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(991) Proposal to Conserve 7857a *Nautilocalyx* against *Centrosolenia* (Gesneriaceae: Gesnerioideae)

Author(s): Christian Feuillet and Laurence E. Skog

Source: *Taxon*, Vol. 39, No. 4 (Nov., 1990), pp. 691-693

Published by: Wiley

Stable URL: <https://www.jstor.org/stable/1223394>

Accessed: 04-06-2020 02:48 UTC

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<b>PROPOSALS TO CONSERVE OR REJECT</b>
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**(991) Proposal to conserve 7857a *Nautilocalyx* against *Centrosolenia* (Gesneriaceae: Gesnerioideae)**

*Nautilocalyx* Linden ex Hanstein, *Linnaea* 26: 181, 206–207. 1854 (“1853”), *nom. cons. prop.* T.: *N. hastatus* Linden ex Hanstein *nom. illeg.* (*Centrosolenia bractescens* W. J. Hooker).  
 (=) *Centrosolenia* Benth., *Lond. J. Bot.* 5: 362. 1846, *nom. rej. prop.* T.: *C. hirsuta* Bentham.

For taxonomic reasons what has been known as *Episcia hirsuta* (Benth.) Hanst. needs to be united with the species of *Nautilocalyx* Linden ex Hanst. Unfortunately its basionym, *Centrosolenia hirsuta* Benth., is the type of *Centrosolenia* Benth., a generic name that predates *Nautilocalyx*. The proposed conservation would generate one new combination, but avoid 42 new combinations among the 48 species concerned, including more than 25 species in cultivation.

*Description of Centrosolenia, Episcia, Nautilocalyx and Paradyrmonia (1829–1854)*

Martius (1829) published *Episcia* for three species, two new species: *E. decumbens* Mart. (now *Nautilocalyx decumbens* (Mart.) Wiehler), *E. reptans* Mart. (lectotypified by Leeuwenberg (1958) and consistently regarded as the generic type since Hanstein (1854)), and a species he transferred from *Besleria* L. as *E. melittifolia* (L.) Mart. (now *Nautilocalyx melittifolius* (L.) Wiehl.). *Episcia* was poorly defined so that species now belonging to 12 different genera (*Alsobia* Hanst., *Chrysothemis* Dcne., *Codonanthe* Hanst., *Diastema* Benth., *Drymonia* Mart., *Episcia*, *Gasteranthus* Benth., *Napeanthus* Gardn., *Nautilocalyx*, *Neomortonia* Wiehl., *Paradyrmonia* Hanst. and *Tylopsacas* Leeuw.) were once described in or transferred to *Episcia* under more than 70 combinations.

Bentham (1846) described *Centrosolenia* for a new species, *C. hirsuta* Benth. (currently known as *E. hirsuta* (Benth.) Hanst.). In 1850 he added a second species *C. glabra* Benth. (now *Paradyrmonia ciliosa* (Mart.) Wiehl.). This was the beginning of a confusion in the use of *Centrosolenia* for species that now belong to *Nautilocalyx* and *Paradyrmonia*.

The name *Nautilocalyx* was said to have been proposed for *N. bracteatus* (vide Planchon 1851) by Linden in the latter’s nursery catalog (probable title: “Etablissement de botanique et d’horticulture de J. Linden. Prix-courant pour printemps 1851” see TL2: 4620a). The same year, a “plant was received at the Royal Gardens of Kew, from Mr. Linden, under the name *Nautilocalyx hastatus*” (Hooker, 1852). Unfortunately, Hooker, Sprague (1912), Morton & Denham (1972), Wiehler (1978) as well as ourselves have been unable to locate a copy of Linden’s “Prix-courant” of 1851. It is impossible to check if *Nautilocalyx*, *N. bracteatus* and *N. hastatus* were validly published, and which name was given by Linden to his species, or if Linden suggested the existence of two different species. Since no one, despite repeated efforts, has seen this publication, it must be passed by.

Planchon (1851), noted the discrepancy between the two species of *Centrosolenia*: *C. hirsuta* and *C. glabra* and entitled his paper “*Centrosolenia* (?) *glabra*”. In fact, the main part of it is a description of a new subgenus and what must be treated as a new species “*Centrosolenia* ? (subgen. *Ostreochlamys*) *bracteata*”. The type specimen of *C. bracteata* is *Funck & Schlim 1714*, as cited by Planchon. According to the 1988 (Berlin) Code (Art. 34.2) the question mark does not invalidate the publication of a new name. If we can extrapolate Art. 42.1 to the subgeneric level, the one description for the new subgenus and species was enough because Planchon placed only *C. bracteata* in his new subgenus: “l’inflorescence, et . . . l’organisation florale, nous paraissent distinguer comme sous-genre, parmi les *Centrosolenia*, le *Nautilocalyx* [sic] *bracteatus*”. *Centrosolenia* subgenus *Ostreochlamys*, although cited by Sprague (1912), was overlooked by Wiehler (1978) in his synonymy of *Nautilocalyx*.

