MISCELLANEOUS BOTANICAL NOTES II [1])

by

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18. ADDITIONAL NOTE ON MALAYSIAN LONICERA (Caprifoliaceae).

The privilege of being able to examine numerous sheets of *Lonicera* in the U. S. Nat. Herbarium Washington, Jan. 1947, some in the Kew Herbarium, Nov. 1946, and some in the Leyden Herbarium, Oct. 1946, enabled me to make some further observations which clarify the status and distribution of the Malaysian species, which I preliminarily treated in the Journ. Arnold Arbor. 27 (1946) 442—452, a little further.

1. **Lonicera repens** Zipp. ex Miq., Fl. Ind. Bat. 2: 128. 1856; cf. J. Arn. Arb. 27 (1946) 451, was referred by Miquel to *L. chinensis*, and belongs, according to Ind. Kew and Dr Rehder's paper, to *L. japonica* Thunb. In the Leyden Herbarium there are 3 authentic sheets; of one the label reads "New Guinea", of an other "? Java" and of the third "? Java. ? New Guinea". All belong doubtless to *L. japonica* Thunb. and in my opinion this is a clear case of mislabelled specimens which came from Java, probably from specimens cultivated in the Botanic Gardens at Buitenzorg.

2. **Lonicera malayana** Henderson, in Journ. Fed. Mal. States Mus. 11 (1924) 187, I referred with doubt to *L. pulcherrima* Ridl. in Journ. Arn. Arbor. 27 (1946) 449. It is certainly a species distinct from all other Malaysian ones and represents the 5th indigenous species of Malaysia. It can easily be distinguished by the following characters: stems, stalks, petioles, leaf margins with long spreading hairs; inflorescences lateral, 1½—3 cm peduncled, 2-flowered; corolla hairy, 8—9 cm long incl. a tube 4—6 cm long; style glabrous far protruding; leafmargin flat fimbriate through long hairs; parenchyma not bullate, not tomentose on the undersurface; leaftip short-acuminate.

L. malayana is probably nearest related to *L. affinis* Hook. & Arn. from China & Japan. It occurs certainly outside the Malay Peninsula, as a sheet from Hainan (*F. C. How & N. K. Chun 70187*) identified as

[1]) Misc. Bot. Notes I will be published in the Bull. Jard. Bot. de Buitenzorg.

L. macrantha Spreng. seems identical; it ought also to be compared with *L. similis* Hemsl. from China.

3. Lonicera acuminata Wall. in Roxb., Fl. Ind. ed. Carey 2: 176 (1832). The distribution and synonymy of the species I cited in Journ. Arn. Arb. 27 (1946) 445, viz India, Sumatra, Java, Bali and the Philippines indicated that its occurrence in Formosa and China was highly probable. This conclusion proved right, and I found some species recorded from these regions described under various names which must be merged into *L. acuminata*. They are the following:

Lonicera henryi Hemsl., in J. Linn. Soc. 23 (1888) 359 from China,

Lonicera transarisanensis Hayata, Ic. Pl. Formos. 6 (1916) 25 from Formosa,

Lonicera vestita W. W. Sm., Not. Roy. Bot. Gard. Edinb. 10: 49, 1917, from Yunnan, whereas the type of

Lonicera giraldi Rehd., in Rep. Missouri Bot. Gard. from China exactly matched *L. acuminata* as I supposed l. c.

The distribution of *L. acuminata* is thus a closed continuous area in S.E. Asia.

4. Lonicera pulcherrima Ridl., in J. As. Soc. Mal. Br. 1 (1923) 64; cf. Journ. Arn. Arbor. 27 (1946) 449, is hitherto only known from Sumatra, but occurs certainly also in S.E. Asia. A sheet from China (Kiangsi *Lau 4649*) is an exact match. It is very closely allied if not identical with *L. leschenaultii* Wall. from the Deccan Peninsula and ought to be compared with *L. reticulata* Champ. (non Rafin.) from China.

19. GYMNOTHECA DECNE, A GOOD GENUS OF THE SAURURACEAE.

In 1845 J. Decaisne[1]) described the genus *Gymnotheca* from China. An excellent figure accompanied the description of the genus which was based on a single species *G. chinensis* Decne. This genus was later merged into *Houttuynia* by Bentham & Hooker in their Genera Plantarum[2]), but reinstated by D. Oliver[3]). Engler[4]), in 1889, erroneously reduced it without further comment to *Houttuynia cordata* Thunb.

Merrill[5]) referred it as a distinct species to the genus *Saururus* under the name *S. cavaleriei* Lév.[6]), as the epithet *chinensis* is preoccupied in the genus *Saururus*. He states its undoubted identity with Léveillé's species in spite of latter's short and imperfect description. Merrill's record is from Indo-China. According to Groff[7]) Handel-Mazzetti shares Merrill's opinion in assigning *Gymnotheca* to *Saururus, but* H.-M.'s publication is unfortunately not available to me.

[1]) Ann. Sc. Nat. III, 3 (1945) 102, t. 5.
[2]) Genera Plantarum 3 (1880) 128.
[3]) Hook. Icon. plant. 19 (1889) pl. 1873.
[4]) Pflanzenfamilien 3[1] (1889) 3.
[5]) Univ. Calif. Publ. Bot. 13 (1926) 128.
[6]) In Fedde, Repert, 10 (1911) 149.
[7]) Lingnan Science Journal 11 (1932) 85.

In reviewing the Malaysian Saururaceae I have come to the conclusion that *Gymnotheca* is a good genus and I base by opinion on the characters mentioned in the key below. Of *Gymnotheca* I could study one specimen *Pételot 6298* from Tonkin, recently presented by the Arnold Arboretum to Buitenzorg.

The habit of *Gymnotheca chinensis* Decne. is quite different from any of the other Saururaceae, and *Saururus* species described; it approaches that of the Piperacea *Zippelia begonifolia.* The herbarium material I studied was much pressed and did not much improve by boiling; to this I ascribe that I only found 2 placentas. The flowers of the *Pételot 6298* specimen agree exactly with Oliver's plate [1]) and are somewhat different from Decaisne's drawing, as the anthers are ± equal in length to the filaments and the styles are much exceeding the anthers in length. In Decaisne's drawing the styles are very short. I cannot decide whether there are different sexual forms of one species, or that these organs are liable to a great variability. There may be 2 races. The difference can hardly be due to the age of the flowers. Though the lowest bracts of *Pételot 6298* have a tendency to become larger and whitish (to consider from herbarium material) there is no question that they are petaloid.

