FAMILY 9 URTICACEAE
The Nettle Family

A tropical and temperate family of herbs and shrubs and also includes the Stinging Trees of Australia. The leaves are simple, bear stipules and may be alternate or opposite. The unisexual flowers are usually small, often greenish, in compact string-like inflorescences. Sepals and stamens usually number 4 or 5, petals lacking. Filaments are often under tension so that the pollen is released explosively. Of the 50 species of Urtica only 2 or 3 are native to Northern Europe.

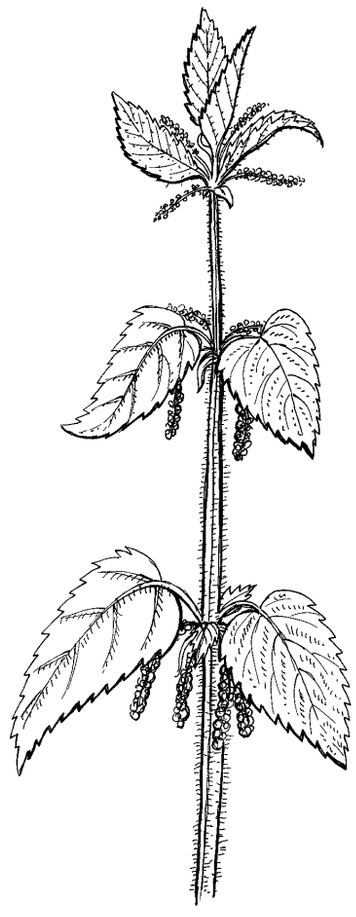
A number of species provide fibres for the textile industry (notably Ramie fibre); also for specialised applications, for example fishing nets. Nettles are a commercial source of chlorophyll and, as well as providing medicine, they are useful in hair preparations.

27 Common or Stinging Nettle

Urtica dioica L

June–Sept

Dull green unbranched perennial 30-150cm (250) herb, covered with stinging hairs. Spreads vigorously by tough yellowish rooting shoots. Leaves opposite, saw-toothed, longer than their stalks; stipules 4. Sexes on different plants. Ubiquitous, especially grassy and waste places, near buildings & walls, ditches, stream sides; phosphorous-rich soils. **Throughout**.



This is a plant whose therapeutic use is quite difficult to convey by reference to its physiological activity alone. It is of great importance as an adjunct to prescriptions, especially for hypersensitivity conditions like eczema, asthma and hayfever where the predisposition may largely be inherited. It is of great value as a remineraliser. Indeed, it is the balance of minerals and the high content of these that necessitate care as to dosage and length of treatment.

Urtica is from the Latin to burn while Nettle refers either to the needle-like stinging hairs or, more likely, to its function as a textile. Archaeological digs have uncovered remains of Nettle sheets in Bronze-Age sites. The fibre is extremely fine and strong and its sheets are said to make for excellent sleep; fibres are derived from the interior of the stem and do not involve the stinging hairs from the plant's epidermis. Its use as a food-plant is also ancient, mostly as an addition to soup and as a beer. It has long been fed to domestic animals, notably pigs and I can personally attest to a transformation of the texture and taste of nettle-fed turkey.

Parts used Leaves, fresh or dried, Juice of leaves, Root.
Harvest During flowering but preferably May and June and certainly not later than July (except for mulch and valuable plant food).
Action Astringent. Haemostatic. Diuretic (tending to eliminate Uric acid). Anti-allergic. Antiscorbutic. Mildly hypoglycaemic. Said to be galactagogue. Possibly haemopoeitic.
Uses Urticaria (this is not doctrine of signatures). Eczema, asthma; simple anaemia; diarrhoea, enteritis and colic (it probably owes this to its ability to retard fermentation in the gut). Enuresis. Aphthous ulcers. Nosebleed (as powdered snuff).
Preparations & dosage Juice of fresh plant, or made into syrup. Infusion (not too strong: 15-20g/500ml). Fluid Extract 1:1. Tincture 1:5 both in 25% alcohol. Low doses more satisfactory (0.5-1.25ml tds). **Constituents** Apart from contents of stinging hairs (histamine, acetylcholine, 5`-hydroxytryptamine), the plant is rich in flavonoids, minerals and acids (including ascorbic acid) and various other active componenets not fully investigated.

References BHP (1983), 224; BHP (1990) and British Herbal Compendium Vol 1; German Commission E Monographs, (root, herb & leaf), 166; Lutomski & Speichert, *Die Brennessel in Heilkunde und Ernährung*, Pharm. unserer Zeit (1983); Schilcher, *Urtica-Arten—Die Brennessel* Z. Phytotherapie, (1988), 9, 160; Jasperson-Schib, R., *L'ortie, drogue à la mode ou mieux que cela?*, (1991), (Translated from German to French); Leclerc, *Précis de Phytothérapie*, 124; Flück, *Medicinal Plants*, 47.

