# The Names of Some Autumn Flowering Daffodils

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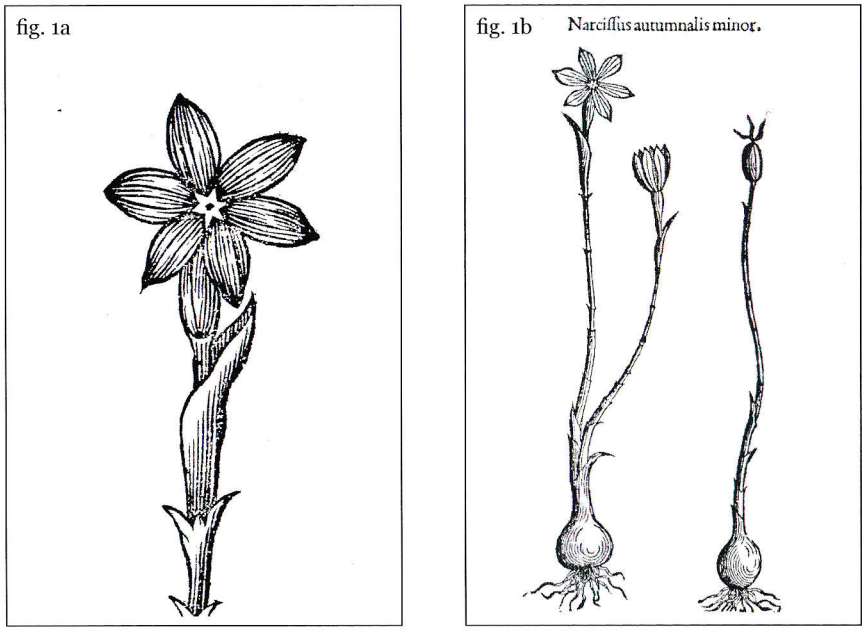
The autumn flowering daffodils have been recorded in history for at least five Centuries. Because the taxonomists during this time probably never saw many of these species in the flesh their descriptions had to depend on hearsay. Consequently, there have been many errors both in interpretation as well as in taxonomic identification. Five hundred years is a long time to accumulate taxonomic errors so sorting out the entanglement of names has not been easy.

Modern plant names start with Linnæus (Carl von Linné) who invented the binomial system published in 1735. Plant species' names contain two words, a generic name and a trivial name or species epithet. For example, *Narcissus* is the genus name and the second word *serotinus* is called the epithet. The whole species name is *Narcissus serotinus* L. The L. following the name signifies that Linnæus gets credit for this species description, although Pehr Löefling actually wrote that description for it in *Species Plantarum* (Linne, 1753).

Taxonomists do not always agree with each other and they may change a species name. Sometimes they are unaware that a species has already been described and they may give it a different name. Nomenclatural rules state that the accepted name is that of the first binomial botanical description for that species. Often there has been inadequate research to identify the earliest description. Unfortunately the current names accepted, omitted or promoted in important






**Left**: Figure 1a, *Narcissus autumnalis minor* (*Narcissus serotinus* L.) from Parkinson, 1629. **Right**: Figure 1b, *Narcissus autumnalis minor* from L'Écluse, 1576.

checklists such as the *Kew World Checklist of Monocotyledon Species* (*http://apps.kew.org/wcsp/qsearch.do*); the RHS's *The International Register and Classified List*, (S. Kington, 2008); American Daffodil Society's List of Daffodil names (*www.daffseek.org*); *Flora Iberica* (Castroviejo Bolibar S. et al., 2013) and many other lists all contain some incorrect names as the accepted names. Often this is because the authorities agreeing on the names are unaware of the real history of those names.

Here we recount the history of *Narcissus* nomenclature with regards to three of these confused autumn flowering species *Narcissus serotinus*, *N. obsoletus* and *N. miniatus*.

