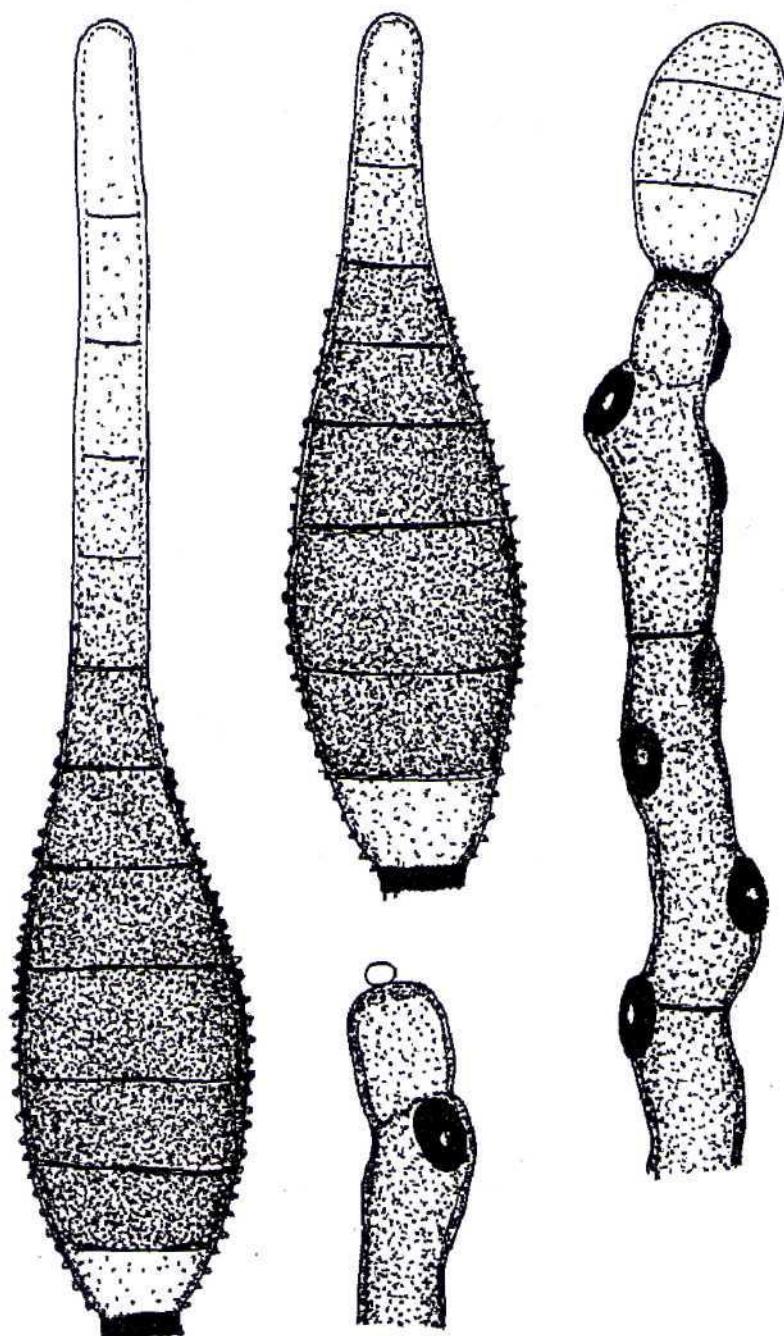




A JOURNAL ON TAXONOMIC BOTANY,  
PLANT SOCIOLOGY AND ECOLOGY



**REINWARDTIA**

12(4)

# **REINWARDTIA**

*A JOURNAL ON TAXONOMIC BOTANY,  
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## **Editors**

ELIZABETH A. WIDJAJA, MIEN A. RIFAI, SOEDARSONO RISWAN, JOHANIS P. MOGEA

Correspondence on The Reinwardtia journal and subscriptions should be addressed to  
HERBARIUM BOGORIENSE, BIDANG BOTANI, PUSAT PENELITIAN BIOLOGI - LIPI,  
BOGOR, INDONESIA

## NOTES ON MALESIAN NAUCLEAE

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### C.E.RIDSDALE

Nationaal Herbarium Nederland, Universiteit Leiden Branch, P.O. Box 9514, 2300 RA Leiden, The Netherlands.  
E-mail: colin\_ridsdale@yahoo.co.uk

### ABSTRACT

RIDSDALE, C.E. 2008. Notes on Malesian *Neonauclea*. *Reinwardtia* 12(4): 285 – 288 — *Neonauclea pseudoborneensis*, *Neonauclea subsessilis* and *Myrmeconauclea surianii* are described as new species. *Sarcocephalis flaviatilis* Elmer is reinstated as a variety of *Myrmeconauclea strigosa*. The loss of a large number of type specimens formerly in L is reported.

