The Kanehira-Hatusima 1940 Collection of New Guinea Plants. V.

R. Kanehira & S. Hatusima: Apocynaceae

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In this paper we propose to enumerate all the plants belonging to the *Apocynaceae* which were collected in the 1940 expedition. We actually secured 30 species representing 14 genera; two collections are sterile or too imperfect to study. In New Guinea, about eighty species are known representing 28 genera; thus our collection contains nearly one half of known Papuan species of the family. The *Apocynaceae*, so far as the localities we explored are concerned, is most abundantly represented at low altitudes the number of species diminishing at higher altitudes. Among the most prevailing genera of the family were *Alyxia* and *Parsonsia*, the former especially rich in high mountains and most of the species being endemic. As to growth-forms of the *Apocynaceae*, the liana and scandent shrubs were most predominant and no arboreous plants are represented except in *Alstonia*, *Rejoua*, *Cerbera*, *Ochrosia*, *Lepiniopsis*, *Voacanga* and *Rauwolfia*, these being medium-sized or small tree. Of the useful plants, the bark of *Ichnocarpus frutescens* and *Alstonia scholaris* are utilized by the Papuans, the former being called "Pipisa" and the latter "Ditain".

We must thank Dr. E. D. MERRILL for assistance in checking our identifications and giving us many important suggestions. The cost of this research has been defrayed from the Scientific Research Expenditure of the Department of Education.

Alstonia scholaris (LINN.) R. BR. in Mem. Wern. Nat. Hist. Soc. 1 (1811) 76; K. SCHUM. et LAUTB. Fl. Deutsch. Schutzg. Südsee (1901) 501; MARKGF. in ENGL. Bot. Jahrb. 61 (1927) 177.

No. 13275 KANEHIRA-HATUSIMA, Momi, March 3, 1940. Fairly common in rain forests at low altitudes. A very large tree, 2 m. in diameter, 30 m. in height.

Distrib. India through Malaya to the Philippines and northern Australia.

Alyxia arfakensis KANEHIRA et HATUSIMA sp. nov. Fig. 1.

Frutex scandens vel erectus, ramis subtriquetris griseis, ramulis triquetris, circ. 2 mm. crassis, ternatim verticillatis, glabris, verruculosus;

Fig. 1. *Alyxia arfakensis* KANEH. et HATUS.
(no. 13717) $\times \frac{2}{3}$.

Fig. 2. *Alyxia punctata* KANEH. et HATUS.
(no. 13466) $\times \frac{2}{3}$.

internodiis 1.5–2 cm. longis. Folia petiolata ternatim verticillata, inter se subaequalia, firme coriacea, glabra, oblanceolata vel anguste obovata, circ. 2–4 cm. longa (plerumque 3 cm.), 0.5–1 cm. lata (plerumque 1 cm.), apice breviter obtuse acuminata vel obtuse acuta, basi angustata glabra, margine leviter anguste recurvata, costa media supra valde impressa, subtus elevata, nervis lateralibus supra leviter elevatis, subtus obsoletis; petiolo 3–5 mm. longo, glabro. Flores ignoti.

Infructescentiae axillares, bifurcatae, 1–1.5 cm. longae, mericarpiorum articulo 1, ellipsoideo, 1–1.3 cm. longo, 7 mm. crasso, apice apiculato, stipite 1–1.5 mm. longo; pedunculo verruculoso, 5–7 mm. longo, 1 mm. crasso, pedicello circ. 3 mm. longo, 0.8 mm. crasso. Lobi calycis sub fructu anguste triangulares, apice acuti, margine ciliati, extus glabri, circ. 1 mm. longi.

No. 13717 KANEHIRA-HATUSIMA, Angi, Arfak Mts., April 6, 1940. In spinneys on the open summit of

Mt. Koebre at 2,300 m. altitude. A scandent shrub, about 1 m. high. This may be contrasted with *Alyxia semipallescens* F. v. MÜLL. from south-eastern New Guinea.

***Alyxia pugio* MARKGF. in ENGL. Bot. Jahrb. 61 (1927) 182.**

Ad descriptionem addenda; Mericarpia 1-2, ellipsoidea circ. 1.3 cm. longa, 1 cm. lata, glabra.

No. 12307 (fl.), No. 12304 (fr.) KANEHIRA-HATUSIMA, Dallmann, March 1, 1940. In *Agathis*-forests at about 500 m. altitude. A scandent shrub.

Distrib. North-eastern New Guinea.

***Alyxia punctata* KANEHIRA et HATUSIMA sp. nov. Fig. 2.**

Frutex scandens, ramis cinerascentibus, ramulis gracilibus, 1-2 mm. crassis, subtriquetris, junioribus primo sparse pilosulis mox glabris, internodiis circ. 2 cm. longis. Folia ternatim verticillata, coriacea, elliptica vel obovato-elliptica, 2-4 cm. longa, 1.2-2 cm. lata, apice obtusa, basi cuneata, supra primo in parte inferiore sparse pilosula demum glabra, nitidula, subtus opaca dense fuscescenti-punctata, nervis lateralibus utrinque obsoletis, costa media supra leviter, subtus vix elevata, petiolo 3-5 mm. longo, 1-1.3 mm. crasso, supra sulcato primo sparse albidopilosulo. Flores ignoti. Infructescentiae axillares circ. 1 cm. longae, paucae ramosae, pedunculo circ. 6 mm. longo, 1 mm. crasso, dense puberulo, pedicello circ. 5 mm. longo, 1 mm. crasso, puberulo. Mericarpiorum articulus 1, ellipsoideus, circ. 1.5 cm. longus. 1 cm. latus, apice basique albo-pilosulus, stipite 2 mm. longo, 1 mm. crasso. Lobi calycis sub fructu ovati, apice obtuse acuti, circ. 1 mm. longi, margine ciliolati, extus pilosuli.

No. 13717a KANEHIRA-HATUSIMA, Angi, Arfak Mts., April 6, 1940. In spinneys on the summit of Mt. Koebre at 2,400 m. altitude.

The species is well characterized by its small elliptic obscurely nerved leaves densely punctate beneath and also by its large fruits pilose at both ends which indicate pubescent ovaries. The plant may be referable to *Alyxia subalpina* MARKGF.

***Alyxia purpureoclada* KANEHIRA et HATUSIMA sp. nov. Fig. 3.**

Frutex scandens glaber, ramulis subtriquetris, 2-3 mm. crassis, glabris, purpurascens, lucidusculis, lenticellis cinerascentibus sparse obtectis. Folia ternatim verticillata, oblongo-ob lanceolata, apice breviter obtuse acuminata vel obtuse cuspidata, basi sensim angustata, 5-10 cm. longa, 1.5-3 cm. lata, coriacea, utrinque nitidula, concoloria, nervis lateralibus numerosis, parallelis, utrinque distinctis, petiolo 5-10 mm. longo, 1-1.5 mm.

crasso. Inflorescentiae axillares, paniculatae, circ. 3 cm. longae, 2 cm. latae, pedunculo 1–1.5 mm. longo, 1 mm. crasso, bracteolae membranaceae, navi-

Fig. 3. *Alyxia purpureoclada* KANEH. et HATUS. (no. 13466)
× ½.