28 Small Nettle

Urtica urens L

(May)June–Sept(Oct)

An annual, it is smaller (10-60cm), less hairy, often branched and a lighter green than the Common Nettle from which it is also distinguished by its more deeply toothed leaves and very much shorter inflorescences. Other contrasts: the lower leaves are shorter than their stalks; the sexes are on the same plant; on lighter soils. Arable and waste land. **Throughout** but less common in Western France and Western British Isles.

May be considered equivalent in therapeutic terms to the Common Nettle.

29 Erect Pellitory-of-the-Wall

Parietaria officinalis L

June–Oct

Larger (30-100cm), more erect than the next species, unbranched or scarcely so and with longer leaves. France and Germany. Introduced elsewhere.

For properties see next plant.

30 Pellitory-of-the-Wall

Parietaria diffusa Mert & Koch

June–Oct

A non-stinging softly hairy perennial herb (—40cm) with several loose-spreading branched reddish stems. Slender stalked untoothed leaves are alternate; stipules absent. Flowers are usually unisexual but both types found together in clusters in the leaf-axils. Walls, rocks and dry hedgebanks. Western France & Germany, British Isles (except Scotland) but rather local; thought to be native to Holland but introduced to Belgium.

Pellitory itself means 'of the wall', from the Latin, so the sense is duplicated in the English common name. It has been known since the 4th century BC both as vegetable and medicine. In France it has been used for cleaning glass. It is a remedy for kidney stones, gravel and cystitis. There is considerable variability in its constituents which has led some authors to conclude that its reputation for breaking up kidney stones derived from observing the habit of the plant itself which typically puts its roots into old stone walls; the 'signature' of sympathetic magic in other words. Certainly its diuretic effect, depending as it does upon potassium and flavonoid concentration is variable, and its efficacy as a demulcent is only considerable in the fresh plant. No doubt this is an example of a plant whose therapeutic value might benefit from wider scientific attention providing, of course, that great care is taken with the botanical and horticultural data. Any plant with an ancient, broadly based reputation, especially if it bears the specific epithet — officinalis, is "By Appointment To" Mankind. One must, in Bertrand Russell's phrase, be sceptical about one's own scepticism; in the case of therapeutic research, this means being alert to the narrowness of one's own base.

Do not confuse with Pellitory of Spain *Anacyclus pyrethrum*, a Composite with which it is not remotely connected

Parts used Entire aerial plant, preferably fresh. Juice of leaves.
Harvest May
Action Demulcent diuretic. Leaves are said to be depurative.
Uses Dysuria from cystitis, urethritis. Oedema of renal origin. Urinary gravel. External: burns (leaves or juice); piles (as poultice). A useful remineraliser; but therapists should be alert to the fact that the plant has been known to cause hypersensitivity reactions in susceptible individuals, mainly rhinitis and hay fever, but also, on occasion, asthma-like symptoms.

Preparations & dosage I recommend an Infusion with Parsley Piert and Heather[244] and also with Buchu for cystitis. Also a Cold Maceration with Marshmallow[192], Parsley Piert[133], Couch Grass[489] and Corn Silk[496].
Such preparations are preferable to a tincture which the BHP gives as: 1:5 in 45% alcohol, 1-5ml tds. Poultice is best made by soaking in milk or water; it may be thickened with crushed potato, either uncooked or boiled.
Constituents Contains a considerable amount of sulphur and of potassium and calcium salts; also bitters, flavones and tannins.

References BHP (1983), 153; Leclerc, *Précis de Phytothérapie*, 51; Duraffourd, *Cahiers de Phytothérapie Clinique*, 2, 66.

31 Mind-your-own-business, Mother of Thousands

Soleirolia soleirolii (Req)Dandy

May–Oct

Completely unlike Pellitory in size: it forms dense evergreen mats with slender stems rooting at nodes and tiny leaves. Also the pink flowers are solitary, not in clusters. This plant from the W Mediterranean is frequently planted in rockeries and has become naturalised on damp walls, paving and banks, particularly in Western France and Southwest British Isles.

The old name Helxine was used by Dioscorides but it is likely that he was referring to Pellitory. Joseph François Soleirol was the plant collector who gave his name to this tiny but rather endearing plant which is native to Corsica and to other of the west Mediterranean Islands. The fresh plant can be bruised and placed on the skin as a cooling remedy for inflammations and, taken internally, it is diuretic and a remineraliser for the benefit of irritant skin conditions such as eczema.

