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Ulmus wallichiana Planch.

Family ▶ *Ulmaceae*.

Habitat ▶ The North Western Himalayas.

English ▶ Himalayan Elm. Slippery Elm is equated with *Ulmus fulva*.

Folk ▶ Hemar, Kitamaara.

Action ▶ Bark—astringent, demulcent, emollient, expectorant, diuretic.

The bark contains 0.76% tannins.

Ulmus fulva Michx, though known as Indian or Sweet Elm, is an American plant and does not occur in India.

Powdered bark of *Ulmus fulva* gives a mucilage, composed of galactose, 3-methyl galactose, rhamnose and galacturonic acid residues. As a gruel it is prescribed for patients with gastric or duodenal ulcers. Coarse powdered bark is applied as poultice to burns and skin eruptions.

The mucilages cause reflex stimulation of nerve endings in the GI tract and lead to mucous secretion which protects the GI tract against ulceration and excess acidity. (*Natural Medicines Comprehensive Database*, 2007.)

Uncaria gambier Roxb.

Family ▶ *Rubiaceae*.

Habitat ▶ Malaysia and Indonesia.

English ▶ Pale Catechu, Gambier.

Ayurvedic ▶ Khadira (related species).

Folk ▶ Chinai Katthaa.

Action ▶ Intestinal astringent. Uses similar to Black Catechu (*Acacia catechu*). The extract of the leaves and shoots contains tannins, mainly catechins up to 35% and catechu tannic acid up to 50%; indole alkaloids including gambirine, gambiridine; flavonoids such as quercetin; pigments and gambirfluorescin.

Gambirine is reported to be hypotensive; *d*-catechu constricts blood vessels. Catechins protect the liver from infection.

A related species, *U. rhynchophylla*, native to China, known as Gou Teng in Chinese medicine, is used for eclampsia, headache,

dizziness, convulsions, high fever and hypertension. (*WHO*.)

Unona desmos Raeusch.

Synonym ▶ *Desmos cochinchinensis* Lour.

Family ▶ *Annonaceae*.

Habitat ▶ Assam.

Action ▶ Root—febrifuge.

The roots contain a desmoflavone. A cycloartane triterpenoid desmosinol has been isolated from stem. The root

of *U. discolor* Vahl, synonym *Desmos chinensis* Lour. (forests of north-east, south and west India) is given for vertigo.

The root contains a flavonoid desmal. Desmal inhibited tyrosine kinase *in situ* in epidermal growth factor (EGF) receptor overexpressing NIH3T3 (ERIZ) cells. It also inhibited EGF-induced inositol phosphate formation and morphological changes.

Uraria alopecuroides Wight.

Family ▶ *Papilionaceae; Fabaceae.*

Habitat ▶ Grasslands and forest-glades from Uttar Pradesh to Assam and in Orissa, Andhra Pradesh and Karnataka.

Ayurvedic ▶ Prishniparni (related species).

Action ▶ Pods and roots—used against ringworm.

Uraria crinita Desv.

Family ▶ *Papilionaceae; Fabaceae.*

Habitat ▶ Throughout Himalayas, up to an altitude of 2,700 m and in Khasi, Aka and Lushai hills.

Ayurvedic ▶ Prishniparni (related sp.).

Action ▶ Prescribed in dysentery, diarrhoea; enlarged spleen and liver; also for the treatment of pustules, tumours and fistula.

Uraria lagopoides DC.

Synonym ▶ *U. lagopodioides* Desv.

Family ▶ *Papilionaceae; Fabaceae.*

Habitat ▶ Grasslands of Bihar, Orissa, West Bengal and Palni Hills.

Ayurvedic ▶ Prishniparni. (Prishniparni and Shaaliparni are used together in Indian medicine. Both have been equated with *Uraria* sp., *U. lagopoides* and *U. picta*.)

Siddha ▶ Moovilai.

Action ▶ Whole plant—anticatarrhal and alterative. Root—used in prescriptions for intermittent fevers, pulmonary inflammation and as a recuperating tonic. Leaves—prescribed in diarrhoea.