A Branchlet with flowers and fruit
B Flower × 5. C Corolla expanded × 7.

culares, circ. 0.8 mm. longae, glabrae; flores glomerati, parvi, subsessiles. Calyx 1 mm. longus, 1.5 mm. latus, lobis ovatis, 0.7 mm. longis, extus glabris, apice acutis. Tubus corollae cylindricus, circ. 2 mm. longus, 1 mm. latus, intus glaber, lobis late ovatis, circ. 0.6 mm. longis. Stamina in tertia parte longitudinis tubi sub fauce inserta. Antherae longe apiculatae, circ. 1 mm. longae, filamentis subduplo longiores. Mericarporum articulus 1, ellipsoideus, circ. 1 cm. longus, 6 mm. crassus, glaber.

No. 13466 KANEHIRA-HATUSIMA, Angi,

Arfak Mts., April 6, 1940. In spinneys on the summit of Mt. Koebre, at 2,400 m. altitude.

This is well characterized by its shining purpurascens branchlets, large coriaceous leaves with numerous lateral nerves distinctly elevated on both surfaces, and by its very small subsessile flowers.

***Alyxia Pullei* MARKGF.** in Nova Guinea 14 (1926) 281 et ENGL. Bot. Jahrb. 61 (1927) 186.

Ad descriptionem addenda: Mericarpi 2 vel 3, ellipsoidea, circ. 1.1 cm. longa, 7–8 mm. lata, glabra.

No. 13717 KANEHIRA-HATUSIMA Angi, Arfak Mts., April 6, 1940. In spinneys on the summit of Mt. Koebre at 2,400 m. altitude. An erect shrub.

Distrib. Endemic.

Alyxia lata MARKGF. in ENGL. Bot. Jahrb. **61** (1927) 182.

No. 13325 KANEHIRA-HATUSIMA, Waren, 60 miles south of Manokwari, March 31, 1940. In strand forests, scandent.

Distrib. Kei Island. The type from Miosnom Island in Geelvink Bay.

Clitandropsis novo-guineensis (WERNH.) S. MOORE ex MARKGF. in Nova Guinea **14** (1926) 279; ENGL. Bot. Jahrb. **61** (1927) 174. Fig. 4.

Clitandropsis papuana S. MOORE in Journ. Bot. **15** suppl. (1923) 31.

Willhghbeia novo-guineensis WERNH. in Trans. Linn. Soc. London 2 ser. Bot. **9** (1916) 108.

No. 12772 KANEHIRA-HATUSIMA, Boemi, 40 km. inward of Nabire, March 11, 1940. In primary forests at 400 m. altitude. Scandent, flower yellowish.

Distrib. Endemic.

Fig. 4. *Clitandropsis novo-guineensis* S. MOORE. (no. 12772)

A Branchlet with flowers $\times \frac{2}{3}$. B Inflorescence $\times 2$. C Flower in l. s.

Clitandropsis crassifolia KANEHIRA et HATUSIMA sp. nov. Fig. 5.

Frutex scandens, ramis teretibus, glabris, 2 mm. crassis. Folia opposita, petiolata, glabra, coriacea, elliptica vel oblongo-elliptica, utrinque glabra, nitidula, apice breviter obtuse acuminata, basi attenuata, 4–7.5 cm. longa, 2–4 cm. lata, petiolo 3 mm. longo, nervis lateralibus rectis, utrinsecus 13–15, sub angulo 70° – 85° e costa divergentibus, subtus elevatis, distinctis. Inflorescentiae axillares, multiflorae, circ. 1 cm. longae, bracteolae ovatae, circ. 1 mm. longae, margine ciliolatae, pedicello 3–4 mm. longo. Lobi calycis ovato-triangulares, apice obtuse acuti, margine fusco-ciliolati, eglandulosi, 1–1.2 mm. longi, 0.5 mm. lati, cetera ignota. Bacca ellipsoidea, circ. 4 cm.

Fig. 5. *Clitandropsis crassifolia* KANEH. et HATUS. (no. 13749)

A Branchlet with flowers $\times \frac{2}{3}$. B Branchlet with fruit.
C Flower. D Sepal. E Cross section of fruit.

longa, 2 cm. lata, intus pulpa repleta. Semina in pulpa nidulantia sparsa irregulariter subglobosa vel elliptica, plus minusve compressiuscula, supra rugosa, 7–8 mm. longa, testa lignosa, 1 mm. crassa.

No. 13749 KANEHIRA-HATUSIMA, Angi, Arfak Mts., April 7, 1940. In primary forests near Iray, Lake Angi Giji, at 1,900 m. altitude.

This interesting liana is closely related to the preceding species which has much thinner acuminate leaves, more slender branchlets, looser and longer panicles and much shorter calyx lobes. This may also be allied to *Clitandropsis insularis* MARKG. which differs in its much larger leaves and globose fruits. The flowers of our material are young but there is no doubt as to the correctness of the generic identification.

Cerbera manghas LINN. Sp. Pl. (1753) 208; MARKGF. in ENGL. Bot. Jahrb. **61** (1927) 197.

No. 12856 KANEHIRA-HATUSIMA, Nabire, March 15, 1940. In strand forests.

Distrib. Tropical Asia through Malaya to northern Australia and Polynesia.

Ervatamia eriophora MARKGF. in Nova Guinea **14** (1926) 286; ENGL. Bot. Jahrb. **61** (1927) 200.

No. 11482 (fl.), No. 11472 (fr.) KANEHIRA-HATUSIMA, Nabire, Geelvink Bay, Feb. 24, 1940. On edge of dilluvial rain-forests at low altitudes. A shrub, 3 m. high, flowers white.

Distrib. Endemic.

Ervatamia pubescens R. BR. var. **punctulata** (WARB.) MARKGF. in ENGL. Bot. Jahrb. **61** (1927) 199.

Ervatamia punctulata (WARB.) MARKGF. var. *typica* MARKGF. in Nova Guinea **14** (1926) 285.

Tabernaemontana punctulata WARB. in ENGL. Bot. Jahrb. **13** (1891) 405.

Ervatamia montensis S. MOORE in Journ. Bot. **51**, Suppl. (1923) 32.

No. 13303 KANEHIRA-HATUSIMA, Waren, Momi, March 31, 1940. In secondary forests at low altitudes. A shrub, 2 m. high, flowers greenish white.

Distrib. Southern New Guinea, Aru Islands, Kei Islands, northern Australia (var. *eu-pubescens* MARKGF.).

Ichnocarpus frutescens (LINN.) R. BR. in Mem. Wern. Soc. **1** (1809) 62; K. SCHUM. et LAUTB. Fl. Deutsch Schutzg. Südsee (1901) 507; MARKGF. in ENGL. Bot. Jahrb. **61** (1927) 207.

Apocynum frutescens LINN. Sp. Pl. (1753) 213.

Ichnocarpus ovatifolius DC. Prodr. 8 (1844) 435.

Nos. 12881, 11739 KANEHIRA-HATUSIMA, Nabire, March 16, 1940; On edge of rain-forests at low altitudes. No. 12594 KANEHIRA-HATUSIMA, Sennen, 40 km. inward of Nabire, March 8, 1940; in rain-forest fringe at about 400 m. altitude, scandent.

Distrib. India through Malaya, Philippines to the Moluccas and Australia.

Lepiniopsis ternatensis VAL. in Ann. Jard. Bot. Buit. 12 (1895) 252, t. 28; MERR. Enum. Philip. Fl. Pl. 3 (1923) 321; MARKGF. in ENGL. Bot. Jahrb. 61 (1927) 172.