FAMILY 10 LORANTHACEAE
The Mistletoe Family

There are about 1300 species of parasitic plants in 36 genera. Apart from Mistletoe at Christmas (and American Mistletoe, *Phoradendron flavescens* in the US), there are no species of economic importance. Indeed some of them are capable of seriously harming the establishment of certain tree plantations, (conifers and citrus trees, for example) presumably due to the upset in natural habitat that a tree crop represents. There is one member of this family which is quite different in form: *Nuytsia floribunda* is a tree which roots into the ground; it is from Western Australia where it is known as flame-tree or Christmas Tree. There are over 60 species of Viscum but only the following appears to be used in medicine. Only two of the genera are native to Europe and only Mistletoe itself is found wild in Northwestern Europe.

32 Mistletoe *Viscum album* L

February–April Fruit November–December

An evergreen shrubby (—100cm) hemiparasite found on the branches and trunks of many deciduous trees and, rarely, on conifers. It is shrubby with much forked branching. The yellowish-green leaves (2–8cm) are in pairs (rarely in 3s), leathery, with parallel veins. Tiny flowers in clusters with barely any stalk; perianth lobes in 4s. Male and female parts on separate plants but as the flowers are small and the fertile sex may be matched by rudimentary organs of its opposite, this fact may be less than obvious. Fruit a white sticky berry with a single seed. Most commonly on apple. More common on calcareous soils. Southern and Central England & Welsh borders, absent from Scotland and Ireland. France and Germany; rare or absent elsewhere.

Some of the mythology surrounding Mistletoe is not ancient but comes from 18th century 'Druidism', in rather the same way that some 'ancient British pageantry' was invented as long ago as 1928. The picture is further complicated by the observations of Pliny which, though obviously inaccurate, became embedded in belief a long time ago. For a brief and most interesting account, I recommend Grigson, An Englishman's Flora, 215-20. Mrs Grieve is worth consulting for the account of Mistletoe's use in epilepsy (New Herbal, 547-8). As for The Golden Bough, although we may view Frazer's conclusions today with some scepticism, it remains nonetheless a fascinating tour-de-force of vegetation myths. The Oak is central to European mythology and as Mistletoe on oak is uncommon, extra powers were ascribed to it. Nowadays, in France at least, Mistletoe growing on Pear trees is said to have greatest medicinal efficacy.

Birds are responsible for dispersing the fruits that they cannot swallow because of their very viscid nature: they scrape it off into a crevice in tree bark; any seeds they do manage to swallow are excreted onto a tree-branch. 'Mistle-' is from birds (or possible from their droppings) while '-toe' is from Old German for twig. While the plant is undoubtably successful in the treatment of benign hypertension, it is not without toxicity, (though it is actually much less toxic than its constituents would imply). As there are many other plants that are safer and less tricky to use, good reasons should be found for its use in a particular instance. It has a long tradition as an anti-neoplastic. Recent experimental work goes some way to corroborating this possibility but it is unlikely to be developed as a drug because of the complex interactions between the constituents in the plant. It is like taking a watch to pieces then trying to tell the time with them.

Mistletoe is said to improve female fertility. This might be attributable to the long mid-winter nights which is when we kiss under it; and if you are looking for symbolism, the flower is pointed, if not particularly phallic, and flanked by a pair of structures, then the round fruits are often in pairs. Symbolism is sometimes randomly stuck on by an accident of history and sometimes it follows meaning. This plant has been recommended for menstrual and menopausal difficulties.

Parts used Twigs and leaves, usually dried. (They are heat-sensitive must be dried in the cool)
Harvest At various times of the year (opinions and practices differ), but usually one of these: Sept/Oct, before the fruit; Dec-Feb; April-June (after flowering)
Action Antispasmodic, hypotensive and vasodilator. Cardioactive (nature of action complex and still debated)
Uses Essential hypertension. Nervous tachycardia, nervous crises. Arteriosclerosis. Chorea. It has been used for epilepsy in the past. While its anti-neoplastic action taken by mouth is uncertain, the plant is more probably active by topical application to a tumour.
Preparations & dosage Powder or in capsules (keep in cool). Tincture.
Constituents Proteins and lectins, alkaloids, viscotoxin, oleanolic acid, a triterpenoid sapogenin, choline, acetylcholine

References BHP (1983), 236 (contains additional references); BPC (1934), 1114; Martindale, 25th Edn, 1249; Leclerc, *Précis de Phytothérapie*, 200; Flück, *Medicinal Plants*, 47; Planta Medica, 1982, 46, 221.