Hooker (1852) described *Centrosolenia bractescens*, a plant he had received from Linden under the name of *Nautilocalyx hastatus* and which was grown at Kew. Hooker did not know of any publication of *Nautilocalyx* or of Planchon’s paper. He did not cite any specimen, but gave a color plate which is good enough to show that *C. bractescens* Hook. is a later synonym of *C. bracteata* Planch. (1851).

Hanstein (1854) suggested that *Centrosolenia hirsuta* and the later additions to *Centrosolenia* were not congeneric. He created a new genus, *Paradyrmonia* with *P. glabra* (Hook.) Hanst. as a new

combination for *C. glabra*, and described *Nautilocalyx* Lind. ex Hanst. with *N. hastatus* Lind. ex Hanst. (for *C. bractescens* Hook.). Hanstein cited Linden's catalog, but it is very likely that he did not see it, because the reference he gave ("Catal.") is from Planchon ("catalogue horticole") which is not a title. He cited also Planchon, but not Planchon's *C. bracteata* which predates Hooker's name. Hanstein considered the type of *C. hirsuta* to be in poor condition, and refused to integrate the species and the genus into his system.

#### *Taxonomic Changes in the Tribe Episciae (1865–1978)*

In 1865, Hanstein united six of his own genera, *Alsobia*, *Cyrtodeira*, *Nautilocalyx*, *Paradrymonia*, *Physodeira* and *Skiophila* along with *Centrosolenia* into *Episcia* Martius. Bentham (1876), then divided *Episcia* into six sections, including "5. *Nautilocalyx*". His section "6. *Centrosolenia*" included *Paradrymonia*. This system was adopted by Fritsch (1893–1894).

Sprague (1912) wrote that the *Episcia*-complex should be segregated into eight genera, including *Centrosolenia*, *Episcia*, *Nautilocalyx* and *Paradrymonia*. He did not comment on these genera, but dealt only with *Nautilocalyx*. *C. aenea* Lind. & André (probably overlooked and now *N. aeneus* (Lind. & André) Wiehl.) and *C. hirsuta* were not transferred by Sprague to *Nautilocalyx*, but remained in *Centrosolenia* along with *C. glabra* (now *P. glabra*) and the new combination *C. densa* (C. H. Wright) Sprague (now *P. densa* (C. H. Wright) Wiehl.). In the absence of good specimens of *C. hirsuta*, the two last species represented Sprague's concept of *Centrosolenia*, otherwise only defined by Sprague on staminal and placentar characters that have proved to be variable within a genus in the tribe Episcieae. The genus *Nautilocalyx*, as revised by Sprague, included nine species.

Morton (1938, 1942, 1945) followed Sprague's ideas on the concept of *Centrosolenia*, and transferred or described *C. decurrens* C. Morton, *C. congesta* (Oerst.) C. Morton, *C. longipetiolata* (J. D. Sm.) C. Morton; *C. lineata* C. Morton; and *C. conferta* C. Morton. All now belong to *Paradrymonia* Hanst.

Leeuwenberg (1958) re-established the concept of a large genus *Episcia* including *Alsobia*, *Centrosolenia*, *Paradrymonia*, but without *Nautilocalyx*. He divided the genus *Episcia* into seven sections (*Episcia*, *Paradrymonia*, etc.) and section *Episcia* into five subsections. In subsection *Centrosolenia* (Benth.) Leeuw. are placed *E. hirsuta*, *E. peltata* C. Morton (now *N. peltatus* (C. Morton) Wiehl.) and *E. porphyrotricha* Leeuw. (now *N. porphyrotrichus* (Leeuw.) Wiehl.), and later (Leeuwenberg, 1969) *E. adenosiphon* Leeuw. (now *N. adenosiphon* (Leeuw.) Wiehl.). Leeuwenberg placed other species, now in *Nautilocalyx*, in five other subsections or sections of *Episcia*. *Nautilocalyx* as treated by Leeuwenberg was a distinct genus of 10 species. Leeuwenberg's concept of *Centrosolenia* (as a subsection of *Episcia*) is part of what is now accepted as *Nautilocalyx*.

