Variegated Pinangas

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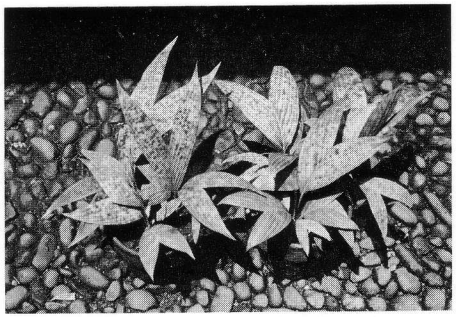
There are over 100 species in the genus *Pinanga* and yet perhaps only seven can be said to be in regular cultivation—*P. kuhlii*, *P. coronata*, *P. insignis*, *P. patula*, *P. disticha*, *P. maculata*, and *P. javana*. This neglect of the genus is quite unjustified as many of the species rival species of *Chamaedorea* in charm, and were it not for the restricted distribution of many *Pinanga* species and their usually low seed output, they might be more widespread in cultivation. In the last three years, while I have been working in the Kebun Raya Bogor, one of the Garden's assistants, Didin Saerudin, and I have collected about 30 different species of the genus and these we are beginning to plant out in the Gardens as they become big enough. All have some horticultural merit, but four species are of outstanding potential in having variegated foliage.

Variegated palms, in which parts of the leaves are without chlorophyll, occur occasionally—I have observed a variegated *Caryota mitis* in a Jakarta garden and sometimes one can find completely achlorophyllous seedlings—though, of course, these ultimately die. To me, the variegated *Caryota* is something of a monstrosity and is not particularly beautiful. The variegation in *Pinanga* is of quite a different nature, being a subtle marbling of light green, dark green, chocolate, and, in young leaves, pink. I have not observed such marbling in any other palm genus. *Pinanga maculata*, a name probably applied to a number of species, has this marbling. Likewise, *Pinanga kuhlii* can show variegation but it is normally only in scattered individuals and is hardly intense. It is, in fact, not unusual to find faintly mottled *Pinanga* leaves in the forest.

However, in 1971 in Aceh in the far north of Sumatra at 500 meters (1640 feet) altitude, I found a superb variegated *Pinanga*. The leaves are mottled rich dark green and almost chocolate in the centre of the mottles, on a pale blue-green background. In the emerging leaves, the petioles are crimson and the mottling chocolate on a dull pink background. The colouration of the seedlings and the juvenile plants is enough to justify its inclusion in any palm collection; but added to this, the mature plants with their four to five very broad leaflets also show variegation, though not of the intensity of the juveniles. The clustering stems of this species are two to three meters (nearly 10 feet) tall and the suckers show the beautiful intense variegation of seedlings and juveniles. We searched for fruit, and though immature fruit were abundant we were apparently too early in the year for ripe fruit. Thus we had to be content with transplanting seedlings; about 35 survived the week-long journey back to Bogor and after theft have dwindled to 27 robust, fast-growing, jealously guarded plants. Since 1971, I have found this *Pinanga* near Sungei Penuh, near Bukittingii and recently, much nearer Medan, at Bohorok, and I now feel sure that this species is *Pinanga densiflora* Becc., originally de-

1. *Pinanga densiflora* seedling in Aceh, Sumatra.



2. *Pinanga densiflora* seedlings in Bogor one year after transplanting.

scribed from the Padang area by Beccari as being solitary, but noted by Burret as probably being clustered. Certainly the inflorescence, with its spirally arranged fruit, fits Beccari's original description. This species, like so many *Pinanga* species, is very variable—for example, populations from Bohorok have short stems and vary narrow leaflets, those from Sungei Penuh are taller but still narrow-leafleted, and those from near Bukittinggi are three to four meters tall with broader leaflets. Without doubt, the form from Aceh is the most beautiful; when time and funds permit, another effort will be made to collect ripe fruit.

In October 1972, in the Meratus Mountains of South Kalimantan (Indonesian Borneo), I found another variegated *Pinanga*. It was abundant in humid Hill Dipterocarp Forest at about 600 meters altitude growing on steep hillslopes, and with this species we had much more luck than with *Pinanga densiflora*—we were able to collect about 1,500 seed from five ripe infructescences. These have been distributed to the Seed Bank and the Royal Horticultural Society under the collection number *Dransfield 2837*. Since sending these seed I have found that this species is almost certainly Burret's *Pseudopinanga aristata*, originally collected on Gunung Kinabalu by the Clemens. The genus *Pseudopinanga* is probably not distinct from *Pinanga*, but rather than make a premature name change, *Dransfield 2837* had better be called *Pinanga* sp. aff. *Pseudopinanga aristata* Burret. This species, like *P. densiflora*, is clustering but clumps usually consist of only one upright stem, with a few suckers at the base. The stem is stilt-rooted and rarely exceeds two meters; the crownshaft is pale green, and the leaves to one meter or more in length with four to seven broad sigmoid leaflets mottled mid-green and dark green above, and paler below. The infructescence has three to seven pendulous rachillae densely covered in whitish woolly hairs and bearing tiny scarlet fruit in abundance; before the fruit ripens it is normally canary-yellow in colour. The young plants and suckers display the strongest variegation, and the leaves at emergence are tinged a beautiful purplish colour.

I have recently observed two other variegated *Pinanga* species in North Sumatra near Bohorok. One of these is a low, slender, thicket-forming *Pinanga* rather reminiscent of Malayan *P. paradoxa* and probably referable to *P. pulchella* Burret, originally collected from near the Petani Waterfall (Air

3. *Pinanga* species (aff. *Pseudopinanga aristata*) with suckers at the base of a mature tree.

Terjun Sikulikep), Berastagi. Certainly, collections I made at Bohorok are virtually the same as collections I made at Burret's type locality. Stems of this species are red-brown and about 1.5 cm. (⅗ inch) in diameter, up to one and a half meters tall, flopping over and suckering at the base. There are about six to seven leaves in the crown; leaves are to 75 cm. long and bear five to six pairs of rather distant, pointed leaflets marbled yellowish-green and dark green. Colouration is most intense in young leaves. The fruits are velvety black borne on crimson rachillae. Like so many *Pinanga* species, this is a poor fruit cropper; nevertheless, I obtained about 50 ripe seed, a few of which have been distributed to the Seed Bank and the Bailey Hortorium under the collection number *Dransfield 3299*.

The fourth variegated species is an intensely mottled form of the widespread *Pinanga disticha* which was extremely common at Bohorok. Unfortunately, I was unable to obtain seed and have had to be content with transplanting a few seedlings.

4. *Pinanga pulchella* at Bohorok, North Sumatra.

The abundance of intensely variegated *Pinanga* leaves in the forest at Bohorok suggests that soil conditions may be partly responsible for the development of colouration. The collections of *Pinanga densiflora* now established for two years in Bogor do not show quite the intensity of colouration as in the wild—they are potted in a rich compost made from humus and rotted stable manure. We must try transplanting them to a poorer medium more akin to that found in the forest to see if the colouration will become more intense.