

Water Plants of Sri Lanka



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W.H.DeThabrev
W.V.DeThabrev

WATER PLANTS
OF
SRI LANKA

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WATER PLANTS OF SRI LANKA

W. HENRY DE THABREW
W. VIVIAN DE THABREW

Line drawings by
Coral A. De Thabrew

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NOTES ON PRONUNCIATION OF SINHALESE NAMES

Sinhalese names, where they exist, are given along with the common English names for the species. Since pronunciation differs somewhat from European tongues, we append these notes for the aid of the English-speaking reader.

a	as in cut
ä	as in cat
á	as in car
e	as in bed
i	as in pin
o	as in hot
ó	as in road
t	as in pith
t	as in rat
d	as in mother
d	as in rod

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Finally, we thank Messrs. Perfectaprint for the great care they have taken in producing this publication.

PREFACE

The growing interest in Sri Lanka in recent years, and particularly in its flora and fauna, has led us to produce the Heritage of Lanka series. We were spurred on by the fact that very little material exists to satisfy the strong interest expressed in the subject both inside and outside Sri Lanka.

This first volume in the series is also a logical sequel to two earlier books written by W. V. De Thabrew, 'Popular tropical aquarium plants' and 'Coldwater aquarium plants, as so many of the aquatic plants on sale in the West for aquaria and water-gardening originate in Sri Lanka.

The varied topography of the island, which ranges from 8,000 feet in the central hill country to sea-level, gives rise to a similar variation in climate and vegetation, which is everywhere (except in the hot, dry, Northern Province near India) abundant. The rivers, watercourses, lakes, pools and ancient irrigation tanks, as well as rice-fields and more incidental aquatic environments, ensure a wealth of aquatic flora. In this book we have attempted to briefly describe some of the most commonly found and best-loved species. These are illustrated with coloured and black and white photographs and line-drawings to aid identification. The measurements given are approximate.

W. H. De Thabrew
W. Vivian De Thabrew
Mt Lavinia, Sri Lanka, 1983

Genus: ALTERNANTHERA

Family: Amaranthaceae

Species: **Alternanthera rubra**

Common name: Red Alligator Weed

Sinhalese name: *Ratu Heen Mukunuwenna*

Habitat: Stagnant pools, lakes and ponds throughout Sri Lanka.

The brownish-red leaves, which are oblong or lance-shaped (lanceolate) and narrow, are borne on a very short stalk on brownish-green slender stems. The undersides of the leaves are greyish-green and silky smooth. The many branched plant is thickly tufted and grows to a height of up to 30 cms (12 ins).

The minute pink-tinged flowers arranged in small dense heads appear on the axils. In certain parts of Sri Lanka, it is used as a vegetable.

Species: **Alternanthera sessilis**

Sinhalese name: *Mukunuwenna, Palá Mukunuwenna*

Habitat: Ditches, pools, shallow watercourses and marshy land throughout Sri Lanka, except the Northern districts.

The leaves are narrow, lance-shaped and up to 5 cms (2 ins) long. The brownish-green leaves with a prominent midrib grow opposite in pairs on a wiry slender stem full of axial buds. The plant, branching freely, grows to a height of up to 50 cms (20 ins). The cultivated plants, generally grown in emerse or bog conditions, have fleshier and deep green leaves.

This plant is extensively used as a vegetable.

Genus: APONOGETON

Family: Aponogetonaceae

Species: Aponogeton crispus

Sinhalese name: *Kekatiya*

Habitat: Central, Western and Southern Provinces.

The rhizome is fibrous and cylindrical. The plant consists of a rosette of dull green or brownish-green, lance-shaped, narrow leaves which can grow up to 50 cms (20 ins) long. The leaf-margins are wavy and finely crispy.

The pure white, long, candle-wick-like flower-stalks appear above the water-surface between September-May. The flower-stalks are used as a vegetable while the tubers are boiled like potatoes. It is also used as an aquarium plant.

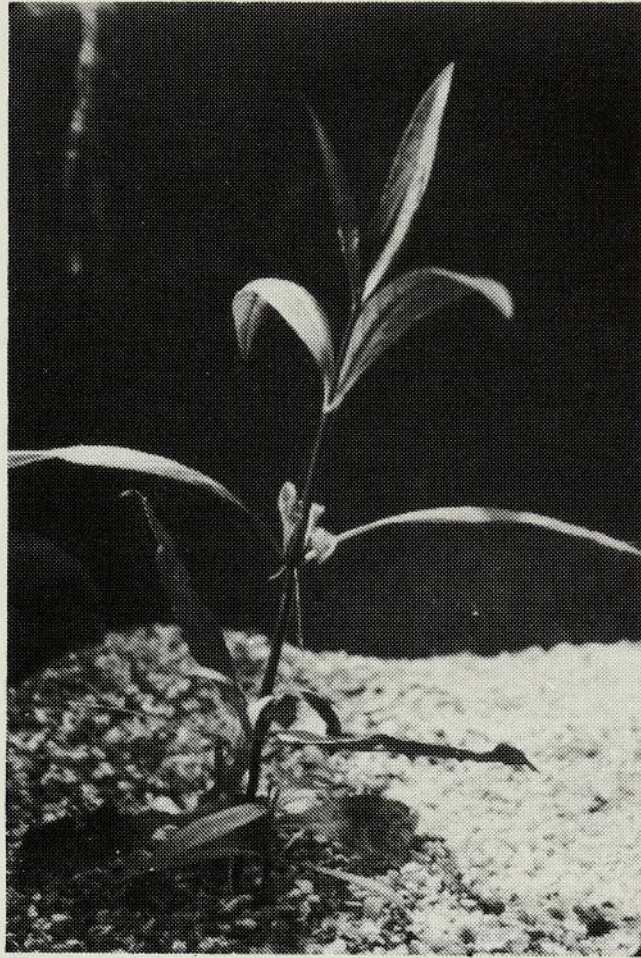
Species: Aponogeton rigidifolius

Sinhalese name: *Kalu Kekatiya, Maha Kekatiya*

Habitat: Southern and Central Provinces.

This species does not have tubers. It has a narrow, cylindrical, horizontally-growing rhizome which produces very long, brownish-green to brownish-purple, leathery, smooth leaves which are slightly wavy. The young leaves can be translucent or light purple. The leaves may grow up to a length of 60 cms (24 ins).

The flower-stalk is stouter than that of other species. The rhizome is used in Ayurvedic medicine. This is also used as an aquarium plant.



Alternanthera rubra



Alternanthera sessilis



Aponogeton crispus



Aponogeton rigidfolius

Aponogeton echinatus



Genus: APONOGETON

Family: Aponogetonaceae

Species: Aponogeton echinatus

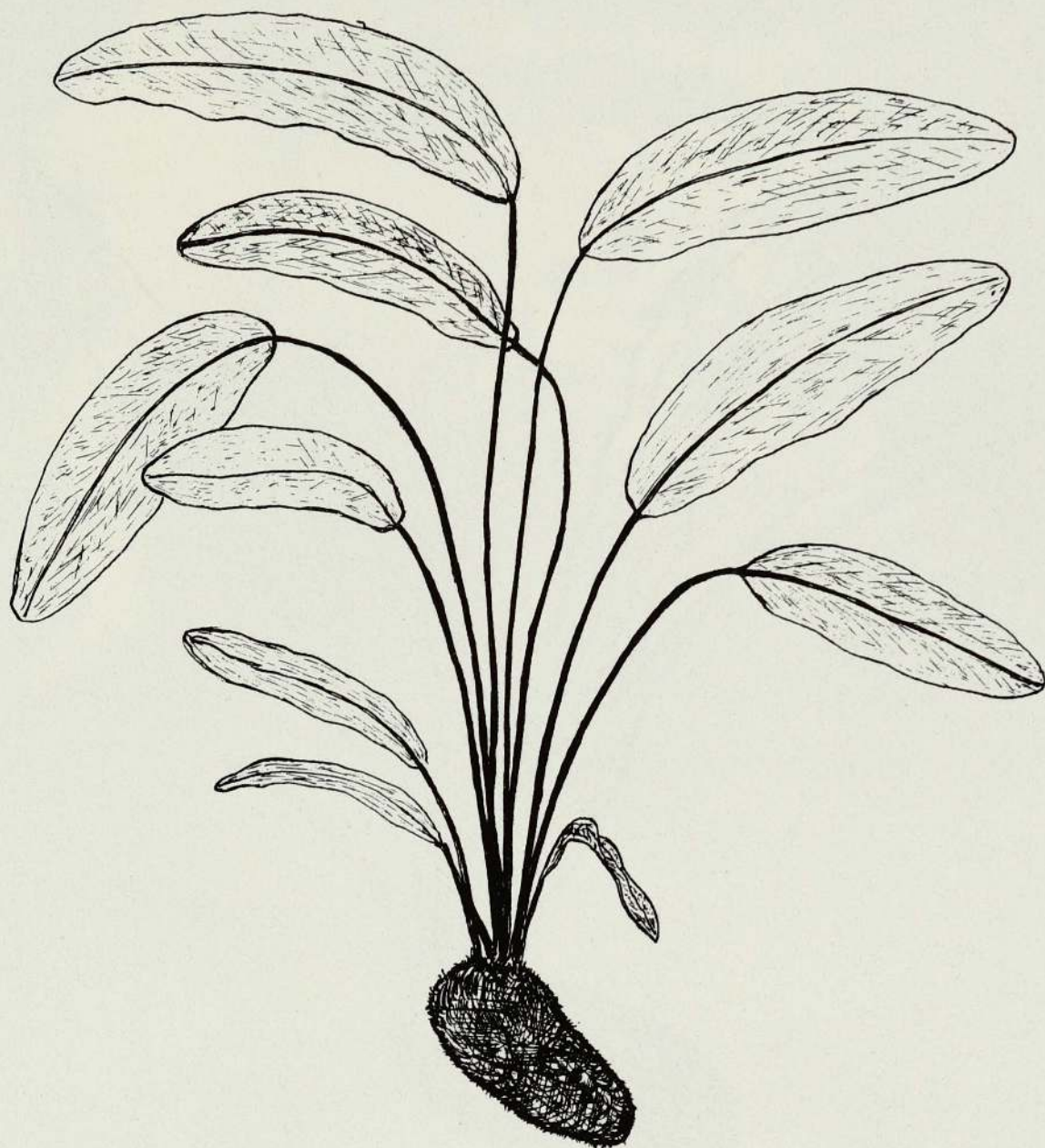
Sinhalese name: *Kekatiya*

Habitat: Southern Province.

A species which resembles very closely *A. undulatus*. The plants are very large, with broad, crispy, lanceolate leaves. Some of the leaves may turn purple, especially if plenty of strong sunlight is available. It can grow in depths of up to four feet.

The minute flowers on the characteristically slender flower-stalks are tinged with pink. This species cross-breeds freely with *A. crispus* and *A. undulatus*.

The tuber and flowers are used as vegetables. It is also used in aquaria.



Genus: APONOGETON

Family: Aponogetonaceae

Species: **Aponogeton natans**

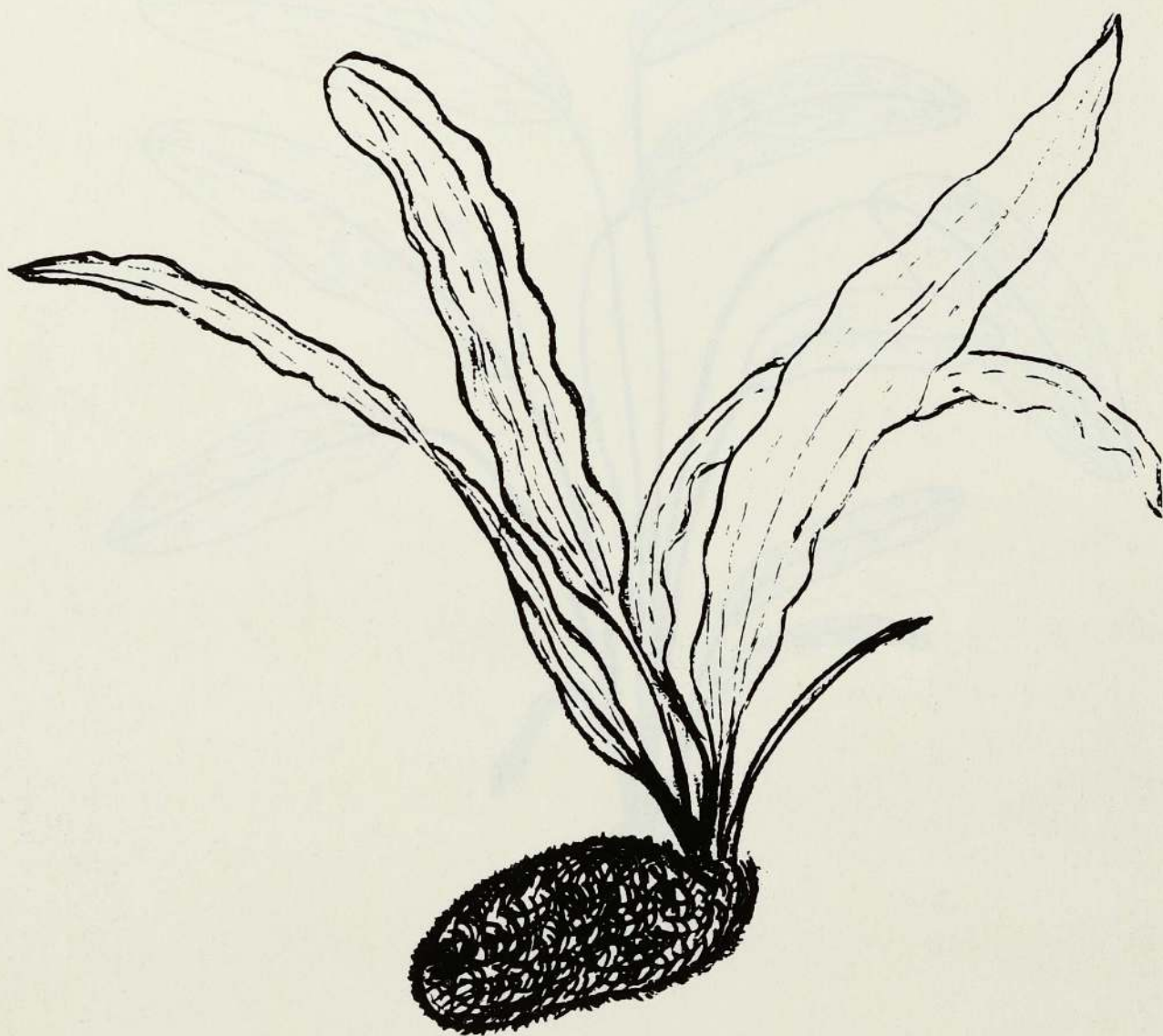
Common name: Aponogeton monostachyus

Sinhalese name: *Haláwata Kekatiya*

Habitat: Western Province and North Central Province.

The small tuberous rootstock is rounded or oblong, fibrous, up to 2½ cms (1 in) long. The young leaves are bright green, lance-shaped, narrow and slightly crinkled, while the mature leaves, borne on very long stalks, are darker, leathery, oval-shaped and float on the water-surface.

The characteristic flower-stalks with white flowers appear above the water-surface. It is also used in aquaria.



Genus: APONOGETON

Family: Aponogetonaceae
Sinhalese name: *Kekatiya*

Species: *Aponogeton undulatus*

Habitat: Pools, ponds lakes and slow-flowing water-courses in all areas except the Eastern, Northern and Central Provinces.

The leaves are narrow, bright green, tapering to a point at the tip, wavy or crinkled and with a bold midrib with two parallel veins on either side of it. The leaf-blade is up to 6 ins (15 cms) long, borne on a stalk up to 4 ins (10 cms) in length. The tuberous rootstock is fibrous, up to 1 inch (2½ cms) in diameter, oval or cylindrical and very firm. This is a tall plant, growing up to 18 ins (45 cms) high. The tuber is boiled and eaten like potatoes, and the flower-stalks are eaten as vegetables.



Aponogeton rigidifolius growing in a slow-flowing stream

A natural habitat of *Aponogeton crispus*



Genus: BACOPA

Family: Scrophulariaceae

Species: **Bacopa monnieri**

Common name: Baby's tears

Sinhalese name: *Heen Lunuwila*

Habitat: All Provinces except the Northern Province.

The bright green leaves are very small, round or elliptic, fleshy and glossy, tapering towards the base without leaf-stalks. They are arranged on a round, wiry, green stem and resemble tear-drops. In marshy terrain trailing stems spread along the ground, forming a dense mat. In drought it readily adapts to terrestrial conditions.

This plant contains plenty of mineral salts. It is boiled and the water is drunk as a laxative. It is also cooked as a vegetable and is believed to have blood-purifying properties. It is also used as an aquarium plant.