The differences between the genera of the *Saururaceae* can be summarized as follows in a

Key to the Genera.

1. Fruit consisting of 4-connate but separating tubercled carpels. Cocci indehiscent, 1-seeded. 2 species . . . . . **Saururus**

1a. Ovary 1-locular. Capsule dehiscent at the apex.

2. Placentas 3(—4). Styles 3(—4). Spiker subtended by a petaloid involucre.

3. Leaves cauline, palminervous. Intrapetiolar stipule ± free. Stamens 3, adnate to the base of the ovary. Ovary not sunk into the rhachis of the spike. Plant glabrous. Involucral bracts 4. Monotypic . . . . . **Houttuynia**

3a. Leaves mostly radical, one on the scape, penninervous. Stipules proper absent, petiole sheathing. Stamens 6—8, epigyn. Ovary sunk into the rhachis of the spike. Fruit coalescent with the spadix. Plant hairy. Involucral bracts 6 (5—8). Monotypic . . . . . **Anemopsis** [2])

2a. Placentas 4. Styles 4. Racemes without petaloid involucre. Stamens 6, epigyn. Ovary stipitate. Watery herb, with habit of Zippelia. Bract free from pedicel. Stem winged, in the dried state at least, not ribbed. Petiole sheathing. Monotypic . . . . . **Gymnotheca**

20. RECORDS OF SOME MALAYSIAN COMPOSITAE.

During a short stay in England, Nov. 1946, I could study some sheets of Malaysian Composites which are worthy of mention.

1. Carpesium cernuum L. was cited from Java in Hook. f. Fl. Br. Ind. 3 (1882) 300, on account of a specimen collected by *T. Anderson no. 336.* As Anderson collected only in West Java, and *Carpesium* occurs in Java only in the eastern part (very rarely) a re-examination seemed necessary. The sheet proved to represent a glabrate form of *Centratherum frutescens* B. & H. collected on Mt Malabar.

[1]) Hook. Icon. plant. 19 (1889) pl. 1873.
[2]) By Lemée, Dict. Descr. 3 (1931) 655 merged into *Houttuynia.*

2. **Rhynchospermum verticillatum** Reinw. Borneo. Br. Borneo, Mt. Kinabalu, Masilau, jungle margin, fls dull white, 2400 m alt., *M. S. Clemens 51054*. This is an interesting record as the species is extremely rare in Malaysia and only very locally known from the mountains of West Java. The number was provisionally distributed as *Carpesium* sp.

3. **Gerbera piloselloides** (L.) Cass. (*G. peregrina* Steen., Bull. Jard. Bot. Btzg sér. III, 14 (1936) 61, *n. syn.*).

A renewed comparison of the specimens from Bali Island with Asiatic and African ones showed that the Malaysian specimens must be reduced to this widely distributed species, recorded from various parts of Africa and S.E. Asia. The neck of the achene lengthens considerably towards ripening.

21. REPORT ON SOME USEFUL PLANTS FROM THE ISLAND OF ALOR (TIMOR ARCHIPELAGO, N. E. I.) COLLECTED BY MISS CORA DU BOIS IN 1939.

The material at hand was collected by Miss Cora du Bois at the end of January 1939 in the mountainous inland of Alor island, N. of Timor, Netherlands East Indies, near the village of Atimelang at ca. 750 m altitude. It was donated to the Buitenzorg Herbarium; data are cited from the labels of Miss du Bois.

In all 99 numbers were collected, most of which could be identified. Of some the material was insufficient, e.g. in bamboos which require a special collecting knowledge. It is assumed that for food products the collection is fairly complete and representative.

Several useful plants are represented in numerous strains or varieties, bamboo, banana, maize, manioc, yams, rice, mango, sweet potatoes, taro &c. Without further extensive botanical study on the spot these can hardly be named safely as to their subspecific or racial name. Some of these varieties have been introduced recently, others have been in cultivation since old time. It is impossible to present a survey of the sequence of their import in Alor in general, and the village Atimelang in particular.

However, some general remarks can be made. In the first place it is clear that the principal food of the people of Atimelang more closely approaches the diet of the Indonesian before the New World was opened for international trade. Long before that date — say some two to three thousands years ago — the Indonesian diet was probably a still poorer one, due to the remarkable and amazing poorness of the Malaysian region in native or subnative principal vegetable staple foods which come to sago, yams, taro, sugarcane, coconut, millets, sugarpalm, breadfruit, some leguminous and cucurbitaceous plants, fruits, vegetables, bananas, bamboo sprouts, pandans, and fat containing seeds. The primitive diet in Malaysia did not permit the development of a dense population. This occurred only through the assimilation of exotic food plants, and mostly in post-Columbian time. Several primitive food plants are now out of use, or only used in periods of famine.

Rice is apparently scarce, and is in Atimelang primarily used as a

feast food. It is apparently also mostly planted on non-inundated soil, its growth depending on and succeeding only through a sufficient amount of water in the dry season. This remains always a hazardous experiment for the native farmer. No mention is made by Miss Du Bois of rice planted on irrigated paddy fields. This requires highly experienced farmers, and moreover, favourable circumstances, viz. enough water through the greater part of the year, a fertile soil, smooth sloping topography and farmers who are skilled and able to planning.

It is still an undecided question whether rice (*Oryza sativa* L.) is really indigenous in Malaysia. Judging from some thousands of photographs of the "bas-reliefs" from Borobudur in Central Java on which only primitive millets are represented, rice was absent in Java at that rather recent date. No positive, deciding arguments for the presence of rice are offered from other sources [1]).

The enumeration of the plants represented in the collection of Miss du Bois I have arranged in Pteridophytes and Phanerogams, and the latter are enumerated in the families in an alphabetical order.

