KEY TO SOME AUSTRALIAN FLOWERING PLANT FAMILIES

(modified from Beadle, Evans and Carolin 1982. *Flora of the Sydney Region*, Reed Books, Sydney)

ANGIOSPERMAE

A. Embryo with 2 cotyledons. Leaf venation usually reticulate. Flowers usually 4-5 or 5-merous (sometimes 3-merous, in which case the plants are usually branching trees, shrubs or parasitic twiners). Habit various.

DICOTYLEDONS

***A.** Embryo with 1 cotyledon. Leaf venation usually parallel. Flowers usually 3-merous. Plants usually herbaceous (if tree-like then more or less unbranched).

MONOCOTYLEDONS

DICOTYLEDONS

A. 2 or more carpels free, ie. flowers with 2 or more separate superior ovaries. **GROUP 1**

***A.** Either, 2 or more carpels fused; or, carpel solitary, ie. ovary solitary, superior or inferior.

B. Either, petals free; or, perianth segments free and arranged in one whorl, or flower without petals and sepals.

C. Ovary superior or flowers without a perianth.

D. Either, stamens up to twice as many as the petals (or perianth members), very rarely three times as many and then arranged in three whorls; or flowers without perianth

E. Either, only one whorl of perianth present, or perianth in two whorls of 3 members each, or perianth absent.

F. Either stamens adnate to the perianth, or perianth absent. **GROUP 2**

***F.** Stamens free; perianth present. **GROUP 3**

***E.** Calyx and corolla both present, although one whorl sometimes dropping off early (look for scars).

G. Corolla zygomorphic (bilaterally symmetric). **GROUP 4**

***G.** Corolla actinomorphic (radially symmetric).

H. Either, stamens twice as many as sepals (rarely more but even then definite and constant); or, equal in number to sepals and alternating with conspicuous staminodes; flowers bisexual. **GROUP 5**

***H.** Either, stamens fewer than twice as many as petals (rarely alternating with minute staminodes); or, flowers unisexual. **GROUP 6**

***D.** Stamens numerous and indefinite. **GROUP 7**

***C.** Ovary inferior or half-inferior. **GROUP 8**

***B.** Either, petals fused; or, perianth segments fused and arranged in a single whorl.

I. Ovary superior.

J. Leaves opposite or whorled (rarely whorled in Epacridaceae which is included under ***J**) **GROUP 9**

***J.** Leaves alternate or all basal.

K. Stamens adnate to corolla tube (or perianth tube) or fused (very rarely free and then plants with scale-leaves and angular stems).

L. Only one perianth whorl present or petals minute. **GROUP 10**

***L.** Calyx and corolla both present; petals as large as, larger, or only slightly smaller than sepals,. **GROUP 11**

***K.** Stamens free from each other and from corolla (or perianth). **GROUP 12**

***I.** Ovary inferior or half-inferior. **GROUP 13**

GROUP 1

A. Petals fused.
- **B.** Petals free at the base and above but fused or sticking together in the middle. **STACKHOUSIACEAE**
- ***B.** Petals fused at the base.
  - **C.** Styles free.
    - **D.** Leaves succulent. **CRASSULACEAE**
    - ***D.** Leaves not succulent. **CONVOLVULACEAE**
  - ***C.** Styles fused above.
    - **E.** Pollen granular **APOCYNACEAE**
    - ***E.** Pollen grains in each anther lobe adhering in a single mass. **ASCLEPIADACEAE**

***A.** Petals free or absent.
- **F.** Either, styles fused or coherent above or stigmas united; or, style solitary and gynobasic.
  - **G.** Style solitary, arising from a pit in the top of the ovary (gynobasic). **RUTACEAE**
  - ***G.** Styles fused or sticking together above, attached to the summit of the ovary.
    - **H.** Carpels buried in the hemispherical receptacle. **EUPOMATIACEAE**
    - ***H.** Carpels not buried in the receptacle. **STERCULIACEAE**
- ***F.** Styles free from one another.
  - **I.** Aquatic herbs with entire floating leaves. **CABOMBACEAE**
  - ***I.** Not aquatic herbs or if so then leaves much divided and submerged.
    - **J.** Leaves aromatic when crushed.
      - **K.** Leaves alternate. **WINTERACEAE**
      - ***K.** Leaves opposite. **MONIMIACEAE**
    - ***J.** Leaves not aromatic.
      - **L.** Herbs with succulent leaves. **CRASSULACEAE**
      - ***L.** Trees shrubs, climbers or herbs with leaves not as in L.
        - **M.** Stamens perigynous (Fig 6.3). **ROSACEAE**
        - ***M.** Stamens hypogynous (Fig 6.3).
          - **N.** Either, trees or shrubs; or, climbers with simple leaves.
            - **O.** Corolla yellow, conspicuous. **DILLENIACEAE**
            - ***O.** Corolla (perianth) greenish-yellow and inconspicuous or reduced to scales.
              - **P.** Climbers with sepal-like perianth. **MENISPERMACEAE**
              - ***P.** Trees with petal-like sepals. **STERCULIACEAE**
          - ***N.** Either, herbs; or climbers with compound leaves. **RANUNCULACEAE**

