

## NOTES

### New sites for some native plants of Seychelles

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#### Introduction

According to Friedmann (1994), the flora of the granitic islands of Seychelles includes some 200 native species of angiosperms or flowering plants, of which around 70 are endemic. Many of these native plants are extremely local in distribution. Proctor (1974) and Friedmann (1986 & 1994) have provided useful distribution data, while the Nature Protection Trust of Seychelles has introduced a scheme (1993) for the mapping of species distributions. During recent fieldwork on Mahé, Praslin and Silhouette, new sites have been discovered for several plants.

#### 1. *Wielandia elegans* Baillon

Friedmann (1994) reports that on Mahé this species has become rarer and has been found recently only at Anse Forbans and Glacis. In 1995 I found at least three specimens in a boulder field at Marie Laure Estate (=Mount Simpson Estate) in Bel Ombre district, at an altitude of around 80 metres above sea-level. The surrounding vegetation is made up largely of introduced *Hevea brasiliensis* (Wild. ex A. Juss.) Muell. Arg., *Adenanthera pavonina* L. and *Cinnamomum verum* Presl., with *Nephrosperma vanhoutteana* (Wendl. ex van Houtte) Balf. as the main other native species present.

On 24th March 1996 I discovered 40 individuals of *W. elegans* growing on the western side of the La Rosière clocktower, on the steep slope to the north of the Cathedral of the Immaculate Conception and the Roman Catholic priests' residence in Victoria, 10-20m above sea level. The plants ranged from 2.5m high to small seedlings with only a few leaves and the remains of the seed still attached, with most in the intermediate range. A few immature fruits were present on the two largest bushes. Some of the plants had been cut at some point, and had resprouted. Several such damaged individuals were infested with termites. Most of the surrounding vegetation was made up of introduced species: *Albizia lebbek* (L.) Benth., *Sandoricum koetjape* (Burm.f.) Merrill, *Adenanthera pavonina* L., *Cinnamomum verum* Presl., *Litsea glutinosa* (Lour.) C.B. Robins., *Memecylon caeruleum* Jack, *Ochna* sp., *Anacardium occidentale* L., an unidentified palm that grows in clumps and *Syngonium podophyllum* Scott.

The only native plants seen in the vicinity were: *Canthium bibracteatum* (Baker) Hiern, *Dracaena reflexa* var. *angustifolia* Baker (one very small individual) and the fern *Phymatosorus scolopendria* (Burm.f.) Pichi-Serm.

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### 2. *Ipomoea venosa* (Desr.) Roem. & Schult.

According to Friedmann (1994), on Mahé this species was last collected by Boivin and Horne, who visited Seychelles in the 19th century. He also describes it as a species of the open vegetation of low-altitude "glacis" near the coast. On 26th November 1995, Philippe Boullé, Dr. Maureen Kirkpatrick and myself discovered three specimens of *I. venosa* growing in pockets of humus caught in clefts in the cliff face of Ma Joséphine, at about 250 metres above sea-level.

At the start of December 1995, I encountered at least two specimens, one of them in flower, on Silhouette on the lower La Passe - Grand Barbe path, at an altitude of around 370 metres. The above records show that *I. venosa* is not confined to the coastal zone.

Some observations on the species are worth mentioning here. The Silhouette specimens referred to above were growing between rocks. One of these had slipped, exposing the root system of one plant. This was seen to consist of a swollen root tuber bearing smaller roots. Examination of the stem showed that it had been broken off and had resprouted several times.

Regrowth can be extremely fast in the early stages. A tuber was placed in a pot of soil on 6th December 1995. By 24th December it had grown a shoot 31 cm long. A week later, on 31st December, the shoot was 88 cm long. It had grown by 57 cm in one week, the average rate of growth being therefore over 8 cm per day or over 0.3 cm per hour! Unfortunately, it was not possible to continue regular observations on the plant, but it was noticed that the rate of growth fell off sharply once the first mature leaves had appeared.

Finally, a piece of shoot broken off from a plant was found to grow readily when planted in a pot of soil. It did not bear roots originally and was obviously able to develop adventitious roots from the nodes.

### 3. *Impatiens gordonii* Horne ex Baker

### 4. *Psychotria silhouettae* F. Friedmann

Friedmann (1994) states that *I. gordonii* is known to survive in only two localities on Mahé and that the species should be considered as being on the verge of extinction. At least one substantial population is now known to occur on Silhouette as well. Dr. Maureen Kirkpatrick and myself discovered it on 15th June 1995 at around 300 metres above sea-level in the Anse Mondon river valley. From preliminary surveys carried out then and during a subsequent visit in December 1995, it appears there are several hundred individuals, growing in the humus on the boulders that are piled into the valley. On each occasion, at least half the plants were in flower. Some flowers were slightly tinged with pink, especially along the edges of the petals. All the plants appeared to branch only at ground level, not higher. One specimen had twenty shoots, the largest of which was a metre long.