Taking the collected bamboos as one entity 61 species are represented in all. They can be grouped according to their possible origin as follows:

A. NATIVE IN MALAYSIA, AND PROBABLY IN ALOR:

Adiantum philippense L.
Drynaria sparsisora Moore
Ichnocarpus frutescens Ait.
Gossampinus heptaphylla Bakh.
Canarium commune L.
Cycas rumphii Miq.
Dioscorea pentaphylla L.
Aleurites moluccana M. A.
Phyllanthus emblica L.
Caesalpinia sappan L.
Dolichos falcatus Klein
Phaseolus scaberulus Miq.
Hiptage benghalensis Kurz.
Antiaris toxicaria Lesch.
Ficus ampelas Burm.
Ficus callosa Willd.
Ficus infectoria Roxb.
Ficus sp.
Arenga pinnata Merr.
Piper betle L.

B. OLD CULTIGENS OF THE PALAEOTROPICS OF WHICH THE ORIGIN CANNOT BE TRACED OR FIXED TO A CERTAIN LIMITED COUNTRY:

Mangifera indica L.
Mangifera odorata L.
Colocasia esculenta Schott
Ipomoea alba L.
Dioscorea alata L.
Dioscorea esculenta Burk.
Bambusa sp.
Canavalia gladiata DC.
Pueraria triloba Backer
Vigna sinensis Savi
Artocarpus incisus L. f.
Artocarpus integra Merr.
Musa paradisiaca L.
Areca catechu L.
Citrus aurantifolia Swingle
Citrus hystrix DC.
Solanum melongena L.
Melochia umbellata Stapf
Centella asiatica Urban

[1]) Cf. also D. Chatterjee, Botany of the wild and cultivated rices, in Nature 160, 1947, 234.
C. A. Backer in Blumea Suppl. III, 1946, 45 on the five wild *Oryza*-species in Malaysia.

C. CULTIVATED PLANTS WITH A PROBABLE AFRICAN ORIGIN:

Citrullus vulgaris L.
Cucumis sativus L.
Lagenaria leucantha Rusby
Tamarindus indica L.

D. CULTIGENS CERTAINLY NOT NATIVE IN MALAYSIA AND PROBABLY DERIVED FROM THE ASIATIC FLORA.

Oryza sativa L.
Moringa oleifera L.
Kaempferia galanga L.

E. PLANTS FROM THE NEW WORLD, MOST PROBABLY INTRODUCED IN POST-COLUMBIAN TIME.

Amaranthus spinosus L.
Ananas comosus L.
Carica papaya L.
Ageratum conyzoides L.
Ipomoea batatas L.
Cucurbita moschata Duch.
Euphorbia hirta L.
Jatropha curcas L.
Manihot esculenta Crantz
Zea mais L.
Phaseolus lunatus L.
Capsicum annuum L.
Nicotiana tabacum L.

From this table it appears once more, that the majority of the more important food plants have been derived from the New World flora. Malaysia with its favourable climate and soil conditions, but poor in native food stuffs has eagerly absorbed the new sources for living. The great increase in population in the last centuries is for a great deal due to outside factors which were turned to its benefit, by the potentialities of human adaptability, willingness and ableness for agricultural work, together with the favourable factors nature offered here in fertile soils and reasonably good climates for prospering crops.

At Atimelang the Alorese possess — if the collection is representative — rather few vegetables, and medicinal plants, and there are surprisingly few plants with magical use: a fern (*Drynaria sparsisora*) and a cotton tree (*Gossampinus heptaphylla*) are mentioned to possess an effective curse against *Areca*-thieves, and *Kaempferia galanga* is also used magically. Plants having properties due to the signature or transmigration hypothesis are not mentioned.

Miss Du Bois's collection represents one of the very few botanical contributions to these remote parts of the Lesser Sunda Islands, and though it is specially centering round useful plants it adds to our knowledge. I tender her my heartiest thanks for entrusting me with the identification.

Botanic Gardens Buitenzorg, 1939/The Hague, 1947.

Polypodiaceae.

1. Adiantum philippense L.

Hab.: Alor; Atimelang, 750 m alt., *No. C.* Vern. n.: *kamoe-kamoer.*

Annotations: A native maiden-hair fern, widely distributed, specially in dry regions, also cultivated.

2. Drynaria sparsisora Moore.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 47.* Vern. n.: *tameti.*

Use: Roots are used as *Areca* substitute. Leaves used magically as theft curse. Placed on bamboo pole near *Areca* trees. Thief supposed to be afflicted with insanity if he disregards the curse.

Annotations: Widely distributed epiphytic fern with dimorphic leaves, mostly occurring at low altitudes and in the hills, specially in secondary forests, and on isolated trees in settlements, sometimes on rocks, closely allied to *Dr. quercifolia.* Indigenous.

Amaranthaceae.

3. Amaranthus spinosus L.

Hab.: Alor, Atimelang, 750 m alt., very plentiful, not planted, *No. 18.* Vern. n.: *boeloengai.*

Use: leaves are boiled with maize or beans.

Annotations: A spiny weed, native or tropical America, now spread throughout the tropics, in Malaysia it is often collected for use as spinach.

Anacardiaceae.

4. Mangifera indica L.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted or volunteer, *No. 14.* Vern. n.: *dodo maja.*

Use: fruit eaten raw before fully ripe.

b. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted and volunteer, *No. 58.* Vern. n.: *molopai.*

Use: Fruit eaten raw, usually before fully ripe.

c. Hab.: Alor, Atimelang, 750 m alt., plentiful, both volunteer and planted, *No. 59.* Vern. n.: *manpalela.*

Use: Fruit eaten raw, usually before fully ripe.

d. Hab.: Alor, Atimelang, 750 m alt., plentiful, both planted and volunteer, *No. 68.* Ver.n.n.: *maja malieng.*

Use: Fruit eaten raw, but considered very sour.

Annotations: A fruit tree native in India and already cultivated in Malaysia in remote time. It grows best in regions where the climate has strongly marked seasons. Many varieties exist.

5. Mangifera odorata Griff.

Hab.: Alor, Atimelang, 750 m alt., plentiful, planted and volunteer, *No. 60.* Vern. n.: *majakang.*

Use: Fruit eaten raw, usually before fully ripe.

Annotations: A large tree, native in S.E. Asia, cultivated throughout the whole of Malaysia. The fruits are always claimed to be inedible when unripe.

