

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/314088340>

Nomenclatural notes on some autumn flowering daffodils (Narcissus, Amaryllidaceae)

Article in *Phytotaxa* · February 2017

DOI: 10.11646/phytotaxa.297.2.3

CITATIONS

0

READS

159

3 authors, including:



[Maarten Christenhusz](#)

Plant Gateway

130 PUBLICATIONS 1,547 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Ferns and lycophytes from Paraná [View project](#)



Teaching Plant Systematics [View project](#)

All content following this page was uploaded by [Maarten Christenhusz](#) on 24 March 2017.

The user has requested enhancement of the downloaded file.



Nomenclatural notes on some autumn flowering daffodils (*Narcissus*, Amaryllidaceae)

HAROLD KOPOWITZ^{1*}, MARILYNN HOWE² & MAARTEN J. M. CHRISTENHUSZ^{3,4}

¹*Ecology and Evolutionary Biology, University of California, Irvine, California 92705, U.S.A.; e-mail: paph2@earthlink.net*

²*P.O. Box 11372, Marina del Rey, California 90295, U.S.A.*

³*Plant Gateway, Hertford, Hertfordshire, U.K.*

⁴*Royal Botanic Gardens, Kew, Richmond, Surrey, U.K.*

*author for correspondence

Keyword: Taxonomic key, historical confusion, *Narcissus obsoletus*, *Narcissus miniatus*, *Narcissus serotinus*

Autumn flowering daffodils have been recorded in taxonomic history for at least 500 years. First descriptions were often merely based on hearsay, as they were often not studied alive. Consequently, many errors in interpretation of these names have occurred and taxonomic confusion, errors in identification and misapplication of names have led to an accumulation of taxonomic entanglement in *Narcissus* Linnaeus (1753: 289) nomenclature. In this paper we address some of these past confusions and provide a key to identify autumn flowering species.

There often has been inadequate research to identify the earliest description of a taxon of *Narcissus*. Unfortunately, important checklists such as the *World Checklist of Selected Plant Families* (WCSP 2016), the RHS's *The International Daffodil Register and Classified List* (Kington 2008), and American Daffodil Society's List of Daffodil Names (www.daffseek.org), *Flora iberica* (Aedo 2013) and many others all contain incorrect names that are treated as accepted. This usually is because authorities agreeing on which names to accept are unaware of the nomenclatural history.

Parkinson (1629) recognized two species: '*Narcissus autumnalis minor*' and '*Narcissus albus autumnalis medio obsoletus*'. He illustrated these two species with woodcuts (Figs. 1a and 2), which were based on woodcuts that were published earlier. In this article we recount the history of *Narcissus* nomenclature with regards to autumn flowering species currently known under the names *Narcissus elegans* (Haworth 1831: 13) Spach (1846: 452), *N. miniatus* Koopowitz *et al.* (2005: 22), *N. obsoletus* (Haworth 1819: 146) Steudel (1841: 182) and *N. serotinus* Linnaeus (1753: 290). In this communication we enlighten the reader about the taxonomic history and the correct names to be applied.

Taxonomy and nomenclatural history

Narcissus serotinus Linnaeus (1753: 290).

Homotypic synonyms:—*Calathinus serotinus* (L.) Rafinesque (1838: 21). *Hermione serotina* (L.) Haworth (1831: 13). *Queltia serotina* (L.) Jordan in Jordan & Fourreau (1903: 36). *Narcissus serotinus* var. *genuinus* (L.) Maire & Weiler in Maire (1959: 63), *nom. inval.*

Type (lectotype, designated by Barra & López González 1984: 358):—*Löfling s.n.*, Herb. Linn. no. 412.14 (LINN!)

Heterotypic synonym:—*Narcissus serotinus* var. *emarginatus* Chabert (1889: 321). Type: ALGERIA. Médéah; no original material located.

Notes:—The illustration of '*Narcissus autumnalis minor*' of Parkinson (1629), a syntype, first appeared in Clusius (1576; see Fig. 1b). This was probably originally illustrated by Theodorus Jacobus de Monte Taberne in his *Eicones plantarum* (Tabernaemontanus 1590: 611; see Fig. 3). The name was validated by Linnaeus in 1753, citing the plate of Parkinson, but a specimen from the herbarium of Linnaeus was chosen as lectotype (see discussion in Barra & López González 1984: 357–358). The name *N. serotinus* has been used throughout the Mediterranean to designate small plants of *Narcissus* that bloom in the autumn and produce flower scapes before any leaves can be seen. When leaves are sometimes produced after flowering they are threadlike and can be described as nematophyllous or filiform. If there is a leaf blade only one is produced from the growing tip of the bulb.



