

TYPYFICATIONS OF THE NAMES OF IBERIAN ACCEPTED SPECIES OF *NARCISSUS* L. (AMARYLLIDACEAE)

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ABSTRACT. *Typifications of the names of Iberian accepted species of Narcissus L. (Amaryllidaceae).* While preparing the taxonomic treatment of *Narcissus* for *Flora iberica* fourteen names of accepted taxa were found without any type designation. Thirteen lectotypes and one neotype are designated for these taxa. Additionally, five epitypes are selected for accepted species with old drawings as types, and one for a Linnaean name which has a deficient specimen as lectotype.

Key words. *Narcissus*, nomenclature, Iberian Peninsula, Western Mediterranean, typification.

RESUMEN. *Tipificación de los nombres aceptados de las especies ibéricas del género Narcissus (Amaryllidaceae).* En el curso de la preparación del tratamiento taxonómico del género *Narcissus* para *Flora Ibérica*, catorce nombres de taxa aceptados han sido encontrados sin designación de tipo nomenclatural. Trece lectotipos y un neotipo han sido designados para estos taxa. Adicionalmente, cinco epitipos se han seleccionado para las especies aceptadas con ilustración como tipos y uno para un nombre de Linneo que presenta un deficiente espécimen como lectotipo.

Palabras clave. *Narcissus*, nomenclatura, Península Ibérica, oeste del Mediterráneo, tipificación.

INTRODUCTION

The genus *Narcissus* L. is widely recognized as group of great taxonomic complexity (Fernandes, 1969; Webb, 1980; Mathew, 2002). It is usually attributed to its ability to hybridize and its horticultural use resulting in thousands of hybrid cultivars and

selections (Mathew, 2002). As a consequence of this complexity the number of recognised species is very variable in different taxonomic treatments: Webb (1980) recognised 26 species while Fernandes (1969) accepted 63 species. The genus is focused in Western Mediterranean area, and specifically in the Iberian Peninsula and NW Africa. A few native

species extend into France, Italy, Balkans and Eastern Mediterranean. Records in central Asia, Japan and China are almost certainly introductions. It seem also early introductions those of species in Britain and other countries in middle and north Europe.

While addressing the generic treatment of *Narcissus* for *Flora iberica*, I realized that there was a part of accepted species without designated types. The most relevant publications concerned by this question are those by Pugsley (1933) and Barra & López (1984). The first is circumscribed to the subg. *Ajax* (Salisb.) Spach [sect. *Pseudonarcissi* DC.] and lectotypify three accepted names. The second only considered Linnaean species, and lectotypify seven accepted names. Additionally, four species has been typified in Meikle (1970), Burdet *et al.* (1981), Barra (2002) and Díaz Lifante & Andrés Camacho (2007). Finally four taxa have recently described and consequently have holotype. Thus 14 accepted taxa of *Flora iberica* treatment remain without any type designation. The purpose of this paper is to contribute to the stability of nomenclature by the typification of these species. This objective that is important in any taxonomic treatment arose as meaningful one in a genus as *Narcissus* because its horticultural value (Briggs, 2002) and pharmacological applications (Murray, 2002).

The names being typified are listed in alphabetical order. When necessary, the current accepted name of the *Flora iberica* treatment is indicated in boldface.

TYPIFICATION

1. *Ajax asturiensis* Jord. in Jord. & Fourr., Icon. Fl. Eur. 3: 4, tab. 467. 1903 \equiv *Narcissus minor* subsp. *asturiensis* (Jord.) Barra & G. López in Anales Jard. Bot. Madrid 40: 376. 1984.- Type citation: "Pico de Arvas (Asturies) unde dom. Bourgeau misit a. 1864".- Lectotype (designated here): Spain. Asturias-León, pico de Arvas, 42° 59' N, 6° 26' W, 10 June 1864, *Bourgeau s.n.* (BORD!).- Epitype: Spain. León, puerto de Leitariegos, 42° 59' 10" N, 6° 24' 18" W, 20 Apr. 2009, *Patallo 6655* (MA-782287!; isoepitypes, BM!, LE!, P!, G!, US!, W!).
2. *Corbularia hedraeantha* Webb & Heldr., Cat. Pl. Hisp. App., n.º 220. 1850 \equiv *Narcissus hedraeanthus* (Webb & Heldr.) Colmeiro, Enum. Pl. Peníns. Hispano-Lusit. 5: 80. 1889.- Type citation: "In Hispania prov.