GROUP 2

A. Leaves reduced to scales; twining rootless parasites. **CASSYTHACEAE**

***A.** Leaves conspicuous.
- **B.** Flowers without petals or sepals.
  - **C.** Herbs.
    - **D.** Plants aquatic or creeping on mud. **CALLITRICHACEAE**
    - ***D.** Plants not as in D. **PIPERACEAE**
  - ***C.** Trees or shrubs. **SALICACEAE**
- ***B.** Perianth present.
  - **E.** Perianth segments 4, deciduous. **PROTEACEAE**
  - ***E.** Either, perianth segments 5-6; or, 4 and persistent into the fruiting stage.
    - **F.** Staminodes bearded below the middle. **OLACACEAE**
    - ***F.** Staminodes, when present, glabrous.
      - **G.** Herbs or climbers.
        - **H.** Stipules forming a sheath that surrounds the stem. **POLYGONACEAE**
        - ***H.** Stipules not as above or absent.
          - **I.** Herbs.
            - **J.** Leaves simple. **CARYOPHYLLACEAE**
            - ***J.** Leaves pinnate. **ROSACEAE**
          - ***I.** Climbers. **BASELLACEAE**
      - ***G.** Trees **LAURACEAE**

GROUP 3

A. Latex present in the bark. **MORACEAE**
***A.** Latex absent.
B. Climbers; flowers unisexual; plants dioecious. **MENISPERMACEAE**
***B.** Not climbers, rarely scrambling.
C. Perianth segments dry and membranous; filaments of stamens often fused basally. **AMARANTHACEAE**
***C.** Perianth segments herbaceous or petaloid; filaments only rarely fused basally.
D. Either, style solitary, simple (thread-like or capitate); or, rarely, a tuft of hairs on the summit of the ovary.
E. Either, herbs; or, trees with leaves covered with stinging hairs.
F. Stigma capitate, sometimes obscurely lobed. **BRASSICACEAE**
***F.** Stigma thread-like or a tuft of hairs on the summit of the ovary. **URTICACEAE**
***E.** Trees or shrubs without stinging hairs.
G. Ovary and fruit lobed. **SAPINDACEAE**
***G.** Ovary not distinctly lobed.
H. Either, leaves all compound; or, reduced to thorns on main branches and simple on side branches. **BERBERIDACEAE**
***H.** Leaves all simple, not reduced to thorns.
I. Flowers arranged in a panicle (Fig 6.9). **ICACINACEAE**
***I.** Flowers arranged in a raceme (Fig 6.9). **PHYTOLACCACEAE**
***D.** Styles several or single and branched above.
J. Stipules forming a sheath around the stem. **POLYGONACEAE**
***J.** Stipules never forming a sheath around the stem, sometimes absent.
K. Ovary with only 1 locule.
L. Trees, tall shrubs or woody climbers. **ULMACEAE**
***L.** Herbs or small shrubs.
M. Styles or stylar branches 2-3. **CHENOPODIACEAE**
***M.** Styles 4 (rarely 3); leaves opposite. **CARYOPHYLLACEAE**
***K.** Ovary with two or more locules.
N. Flowers unisexual. **EUPHORBIACEAE**
***N.** Flowers bisexual.
O. Plants aquatic or creeping on mud. **ELATINACEAE**
***O.** Plants not aquatic or creeping on mud. **PHYTOLACCACEAE**

GROUP 4

A. Sepals 2. **FUMARIACEAE**
***A.** Sepals 4-5.
B. Two lateral sepals large and petaloid. **POLYGALACEAE**
***B.** Sepals all more or less similar in texture.
C. Stamens 5 -6 with no staminodes.
D. Stamens 5 **VIOLACEAE**
D* Stamens 4 long, 2 short **BRASSICACEAE**
***C.** Stamens 3-10 with staminodes completing the complement to 10, rarely 8 with no staminodes.
E. Calyx with a projection (spur) arising from its base or side, the spur is free from the pedicel. **TROPAEOLACEAE**
***E.** Calyx without a spur or with a spur fused to the pedicel.
F. Style with 5 branches. **GERANIACEAE**
***F** Style unbranched.
G. Posterior petal (at the top of the flower) with the edges overlapped (inside) by the lateral ones (see Fig A, page 106). **CAESALPINIACEAE**
***G.** Posterior petal overlapping (outside) the lateral ones. **FABACEAE**