Lepiniopsis philippinensis ELM. in Leaflet. Philip. Bot. 4 (1912) 1458.

Nos. 1300 (fr.), 13253 (fl.) KANEHIRA-HATUSIMA, Waren, Momi, March 21, 1940. In dilluvial rain-forests at low altitudes.

Distrib. Eastern New Guinea, Bismarek Archipelago, Moluccas and the Philippines.

Melodinus landolphioides K. SCHUM. et LAUTB. Fl. Deutsch. Schutzg. Südsee (1901) 500; MARKGF. in Nova Guinea 14 (1926) 278; ENGL. Bot. Jahrb. 61 (1927) 172.

Melodinus monogynus sensu S. MOORE in Journ. Bot. 61, suppl. (1923) 31, non ROXB.

Neowollastonia tabernaemontanoides WERNH. ex RIDLEY in HOOK. Icon. t. 3060 (1916), Trans. Linn. Soc. London 2 ser. Bot. 9 (1916) 110.

No. 12398 KANEHIRA-HATUSIMA, Patema, 40 km. inward of Nabire, March 6, 1940. In rain-forest fringe, scandent.

Distrib. Southern New Guinea, Aru and Kei Islands.

Ochrosia ficifolia (S. MOORE) MARKGF. in ENGL. Bot. Jahrb. 61 (1927) 190.

Alstonia ficifolia S. MOORE in Journ. Bot. 61, Suppl. (1923) 32.

No. 11424 KANEHIRA-HATUSIMA, Nabire, Feb. 23, 1940. In edge of dilluvial rain-forests at low altitudes.

Distrib.

Ochrosia parviflora (FORST.) HENSLow in Ann. Nat. Hist. 1 (1838) 345; MARKGF. in Nova Guinea 14 (1926) 283, ENGL. Bot. Jahrb. 61 (1927) 191.

No. 13286 KANEHIRA-HATUSIMA, Waren, Momi, March 30, 1940. In strand forests.

Distrib. From western Malaysia to the Philippines and Micronesia.

Papuechites aambe (WARB.) MARKGF. in Nova Guinea 14 (1926) 288; ENGL. Bot. Jahrb. 61 (1927) 209.

Anodendron aambe WARB. in ENGL. Bot. Jahrb. 13 (1891) 454.

Ichnocarpus bertieroides WERNH. ex S. MOORE in Journ. Bot. **51**, Suppl. (1923) 33.

No. 12646 KANEHIRA-HATUSIMA, Slieber, 40 km. inward of Nabire, March 9, 1940. In edge of forests at low altitudes.

Distrib. Endemic.

Fig. 6. *Parsonsia dallmannensis* KANEH. et HAT.
(no. 12104)

A Branchlet with flowers. $\times \frac{2}{3}$. B Flower. C The same in l. s. D Fruits.

Parsonsia dallmannensis KANEHIRA et HATUSIMA sp. nov. Fig. 6.

Frutex scandens, ramis lignosis, fusco-cinerascentibus, circ. 3 mm. crassis, glabrescentibus, ramulis junioribus dense fusco-pubescentibus, circ. 3 mm. crassis. Folia ternatim verticillata rarius opposita, coriacea, obovato-elliptica vel late oblanceolata, 5–9 cm. longa, 1.5–5 cm. lata, apice breviter acuminata, basi obtuse acuta, margine leviter anguste revoluta, supra nitidia sparse adpresse hirsuta, subtus densiuscule fusco-hirsuta, opaca, costa media utrinque elevata, nervis lateralibus 4–5, plus minusve arcuatim adscendentibus, sub angulo 50° a costa divergentibus, reticulatis, supra impressis, subtus elevatis; petiolo 6–10 mm. longo, fusco-tomentoso. Cymae axillares densiflorae, ambitu sphaericae circ. 2.5 cm. diametro, fusco-tomentosae, pedunculo circ. 1.5–6 cm. longo, 1.5–2 mm. crasso suffultae, pedicello circ. 3 mm. longo, 0.5 mm. crasso. Corolla flava, lobis triangulari-lanceolatis, 2 mm. longis, 1 mm. latis, extus fusco-hirsutis intus glabris, tubo cylindrico circ. 4–5 mm. longo, 2 mm. lato, extus dense fusco-hirsuto fauce longe adpresse villosa. Antherae anguste sagittatae, circ. $\frac{1}{3}$ e corolla emergentes 3.5 mm. longae, 0.5 mm. latae; filamenta circ. 2 mm. longa, prope basin tubi inserta, in parte superiore albo-pilosa, inter se libera. Calycis lobi oblongo-lanceolati, circ. 3 mm. longi, 0.6 mm. lati, apice valde recurvati extus dense fusco-hirsuti, intus glabri. Ovarium glabrum, globosum, 0.5 mm. altum, squamis disci 5, glabris, oblongis, inaequilongis cinctum. Fructus pendentes cylindrici, apicem versus sensim angustati, biloculares, usque ad 8–12 cm. longi, circ. 3 mm. crassi, fusco-tomentosi.

No. 12104! (fr.), No. 12122! (fl.), No. 12065 KANEHIRA-HATUSIMA, Dallmann, 45 km. inward of Nabire, March 1, 1940. In edge of *Agathis*-forests at about 500 m. altitude.

This is well characterized by its 3-verticillate obovate to oblanceolate laevis which are densely pubescent beneath. The species may be contrasted with *Parsonsia curvisepala* K. SCHUM. which has much smaller glabrous leaves.

Parsonsia helicandra HOOK. et ARNOT. Bot. Beech. Voy. (1830) 197.

Parsonsia spiralis WALL. Cat. n. 631 (1829) nomen nudum; MARKGF. in ENGL. Bot. Jahrb. 61 (1927) 217.

No. 12880 KANEHIRA-HATUSIMA, Nabire, March 16, 1940. In strand forests.

Distrib. India to the Philippines and Formosa.

Parsonsia laevis KANEHIRA et HATUSIMA sp. nov. Fig. 7.

Suffrutex scandens glaberrimus, ramis annotinis lenticellis linearibus dense notatis, circ. 3 mm. crassis, hornotinis gracilibus, 1–1.5 mm. crassis.

Folia opposita, oblonga rarius ovato-oblonga, majora 13 cm. longa, 5 cm. lata, plerumque circ. 10 cm. longa, 3-3.5 cm. lata, chartacea vel tenuiter coriacea, in sicco flavo-brunnea, apice acuminata, basi auriculata vel rotundata, supra nitida, subtus nitidula, nervis lateralibus utrinque circ. 10, rectis, secundariis distinctis, costa media supra leviter impressa, subtus valde elevata; petiolo plerumque 1 cm. longo. Inflorescentiae axillares densiflorae unilaterales glabrae, pedunculo circ. 1.5-4.5 cm. longo, circ. 1 mm. crasso, ramis primariis 3, 1-2.5 cm. longis, 1 mm. crassis, secundariis 3-5 mm. longis. Pedicelli circ. 5 mm. longi, 0.5 mm. crassi, fusco-puberuli. Calyx 1.5 mm. longus, 2.5 mm. diametro, extus cinereo-puberulus, lobis triangularibus, 0.8 mm. longis, 1 mm. latis. Corolla albida, membranacea, lobi longe ovati apice acuti, circ. 2.5 mm. longi, 1.5 mm. lati, extus sparse puberuli, intus glabri, tubo cylindrico circ. 3 mm. longo, 2.5 mm. lato, extus sparse puberulo vel glabro, intus fauce cinereo-villoso. Antherae anguste sagittatae, 2.5 mm. longae e corolla exsertae, filamentis circ. 3 mm. longis. Ovarium ovoideum, glabrum, 1 mm. altum, squamis oblongis, glabris, circ. duplo superantur.