Flavonoids, including 5-hydroxy-7, 4'-dimethoxy flavonol, have been isolated from the plant.

The plant is mentioned as an abortifacient in ancient Ayurvedic texts. Hot aqueous extract of the shoots showed oxytocic activity on both gravid and non-gravid uteri of experimental animals. The aqueous extract of the plant shows anti-implantation activity on rats and spasmogenic effect on the guts of rabbits and uteri of rats.

Uraria picta Desv.

Synonym ▶ *Hedysarum pictum* Jacq.

Family ▶ *Papilionaceae; Fabaceae.*

Habitat ▶ Throughout India, in dry grasslands.

Ayurvedic ▶ Prishniparni, Prithakparni, Simhapushpi, Kalashi, Dhaavani, Guhaa, Chitraparni.

Siddha/Tamil ▶ Oripai.

Action ▶ Root—prescribed for cough, chills and fevers. Leaves—antiseptic, used for urinary discharges and genitourinary infections.

The Ayurvedic Pharmacopoeia of India recommends a decoction of whole plant in alcoholism, insanity, psychosis; cough, bronchitis, dyspnoea; diseases due to vitiated blood; gout; bleeding piles; blood dysentery, acute diarrhoea.

The plant is credited with fracture-healing properties. Its total extract exhibits better and quicker healing of fractures in experimental animals due to early accumulation of phosphorus and more deposition of calcium.

Dosage ▶ Whole plant—20–50 g powder for decoction. (*API*, Vol. IV.)

Urena lobata Linn. Mast.

Family ▶ *Malvaceae*.

Habitat ▶ Throughout warmer parts of India, frequent in West Bengal.

Ayurvedic ▶ Naagabalaa (*Grewia hirsuta* and *Sida veronicaefolia* are also equated with Naagabalaa). Used as Balaa in Kerala.

Siddha/Tamil ▶ Ottatti.

Action ▶ Root—diuretic, emollient, antispasmodic (roots and stem used in severe windy colic), antirheumatic. Flowers—used as a pectoral and expectorant in dry and inveterate coughs. An infusion is used as a gargle for aphthae and sore throat.

The aerial parts gave magniferin and quercetin. Alkanes, stigmasterol and beta-sitosterol are reported from the whole plant. The seeds contain protein, pentosan and mucilage.

Urena lobata Linn. var. sinuata King.

Synonym ▶ *U. sinuata* Linn.

Family ▶ *Malvaceae*.

Habitat ▶ Throughout the warmer parts of India.

Ayurvedic ▶ Used as a substitute for Balaa.

Siddha/Tamil ▶ Ottatti.

Folk ▶ Lot-loti, Kunjuyaa.

Action ▶ Leaves—used in inflammation of intestines and bladder. Flowers—an infusion is used in bronchitis. Root—emollient and refrigerant. Used in external application for lumbago and rheumatism.

Urginea indica (Roxb.) Kunth.

Synonym ▶ *Drimia indica* Roxb. non-(Wt.) Baker.

Family ▶ *Liliaceae*.

Habitat ▶ Western Himalayas, Bihar, Konkan and along the Coromandel Coast. *U. maritima* (L.) Baker is native to Mediterranean region.

English ▶ Indian Squill, Sea Onion (red and white varieties).

Ayurvedic ▶ Vana-palaandu, Kolakanda, Vajrakanda.

Unani ▶ Unsul-e-Hindi, Isqueel-e-Hindi, Piyaz-Dasti, Piyaz-Sahraayi, Jangali Piyaz.

Siddha/Tamil ▶ Narivengayam.

Action ▶ Used as a substitute for European Squill, *Urginea maritima*. Expectorant (in dry respiratory conditions, whooping cough and bronchial asthma), antispasmodic, emetic (in large doses), diuretic (promotes fluid elimination in heart disease), cardiac tonic (effect, non-cumulative). Used topically as a hair tonic for dandruff and seborrhoea (active constituent is thought to be scilliroside of the Red Squill.)