GROUP 5

A. Sepals 2-3. **PORTULACACEAE**
*** A.** Sepals more than 3.
B. Leaves dotted with translucent oil glands; style arising from a pit in the summit of the ovary. **RUTACEAE**
***B.** Leaves without oil glands; style(s) arising on the summit of ovary.
C. Style solitary, unbranched.
D. Stamens perigynous. **LYTHRACEAE**
***D.** Stamens hypogynous.
E. Style capitate. **MELIACEAE**
***E.** Style thread-like.
F. Small shrubs; stamens opening by terminal pores. **TREMANDRACEAE**
***F.** Trees or shrubs; stamens opening by longitudinal slits. **SAPINDACEAE**
***C.** Styles several, or single and branched above.
G. Trees or shrubs.
H. Leaves compound.
I. Fruit a drupe, not lobed. **ANACARDIACEAE**
***I.** Fruit winged, dry; ovary lobed. **SIMAROUBACEAE**
***H.** Leaves simple or deeply lobed. **STERCULIACEAE**
***G.** Herbs.
J. Leaves with 3 leaflets. **OXALIDACEAE**
*** J.** Leaves simple or pinnately compound (see Fig.1.1, 1.2).
K. Corolla yellow.
L. Prostrate herb, leaves compound. **ZYGOPHYLLACEAE**
***L.** Erect herbs; leaves simple, entire to pinnatisect (see Fig.1.1). **RESEDACEAE**
***K.** Corolla pink, white or blue.
M. Leaves simple, not deeply divided; ovary usually with a single locule. **CARYOPHYLLACEAE**
***M.** Leaves deeply dissected or compound; ovary with 5 locules. **GERANIACEAE.**

GROUP 6

A. Flowers unisexual; styles free. **EUPHORBIACEAE**
***A.** Flowers bisexual or both unisexual and bisexual; or, flowers all unisexual and the ovary with a solitary style.
B. Sepals 2-3; petals more numerous. **PORTULACACEAE**
***B.** Sepals more than 3, petals same in number or fewer.
C Leaves dotted with translucent oil glands; style arising from a pit in the summit of the ovary. **RUTACEAE**
***C.** Leaves without oil glands; style usually terminal on the ovary.
D. Stamens 2. **OLEACEAE**
***D.** Stamens more than 2.
E. Stamens adnate to a stalk bearing the ovary above the centre of the floral receptacle. **PASSIFLORACEAE**
***E.** Stamens not as in E.
F. Stamens 6 or more.
G. Stamens hypogynous.
H. Herbs.
I. Styles separate, 3; petals 5. **MOLLUGINACEAE**
***I.** Styles simple or bilobed; petals 4. **BRASSICACEAE**
***H.** Trees or shrubs.
J. Style branched. **ACERACEAE**
***J.** Style simple. **SAPINDACEAE**
***G.** Stamens perigynous. **LYTHRACEAE**
***F.** Stamens 3-5.
K. Herbs.
L. Leaves covered with sticky glandular hairs which trap insects.

DROSERACEAE

***L.** Leaves not as above.
M. Petals white or pink.
N. Style undivided **PRIMULACEAE**
***N.** Styles or style branches 2-5 **CARYOPHYLLACEAE**
***M.** Petals blue or yellow. **LINACEAE**
***K.** Trees, shrubs, climbers or scramblers.
O. Climbers with leaf-opposed tendrils. **VITACEAE**
***O.** Not as in O.
P. Leaves simple.
Q. Stamens perigynous. **RHAMNACEAE**
***Q.** Stamens hypogynous.
R. Ovary with 3 or more lobes or angles.
S. Leaves bearing stellate hairs, petals minute. **STERCULIACEAE**
***S.** Leaves without stellate hairs. **SAPINDACEAE**
***R.** Ovary not prominently lobed or angled, but sometimes compressed.
T. Flower containing a prominent disc. **CELASTRACEAE**
***T.** Disc absent or inconspicuous.
U. Ovules attached to the top of the ovary (apical) and hanging down; tall tree with fluted trunk. **ICACINACEAE**
***U.** Ovules attached to axile or parietal placentas; trees or shrubs without a fluted trunk, or scramblers.
V. Trees or scramblers not armed with thorns, or fruit orange. **PITTOSPORACEAE**
***V.** Shrubs armed with thorns: fruit purple. **VIOLACEAE**
***P.** Leaves compound.
W. Ovary with 3 locules (rarely 4); stamens free from each other. **SAPINDACEAE**
***W.** Either ovary with 5 locules and stamens free; or ovary with 3 locules and stamens fused into a tube around the pistil. **MELIACEAE**