No. 12710 KANEHIRA-HATUSIMA, Boemi, 40 km. inward of Nabire, March 10, 1940. In edge of *Agathis*-forests at about 400 m. altitude.

This is well characterized by its oblong glabrous leaves with auriculate bases and by its glabrous inflorescences. This bears some resemblance to *Parsonsia mominensis* KANEH. et HATUS., from which it differs by its much thicker and larger oblong leaves shining on both surfaces, shorter peduncles, and different floral structure.

Fig. 7. *Parsonsia laevis* KANEH. et HATUS.
(no. 12710) $\times \frac{2}{3}$.

A Branchlet with flowers. B Flower.

C The same in l. s. D Cross section of ovary.

Parsonsia momiensis KANEHIRA et HATUSIMA sp. nov. Fig. 8.

Frutex scandens, glaberrimus, ramulis gracilibus, circ. 1.5 mm. crassis. Folia opposita, glabra, chartacea, petiolo circ. 1 cm. longo, 1 mm. crasso.

Fig. 8. *Parsonsia momiensis*
KANEH. et HATUS.
(no. 13409) $\times \frac{1}{2}$.

Lamina elliptica vel ovato-elliptica, 6.6–9 cm. longa, 2.8–3.8 cm. lata, apice acuminata, basi rotundata, margine vix revoluta, supra nitidula, subtus opaca, costa media supra plana, subtus haud elevata, nervis lateralibus utrinsecus 7 vel 8, rectis prope marginem conjunctis, utrinque vix elevatis, secundariis tertiariisque utrinque distinctis sed vix elevatis. Inflorescentiae axillares, glabrae, cymosae, multiflorae, circ. 8 cm. latae, 5 cm. longae, pedunculo 17 cm. longo, 1.5 mm. crasso suffultae, trichotome ramosae, ramis primariis circ. 4 cm. longis, 1 mm. crassis, secundariis circ. 1 cm. longis, 1 mm. crassis, tertiariis 3–4 mm. longis, 0.8 mm. crassis. Pedicelli 3–3.5 mm. longi, 0.5 mm. crassi sparse fusco-pilosuli. Calycis lobi extus sparse fusco-pilosi, late triangulares, 0.5 mm. longi, 0.5 mm. lati, apice acuti. Corolla pallide viridia, circ. 5 mm. longa, extus glabra, lobis ovato-lanceolatis, apice acutis, 3 mm. longis, 1 mm. latis, paullo longioribus quam tubo, tubo 2 mm. longo, 1.8 mm. crasso, intus in fauce villosa. Filamenta 2 mm. longa, prope basin tubi

inserta. Antherae anguste lanceolatae, 3 mm. longae, 0.5 mm. latae. Ovarium glabrum, late ovoideum, circ. 8 mm. altum, paullo longis quam squamae disci.

No. 13409 KANEHIRA-HATUSIMA, Momi, April 3, 1940. In edge of primary rain-forests; along the trail to the Lake Angi at about 300 m. altitude.

Parsonsia rubra KANEHIRA et HATUSIMA sp. nov. Fig. 9.

Frutex alte scandens, ramulis circ. 4 mm. crassis, primo adpresse ferrugineo-pilosis, mox glabrescentibus. Folia opposita, tenuiter coriacea, elliptico-oblonga vel oblonga vel obovato-oblonga, apice breviter acuminata,

basi rotundato-cuneata vel cuneata, utrinque opaca, in sicco cinereo-fuscescentia, supra glabra, subtus adpresse ferrugineo-pilosa mox glabrescentia, 8–13 cm. longa, plerumque 4 cm. lata, nervis lateralibus utrinsecus 7–9,

Fig. 9. *Parsonsia rubra* KANEH. et HATUS.

(no. 12220) $\times \frac{2}{3}$.

A Branchlet with flowers. B Fruits. C Flower. D The same in l. s.
E Stamens. F Style. G Cross section of ovary.

rectis prope marginem conjunctis, supra impressis, subtus valde elevatis, venis reticulatis subtus distinctis, supra obsoletis; petiolo plerumque 2–2.5 cm. longo. Inflorescentiae axillares, cymosae, densiflorae, circ. 6 cm. longae, pedunculo 6–7 cm. longo, 2.5 mm. crasso suffultae, adpresse ferrugineo-

pilosae, ramis primariis 3, 2 cm. longis, 1.5–2 cm. crassi, secundariis 0.5–1 cm. longis, 1.5 mm. crassis, tertiariis (pedicellis) 5–6 mm. longis, 0.8 mm. crassis. Calycis lobi extus ferrugineo-puberuli, 1 mm. alti et lati, late triangulares, apice acuti. Corolla rubra, 7–8 mm. longa, extus sparsissime puberula, intus glabra, lobis lanceolatis, 5 mm. longis, 1 mm. latis, tubo 3 mm. longo, 1.7–2 mm. crasso, intus in fauce albo-villoso. Filamenta 4 mm. longa, prope basin tubi inserta, in parte superiore albo-pilosa, inter se et cum stylo cohaerentia. Antherae longe ovatae, 4 mm. longae, 0.8 mm. latae, glabrae, apicibus breviter appendiculatis. Stigma clavatum, in basi annulatum. Ovarium glabrum, globosum, 1 mm. altum, squamis disci 5, glabris, oblongis. Fructus in pedicellis incrassatis e calycebus disciformiter dilatatis, pendentes, cylindracei, apicem versus sensim angustati, biloculares, usque ad 10 cm. longi, 8 mm. lati. Semina multa, fusiformia, 4 mm. longa, 1 mm. lata, apice coma sordida, 5 mm. longa coronata.

No. 12220 KANEHIRA-HATUSIMA, Dallmann, 45 km. inward of Nabire, March 2, 1940. In *Agathis*-forests at about 500 m. altitude.

This is well characterized by its dull leaves which are densely reticulated beneath and by its long-stalked inflorescences bearing large red flowers.

Parsonsia vaccinioides MARKGF. in ENGL. Bot. Jahrb. **61** (1927) 216.

Lyonsia albiflora GIBB, Dutch N. W. Guinea (1917) 177.

Lyonsia vaccinioides MARKGF. in Nova Guinea **14** (1926) 290.

Nos. 13460, 13656 KANEHIRA-HATUSIMA, Angi, Arfak Mts., April 6, 1940. In spinneys on the summit of Mt. Koebre. Scandent, flowers pale yellow.

Distrib. Endemic.

Parsonsia warensis KANEHIRA et HATUSIMA sp. nov. Fig. 10.