FIGURE 1A. ‘*Narcissus autumnalis minor*’ (= *N. serotinus*) of Parkinson (1629). **b.** ‘*Narcissus autumnalis minor*’ (= *N. serotinus*) of Clusius (1576: 252).

Narcissus miniatus Donn.-Morg., Koop. & Zonn. in Koopowitz *et al.* (2005: 22)

Type:—SPAIN. Cadiz Los Barrios, November 1999: *H. Koopowitz 11006* (holotype, HNT!).

Notes:—There were two species masquerading under the name *N. serotinus*. One has a six-parted lemon-yellow very reduced corona with a single flower on the scape, while the other had either a three-parted or an entire, but somewhat triangular, sullen orange corona and one to many flowers on the stem. Neither plant has leaves at the time of flowering. Comparing genome size measurements it was possible to show that the plant with the orange corona was an allopolyploid natural hybrid of the yellow corona species and *N. obsoletus*, which was named *N. miniatus* (Koopowitz *et al.* 2005). Maire (1959) used the name ‘*Narcissus* × *obsoletus*’ for the occasional natural hybrid between *N. elegans* and *N. serotinus*. But we stress here that *N. elegans* and *N. obsoletus* pertain to the same biological species; hence, the name *N. obsoletus* holds nomenclatural priority and is not the name to be applied to the hybrid. The polyploid, fertile species of hybrid origin was named *N. miniatus*, and the epithet ‘*obsoletus*’ should not have been applied to the sterile hybrid as it was already used by Haworth for the “leafy autumnal” species. Unfortunately, in some modern treatments (e.g. Díaz Lifante & Andres Camacho 2007, Bergmeier *et al.* 2011), the name *N. obsoletus* has been applied erroneously to *N. miniatus*, as *N. miniatus* is not the “leafy” autumn daffodil of Parkinson and Haworth. Marques *et al.* (2010) used the name *N. miniatus* in the correct sense. In part, the confusion stems from the use by Parkinson of the descriptor ‘rush-like (juncifolius)’ for the leaves in *N. obsoletus*. Even though ‘junciform’ is usually used for terete leaves, leaves of *Juncus* can be either terete or flattened, depending on the species. Both ‘*Narcissus juncifolius*’ ‘*T*’ and ‘*II*’ of Tabernaemontanus (1590) illustrates plants with broader flattened leaves. Modern workers have confused these names for plants we now place in the *Jonquilla* complex (a name with the same etymology as *Juncus*).