GROUP 7

A. Either flowers all unisexual or mixed unisexual and bisexual flowers present.
B. Ovary with a single locule; leaves aromatic when crushed. **WINTERACEAE**
***B.** Ovary with 2-3 locules; leaves not aromatic. **EUPHORBIACEAE**
***A.** Flowers bisexual; leaves not aromatic.
C. Sepals 2-3 or united into a calyptrum (cap) that falls as flower opens.
D. Placentas axile or basal (Fig 6.6).
E. Herbs. **PORTULACACEAE**
***E.** Trees or shrubs. **EUCRYPHIACEAE**
***D.** Placentas parietal (Fig 6.6).
F. Herbs; ovary on a very short stalk. **PAPAVERACEAE**
***F.** Small tree or scrambling shrub; ovary borne above the floral receptacle on a long stalk. **CAPPARACEAE**
***C.** Sepals 4 or more and not united into a calyptrum.
G. Stamens fused into a tube or column surrounding the style. **MALVACEAE**
***G.** Stamens free or sometimes fused into bundles but never forming a tube or column.
H. Leaves opposite or whorled.
I. Aquatic plants with whorled leaves. **CERATOPHYLLACEAE**
***I.** Not as in I.

J. Stipules arising between the paired leaf bases but sometimes falling early (look for scars). **CUNONIACEAE**

***J.** Stipules absent.

K. Leaves simple. **HYPERICACEAE**

***K.** Leaves compound, with 3 leaflets. **BAUERACEAE**

***H.** Leaves alternate.

L. Leaves compound, or if simple, flattened in the plane of the stem (ie., vertical), and with one or more glands on the upper edge. **MIMOSACEAE**

***L.** Leaves simple without marginal glands.

M. Ovary with 2-5-locules; placentas axile (Fig 6.6).

N. Corolla yellow. **OCHNACEAE**

***N.** Corolla white to pink. **ELAEOCARPACEAE**

***M.** Ovary with a single locule; placentas parietal (Fig 6.6).

O. Ovary borne on a stalk above the floral receptacle. **CAPPARACEAE**

***O.** Ovary borne directly on the receptacle.

P. Herbs. **RESEDACEAE**

***P.** Trees or shrubs. **FLACOURTIACEAE**

GROUP 8

A. Plants with broad, jointed, succulent stems bearing spines. **CACTACEAE**

***A.** Not as in A.

B. Either inner or outer stamens petal-like and numerous.

C. Outer stamens numerous and petal-like; prostrate succulent herbs. **AIZOACEAE**

***C.** Inner stamens numerous and petal-like; rainforest shrubs or small trees. **EUPOMATIACEAE**

***B.** No petal-like stamens; each perianth whorl with up to 8 parts.

D. Sepals 2. **PORTULACACEAE**

***D.** Either, sepals more than 2; or, one perianth whorl with more than 2 members.

E. Either, stamens numerous; or, stamens 5-10 and leaves dotted with translucent oil glands.

F. Flowers in compound, axillary, leafless spikes (Fig 6.9); leaves without oil glands. **SYMPLOCACEAE**

***F.** Flowers not arranged as in F; leaves usually with translucent oil glands visible. **MYRTACEAE**

***E.** Stamens up to twice as many as petals (or perianth members when only one whorl is present); leaves without oil glands.

G. Flowers unisexual; perianth in whorls of 4. **HALORAGACEAE**

***G.** Flowers bisexual (rarely unisexual, and then with perianth in whorls of 3 or 5).

H. Stipules arising between the paired leaf bases.(Look for scars if stipules have fallen, also look at the new growth) **CUNONIACEAE**

***H.** Stipules not as above or absent.

I. Stamens not more than the number of petals (or tepals).

J. Stamens opposite petals (or tepals).

K. Flowers in dense heads surrounded by large showy bracts **APIACEAE**

***K** Flowers not as above

L. Either, parasites growing on a branch of a tree; or, shrubs with linear tepals surrounded by a hood-shaped structure.**LORANTHACEAE**