Suffrutex scandens, ramulis fusco-villoso-puberulis, circ. 2 mm. crassis. Folia opposita, ovato-elliptica, rarius ovato-oblonga, apice mucronata vel acuta vel brevissime acuminata, basi cordata vel truncato-cordata, margine vix revoluta, 3.5–8 cm. longa, 3–5 cm. lata, utrinque sparse setoso-puberula, scabra vel nitidula, in sicco brunnea, nervis lateralibus plerumque 5, $\pm$ arcuatim adscendentibus, supra impressis, subtus elevatis, venis reticulatis utraque facie distinctis, supra leviter subtus vix impressis. Inflorescentiae axillares, unilaterales, cymosae, laxiflorae, ambitu globosae, circ. 3.5 cm. diametro, fusco-villosae, pedunculo 1–1.5 cm. longo. Pedicelli plerumque 5 mm. longi, 0.5 mm. crassi. Corolla flava, lobis anguste triangularibus, 1.5 mm. longis, 1 mm. latis, intus glabris, tubo cylindrico, 5 mm. longo, 2 mm. lato, extus fauce villosa-strigosa, intus supra medium fusco-villoso. Antherae anguste sagittatae, 3 mm. longae, 0.8 mm. latae, circ. $\frac{1}{5}$ e corolla

exsertae; filamenta 3.5 mm. longa, in parte superiore pauce pilosa. Calyces cyathiformes, 3 mm. alti, 3 mm. diametro, extus adpresse fusco-strigosovillosi, lobis usque ad basin liberis, anguste triangularibus, 1 mm. latis, 2-2.5 mm. longis. Ovarium glabrum, globosum, 0.5 mm. altum; squamis

Fig. 10. *Parsonsia warencensis* KANEH. et HATUS.
(no. 13125) $\times \frac{2}{3}$.

A Branchlet with flowers. B Flower. C The same in l. s.
D Cross section of ovary. E Fruit.

disco 5, glabris oblongis, circ. 1 mm. longis. Fructus fusiformes, 9 cm. longi, 2 cm. lati; semina multa, fusiformia, 1 mm. longa, 1.5 mm. lata, coma sericea, circ. 2 cm. longa, pallide brunnea coronata.

No. 13125 KANEHIRA-HATUSIMA, Waren, Momi, March 28, 1940. Scandent, in rain-forests, limestone mountain at about 600 m. altitude.

This is most closely related to *Parsonsia cyathocalyx* MARKGF.

Rejoua aurantiaca GAUDICH. Bot. Freyc. Voy. (1826) 451, t. 61; MARKGF. in Not. Bot. Gart. Berlin-Dahlem 12 (1935) 546.

Tabernaemontana aurantiaca GAUDICH. l. c. 50; MARKGF. in Nova Guinea 14 (1926) 286; ENGL. Bot. Jahrb. 61 (1927) 201; KANEHIRA, Enum. Mic. Pl. (1935) 396.

No. 11420 KANEHIRA-HATUSIMA, Nabire, Feb. 23, 1940. Fairly common

in dilluvial rain-forests at low altitudes. A tree 5 m. high with pendant orange-red fruits.

Distrib. New Guinea and its neighbouring islands.

Rauwolfia rostrata MARKGF. in ENGL. Bot. Jahrb. **61** (1927) 188.

Nos. 11572, 11544, 12895 KANEHIRA-HATUSIMA, Nabire, Feb. 25, 1940; in rain-forests at low altitudes; a shrub, 1.5 m. high flowers yellowish white. No. 11768 KANEHIRA-HATUSIMA, Boemi, 40 km. inward of Nabire, March 11, 1940; in *Agathis*-forests at about 400 m. altitude; a shrub 1 m. high, fruits red.

We have not seen the type of the species, but our specimens cited above agree with the original description, except that the leaves are somewhat thinner and quite glabrous on both surfaces.

Distrib. Endemic, the type was from Manokwari.

Voacanga papauna (F. v. MUELL.) K. SCHUM. in ENGLER-PRANTL, Nat. Pflanzenf. **4**, 2 (1895) 149; K. SCHUM. et LAUTB. Fl. Deutsch. Schutzg. Südsee (1901) 503; MARKGF. in ENGL. Bot. Jahrb. **61** (1927) 204.

Orchipeda papuana F. v. MUELL. Desc. Notes on Pap. Pl. **2** (1886) 30.

No. 11844 KANEHIRA-HATUSIMA, Tjaban, about 30 km. inward of Nabire, Feb. 28, 1940. In edge of rain-forests at about 100 m. altitude. A tree 5 m. high, flowers white.

Distrib. Eastern New Guinea.

Clarence E. Kobuski: Studies in the **Theaceae**, IX.

Received September 27, 1941.

In the present paper are enumerated the species of *Theaceae* collected by Professor R. KANEHIRA and S. HATUSIMA in Dutch New Guinea during the year 1940. All the material used and cited in this study, with the exception of two numbers collected by L. J. BRASS of the Archbold Expedition to New Guinea, were of this collection.

The author is extremely grateful to the collectors for the opportunity to study this material.*

Gordonia ELLIS.

Gordonia papuana KOBUSKI in Jour. Arnold Arb. **21**: 136. 1940. Fig. 1.

DUTCH NEW GUINEA: Waren, 60 miles south of Manokwari, in rain

* Figures in this paper were drawn by T. MASUMI and photos were taken by M. SIGEMATU (R. K.)

forest on limestone mountain, alt. 400 m., R. KANEHIRA & S. HATUSIMA 13094, March 26, 1940 (tree 10 m. high with white flowers).

No flowering material is available for dissection but the leaves, dull on both surfaces, present sufficient evidence to separate this species from *G. Brassii* KOBUSKI.

Ternstroemia MUTIS.

Ternstroemia Kanehirai

KOBUSKI, n. sp. Fig. 2.

Frutex erectus, 3-4 m. altus, ramis griseis, ramulis verticillatis rubro-brunneis glabris. Folia obovata, verticillata, apice ramulorum congesta, 3-4 (-5.5) cm. longa et 1-2 (-3.5) cm. lata, glabra, coriacea, apice obtusa vel rotundata, basi attenuata, margine integerrima, revoluta, venis obscuris. Petiolis 0.5-1.0 cm. longis glabris. Flores dioeci, 1-2 in axillis foliorum, pedicellis glabris 4-6 mm. longis, bracteolis 2 oppositis vel suboppositis 2-3 mm. longis et ca. 2 mm. latis ovatis vel deltoideis glabris crasso-ligneis, apiculatis, margine pauce glandulo-ciliolatis; flores ♂ (KANEHIRA & HATUSIMA 14023): sepala 5, imbricata, inaequalia, concava, glabra, pergamentacea, subrotundata, 4-5 mm. longa et 3.5-4.5 mm. lata; petala 5, arctissime imbricata, vix per anthesim soluta, flore dissecto calyptratis decidua, exterioribus ca. 6 mm. longis et 5 mm. latis, interioribus ca. 6 mm. longis et 2 mm. latis; stamina ± 50 in serie unico, filamentis 1.5-2.0 mm. longis basi connatis, antheris 1.5-2.0 mm. longis, linearibus, apice basique ovatis, obovatis vel apiculatis; flores ♀ (KANEHIRA & HATUSIMA 13529): sepala 5, imbricata, inaequalia, glabra, concava, subrotundata, pergamentacea, 4-5 mm. longa et 3.5-4.5 mm. lata, exterioribus margine leviter glandulo-ciliolatis, interioribus margine scariosis; petala 5, imbricata, inaequalia, 5-6 mm. longa, exterioribus ca. 4 mm. latis et interioribus margine scariosis, ca. 2.5 mm. latis; ovarium conicum, glabrum, 4 mm. longum, basi ca. 3 mm. diam.