Jordan original herbarium of is kept at LY where no suitable specimen to typify *A. asturiensis* was located (M. Thiébaud, *in litt.*). I have check in other herbaria where duplicates of Jordan are usually mentioned. Curators of BM and K kindly answered my request indicating that no original material was found in their herbaria. I have searched on the European collection of P herbarium where many plants collected by Bourgeau at Spain are kept. There no material related to the protologue was located. Fortunately, at BORD herbarium I have found a sheet by Bourgeau from the original locality. It is interesting to note that there are two botanical localities named Arvas (sometimes written "Arbas") in the Cantabrian Range: one in the central part of the range (42° 59' N, 5° 42' W), and other c. 60 km western (42° 59' N, 6° 26' W). Bourgeau collected in both, but the date fits with the second (Lainz 2007). The Bourgeau's sheet at BORD includes some specimens in fruit. Unfortunately all material are fragments poorly preserved. The epitype has been collected 2 km southeastern of the Bourgeau's locality and has five flowering specimens with short perianth tube and staminal filaments adnated just in the base, which distinguish *N. minor* subsp. *asturiensis* from subsp. *minor*. It has been photographed before pressed. Additionally, a sample in Kew spirit is preserved in the MA ancillary collection.

Giennensi loco dicto Era del Fustal anno 1849 legit cl. A. Blanco”.- Lectotype (designated here): Spain. Jaén, Segura de la Sierra, Era del Fustal, 38° 18' N, 2° 34' W, 1849, *A. Blanco 220* (G photo!; isolectotype, K digital image!).

Webb original herbarium is kept at FI (Staffleu & Cowan 1988: 118) where no suitable specimen to typify *N. hedraeanthus* was found. The original material located comprises a sheet at G and other at K. In each herbarium there is an unique specimen that has a sessile flower, which permits to differentiate *N. hedraeanthus* from the related *N. hedraeanthus* subsp. *luteolentus* Barra & G. López. Fernández Casas (2010: 2) indicated as “typus” the specimen at G. This author overlooked that according to art. 9.21 of Vienna Code “On or after 1 January 2001, lectotypification or neotypification of a name of a species or infraspecific taxon is not effected unless indicated by use of the term “lectotypus” or “neotypus”, its abbreviation, or its equivalent in a modern language” (cf. McNeill *et al.* 2006). Since there is no statement like “here designated”, is doubtful if Fernández Casas (2010: 2) really wish to typify or he only is indicating type material.

3. *Hermione elegans* Haw. Monogr. Narcissin.: 13. 1831 ≡ *Narcissus elegans* (Haw.) Spach, Hist. Nat. Vég. 12: 452. 1846.- Type citation: “*Narcissus serotinus*. Desfontain. Flor. Atlant. v. 1. p. 283. tab. 82. Habitat in Algeriae arvis, secundum. Desf. l.c.”.- Lectotype (designated here): Algeria. *Desfontaines s.n.* (P!).

The excellent Redouté’s drawing shows two figures and one flower section (Desfontaines, 1798). Left figure is an 1-flowered specimen with not well developed leaves. Right specimen better fit with the current concept of *N. elegans* since it has two developed leaves and an inflorescence with seven flowers. Additionally, flower section

shows shorter stamens adnated in almost all of its length. The other original material is the Desfontaines’ sheet at P herbarium. This is composed by three specimens with bulb and leaves, plus some fragments. These specimens have dense inflorescences and narrow tepals. All these features fit very well with the current concept of *N. elegans*. Thus the right specimen of this sheet is selected as lectotype.

4. *Hermione obsoleta* Haw., Suppl. Pl. Succ.: 146. 1819 ≡ *Narcissus obsoletus* (Haw.) Steud., Nomencl. Bot. ed. 2, 2: 182. 1841.- Type citation: “Habitat in Hispania. Park. 1. c.”.- Lectotype (designated by Díaz Lifante & Andrés Camacho (2007: 257)): Parkinson (1629: 89 fig. 4). - Epitype (designated here): Spain. Sevilla, pr. Morón de la Frontera, 37° 08' 20" N, 05° 34' 34" W, 23 Oct. 2008, *Aedo 15983* (MA-777831!; isoeotypes, BM!, C!, COI!, LE!, P!, G!, SEV!, US!, W!).