***L.** Terrestrial plants; flowers not as above.

M. Leaves reduced to scales. **SANTALACEAE**

***M.** Leaves well developed. **RHAMNACEAE**

***J.** Stamens alternating with petals (or tepals).

N. Only one perianth whorl present.

O. Inflorescence a cyme or raceme **RHAMNACEAE**

***O.** Inflorescence an umbel **APIACEAE**

***N.** Two perianth whorls present.

P. Flowers solitary in the leaf axils. **CELASTRACEAE**

***P.** Flowers in umbels or heads or pairs (Fig 6.9).

Q. Herbs or small shrubs; fruit usually with a swelling at the base of the styles. **APIACEAE**

***Q.** Trees, shrubs, woody climbers or creepers; fruit not as above. **ARALIACEAE**

***I.** Stamens twice as many as petals. **ONAGRACEAE**

GROUP 9

A. Stamens fewer than corolla lobes (or perianth lobes, or calyx lobes if the corolla is markedly zygomorphic).
- **B.** Woody climbers or epiphytes.
  - **C.** Leaves compound. **BIGNONICAEAE**
  - ***C.** Leaves simple. **GESNERICAEAE**
- ***B.** Not climbers or epiphytes but occasionally scrambling.
  - **D.** Stamens 2; corolla radially symmetric.
    - **E.** One perianth whorl only present. **THYMELAEACEAE**
    - ***E.** Calyx and corolla both present. **OLEACEAE**
  - ***D.** Either, stamens more than 2; or, stamens 2 and corolla zygomorphic.
    - **F** Upper part of the ovary distinctly lobed; style arising from the base of the ovary between the lobes.
      - **G.** Style branches equal. **LAMIACEAE**
      - ***G.** Style branches unequal. **VERBENACEAE**
    - ***F.** Upper part of the ovary not distinctly lobed; style arising on the summit of the ovary.
      - **H.** Shrubs or trees.
        - **I.** Petals 4. **SCROPHULARIACEAE**
        - ***I.** Petals. 5 or corolla clearly 2-lipped. **VERBENACEAE**
      - ***H.** Herbs.
        - **J.** Plants with small reduced leaves. **VERBENACEAE**
        - ***J.** Plants with well developed leaves.
          - **K.** Flowers in terminal inflorescences with reduced bracts.
            - **L.** Flowers sessile, in dense spikes (Fig 6.9). **VERBENACEAE**
            - ***L.** Flowers stalked, in panicles or racemes (or if in spikes then calyx 4-lobed). **SCROPHULARIACEAE**
          - ***K.** Flowers borne singly in axils of leafy bracts.
            - **M.** Corolla tube narrow, cylindrical. **ACANTHACEAE**
            - ***M.** Corolla tube broadening upwards. **SCROPHULARIACEAE**

***A.** Stamens equal to or more numerous than number of corolla lobes (or perianth lobes).
- **N.** Calyx and corolla both present.
  - **O.** Anthers opening by terminal pores. **ERICACEAE**
  - ***O.** Anthers opening by longitudinal slits.
    - **P.** Stamens free from corolla; pollen spreading freely. **RUTACEAE**
    - ***P.** Either, stamens epipetalous (or almost free and then with pollen adhering to form a single mass from each anther).
      - **Q.** At least some stamens opposite the corolla lobes.
        - **R.** Stamens 4-5. **PRIMULACEAE**
        - ***R.** Stamens 8. **CRASSULACEAE**
      - ***Q.** Stamens alternating with corolla lobes.
        - **S.** Flowers zygomorphic. **VERBENACEAE**
        - ***S.** Flowers radially symmetrical.
          - **T.** Either, corolla lobes contorted in the bud or, if valvate then plants are climbers with a capitate stigma (see Fig A, page 108).
            - **U.** Pollen adhering in a mass. **ASCLEPIADACEAE**
            - ***U.** Pollen spreading freely.
              - **V.** Climbers or herbs forming runners. **APOCYNACEAE**
              - ***V.** Herbs never forming runners. **GENTIANACEAE**
          - ***T.** Corolla lobes valvate, cochlear or quincuncial in the bud (see Fig A, page 108). **LOGANIACEAE**
- ***N.** One perianth whorl only present.
  - **W.** Stamens adnate to perianth tube, not circinnate in the bud (see Fig A, p108).
    - **X.** Perianth lobes valvate in the bud. **PROTEACEAE**
    - ***X.** Perianth lobes imbricate in the bud (see Fig A, page 108).
      - **Y.** Stipules absent. **THYMELAEACEAE**
      - ***Y.** Stipules present or leaves connected by a raised line or membrane. **CARYOPHYLLACEAE**
  - ***W.** Stamens free from perianth tube, circinnate in the bud (Fig A, p108). **NYCTAGINACEAE**