ARISTOLOCHIACEAE **following Family 10**
The Birthwort Family

Snakeroot or Serpentary *Aristolochia clematitis* L

June–September

Strong-smelling hairless herb (20–80cm) with very unusual dull yellow tubular flowers with swollen base that traps pollinating flies. Introduced from Southeastern Europe into cultivation for medicine. Naturalised widely but in British Isles only in a few places in Eastern England.

A powerful plant that was used in ancient times up until relatively recently. It is, among other things, oxytocic and its name Birthwort refers to its former use in childbirth. Aristolochic acid, belonging to a small group of non-alkaloidal nitrogen–containing compounds, is known for its tumour–inhibiting properties and has led to a renewed interest in the chemistry of the genus. (Trease & Evans, 13th Edn, 592).

Asarabacca or Wild Nard *Asarum europeum* L

May–August

Evergreen hairy herb (2–10cm) with usually two kidney-shaped leaves. Solitary terminal regular flower. Rare relic of cultivation, usually in woods in England.

Also powerful and very toxic. It was used as a stimulant, sternutatory, emetic and purgative. Similar North American species, which were originally used by the Amerindians, found their way into European medicine. See Leclerc, *Précis de Phytothérapie*, 21.

RAFFLESIACEAE (Parasites, 500 species) **following Family 10**

A decoction of the plant and fruits of *Cytinus hypocistis* L is used in the Mediterranean region against dysentery. The young plants are eaten like asparagus.

FAMILY 11 POLYGONACEAE
The Dock and Sorrel Family

These are mostly herbs and include some of the commonest weeds in Northern Europe. There are also one or two climbers such as the vigorous Russian Vine which is useful in gardens to cover up unsightly areas with sheaves of white flowers as a bonus. Buckwheat is an important agricultural crop in Eastern Europe and deserves to be more widely known; Rhubarb and Sorrel are minor horticultural crops.

They are generally hairless weedy plants with alternate, simple leaves with unbroken margins and, most characteristically, with papery sheaths at the base of the leaf-stalk called ochreae. These may shrivel as the season progresses and so may need careful inspection; however in many species (eg of *Polygonum*) the leaf-stalk does emerge from a very obvious collar; in such species the stem above the node, and therefore above the ochrea, is swollen.

The flowers are small—green, white or pink—usually in spikes; the fruit is a three-faced nut.

The details of the flower and the fruit need careful observation with a hand-lens, if possible, in order to identify these species with accuracy. Even then they are not plants to encourage the beginner. However, it is not difficult to distinguish them from other plants nor the following genera from one another.

These plants are all astringent and so may be antidiarrhoeal. However, some species have, in addition to the astringent tannins, other compounds which tend in the opposite direction, making them both tonic and laxative. In common with other groups of tonic astringents, there is a great deal of reference in the literature to their usage in the effective treatment of tuberculosis, especially in France. Much of the original experimental evidence is no longer obtainable and clear indications are difficult to give. It is in the interest of clarity and not in a spirit of scepticism that I omit many such references especially as TB has lost its central importance as a disease of this part of the world. Bistort, Yellow Dock and Buckwheat are the most important remedies and all three play an active part in contemporary clinical practice. Various kinds of Rhubarb (placed variously in *Rheum* and *Polygonum*) are used as medicine and, not without disadvantage, as food. *Rumex alpinus* is used as a gentle laxative.

Knotweeds and Bistorts *Polygonum* spp

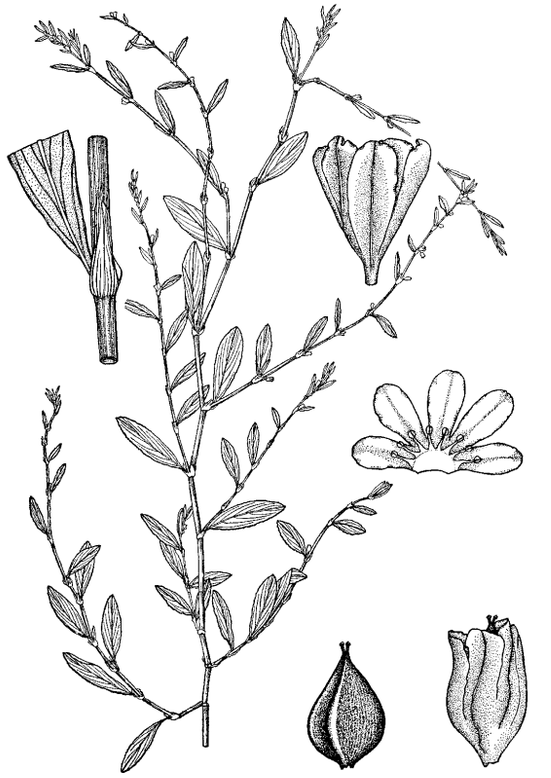
Leaves are longer than wide, not heart-shaped. Flowers bisexual, packed into cylindrical inflorescenses or sometimes looser, almost grass-like, or in clusters in angles of leaves. The 3–6 (usually 5) perianth-segments are usually in one row, petal-like or sepal-like. Stamens 3–9 in one row. Fruit enclosed in the persistent perianth or peeping out of it. Some nectar to attract insects. At least a dozen species in our region (300 worldwide).