**Keyword:** Malesia, *Neonauclea pseudoborneensis*, *Neonauclea subsessilis*, *Myrmeconauclea surianii*, *Sarcocephalis flaviatilis*, *Myrmeconauclea strigosa*

### ABSTRAK

RIDSDALE, C.E. 2008. Catatan pada *Neonauclea* Malesia. *Reinwardtia* 12(4): 282 – 288 — *Neonauclea pseudoborneensis*, *Neonauclea subsessilis* dan *Myrmeconauclea surianii* diuraikan sebagai jenis baru. *Sarcocephalis flaviatilis* Elmer direklasifikasi sebagai varietas *Myrmeconauclea strigosa*. Hilangnya sejumlah tipe specimen yang semula ada di L juga dilaporkan.

**Kata kunci:** Malesia, *Neonauclea pseudoborneensis*, *Neonauclea subsessilis*, *Myrmeconauclea surianii*, *Sarcocephalis flaviatilis*, *Myrmeconauclea strigosa*

## NEONAUCLEA

Since the published revisions of *Naucleae* (Ridsdale 1978) and *Neonauclea* (Ridsdale 1989) a few new taxa have been collected which are described below

### *Neonauclea pseudoborneensis* Ridsdale, spec. nov.

Arbores usque ad 10 m altae. Gemmae terminales vegetativae complanatae, oblongae. Stipulae anguste ovato-oblongae, 25- 45 mm longae et 12-16 mm latae, complanatae, glabrae, carinatae, apice acuto. Folia elliptica, 20-30 cm longa et 8-12 cm lata, utrinque glabra, apice acuto, basi acuta leviter inaequilatera, nervis lateralibus 9-12 paribus; petiolo crasso, 1.5-3 cm longo, glabro. Axis floriferus usque ad 7 cm longus. Capitula florifera terminalia solitaria, subplana per anthesim trans calyces 25-30 mm, trans corollas 60-70 mm. Flores 5-meri, receptaculo hirsuto, bracteolis interfloralibus conicis, numerosis. Hypanthia glabra, 1.5-2 mm longa; calyces usque ad basim divisi, parte persistenti 3-4 mm longa, caule pubescenti 3-4 mm longo, parte apicali dilatata obturbanata 0.9-1.3 mm longa, verticibus breviter

conicis ochraceis papillatis. Corolla infundibularis 11-14 mm longa, glabra, lobis ovatis. Stylus per 8-12 mm exsertus. Capitula fructifera 30-35 mm diam., fructibus 8 mm longis. — Type: Kessler et al PK 1711(holo-L).

Small tree up to 10 m high. Ultimate branchlets slender, apparently without myrmedomes. Terminal vegetative bud oblong, flattened. Stipules not persistent, narrowly ovate-oblong, 25–45 by 12–16 mm, keeled, glabrous, apex acute. Leaves elliptic, 20–30 by 8–12 cm, above and below glabrous; apex acute, base cuneate, slightly decurrent and asymmetrical, lateral nerves 9–12 pairs. Petiole stout, 1.5–3.5 cm, glabrous. Inflorescence terminal, flowering heads solitary, axis up to 7 cm. Mature flowering heads with diameter across calyces 25–30 mm, across corollas 60–70 mm. Receptacle hairy, interfloral bracteoles numerous, conical. Hypanthium 1.5–2 mm long, glabrous. Calyx divided almost to the base, inside and outside densely pubescent, persistent part 3–4 mm, shaft 3–4 mm long, densely pubescent, breaking at the top and persistent on the fruitlets; upper apical portion 0.9–1.3 mm long, obturbinate summit shortly conical, pallid ochre coloured, papillate, lower part ill defined with stiff hairs by which mutual elements

stick together and detach in a mass or in groups. *Corolla* infundibular, purplish, 11—14 mm long, glabrous, lobes ovate, 1—2 mm long; anthers 1—2 mm, slightly protruding. *Style* exserted for 8—12 mm. Diameter across fruiting heads 30—35 mm, fruitlets 8 mm long, crowned by calyx remnants.