GROUP 10

A. Stamens fused.
- **B.** Either, flowers bisexual; or, unisexual with perianth covered by stellate hairs. **STERCULIACEAE**
- ***B.** Flowers unisexual; perianth glabrous. **EUPHORBIACEAE**

***A.** Stamens free from one another but adnate to perianth.
- **C.** Stipules forming a sheath around the stem. **POLYGONACEAE**
- ***C.** Stipules not forming a sheath around the stem, or stipules absent.
  - **D.** Perianth lobes small and greenish.
    - **E.** Plants giving milky juice when damaged. **EUPHORBIACEAE**
    - ***E.** Plants not secreting milky juice.
      - **F.** Style branched. **ULMACEAE**
      - ***F.** Style simple. **URTICACEAE**
  - ***D.** Perianth lobes large (rarely greenish).
    - **G.** Perianth lobes valvate in the bud (see Fig A, page 108).
      - **H.** Perianth lobes 5-6 (petals). **OLACACEAE**
      - ***H.** Perianth lobes 4. **PROTEACEAE**
    - ***G.** Perianth lobes imbricate in the bud (Fig A, p108). **THYMELAEACEAE**

GROUP 11

A. Stamens fused.
- **B.** Style bearing cup-like ring of hairs below stigma. **BRUNONIACEAE**
- ***B.** Not as above.
  - **C.** Flowers zygomorphic. **POLYGALACEAE**
  - ***C.** Flowers radially symmetric.
    - **D.** Leaves sessile, stem-sheathing. **EPACRIDACEAE**
    - ***D.** Leaves petiolate.
      - **E.** Stamens 5 (Mangrove shrub). **MYRSINACEAE**
      - ***E.** Not mangrove shrubs; stamens usually numerous. **MALVACEAE**

***A.** Stamens free from each other but epipetalous.
- **F.** Flowers unisexual; plants dioecious. **EBENACEAE**
- ***F.** Flowers bisexual.
  - **G** Shrubs; flowers with a group of sepal-like bracts below the sepals; anthers opening by a single longitudinal slit. **EPACRIDACEAE**
  - ***G.** Flowers without sepal-like bracts below sepals; anthers opening by 2-4 longitudinal slits or apical pores.
    - **H** Upper part of the ovary distinctly lobed; style arising from the base of the ovary between the lobes. **BORAGINACEAE**
    - ***H.** Upper part of the ovary not distinctly lobed; style arising on the summit of the ovary.
      - **I.** Corolla lobes contorted, valvate or induplicate in the bud (see Fig A, p108).
        - **J.** Stamens opposite corolla lobes.
          - **K.** Herbs. **PLUMBAGINACEAE**
          - ***K.** Trees or shrubs. **MYRSINACEAE**
        - ***J.** Stamens alternating with corolla lobes.
          - **L.** Aquatic plants. **MENYANTHACEAE**
          - ***L.** Not aquatic plants.
            - **M.** Climbers with pinnate leaves (Fig.1.2). **POLEMONIACEAE**
            - ***M.** Not as in M.
              - **N.** More or less erect herbs or shrubs. **SOLANACEAE**
              - ***N.** Climbers, twiners or prostrate herbs. **CONVOLVULACEAE**
      - ***I.** Corolla lobes quincuncial or cochlear in the bud (see Fig A, p108).
        - **O.** Leaves with parallel venation or deeply lobed with one main vein, arranged in a basal rosette. **PLANTAGINACEAE**
        - ***O.** Leaves not as above.
          - **P.** Herbs.
            - **Q.** Stamens 2, sometimes with 2 staminodes ; placentas free-central (Fig 6.6). **LENTIBULARIACEAE**
            - ***Q.** Stamens 4, placentas axile. **SCROPHULARIACEAE**
          - ***P.** Trees or shrubs.

R. Either, stamens more than 5; or, stamens 5 and opposite corolla lobes, alternating with staminodes. **SAPOTACEAE**

***R.** Either, stamens 5 and alternating with corolla lobes; or, stamens 4.

S. Stamens 4 (sometimes also with 1 staminode).

T. Leaves linear. **SELAGINACEAE**

***T.** Leaves lanceolate to elliptic or oblong (Fig 1.2). **MYOPORACEAE**

***S.** Stamens 5. **EHRETIACEAE**

GROUP 12

A. Flowers all unisexual (male flowers often with rudimentary ovary and female flowers with staminodes); plants dioecious.