Genus: CABOMBA

Family: Nymphaeaceae

Species: **Cabomba aquatica**

Sinhalese name: *Budu Räs Pási*

Habitat: Western, North Western and Southern Provinces in ponds, lakes and ditches.

The leaves, with a short stalk, are divided into very fine, bright green segments arranged in whorls round a thin, fleshy, round stem, branching profusely. The leaf-stalks grow opposite from the stem. The submerged leaves form attractive rosettes, while the few leaves above the water (which is a rare occurrence) are small and oval-shaped.

In bright, sunny situations in shallow water, certain parts of the plant or the whole plant assume a pale reddish tinge. A very popular plant in the aquarium.



Genus: BLYXA

Family: Hydrocharitaceae

Species: **Blyxa echinosperma**

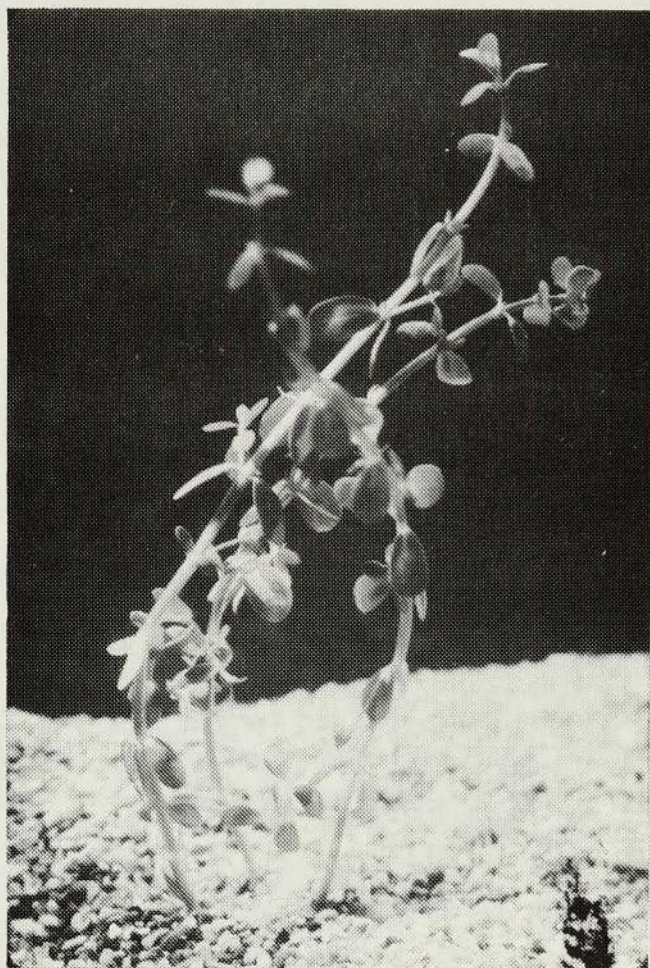
Sinhalese name: Diya Pan

Habitat: North Central, Western and Southern Provinces.

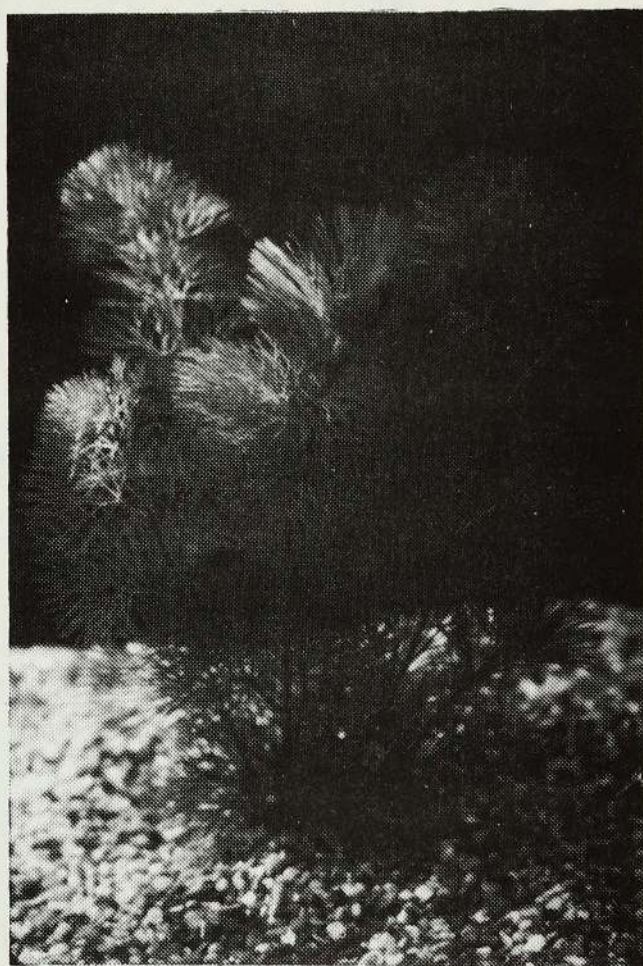
The plant consists of dark to light green, narrow, ribbon-like leaves up to 30 cms (12 ins) long and tapering to a point. They are coarse to the touch owing to the prominent midrib and lateral veins. These somewhat delicate leaves form a compact rosette.

Blyxa zeylanica (Tana Pan) is an altogether smaller plant, and its leaves are more grass-like, with a mass of greyish-white fleshy roots.

Both plants are frequently found in rice-fields, waterlogged meadows and ditches.



Bacopa monnieri



Cabomba aquatica

Once a stream, now a Bacopa swamp





Genus: CABOMBA

Family: Cabombaceae

Species: *Cabomba caroliniana*

Sinhalese name: *Budu Räs Pási*

Habitat: West Central and Western Provinces, in ponds, lakes and water-holes.

This is a plant with bright green, finely-divided leaves which are whorled to a semi-circular shape. These whorls are arranged on long, fleshy, green stems. It grows fully submerged, and the gently swaying stems underwater present a very delightful vista.

Above the water-surface, clusters of tiny, white flowers are borne at the end of long, thin stalks which grow from the leaf apex.

It is frequently used as an aquarium plant.

Genus: CALLITRICHE

Family: Callitrichaceae

Species: *Callitriche stagnalis*

Sinhalese name: *Heen Taru*

Habitat: Western and Southern Provinces, in rice-fields, ditches and ponds.

The wiry, fine, long stems bear small, oval-shaped, dark green leaves. These irregularly-branched stems root at the nodes. Some stems can grow up to several feet long, but always remain submerged.

Genus: CERATOPTERIS

Family: Parkeriaceae

Species: *Ceratopteris thalictroides*

Common name: Water Sprite

Sinhalese name: *Kukul Andu*

Habitat: Central, Western and Southern Provinces in rice-fields, ditches, waterlogged meadows.

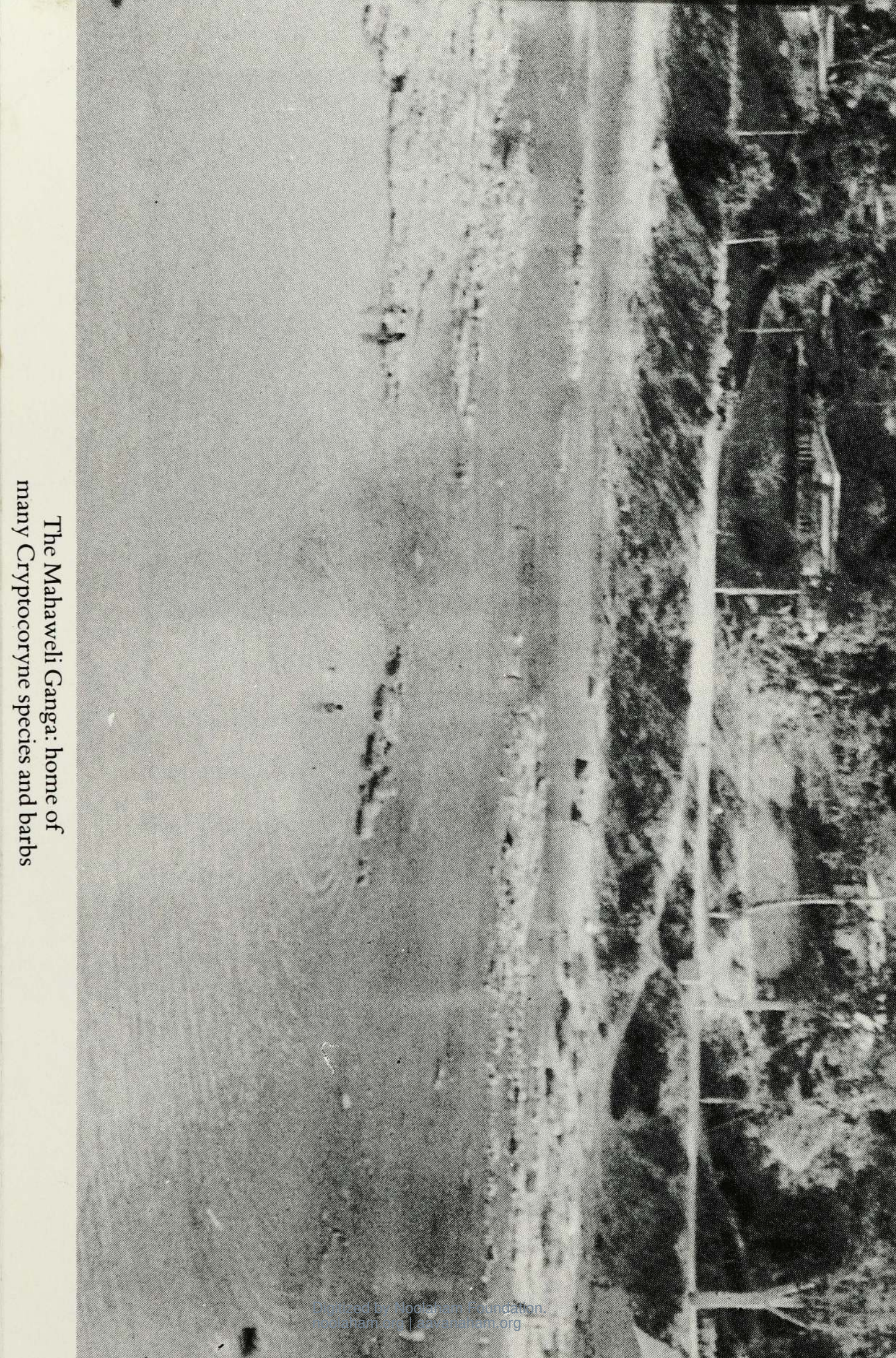
This water-fern is a rosette plant which has dense, fibrous roots. The leaves are up to about 50 cms (20 ins) long and deeply divided into segments. These are erect and stiff, deep to brownish-green and brittle. On some leaves, buds grow at the points of division of the lobes, and eventually develop into young plants. These plantlets break away and grow as independent plants.



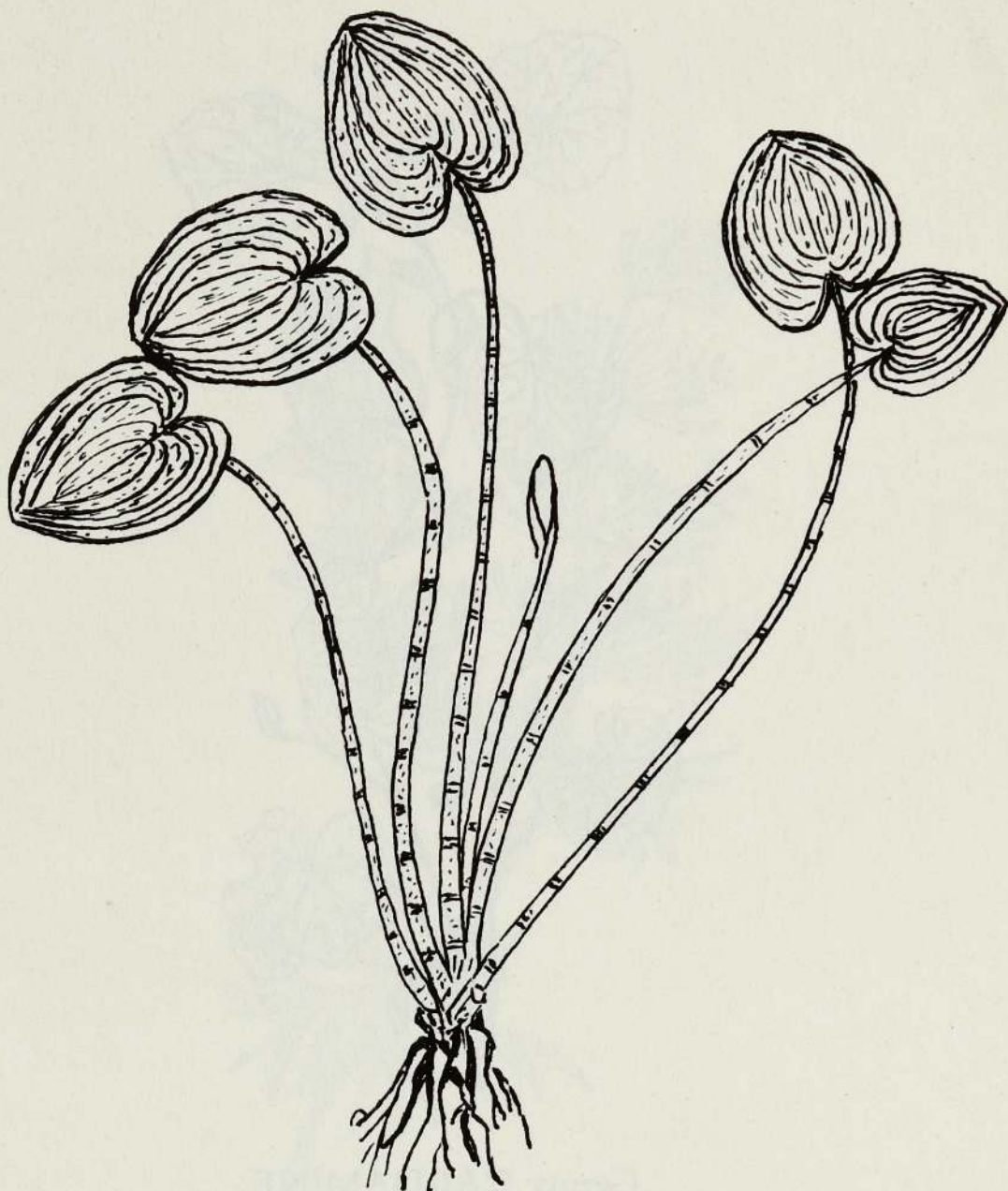
Callitriche stagnalis



Ceratopteris thalictroides



The Mahaweli Ganga: home of
many *Cryptocoryne* species and barbs



Genus: CALDESIA

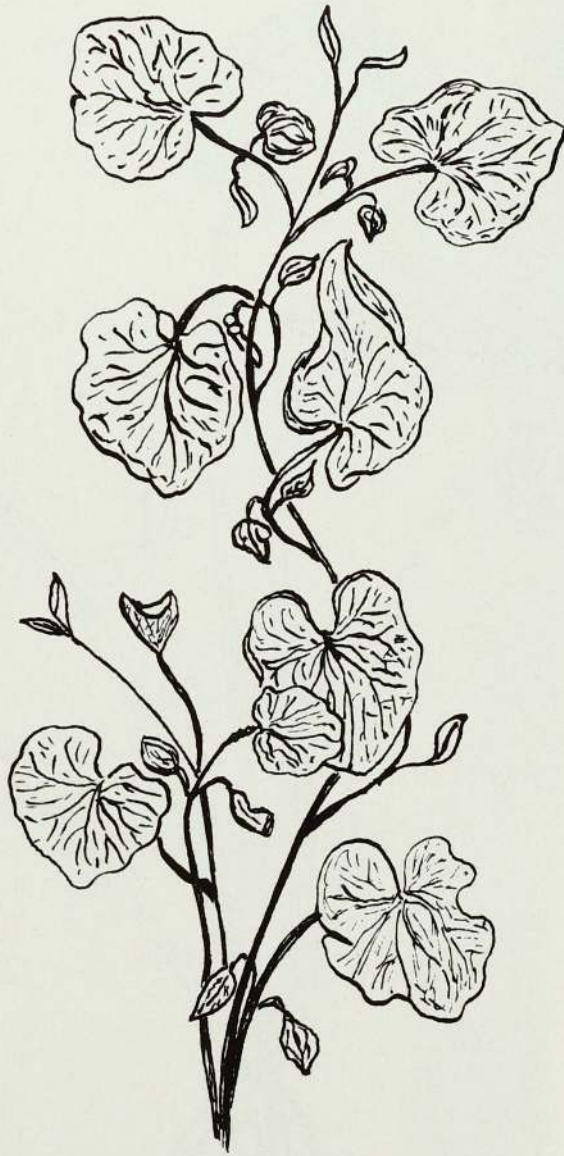
Family: Alismataceae

Species: *Caldesia oligocoea*

Sinhalese name: *Karandū Peti*

Habitat: Throughout the island, except in the Eastern and Northern Provinces. It is found growing in swamps, shallow pools, rivers, streams and canals.