Key application ▶ *Urginea maritima*—in milder cases of heart insufficiency, also for diminished kidney capacity. (*German Commission E.*)

Bulbs contain cardiac glycosides, scillarens A and B. Bulb, leaves and root contain stigmasterol, sitosterol and campesterol. Bulbs also contain hentriacontanol, octacosanoic acid. Defatted air-dried bulbs afforded 6-desacetoxyscillirosidin.

The plant exhibits cyanogenetic activity.

Urginea maritima (White Squill) is contraindicated in potassium deficiency or when digitalis glycosides are being used (Francis Brinker), in hypercalcaemia and hyperkalaemia (Sharon M. Herr).

Urginea coromandeliana Hook. f. non-Wight, synonym *U. wightiana* Hook f. (Coromandel coast and in dry regions of Andhra Pradesh and Tamil

Nadu up to 3,000 m) is used as a substitute for Indian Squill (*U. indica*).

Dosage ▶ Bulb—120–200 mg powder. (CCRAS.)

Urtica dioica Linn.

Family ▶ *Urticaceae*.

Habitat ▶ North-western Himalaya from Kashmir to Simla at 2,400–3,600 m.

English ▶ Stinging Nettle.

Ayurvedic ▶ Vrishchhiyaa-shaaka (related species).

Unani ▶ Anjuraa.

Folk ▶ Shisuun (Kumaon).

Action ▶ Plant—diuretic, astringent, antihæmorrhagic; eliminates uric acid from the body, detoxifies the blood. Externally, astringent and hæmostatic.

Used internally for the treatment of nephritis, hæmoptysis and other hæmorrhages.

Key application ▶ Above ground parts—as a supportive therapy for rheumatic ailments (internally and externally). Internally, in irrigation therapy for inflammatory diseases of the lower urinary tract and prevention and treatment of kidney gravel. (*German Commission E, ESCOP, The British Herbal Compendium, The British Herbal Pharmacopoeia.*) Root—in symptomatic treatment of micturition disorders (dysuria, polakiuria, nocturia, urine retention) in benign prostatic hyperplasia at

stages I and II. (*German Commission E, ESCOP, WHO, The British Herbal Pharmacopoeia.*)

Clinical experiments have confirmed the utility of the herb as a haemostatic in uterine haemorrhage and bleeding from nose. The herb is also used in sciatica, rheumatism and palsy. The treatment for paralysis comprises slapping the patient with a bundle of twigs. Alcoholic extract of *Russian* sp. is used in the cholecystitis and habitual constipation.

The root exhibits an antiproliferative effect on prostatic epithelial and stromal cells. It may also lessen the effects of androgenic hormones by competitively blocking access to human sex hormone binding globulin. (*Planta Med*, 63, 1997; *ibid*, 66, 2000. Also, *ESCOPE monograph; Altern Complement Ther*, 1998; Simon Mills; *Natural Medicines Comprehensive Database*, 2007.)

In Europe, the juice of the leaves or roots, mixed with honey or sugar, was prescribed for bronchial asthma. In the USA, a freeze-dried preparation of the herb (300 mg gelatin capsules) has been found to improve condition of allergic rhinitis patients. The powdered seeds were considered a cure for goitre. (M. Grieve.)

The urticating properties of the hairs are attributed to the presence of acetylcholine, histamine and 5-hydroxytryptamine (5-HT). A histamine-liberating enzyme is also present.

Acetylcholine is present in the leaves, rootlets, rhizomes and cortex in the ascending order of concentration. Histamine is not present in the underground parts of the plant. Its

concentration in the leaves is about four times than that in the stem-cortex. Betaine and choline are present in the leaves.

The leaves gave flavonoids (including rutin), sterols, carotenoids, vitamins (including C, B group, K), minerals, plant phenolic acids. The coumarin scopoletin has been isolated from the flowers and the root.