Although there are older accounts of autumn daffodils going back to the ancient Greeks, the story here starts with John Parkinson who in

1629 recognized two species, *Narcissus autumnalis minor* and *Narcissus albus autumnalis medio obsoletus*. As these predate Linnæus' binomial system by a century, more than two words are used in the descriptors. Parkinson illustrated these two species with woodcuts (Figs. 1a and 2). Most of the pictures illustrating the plants were borrowed or bought from other illustrators. This illustration of *Narcissus autumnalis minor* first appeared in Clusius (L'Écluse, 1576) (Fig. 1b). This was probably originally made by Theodorus Jacobus and used again in his *Eicones* (1590) (Fig. 3). The second species that Parkinson called *Narcissus albus autumnalis medio obsoletus* appears to have been based on an image originally made by Pierre Vallet that was first published in 1608 (Fig. 4a).

**Left**: Figure 2, *Narcissus albus autumnalis medio obsoletus* (*Narcissus obsoletus* (H.) Steud.) from Parkinson 1629. **Right**: Figure 3, *Narcissus autumnalis minor* from Jacobus 1590.

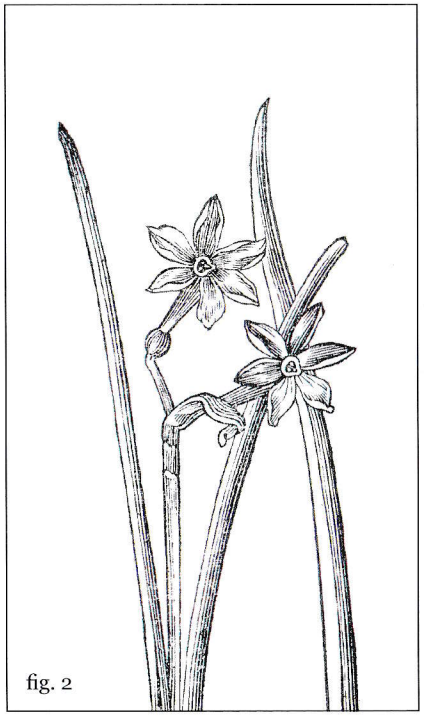


fig. 2

fig. 3



Parkinson described this second species 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 narrow 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

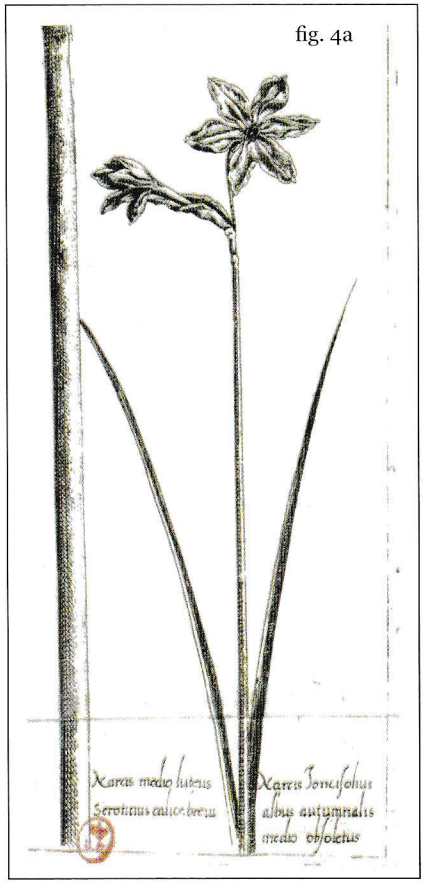


fig. 4a

**Left**: Figure 4a, *Narcissus juncifolius albus autumnalis medio obsoletus* from Vallet, 1608. **Right**: Figure 4b, *Narcissus juncifolius albus autumnalis medio obsoletus* from Sweert, 1612.