Apocynaceae.

6. ? Ichnocarpus frutescens Ait.

Hab.: Alor, Atimelang, 750 m alt., not planted, plentiful at some distance from the villages, *No. 62.* Vern. n.: *amoelai.*

Use: Bark used to make a fine thread for wrapping arrow shafts, etc.

Annotations: The material is sterile and the identification remains therefore somewhat doubtful. Distribution from Asia to Australia; use as indicated known elsewhere in Malaysia.

Araceae.

7. Colocasia esculentum Schott.

Synonyms: *C. antiquorum* Schott.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, volunteers, not deliberately planted, *No. 6.* Vern. n.: *karij.*

Use: Tubers are boiled and eaten.

b. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 5.* Vern. n.: *Aho.*

Use: Young shoots and tubers are boiled and eaten. Said to be used less now than formerly.

Annotations: Tuberous crop of ancient cultivation, possibly a native of India and from there spread in cultivation. Numerous races are known.

Bombacaceae.

8. Gossampinus heptaphylla (Houtt.) Bakh.

Synonyms: *Bombax malabaricum* DC.

Hab.: Alor, Atimelang, 750 m alt., rare, not planted, *No. 73.* Vern. n.: *boij.*

Use: Fruit used magically, effective curse against theft of *Areca.*

Annotations: The material is sterile and the colour of the flowers unnoticed. However, the only species hitherto known from the Lesser Sunda Islands is this one, *G. valetonii* (Hochr.) Bakh., being only recorded from Burma, the Mal. Peninsula, Sumatra and Java.

Bromeliaceae.

9. Ananas comosus (L.) Merr.

Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 44.* Vern. n.: *toenwati.*

Use: Fruit eaten raw.

Annotations: The common nanas or ananas in tropical America, where it was cultivated from very remote times. After the discovery of America it was taken all round the world by the Portuguese and Spaniards. Numerous varieties are cultivated in Malaysia.

Burseraceae.

10. Canarium commune L.

Hab.: Alor, Atimelang, 750 m alt., rare, only 5—6 trees in the valley, planted, *No. 43.* Vern. n.: *kanai.*

Use: Nut eaten raw, boiled with "oebi kajoe"; mashed raw with lombok and used as relish.

Annotations: The Kenari-nut or Java almond tree, indigenous only in Celebes, the Lesser Sunda Islands and the Moluccas, since an early date grown elsewhere; the seeds are delicious.

Caricaceae.

11. Carica papaya L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 9.* Vern. n.: *bata mija.*

Use: Leaves are boiled and mixed with maize. Fruit is eaten raw or boiled. Natives recognize male and female trees.

Annotations: Papaya came originally form America, and is since Columbian times cultivated throughout the tropics.

Compositae.

12. Ageratum conyzoides L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 77.* Vern. n.: *soema hamoeni.*

Use: Leaves scorched over fire and laid on fresh wounds; sometimes mashed, mixed with lime and laid on fresh wounds.

Annotations: Annual weed, pantropic. Medicinal use also elsewhere known in Malaysia.

Convolvulaceae.

13. Ipomoea alba L.

Synonyms: *Calonyction bona-nox* Boj.

Hab.: Alor, Atimelang, 750 m alt., *No. B.* Vern. n.: *téjla.*

Annotations: Widely distributed in the palaeotropics, both wild and cultivated.

14. Ipomoea batatas L.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 75.* Vern.n n.: *serang balej.*

Use: leaves boiled as vegetable, tubers roasted or boiled.

Annotations: This is the form with incised leaves.

b. Hab.: Alor, Atimelang, 750 m alt., planted and volunteer, *No. 90.* Vern. n.: *bale koeli* (koel = white).

Use: Tubers roasted or boiled. Leaves boiled with maize.

Annotations: This is the form with simple leaves.

c. Hab.: Alor, Atimelang, 750 m alt., planted and volunteer, *No. 91.* Vern. n.: *bale kika* (kika = red).

Use: Tubers roasted or boiled, leaves boiled with maize.

Annotations: This is the form with simple leaves. *Ipomoea batatas* is probably introduced from America, but is cultivated in Malaysia for centuries. It occurs from the plains up to the mountains in fields and is sometimes seemingly wild in abandoned fields.

Cucurbitaceae.

15. Citrullus vulgaris L.

Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 7.* Vern. n.: *'arang ki'.*

Use: Fruit eaten raw.

Annotations: A climbing herb of possibly African origin cultivated in Egypt in very remote times, known in several races.

16. Cucumis sativus L.

Hab.: Alor, Atimelang, 750 m alt., planted, plentiful, *No. 67.* Vern. n.: *ki' rama.*

Use: Fruit eaten raw or boiled.

Annotations: Coarse, several years living, prostrate or twining, cultivated herb, sometimes locally run wild, probably a native from Africa.

17. Cucurbita moschata Duchesne.

Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 8.* Vern. n.: *adeti.*

Use: Leaves boiled and mixed with maize. Fruit boiled or roasted.

Annotations: Annual creeping or prostrate, coarse plant, often cultivated and sometimes seemingly wild. An American cultigen, distributed now widely throughout the world.

18. Lagenaria leucantha Rusby.

Synonyms: *L. vulgaris* Ser.

Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 92.* Vern. n.: *tenga.*

Use: Gourd, dried, cut in half, and scraped out, used as plate.

Annotations: Probably native in Africa, since centuries cultivated throughout the tropics.

Cycadaceae.

19. Cycas rumphii Miq.

Hab.: Alor, Atimelang, 750 m alt., rare, not planted, *No. 74.* Vern. n.: *la.*

Use: Fruit soaked, then boiled and eaten, either alone or mixed with corn.

Annotations: This is an extraordinary high altitude for this species. Several varieties of this polymorphic species are distinguished but the treatment by Schuster is not convincing. It is typical for coasts but also in Java it is found inland up to some hundreds of metres scattered in forests.

Dioscoreaceae.

20. Dioscorea alata L.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 15.* Vern. n.: *fotake* (fobake?).

Use: Tubers boiled and eaten.

b. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 17.* Vern. n.: *fala ko* (=house tuber).

Use: Tubers are roasted or boiled.

c. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 20.* Vern. n.: *amakang ko* (= person tuber).

