

PRELIMINARY ACCOUNT OF PAPUAN NOTHOFAGUS

by

C. G. G. J. VAN STEENIS

(Pre-issued 23. I. 1952).

As early as 1939 I started a study of Papuan Nothofagus, and since 1948 I was entrusted with the elaboration of all the material my colleagues could lay hands on. This work was repeatedly interrupted on account of official duties. Pending the full account of the work in the Journal of the Arnold Arboretum I regret that it seems necessary to safeguard my conclusions as soon as possible.

NOTHOFAGUS Bl.

- I. Sect. 1. DECIDUAE, sect. nov. — Arbores vel frutices decidui. Folia plicata. — Typus: *N. betuloides* (Mirb.) Bl.
- II. Sect. 2. SEMPERVIRENTES, sect. nov. — Arbores vel frutices sempervirentes. Folia non plicata. — Typus: *N. fusca* (Hook.f.) Oerst.
 1. Subsect. Quadripartitae, subsect. nov. — Cupula 4-partita. — Typus: *N. fusca* (Hook.f.) Oerst.
 2. Subsect. Bipartitae, subsect. nov. — Cupula 2-partita. Typus: *N. brassi* Steen.
 - A. Series Triflorae, ser. nov. — Cupula 3-flora. — Typus: *N. brassi* Steen.
 - B. Series Uniflorae, ser. nov. — Cupula 1-flora. — Typus: *N. pullei* Steen.

Series Triflorae Steen.

1. *Nothofagus recurva* n.sp. — Folia ovato-oblonga vel oblongo-elliptica, $4-7 \times 2-3$ cm, adulta ad $8 \times 3\frac{1}{2}$ cm, nervis utrinque 7-9. Cupula c. 10 mm pedunculata, recurvata. — Typus: *Kostermans 2384* (L.).

2. *Nothofagus perryi* n.sp. — Folia ovato-oblonga, $5\frac{1}{2}-7 \times 2\frac{3}{4}-3\frac{1}{4}$ cm, margine distincte crenato, nervis utrinque 6-8. Cupula c. 3-6 mm pedunculata, erecta. — Typus: *Brass 5057a* (Arn.).

3. *Nothofagus starkenborghi* n.sp. — Folia oblonga, subcoriacea, c. $2\frac{1}{2} \times$ longa quam lata. $3-5\frac{1}{2} \times 1\frac{1}{4}-2\frac{1}{4}$ cm, nervo mediano supra sulcato non carinato. ♂ Flores 3, sessiles. Cupula 2-3 mm pedunculata, erecto. — Typus: *Brass 11369* (L.).

4. *Nothofagus brassi* n.sp. — Folia elliptico-oblonga, apice subattenuata, $3\frac{1}{2}-5\frac{1}{2} \times 1\frac{1}{2}-2\frac{1}{4}$ cm, margine recurvato. ♂ Flores 3, sessiles. Cupula brevipedunculata, erecta. — Typus: *Brass & Versteegh 11115* (L.).

Series Uniflorae Steen.

5. *Nothofagus pullei* n.sp. — Ramuli tomentosi. Folia elliptico-oblonga, coriacea, margine recurvato, $1\frac{3}{4}-3 \times 1-1\frac{3}{4}$ cm; stipulae per-

sistentiae. ♂ Flores solitarii, erecti. Cupula immatura minuta, 1-lamellata. — *Typus: Pulle 909* (L.).

6. *Nothofagus crenata* n.sp. — Folia plana, subcoriacea, ovato-oblonga, $2\frac{1}{2}$ — $5 \times 1\frac{1}{2}$ —2 cm, basi cuneata, apice attenuata, margine leviter crenata. Cupula erecta, c. 5 mm pedunculata, 3-lamellata. Ovarium orbiculare. — *Typus: Brass 11335* (L.).

7. *Nothofagus resinosa* n.sp. — Folia elliptico-oblonga, coriacea, plana, infra resinosa, $4\frac{1}{2}$ — 7×2 —4 cm. ♂ Flores solitarii, erecti, subsessiles. ♀ Flores erecti, sessiles. Cupula nulla. — *Typus: Brass 10479* (L.).