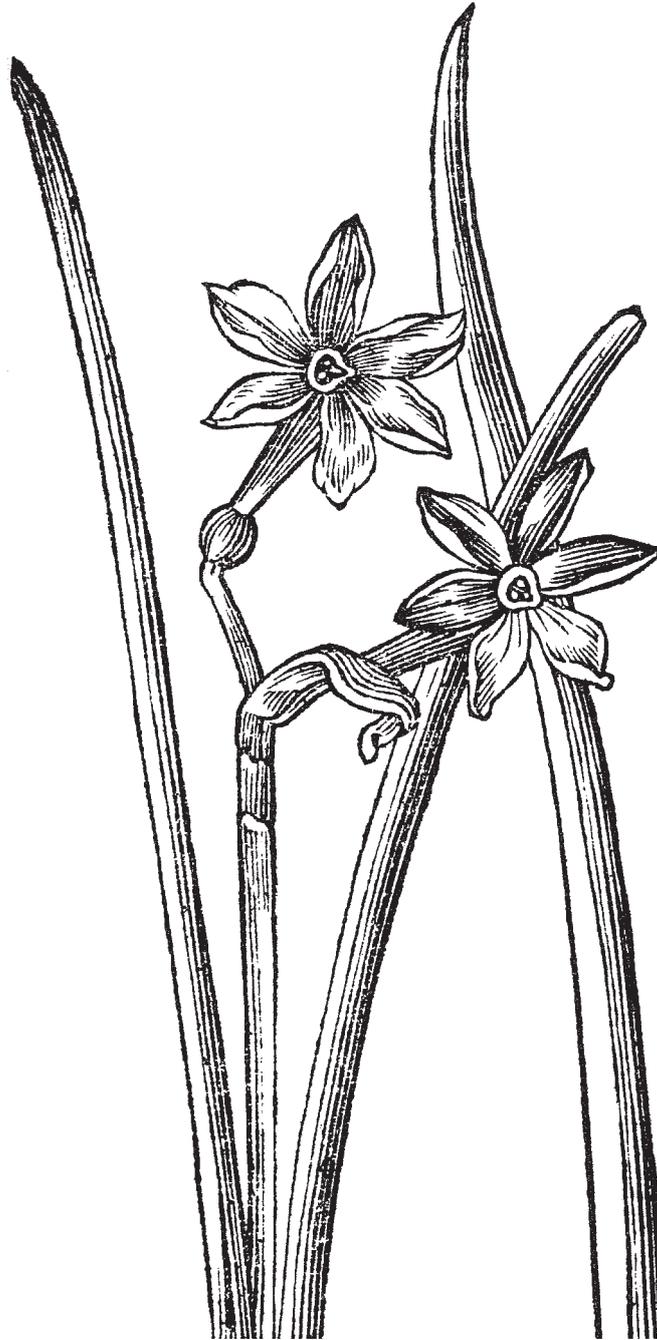


FIGURE 2. '*Narcissus albus autumnalis medio obsoletus*' (= *N. obsoletus*). Plate 89, fig. 4 of Parkinson (1629).

Narcissus obsoletus (Haw.) Steudel (1841: 182)

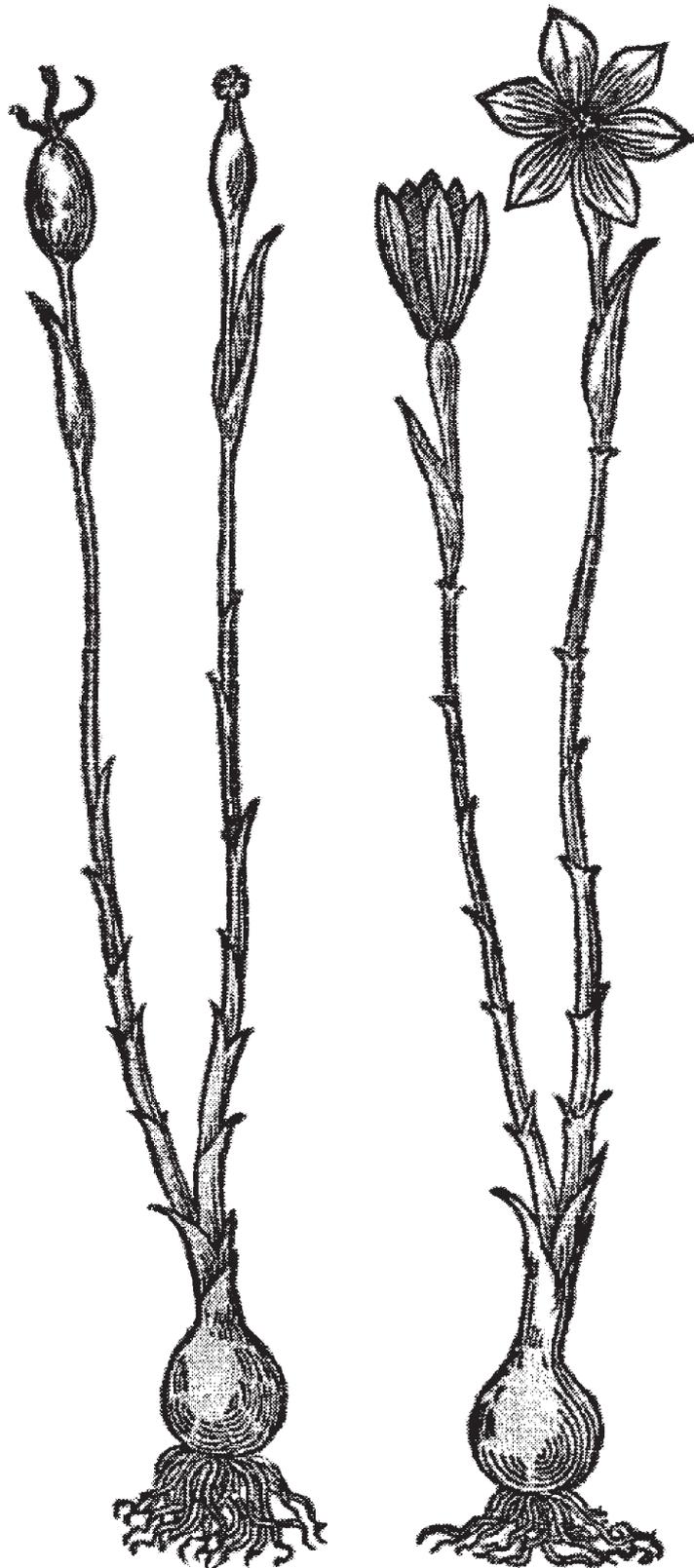
Basionym:—*Hermione obsoleta* Haworth (1819: 146).

