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Hilliardiella oligocephala, the correct name for *H. elaeagnoides* (Asteraceae: Vernonieae)

ABRAHAM E. VAN WYK[1,2,3]* & RONELL R. KLOPPER[1,2,4]

[1] *H.G.W.J. Schweickerdt Herbarium, Department of Plant and Soil Sciences, University of Pretoria, Pretoria, 0002 South Africa.*
[2] *Foundational Research & Services Directorate, South African National Biodiversity Institute, Private Bag X101, Pretoria, 0001 South Africa.*
[3] *braamvanwyk@gmail.com; https://orcid.org/0000-0002-0437-3272*
[4] *R.Klopper@sanbi.org.za; https://orcid.org/0000-0002-0948-5038*
**Author for correspondence*

In a revision of the southern African members of the genus *Hilliardiella* Robinson (1999: 229), Swelankomo *et al.* (2016) maintained that the correct name for the species originally proposed in this genus as *H. oligocephala* (Candolle 1836: 73) Robinson (1999: 230), is *H. elaeagnoides* (Candolle 1836: 73) Swelank. & J.C.Manning in Swelankomo *et al.* (2016: 50). According to the current circumscription of this species, two simultaneously published specific epithets (both in Candolle 1836), namely '*elaeagnoides*' and '*oligocephala*', compete for priority. In the present contribution it is argued that, according to the requirements of the *International Code of Nomenclature for algae, fungi, and plants* (henceforth referred to as the "*Code*") (Turland *et al.* 2018), the correct name for the species in *Hilliardiella* is *H. oligocephala*. This view was also followed in Robinson *et al*. (2016: 88). The text below is structured chronologically according to selected key publications, with an assessment of the implications of each for the name of the taxon under consideration. The contribution is concluded with a synopsis containing the correct name, a full synonymy, and the appropriate author citation and date of publication for each name.

The genus name *Webbia* Candolle (Oct. 1836: 72) was established to accommodate about eight southern African species of Asteraceae. Included were the following two species names that are relevant for the present contribution: *Webbia elaeagnoides* Candolle (1836: 73) and *W. oligocephala* Candolle (1836: 73). *Webbia* DC. is a later homonym of *Webbia* Spach (Jun. 1836: 356) (Hypericaceae), but this does not affect the legitimacy and final epithets of these two species names. The two species names are based on different types and may well represent different, though closely related taxa, but this is not now relevant as the purpose of the present contribution is to establish which one of the two epithets have priority when the two taxa are considered conspecific—a view adopted by recent authors. If a choice is possible between legitimate available final epithets of names of equal priority at the corresponding rank, as in the present instance, Art. 11.5 of the *Code* rules that "...the first such choice to be effectively published establishes the priority of the chosen name, and of any legitimate combination with the same type and final epithet at that rank, over the other competing name(s)". How such a choice should be effected is explained in Art. 11.5 Note 3: "A choice as provided for in Art. 11.5 is effected by adopting one of the competing names, or its final epithet in the required combination, and simultaneously rejecting or relegating to synonymy the other(s), or homotypic (nomenclatural) synonyms thereof" (Turland *et al.* 2018).

Walpers (1843) transferred Candolle's (1836) members of *Webbia* to the genus *Vernonia* Schreber (1791: 541). Some of the required new combinations under *Vernonia* were already proposed in a manuscript by Schultz Bipontius to which Walpers had access. At the time there existed the validly published earlier name *Vernonia elaeagnoides* Kunth (1820: 33) for another unrelated taxon from Columbia, hence Walpers (1843) used for Candolle's *Webbia elaeagnoides* a replacement name already proposed by Schultz Bipontius in manuscript, namely *Vernonia kraussii* Sch.Bip. ex Walpers (1843: 947). At the same time, *Webbia oligocephala* of Candolle (1836) became *Vernonia oligocephala* (DC.) Sch.Bip. ex Walpers (1843: 947). Seeing that the two species of Candolle (1836) were retained as separate taxa by Walpers (1843), no choice between the epithets was made.

