.  
Nicodemia (=Buddleja?)

Freylinieae (4/8) (Barringer 1993)

Antherothamnus (1) C & S Af  
Freylinia (4) trop & S Af  
Manuleopsis (1) SW Afr  
Phygelius (2) S Africa

Hemimerideae (7/134)

Alonsoa Ruiz & Pav. (16) trop Am, S Af  
Colpias (1) S Africa  
Diascia (38) S Af  
Diclis (10) trop & S Af, Mad  
Hemimeris (4) S Af  
Nemesia (65) trop & S Af  
Schistanthe (?) ?

Leucophyleae (3/17)

Capraria (4) warm Am  
Eremogeton (1) Mex, Guat  
Leucophyllum (12) SW N Am

Manuleeae (28/566) (Hilliard 1994)

Agathelpis Choisy (2) SW Cape  
Barthlottia (1) Madag  
Chenopodiopsis (3) S Af  
Cromidon (12) S Af  
Dischisma (11) SW Cape to Namibia  
Glekia (1) S Af

Globulariopsis (7) S. Af

Glumicalyx (6) S&SE Af

Gosela (1) S Af

Hebenstretia (25) trop & S Am

Jamesbrittenia (83) S Af

Limosella (11) cosmop

Lyperia (6) S Af

Manulea (73) S Af

Manuleopsis (1) SW Afr

Melanospermum (6) S Af

Microdon (7) SW Cape

Phyllopodium (26) SW Cape

Polycarena (17) SW Cape

Pseudoselago (28) west S Af

Reyemia (2) S Af

Selago (190) trop & S Af

Sphenandra? (= Sutura)

Strobilopsis (1) S Af

Sutura (49) S Af

Tetraselago (4) S Af

Trienia (9) SW Cape

Walafrida (?) Madag, S Af

Zaluzianskya (55) W S Af

Myoporeae (4/236) sensu Chinnock, in press

Androya (1) Madagascar (Oxelman et al. 1999)

Bontia L. (1) W. Ind., trop S. Am.

Calamphoreus Chinnock (1)

Diocirea Chinnock (4) Austral

Eremophila R. Br. (214) Austral. (1 NZ)

Glycocystis Chinnock (1) Austral

Myoporum Sol. Ex Forster (30) Austral., NZ, Pac. Is.,  
E. Asia

Pentacoelium Zucc. (1) Austral

Scrophularieae (4/564)

Antherothamnus (1) C&S Af

Celsia (= Verbascum)  
 Oreosolen (3) Himalaya  
 Scrophularia (200) N temp to trop Am  
 Staurophragma (= Verbascum)  
 Verbascum (360) Euras, E Af  
 Teedieae (3/6) (G. Don; Barringer 1993)  
 Oftia (3) S Af

Ranopisoa (1) Madag (~ Oftia)  
 Teedia (2) S Af  
 Unassigned  
 Androya (1) Mad  
 Camptoloma (3) Canaries Ethiopia Arabia  
 Cheilophyllum (8) W Indies  
 Dermatobotrys (1) S. Af

**Stilbaceae** (11/39) Synoptical Classification by tribe. (Bremer et al. 1994; Olmstead et al. 2001; Oxelman, unpubl.; Goldblatt, pers. comm.)

Stilbeae 7/28  
 Campylostachys (1) SW Cape  
 Eurylobium (2) SW Cape  
 Euthystachys (1) S Af  
 Nuxia (15) S Arabia to trop Af, Masc, S Af.  
 Retzia (1) Cape  
 Stilbe (6) SW and S Cape  
 Xeroplana (2) SW and S Cape

Bowkerieae (Barringer 1993) 3/7  
 Anastrabe (1) S Africa  
 Bowkeria (5) S Africa  
 Ixianthes (1) S Africa  
 Hallerieae 1/4  
 Halleria (4) trop & S Africa, Madag

**Tetrachondraceae** 2/3 (Oxelman et al. 1999)

Polypremum (1) warm Am.

Tetrachondra (2) Patagonia, N.Z.

**Verbenaceae** (~35 gen/980 spp) modified from Atkins (2004).

Casselleae (4/25)  
 Casselia 12 trop Am  
 Ghinia 7 trop Am  
 Parodianthus 2 Argentina  
 Tamonea 4-5 trop Am  
 Citharexyleae (6/108)  
 Baillonia 1 S.Am  
 Citharexylum 70 trop Am  
 Duranta 30 Carib./S.Am  
 Recordia 1 Bolivia  
 Rehdera 3 C.Am  
 Rhabdithamnus 2 Chile/Juan Fern.  
 Verbenoxylum 1 Brazil  
 Petreeae (2/12)  
 Petrea 11 (Rueda '94 only 11) trop Am  
 Xolocotzia 1 Mexico  
 Priveae (3/22)  
 Castelia (=Pitraea)  
 Dipyrena 1 temp S Am  
 Pitraea (~Priva) 1 S Am  
 Priva 20 trop/subtrop Af/Am  
 Lantaneae (12/497)  
 Acantholippia 6 arid S.Am  
 Aloysia 37 New World  
 Bouchea 9 trop Am  
 Burroughsia (= Lippia) 2 SW N Am.