Homotypic synonyms:—*Narcissus obsoletus* (Haw.) Spach (1846: 452), *nom. illeg.* *Narcissus serotinus* L. var. *obsoletus* (Haw.) Nyman (1882: 713). *Narcissus elegans* (Haw.) Spach var. *obsoletus* (Haw.) Burbidge (1875: 86). *Narcissus autumnalis* Link subsp. *obsoletus* (Haw.) Richter (1890: 245).

Type (lectotype, designated by Fernández Casas & Pizarro Domínguez 2007: 3):—Tab. 89, figure 4, *Narcissus albus autumnalis medio obsoletus* of Parkinson (1629: 90).

Heterotypic synonyms:—*Narcissus serotinus* Desfontaines (1798: 283), *nom. illeg.* *Narcissus elegans* (Haw.) Spach (1846: 452). *Hermione elegans* Haworth (1831: 13). Lectotype (designated here): Plate 82 in Desfontaines (1798).

Narcissus autumnalis minor.



Narcissen Köpflein.

FIGURE 3. '*Narcissus autumnalis minor*' (= *N. serotinus*). Plate 611 of Tabernaemontanus (1590).

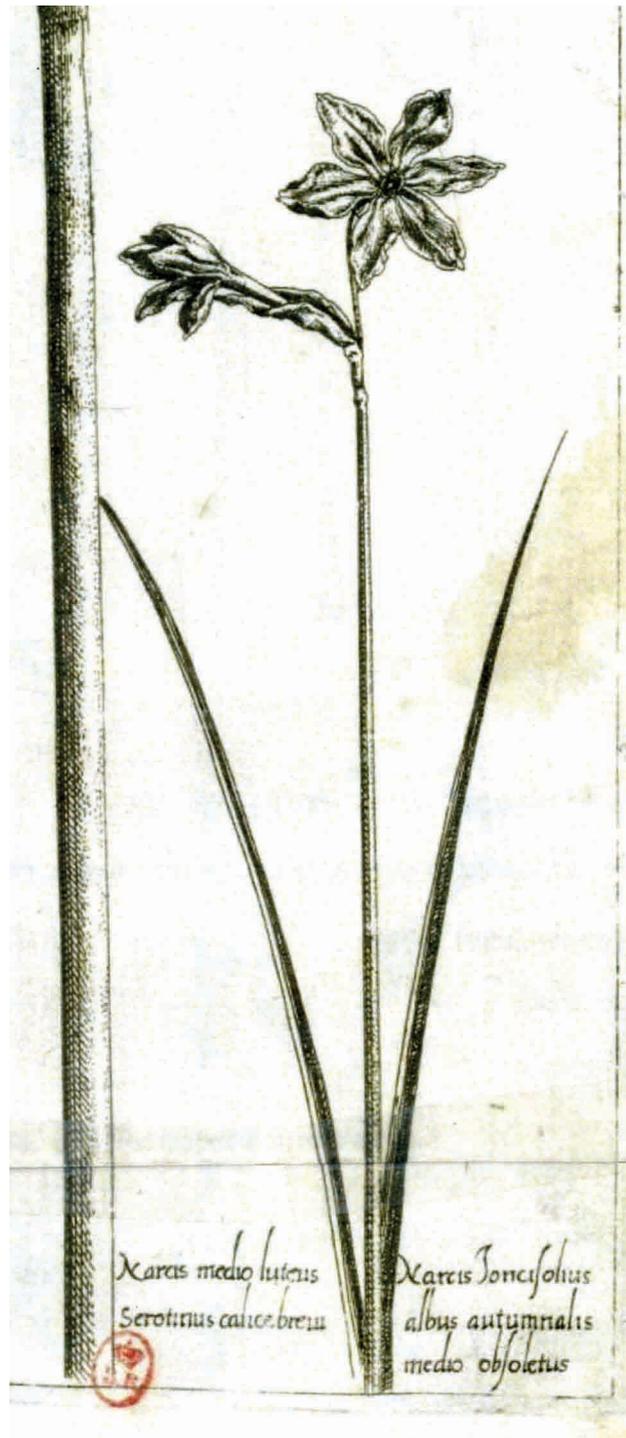


FIGURE 4. *Narcissus juncifolius albus autumnalis medio obsoletus* (= *N. obsoletus*). Plate 20 of Vallet (1608).