The plant forms a rosette, consisting of tall, fleshy, segmented leaf-stalks which bear ovate to heart-shaped leaves which have prominent veins. The roots are white and fleshy. Mostly growing submerged, it throws out some floating leaves, especially near flowering time. The central flowering stalk rises above the water and bears the inflorescence in a pyramidal shape. The flowers are arranged in whorls, mostly whorls of 3.



Genus: CARDAMINE

Family: Brassicaceae

Species: **Cardamine hirsuta**

Sinhalese name: *Diya Bo*

Habitat: Grows in lakes, ponds and sometimes in slow-flowing streams and in ditches in Central and Western Provinces.

The plant grows from a creeping rootstock and has wiry, branching stems bearing round or almost heart-shaped bright to deep green leaves. The leaf has a prominent midrib with several pairs of thin veins fanning out from the centre. Roots develop from the nodes of the stems.

This plant is used in Ayurvedic medicine for the treatment of heart palpitations. Its use goes back to the early centuries B.C.

Depending on the richness of the soil, its form varies considerably. Normally the plant develops into a handsome bush, with occasional floating leaves. It is used in aquaria.



Genus: CERATOPHYLLUM

Family: Ceratophyllaceae

Species: **Ceratophyllum demersum**

Common name: Hornwort

Sinhalese name: *Diya Hawari*

Habitat: Western, Central and Southern Provinces, in ditches, rivers, canals and pools.

A fully submerged plant with numerous branched stems. The leaves are fine, feathery and coarse, arranged in whorls at each node. They are rather rigid, short — up to 1½ cms (½ in.) long, brittle and dark to bright green. It is used in aquaria.



Genus: CRYPTOCORYNE

Family: Araceae

Species: **Cryptocoryne ciliata**

Sinhalese name: *Äth Attudiyan*

Habitat: Central Province in streams, rivers and occasionally in irrigation channels.

A large plant with long, lance-shaped or sometimes ovate leaves. The colour and features of the leaf vary according to growing conditions. The leaf can be light green to dark green on the upper side, while the underside is pale green or brownish-green. The leaf-stalk is thick, long and dark green to brownish-green. It will grow fully submerged or demerse, depending on the habitat.

Though often described as a marsh plant by many botanists, in Sri Lanka its essentially a true aquatic plant. It is used in aquaria.



Genus: CRYPTOCORYNE

Family: Araceae

Species: *Cryptocoryne lucens*

Sinhalese name: Attudiyan

Habitat: Eastern and Central provinces in rivers, and occasionally in freshwater springs.

This is another plant which is at home both submerged or emerge. The leaf, borne on a long, bright green or sometimes brownish-tinged stalk, is narrow, lance-shaped or egg-shaped, bright green, flat and smooth. The underside is pale green. A fully grown plant can grow up to 30 cms (12 ins). The rhizomes and runners are thin but wiry.

It is used as an aquarium plant.



Genus: CRYPTOCORYNE

Family: Araceae

Species: **Cryptocoryne parva**

Sinhalese name: *Kuru Attudiyan*

Habitat: Central Province in rivers and streams.

This plant grows mainly submerged, but will grow in bog conditions, especially when the water-level of the rivers recedes during the dry season.

These dwarf plants have small, light green, lanceolate leaves with short green leaf-stalks (petioles). The underside of the leaf is pale green. The plant has thin rhizomes or runners which develop young plantlets at frequent intervals.

This plant is used in Ayurvedic medicine and also as an aquarium plant.

Genus: CRYPTOCORYNE

Family: Araceae

Species: *Cryptocoryne beckettii*

Sinhalese name: *Beckettge Attudiyan*

Habitat: Mainly Central Province, in rivers, streams and springs.

The plant has several leaf forms, according to the type of situation in which it grows. The leaves can be either long, oblong or lanceolate. They are generally dark green to brownish-green on the upper surface and greyish-white on the underside. They are up to 20 cms (8 ins) long and 5 cms (2 ins) wide, slightly corrugated or ridged. The leaf-margins are wavy. The leaf-stalks are light purple or brownish-pink.

This species is used in indigenous herbal medicine. It is also used in aquaria.

Species: *Cryptocoryne legroi*

Sinhalese name: *Attudiyan*

Habitat: Central Province, in rivers, streams and springs.

The plant, which grows up to 20 cms (8 ins) tall, consists of thin rhizomes and runners which produce a rosette of short, lanceolate or ovate (oval-shaped or egg-shaped) leaves which are wavy at the edge, olive-green on the upper side and light purple or reddish-brown on the underside. The long petioles (leaf-stalks) are brownish-red or purplish in colour.

It is used in herbal medicine and has recently been recognised as a useful aquarium plant.

Genus: CRYPTO-CORYNE

Family: Araceae

Species: *Cryptocoryne lutea*

Sinhalese name: Attuḍiyan

Habitat: West Central Province, in rivers, streams and springs.

The plant has lanceolate or elongated ovate leaves up to 25 cms (10 ins) long and 5 cms (2 ins) wide, which are deep green or dark green on the upper side and light green on the underside. Its prominent midrib and the 3 to 4 pairs of lateral veins are reddish-brown or purplish-brown. The plant can grow fairly tall in deep water. However, in shallower habitats it will be of medium size.

It is used in herbal medicine and aquaria.

Species: *Cryptocoryne petchii*

Sinhalese name: *Petchige Attuḍiyan*

Habitat: Central and Eastern Provinces.

This plant has thin rhizomes and runners and leaves of two forms. The emerse form is narrow, wavy at the edge and sharply pointed at the tip. The leaves are brownish-purple to brownish-green, and mostly with dark green markings or striations on either side of the midrib on the upper surface and light purple on the underside. The submerse form has narrower, brown or brownish-green leaves, with brown to reddish-brown leaf-stalks.

It is used in herbal medicine and aquaria.



Cryptocoryne legroi growing in an irrigation channel

A typical *Cryptocoryne* habitat





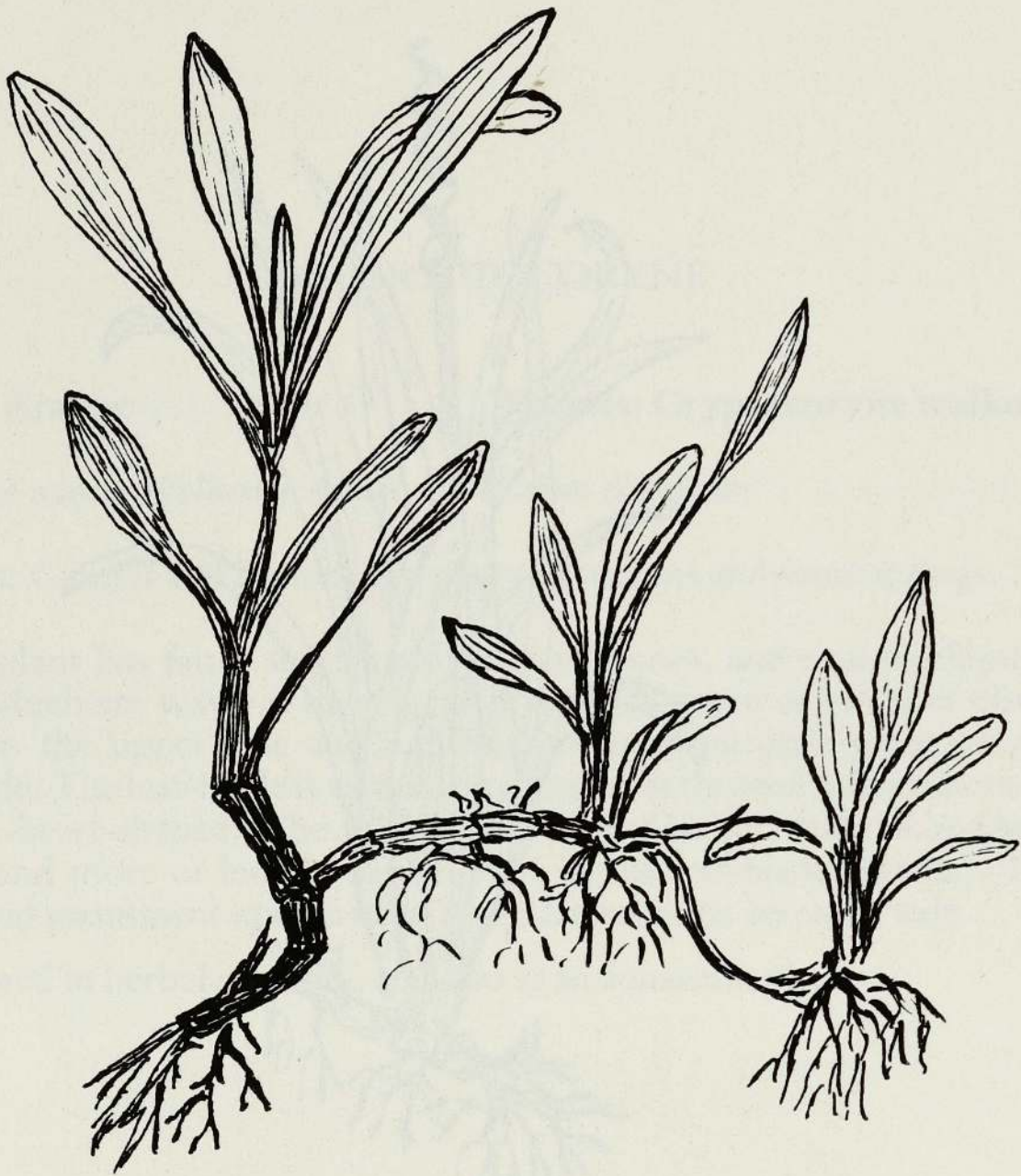
Cryptocoryne beckettii



Cryptocoryne lutea



Cryptocoryne petchii



Genus: CRYPTOCORYNE

Family: Araceae

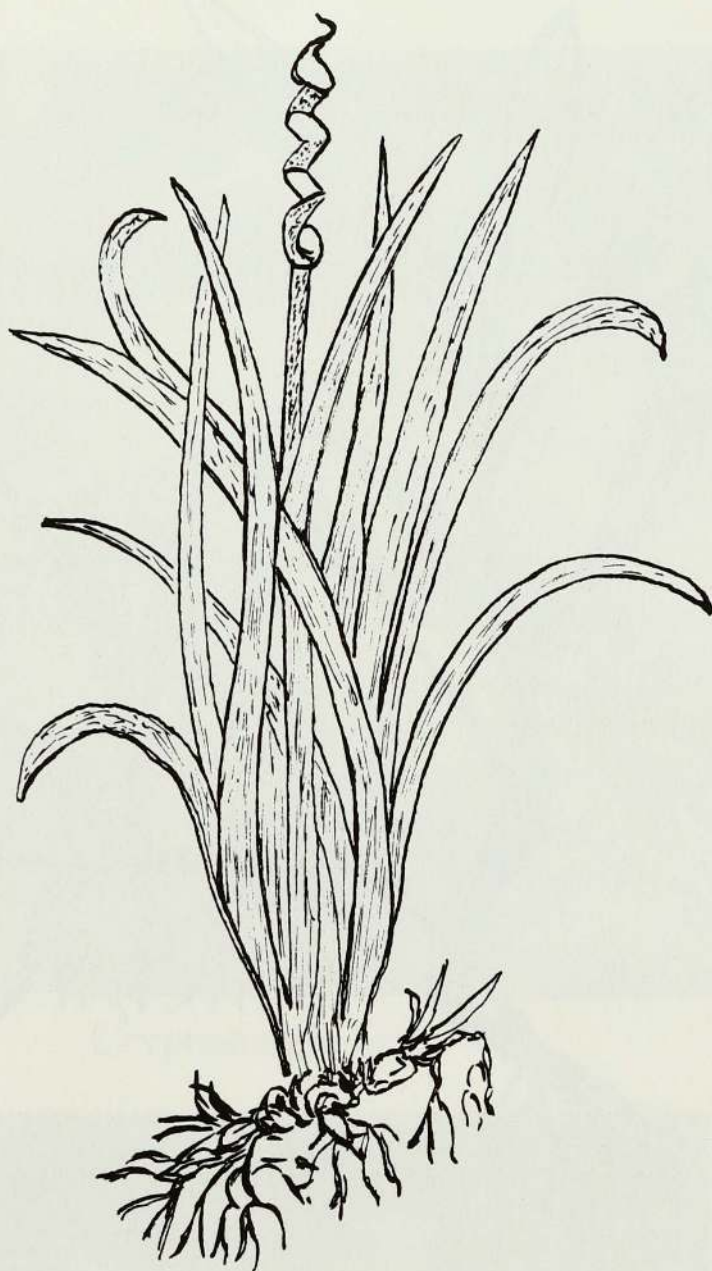
Species: *Cryptocoryne nevillii*

Sinhalese name: *Nevillige Attudiyan*

Habitat: Central Province in the Mahaweli River and some of its tributaries.

The plant has thin, wiry rhizomes and runners and bears dull, deep green, very narrow, long and almost oval or lance-shaped leaves up to 7½ cms (3 ins) in length and 2 cms (¾ in.) wide. The leaf-stalks are deep green too. The rootstock produces dense tufts, which give the appearance of grass. The plant rarely exceeds 7½ cms (3 ins) in height.

It is very popular as an aquarium plant.



Genus: CRYPTOCORYNE

Family: Araceae

Species: **Cryptocoryne spiralis**

Sinhalese name: *Pan Attudiyan*

Habitat: Eastern, West Central and Western Provinces in streams and rice-fields.

The leaves are very narrow, long and lanceolate, flat or slightly wavy, up to 35 cms (14 ins) long and 2 cms ($\frac{3}{4}$ in.) wide. The bright green leaves, which are ribbon-like in appearance, have green or reddish-brown petioles.

Generally *C. spiralis* is seen growing nearer the bank in deep water. Underwater, it is a plant which can easily be confused with *Vallisneria*.

Genus: CRYPTOCORYNE

Family: Araceae

Species: *Cryptocoryne walkerii*

Sinhalese name: *Walkerige Attudiyan, Wairan Attudiyan*

Habitat: Central and Eastern Provinces in streams and some springs.

This plant has fairly sturdy and stout rhizomes, and oval to elliptical leaves which are wavy at the edge and purplish-green or violet or olive-green on the upper side and reddish-brown or purplish-green on the underside. The leaf-blade is tapered or rounded at the base, or occasionally broadly heart-shaped. The leaf-tip is blunt. The leaf-stalk is reddish-brown and more or less the same length as the leaf-blade (lamina). The broad and prominent midrib bears 4 to 5 lateral veins on either side.

It is used in herbal medicine and also as an aquarium plant.

Genus: CRYPTOCORYNE

Family: Araceae

Species: *Cryptocoryne wendtii*

Sinhalese name: *Wendtige Attudiyan*

Habitat: Central and West Central provinces in rivers, streams and springs.

This plant has many forms, bearing leaves of varying colours and shapes. In general, the commonest form has leaves which are long, lanceolate, brownish-green or olive green on the upper surface and pale to reddish-green on the underside. On the upper surface, there are short, brown or dark wavy markings or striations. The entire leaf is up to 25 cms (10 ins) long and 5 cms (2 ins) wide. The bold midrib has 3 to 4 pairs of lateral veins.

In general, the colour of the upper side of the leaves of all *C. wendtii* forms ranges from pale green to dark or brownish-green, while the underside may have a colour range of pale green to brownish-red or even purple.

Genus: CRYPTOCORYNE

Family: Araceae

Species: *Cryptocoryne thwaitesii*

Sinhalese name: *Thwaitesige Attuḍiyan*

Habitat: Central and Western Provinces in springs and streams.

The leaves are long and lance-shaped or sometimes ovate, flat or slightly wavy and finely toothed or serrated at the margins. They are pale green to dark green on the upper surface, rough and irregularly crinkled, with faint dark markings, and pale green to brownish-green or with a faint pinkish tinge on the undersides. The midrib is prominent.

It is used in herbal medicine and aquaria.