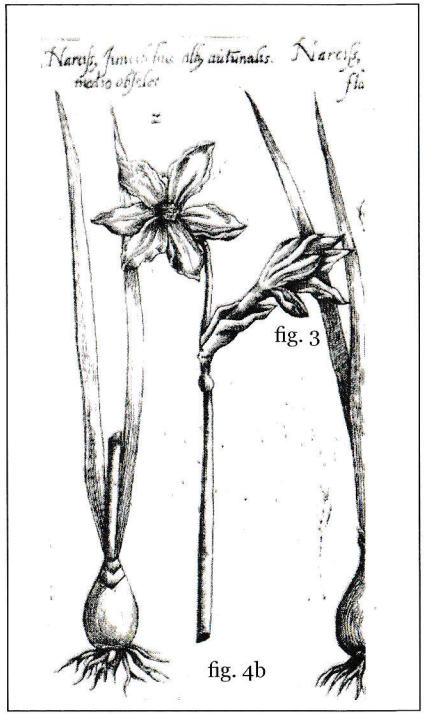


fig. 4b

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 has two florets held almost at right angles to each other and there are two well developed flat leaves.

The Parkinson illustration appears to have been derived from a series of illustrations purporting to be the leafy autumnal narcissus. The earliest labeled illustration of these is that of Pierre Vallet in 1608 (Fig. 4a). Then in 1612, Sweert produced a mirror image of Vallet's illustration (Fig. 4b). In 1622 Rabel produced a somewhat simplified

fig. 5

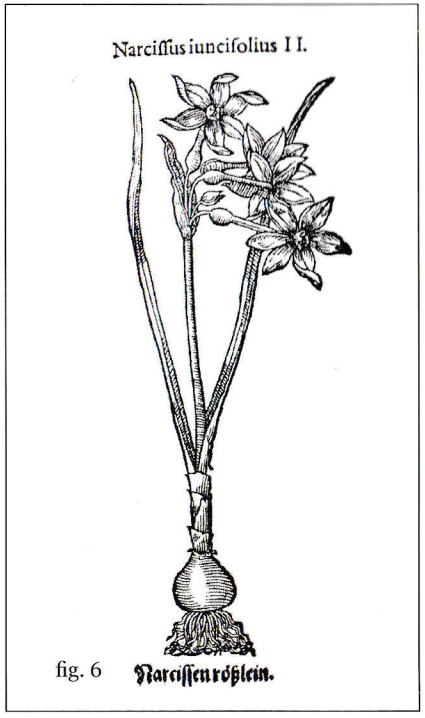


fig. 6

**Left**: Figure 5, *Narcissus albus medio obsoletus autumnalis from* Rabel, 1622. **Right**: Narcissus juncifolius II from Jacobus, 1590.



rendering (Fig. 5) that is very similar to the illustration that Parkinson used some seven years later. We do not know where Vallet's illustration 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 the flower was actually grown there.

Theodorus Jacobus (also known as Tabernæmontanus) published his *Icones* in 1590. In this book, there are no written descriptions merely woodcut illustrations of flowers. The woodcut in the *Icones* labeled *Narcissus juncifolius* II (Fig. 6) is not identical to Vallet's illustration as the woodcut shows four open flowers and one bud. An important point is that this bulb only bears two leaves, like that of the other later illustrations.

The three points to note from the Parkinson description are 1) the flowers emerge between and at the same time as the leaves; 2) the leaves are rush-like; and 3) the cup is entire and of a dun, sullen color. Parkinson pointed out that the leaves were rush-like but what did that mean? Are they flattened or cylindrical? The illustration in Parkinson shows a somewhat wide, flattened leaf not a thread-like leaf. We will discuss this in greater detail later because it has been a source of confusion. Dun, sullen color must refer to a mix of orange and green pigments in the corona. There are two *Narcissus* taxa (groups of similar looking individuals) where the corona opens green and matures to orange, however, the binomials *N. serotinus* L., *N. miniatus* Donn-Morg., Koop. & Zonn., *N. obsoletus* (Haw.) Steud. and *N. elegans* (Haw.) Spach have each been used to refer to one or more of these two taxa.