Notes:—Parkinson’s ‘*Narcissus albus autumnalis medio obsoletus*’ was described as the “white autumnal daffodil with the sullen crown” and his description rendered into modern English reads as follows: “This autumn daffodil has two or three leaves at the most, and very narrowly so, that some reckon it among the rush daffodils, being somewhat broad at the bottom and more pointed at the top. Between the leaves comes the stalk usually bearing two flowers and no more and each with six white leaves (tepals) each one pointed and not rounded. The cup is small and round, like that of the least rush daffodil, of a yellow color at the bottom but towards the edge a dun or sullen color.” The illustration shows two florets held almost at right angles to each other and there are two well developed flat leaves. This illustration appears to have been derived from a series of illustrations purporting to be the ‘leafy autumnal narcissus’. The earliest illustration of this taxon is that of Vallet 1608, followed by Sweerts (1612; a mirror image common when reproducing woodcuts) and Rabel (1622), who produced a somewhat simplified rendering, very similar to the illustration that Parkinson used some



FIGURE 5. '*Narcissus juncifolius albus autumnalis medio obsoletus*' (= *N. obsoletus*) of Sweerts (1612).



FIGURE 6. '*Narcissus albus medio obsoletus autumnalis*' (= *N. obsoletus*) Plate 22 of Rabel (1622).

seven years later (Fig. 6). We do not know where Vallet's plants actually originated. His work was published as an illustration from the flowers in the garden of King Henry IV of France, but there is no assurance that it was actually grown there, although one would assume this to be the case. Tabernaemontanus' (1590) woodcut labeled *Narcissus juncifolius* II (Fig. 5) shows four open flowers and one bud, with the bulb only bearing two leaves. Desfontaines (1798) described *N. serotinus* for this taxon, basing it loosely on *N. serotinus* of Linnaeus, but redefining it to include both, unaware that these are not the same species. He stated that the plant is from Algeria and illustrated it with a plate by Redouté, showing two plants, one with a single flower on the scape and flowering without leaves (hysteranthous). The second has two leaves at the time of flowering (synanthous) and a scape bearing seven florets (Fig. 7). He considered it a single variable species, but because of the earlier *N. serotinus* of Linnaeus (1753) Desfontaines' name is illegitimate. Haworth (1819) published *Hermione obsoleta* for this species, referring to Parkinson's polynomial, without having seen an actual specimen, but calling it the 'leafy autumnal', contrary to 'the knotty stalked autumnal' (*N. serotinus* of Linnaeus). When he became aware of the plate of Desfontaines, he renamed the synanthous plant as *Hermione elegans* Haworth (1831), calling it the 'slender jasmine'. Both names actually refer to the same species, both having two leaves at the time of flowering (other species of the *Tazetta* group normally have more than two). The genus *Hermione* Salisb. ex Haworth (1819: 137) was reunited with *Narcissus* by Steudel (1841) and both names were transferred. *Narcissus elegans* became the name under which this species became known in horticulture, but *N. obsoletus* holds nomenclatural priority, being older, and is therefore the correct name for this species, as already pointed out by Fernandez Casas & Pizarro Dominguez (2007).

