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A Large and Versatile Cryptocoryne

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THE largest of all *Cryptocorynes* also has the widest area of distribution. *Cryptocoryne ciliata* (Roxb.) Fisch. ex Schott occurs on tidal muds, often along river banks or creeks but always where freshwater is mixed with a certain amount of sea-water.

Locally it may grow very abundantly and, sometimes along the water's edge, fields or pure stands of tens of thousands of *C. ciliata* flourish.

Being readily available on the coasts of India, the Malay Peninsula, Sumatra, Borneo, Indo-China, Java, New Guinea and elsewhere, it is regularly imported and obtainable.

Will Flourish in Freshwater

C. ciliata grows well in the freshwater of our tanks provided that the soil contains some loam and the amount of light is sufficient. It stands the lack of salt but it is worth remembering, if one contemplates keeping an aquarium with fishes originating from coastal, sea-invaded regions (e.g. Glass Fish, many live-bearers, *Scatophagus*, *Monodactylus*, etc.) that *C. ciliata* may be very useful to have for decoration.

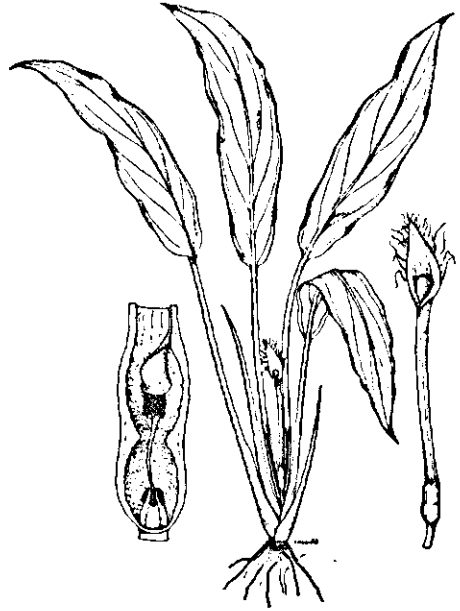
For our freshwater tanks as well, *C. ciliata* is a most desirable plant. The leaves attain a length of 20 in. (50 cm.) or more and, although specimens growing in an aquarium usually remain smaller, they are always very much larger than other *Cryptocoryne* species.

The leaves are light green, without purple colouring or markings. The green petioles are stout and the oblong leaf-blades often laxly wavy and somewhat succulent. The nerves have the same colour as the blade.

If you obtain a *C. ciliata* specimen, put it in a roomy tank and give it ample space to develop.

For the Best Effect

When a single *C. ciliata* is placed well apart from such a contrasting subject as a background of dark-green *Hydrilla* or a well-stocked slope



Drawing of *Cryptocoryne ciliata*. The flowering plant is shown in the centre, whilst, to the left, there is a close-up of the inflated lower part of the tube with the ovaries and partly-covered stamens. An enlarged entire flower is on the extreme right.

of *C. beckettii* or *C. affinis*, a strikingly beautiful effect is achieved. As a matter of taste—never put it in the exact centre of your aquarium!

Lagenandra is a Genus closely allied to the *Cryptocorynes* and one species of *Lagenandra* is hardly distinguishable from *Cryptocoryne ciliata*, although the flowers are very different.

C. ciliata grows in tidal muds; it is one of the plants composing the mangrove of shallow tropical shores where silt is deposited. Many mangrove plants are biologically interesting. The plants in them have remarkable life-habits which seem particularly well suited to their environment.

Some of the low trees are "viviparous", a condition in which the seed skips the resting period, which is a characteristic of nearly all Angiosperms.

Seed-bearing Plants

Practically all seed-bearing plants produce seeds which reach full development by continuous growth after fertilisation of the egg-cell. When this stage of full seed-development is completed, the embryo (a minute

plantlet within the seed), and the seed as a whole, enters a period of immobility. Its growth is discontinued, interrupted, and the seed "rests".

This period of rest is of different length in various kinds of plant but it may be stated that nearly all seed-bearing plants pass through this time of seed-rest. Many mangrove plants, however, show no seed-rest whatsoever. The seed keeps on developing to a young plant (a seedling) that is often found dangling on the parent tree.

The herbaceous *C. ciliata* seems to be "viviparous" in exactly the same way. Its seedling, once it has escaped from the outer case, appears to float easily in the water. It is provided with a tuft of very delicate, needle-shaped "leaves" and one is inclined to think this peculiar bunch of appendages might serve as a means of anchoring the drifting seedling.

It should be noted that, in a few cases,

seedlings of other *Cryptocoryne* species, not occurring in mangrove, have been studied and the tuft of hair-like "leaves" were absent from such seedlings.,

Cryptocoryne versteegii, discussed in the last issue, is, however, also provided with a tuft when emerging from the seed-hull and it is the second species known to have this characteristic.

From Mangrove Swamps ?

Is it, then, a mangrove plant? I do not know. It occurs in New Guinea, and, very likely, on marshy river flats. Though it was found far inland, the Lorentz river runs over an enormous distance through low plains. Does the tide penetrate as far as its growing locality and is the water surrounding its roots brackish? The characters of the seedling suggest it might be.