Linnæus converted *Narcissus autumnalis minor* into *N. serotinus* L. in 1753. He did not name the leafy white autumnal with the sullen crown. Then in 1798, Renee Desfontaines published *N. serotinus* with a plate illustrating this species. The illustration shows two individual plants, one is a plant that bears a single flower on the


**Left**: Figure 7, *Narcissus serotinus* from Desfontaines, 1798.

scape and that plant flowers when leaves are not present (hysteranthus). The second plant has two leaves at the time of flowering (synanthus) and a scape bearing seven florets (Fig. 7). He considered it a single variable species. He does not discuss corona color in his description.

Next Adrian Haworth published several lists of Narcissus species over his career. The 1819 publication described *Hermione obsoleta* and 1831 *Hermione elegans*. At the time of the 1819 publication, Haworth appeared to be unaware of Desfontaines work (1798). In the 1819 species list, Haworth describes *Hermione obsoleta* Haw. and he references back to Parkinson's *Narcissus albus autumnalis medio obsoletus* and he calls it the "leafy autumnal." He points out that he has not seen the plant but refers to Parkinson's description.

Then in 1831, now aware of Desfontaines' work, but having seen none of these plants in living condition, Haworth describes the multifloral plant from Desfontaines' illustration (Fig. 7) as *N. elegans* Haw. and called it "the slender jasmine." At the same time he repeats the name *H. obsoleta* Haw., still designated as the "white leafy autumnal...with a sullen crown," again stating this was from Parkinson, but



not seen by him. Both descriptions actually refer to the same species, because both have two leaves at the time of flowering. No other tazetta has only two leaves at the time of flowering; they usually have more. In 1841, Steudel sunk the genus *Hermione* back into *Narcissus*, later Spach (1848) also changed *Hermione elegans* into *N. elegans*. Because *N. obsoletus* (Haw.) Steudel was published first, it should therefore take precedence and *N. elegans* (Haw.) Spach., the name in common usage, must be reduced to a synonym of *N. obsoletus* (Haw.) Steud. This was pointed out by Fernandez Casas and Pizarro Dominguez in 2007 but that work has, for a variety of reasons, been deliberately ignored.

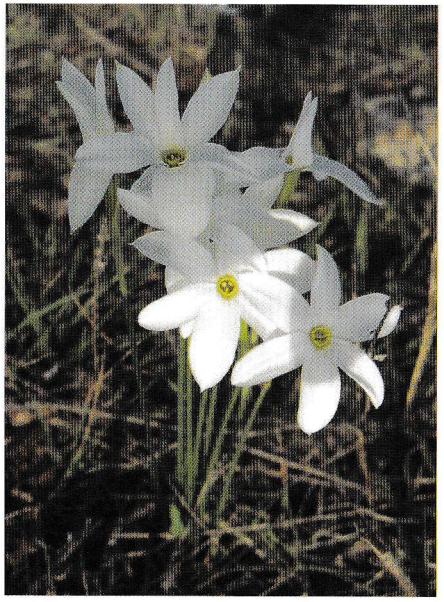


Figure 8. *Narcissus serotinus* L. *Photo:* H. Koopowitz

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 nematophyllus or filiform. If there is a leaf lamina only one is produced from the growing tip of the bulb. There are two different flowers masquerading with the same name. One has a six-part, lemon-yellow, very reduced corona with a single flower on the scape while the other has either a three-part 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. Using total nuclear DNA content we were able to show that the plant with

**Left**: Figure 9, *Narcissus obsoletus* (Haw.) Steud. *Photo*: H. Koopowitz.
**Right**: Figure 10, *N. miniatus* Donn-Morg., Koop. & Zonn. *Photo*: H. Koopowitz.