8. *Nothofagus pseudoresinosa* n.sp. — Folia elliptico-oblonga, plana, chartacea, infra resinosa, $2\frac{1}{2}$ — $5 \times 1\frac{1}{4}$ — $2\frac{1}{2}$ cm. Cupula sessilis, flore femineo aequigrandis, 1-lamellata, obovato-oblonga. — *Typus: Clemens 5849* (Arn.).

8a. var. *microphylla* n. var. — Folia elliptico-oblonga, $2\frac{1}{2}$ — $4 \times 1\frac{1}{2}$ —2 cm. — *Typus: Kanehira & Hatusima 14052 (14056)* (Arn.).

9. *Nothofagus carri* n.sp. — Folia obovata, plana, coriacea, $2\frac{1}{2}$ — 4×1 — $2\frac{1}{2}$ cm. ♂ Flores 3, pedunculati, patentes. Cupula immatura pedunculata, erecta, e appendicibus 2 elamellatis liberis constituens. Ovarium ovatum, stylo $1\frac{1}{2}$ mm longo. — *Typus: Carr 15028* (L.).

10. *Nothofagus cornuta* n.sp. — Folia late elliptica vel ovata, plana, $2\frac{1}{2}$ — $4 \times 1\frac{1}{2}$ — $2\frac{1}{4}$ cm. ♀ Flores solitarii, sessiles, oblongi; limbus perianthii e appendicibus 2 constituens. Ovarium bicornutum. Cupula nulla. — *Typus: Eyma 5122* (L.).

11. *Nothofagus bernhardi* n.sp. — Folia oblongo-elliptica, utrinque rotundata, crasse coriacea, margine recurvato, $2\frac{1}{2}$ — $3\frac{1}{2} \times 1\frac{1}{4}$ —2 cm. ♂ Flores rubri, erecti. Cupula 2—3-lamellata, angusta. — *Typus: Brass 12453* (L.).

12. *Nothofagus grandis* n.sp. — Ramuli cinerei. Folia coriacea, plana, late elliptica vel elliptico-oblonga, $4\frac{1}{2}$ — 7×2 — $4\frac{1}{2}$ cm. ♂ Flores 3, pedunculati. Cupula sessiles, erecta, late obovata, 12 — 13×7 —10 mm. Nux rhomboidea, 7 — $10 \times 9\frac{1}{2}$ —10 mm. *Typus: L. S. Smith N. G. F. 1098* (Arn.).

13. *Nothofagus decipiens* n.sp. — Folia elliptico-oblonga, coriacea, $1\frac{3}{4}$ — $2\frac{3}{4} \times 1$ — $1\frac{1}{2}$ cm. ♂ Flores 3, pedunculati. Cupula 6—7 mm pedunculata, recurvata, 2—3-lamellata. ♀ Flores orbiculati, 3 mm diam. — *Typus: Brass 12675* (L.).

14. *Nothofagus rubra* n.sp. — Folia ovato-oblonga, margine recurvato, $2\frac{1}{2}$ — $4 \times 1\frac{1}{2}$ —3 cm. ♂ Flores 3, erecti, subsessiles. Cupula sessilis, erecto, 1-lamellata. Nux orbicularis, 4 mm diam., stylo $1\frac{1}{2}$ mm longo persistente apiculata. — *Typus: Brass & Versteegh 11997* (L.).

15. *Nothofagus eymae* n.sp. — Folia elliptica, utrinque rotundata, coriacea, 2 — $3\frac{1}{4} \times 1\frac{1}{4}$ — $1\frac{3}{4}$ cm, margine recurvato. ♂ Flores 3, subsessiles. Cupula sessilis, 2-lamellata, immatura 5—6 mm longa, oblonga. ♀ Flores orbiculares, c. 4 mm diam., stylo brevissimo. — *Typus: Eyma 4800* (L.).

16. *Nothofagus dura* n.sp. — Folia crasse coriacea, ovato-oblonga, margine recurvato, $2\frac{3}{4}$ — $4\frac{1}{2} \times 1\frac{1}{4}$ — $2\frac{1}{4}$ cm. ♂ Flores 3, sessiles. Cupula sessilis, 2-lamellata. Nux 5—6 mm diam., suborbicularis. — *Typus: Brass & Versteegh 10443* (L.).