Use: Tubers roasted or boiled and eaten.

d. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 22.* Vern. n.: *ko kika* (= tuber red).

Use: Tubers eaten roasted or boiled.

e. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 23.* Vern. n.: *il ko.*

Use: Tubers eaten roasted or boiled.

f. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 30.* Vern. n.: *mon ko* (snake tuber).

Use: Tuber boiled.

g. Hab.: Alor, Atimelang, 750 m alt., planted, *No. 40.* Vern. n.: *ko baka.*

Use: Tuber is boiled and eaten.

h. Hab.: Alor, Atimelang, 750 m alt., planted, plentiful, *No. 54.* Vern. n.: *kafola ko* (ko = tuber).

Use: Tuber roasted or boiled, eaten.

i. Hab.: Alor, Atimelang, 750 m alt., planted, plentiful, *No. 76.* Vern. n.: *pelang ko* (= boat tuber).

Use: Tubers boiled or roasted.

j. Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 83.* Vern. n.: *oeten.*

Use: Tuber boiled, not roasted.

Annotations: According to Burkill the Greater Yam is a cultigen and does not occur in the wild state. The origin was in S.E. Asia. It is now widely distributed. Numerous strains, all propagated vegetatively are distinguished.

21. Dioscorea esculenta (Lour.) Burkill.

Synonyms: *D. aculeata* auct. non L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 21.* Vern. n.: *da'.*

Use: Roots eaten boiled or roasted.

Annotations: A prickly climber, apparently native in Indo-China, and undoubtedly of ancient cultivation throughout the East.

22. Dioscorea pentaphylla L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, both wild and planted, *No. 49.* Vern. n.: *koei.*

Use: Roots boiled or roasted, eaten.

Annotations: Widespread yam, throughout the moist parts of India and Malaysia to the remotest islands of the Pacific.

Euphorbiaceae.

23. Aleurites moluccana M. A.

Hab.: Alor, Atimelang, 750 m alt., planted and volunteer, *No. 13.* Vern. n.: *fi ai.*

Use: Used to polish rattan belts and headgear with oil of nuts. Sold on coast to the Chinese.

Annotations: The candle nut or Indian walnut is native in Malaysia but now widely cultivated throughout the tropics, the drying oil is in Java and Celebes used for candles and also used in food.

24. Euphorbia hirta L.

Hab.: Alor, Atimelang, 750 m alt., plentiful weed, not planted, *No. 48.* Vern. n.: *tek hatang* (lizard, its hand).

Use: Juice of stalked mixed with powdered coconut husk charcoal to make paste for tatooing pigment. Leaves chewed by women as contraceptive.

Annotations: Pantropic weed, certainly not indigenous in Malaysia.

25. Jatropha curcas L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 4* Vern. n.: *arang jiai.*

Use: Oil of nuts used as torch (infrequently) and used as bait in rat traps.

Annotations: Certainly introduced in the Old World. In dry regions it often runs wild, and was e.g. very conspicuous in the revegetation of Mt Tambora ashes in the island of Soembawa.

26. Manihot esculenta Crantz.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 1.* Vern. n.: *batako hong koeli* (hong koeli = on top white).

Use: leaves boiled and eaten as vegetable. Tubers eaten raw or boiled, dried for preservation.

b. Hab.: Alor, Atimelang, 750 m alt., plentifully, planted, *No. 2.* Vern. n.: *batako hong kika* (hong kika = on top red).

Use: Leaves boiled and eaten as vegetable. Tubers boiled, also dried for preservation.

Annotations: This is a variety of No. 1, distinguished by red leaves at the end of the twigs.

c. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 3.* Vern. n.: *batako boekoe liking.*

Use: Tubers roasted or boiled, leaves boiled as vegetable.

d. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 11.* Vern. n.: *batako kang* (kang = good).

Use: Leaves *not* eaten. Tubers eaten raw or boiled, not bitter. If bitter they are dried before eating.

Annotations: The cassava or manioc is a plant of American origin, and is now since Columbian time commonly cultivated throughout the tropics. There are many varieties and forms.

27. **Phyllanthus emblica** L.

Synonyms: *Emblica officinalis* Gaertn.

Hab.: Alor, Atimelang, 750 m alt., rare, not planted, *No. 52.* Vern. n.: *kadamai.*

Use: Fruit boiled, mashed and mixed with a special earth to blacken teeth at adolescence.

Annotations: Small or moderate tree known from S.E. Asia through Malaysia, apparently native in both countries, also cultivated.

Gramineae.

28. **Bambusa** sp.?

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 35.* Vern. n.: *peting.*

Use: Used for water tubes, bows and arrows; fire saw; rat or cat traps; bamboo-zither; combs. Young shoots not eaten, but sold on coast to garrison.

b. Hab.: Alor, Atimelang, 750 m alt., plentiful, but at some distance from village, not planted, *No. 36.* Vern. n.: *toea.*

Use: Used for decorative motifs in weaving baskets, for houses; benches; house ladders; for combs.

Annotations: The material is sterile and insufficient for specific as well as generic identification.

c. Hab.: Alor, Atimelang, 750 m alt., plentiful, but far from villages, not planted, *No. 37.* Vern. n.: *kela.*

Use: Used for baskets, house building; fish traps; drinking tube when teeth are blackened; flute; fire tube.

Annotation: The material is sterile and not adequate for identification.

d. Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 38.* Vern. n.: *tifot.*

Use: Used for tobacco tubes, for corn- and bean container; for sacred hearth paraphernalia; fire tube.

Annotation: The material is insufficient for further identification.

e. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, is most common, *No. 39.* Vern. n.: *mai.*

Use: For weaving baskets, house building, for bows and arrows, house ladders, fire saw, mouse traps or cat traps, bamboo zither, fire tube.

Annotations: The material is insufficient for further identification.