B. Ovary with up to 5 locules.

C. Both calyx and corolla present. **EBENACEAE**

***C.** Only one perianth whorl present. **EUPHORBIACEAE**

***B.** Ovary with10 or more locules; corolla absent. **GYROSTEMONACEAE**

***A.** Either flowers bisexual; or, flowers unisexual and plants monoecious.

D. Flowers zygomorphic. **GOODENIACEAE**

***D.** Flowers radially symmetric.

E. Petals free at the base, but fused into a tube above with spreading limbs. **STACKHOUSIACEAE**

***E.** Petals or perianth segments fused basally.

F. One perianth whorl only present.

G. Leaves simple.

H. Ovary with 2 or more locules; plants covered with stellate hairs. **STERCULIACEAE**

***H.** Ovary with a single locule; stellate hairs absent. **CHENOPODIACEAE**

***G.** Leaves compound. **SAPINDACEAE**

***F.** Calyx and corolla present.

I. Sepals 2-3. **PORTULACACEAE**

***I.** Sepals 4-5.

J. Leaves compound. **MIMOSACEAE**

***J.** Leaves simple.

K. Leaf attached in plane of stem (lamina vertical); upper edge of leaf bearing one or more donut-shaped glands. **MIMOSACEAE**

***K** Leaf attached transversely to stem; adaxial and abaxial surfaces present; marginal glands absent.

L. Anthers opening by terminal pores. **ERICACEAE**

***L.** Anthers opening by longitudinal slits.

M. Trees; leaf bases not forming a sheath around the stem.

N. Ovules attached to the top of the locule, hanging downwards. **ICACINACEAE**

***N.** Ovules attached to axile or parietal placentas. **PITTOSPORACEAE**

***M.** Shrubs or small shrubs with sheathing leaf bases. **EPACRIDACEAE**

GROUP 13

A. Style bearing an indusium at the base of the stigma. **GOODENIACEAE**

***A.** Style not as above.

B. Tendrils present, arising in, or near, leaf axils. **CUCURBITACEAE**

***B.** Not as in B.

C. Stamens fused to form a tube around the style, or anthers 2 and adnate to the style

D. Stamens 2 and adnate to the style. **STYLIDIACEAE**

***D.** Stamens 3-5 and free from the style.

E. Flowers grouped into dense heads surrounded by numerous bracts. **ASTERACEAE**

***E.** Flowers not grouped into heads. **LOBELIACEAE**

***C.** Stamens free from each other and from the style (although sometimes epipetalous).

F. Only one perianth whorl present.

G. Stamens as many as and opposite perianth lobes.
H. Parasites growing on the branches of trees. **LORANTHACEAE**
***H.** Terrestrial plants.
I. Leaves reduced to minute scales. **SANTALACEAE**
***I.** Leaves well developed.
J. Flowers unisexual. **HALORAGACEAE**
***J.** Flowers bisexual. **SANTALACEAE**
***G.** Either, stamens as many as and alternating with perianth lobes;
or, stamens more numerous than perianth lobes.
K. Flowers grouped into a capitulum (Fig 6.9) and surrounded by radiating white or pinkish bracts. **APIACEAE**
***K.** Flowers not as above.
L. Plants prostrate with more or less succulent leaves. **AIZOACEAE**
***L.** Not as above.

M. Leaves apparently whorled or opposite; stipules occurring between the leaf bases. **RUBIACEAE**
***M.** Leaves alternate or opposite; stipules if present, not as above. **RHAMNACEAE**
***F.** Calyx and corolla present.
N. Stamens as many as corolla lobes and opposite them; or, stamens more numerous than corolla lobes.
O. Stamens as many as corolla lobes (often with alternating staminodes). **PRIMULACEAE**
***O.** Stamens more numerous than corolla lobes.
P. Flowers arranged in compound, axillary, leafless spikes (Fig 6.9); leaves without translucent oil glands. **SYMPLOCACEAE**
***P.** Flowers not as above; translucent oil glands usually visible in the leaves. **MYRTACEAE**
***N.** Stamens as many as corolla lobes and alternating with them.
Q. Stamens epipetalous.
R. Herbs. **MENYANTHACEAE**
***R.** Trees, shrubs or scramblers.
S. Leaves opposite with stipules between the leaf bases. **RUBIACEAE**
***S.** Leaves opposite, stipules absent (leaves sometimes connected by a raised line). **CAPRIFOLIACEAE**
***Q.** Stamens free from petals.
T. Herbs. **CAMPANULACEAE**
***T.** Trees or shrubs. **ESCALLONIACEAE**

MONOCOTYLEDONS

A. Ovary inferior **GROUP 1**
***A.** Ovary superior
B At least one whorl of the perianth petaloid, or perianth segment solitary and petaloid **GROUP 2**
***B.** Both whorls of the perianth not petaloid, or one or both absent **GROUP 3**