**DISTRIBUTION.** *Malesia:* Borneo (Kalimantan). Known only from the type collection.

**REPRESENTATIVE SPECIMENS.** *Kessler et al P 1711*

**Neonauclea subsessilis** Ridsdale. *spec. nov.*

Arbores grandes. Gemmae terminales vegetativae complanatae. Stipulae ovatae vel ellipticae, 15- 20 mm longae et 7-10 mm latae, carinatae, basi pubescenti . Folia elliptica vel obovata, (9-)12-20 (-31) cm longa et (3-)5-8 cm lata, coriacea, utrinque glabra, apice acuto vel acuminato, basi auriculata, nervis lateralibus 6-9 paribus; petiolum deest. Axis floriferus c. 0.5 cm longus. Capitula florifera terminalia solitaria, non vidi; calyces usque ad partem persistentem 1.5 mm longo, caule pubescenti 2 mm longo, parte apicali dilatata obturbinata pallida, 1.4-2 mm longa. Corolla non vidi. Capitula fructifera 20-25 mm diam., fructibus 8 mm longis. — T y p u s: *Takeuchi, W. 9184 (holo-L).*

Large tree, bark flaky, reddish-brown. Ultimate branchlets without myrmedomes. Terminal vegetative bud flattened. Stipules not persistent, ovate to elliptic, up to 15—20 by 7—10 mm, slightly keeled, slightly pubescent at the base. Leaves elliptic to obovate, (9—)12—20(—31) by (3-)5—8 cm, coriaceous, above and below glabrous, apex acute to acuminate, base auriculate, lateral nerves 6—9 pairs. Petiole absent. Inflorescence terminal, flowering heads solitary, axis short, c. 0.5 cm. Flowering heads not seen. Calyx: observed from remnants on fruiting head, persistent part 1.5 mm, outside finely pubescent, shaft 2 mm, sparsely pubescent, apparently breaking near the base; upper apical portion 1.5—2 mm, obturbinate, pallidly hairy, summit rounded, short hairy. Corolla not seen, tube said to be densely sericeously pubescent. Diameter across mature fruiting heads 20—25 mm, fruitlets 8 mm crowned with calyx remnants.

**DISTRIBUTION.** *Malesia:* New Guinea. Known only from the type collection.

**NOTE.** Unfortunately flowering material of this species is unknown. It is very distinctive in the subsessile glabrous leaves.

**REPRESENTATIVE SPECIMENS.** *Takeuchi, W. 9184*

**MYRMECONAUCLEA**

**MYRMECONAUCLEA STRIGOSA** (Korth.) Merr.

Philipp. J. Sc. 17 (1920) 375; Ridsdale, Blumea 24 (1978) 344. — *Nauclea strigosa* Korth., Verh. Nat. Gesch. Ned. Bot. (1840) 157. — *Neonauclea strigosa* Merr., J. Wash. Acad. Sc. 5 (1915) 542. — Type: *Korthals s.n.* (L.).

- 1.a. Apical portion of the calyx lobes strikingly orange-yellow to pale cream..... var. *strigosa*
- b. Apical portion of calyx lobes greyish.....  
.....var. *flaviatilis*

var. **STRIGOSA.**

Differs from var. *flaviatilis* in the strikingly papillose orange-yellow to pale cream apical portion of the calyx lobes, strongly reminiscent of some species of *Neonauclea*.

**DISTRIBUTION.** Borneo (Kalimantan, Sarawak)

**REPRESENTATIVE MATERIAL:** Kalimantan: *Balgooy, M.M.J. van, 5318; Darnaedi, D., 149; Endert, F.H., 3034; Hallier, J.G., 1531, 3103; Korthals, P.W., s.n. Pamattan; Nootboom, H.P., 4667; Sidiyasa, K., 1536; Veldkamp, J.F. 8037; Wirianata, Sarawak: H., 658. Jacobs, M., 5085; Purseglove, J.W., 5235; S. 23629; S. 23925; S. 45113.*

var. **flaviatilis** (Elmer) Ridsdale, stat. nov.

*Sarcocephalus flaviatilis* Elmer, Leafl. Philipp. Bot. 4 (1912) 1357. — Type: *Elmer 12848 (L).*

This is the more widespread variety differing from the type variety in the greyish papillose and pubescent or completely glabrous upper apical portion of the calyx lobes.