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On my second visit to the site, on 2nd December, I noticed that at 12:30pm most plants were exuding water, presumably from hydathodes along the leaf margins. Caterpillars of a hawkmoth, resembling those of *Hippotion eson* (Cramer, 1779), were observed on some plants. A more detailed report on the insects found in the vicinity is in preparation.

Other vegetation growing in the area included (in approximate order of decreasing abundance):

- Native: *Heritiera littoralis* Ait.  
*Phoenicophorium borsigianum* (K. Koch) Stuntz  
*Terminalia catappa* L.  
*Barringtonia racemosa* (L.) Spreng.  
*Northea hornei* (M.M. Hartog) Pierre  
*Tarena sechellensis* (Baker) Summerh.  
*Ludia mauritiana* var. *sechellensis* F. Friedmann  
*Pseuderanthemum tunicatum* (Afz.) Milne Redh.  
*Dracaena reflexa* var. *angustifolia* Baker  
*Psychotria silhouettae* F. Friedmann  
*Cocos nucifera* L.  
*Asplenium nidus* L.
- Introduced: *Clidemia hirta* (L.) D. Don  
*Hevea brasiliensis* (Wild. ex A. Juss) Muell. Arg.  
*Paraserianthes falcataria* (L.) Niels  
*Adenanthera pavonina* L.  
*Cinnamomum verum* Presl.  
*Theobroma cacao* L.  
*Syzygium aromaticum* (L.) Merr. & Perry  
*Cola nitida* (Vent.) Schott & Endl.  
*Musa sapientum* L.

The presence of *Psychotria silhouettae* at this site is especially noteworthy, since only three or four specimens of this extremely rare plant were known previously, all in the *Pisonia sechellarum* F. Friedmann forest discovered by Friedmann in 1982 at the very top of the Anse Mondon river valley (Friedmann 1994). Two specimens were sighted near the *I. gordonii*.

5. *Achyrosporum sechellarum* Baker
6. *Acacia pennata* (L.) Willd.

These are two components of the *Pisonia sechellarum* forest community on Silhouette (Friedmann 1986 & 1994). *Achyrosporum sechellarum* has been found in "only three or four sites", while *Acacia pennata* is known to occur "on the slopes towards Jardin Marron" as well (Friedmann 1994). In December 1995 I discovered both species growing together on boulders on the southern/eastern side of the lower La Passe - Grande Barbe path, at about 350 metres above sea level,

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west of the Gratte Fesse - Mont Corgat ridge. The surrounding vegetation included *Asplenium nidus* and other ferns, *Procris insularis* H. Schroter, *Begonia seychellensis* Hemsl., *Psychotria* sp., *Phoenicophorium borsigianum* (K. Koch) Stuntz, *Roscheria melanochaetes* (Wendl.) Wendl. ex Balf., *Grisolea thomasetii* Hemsl., *Mucuna gigantea* (Willd.) D.C., *Adenia gummifera* (Harv.) Harms, *Dracaena reflexa* var. *angustifolia* Baker and *Musa sapientum* L.

The largest of three particularly thick *Acacia pennata* measured 6.5cm in circumference. As the plants drape over rocks, they send out adventitious roots into pockets of humus and sprout shoots there. Some of the latter have become separated from the mother plants by the rotting away of the connecting "runner". The tallest *A. pennata* disappeared into the foliage of a *Morinda citrifolia* L. and *Adenanthera pavonina* L..

7. *Secamone schimperiana* (Hemsl.) Klack.

Friedmann (1994) gives only two sites on Praslin for this rare liane, which also occurs on Mahé and Curieuse: the Vallée de Mai and Anse Petite Cour. In April 1995 Karl Fleishmann and Maureen Kirkpatrick discovered a new site for the species amid the open scrub above Anse Matelot, at an altitude of about 100m. I visited the site with Kirkpatrick in January 1996 and counted at least seven plants growing over *Dillenia ferruginea* (Baillon) Gilg and *Memecylon eleagni* Bl.

8. *Malaxis seychellarum* (Kraenzl.) Summerhayes

This hygrophilic orchid is most often encountered in the "mountain mist forest" above 500 metres. In January 1996 Philippe Boullé showed Dr. Maureen Kirkpatrick and myself a small patch of this species growing in a moist, sheltered area between granite boulders and under a large *Ficus lutea* Vahl. on the cliff of Ma Joséphine at about 300 metres above sea level. This is the lowest point at which any of us has seen the species.

## Conclusion

The above finds show that small populations of many rare plants are scattered over a wider area of the granitic islands of Seychelles than is generally believed. Cliffs and boulder fields, in particular, should repay further investigation.

## References

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