Harvey (1865: 51) also treated the two species of Candolle (1836) as members of *Vernonia*, but considered them conspecific, although he reduced each to varietal rank under the united species, to which he applied the specific epithet of the replacement name of Walpers (1843), i.e. '*kraussii*'. As a result there were the following two taxa: *Vernonia kraussii* Sch.Bip. ex Walp. var. *kraussii* (≡ *Webbia elaeagnoides* DC.) and *Vernonia kraussii* var. *oligocephala* (DC.) Harvey (1865: 51) (≡ *Webbia oligocephala* DC.). The oldest available epithet for the united species is '*oligocephala*' (1836), considering

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that in *Vernonia* transfer of the competing '*elaeagnoides*' (1836) is blocked by an earlier homonym. Yet Harvey (1865) adopted, incorrectly, the epithet of a later homotypic synonym of one of the competing names. For this choice of specific epithet Harvey (1865) most probably invoked the now disallowed "Kew Rule" (Stevens 1991) that was applied by some botanists at the time, notably in colonial Floras such as *Flora Capensis*. This practise considered as legitimate a binomial name currently in use, even if it had been formed in contradiction with the traditional principle of priority. Swelankomo *et al*. (2016) accepted the use of the epithet '*kraussii*' by Harvey (1865) as an act equivalent to choosing the epithet '*elaeagnoides*'. However, Art 11.5 Note 3 of the *Code* (Turland *et al.* 2018) clearly does not provide for Harvey's action as a means of effecting a choice, although it does allow the rejection or synonymizing of a homotypic synonym to effect a choice. Harvey (1865) therefore did not make a choice between the original two epithets as required by Art. 11.5 (Turland *et al.* 2018).

Kuntze (1898: 138–140) treated some species of *Vernonia* under the new genus *Cacalia* Kuntze (1891: 323) non Linnaeus (1753: 834). The new combination *Cacalia elaeagno(i)des* (DC.) Kuntze (1891: 968) (≡ *Vernonia kraussii* Sch.Bip. ex Walp.) was published in an earlier volume of this work. Kuntze (1891, 1898) did not mention *Webbia oligocephala* or any of the subsequent combinations using this epithet. He was correct to have used the oldest available epithet, '*elaeagnoides*', in *Cacalia*. However, by not referring to the entity with the specific epithet '*oligocephala*', a choice in the way required by the *Code* was not effected.

Since the mid-20th century most workers treated the two entities of Candolle (1836) as a single species but, unlike Harvey (1865), without any infraspecific taxa. Amongst the first authors to have correctly applied the epithet '*oligocephala*' to the combined species when treated as a *Vernonia* are Letty (1962: 341), Merxmüller (1967: 183), Claassen (1970), and Hilliard (1972: 356, 1977: 43). There was, however, no need for them to make a choice between the two 1836 epithets considering that transfer of the epithet '*elaeagnoides*' to *Vernonia* was precluded by the rules, because of the existence of an earlier homonym.

Robinson (1999) published the new generic name *Hilliardiella* to accommodate the species originally placed in *Webbia* by Candolle (1836). Similar to the above-mentioned late 20th century authors, he treated the two taxa of Candolle (1836), under consideration here, as a single species, namely *Hilliardiella oligocephala*. When deciding on an epithet for the combined species in *Hilliardiella*, Robinson (1999) was the first to be met with a situation where no pre-existing names precluded the transfer of an epithet to the new genus. Hence he had to make a choice between the two competing epithets of Candolle (1836). Robinson (1999) adopted '*oligocephala*' as the preferred epithet in a combination at species level, and simultaneously relegated to synonymy the competing epithet '*elaeagnoides*', as well as some later synonyms. Robinson (1999) therefore effected a choice (nomenclatural act) as required by Art. 11.5 and its explanatory Note 3 (Turland *et al.* 2018). The choice of this particular epithet was fortunate as it also ensured some nomenclatural continuity, considering that since the mid-20th century the species was usually referred to in the literature as *Vernonia oligocephala*.

To summarize, the correct name and its synonyms, with author citations and dates of valid publication, are as follows:

Hilliardiella oligocephala (DC.) Robinson (1999: 230).

≡ *Webbia oligocephala* Candolle (1836: 73) ≡ *Vernonia oligocephala* (DC.) Sch.Bip. ex Walpers (1843: 947) ≡ *Vernonia kraussii* var. *oligocephala* (DC.) Harvey (1865: 51).

= *Webbia elaeagnoides* Candolle (1836: 73) ≡ *Vernonia kraussii* Sch.Bip. ex Walpers (1843: 947) ≡ *Cacalia elaeagnoides* (DC.) Kuntze (1891: 968) ≡ *Hilliardiella elaeagnoides* (DC.) Swelank. & J.C.Manning in Swelankomo *et al*. (2016: 50).

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