**DISTRIBUTION.** Borneo (Kalimantan, Sabah, Sarawak); Philippines (Palawan).

REPRESENTATIVE MATERIAL: Kalimantan: *Afriastini*, J.J., 367; *Burley*, J.S. 379; *Nooteboom*, H.P. 4384; *Slooten*, D.F. van, 2229; *Soegeng Reksodihardjo*, W. 30. *Ogata*, K. 11538; *Vermeulen*, J. 1212. Sabah: *Apostol*, BNBFD 3698; *Keith*, H.G., BNBFD 3105; *Puasa*, M., BNBFD 3105; SAN 28058; SAN 63096; SAN 76172; SAN 83398; SAN 96406; SAN 97608; SAN 99805; SAN 118410; SAN 144317. Sarawak: *Chew*, W.L., 340; *Chin*, S.C. 2278; *Brooke*, 9375, 10223; *Stone*, B.C., 13601; *Synge*, P.M. 1101; S.12134; S.18170; S.19922; S.27868; S.33209; S.41755; S.42423; S.45143; S.4553. Philippines: PNH 14197; PNH 23024; *Elmer*, A.D.E. 12848; *Stone*, B.C. et al PPI 321; *Reynoso*, E. & *Majaducon*, P.S. PPI 24365. *Podzorski*, A.C. SMHI 712; *Madulid*, D.A. & *Majaducon*, P.S. 101; *Merrill*, E.D., 1202, 7234, 11571; *Soejarto*, D.D. & *Fernando*, O. 7275.

### **Myrmeconauclea surianii Ridsdale, spec.nov.**

Frutices usque ad 2 m alta. Gemmae terminales vegetativae complanatae. Stipulae adpressae, anguste elliptico-oblongae, 5-9 mm longae et 2-4 mm latae, glabrae interdum sparse hirsutae, interdum carinatae. Folia anguste elliptica vel obovato-lanceolatae (3.5)-5-9(-12) cm longae et (1)-1.5-2.5(-3) cm latae, coriacea, utrinque glabra, apice acuto vel acuminato, basi cuneata vel attenuata, nervis lateralibus 5-9 paribus utrinque glabra domatis hirsutis; petiolo 7-12 mm longo, glabro. Axis floriferus usque ad 2.5-5 cm longus. Capitula florifera terminalia solitaria, subplana per anthesim trans calyces 7-9 mm, trans corollas 12-18 mm. Flores 5-meri, receptaculo hirsuto, bracteolis interfloralibus conicis, numerosis. Hypanthia laxe confluentia, calycis tubo 0.5-1 mm longo, glabro, lobis appendiculatis, usque ad basim divisis, parte persistenti 3-4 mm longa, parte apicali dilatata obturbanata c. 1 mm longa, caule filiforme vel triangulari 2 mm longo verticibus obclavatis ochraceis papillatis. Corolla hypocrateiformis 8-10 mm longa, glabra, lobis ovato-oblongis, 3 mm longis et 1.5 mm latis. Stylus per 8-10 mm exsertus. Capitula fructifera 25-30 mm diam., fructibus 8-10 mm longis, suberosis. Semina alata, cauda longa.

Type : *Ridsdale*, C.E., PBU 263( L-holo)

Rheophytic shrub to 2 m. Twigs without myrmecomes. Terminal vegetative bud strongly flattened. *Stipules* adpressed, elliptic-oblong, 5—9 by 2—4 mm, slightly or not keeled, outside glabrous, sometimes sparsely hairy. *Leaves* narrowly elliptic to obovate-lanceolate, (3.5)—5—9(—12) by (1)—1.5—2.5(—3) cm, coriaceous, above and below glabrous, apex acute to slightly acuminate, base cuneate to attenuate; lateral nerves 5—9 pairs, above and below glabrous, domatia

present in the axils, these slightly hairy. Petiole 7—12 mm long, glabrous. *Inflorescence* terminal, solitary, flowering axis 2.5—5 cm, node situated at the apex and bearing a pair of bract-like stipules, these ovate to deltoid, 8—12 by 3—6 mm, glabrous, surrounding the young flowering head; the first node below the flowering axis often bearing highly reduced leaves. Diameter of mature flowering heads across calyces 7—9 mm, across corollas 12—18 mm. *Hypanthia* mutually loosely confluent. *Calyx* tube 0.5—1 mm, glabrous, lobes appendiculate, upper apical portion obturbinate, 1 mm, glabrous, breaking at the top of the shaft, shaft filiform to narrowly triangular 2 mm, with a few scattered pallid hairs. *Corolla* hypocrateiform 8—10 mm, tube 7—8 mm, glabrous, lobes ovate-oblong 3 by 1.5 mm, inside with a few scattered hairs along the mid point, outside glabrous; anthers 0.7—1 mm, protruding from the throat of the corolla. *Style* exserted for 8—10 mm, stigma globose, 1 mm. Diameter across mature fruiting head 25—30 mm, fruitlets 8—10 mm long, suberous, seeds winged with a long tail.