Fig. 1. *Gordonia papuana* KOBUSKI. (no. 13094) $\times \frac{1}{4}$.

in stylum 1 m. longum attenuatum, 2- vel 3-loculare, ovulis ca. 16. Fructus (KANEHIRA & HATUSIMA 14000) conicus, glaber, ruber, ca. 1.5 cm. longus et 1.5 cm. basi diam., seminibus 8-12 roseis ca. 7 mm. longis et 4 mm. latis.

Fig. 2. *Ternstroemia Kanehirai* KOBUSKI.

DUTCH NEW GUINEA: Angi, Arfak Mts., in forest on the eastern ridge running up to Lake Gita, alt. 2000 m., R. KANEHIRA & S. HATUSIMA 13529 (type, AA), April 5, 1940 (shrub 4 m.).—Angi, Arfak Mts., in low spinneys on the open summit of Mt. Koebre, alt. 2200-2300 m., R. KANEHIRA & S. HATUSIMA 13720, 14000, 14023, April 6-9, 1940 (shrub 3 m.).

This new species presents the following outstanding characteristics:

1. The verticillate arrangement of both branchlets and leaves.
2. The ovary in the pistillate flower approximately eight ovules in each cell and the fruit shows four seeds in each locule.
These characters separate *T. Kanehirai* from all other species known in New Guinea.
3. The unusually small flowers.
4. The petals of the staminate flowers are so closely imbricated at anthesis that it is necessary to tease them out very carefully in dissection. After boiling the flowers for dissection, it was noted that the closed corolla (with stamens within) always dropped off,

simulating a calyptra; however, no evidence of an ovary could be detected. Strangely enough, no staminate flowers in any stage were seen with spreading or even open petals, though in many instances the sepals were found spreading or lying open.

It is a pleasure to name this species in honor of Professor R. KANEHIRA, the senior member of the collecting trip to Dutch New Guinea, of which these specimens are a small part.

***Ternstroemia sphondylophora* KOBUSKI** in Jour. Arnold. Arb. **21**: 150. 1940. Fig. 3.

DUTCH NEW GUINEA: Angi, Arfak Mts., in low spinneys on burned open summit of Mt. Koebre, alt. 2300 m., R. KANEHIRA & S. HATUSIMA 14025, April 9, 1940 (shrub 2 m.).

Fig. 3. *Ternstroemia sphondylophora*
KOBUSKI. $\times \frac{1}{4}$ (no. 14025)

The verticillate angled branchlets and the small verticillate, spatulate leaves are the distinguishing characters of this species. In the specimen cited above, the leaves are generally narrower (0.5 cm. wide) than the specimens cited under the original description (0.5–1.2 cm. wide).

***Eurya* THUNBERG.**

***Eurya Kanehirai* KOBUSKI, n. sp.**

Frutex vel arbor parva, 4 m. alta, ramulis teretibus brunneis, hornotinis pubescentibus. Folia membranacea, lanceolata vel oblongo-ovata, 7–10 cm. longa et 2–3 cm. lata, supra glabra, subtus (costa) sparse pubescentia, apice acuminata basi cuneata in petiolum parvum (2–3 mm. longum) pubescentem attenuata. Flores dioeci, 1–2 in axillis foliorum, pedicellis 1.0–1.5 mm. longis sparse hirsutis, bracteolis 2 hirsutis inaequalibus minutissimis 1 mm. vel minus longis apiculatis; flores ♂ (KANEHIRA & HATUSIMA 14231): sepala 5, imbricata, inaequalia, hirsuta, deltoideo-obtusa, parva, ca. 1 mm. longa et 1.5–1.7 mm. lata, vix concava, margine non glandulosa; petala 5, imbricata, parva, oblonga, inaequalia, ca. 2.5 mm. longa et 1.0 mm. lata, basi connata; stamina

5, cum petalis alternata, filamentis antherisque ca. 1 mm. longis; pistillodio glabro lineare ca. 1 mm. longo; flores ♀ (KANEHIRA & HATUSIMA 12929): sepala 5, parva, imbricata, inaequalia, hirsuta, obtusa ca. 1 mm. longa et

Fig. 4. *Eurya Kanehirai* KOBUSKI.

1.5 mm. lata; petala 5, imbricata, inaequalia, ca. 3 mm. longa; ovarium globosum, glabrum, ca. 1 mm. vel minus longum, 4-loculare, multiovulatum; stylus parvissimus, minus quam 0.5 mm. longum, apice 4-partitum, stigmatibus recurvatis. Fructus parvus, globosus 3 mm. diam., 4-locularis.

DUTCH NEW GUINEA: Waren, sixty miles south of Manokwari, in forest on dry hill, alt. 300 m., R. KANEHIRA & S. HATUSIMA 12929 (♀ type), March 21, 1940 (4 m. high).—Waren, sixty miles south of Manokwari, in open forest on dry hill, alt. 200 m., R. KANEHIRA & S. HATUSIMA 14231 (♂), April 19, 1940 (4 m. high).

The acuminate, membranaceous leaves, the five stamens in the staminate flowers, the four-celled ovary and four-parted style and the very short sepals and petals all help to distinguish *E. Kanehirai* from the other Papuasian species.

Cited here dubiously might be KANEHIRA & HATUSIMA 13028 and 13134. Both numbers, according to the collectors, were collected at Waren, the same locality as the two specimens 12929 and 14231 cited under the species. However, 13028 and 13134 were collected at sea-level and belong to the strand forests, while 12929 and 14231 were collected on dry hill-sides at 300 and 200 m. altitude. Number 13028 has staminate flowers which agree with 14231 in size of pedicels, bracteoles, sepals, petals and stamens (5). The leaves are shorter and less acuminate. Number 13141 has pistillate flowers which agree with the type, no. 12929 in flowering parts, including the four-parted style and four-celled ovary and fruit. Here, the leaves vary more than those of 13028 in that they are smaller, obovate and more serrulate.

This species is named for Professor R. KANEHIRA of the Kyusyu Imperial University, the senior collector of the above-mentioned herbarium material.

Fig. 5. *Eurya Groffii* MERR. $\times \frac{1}{4}$.
(no. 13764)

Eurya Groffii MERRILL in Philipp. Jour. Sci. 25: 247.

1919.—KOBUSKI in Jour. Arnold Arb. 21: 155. 1940. Fig. 5.

DUTCH NEW GUINEA: Angi, Arfak Mts., in forest near Iray, Lake Giji, alt. 1900 m., R. KANEHIRA & S. HATUSIMA 13764, April 7, 1940 (8 m. high).

Eurya tigang SCHUMANN & LAUTERBACH, Fl. Deutsch. Schutzgeb. Südsee, 44. 1901.—DIELS in Bot. Jahrb. 57: 434. 1922.—KOBUSKI in Ann. Missouri Bot. Gard. 25: 347. 1937; Jour. Arnold Arb. 21: 161. 1940.

DUTCH NEW GUINEA: Angi, Arfak Mts., in forest on the eastern ridge running up to Lake Gita, alt. 1800 m., R. KANEHIRA & S. HATUSIMA 13462, April 5, 1940 (tree 10 m.).