A polysaccharide fraction obtained from aqueous extract showed anti-inflammatory activity in carrageenan-induced rat paw oedema and lymphocyte transformation test. A lectin was found to stimulate proliferation of human lymphocytes. (*Planta Med*, 55, 1989.)

The leaf and root is contraindicated in kidney disease and pregnancy. 5-hydroxytryptamine is a uterotrophic constituent. (Francis Brinker.)

Urtica parviflora Roxb.

Family ► *Urticaceae*.

Habitat ► Temperate Himalayas and the Nilgiris.

Ayurvedic ► Vrishchhiyaa-shaaka.

Folk ► Shisuun (Kumaon).

Action ► Roots—employed for the treatment of fractures and dislocations. Leaves and inflorescences—prescribed as a tonic and as a cleaning agent after parturition.

Urtica pilulifera Linn.

Family ► *Urticaceae*.

Habitat ► Simla and other hill stations.

English ► Roman Nettle.

Ayurvedic ► Used as a substitute for Vrishchiyaa-shaaka.

Unani ► Anjuraa.

Action ► Diuretic, astringent, haemostatic.

The leaves and stems contain an indole alkaloid, bufotenin. 5-hydroxytryptamine is located mainly in strings.

Urtica urens Linn. (Dog Nettle, Small Nettle) is found in Dehra Dun and is Udampur district of J. & K. The inflorescence and leaves contain the flavonoid compounds of kaempferol, isorhamnetin, quercetin, apigenin, diosmetin and luteolin. Presence of chlorogenic acid is also reported.

The fluid extract of roots has been found to be useful in mild cases of prostate enlargement by improving micturia in men over 60 years.

Usnea longissima Ach.

Family ► *Usneaceae*.

Habitat ► Common in temperate and alpine Himalayas, as a moss on trees.

English ► Lichen.

Unani ► Ushnaa.

Action ► Moss—used as an expectorant and in the treatment of ulcers.

Key application ► *German Commission E* approves Usnea (dried thallus of *U. barbata*, *U. florida*, *U. hirta* and

U. plicata) for mild inflammations of the oral and pharyngeal mucosa.

Usnea preparations are used clinically by North American herbalists for antibacterial action against Gram-positive bacteria in local or systemic infections and for antifungal action against *Candida albicans*. (*Expanded Commission E Monographs*.)

U. longissima contains 3–4% usnic acid, also barbatic acid and arabitol. Usnic acid and barbatic acid possess marked anti-tubercular activity. Barbatic acid produces usnic acid, is active against *Streptococcus haemolyticus* and *pneumococcus* sp. and inhibits the growth of *tubercle bacillus*.

Utricularia bifida Linn.

Family ► *Lentibulariaceae*.

Habitat ► Marshy places, as a weed.

English ► Bladder wort.

Folk ► Jhangi (smaller var.)

Action ► Diuretic (used against urinary disorders), anti-inflammatory and antispasmodic (used against cough). Used topically for mucous membrane inflammations, burns and wounds.

U. stellaris is equated with bigger var. of Jhangi.

Uvaria narum Blume.

Family ► *Annonaceae*.

Habitat ► Western ghats from Maharashtra southwards up to an altitude of 1,200 m.

Siddha/Tamil ► Pulichan.

Action ► Root and leaves—used in intermittent fevers, biliousness, jaundice; also in rheumatic affections; bruised in salt water, used in skin diseases. A decoction of the root bark is given to women to control fits at the time of delivery.

Acetogenins, including stereoisomers, are important constituents of the root bark. Glutinone, glutinol, taraxerol, beta-sitosterol and benzyl

benzoate have also been isolated. The essential oil of the root bark of Kerala plant contains bornyl acetate 15.2% and patchoulenone 8.1%.

A decoction and roots of *Uvaria gandiflora* Roxb., synonym *U. purpurea* Blume (Indian Botanic Garden, Kolkata) is used for flatulence, stomachache; also after childbirth. A decoction of *U. micrantha* (A. DC.) Hook. f. & Thoms. (tropical forests of the Andamans) is also administered after childbirth as a prophylactic.