DISTRIBUTION. Borneo (Kalimantan, Sarawak)

ECOLOGY. Rheophytic shrub along shaded forest streams, apparently replacing *M. strigosa* along upper reaches of the watersheds. Living plants are characterised by the glabrous pink to wine red stipules.

NOTE. Named in memory of Mr Surian, field assistant to Project Barito Ulu.

REPRESENTATIVE MATERIAL: Kalimantan: *Balgooy*, M.M.J. van & Setten, A.K., 5304; *Kostermans*, A.J., 12784, 12872; *Ridsdale*, C.E., PBU 95; PBU 263, PBU 495; *Nooteboom*, H.P., 4231. Sarawak: S. 27872.

### **LOSS OF TYPE SPECIMENS**

It is with regret that we have to report the loss of a large number of type specimens of *Rubiaceae*, *Naucleeae* that were being sent on loan. The boat, which was carrying the postal packages, sank in the Azores. As part of the routine work for the herbarium type specimen database the material had been processed beforehand and so digital images remain. Clearly some material is completely lost, particularly Blume and Korthals collections, isotypes will exist in many other cases, though the position

for BW numbers is uncertain, generally distribution was Canberra, Lae, Arnold Arboretum. NHN Internet site for type specimens gives the type images and indicates that they are no longer extant in NHN herbarium. The taxa involved are indicated in the table below. The digital images have no status under the code as they cannot be considered to be epi-types but are useful in connection with future identification of some of the rare taxa. Illustrations

of the floral parts of can be found in Ridsdale (1989).

#### ACKNOWLEDGEMENTS

I would like to thank Dr. J.F.Veldkamp for help with the Latin descriptions.

#### LITERATURE

RIDSDALE, C.E. 1979. A revision of the tribe *Naucleaeae* s.s. *Blumea* 24: 307-366.

RIDSDALE, C.E. 1989. A revision of *Neonauclea* (*Rubiaceae*). *Blumea* 34: 177-275.