Species: *Cryptocoryne willisii*

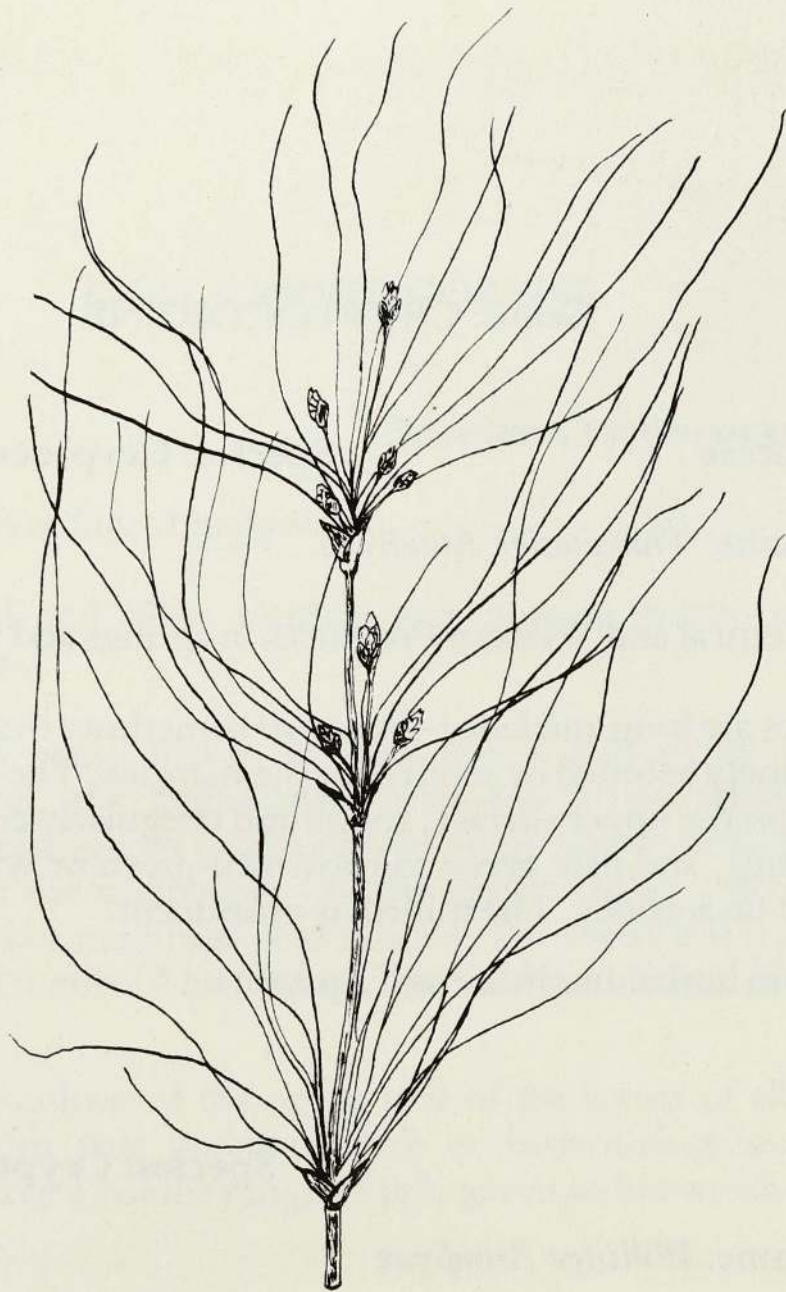
Sinhalese name: *Willisige Attuḍiyan*

Habitat: Central Province.

The leaves are lanceolate or elongated, egg-shaped, up to 20 cms (8 ins) long and 2½ cms (1 in.) wide. The upper surface is olive green to pale green, with dark striations or markings, while the underside is pale green to purplish-green or even has a pale pinkish tinge. The leaf edge is wavy and even crinkled. The leaf-stalk is brown or purplish brown and long.

It is used in herbal medicine and aquaria.

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Genus: ELEOGITON

Family: Cyperaceae

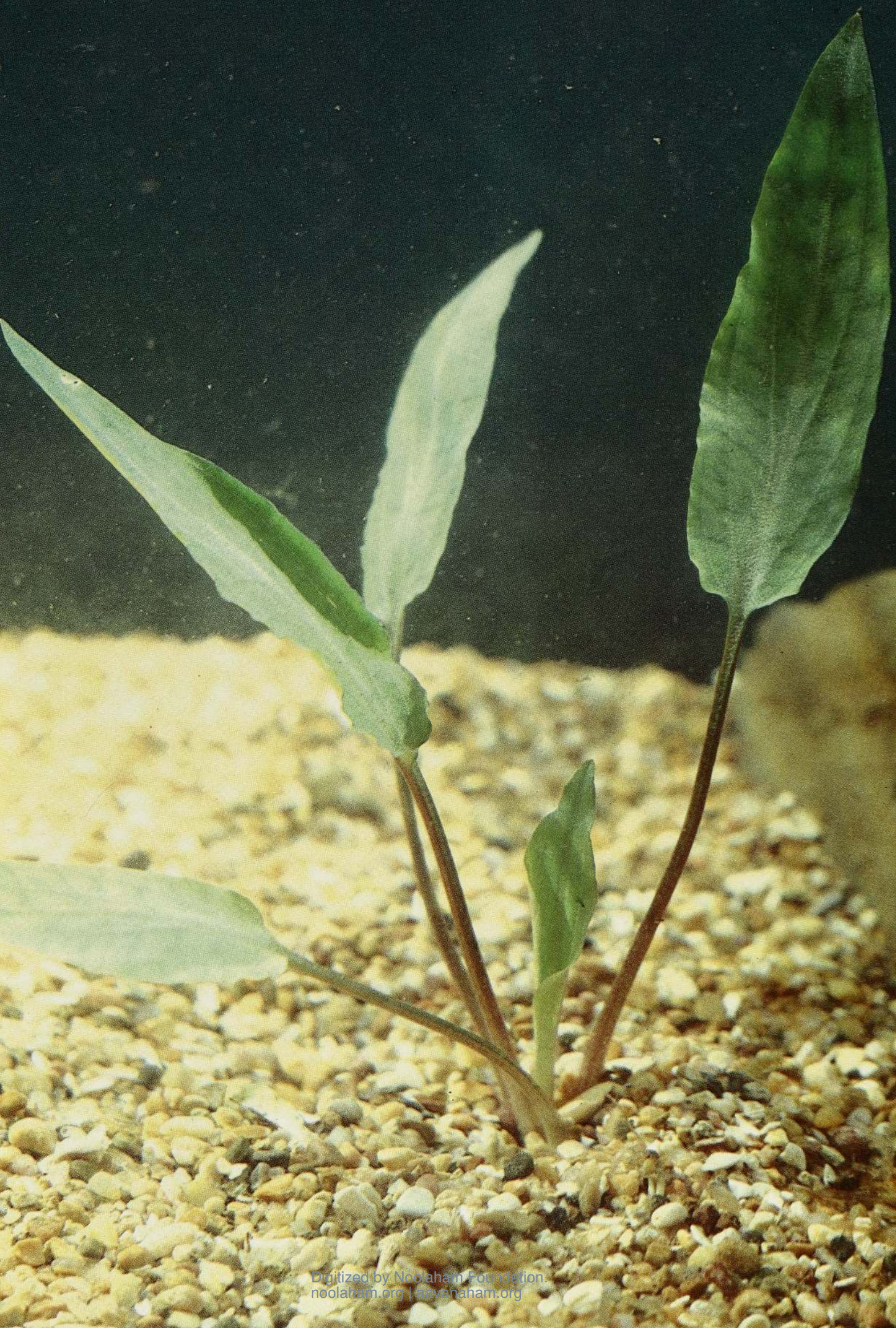
Species: **Eleogiton fluitans**

Sinhalese name: *Kesari Tana*

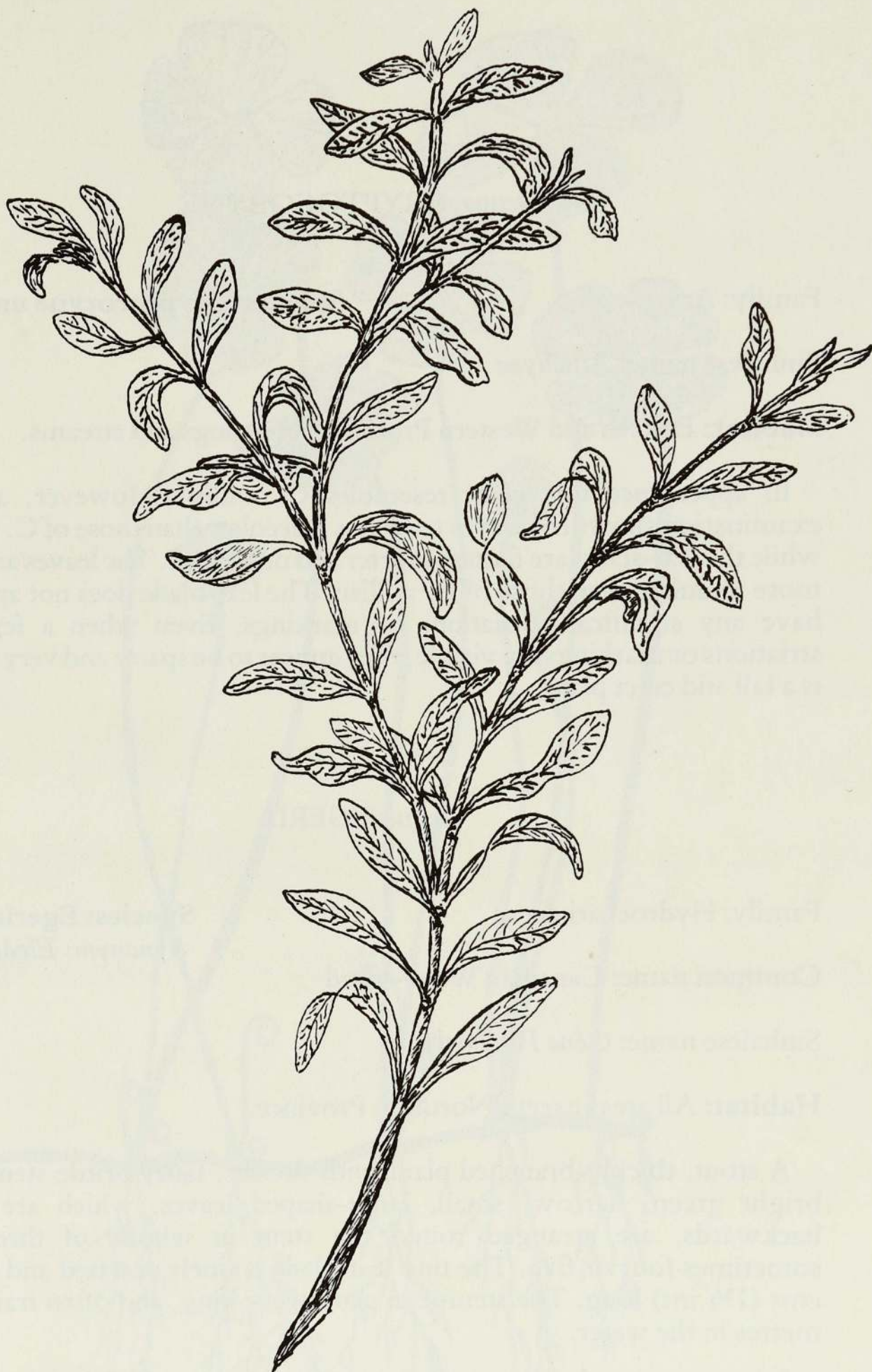
Habitat: In marshes, water-courses and ponds in the Central, Eastern and Western Provinces.

A perennial floating or submerged plant with slender stems which are long, branched and leafy. The leaves are very narrow and up to 5 cms (2 ins) long. The roots are fibrous. The plant has very short spikelets with a few flowers arranged in bracts. The spikelets are always emersed.

The bristle-like leaves are very brittle and are a favourite of many of the tiny birds who break them to line their nests.







Hygrophila polysperma

Genus: CRYPTO-CORYNE

Family: Araceae

Species: *Cryptocoryne undulata*

Sinhalese name: *Attudiyan*

Habitat: Eastern and Western Provinces in springs and streams.

In appearance this plant resembles *C. willisii*. However, a closer examination shows the leaves to be less lanceolate than those of *C. willisii*, while the leaf-stalks are flatter, shorter and dull green. The leaves are much more undulate than those of *C. willisii*. The leaf-blade does not appear to have any significant striations or markings. Even when a few such striations or markings are visible, they appear to be sparse and very faint. It is a tall and erect plant.

Genus: EGERIA

Family: Hydrocharitaceae

Species: *Egeria densa*

Synonym: Elodea densa

Common name: Canadian Water-weed

Sinhalese name: *Góna Parandala*

Habitat: All areas except Northern Province.

A stout, thickly-branched plant with slender, fairly brittle stems. The bright green, narrow, small, lance-shaped leaves, which are curled backwards, are arranged round the stem in whorls of three, and sometimes four or five. The tiny leaf-blade is finely serrated and up to 4 cms (1½ ins) long. The stems can grow very long, and often trail many metres in the water.

It is a very popular plant in the aquarium.



Marsilea quadrifolia



Genus: HYDROCERA

Family: Balsaminaceae

Species: **Hydrocera triflora**

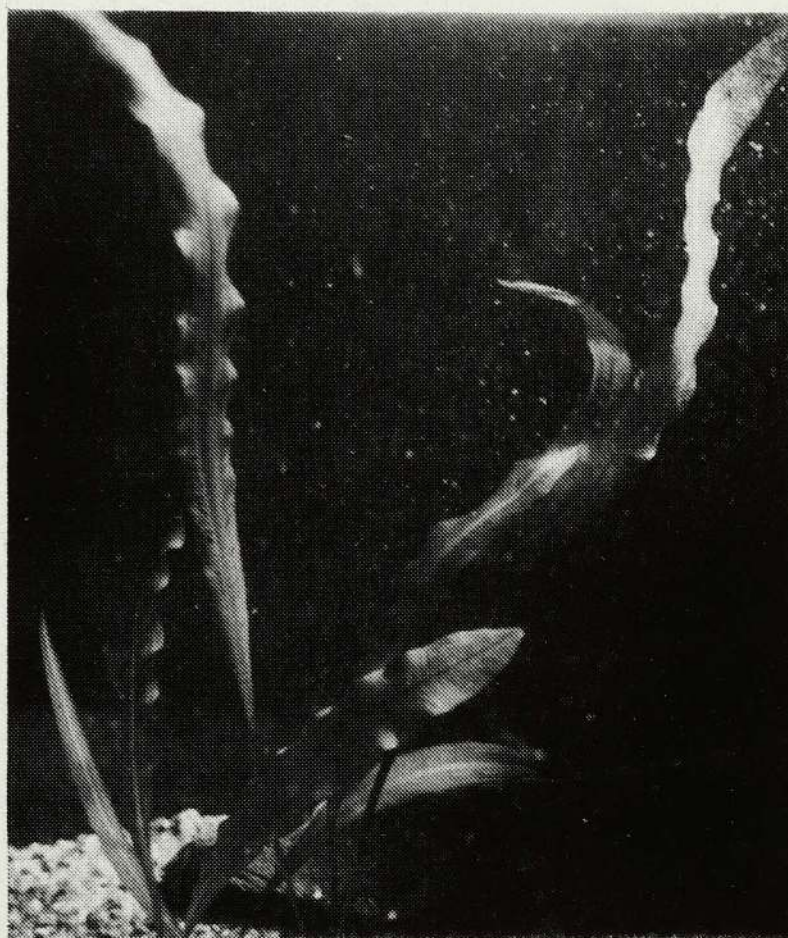
Habitat: In marshes and ditches throughout the island.

This annual is a glabrous, erect, marsh-plant with floating, branching stems which root at the nodes. The roots are long and fibrous. The long, lanceolate, serrated leaves grow up to about 12½ cms (5 ins) long. The sturdy stem is cylindrical and has clusters of bushy root-hairs in the basal region.