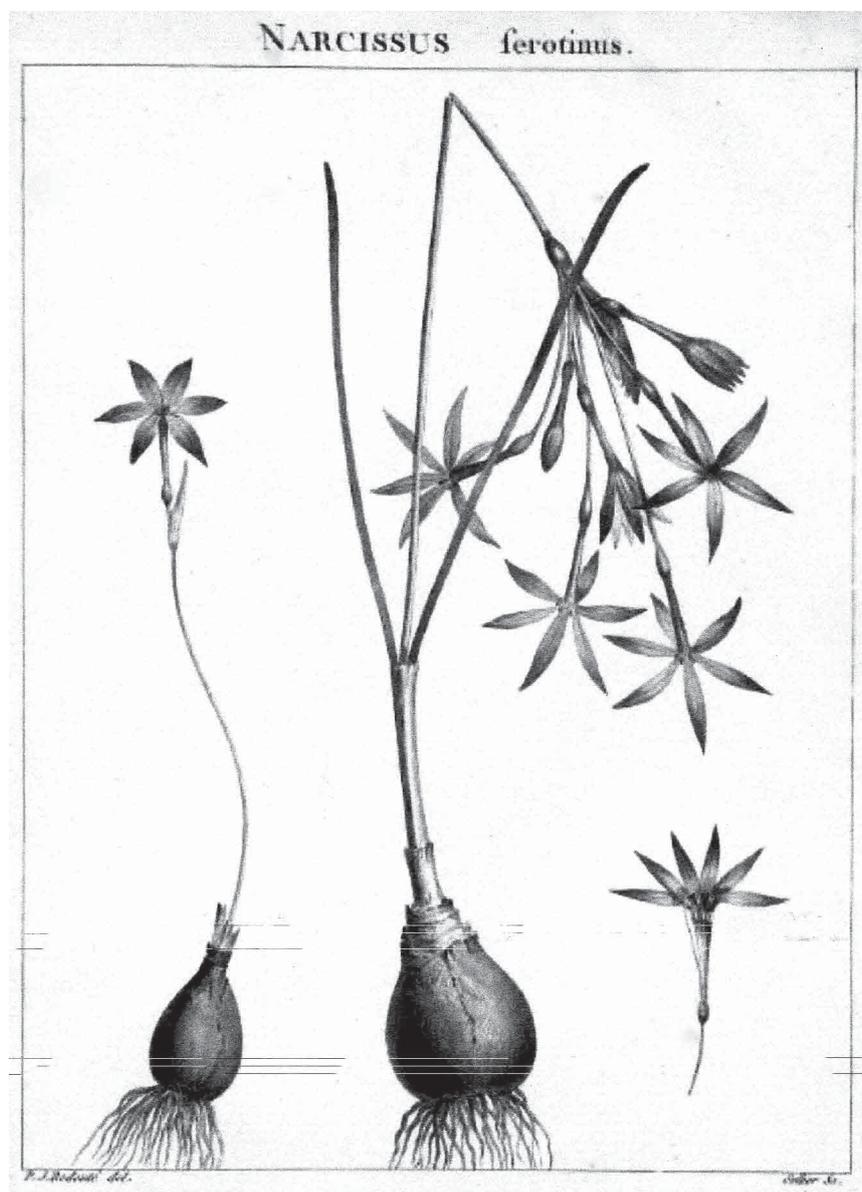


FIGURE 7. '*Narcissus serotinus* (= *N. obsoletus*)' Plate 82 of Desfontaines (1798).