| CURRENT NAME                         | TYPE OF                           | COLLECTOR                             |
|--------------------------------------|-----------------------------------|---------------------------------------|
| <i>Neonauclea excelsa</i>            | <i>Nauclea synkorynes</i>         | Korthals, P.W.[s.n.]                  |
| <i>Neonauclea excelsa</i>            | <i>Nauclea morindaefolia</i>      | Blume, C.L.[s.n.]                     |
| <i>Neonauclea excelsa</i>            | <i>Nauclea excelsa</i>            | Blume, C.L.[s.n.]                     |
| <i>Neonauclea excelsioides</i>       | <i>Nauclea excelsioides</i>       | SAN[66973]                            |
| <i>Neonauclea formicaria</i>         | <i>Nauclea formicaria</i>         | Elmer, A.D.E.[11034]                  |
| <i>Neonauclea gigantea</i>           | <i>Nauclea cyrtopodioides</i>     | Gibbs, L.S.[2758]                     |
| <i>Neonauclea gigantea</i>           | <i>Nauclea gigantea</i>           | Winkler, Hubert[2924]                 |
| <i>Neonauclea gigantea</i>           | <i>Nauclea gigantea</i>           | Winkler, Hubert[2533]                 |
| <i>Neonauclea glabra</i>             | <i>Nauclea nitida</i>             | Callery, J.M.M.[55]                   |
| <i>Neonauclea glabra</i>             | <i>Nauclea ovata</i>              | BS[14597]                             |
| <i>Neonauclea glabra</i>             | <i>Nauclea moluccana</i>          | Vriese, W.H. de; Teysmann, J.E.[s.n.] |
| <i>Neonauclea glabra</i>             | <i>Nauclea glabra</i>             | Cowley, E.[92D]                       |
| <i>Neonauclea glandulifera</i>       | <i>Nauclea glandulifera</i>       | Pleyte, D.R.[274]                     |
| <i>Neonauclea hagenii</i>            | <i>Nauclea hagenii</i>            | Lauterbach, C.A.G.[2175]              |
| <i>Neonauclea hagenii</i>            | <i>Nauclea papuana</i>            | Versteeg, G.M.[HB1032]                |
| <i>Neonauclea havilandii</i>         | <i>Nauclea havilandii</i>         | Koorders, S.H.[18630]                 |
| <i>Neonauclea intercontinentalis</i> | <i>Nauclea intercontinentalis</i> | bb[28759]                             |
| <i>Neonauclea intercontinentalis</i> | <i>Nauclea intercontinentalis</i> | bb[28759]                             |
| <i>Neonauclea kentii</i>             | <i>Nauclea kentii</i>             | BS[15440]                             |
| <i>Neonauclea kraboensis</i>         | <i>Nauclea kraboensis</i>         | BW (Indonesia)[10769]                 |
| <i>Neonauclea lanceolata</i>         | <i>Nauclea gracilis</i>           | Cuming, H.[835]                       |
| <i>Neonauclea lanceolata</i>         | <i>Nauclea tenuis</i>             | Forbes, H.O.[535]                     |
| <i>Neonauclea lanceolata</i>         | <i>Nauclea schlechteri</i>        | Schlechter, F.R.R.[16925]             |
| <i>Neonauclea maluensis</i>          | <i>Nauclea maluensis</i>          | Clemens, J.; Clemens, M.S.[8309A]     |
| <i>Neonauclea montana</i>            | <i>Nauclea montana</i>            | S[30432]                              |
| <i>Neonauclea morotaiensis</i>       | <i>Nauclea morotaiensis</i>       | Kostermans, A.J.G.H.[1350]            |
| <i>Neonauclea pallida</i>            | <i>Nauclea lanceolata</i>         | Junghuhn, F.W.[s.n.]                  |
| <i>Neonauclea pallida</i>            | <i>Nauclea pallida</i>            | Reinwardt, C.G.C.[s.n.]               |
| <i>Neonauclea paracyrtopoda</i>      | <i>Nauclea paracyrtopoda</i>      | S[34764]                              |
| <i>Neonauclea parviflora</i>         | <i>Nauclea purpurascens</i>       | Koorders, S.H.[73]                    |
| <i>Neonauclea pseudocalycina</i>     | <i>Nauclea pseudocalycina</i>     | Endert, F.H.[3291]                    |
| <i>Neonauclea pseudopeduncularis</i> | <i>Nauclea pseudopeduncularis</i> | Vogel, E.F. de[5095]                  |
| <i>Neonauclea rupestris</i>          | <i>Nauclea rupestris</i>          | Teysmann, J.E.[HB12245]               |
| <i>Neonauclea sericea</i>            | <i>Nauclea sericea</i>            | bb[33808]                             |
| <i>Neonauclea solomonensis</i>       | <i>Nauclea solomonensis</i>       | BSIP[8739]                            |
| <i>Neonauclea subulifera</i>         | <i>Nauclea subulifera</i>         | BW (Indonesia)[7600]                  |
| <i>Neonauclea superba</i>            | <i>Nauclea superba</i>            | Forbes, H.O.[1474]                    |
| <i>Neonauclea tricephala</i>         | <i>Nauclea tricephala</i>         | BW (Indonesia)[2972]                  |
| <i>Neonauclea unicapitulifera</i>    | <i>Nauclea unicapitulifera</i>    | Elbert, J.[3477]                      |
| <i>Neonauclea ventricosa</i>         | <i>Nauclea ventricosa</i>         | Vogel, E.F. de[6080]                  |
| <i>Neonauclea versteeghii</i>        | <i>Nauclea versteeghii</i>        | Brass, L.J.; Versteegh, C.[13509]     |
| <i>Neonauclea vinkiorum</i>          | <i>Nauclea vinkiorum</i>          | BW (Indonesia)[4982]                  |

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Taxonomic keys should be prepared using the aligned-couplet type.

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Maps, line drawing illustrations or photographs preferably should be prepared in landscape presentation to occupy two columns. Illustrations must be submitted as original art accompanying, but separated from the manuscript. On electronic copy, the illustration should be saved in .jpg or .gif format. Legends for illustrations must be submitted separately at the end of the manuscript.

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