Chascanum 23 Af/Mad./Arab./Ind.  
 Diostea 3 S Am  
 Gonyostachyum (~Lippia, Sanders 2001)  
 Lampaya 3 S. Am deserts  
 Lantana 150 trop Am/trop; S Af  
 Lippia 200 trop Af/Am  
 Nashia 7 Bahamas/Cuba  
 Neospartan 4 temp. S.Am  
 Riedela (~Lippia, Sanders 2001)  
 Phyla (~Lippia) 15 trop Am  
 Stachytarpheta 65 trop Am/trop/Af  
 Xeroaloyisia 1 Argentina  
 Verbeneae (6/311)  
 Glandularia ~50 S Am/N Am, Mex  
 Hierobotana 1 Ecuador/Peru  
 Junellia 57 S. Am.  
 Stylodon 1 SE US (= Verbena)  
 Urbania 2 Chile  
 Verbena ~200 mostly New World  
 Svensonia (~Chascanum) 4 E.Af/India  
 Ubochea (~Stachytarpheta) 1 C Verde I  
 Unplaced to tribe (2/2-3)  
 Coelocarpum 1 Socotra/Madagascar  
 Saccanthus (1-2) Bolivia

**Veronicaceae (= Plantaginaceae in APGII)** (104/1819) Synoptical classification by Tribe. Following Wettstein (1891), Barringer (1993), Olmstead et al. 2001, Oxelman et al. 1999, Oxelman et al. 2005; Albach et al. 2005.

Angelonieae (5/39)  
 Angelonia (25) trop Am  
 Basistemmon (8) trop Am  
 Melosperma (1) Chile  
 Monopera (2) S. Am  
 Monttea (3) Chile  
 Antirrhineae 27/326 (Sutton 1988)  
 Acanthorrhinum (1) N Af  
 Albraunia (3) SW Asia

Anarrhinum (8) Medit. SW Asia  
 Antirrhinum (20) Sutton - Medit; 36 Thompson –  
 Medit, W N Am)  
 Asarina (1) SW Europe  
 Chaenorhinum (21) Medit.  
 Cymbalaria (9) W Europe to Iran  
 Epixiphium (1) SW N Am (~ Maurandya)  
 Galvezia (4) coast Peru, Ecuador, Galap.  
 Gambelia (4) SW N Am (~Antirrhinum)

Holmgrenanthe (1) SW Nam  
 Holzneria (2) SW Asia  
 Howelliella (1) SW N Am (~Antirrhinum)  
 Kickxia (46) Med to SC&SW Asia  
 Linaria (150) Euras, Medit  
 Lophospermum (8) N&C Am  
 Mabrya (5) SW N Am  
 Maurandella (1) SW N Am (~Maurandya)  
 Maurandya (2) Mex C Am  
 Misopates (7) Medit, Cape Verde, Is Ethiop India  
 Mohavea (2) SW US  
 Neogaerrhinum (2) (~Antirrhinum)  
 Nuttalanthus (4) N Am temp S Am (~Linaria)  
 Pseudorontium (1) SW N Am (~Antirrhinum)  
 Rhodochiton (3) Mex (~Lophospermum)  
 Sairocarpus (13) SW US (~Antirrhinum)  
 Schweinfurthia (6) NE Af to India  
 Callitricheae 2/18  
 Callitriche (17) Cosmop  
 Hippuris (1) Cosmop  
 Cheloneae 8/318  
 Brookea (3) Borneo  
 Chelone (4) E N Am  
 Chionophila (2) W N Am  
 Collinsia (20) N Am  
 Keckiella (7) N Am  
 Nothochelone (1) W N Am  
 Pennellianthus (1) NE As  
 Penstemon (275) N Am  
 Tonella (2) W US  
 Uroskinnera (3) Mex C Am  
 Digitalideae 3/24  
 Digitalis (19) Med, Eur, C As  
 Erinus (2) N Af, Pyrren, Alps  
 Isoplexis (3) Macaronesia  
 Globularieae 2/24  
 Globularia (22) Cape Verde Eur W As  
 Poskea (2) Somolia Socotra  
 Gratiolieae 25/271  
 Achetaria Cham. & Schldl. (5) trop Am  
 Adenosma R. Br. (15) China, Indomal, Aus  
 Allocalyx? (=Monocardia?)  
 Amphianthus? (=Bacopa)  
 Artenema (4) OW trop  
 Bacopa (56) warm esp Am  
 Benjaminia (1) trop Am  
 Bryodes (3) Mascaren  
 Bythophyton? (1) Indomal  
 Conobea (7) Am  
 Dintera (1) trop Af  
 Dizygostemon (1) Brazil  
 Dopatrium (7) trop As, Aus  
 Encopella (1) Cuba  
 Geochorda (=Bacopa)  
 Gratiola (20) temp, trop mts  
 Hemianthus (=Micranthemum)  
 Hemisiphonia (=Micranthemum)  
 Herpestis (=Bacopa)  
 Hydrotriche? (4) Mad  
 Ildefonsia (=Bacopa)  
 Leucospora (=Stemodia?)