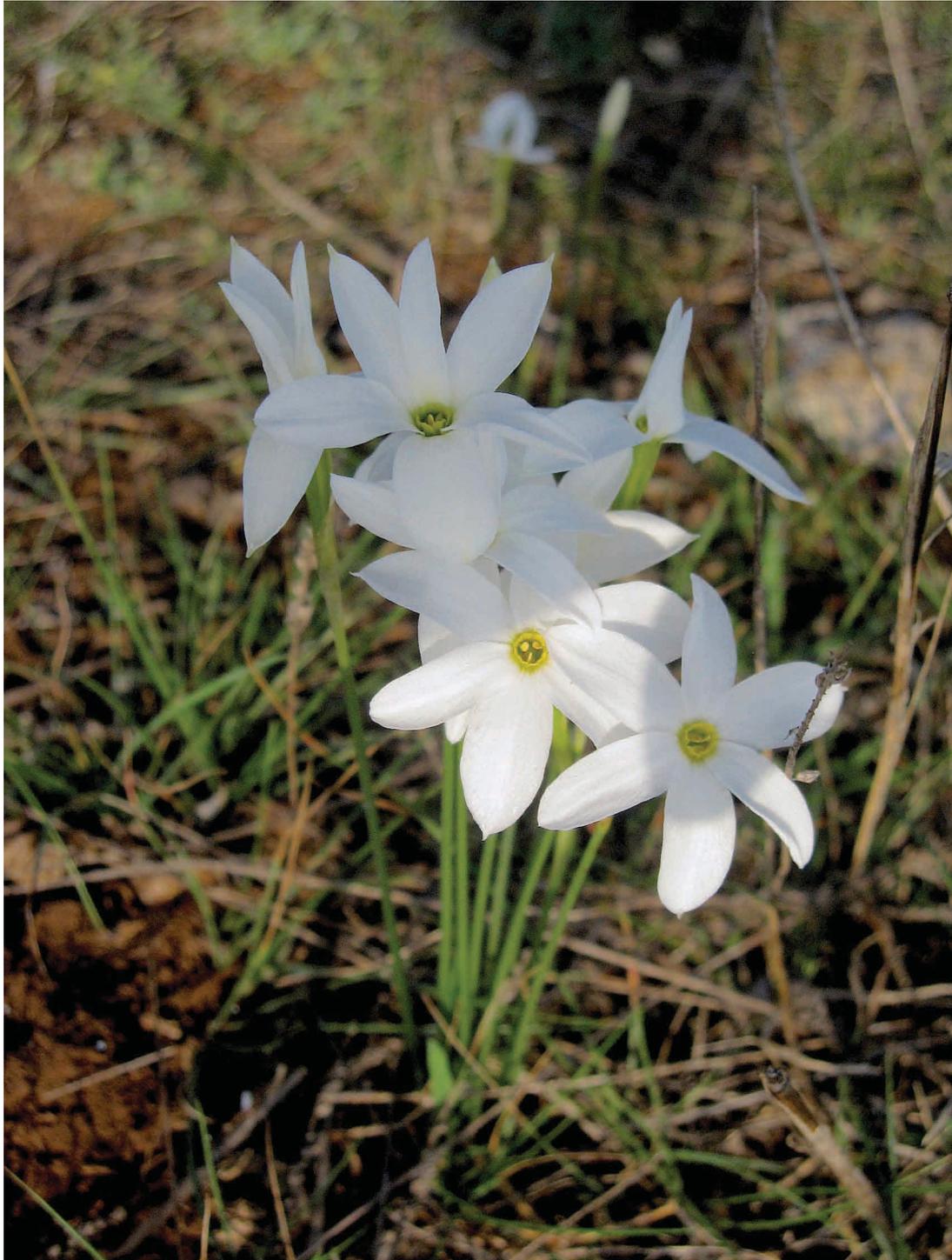


FIGURE 8. *Narcissus serotinus*. Photo: H. Koopowitz

Key to the autumn flowering species of *Narcissus*

1	Flowers hysteranthous	2
-	Flowers synanthous	5
2	Tepals white	3
-	Tepals coloured, yellow or green	4
3	Corona reduced, divided into six lobes (not entire), lemon, tube inflated, normally only one flower in the scape.....	<i>N. serotinus</i>
-	Corona not reduced, divided into three lobes (or entire but then triangular in shape), orange, tube narrow, one to eight flowers in the scape	<i>N. miniatus</i>
4	Tepals yellow, corona reduced to six scales	<i>N. cavanillesii</i>
-	Tepals green, corona six separate lobes.....	<i>N. viridiflorus</i>
5	Corona as long as or longer than the tepals.....	6

-	Corona less than half the length of the tepals	8
6	Tepals not reduced, corona tubular, anthers with radial arrangement	<i>N. minor</i> 'Cedric Morris'
-	Tepals reduced, corona conically expanded, anthers placed ventrally	7
7	Flowers pristine white	<i>N. cantabricus</i>
-	Flowers cream to creamy-yellow	<i>N. romieuxii</i>
8	Tepals yellow, more than one flower to a scape, corona less than half the tepal length	<i>N. aureus</i>
-	Tepals white or cream, usually one flower to a scape, corona different in proportion	9
9	Corona present	10
-	Corona absent	<i>N. broussonetii</i>
10	Corona white	11
-	Corona orange or yellow	12
11	Stamens emergent, filling the corona. Plants robust with many small rounded flowers per scape	<i>N. pachybolbus</i>
-	Stamens not emergent, small in relation to corona. Plant variable in size, few to many flowers per scape	<i>N. papyraceus</i>
12	Corona orange with sides incurved	<i>N. obsoletus</i>
-	Corona yellow with sides straight	<i>N. tazetta</i>



FIGURE 9. *Narcissus obsoletus*. Photo: H. Koopowitz



FIGURE 10. *Narcissus miniatus*. Photo: H. Koopowitz

Conclusion

The name that should be accepted for the “leafy autumnal with the sullen cup” is *Narcissus obsoletus* and not *N. elegans*, which represents a heterotypic synonym. The species with the six-parted, lemon-yellow corona, usually a single flower to the stem and no leaves at the time of flowering (hysteranthous) should be named *N. serotinus*. The other hysteranthous autumnal flowering species that has either a three-parted or an entire orange corona and can carry several flowers before its single leaf emerges is correctly named *N. miniatus*, which is a species of hybrid origin with *N. obsoletus* and *N. serotinus* as possible parents.