29. Oryza sativa L.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, dry planting, *No. 63.* Vern. n.: *Pining is or mooe baka ajak* (ajak = rice).
Use: Primarily feast food.

b. Hab.: Alor, Atimelang, 750 m alt., dry planting, plentiful, *No. 64.* Vern. n.: *tebang ajak* (ajak = rice).
Use: Primarily feast food.

c. Hab.: Alor, Atimelang, 750 m alt., dry planting, plentiful, *No. 65.* Vern. n.: *kaka ajak* (crow rice).
Use: Primarily feast food.

d. Hab.: Alor, Atimelang, 750 m alt., dry planting, *No. 66.* Vern. n.: *mai malieja ajak* (ajak = rice).
Use: Primarily feast food.

e. Hab.: Alor, Atimelang, 750 m alt., dry planting, plentiful, *No. 69.* Vern. n.: *falekasing ajak.*
Use: Primarily feast food.

f. Hab.: Alor, Atimelang, 750 m alt., dry planting, plentiful, *No. 70.* Vern. n.: *takang paliking or malama.*
Use: Primarily feast food.

Annotations: Rice is a cultigen from remote time in S.E. Asia. Nearly a 1000 varieties are known in Malaysia. In the mountains of the eastern Lesser Sunda Islands and several places in Celebes well-watered paddy fields cannot be laid; there rice is scarce and is replaced by other crops as a staple food.

30. Zea mais L.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 26.* Vern. n.: *fati kika* (= maize red).
Use: Roasted, boiled or parched.

b. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 27.* Vern. n.: *koepang fati* (foreign maize).
Use: Roasted, boiled or parched.
Annotations: This strain was imported ca 10 years ago.

c. Hab.: Alor, Altimelang, 750 m alt., plentiful, planted, *No. 28.* Vern. n.: *fati ramá* (maize early).
Use: Roasted, boiled, parched.

d. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 29.* Vern. n.: *fati koeli* (= maize white).
Use: Roasted, boiled, parched.

e. Hab.: Alor, Atimelang, 750 m alt., planted, plentiful, *No. 55.* Vern. n.: *kaij fati* (fati = maize).
Use: Roasted, boiled, parched.

Annotations: A cultigen of undoubted American origin, in the regions of Malaysia characterized with a dry climate now the most important staple food (E. Java, The Lesser Sunda Islands, Celebes). In recent years numerous varieties have been imported and distributed among the native population.

Leguminosae.

31. Caesalpinia sappan L.

Hab.: Alor, Atimelang, 750 m alt., rare, not planted as rule, sometimes planted on village boundary, *No. 81.*

Use: Wood used for large strong bows.

Annotations: A small prickly tree found from India throughout Malaysia, also planted. Since Hindu times sappan wood was one of the valuable forest products; the wood from the Lesser Sunda Islands was highly estimated. Large sizes are now rare.

32. Canavalia cf. gladiata DC.

Hab.: Alor, Atimelang, 750 m alt., rare, wild, also planted, *No. 53.* Vern. n.: *kadia.*

Use: Fruit soaked, 24 hours boiled, eaten alone or mixed with maize.

Annotations: Cultivated in Java up to ca. 1200 m by natives, possibly a ultivated form of *C. virosa* W. & A. The material is sterile but the left-twining stem points to *C. gladiata.* The native country and origin of the plant are uncertain, perhaps derived from *C. virosa,* found in cultivation throughout the East.

33. ? Dolichos falcatus Klein.

Hab.: Alor, Atimelang, 750 m alt., rarely planted, *No. 12.* Vern. n.: *al bilia.*

Use: Fruit shelled, boiled, eaten.

Annotations: Identification in absence of flowers not absolutely safe. Perennial, tuberous, native in India and Malaysia.

34. Phaseolus lunatus L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, both wild and planted, *No. 86.* Vern. n.: *tadá.*

Use: Leaves boiled as vegetable. Beans leached over night and boiled. If not leached beans said to act as an emetic.

Annotations: The lima bean is a climber of American origin brought into cultivation by the Spanish and is now spread throughout the tropics. Several varieties are known some of which contain prussic acid, for the removal of which special treatment is necessary.

35. Phaseolus ? scaberulus Miq.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 57.* Vern. n.: *laboéta.*

Use: Inner bark used for bow string.

Annotations: The material is sterile. The juvenile stem sprouts from a tuber and is very slender.

36. Pueraria triloba (Lour.) Backer.

Synonyms: *Pachyrrhizus trilobus* DC.

Hab.: Alor, Atimelang, 750 m alt., plentiful, planted as well as wild, *No. 19.* Vern. n.: *bike.*

Use: Tubers boiled and eaten. Bark used for cord for women's belt.

Annotations: Coarse climber, with tuberous roots, cultivated both in S.E. and E. Asia and Malaysia since a very long time.

37. Tamarindus indica L.

Hab.: Alor, Atimelang, 750 m alt., rare in valley, not planted, *No. 45.* Vern. n.: *tamali.*

Use: bean eaten raw or boiled with meat. Also crushed raw and mixed with lime or ashes, and used as relish.

Annotations: Burkill accepts this as native both in certain parts of Africa and India as well as cultivated. In Malaysia it is often cultivated or used as a roadside tree. It is wild in some places in the Lesser Sunda Islands and I have photographs of rather pure forests where the tree propagates itself. It prefers a two season climate.

38. Vigna sinensis (L.) Savi.

Synonyms: *Vigna catjang* Wall.

Hab.: Alor, Atimelang, 750 m alt., very plentiful, planted, *No. 46.* Vern. n.: *takoij.*

Use: Boiled and eaten alone or mixed with rice or maize. Children (not adults) may roast in pod. Shelled and stored dry in bamboo tubes.

Annotations: A plant of such ancient cultivation that its country of origin is uncertain, but is was either Asiatic or African; in Malaysia probably repeatedly introduced by the Chinese (Burkill).

Malpighiaceae.

39. Hiptage benghalensis (L.) Kurz.

Hab.: Alor, Atimelang, 750 m alt., not planted, *No. 61.* Vern. n.: *kafafi.*

Use: Bark pounded and placed on new wounds. Wood used as ridge pole of pyramidal house roofs.

Annotations: This is a stout woody climber, which does not tally with its use. It is widely distributed in the Mal. Archipelago.

Moraceae.

40. Antiaris toxicaria Lesch.

Hab.: Alor, Atimelang, rare, not planted, *No. 32.* Vern. n.: *naboe.*

Use: May be used as firewood, not used otherwise.