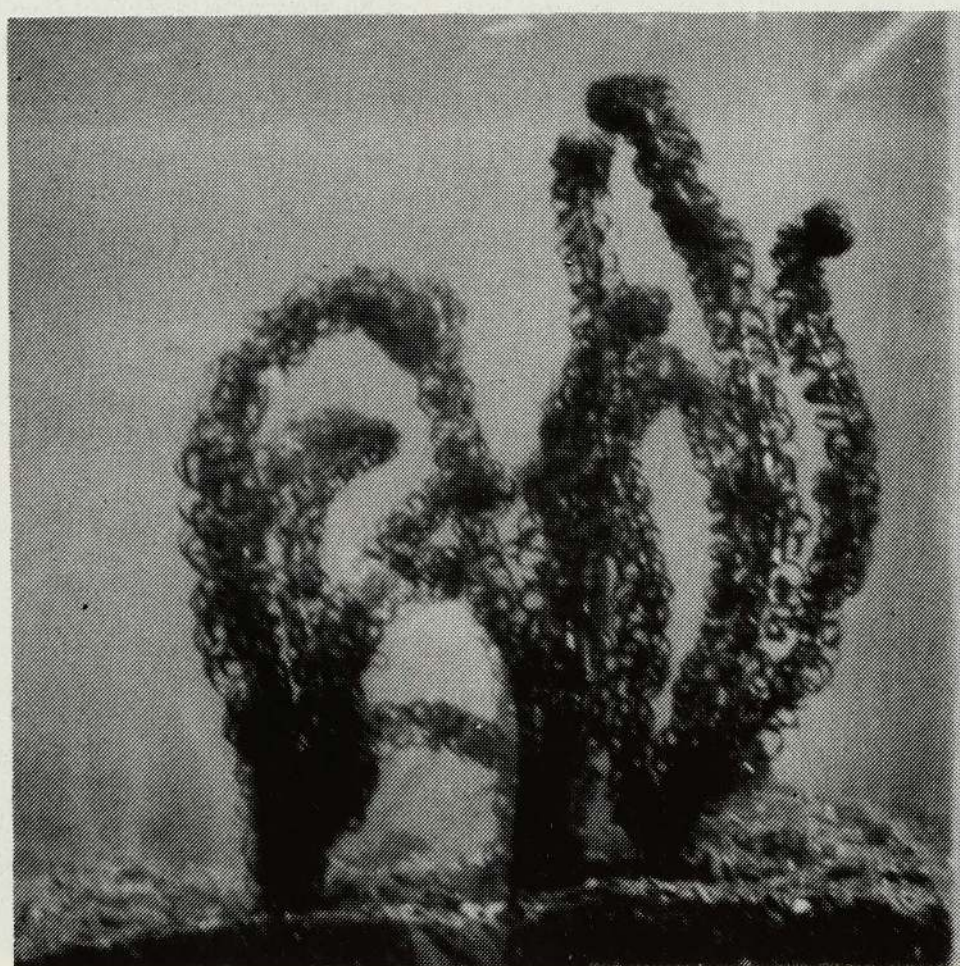
The flowers are variegated in red, yellow and white.



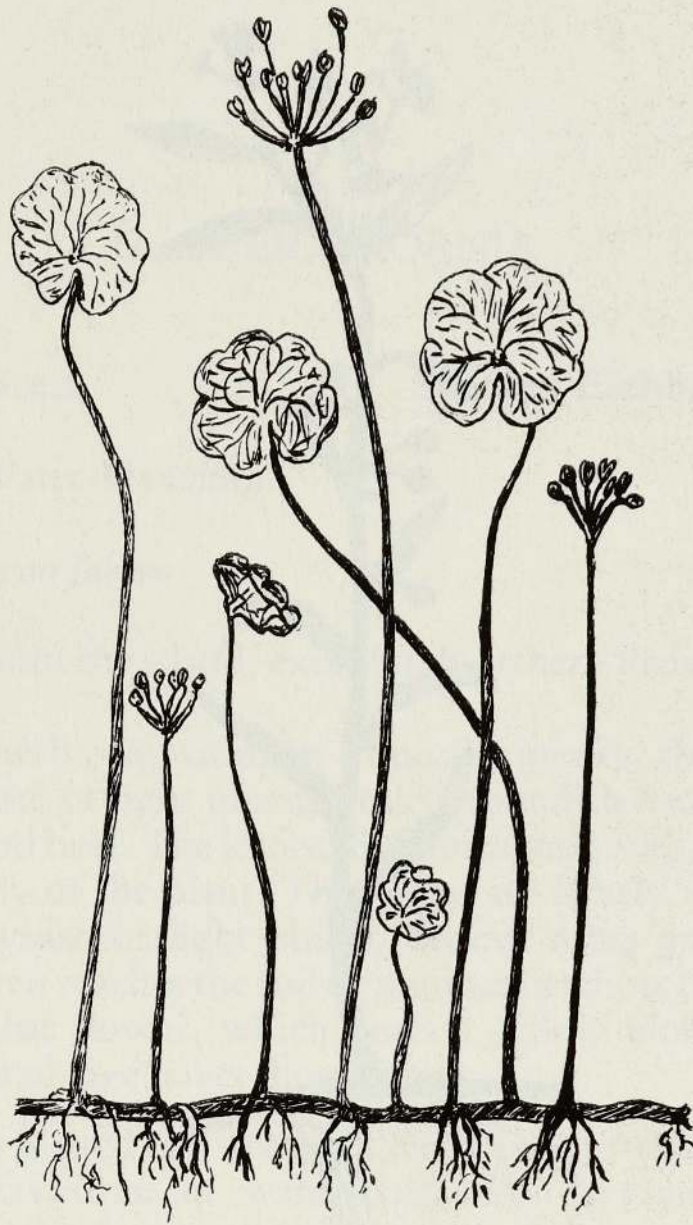
Cryptocoryne thwaitesii



Cryptocoryne undulata



Egeria densa



Genus: HYDROCOTYLE

Family: Umbelliferae

Species: **Hydrocotyle sibthorpiodes**

Common name: Water-Pennywort

Sinhalese name: *Diya Gotukola*

Habitat: In rice-fields, damp places and slow-flowing ditches in Central Province.

This perennial herb has floating or creeping stems rooting at the nodes. The small leaves, which are round or orbicular, or even kidney-shaped, are up to 2½ cms (1in.) in diameter, glabrous and shiny on both sides.

10 — 15 minute, whitish or light blue flowers are arranged in umbels.



Genus: HYDROLEA

Family: Hydrophyllaceae

Species: **Hydrolea zeylanica**

Sinhalese name: *Deva Pottu*

Habitat: Rice-fields and slow-flowing ditches in the Central and Western Provinces.

An annual herb with procumbent and branching stems up to 30 cms (1 ft) long. The leaves are dark green, narrow and pointed at the tip, and are arranged alternate on the swollen, spongy stems. The stems growing above water are firmer and sturdier.

The blue flowers are borne on short terminal clusters.

Genus: EICHHORNIA

Family: Pontederiaceae

Species: *Eichhornia crassipes*

Common name: Water-Hyacinth

Sinhalese name: *Japan Jabara*

Habitat: Throughout the island, except in Northern Provinces.

A rhizomatous herb originating in tropical America, this large floating plant forms a rosette of light green, fleshy, roundish leaves which taper slightly at the tip and base. The leaf-stalk is thickened with air-filled tissues inside for buoyancy of the plant. The leaves are faintly veined. A dense mat of long, brownish or light bluish, fibrous roots grows below the leaf-rosettes and even reaches the soil or mud and anchors the plant. It has a beautiful showy blue flower, which bears a yellow blotch towards the lower half of the petal (See cover illustration).

In Sri Lanka this is used as a livestock feed, for it grows in profusion in pools, and is a favourite of water-buffaloes, deer and many other herbivorous animals.



Genus: HYDRILLA

Family: Hydrocharitaceae

Species: Hydrilla verticillata

Common name: Water-Serpent

Sinhalese name: *Diya Sarupa, Diya Sarpa*

Habitat: Commonly seen in tanks and slow-flowing rivers throughout Sri Lanka.

This profusely-branching plant has small, lance-shaped, sessile, dark green leaves arranged on long stems in whorls of 6 - 8. The leaf, with a slightly serrated edge, has a distinct brownish-green or dark brown midrib. There are 2 minute leaf-scales at the leaf-base.

A very vigorous herb which can choke waterways. Only useful as an aquarium plant.

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Genus: HYGROPHILA

Family: Acanthaceae

Species: *Hygrophila difformis*

*Synonym: *Synnema triflorum**

Common name: Water Wistaria

Habitat: Throughout Sri Lanka except in the Northern Province, in ditches, rice-fields and slow-moving water-courses, such as irrigation canals.

The leaves are grown opposite, and are bright to pale green on the upper side and greyish to whitish-green on the underside. They are borne on short, stout, green stalks. The leaves are oval to lanceolate, lobed or toothed. The mature leaves are deeply lobed, often curling at the edges. the stems are thick and erect. The submerged stems have fine roots growing from the leaf-joints or nodes. This species is perennial, growing in water and on land.

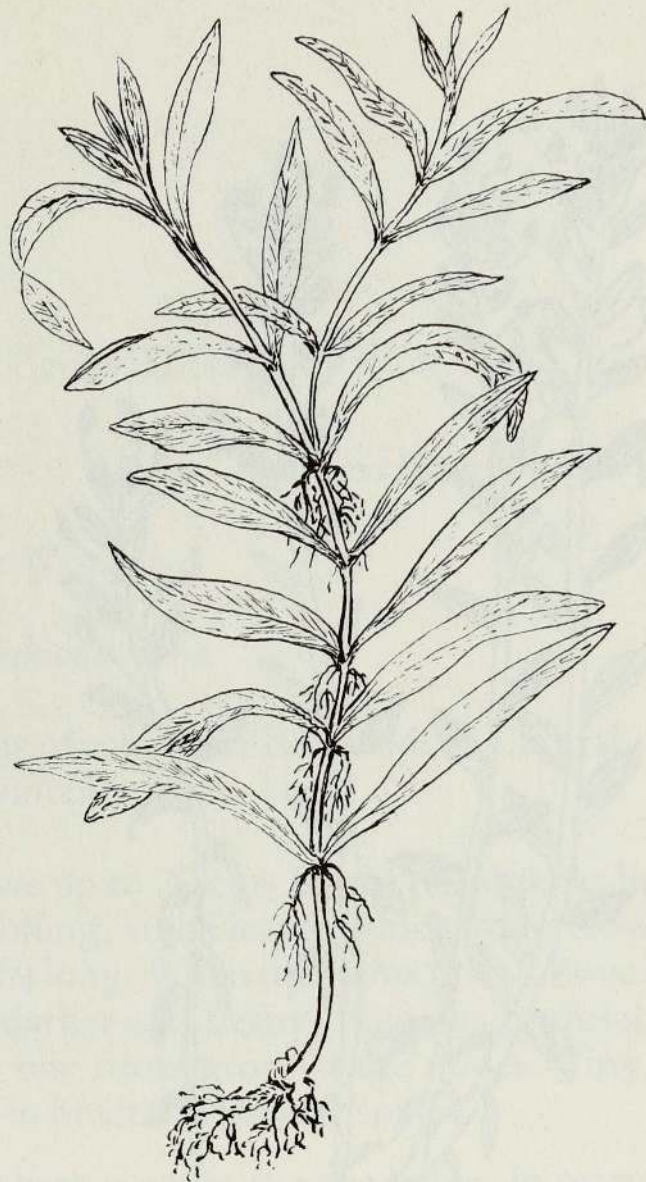
It is a very popular aquarium plant.



Hydrilla verticillata



Hygrophila difformis



Genus: HYGROPHILA

Family: Acanthaceae

Species: *Hygrophila salicifolia*

Synonym: Hygrophila angustifolia

Common name: Willow-leaved Wistaria

Sinhalese name: *Palá Mukunuwenna*

Habitat: In wet places and ditches subject to regular flooding, throughout Central, West Central and Southern provinces.

A perennial or annual herb with erect stems 30 – 90 cms (1 – 3 ft) tall. The long, lance-shaped leaves are narrow at both ends, and arranged opposite on slender, cylindrical stems. The submerged leaves are light green, smooth and wavy, while the emergent ones are a darker green and fairly coarse. The minute flowers are pale blue.

It is generally used as a cattle-food, but is used as a vegetable in India and Malaysia.



Genus: LAUREMBERGIA

Family: Haloragaceae

Species: *Laurembergia coccinea*

Habitat: In rice-fields and ditches and areas subject to regular flooding in the Central Province.

This is a perennial herb with a strong base producing stems which grow prostrate. The light green leaves, which are small, ovate and somewhat toothed, are arranged alternate on the stems. Minute, off-white flowers are borne on long, slender stalks.

Genus: HYGROPHILA

Family: Acanthaceae

Species: *Hygrophila polysperma*

Common name: Slender Wistaria

Sinhalese name: *Heen Mukunuwenna*

Habitat: In marshy areas, ditches and rice-fields in Central, Western and Southern Provinces.

This annual herb grows up to 20 cms (8 ins) tall and has light or bright green, oval, narrowly oblong, small leaves which grow close together on stems up to 45 cms (1½ ft) long. When the stems grow above the water the leaves become smaller, darker and fleshy. It grows profusely, forming a dense bush. Numerous fine roots grow at the nodes. Tiny pale blue or white flowers are borne in bracts on slender spikes.

In certain regions this herb is eaten as a vegetable. In recent times it has also gained popularity in the aquarium.

Genus: LIMNOPHILA

Family: Scrophulariaceae

Species: *Limnophila indica*

Sinhalese name: Kahata Pási

Habitat: Shallow still waters such as rice-fields, shallow ponds and ditches throughout the island.

An annual herb with erect stems growing up to 60 cms (2 ft). Growing submerged, the glabrous, bright green leaves are finely divided and arranged in whorls on the many branched slender stems. These leaves when bruised are very aromatic, smelling of turpentine. The emergent leaves (i.e. those growing above water) are linear to oblong or even coarsely divided and borne opposite on the stem. The minute flowers are white or bluish-white.

It is used as an aquarium plant.

Genus: LOBELIA

Family: Lobeliaceae

Species: *Lobelia zeylanica*

Sinhalese name: *Mihindu Páda*

Habitat: Very common throughout the island in ditches and slow-flowing water-courses.

This herb has weak, thin stems up to 30 cms (1 ft) long. The leaves are linear or oblong, slightly wavy and up to about 3½ cms (1½ ins) long, and bright green. The undersides are covered in very fine down.

The other species of *Lobelia* indigenous to Sri Lanka are *Lobelia trigona*, found in the Central Province, *Lobelia affinis*, in the Central and Western Provinces, *Lobelia nicotianaefolia* in the Western Province and *Lobelia excelsa* in Central Province.

All the above species are ideal as aquarium plants.

Genus: MYOSOTIS

Family: Boraginaceae

Species: *Myosotis scorpiodes*

Synonym: Myosotis palustris

Common name: Great Water-Forget-me-not

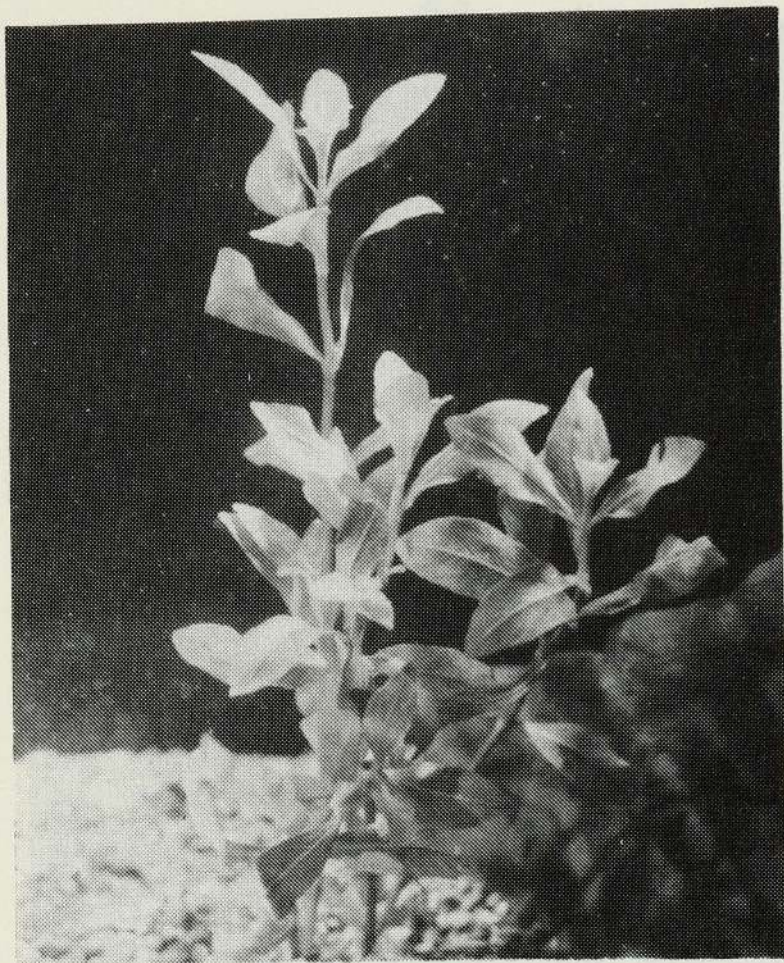
Sinhalese name: *Nil Karábu*

Habitat: All provinces except the Northern Province.

This perennial plant grows up to 45 cms (18 ins) tall from a long, stolon-like, creeping rhizome. The small leaves are light green, borne on subterranean stolons which root at the nodes. The stems are prostrate, root at the base, erect, slightly branched and have fine down or hair on the lower part. The entire plant gives a light green, shiny appearance.

The flowers are bright blue, with a white, yellow or pink eye, and closely resemble those of the land species of this genus.