Wiehler (1973, 1978) recognized *Nautilocalyx* (including *Physodeira* and *Skiophila*), and segregated *Alsobia* and *Paradrymonia* (including *Trichodrymonia* Oersted) from *Episcia* (including *Centrosolenia* and *Cyrtodeira*). At that point, the only part of *Centrosolenia* remaining in *Episcia* was *E. hirsuta*.

*Centrosolenia* subgenus *Ostreoclamys* Planchon (1851) precedes *Nautilocalyx* Linden ex Hanstein (1854), but being of a different rank, it does not compete. *Centrosolenia bracteata* Planchon 1851 predates *Nautilocalyx hastatus* Linden ex Hanstein 1854, therefore the correct combination in *Nautilocalyx* for the species which includes the generic type was validly published in 1912 and must be cited as *N. bracteatus* (Planch.) Planch. ex Sprague.

#### *Affinities of Centrosolenia hirsuta*

The *Episcia* and *Nautilocalyx* concepts were recently redefined and separated on the presence or absence of stolons (Wiehler, 1973, 1978). Since then, the place of *Episcia hirsuta* (Bentham) Hanstein has been questioned. In 1978, Wiehler stated that "this species produces stolons in its natural habitat, but none in the few collections recently brought into cultivation" (p. 26). Probably this statement was based on some collections with long-internode stems bearing young lateral branches beginning with an elongated basal internode, the other internodes not yet elongated. Their morphology does not look like that of an *Episcia* which has short-internode stems, all the branches of which have their two basal internodes elongated in the shape of a stolon.

According to "the new classification" of the Gesnerioideae (Wiehler, 1983), the genera *Alsobia*, *Episcia*, *Nautilocalyx* and *Paradrymonia* "possess no differentiating floral characters," but "they differ decisively from one another in vegetative characters and appear to have no close generic affinity" (p. 181). Based on these concepts, *E. hirsuta* belongs to the genus *Nautilocalyx*. Unpublished data show that this species can be hybridized with species of *Nautilocalyx*, but which has never been tried successfully with species of *Episcia*.

The species described in *Nautilocalyx*, or once transferred to it, all still belong to it with only one exception. This is a very unusual consistency among the American Gesneriaceae for a genus of nearly 50 described taxa. Contrary to *Nautilocalyx* which was always used in a consistent way, *Centrosolenia* brings with it a long history of confusion, and was not used, as a genus, in the sense of *Nautilocalyx* since 1852. For taxonomic reasons *E. hirsuta* should be placed in *Nautilocalyx*. It is the type of *Centrosolenia*, a name that predates *Nautilocalyx*. *Nautilocalyx* now includes 48 species, and many of them do not have a name in *Centrosolenia*. Since Wiehler (1978), workers have avoided the transfer of 42 species. More than 25 species of *Nautilocalyx* are currently in cultivation as ornamental indoor or greenhouse plants. The use of *Nautilocalyx* would preserve clarity and stability. Therefore, we propose that *Nautilocalyx* Lind. ex Hanst. be conserved against *Centrosolenia* Benth.

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*Proposed by:* Christian Feuillet (ORSTOM) and Laurence E. Skog, Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560, U.S.A.

#### (992) Proposal to conserve 7892 *Rhytidophyllum* and its spelling against *Codonophora* (Gesneriaceae)

- Rhytidophyllum* C. F. P. Martius, Nov. Gen. Sp. 3: 38. Jan–Jun 1829, “*Rytidophyllum*”, l.c. [Index] 196. 1832, nom. et orth. cons. prop. T: *R. tomentosum* (Linnaeus) C. F. P. Martius (*Gesneria tomentosa* Linnaeus).  
 (≡) *Codonophora* J. Lindley, Bot. Reg. 13: sub t. 1110. Mar–Dec 1827, nom. rej. prop. LT: *C. lanceolata* J. Lindley (*Gesneria tomentosa* Linnaeus) (vide L. Pfeiffer, Nomencl. Bot. 1(2): 809. 1874).

The generic name *Rhytidophyllum* Mart. has long been applied in the sense of *R. tomentosum* (L.) Mart. and with this spelling. However ING (*Index Nominum Genericorum*, 1979) pointed out that this spelling only appeared in the Index (published in 1832) and accepted the original (1829) spelling *Rytidophyllum*. Also, it has been found that an earlier generic name, *Codonophora* Lindl., has been lectotypified on what is taxonomically the same species (*C. lanceolata* Lindl.=*Gesneria tomentosa* L.=*Rhytidophyllum tomentosa* (L.) Mart.). Conservation is needed to avoid many otherwise unnecessary name changes.