Annotations: The material is sterile, though the identification seems safe. The three is known from India and Malaysia, and is recorded from Kwantung (S. China) in the precincts of a temple. The chief use of it is in the latex in other islands of Malaysia as a dart poison. The famous "upas" tree about which so much exaggerated information was put forward some centuries ago.

41. Artocarpus incisus (Thunb.) L. f.

Synonyms: *Rademachia incisa* Thunb., *Artocarpus communis* Forst.

Hab.: Alor, Atimelang, 750 m alt., planted, plentiful, *No. 71.* Vern. n.: *song.*

Use: Pulp eaten raw, seed boiled with corn or meat, sap used as glue in hafting blades or arrow points.

Annotations: Possibly imported at an early date from the Pacific, now cultivated throughout the tropics.

42. Artocarpus integra (Thunb.) Merr.

Hab.: Alor, Atimelang, 750 m alt., planted and volunteer, plentiful, *No. 95.* Vern. n.: *bata song.*

Use: Pulp of fruit is eaten raw; seeds cut up and boiled with corn or meat.

Annotations: A tree of India brought by cultivation into Malaysia.

43. Ficus ampelas Burm.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 34.* Vern. n.: *ria.*

Use: Fruit boiled, eaten mixed with maize or alone.

Annotations: I have never heard of this use. In Java the leaves are only used for substitute of emery-paper. Native throughout the Archipelago.

44. Ficus callosa Willd.

Synonyms: *Ficus quadridentata* Miq.

Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 89.* Vern. n.: *wodka.*

Use: Shelled, soaked for one day boiled, mixed with maize.

Annotations: I have never heard that fruits of this species are eaten. It is a common species in Malaysia.

45. Ficus cf. infectoria Roxb.

Hab.: Alor, Atimelang, 750 m alt., rare, not planted, *No. 94.* Vern. n.: *tame.*

Use: Roots used to make women's bark cloth and loin clothes.

Annotations: A large tree throughout India and Malaysia. The fibre was used for clothing also in Celebes.

46. Ficus variegata L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 51.* Vern. n.: *kaboeti.*

Use: Inner bark used to make bark cloth for women's loin cloth. Sap used to smear in cracks of spit kettle drums (mokos) to tighten them up.

Annotations: A big tree throughout India and Malaysia. In the eastern parts of the Archipelago cloth is made from the bark.

47. Ficus sp.

Hab.: Alot, Atimelang, 750 m alt., not planted, *No. 16.* Vern. n.: *firng.*

Use: Inner bark used for bow strings.

Annotations: The material of this apparently climbing species is insufficient for identification.

Moringaceae.

48. Moringa oleifera Lamk.

Hab.: Alot, Atimelang, 750 m alt., planted, rare, *No. 56.* Vern. n.: *matóling.*

Use: Leaves mixed with maize or meat and boiled.

Annotations: The horse-radish tree is wild in N. India and now spread in cultivation throughout the tropics.

Musaceae.

49. Musa paradisiaca L.

a. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 78.* Vern. n.: *foe miha.*

Use: Fruit roasted or boiled, not eaten raw! Flowers are eaten boiled.

b. Hab.: Alor, Atimelang, 750 m alt., planted, plentiful, *No. 79.* Vern. n.: *mosa kang or balej.*

Use: Fruit boiled or roasted, not eaten raw. Skins fed to pigs. Flowers not eaten.

c. Hab.: Alor, Atimelang, 750 m alt., plentiful, *No. 80.* Vern. n.: *farang.*

Use: Fruit roasted or boiled, not eaten raw. Flower boiled and eaten.

d. Hab.: Alor, Atimelang, 750 m alt., planted, plentiful, *No. 87.* Vern. n.: *kala miha.*

Use: Fruit eaten boiled, or roasted, not eaten raw. Flowers not eaten.

e. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 88.* Vern. n.: *marang.*

Use: Fruit roasted or boiled, sometimes eaten raw. Flowers eaten either boiled or raw.

f. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 93.* Vern. n.: *kapalata.*

Use: Fruit boiled or roasted, not eaten raw. Flowers eaten boiled.

Annotations: Banana is cultivated so widely that the origin of the cultigen races cannot be traced any more.

Palmae

50. Areca Catechu L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 24.* Vern. n.: *foe.*

Use: Fruits chewed with sirih and lime. Usually ¼ of the nut is considered a portion for one chew.

Annotations: Assumed to be of Malaysian origin, now established in cultivation as far as Formosa and S. China, Madagascar, East Africa, Fiji. Furnishes the betèl nut, indispensable in chewing sirih.

51. Arenga ?pinnata (Wurmb) Merr.

Synonyms: *Arenga saccharifera* Labill.

a. Hab.: Alor, Atimelang, 750 m alt., rare, *No. 72.* Vern. n.: *toeok.*

Use: Leaves used to weave small containers in which rice is cooked for feasts. Midribs of leaves used for brooms (modern). Fibres used for tinder in strike-a-lights.

b. Hab.: Alor, Atimelang, 750 m alt., rare, one tree in valley, not planted, *No. 50.* Vern. n.: *kamoeri.*

Use: Bark used as rope material in house building, rat traps, etc.

Annotations: The material is sterile and might also belong to *A. obtusifolia* Mart. It is peculiar that no mention is made of collecting

palm sugar or toddy from this species. The native name "toeok" suggests that toddy is made from its tapped juice. The species occurs throughout Malaysia, both wild and planted.

Piperaceae.

52. Piper betle L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, *No. 33.* Vern. n.: *meting.*

Use: Catkin chewed with *Areca* or tabaco and lime. Leaves only chewed when no catkins are available.

Annotations: This climbing pepper, the common "sirih" is a native of Malaysia, Madagascar and East Africa.

Rutaceae.

53. Citrus aurantifolia (L.) Swingle.

Hab.: Alor, Atimelang, 750 m alt., plentiful (?), planted, *No. 31.* Vern. n.: *moeri.*

Annotations: One of the commonest cultivated limes, cultivated throughout Malaysia, certainly introduced.

54. Citrus hystrix DC.

Hab.: Alor, Atimelang, 750 m alt., very rarely planted, *No. 10.* Vern. n.: *ati moeri* (= salt citrus fruit).