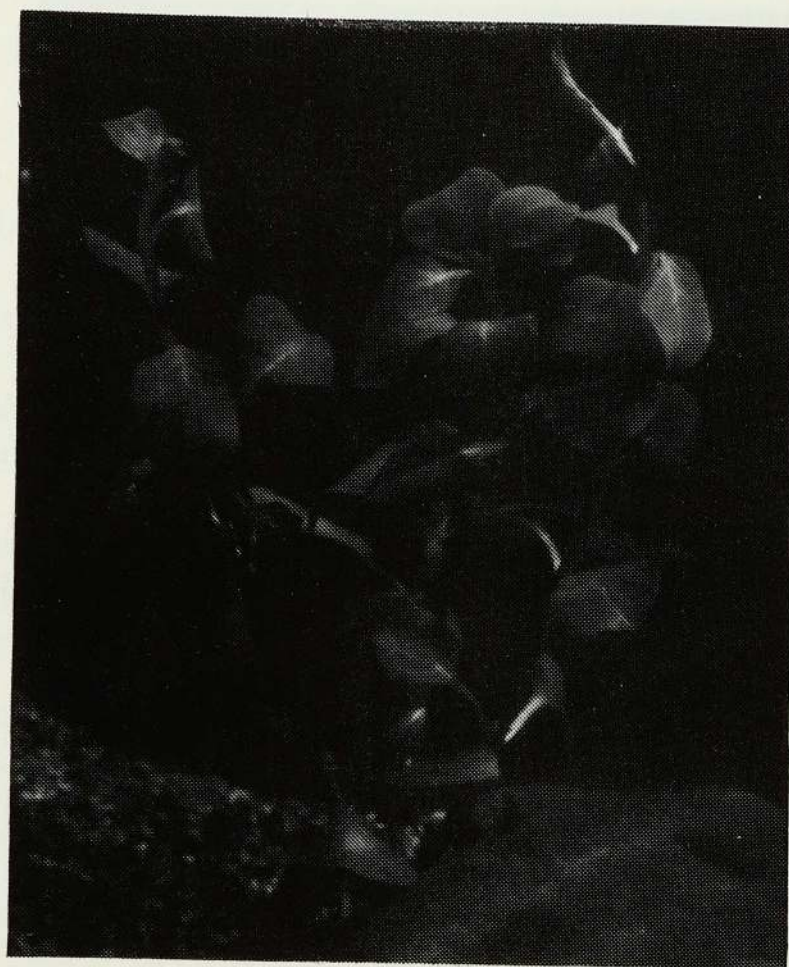
They can be seen growing on the edge of streams and ponds, submerged, with the flower-stalks above water.



Hygrophila polysperma



Limnophila indica



Lobelia zeylanica



Myosotis scorpiodes



Genus: LIMNOPHYTON

Family: Alismataceae

Species: **Limnophyton obtusifolium**

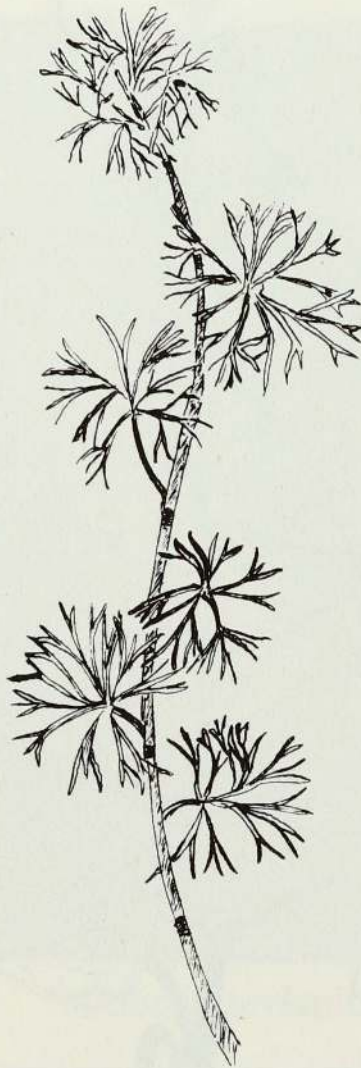
Common name: Marsh-Shield

Sinhalese name: *Maha Beraliya*

Habitat: Southern and Western Provinces in marshes, pools and ditches.

An erect, succulent marsh-plant which grows very robust and dwarf. The broad leaves are borne on long, fleshy stalks up to 75 cms (30 ins) long, and are triangular or bluntly arrow-shaped (sagittate) and many-nerved. They are bright green and glossy on the upper surface and a matt, lighter green on the underside.

The flowers are borne on a long, slender, branching stalk and are white and arranged on whorls of 4 to 7.



Genus: LIMNOPHILA

Family: Scrophulariaceae

Species: *Limnophila heterophylla*

Synonym: Limnophila reflexa

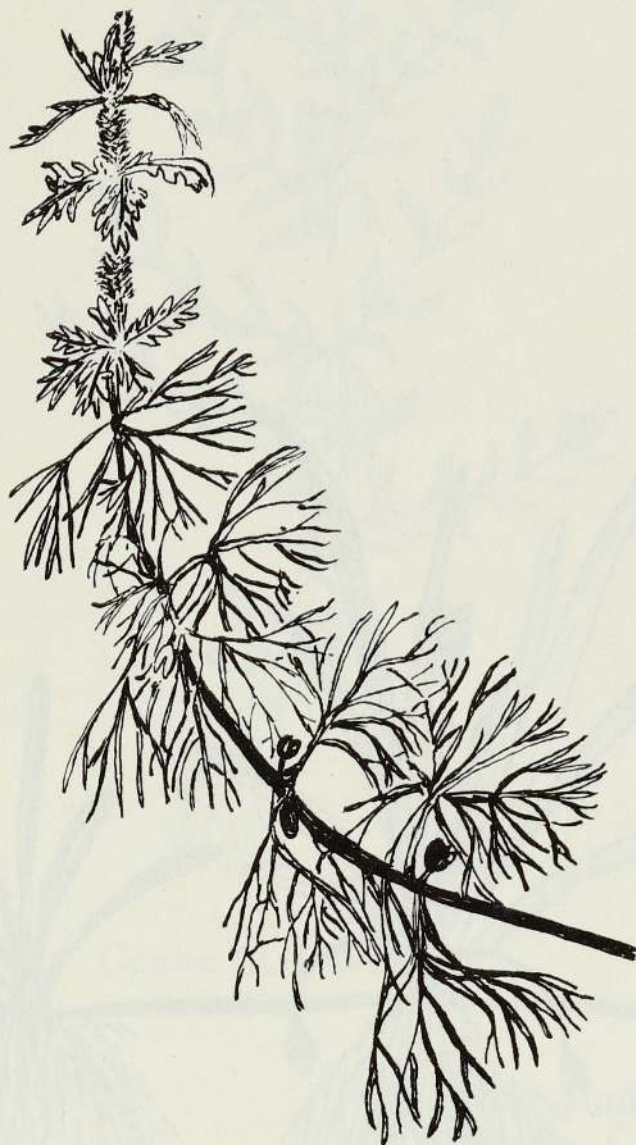
Common name: Ambulia

Sinhalese name: *Rainda Pási*

Habitat: Eastern, Central, Southern and Western Provinces.

This attractive plant has light green whorls of finely-branched, feather-like leaves arranged on a long, green, wiry stem. The whorls are arranged densely and alternately on the stem to form rosettes. The plants grow to a height of up to 60 cms (24 ins). If the plant grows emersed, the leaves are dark green, stiff, leathery, sappy and very acutely branched. The whorls thus formed are smaller than the submerged form.

The leaves of *Limnophila* are very aromatic (when crushed) and emit a toxic sap harmful to fish if a large concentration of this occurs. Nevertheless, these plants are popularly used in the aquarium.



Genus: LIMNOPHILA

Family: Scrophulariaceae

Species: **Limnophila sessiliflora**

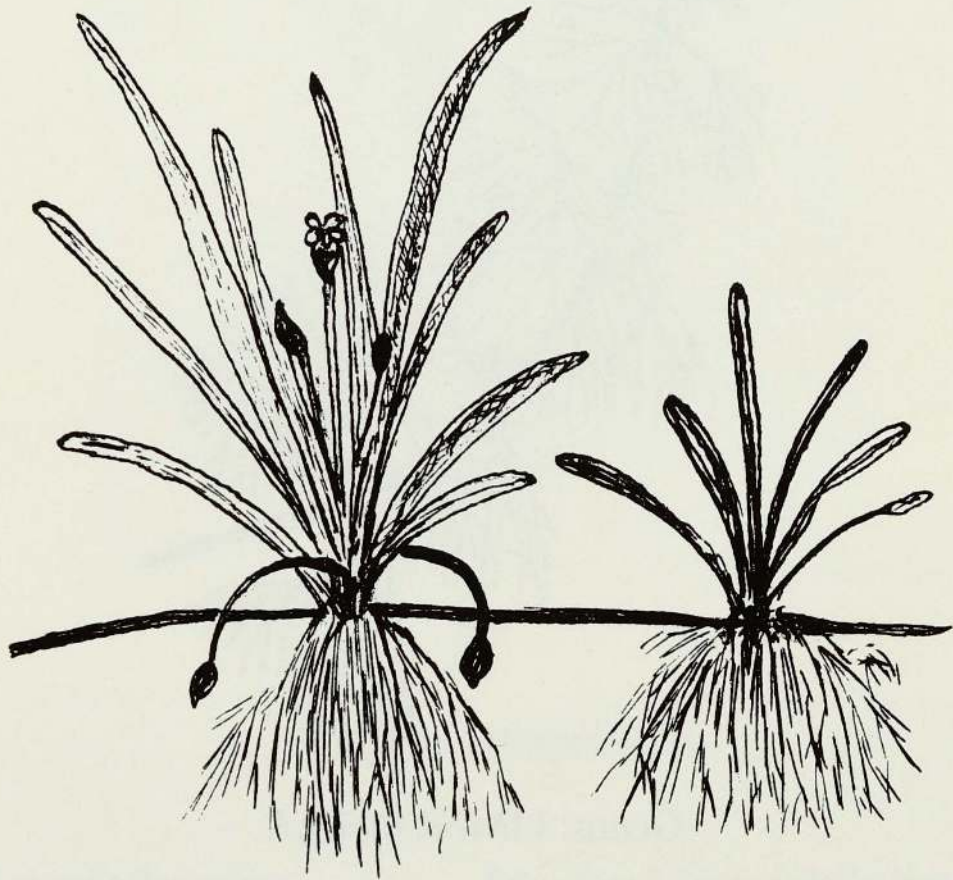
Common name: Ambulia

Sinhalese name: *Rainda Pási*

Habitat: Eastern and Central Provinces in clear-water pools and ponds.

This species is very similar to *Limnophila heterophylla* and *Limnophila indica*, with serrated or smooth edges, arranged in whorls much nearer to each other than in the first two species. The stems are much wirier, shorter, and, when they grow emerge, bear very fine, long hairs. The plant grows up to 20 cms (8 ins).

Limnophila indica is also found in most of the same habitats, and is much more branched than *L. sessiliflora*. Its leaves are also more aromatic than those of the other two *Limnophila* species.



Genus: LIMOSELLA

Family: Scrophulariaceae

Species: ***Limosella subulata***

Habitat: Central and Western Provinces, in clear-water pools and slow-flowing streams.

A perennial glabrous herb with small, tufted, creeping stems. The long narrow, elliptic or oval leaves with long, slender stalks, are usually arranged in rosettes along the stem at very short intervals. Occasionally some leaves may appear in pairs, especially near the base of the rosette.

The minute white or blue flowers are borne on a slender central stalk.



Genus: LUDWIGIA

Family: Onagraceae

Species: *Ludwigia perennis*

Synonym: Ludwigia parviflora

Common name: False Loosestrife

Habitat: Central and Western Provinces in moist places, rice-fields and ditches.

This annual herb produces an erect, many-branched plant. The leaves are on short stalks up to 5 cms (2 ins) long and 2½ cms (1 in.) wide. They are lanceolate or linear-lanceolate, fleshy, glossy, light green on the upper surface and brownish-green or violet on the underside. They grow alternate on a thick, rounded stem, which is usually light pink. The flowers are very small and yellow.

Another species, *L. stolonifera*, has been found in a few isolated situations. This species has longer, lanceolate leaves up to 7½ cms (3 ins) long and broader than those of *L. perennis*. It has white, spongy, floating sacs (pneumatophores) which help the stems to grow on the water-surface.

L. palustris, another species found in ditches and marshy terrain, is used in aquaria.

Genus: MARSILEA

Family: Marsileaceae

Species: Marsilea quadrifolia

Common name: Water-Clover

Sinhalese name: *Diya Ämbiliya*

Habitat: Ditches, ponds and water-holes in all areas except the Northern Province.

The leaves are arranged in two rows on long, trailing stems. Shoots grow from the nodes of the stem. The four leaves grow together like clover. They are light to dark green and dull. The plant grows to a height of up to 45 cms (18 ins).

In ditches and rice-fields it grows in submerged and emersed forms, and once the water has dried out, it converts to the land form and remains dormant until the next rainy season. It is used as a medicinal herb. It is also a valued specimen in the aquarium.

Genus: MYRIOPHYLLUM

Family: Haloragaceae

Species: *Myriophyllum indicum*

Common name: Water-Milfoil

Sinhalese name: *Girápihátu*

Habitat: Canals, and sometimes in clear-water lakes, throughout Central, West Central and Southern Provinces.

This is a glabrous herb which has long, floating stems. Its feather-like, fine, dentate or serrate leaves are whorled and bright green. Very small white flowers appear in the axils of narrow, lanceolate, short floral leaves or on bare spikes.

A popular aquarium plant.

Genus: NELUMBIUM

Family: Nelumbonaceae

Species: *Nelumbium nucifera*

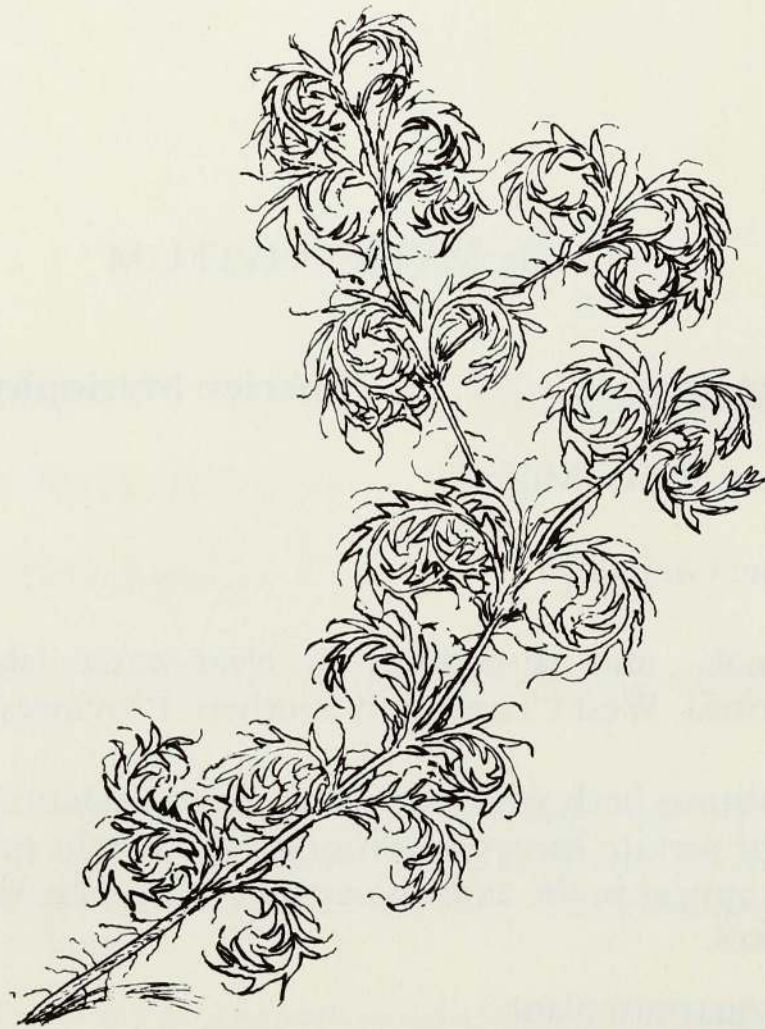
Common name: Lotus, Sacred Lotus

Sinhalese name: *Nelum, Piyum*

Habitat: In ponds and lakes in all but the Northern Province.

The erect, large, perennial herb, with milky latex and stout, creeping rootstock growing very deep in the mud, produces long, spongy leaf-stalks bearing leathery, dull green, circular, peltate leaves up to 60 cms (2 ft) in diameter, raised high above the water. The showy and fragrant flowers are red, white or yellow.

The spongy rootstock and the leaf-stalks are used as vegetables. The black seeds are used as a substitute for almonds. The stems are also used as a flavouring for tea. In Ayurvedic medicine all parts of the herb are used. The herb contains nelumbine and nupharine, which stimulate respiration.