Limnophila (37) OW trop  
 Mecardonia (10) warm Am (~Bacopa)  
 Micranthemum (14) Am, WI  
 Microcarpaea (=Peplideum)  
 Monocardia (=Bacopa?)  
 Morgania (=Stemodia)  
 Otacanthus (4) Brazil  
 Psammetes (1) trop W Af  
 Schistophragma? (2) Am (~Leucocarpus)  
 Scoparia (20) trop Am  
 Stemodia (55) OW & NW trop  
 Tetraulacium (1) Brazil  
 Trapella (1-2) E. As.  
 Zenkerina? ()  
 Hemiphragmieae 1/1  
 Hemiphragma (1) Himal  
 Plantagineae (3/285)  
 Aragoa (8) Andes  
 Bougueria (1) Andes (= Plantago)  
 Littorella (3) 1 each in N Am, S Am, Eur  
 Plantago (273) cosmop  
 Russelieae 2/54  
 Russelia (52) Cuba, Mex to Columbia  
 Tetranema (2) Mex Guatem  
 Sibthorpieae 2/6  
 Ellisiophyllum (1) India to Japan, New Guinea  
 Sibthorpia (5) trop & S Am, Macaron, Eur, Afr mts  
 Veroniceae 21/400 (see Albach et alo. 2004)  
 Besseyia (7) N Am (= Veronica)  
 Botryopleuron (=Veronicastrum)  
 Calorhabdos (=Veronicastrum)  
 Chionohebe (6) Aus, NZ (= Veronica)  
 Cochlidiosperma (= Veronica)  
 Derwentia (10) SE Aus (= Veronica)  
 Detzneria (1) New Guin (= Veronica)  
 Falconeria (=Kashmiria)  
 Hebe (95) NZ, Fr Polynes, S Am (= Veronica)  
 Heliohebe (5) NZ (= Veronica)  
 Kashmiria (1) Himal  
 Lagotis (20) Eur to W China  
 Neopicrorhiza (2) E Himal (= Picrorhiza)  
 Odicardis (2) Cauc, E Afr (= Veronica)  
 Oligospermum (= Veronica)  
 Paederota (2) S Eur  
 Paederotella (1-3) As Minor, Cauc (= Veronica)  
 Parahebe (30) N Guin,ea NZ (= Veronica)  
 Picrorhiza (3) W Himal  
 Pseudolysimachion (19) temp/subtemp Euras (= Veronica)  
 Scrofella (1) China  
 Synthyris (9) W N Am (= Veronica)  
 Veronica (s.s. = 180; s.l. = 450) N temp or cosmop temp  
 Veronicastrum (20) NE As, NE Am  
 Wulfenia (3) SE Eur, Turk  
 Wulfeniopsis (2) Afghan – Nepal  
 Veronicaceae unassigned to tribe 3/53  
 Campylanthus (15) Macaron NE Af Arabia  
 Lafuentea (2) Spain Morocco  
 Ourisia (36) Andes (20), NZ (15), Tasm (1)

**Genera of Lamiales unassigned to family:**

Lithophytum (1) Mexico  
 Limnophila (37) OW tropics  
 Peltanthera (1) Costa Rica to Bolivia

Rehmannia (9) E As  
 Sanango (1) Ecuador Peru (Gesneriaceae?)  
 Wightia (2) SE Asia epiphytes becoming trees

Excluded from Acanthaceae (possibly Schlegeliaceae)  
Thomandersia Baill. (6) trop Af  
Excluded from Gesneriaceae (J. Smith, V. Savolainen  
p.c.)

Cubitanthus Barringer (1), Brazil

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**H.-D. Ihlenfeldt (Pedaliaceae, Martyniaceae, Trapellaceae)**  
**D. Mabberley (Lamiaceae)**  
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**D. Nickrent (Orobanchaceae)**  
**D. Albach (Veronicaceae)**

Tree based on rbcL and  
ndhF sequences.  
Prepared for International  
Botanical Congress, 1999.