GROUP 1

A. Stamens, stigma and style fused into a single central structure (the column); anther sunken in the apex of the column **ORCHIDACEAE**
***A.** Stamens and style and stigma separate (not as above)
B. Stamens 6
C. Climbers or twiners with no specialised basal leaves **DIOSCOREACEAE**
***C.** Erect herbs with a tuft of radical leaves
D. Coarse herbs more than 2m high **AGAVACEAE**
***D.** Herbs less than 2 m high
E. Inflorescence a short raceme or flower solitary **HYPOXIDACEAE**
***E.** Inflorescence umbellate, leaves without petioles **AMARYLLIDACEAE**
***B.** Fertile stamens 3
F. Style simple ; capsule with 1-2 seeds per loculus **HAEMODORACEAE**
***F** Style branched; capsules with more than 2 seeds per loculus **IRIDACEAE**

GROUP 2

A. Tall trees or shrubs with annular leaf scars;
B. Leaves palmatifid or pinnate, sometimes with flexuose tips to the segments **ARECACEAE**
***B** Leaves linear, undivided **AGAVACEAE**
***A.** Herbs or climbers or twiners, sometimes woody below
C. Leaves undivided, spirally coiled at the tip, woody climber **FLAGELLARIACEAE**
***C.** Leaves not spirally coiled at the tip
D. Plants with cladodes; leaves reduced to scales **ASPARAGACEAE**
***D.** Plants without cladodes, leaves usually well developed
E. Climbers or scramblers
F. Leaves with several prominent longitudinal veins; the connecting lateral veins obscure **LUZURIAGACEAE**
***F.** Leaves with 3-5 longitudinal veins; some connecting lateral veins prominent **SMILACACEAE**
***E.** Herbs, sometimes woody towards the base, or plants tree-like
G. Flowers unisexual **LOMANDRACEAE**
***G.** Flowers bisexual
H. Flowers in umbels or heads, sometimes opening one at a time
I. Outer perianth segments green, herbaceous; leaf sheath closed (ie the margins fused) **COMMELINACEAE**
***I.** Outer perianth segments not green; leaf sheath open (ie with overlapping margins or margins that do not meet) or absent
J. Inner perianth segments yellow **XYRIDACEAE**
***J.** Inner perianth segments not yellow
K. Plants with rhizomes or corms or without underground stems; umbels or flowering heads with several bracts at the base or none **ANTHERICACEAE**
***K.** Plants with bulbs; umbels with one large scarious bract (spathe) at the base **ALLIACEAE**
***H.** Flowers in racemes, spikes or panicles or solitary
L. Perianth segments fused into a tube longer than the lobes

M. Flowers about 10cm long **LILIACEAE**

***M.** Flowers less than 8cm long **BLANDFORDIACEAE**

***L.** Perianth segments free or fused into a tube shorter than the lobes

N. Flowers in a large complex spike **XANTHORRHOEACEAE**

***N.** Flowers in racemes or panicles

O. Perianth deciduous after flowering **ASPHODELACEAE**

***O.** Perianth persistent after flowering

P. Leaves distichous **PHORMIACEAE**

***P.** Leaves not distichous **ANTHERICACEAE**

GROUP 3

A. Flowers grouped into spikelets, each flower covered by a glumaceous bract (ie. most of the grass-like plants)

B. Leaf sheath closed or rarely open and then the perianth reduced to bristles or minute scales **CYPERACEAE**

***B**. Leaf sheath open

C. Leaves reduced to sheathing scales arranged along the stem, sometimes with short laminas; flowers usually unisexual and dioecious **RESTIONACEAE**

***C.** Leaves not reduced to sheathing scales; **POACEAE**

***A.** Flowers not grouped into spikelets and not covered with glumaceous bracts

D. Tall trees **ARECACEAE**

***D.** Not tall trees

E. Flowers unisexual

F. Flowers arranged in panicles or interrupted spikes **LOMANDRACEAE**

***F.** Flowers crowded into dense spikes with a single large bract (spathe) at the base **ARACEAE**

***E.** Flowers bisexual

G. Climbers **LUZURIAGACEAE**

***G**. Herbs or tree-like plants

H. Perianth segments 4; flowers in a dense continuous spike **ARACEAE**

***H.** Perianth segments 6

I. Flowers borne on filiform pedicels in a contracted raceme **ANTHERICACEAE**

***I.** Flowers not as above

J. Leaves not ensheathing the stout stem **XANTHORRHOEACEAE**

***J.** Leaves completely ensheathing the narrow stem

K. Flowers in racemes or spikes **JUNCAGINACEAE**

***K.** Flowers in cymes or in dense lateral clusters **JUNCACEAE**