Genus: NAIAS

Family: Naiadaceae

Species: *Naias minor*

Synonym: Naias flexilis

Common name: Flexible Naias, Water-Nymph

Sinhalese name: *Heen Parandal*

Habitat: Central, Eastern and Western Provinces.

A submerged plant with thin, fragile, filiform, branched stems. The leaves are opposite, translucent, olive-green, arranged in threes in false whorls, finely toothed and spreading. The long, narrow, lanceolate leaves, with margins often slightly inrolled, curve out from the stem. The plant is very vigorous and grows dense tufts. This species grows in still water-pools and rice-fields.

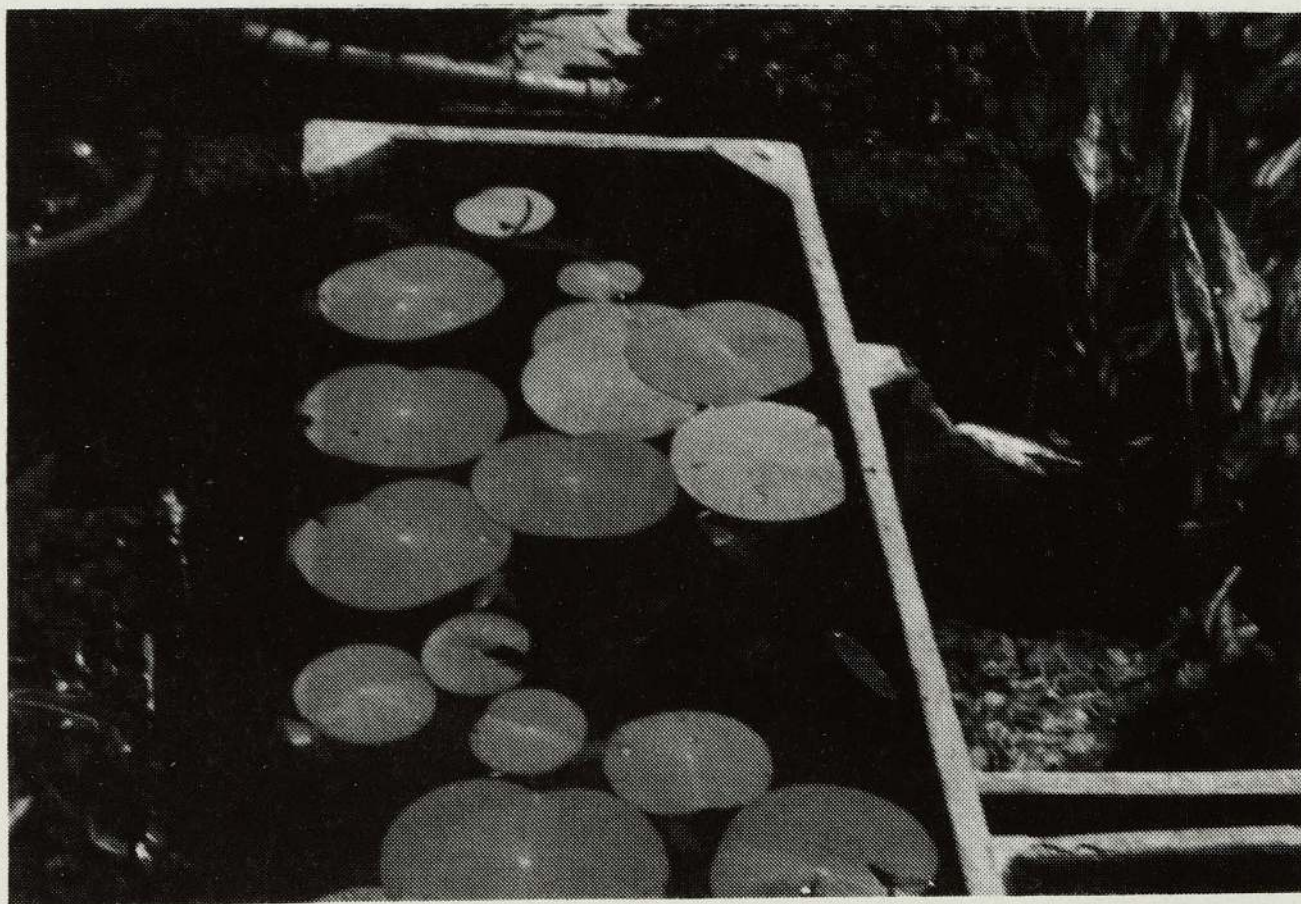
Another species, *Naias graminea*, is easily identified by its whorled, broader, more translucent and more sharply serrated leaves. It grows mainly in clear waters. It is used in tropical aquaria.



Marsilea quadrifolia



Myriophyllum indicum



Nelumbium nucifera



Genus: NECHAMANDRA

Family: Hydrocharitaceae

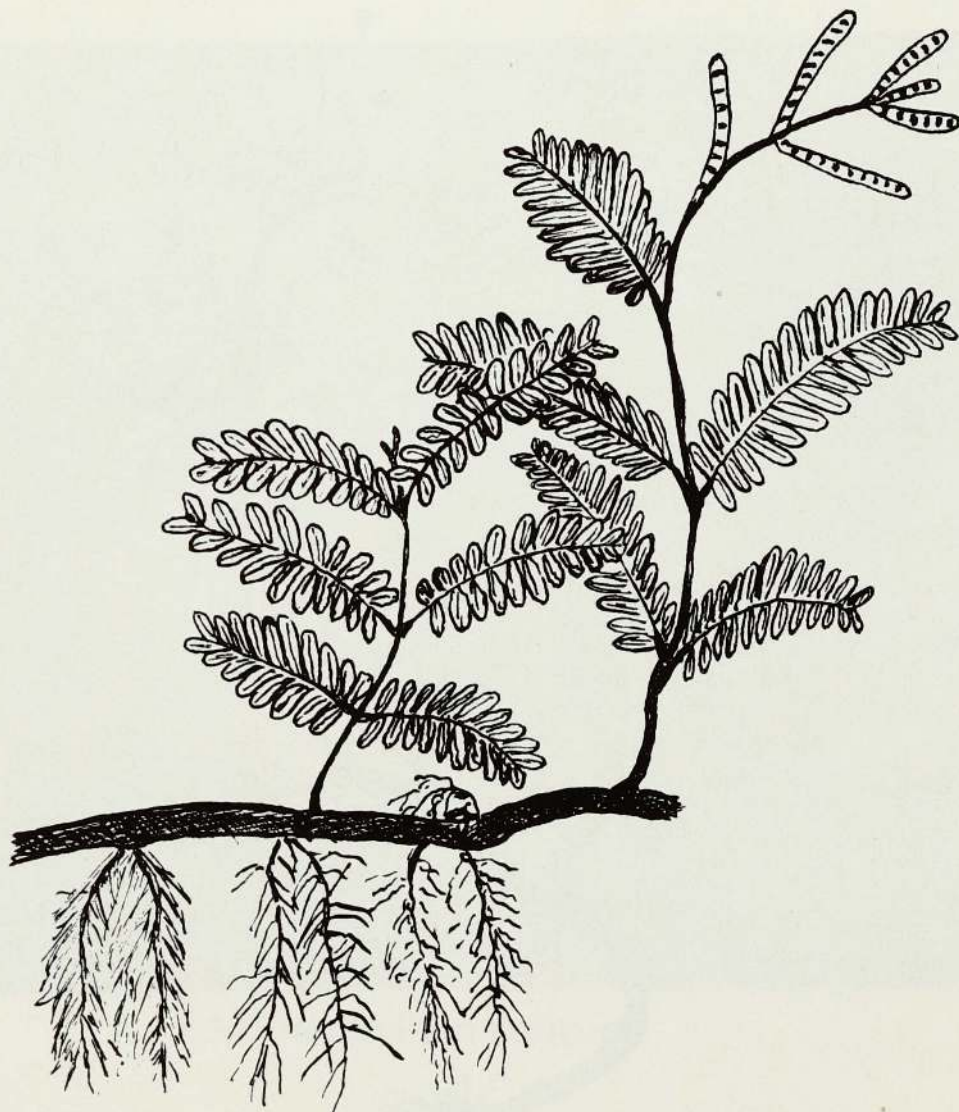
Species: **Nechamandra alternifolia**

Sinhalese name: *Diya Pokuruwenna*

Habitat: Throughout the Central and Western Provinces, in tanks, ponds and lakes.

A submerged herb with filiform (feather-like) leaves which are borne on very long, slender stems. The long, narrow, leaves are bright green, up to 71 cms (3 ins) long and $\frac{1}{2}$ cm wide, pointed at the tip and often twisted, with margins serrated or toothed, and the leaf-bases clasping the stem. These leaves are brittle, and the stems may break off at the nodes and drift away to establish as independent plants. The flowers are minute and white or bluish-white.

An excellent aquarium plant not yet in popular use.



Genus: NEPTUNIA

Family: Fabaceae

Species: *Neptunia oleracea*

Sinhalese name: *Diya Nidikumba*

Habitat: Eastern and Western Provinces in lakes and ponds.

A perennial herb with a strong, woody tap-root and long, prostrate, fleshy stems which float on the water-surface. The branching stems bear dark green, pinnate leaves which consist of small, oval-shaped leaflets arranged oppositely.

These leaves are membranous and sensitive. On touch these leaflets close up slowly. Masses of fine fibrous roots develop from the nodes that bear the leaves.

The buttercup-like minute flowers are yellow.

A plant of exceptional value to Ayurvedic medicine. Not very commonly distributed in these habitats.

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Genus: NYMPHOIDES

Family: Menyanthaceae

Species: *Nymphoides aurantiacum*

Common name: Golden Floating-Heart

Sinhalese name: *Kuru Kaha Ólu*

Habitat: In Eastern and Western Provinces in lakes, ponds and slow-flowing waters.

A perennial herb with a thick rhizome. The leaves, which are orbicular and deeply cordate (cut at the point where the leaf-stalk is attached to the leaf), are about 4 cms (approx. 1½ ins) in diameter with leaf-stalks up to 7½ cms (3 ins) long. The leaves are dull green above and dark green below. The stems are slender and long with nodes at very short intervals.

The small flowers are pale yellow or whitish-yellow. The roots and stems are used in Ayurvedic medicine.

Genus: NYMPHOIDES

Family: Gentianaceae

Species: *Nymphoides parvifolium*

Common name: Small-leaved Water-Snowflake

Sinhalese name: *Kuru Sudu Ólu*

Habitat: Eastern and Western Provinces in pools, ponds and slow-flowing rivers.

This plant is similar to *N. indicum*, but as the name indicates, the leaves are much smaller, and therefore the entire plant is small. The flower, too, is about half the size. It does not grow as fast as *N. indicum*, but the slender stalks produce more aerial leaves than the larger species. The long stems root on the mud at the base, but not at the nodes.

The tiny flowers have crinkly white petals and are borne in clusters at the nodes, above the water-surface.



Nymphoides aurantiacum

Nymphoides parvifolium



Genus: NYMPHOIDES

Family: Gentianaceae

Species: *Nymphoides indicum*

Synonym: Limnanthemum indicum

Common name: Water-Snowflake

Sinhalese name: *Kuru Sudu Ólu*

Habitat: Eastern and Western Provinces in pools, ponds and slow-flowing rivers.

The plant grows into a dense, bushy rosette from a rhizome. It grows like *Nymphaea stellata*, deep-rooted, growing at a depth of up to 90 cms (3 ft), putting forth fleshy, pale green, large, orbicular leaves which are deeply cordate and about 20 cms (8 ins) across. The long, floating stems root at the nodes.

Its tiny flowers have crinkly, white petals which are yellow towards the centre.

Genus: NYMPHAEA

Family: Nymphaeaceae

Species: *Nymphaea pubescens*

Sinhalese name: *Mánel*

Habitat: In all areas except Northern Province in lakes and ponds.

This water-lily grows from a cylindrical, brownish-black corm of up to 2½ cms (1 in.) in diameter. It grows deep in muddy soil. The leaves are extremely large, up to 45 cms (18 ins) in diameter, and fleshy, dark green on the upper side, while the underside is purple and covered in fine hairs. The leaf-margins are wavy and dentate. The underwater leaves are slightly smaller, delicate and light mauve. The young plant has arrow-shaped or heart-shaped, delicate and flimsy leaves.

The flowers bloom in several shades, especially blue, pink and white.

This lily, along with other Asian lilies, has an important place in the ancient literatures of the East. The corm, flower-stalks, seeds and flower are used in Ayurvedic medicine. The corm is also used for culinary purposes.





Genus: OTTELIA

Family: Hydrocharitaceae

Species: *Ottelia alismoides*

Synonym: Ottelia indica

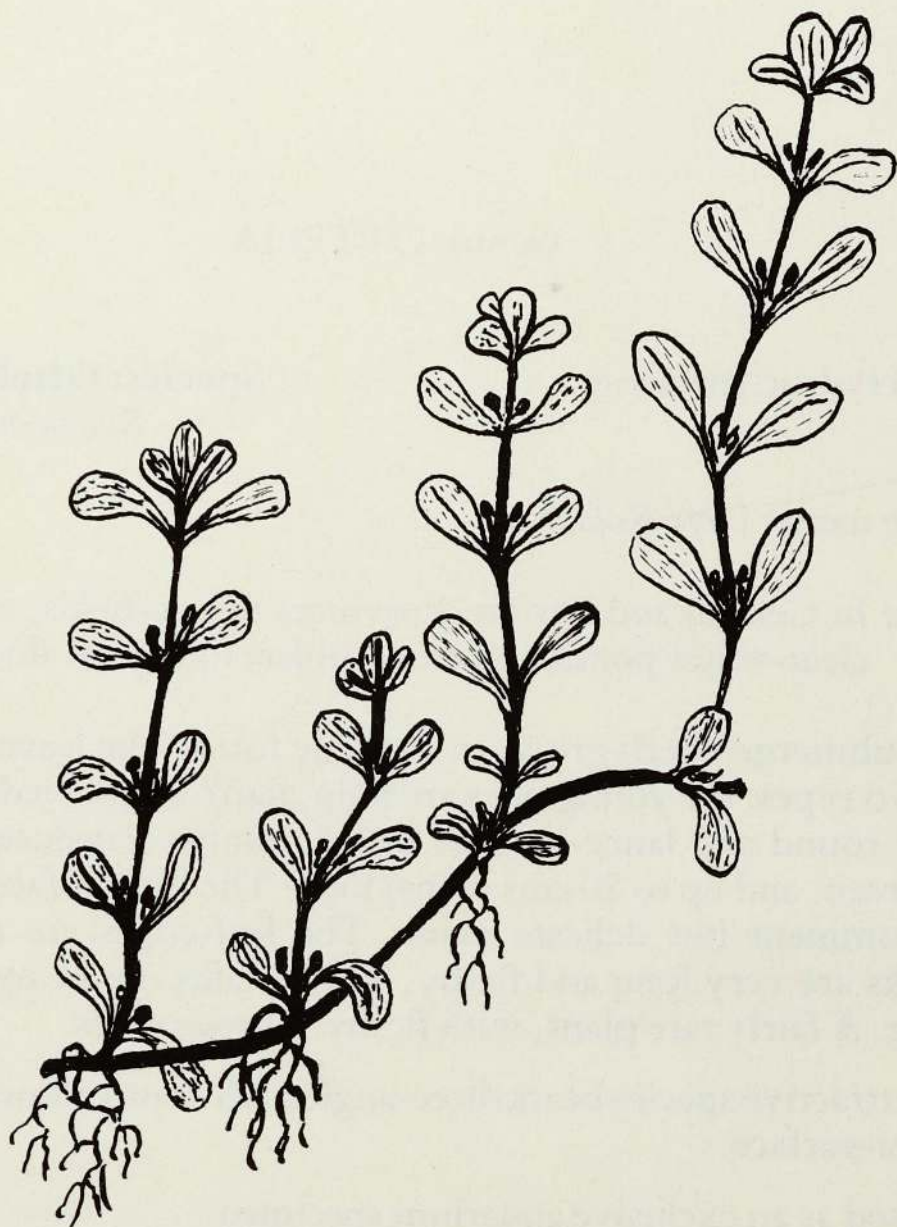
Sinhalese name: *Diya Kolapat*

Habitat: In Central and Eastern Provinces in rice-fields, tanks, shallow, clear-water ponds and areas subject to regular flooding.

This submerged herb grows in a rosette form. The leaves on the plants are of two types: the young ones are long, narrow and reed-like: the older ones are round and lance-shaped, broad, almost translucent and pale to bright green, and up to 20 cms (8 ins) long. The leaf-surface is very wavy, with prominent but delicate veins. The leaf-edges are curly, and the leaf-stalks are very long and fleshy. These stalks can be up to 50 cms (20 ins) long. A fairly rare plant, with fleshy, fibrous roots.

This attractive species bears three-angled white or yellow flowers above the water-surface.