the orange corona was an allopolyploid natural hybrid of the yellow corona species and the "leafy autumn species with the sullen crown" and we named it *Narcissus miniatus* (Donnison-Morgan et al., 2005). At that time we were following the taxonomy of Maire (1959) who used the name *N. elegans* and illustrated it with the multiflowered spike from Desfontaines. (This was the illustration that Haworth used to erect the name *N. elegans*.) He also indicated that the name *N. obsoletus* might be a synonym for *N. elegans* and signaled this by putting a query mark after the name in the list of synonyms for *N. elegans*. However, he also used the name *Narcissus* x *obsoletus* for the occasional natural hybrid between *N. elegans* and *N. serotinus*. And when we found the hybrid growing in the wild we suggested that the putative parents were *N. serotinus* sensu Linnæus and *N. elegans*, the name being applied at that time to the leafy autumn species. We argue here now that *N. elegans* and *N. obsoletus* are the same species and that the name *N. obsoletus* takes precedence. At that time, however, we followed Maire (1959) who designated the putative hybrid *N.* x *obsoletus* but we gave the polyploid of hybrid origin the name *N. miniatus*. The name *N. obsoletus* should not have been applied to a sterile hybrid because it was already used by Haworth for the "leafy autumnal" species. It is also not appropriate to use *N.* x *obsoletus* for *N. miniatus*.



Unfortunately, *N. obsoletus* has been used by several modern scientists for *N. miniatus* (Bergmeier et al., 2011; Díaz Lifante & Andres Camacho, 2007). Again, this is incorrect because *N. miniatus* does not flower concurrently with its leaves, and when *N. miniatus* produces leaves they are not broadly flattened or paired. *Narcissus miniatus* is not the "leafy" autumn daffodil of Parkinson and Haworth. Marques et al. (2010) used *N. miniatus* correctly but most modern taxonomists have, for some peculiar reason, confused the narrower thread-like leaves produced after flowering in *N. miniatus* with the broader and flattened leaves of *N. obsoletus* (syn. *N. elegans*) that are produced before and concomitant with flowering. In part, the confusion also stems from the use by Parkinson of the descriptor "rush-like" for the leaves in *N. obsoletus*. The term *juncifolius* has also been used to describe those leaves. *Juncus* leaves, however, can be either terete or flattened. Tabernæmontanus's *Icones* (1590) has two plates illustrating plants called *Narcissus juncifolius I and II,* and both show flattened leaves like those of the leafy autumnal daffodil. All of these are recognizably tazettas and all have the broader flattened leaves. Modern workers have confused the terms juncifolius and rush-like with the kinds of narrow, thread-like leaves we recognize in the *jonquilla*-species clades.

In all of the illustrations of the leafy autumnalis plant only two leaves are portrayed, coming out of the bulb with the flower spike between them. *Narcissus obsoletus* (syn. *N. elegans*) is unique among the tazettas in being the only species where the mature bulb

produces a single pair of leaves with laminae (leaf blades) each season. It is therefore possible that the 1590 icon of *N. juncifolius* II also represents the leafy autumnal without it being designated as such but one cannot be certain of this.

*Narcissus miniatus* does not have leaves at flowering (it is hysteranthus) but later on in the season it can produce a single leaf from each growing apex (i.e. branch) within the bulb. What may look like several leaves here are in actuality single leaves produced from tightly appressed shoot apexes within the bulb.

To sum this all up, the name that should be accepted for the "leafy autumnal with the sullen cup" should be *Narcissus obsoletus* (Haw.) Steud. and not *N. elegans* (Haw.) Spach. which is merely a synonym for *N. obsoletus*. The species with the six part lemon-yellow corona and normally a single flower to the stem with no leaves at the time of flowering (hysteranthus) is *N. serotinus* Löefl. ex L. The other hysteranthus autumnal flower that has either a three part or an entire orange corona and can carry several flowers before its single leaf emerges should be called *N. miniatus* Donn-Morg., Koop. & Zonn.

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