***Eurya longisepala* KOBUSKI, n. sp.**

Arbor gracilis, 4–5 m. alta, ramulis teretibus brunneis hornotinis sericeis. Folia coriacea, lanceolata, 9–13 cm. longa et 2–3 cm. lata, apice acuminata, basi cuneata et abrupte in minutum petiolum attenuata, lamina supra glabra, lucida, subtus indumento ad apicem laminae verso, laxè adpresso vel accumbente sericeo-pubescente, costa indumento sub angulo 45° patente more proprio hirsuta, margine serrulata, revoluta. Flores dioeci, 1–4 in axillis foliorum, pedicellis 2–3 mm. longis dense hirsutis, bracteolis 2 deltoideis dense hirsutis 2–4 mm. longis et 2–3 mm. latis; flores ♂ (BRASS 11454): sepala 5, imbricata, ovata, concava, inaequalia, exterioribus 2 dense pubescentibus ca. 5 mm. longis et 2.5–3.0 mm. latis, pergamentaceis, margine glandulosis, interioribus 3 glabris 4.5–5.0 mm. longis et 2.5–3.0 mm. latis, margine scariosis (non glandulosis) membranaceis; petala 5, imbricata, alba, 5–6 mm. longa et 3–4 mm. lata, basi connata; stamina 5, cum petalis alternata, ca. 5 mm. longa, filamentis ca. 3 mm. longis + 1 mm. crassis, antheris late sagittatis ca. 2 mm. longis; pistillodio oblongo, ca. 5 mm. longo, apice acuminato; flores ♀ (BRASS 11560A): sepala 5, imbricata, ovata, concava, inaequalia, exterioribus 2 dense pubescentibus 5.5–6.0 mm. longis et ca. 3 mm. latis apice apiculatis, margine glandulosis, interioribus 3, glabra vel subglabris ca. 4.5 mm. longis et 2.5 mm. latis, margine scariosis (non glandulosis); petala 7, imbricata, oblonga, 5–6 mm. longa et 2.0–2.5 mm. lata, recurvata, apice rotundata, ad medio connata ovarium non visum. Fructus glaber, globosus, ca. 7 mm. diam., 5-locularis, multi-seminatus; stylo minutissimo (1 mm. vel minus longo) apice 5-partito; stigmatibus 5 recurvatis.

DUTCH NEW GUINEA: Bele River, eighteen kilometers northeast of Lake Habbema, frequent in second growth forest, alt. 2350 m., L. J. BRASS 11560A (♀, AA, type), Nov. 1938 (slender tree, 4–5 m. high).—Bale River, eighteen kilometers northeast of Lake Habbema; common in low second growths, alt. 2350 m., L. J. BRASS 11454 ♂, Nov. 1938 (flowers white).

The long ovate sepals, the seven petals of the pistillate flower joined for approximately one-half their entire length, the five sagittate stamens and thickened filaments of the staminate flower, plus the unusual pubescence of the leaves (loosely appressed or accumbent on the leaf-blade, directed toward the apex; spreading at an angle of forty-five degrees on the midrib) are the outstanding characters of this new species.

In an earlier paper, these two Brass numbers, 11560A and 11454A were cited dubiously under *Eurya tigang* LAUTERB. However, subsequent study of new material shows that a new and very distinctive species is represented.

ニューギニアノ植物研究 (V) (和文摘要)

金 平 亮 三
初 島 住 彦

夾竹桃科

今回我々が採集シタ夾竹桃科植物ハ 14 屬 30 種 (内 2 種ハ不完全ニテ未鑑定) デ、從來 **ニューギニア** ヨリ知ラレタ 28 屬 80 種 (栽培品ヲ除ク) ニ比シ略半數ニ過ギナイガ 9 種即チ採集品ノ約 3 割強ノ新種ガアリ、**ニューギニア** ノ植物調査ガ如何ニ不充分デアルカガ判ル (之ノ事實ハ他ノ科デハ更ニ著シク、8~9 割ノ新種ヲ有スル科サヘモアル)。

ニューギニア 産ノ夾竹桃科ハ低地林ニ最モ種類ガ多ク、中高地、高地ニ行クニツレ特種ノ屬ヲ除ク外減少シテキル。屬トシテ種類ニ富ムノハ *Alyxia* 及 *Parsonsia* ノ 2 屬デ、殊ニ前者ハ高地帯ニ於イテ著シク分化發達シ、ソノ種類ニ富ミ、且ソノ種子ハ後者ノ如ク風ニヨツテ遠ク散布サレルコトガナイノデ未踏査ノ多クノ孤立峯ニハ未記録ノ固有種ガ尙多數アルモノト考ヘラレル。從ツテ將來 **ニューギニア** ノ夾竹桃科ノ種類ハ主トシテ本兩屬ニヨツテ増加スルモノト想像サレル。

生活型トシテハ蔓性ノモノガ斷然多ク、大喬木トナリ森林ノ上層樹冠ノ形成ニ與ルモノハ只 *Alstonia* 屬ダケデアル。中喬木トシテハ低地林殊ニ海岸ニ近イ沖積層上ノ河岸林ニ *Rejona aurantiaca* GAUD., *Cerbera manghas* L., *Ochrosia parviflora* HENSL., *Lepiniopsis ternatensis* VAL. 等ガ見ラレ、内前三者ノ果實ハ海流ニヨツテ搬バレル關係上各地ノ海岸附近ノ森林内ニ普通デアル。*Rejona aurantiaca* GAUD. ハ *Nabire* 附近ノ低地林内ニ普通デ暗イ密林内ニ柿色ノ大キナ果實ヲ下垂シ美麗デアル。又 *Nabire* 奥ノ河岸林ノ林縁ニハみふくらぎニ似タ白イ大キナ花ヲ着ケル小喬木 *Voacanga papuana* MGF. ヤ、白色ノ美花ト壺狀ヲシタ木質ノ大キナ果實ヲ下垂スル *Melodinus* ヤ、美シイ紅イ花ヲ着ケルさかきかづら近縁ノ *Papuechites* 等ノ藤本ガ見ラレ、密林内ニ入レバ高サ 1 米内外デ小サナ赤イ實ヲ下垂スル可憐ナ *Rauwolfia rostrata* MGF. ガ稀デナイ。潮風ノ衝ル海岸林ニハ *Ochrosia parviflora* HENSL., *Cerbera manghas* L. ノ 2 種ガ各地ニ見ラレル。又 *Waren* 北方海岸ノ岩場ニハ *Alyxia lata* MGF. ガ見ラレル。

中高地ノ稍乾イタ所、例ヘバ *Agathis*, *Dacrydium*, *Podocarpus* 等ノ針葉樹類ガ現ハレル海拔 500~600 米ノ *Dallmann* 地方デハ *Alyxia* (1 種), *Parsonsia* (2 種), 海拔 400 米位ノ尾根筋ニアル *Boemi* 地方デハ *Parsonsia* (1 種) ヲ採集シタニ過ギナカツタガ、海拔 1900~2400 米ノ *Angi* 湖附近ノ硬葉樹林デハ *Parsonsia* (1 種), *Alyxia* (4 種), *Clitandropsis* (1 種) ヲ採集シタ。