Use: Leaves pounded with salt or lombok, and used as seasoning. Recently introduced from the coast.

Annotations: A very distinct species, certainly introduced in Malaysia.

Sapindaceae.

55. Schleichera oleosa (L.) Merr.

Synonyms: *Schleichera trijuga* Willd.

Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 25.* Vern. n.: *kálang.*

Use: Fruit eaten boiled. Recently introduced from the coast.

Annotations: Deciduous tree in distribution apparently bound to a climate with a dry season, native in S.E. Asia and S.E. Malaysia, not occurring in Sumatra, Borneo and the Malay Peninsula.

Solanaceae.

56. Capsicum annuum L.

a. Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 41.* Vern. n.: *loekai foka* (foka = large).

Use: Mashed with salt and used as seasoning. Imported from the coast in the last 3—4 years.

b. Hab.: Alor, Atimelang, 750 m alt., plentiful, planted, volunteers, *No. 42.* Vern. n.: *loekai lohoe* (lohoe = long).

Use: Fruit mashed with salt, used as relish with maize.

Annotations: The chilly plant is an annual now cultivated all round the world; originally American. Columbus himself first brought the fruit to Europe.

57. Nicotiana tabacum L.

Hab.: Alor, Atimelang, 750 m alt., planted, *No. D.* Vern. n.: *talak.*

Annotations: Tobacco is introduced from the New World and is cultivated by the native peoples throughout Malaysia.

58. Solanum melongena L.

Hab.: Alor, Atimelang, 750 m alt., rare, planted, *No. 84.* Vern. n.: *trong.*

Use: Fruit roasted or boiled with meat or corn. Often eaten with salt and lombok relish. Introduced ca. 25 years ago by a local man called kapitan Jacob.

Annotations: The egg-plant is a native of S.E. Asia, now cultivated throughout the tropics, in Malaysia already cultivated in ancient time.

Sterculiaceae.

59. Melochia umbellata (Houtt.) Stapf.

Hab.: Alor, Atimelang, 750 m alt., *No. A.* Vern. n.: *wangai.*

Annotations: A small tree or large shrub from India, and also in Malaysia widely spread, which is perhaps due to cultivation. A very fast grower of otherwise little use.

Umbelliferae.

60. Centella asiatica (L.) Urban.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 85.* Vern. n.: *tohabik.*

Use: Leaves seared and laid on navel of new-born child after umbilical cord has been cut to produce rapid healing.

Annotations: A creeping weed, widely distributed throughout the tropics with an extensive medicinal reputation in Malaysia.

Zingiberaceae.

61. Kaempferia galanga L.

Hab.: Alor, Atimelang, 750 m alt., plentiful, not planted, *No. 82.* Vern. n.: *tohoe.*

Use: Tubers are boiled with corn, or made into a gruel to drink. Roots also pounded into a paste and smeared on wounds morning and evening. This last medical use is combined with magical properties and is owned by one individual.

Annotations: A herb from India and cultivated throughout Malaysia.

22. ON THE DATE OF PUBLICATION OF BLUME'S "PLANCHES INÉDITES".

In the library of the Rijksherbarium, Leyden, I found by chance an advertisement of Blume's "Planches Inédites" which, to the knowledge of Danser (Blumea 3 (1939) 203—211, specially p. 402, 410) were offered for sale only since 1897 by the booksellers "Burgersdijk & Niermans" who in that year bought them from Van der Hoek's. It was assumed that Van der Hoek never offered them for sale.

In a copy of Blume's "Enumeratio" (former property of P. W. Korthals) I found a notice of Van der Hoek's, however, printed on the back of "Pl. Inédit t. VII B" which runs: "*Oeuvres de feu de Mr. C. L. Blume*". "*Dans le Magasin Van der Hoek Frères Libraires à Leide, sont encore à avoir un petit nombre d'exemplaires de ...*", and then follows a complete list of the fascicles of Flora Javae, Rumphia, Museum Botanicum, Bijdragen tot de Flora van Nederlandsch Indië, Naamlijst der gewassen &c, Enumeratio plantarum Javae &c., several separate sets, the uncoloured edition, separate parts, &c. Among these is also mentioned:

"*Quelques exemplaires, d'un Cahier de 23 planches coloriées inédites savoir: Loranthae pl. 29—32. — Filices, pl. 95 et 96. — Rhododendron, pl. 1—VII c. — Amphicalyx, pl. 9 — Gaultheria, pl. 13—15. — Vaccinium, pl. 19, 20, 23 et 24. Sans texte. ..... fl. 2.50*"

Somebody wrote in ink in the margin left of it: "*NB*" to draw attention, and sent the advertisement to someone else, possibly Korthals, as at the bottom of the advertisement is written in the same handwriting: "*Amice, in dit cahier komt pl. 95 en 96 der Filices voor, zijnde niet verder vervolgd*" (My Friend, in this "cahier" pl. 96 and 97 are present of the Filices, which have not been continued).

The date of publication (issue) is now narrowed to after 1862 (Blume's death) and before 1897 when Burgersdijks &c. bought the copies from Van der Hoek's. Much depends on the identification of the handwriting. In Leyden, through the care of the Staff, mostly Miss Koster's and Dr Van Ooststroom's many specimens of handwriting have been collected, and it appears that Buese's handwriting is very much the same as the one sought after. Buese died 1888; Korthals to whom the advertisement might have been addressed died 1892.

In each case it appears that Blume's Planches Inédites were offered for sale by Van der Hoek long before 1897, and later than 1862.

Through the care of Mr A. de Groot, of Van der Hoek's, a certain number of copies could be located in the store-house of the firm. Thanks to the generous offer of Mr de Groot these have been presented to botanical libraries; the remainder of the stock will be preserved in the Rijksherbarium, Leyden.

PS. Dr Venema informed me that a copy of the advertisement is also present in the library at Wageningen Agricultural College, probably formerly in the possession of Dr Valckenier Suringar. In the Catalogue of the Intern. Colonial Exhibition, Amsterdam, 1883, an entry refers (l.c. p. 130) to an exhibited copy of the Flora Javae including the inedited plates which pushes at least the date back to 1883 (cf. Natuurwet. Tijdschr. Ned. Ind. 101, 1941, 316).