References

- Aedo, C. (2013) *Narcissus* L. In: Rico, E., Crespo, M.B., Quintanar, A., Herrero, A. & Aedo, C. (Eds.) *Flora iberica. Plantas vasculares de la Península Ibérica e Islas Baleares* 20. Real Jardín Botánico, C.S.I.C., Madrid, pp. 340–397.
- American Daffodil Society's List of Daffodil names. (2016) Available from: <http://daffseek.org> (accessed 21 April 2016)
- Barra, A. & López González, G. (1984) Tipificación de los táxones del género *Narcissus* (Amaryllidaceae) descritos por Linneo. *Anales del Jardín Botánico de Madrid* 40: 345–360.
- Bergmeier, E., Blockeel, T., Böhling, N., Fournaraki, C., Gotsiou, P., Jahn, R., Lansdown, R. & Turland, N. (2011) An inventory of the vascular plants and bryophytes of Gavdopoula Island (S Aegean, Greece) and its phytogeographical significance. *Willdenowia* 41: 179–190.
<https://doi.org/10.3372/wi.41.41121>
- Burbidge, F.W. (1875) *The narcissus: its history and culture*. L. Reeve & co, London, 132 pp.
- Chabert, A. (1889) Deuxième note sur la flore d'Algérie. *Bulletin de la Société Botanique de France* 36: 316–322.
<https://doi.org/10.1080/00378941.1889.10830469>
- Clusius (de l'Ecluse), C. (1576) *Rariorum aliquot stirpium per Hispanias observatarum historia, libris duobus expressa*. Plantin, Antwerp, 529 pp.
- Desfontaines, R.L. (1798) *Flora atlantica, sive historia plantarum, quæ in atlante, agro tunetano et algeriensis crescent. Tomus primus*. L.G. Desgranges, Paris, 444 pp.
- Díaz Lifante, Z. & Andrés Camacho, C.A. (2007) Morphological variation of *Narcissus serotinus* L. s.l. (Amaryllidaceae) in the Iberian Peninsula. *Botanical Journal of the Linnean Society* 154: 237–257.
<https://doi.org/10.1111/j.1095-8339.2007.00653.x>
- Fernández Casas, F.J. & Pizarro Domínguez, J.M. (2007) Acerca de *Narcissus obsoletus* (Haworth) Steudel (Amaryllidaceae). *Adumbrationes ad Summæ Editonem* 24: 1–22.
- Haworth, A.H. (1819) *Supplementum plantarum succulentarum: sistens plantas novas vel nuper introductas, sive omissas, in Synopse plantarum succulentarum: cum observationibus variis anglicanis. Adjungitur Narcissorum revisio*. J. Harding, London, 174 pp.
<https://doi.org/10.5962/bhl.title.9314>
- Haworth, A.H. (1831) *A monograph on the suborder V. Amaryllidææ consisting of the Narcissinææ*. Tilling, Chelsea, 15 pp.
- Jordan, C.T.A. & Fourreau, J.P. (1903) *Icones ad floram Europæe novo fundamento instaurandam spectantes*, vol. 3. F. Savy, Paris, 501 pp.
- Kington, S. (2008) *The International Daffodil Register and Classified List*. Royal Horticultural Society. Available from: <http://apps.rhs.org.uk/horticulturaldatabase/daffodilregister/daffsearch.asp> (accessed 21 April 2016). International Registrar M. Underwood.
- Koopowitz, H., Donnison-Morgan, D., Zonneveld, B. & Howe, M. (2005) *Narcissus miniatus* a new species of *Narcissus*. *RHS Daffodils Snowdrops and Tulips Yearbook 2005–2006*: 19–25.
- Linnaeus, C. (1753) *Species plantarum* 1. L. Salvius, Stockholm, 816 pp.
- Maire, R.C.J.E. (1959) *Narcissinæ* Link. *Flore de l'Afrique du Nord* 6: 51–77.
- Marques, I., Feliner, G.N., Munt, D.D. & Martins-Loução, J.F. (2010) Unraveling cryptic reticulate relationships and the origin of orphan hybrid disjunct populations in *Narcissus*. *Evolution* 64: 2353–2368.
- Nyman, C.F. (1882) *Conspectus floræ Europææ*. Bohlin, Örebro, 858 pp.
- Parkinson, J. (1629) *Paradisi in sole paradises terrestres: or a garden of all sorts of pleasant flowers which our English ayre will permitt to be noursed up, etc.* H. Lownes & R Young, London, 656 pp.
- Rabel, D. (1622) *Theatrum floræ. In quo ex toto orbe selecti mirabiles venustiores ac præcipui flores tanquam ab ipsius deæ sinu proferentur*. P. Firens, Paris, 69 pp.
- Rafinesque, C.S. (1838) *Flora Telluriana* 4. H. Probasco, Philadelphia, 135 pp.
- Richter, K. (1890) *Plantæ Europææ* 1. P. Klincksieck, Paris; W. Engelmann, Leipzig, 378 pp.
- Spach, É. (1846) *Historie naturelle des végétaux: Phanérogames* 12. Roret, Paris, 452 pp.
- Steudel, E.G. (1841) *Nomenclator botanicus, editio secunda* 2. J.G. Cotta, Stuttgart, Tübingen, 810 pp.
- Sweerts, E. (1612) *Florilegium septimont batul Amsterdami comorantis. Tractans de bariis floribus et aliis indicis plantis as vivum delineatum in duabus partibus et quatuor longuis cocninnatum*. Published by the author, Frankfurt am Main, 110 pp.
- Tabernaemontanus (de Monte Taberne), J.T. (1590) *Eicones plantarum*. N. Bassaeus, Frankfurt am Main, 1128 pp.
- Vallet, P. (1608) *Le Jardin du roy très chrestian Henry IV Roy de France et Navare*. Published by the author, Paris, 12 pp. + 93 plates.
- WCSP (2016) *World Checklist of Selected Plant Families*. Facilitated by the Royal Botanic Gardens, Kew. Available from: <http://apps.kew.org/wcsp/> (accessed 21 April 2016)