利用方面カラ見ルト本科ノ植物ニハ格別重要ナモノハナイガ、藤本トナル *Ichnocarpus frutescens* R. BR. ハ至ル所ノ低地林ニ饒産シ、ソノ樹皮ノ纖維ハ強靱デ土人ハ之ヲ *Pipisa* 纖維ト稱シ相當利用シテキル。*Momi* 附近ノ低地林ニ多イ *Alstonia*

scholaris R. BR. ハ熱帯**アジア**ニ廣ク分布シ、高サ 30 米以上ニモ達スル大喬木デ、ソノ材ハ室内建築用材トシテ適當シ、樹皮ハ慢性下痢、赤痢等ノ特效藥ト稱セラレ *Ditain* ナル名前デ呼バレテキル。乳液モ多イノデ彈性ゴムモ相當採レルシ又本屬ノ或ル種類ノ根部カラハ有名ナ輕軟材ガトレルノデ將來之等ニ就テモ充分研究ノ必要ガアラウト思ハレル。*Cerbera*, *Ochrosia*, *Lepiniopsis* 等ハ大材ハナイガ、材質ハ緻密デアルカラ室内ノ建築材トシテ相當利用出來ルト思ハレル。

最後ニ今回ノ採集品中特筆スベキ種類ニ就キ述ベテ見ル。

Clitandropsis crassifolia KAN. et HAT. 本屬ハ從來 2 種 (1 種ハ南洋群島**パラオ**産) 知ラレテキタガ、今回第三番目ノ種類ヲ海拔 1900 米附近ノ *Angi* 男湖畔ノ森林内デ採集スルコトガ出來タ。本種ハ**ニューギニア**ノ中高地ニ廣ク分布スル *Cl. novoguineensis* MOORE ニ近イガ小枝ハ太ク、葉ハ著シク厚ク、花序ハ短カク且密デ、萼片ガ著シク長イ點デ容易ニ區別出來ル。我々ノ標本ハ花ガ蕾デ十分ナ解剖ガ出來ナカツタガ、立派ナ果實ガアルノデ屬ノ鑑定ニハ間違ナイト信ジテ居ル。

Rauwolfia rostrata MGR. 本種ノ type ハ *Manokwari* 附近デ採集サレタモノデ、ソノ原標ヲ我々ハ見テキナイガ、我々ノ採集品ハ原記載トヨク一致スルノデ同一物ト同定シタガ、只我々ノ採集品デハ葉ハ稍薄ク、初メカラ全然無毛 (彼ハ微毛) ナル點ガ異ナツテキル。原記載ハ果實ノ標本ニヨツタモノデ花ノ記載ガナイカラ果シテ同一物デアルカドウカ多少ノ疑問ヲ有シテ居ル。

コブスキー氏—つばき科

ニューギニア採集ノつばき科植物ハ本科ノ専門家**アーノルド**樹木園**コブスキー**氏ニソノ鑑定ヲ依頼シタ處我々ノ採集品以外ニ**アーチボルド**探險隊ノ採集家**プラス**氏ノ採集品ノ一部ヲ加ヘテ本報告ガ送ツテ來タノデ本誌ニ發表スルコトニシタ。我々ノ採集シタつばき植物ハ合計 11 種アツテソノ内 4 種ハ材料不足ノ爲先方ニ送ツテキナカツタ、之等ハ更ニ同氏は依頼シ同ヲ改メテ本誌ニ發表スル豫定デアル。

ニューギニア産ノつばき科デ最モ種類ノ多イノハひささき屬、もくこく屬デたいわんつばき屬ハ只 2 種知ラレテキルノミデアル。

Gordonia papuana KOBUSKI 本種ハ**ワーレン**北方ノ石炭岩ノ山デ、海拔 400 米位ノ乾イタ森林内ニ多イ小喬木デ直徑 3 輊位ノ白色花ヲ着ケ極メテ美麗デアル。

Ternstroemia Kanehirai KOBUSKI 本種ハ**アング**湖附近ノ尾根筋ノ疎林内ニ極メテ普通ナもくこくノ一種デ極メテ特徴ノアル種類デアル。即チ小枝及葉ハ輪生シ、雌花ノ子房ニハ 8 個ノ卵子ガアリ、果實ハ 8-12 個ノ種子ヲ有シテキル。又花ハもくこく類トシテハ極メテ小サク、雄花ノ花瓣ハ開花中密ニ重リ合ツテ煮沸スルトキハバラバラトナルコトナク冠帽狀トナツテ取レル特徴ガアル。亦本種ノ雄花デハ萼ガ完全ニ開イテキル時デサエ花瓣ガ閉鎖シテキルノハ不思議デアル。

T. sphondylophora KOBUSKI 本種ハ最近英領**ニューギニア**ニ近イ**フライ**河上流ノ山地デ發見サレタもくこくノ一種デアルガ今回數百哩距ツタ**アング**湖附近ニ發見シタコトハ分布上面白イ。本種ノ葉ハ非常ニ小サク、花カ實ガナケレバもくこく類

ト思ハレナイ程變ツタ種類デアル。

Eurya Kanehirai KOBUSKI 本種ハワーレン附近ノ乾イタ丘陵地ノ疎林内ニ普通ナひさかきノ一種デ柱頭ハ4個(稀ニ5個)デコブスキー氏ノ *Penteurya* 節ニ屬スル種類デアル。no. 13028, 13134 ハ海岸附近ノ崖デ採集シタ關係カ葉ガ小サク、毛ガ少ク一見別品ノ如ク見ヘルガコブスキー氏ガ考ヘル如ク別種デナイト考ヘル。之ニ反シ no. 13141 ハ同一地方デ採集シタノデアルガ大分様子ガ異ナリ變種位ノ價值ハアル様ニ思ハレルガ材料ガ少イノデ今後ノ研究ニ俟ツベキモノデアラウ。

Eurya Groffii MERR. 本種ハ最初比島カラ記載セラレ、最近デハニューギニアニモ分布スルコトガ判ツタ。次種ト同様アンギ湖附近ノ森林内ニ多イ小喬木デ、次種トハ只一體ニ毛ガ深イ點ヲ異ニシ、ソノ他ノ點デハ格別差異ハ無イ様デ果シテ別種タルノ價值ガアルカドウカ疑問ニ思ツテキル。

Eurya tigang SCHUM. et LAUTB. 本種ハ最初舊獨領ニューギニアカラ記載セラレタ種類デ最近デハニューギニア各地ニ分布スルコトガ判ツタ。一寸臺灣産ノあつばひさかきヲ思ハセル様ナ種類デアル。

Eurya longisepala KOBUSKI 本種ハブラス氏ガニューギニア第一ノ大河マンベラモ一河上流ノ山地ニアル *Habbema* 湖附近ノ海拔 2350 米ノ森林内デ採集シタモノデ、最近コブスキー氏ハ上記ノ *E. tigang* ト同一物トシテ發表シタガ、今回多數ノ材料ヲ得テ研究シタ結果、全然別種ナルコトガ判ツタ。區別點ハ萼片ガ長卵形デ、雌花ノ7枚ノ花瓣ハ全長ノ半分迄配合シ、雄花ノ5個ノ雄蕊ハ楕形ヲナシ、花絲ハ肥厚シ、葉ノ毛ノ様子ヲ異ニシ、側脈ハ中肋ト約45度ノ角度デ出テキル點等デアル。

利用方面 上記ノ種類ハ總テ小喬木又ハ灌木デ大材ニ乏イガ、硬材ヲ産スルもくこく類、特ニ *T. Kanehirai* KOBUSKI ハ量モ相當多イカラ將來利用出來ルトモノト考ヘル。

(九州帝國大學農學部林學教室)