It is used as an exclusive aquarium specimen.



Genus: PEPLIDIUM

Family: Scrophulariaceae

Species: **Peplidium maritimum**

Sinhalese name: *Diya Gäta Palá*

Habitat: In Central and Western Provinces in shallow-water pools, rice-fields and at the edge of pools and tanks.

This is a very small, creeping, glabrous herb with much-branched stems rooting at the nodes. The small, oval-shaped leaves are fleshy, smooth-edged, shiny on the upper side and bright green. These are arranged opposite on the stout long stems of up to 20 cms (8 ins) in length and form compact tufts.

The minute flowers, which are white to off-white, and sometimes even blue-tinged, grow on the leaf-axils, above the water-level.



Genus: PISTIA

Family: Araceae

Species: *Pistia stratiotes*

Common name: Water-Lettuce

Sinhalese name: *Diya Gówa*

Habitat: Western and Southern Provinces in lakes, ponds and still water-pools.

A floating plant with slightly furrowed leaves, arranged in rosettes. These leaves are petal-shaped, light green, 5 - 15 cms (2 - 6 ins) long and 5 cms (2 ins) broad. The leaf-edge is slightly curled upwards. The entire leaf is covered in fine, downy hair, keeping it water-repellent. The roots below are whitish to black, according to the age of the plant, and stoloniferous.

As the name indicates, the plant looks like a well-formed round lettuce. The small flowering spathe is whitish and grows up to about 1 cm (½ in.) long.



Genus: POTAMOGETON

Family: Potamogetonaceae

Species: **Potamogeton crispus**

Common name: Fine-leaved Pondweed

Sinhalese name: *Krail Diya Pási*

Habitat: Central and Western Provinces in ponds and slow-flowing rivers.

This submerged herb grows from a creeping rootstock. The leaves are narrow, long, deep green or even brownish-red and up to 10 cms (4 ins) long. They are wavy and crispate, narrowed at the base and arranged alternate on the long, slender stems. However, oppositely arranged leaves can be encountered in some specimens.

The other Potamogeton species which are commonly found in the island are *P. roxburghianus* and *P. pectinatus*. *P. roxburghianus* has floating leaves up to 12½ cms (5 ins) long and 5 cms (2 ins) broad, which are fairly smooth-edged, opaque and with an acute or round base. They are arranged alternate or opposite on the stems.

Genus: POTAMOGETON

Family: Potamogetonaceae

Species: Potamogeton pectinatus

Common name: Pondweed

Sinhalese name: *Heen Diya Tana*

Habitat: Throughout Western, Central and Southern Provinces in still-water pools, ponds and lakes.

This species has very densely branched thread-like (filiform) stems and leaves. These leaves can grow up to 20 cms (8 ins) long and 1/2 cm wide. However, in normal growth conditions they are about 1/10 cm. wide. The species favours brackish water with plenty of calcium concentration.

Genus: ROTALA

Family: Lythraceae

Species: Rotala indica

Synonym: Peplis indica

Common name: Tooth-Cup

Habitat: Southern and Eastern Provinces in rice-fields, irrigation channels and ditches.

An annual glabrous herb which has floating and creeping stems. The branches are somewhat triangular. The leaves are small, oval or long, green to brownish-green, borne on short internodes on a stout, round stem. They are arranged opposite or occasionally alternate, whorled.

In appearance the plant is similar to Bacopa. The minute flowers are borne on leaf-axils above the water-level.

It is used in aquaria in its submerged form.



Genus: VALLISNERIA

Family: Hydrocharitaceae

Species: *Vallisneria spiralis*

Common name: Twisted Ribbon-Grass, Twisted Tape-Grass

Sinhalese name: *Patta Tana*

Habitat: Central and Western Provinces in slow-flowing, shallow rivers, ponds and lakes.

The leaves are ribbon-shaped, up to 75 cms (30 ins) long and just over ½ cm (¼ in.) wide. The bright green, flat or sometimes slightly twisted leaves are borne on a rootstock which produces slender, horizontal, creeping stems, from which grow numerous new plantlets.

Genus: SALVINIA

Family: Salviniaceae

Species: *Salvinia cucculata*

Sinhalese name: *Japan Pási, Barawa Pási*

Habitat: Throughout the island in ponds, lakes, rivers and ditches.

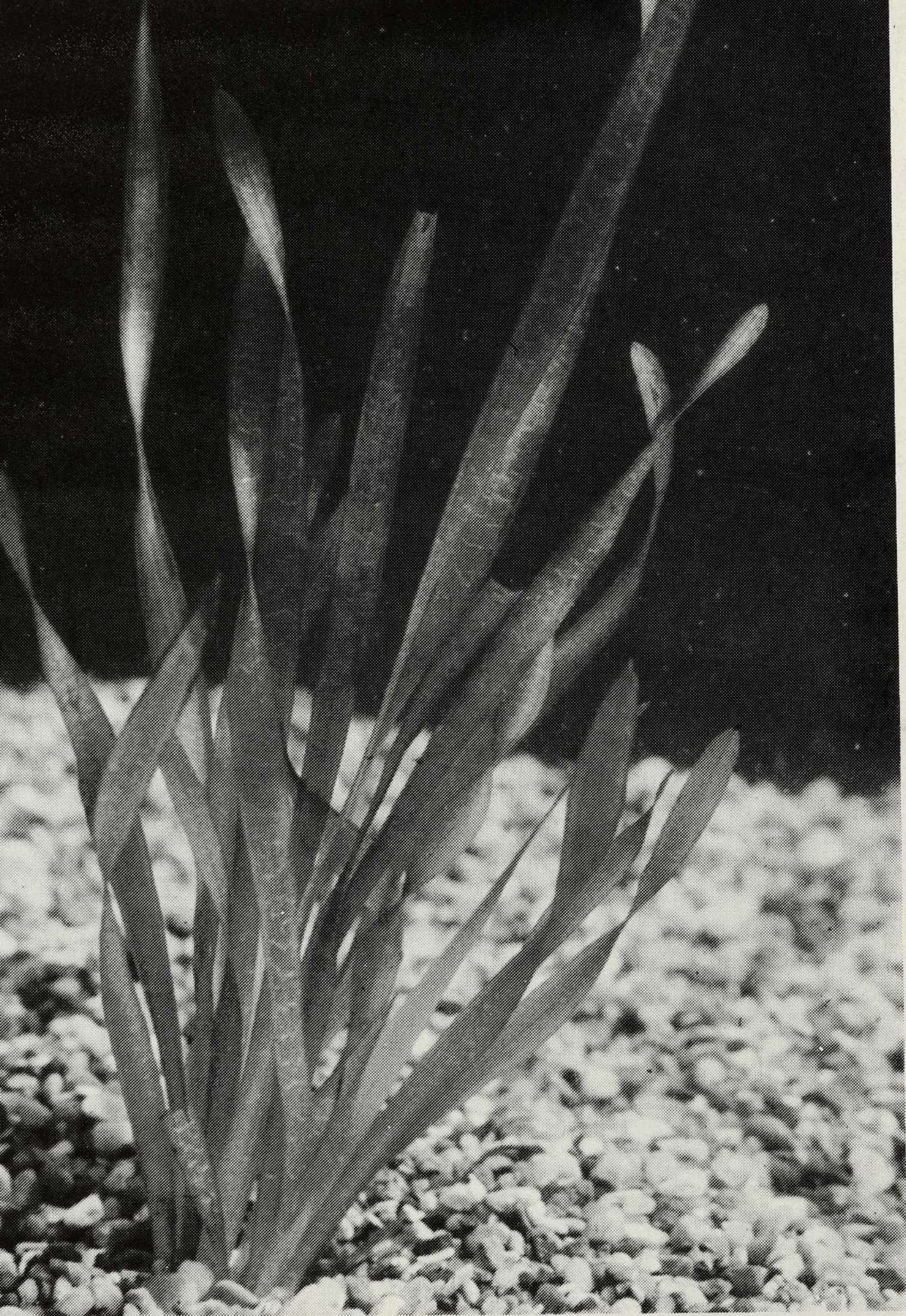
The leaves are pale green, more elongated than those of *S. auriculata*, extending upwards almost to overlap the preceding leaves. The undersides are covered with fine, brown hairs or down. The entire plant is floating. Its floating stems are irregularly branched without any roots. The leaves are arranged in whorls of three, usually with one submerged and two floating.

These plants spread very vigorously and completely choke the habitat. It is considered as a pest in most countries and its eradication is extremely difficult.

It can be dried and used as a fertiliser or used fresh in green-manuring.



An ornamental fountain with red *Nymphaea stellata*



Vallisneria spiralis





Genus: TRAPA

Family: Trapaceae

Species: *Trapa bispinosa*

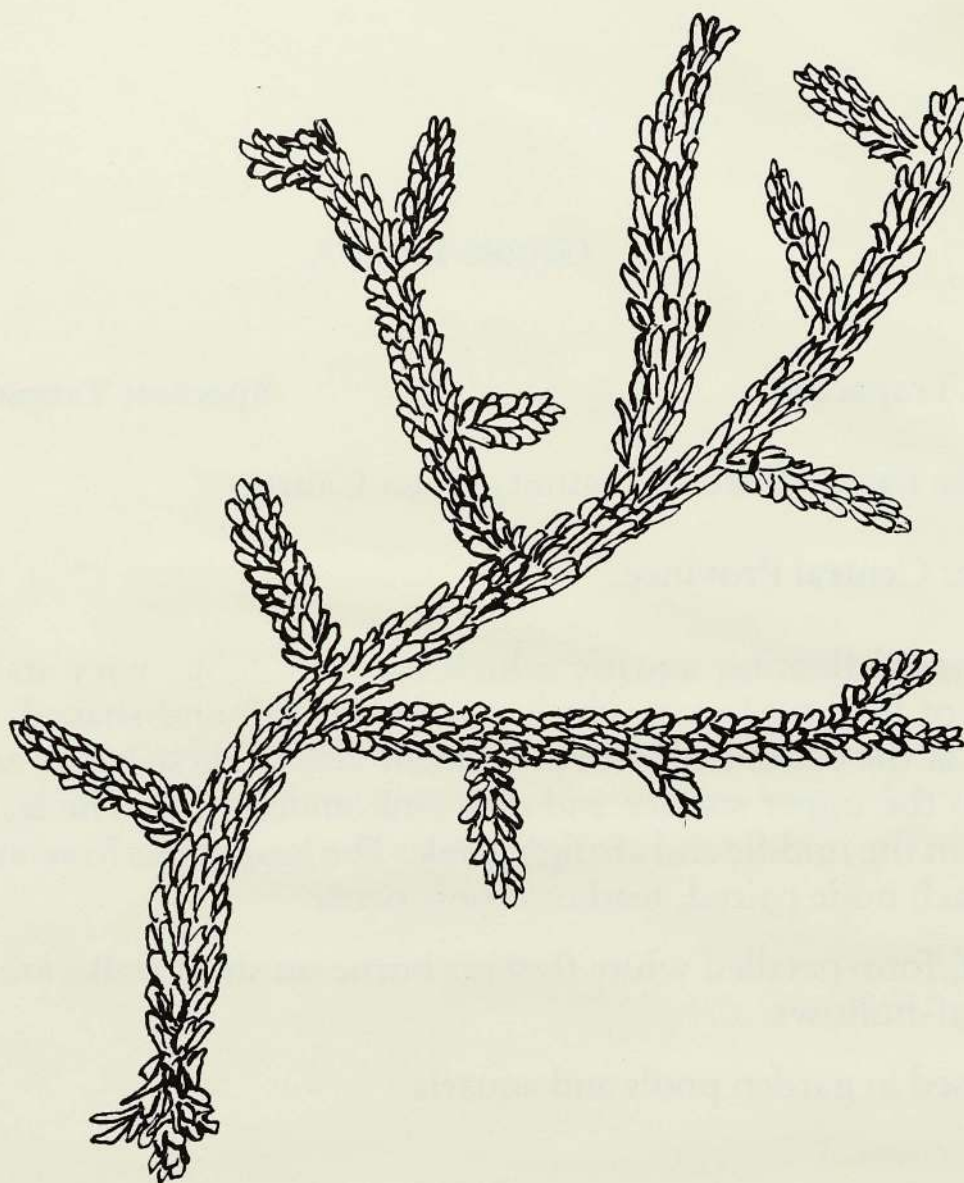
Common name: Water-Chestnut, Water Caltrop

Habitat: Central Province.

An annual floating aquatic which has very long, wiry stalks bearing rosettes of floating leaves which are almost diamond-shaped, serrated or toothed at the edges and with prominent veins. These leaves are leathery, shiny on the upper surface and dull pink underneath. The leaf-stalks are swollen in the middle and are light pink. The long stalks have many nodes, and in each node paired, feathery roots occur.

Small, four-petalled white flowers borne on short stalks are embedded in the leaf-hollows.

It is used in garden pools and aquaria.



Genus: VESICULARIA

Family: Hypnaceae

Species: Vesicularia dubyana

Common name: Java Moss

Habitat: Central and Western Provinces in shallow, fast-flowing streams and water-courses.

This is an aquatic moss, with irregular branched creeping or floating stems or fronds covered with two rows of spongy leaves. This moss can be seen clothing entire rocks and boulders in fast-flowing streams receiving plenty of sunlight.

The minute leaves are oval or lance-shaped, with slightly toothed or entire leaf-edges, growing flattened and spreading evenly.

A very popular species in the aquarium.

GLOSSARY

Alternate	Having leaves or buds arranged at the same level on the stem
Annual	Living for one season
Anther	The upper part of a stamen containing pollen
Axis	The stem, the main or central growth of a plant or part of a plant
Biennial	Living for two seasons
Bract	A small or scale-like leaf in a flower cluster
Calyx	The outer whorl of the flower, generally green
Ciliate	Bearing hairs on the margin
Cordate	Heart-shaped
Corm	The bulb or enlarged stem at the base
Creeping	Running or trailing along or under the ground and rooting
Crispate	Curled or ruffled on the margin; one with wavy margins
Cylindrical	Circular and elongated
Dentate	One with teeth or serrations pointing outward and growing perpendicular to the leaf-margin
Emerse	Rooting under water, but eventually the upper part of the plant growing above the water-surface
Entire	The leaf-margin smooth and unbroken
Filiform	Thread-like
Glabrous	Without hair; non-pubescent
Habitat	The natural locality in which plants grow
Herb	A plant without a woody stem
Inflorescence	A flower cluster
Internode	The area between two nodes
Lamina	The extended part of the leaf; the leaf-blade
Lanceolate	Lance-shaped; broadest near the base and narrowing at the apex or tip

Linear	Long and narrow, the two sides almost parallel
Node	The joint or part of segment on a stem or branch
Opposite	Two leaves growing opposite on the stem or an axis
Ovate	Egg-shaped, or more or less rounded at both ends
Pectinate	Like a comb
Perennial	Living for three or more seasons
Petiole	The leaf-stalk
Pinnate	Feather-like
Pubescent	Covered with soft, short, fine hairs; hairy
Raceme	A simple flower cluster borne on a long stem
Rhizome	The underground rootstock
Rootstock	The stem growing underground; a rhizome
Rosette	The short stem bearing a cluster of neatly arranged leaves radiating from a crown or centre and growing close to the ground
Sagittate	Like the shape of an arrow-head, the basal lobes of the leaves pointing towards the stalk
Sessile	Without a stalk
Spathe	The leaf or sheath surrounding or subtending a flower cluster
Stamen	The male organ of a flower bearing pollen
Stolon	The stem with a shoot which produces roots at its tip. Usually in contact with the soil
Submerse	Growing under water
Verticil	The arrangement of flowers or leaves or part of leaves in a circle at the same point on the axis

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HERITAGE OF LANKA SERIES VOL. I

'Water Plants of Sri Lanka' is the first book in the **Heritage of Lanka Series**. It presents a selection of water plants commonly seen in the aquatic habitats of Sri Lanka. Simple descriptions of plants, illustrated by drawings and photographs provide the reader with a clear idea of the wealth and nature of the most representative aquatic flora of the island.

To the visitor to Sri Lanka, this handbook should prove an invaluable guide to the appreciation and identification of the native species, while, to the native Sri Lankan, it should kindle an awareness of his own heritage.

The authors, De Thabrew Snr and De Thabrew Jnr have teamed up for the first time to produce this monograph on aquatic flora of their native Sri Lanka. **De Thabrew Snr**, an educationalist and a field botanist for nearly fifty years, has over the years developed and perfected many techniques of plant propagation. **De Thabrew Jnr** has for the last sixteen years concentrated on the ecological study of aquatic flora and has introduced several hitherto unknown species to the European aquarist. He is currently involved in the development of a plant sanctuary in Sri Lanka. He is the author of several books on aquaculture and horticulture.

cover photograph: Eichhornia crassipes (Water-Hyacinth)

Dr. W. Vivian De Thabrew