33 Knotgrass

Polygonum aviculare L

June–Oct

Long hairless stems usually lying more or less close to the ground, branching from the base. Leaves, narrow, are of two sizes: those on the earlier non-flowering branches are 2–3 times larger and soon fall off. Clusters of pink or white flowers in leaf angles. The fruit is barely longer than the perianth. Very common weed of cultivated ground, roadsides, waste ground and seaside.
Throughout



Its strong astringency has been put to use as a haemostatic both internally and on wounds, and as an anti-diarrhoeal especially in the bleeding diarrhoea of dysentery (though I would not recommend it for ulcerative colitis). It has been demonstrated to be effective (but in a very small number of cases) in pyelonephritis. I cannot say whether its reputation for dissolving renal gravel is justly deserved, but it is certainly useful as a remineraliser. In common with a number of other plants which are high in silica, it has been recommended for restoring and strengthening lung tissue and it is this which contributes to its (still disputed) reputation for treating pulmonary tuberculosis. Its refreshing taste has been proposed as an acceptable thirst-quencher for diabetics but that, of course, does not constitute a claim to cure the disease. Small birds feed on the fruits which explains the specific epithet from avis, Latin for bird.

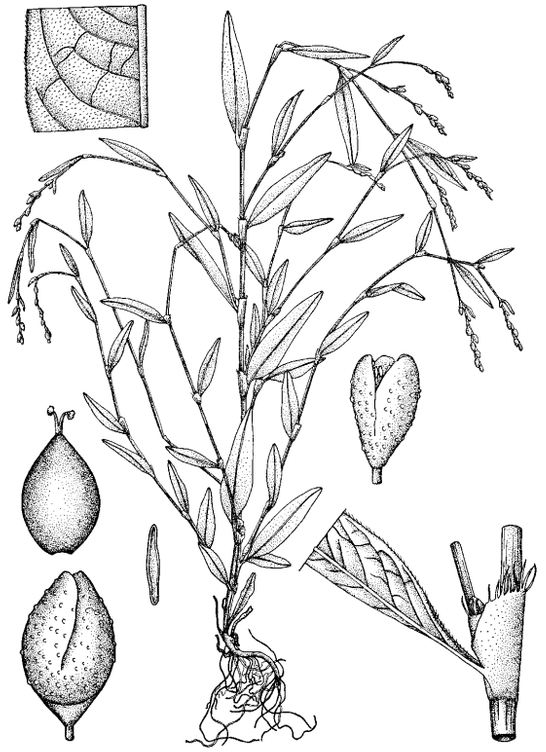
References Leclerc, *Précis de Phytothérapie*, 116; Flück, *Medicinal Plants*, 49.

34 Water-pepper, Smartweed

Polygonum hydropiper L

July–September

A hairless more or less erect little-branched annual (20 – 80 cm). with slender drooping nodding spikes of tiny greenish / white flowers. Narrow leaves with hardly any stalk are bitingly pepper to taste. Damp places and ditches and beside water; throughout except N Scotland & N Isles and not on chalk.



The entire aerial part of the plant (collected from June till October) is used, preferably fresh. The root, collected in the autumn, may also be used. It may be taken internally or used on the skin to control bleeding or for slow-healing wounds and bruises. The leaves are high in Vitamin C and were used prehistorically as a peppery condiment but it is liable to irritate, even blister skin and internal membranes which rather argues against its routine use. Blistering agents (or 'rubefacients' if they are relatively gentle) can be very effective in relieving rheumatic stiffness, but they call for experience and caution.

The action of this plant in disorders of menstrual bleeding is rather uncertain. To avoid potential irritation, beware high doses and prolonged use. Smartweed is not an ancient name but a later, politer version of Arsesmart; the fresh herb was strewn between the bedsheets to kill fleas.

References Leclerc, *Précis de Phytothérapie*, 117; Flück, *Medicinal Plants*, 50.