Díaz Lifante & Andrés Camacho (2007) considered that *N. serotinus* L. is an endemic from south-west Iberian Peninsula and north-west Morocco and that it should be distinguished from *N. obsoletus*, a species distributed from Southern Spain to Israel. For these authors *N. serotinus* is characterized by its shorter stamens adnated lower than the one-third of length (one-half to three-quarter in *N. obsoletus*), its corona with six lobes reaching the base (three entire or emarginate lobes in *N. obsoletus*), and its hypanthial tube which is abruptly widened towards the middle (gradually widened in *N. obsoletus*). Díaz Lifante & Andrés Camacho (2007) designated as type of *N. obsoletus* the Parkinson’s drawing since no herbarium material was available. This type fit well with the previously mentioned concept of *N. obsoletus*, except for the two leaves appearing with the scape. *N. obsoletus* is synanthous but in culture conditions scapes with one or two leaves are common, which could explain the leaves included in Parkinson’s drawing (Díaz Lifante

& Andrés Camacho, 2007). It is interesting to note that Donnison-Morgan *et al.* (2005) described a new species, *N. miniatus* Donn.-Morg. *et al.*, to name these plants.

Fernández Casas & Pizarro (2007) selected the same type for *Hermione obsoleta*, although they considered that this drawing should be identified as *Narcissus elegans*, probably because of the presence of the leaves. However the 2-flowered inflorescence does not support this identification, since *N. elegans* usually has a more dense inflorescence. This interpretation has as unfortunate consequence that *N. obsoletus* predates *N. elegans*, a current name widely used in the literature.

The epitype here proposed follows Díaz Lifante & Andrés Camacho's (2007) concept of *N. obsoletus*. It is synanthous (although a specimen of the MA sheet has incipient leaf), has (1)2(3) flowers, with its shorter stamens adnated one-half to three-quarter of its length (not almost all of its length as in *N. elegans*). The epitype sheets include a color image of the living plant. Additionally, a sample in Kew spirit is kept at the ancillary collection at MA.

5. *Narcissus assoanus* Dufour in Roem. & Schult., Syst. Veg. 7: 962. 1830.- Type citation: "Hic primo vere in montibus Navarrae et Aragoniae".- Lectotype (designated here): Spain. Navarra, in montosis Tudela, 42° 3' N, 1° 36' W, *Dufour 158* (BORD!; isolectotype, K digital image!).

According to Staffeu & Mennega (2000: 149) the herbarium of Jean Marie Léon Dufour is kept at NTM. Dr. Guérin from the Nantes *Muséum d'histoire naturelle* kindly inform me that this is a mistake, and that this institution only kept the herbarium of Edouard Dufour, while the herbarium of Jean Marie Léon Dufour is at BORD.

In BORD there is a sheet which includes two specimens collected by Bubani in 1840 on the upper part, and six specimens collected by

Dufour in the lower part. The specimen of the right lower corner is selected as lectotype. This specimen has a hypanthial tube short (14.7 mm long) and straight, and a corona relatively long (ratio corona length/outer tepal length = 0.50) which permit to distinguish it from other related species, as *N. jonquilla* and *N. gaditanus*.

I have checked in other herbaria where duplicates of Dufour are usually mentioned. Curators of BR, FI, LD, LY and P kindly answered my request indicating that no original material was found in their herbaria.

The only other original material of *N. assoanus* has been located at K herbarium. It has a label from J. Gay herbarium in which is handwritten that it was collected by Dufour in Spain and donated May 23th 1818. In the same label is also indicated "Tudela et Saragosse". It seems to be a duplicate that should be considered as isolectotype.

6. *Narcissus calcicola* Mendonça in Compt. Rend. Soc. Biol. Paris 96: 1253. 1927.- Type citation: "Nous avons reçu, en 1926, envoyés par un ancien élève de l'Institut de Botanique, médecin à Porto de Mós (Province de Estremadura), des exemplaires d'une espèce inconnue du genre *Narcissus*...".- Lectotype (designated here): Portugal. Estremadura, Porto de Mós, 39° 35' N, 8° 48' W, 15 March 1925, *Carriso & Mendonça s.n.* (K right specimen, digital image!).

According to Mendonça (1927, 1930) this species was sent by Barros Santos to Mendonça in February 1926. Mendonça (1930) stated that he studied *N. calcicola* in the field and cultivated. The sheet kept at COI as holotype should be rejected as type since it was collected three years later the publication of the name. The sheet kept at K seems to be more suitable as original material. It was labelled as collected by Carriso and Mendonça in the locality mentioned in the protologue. However the year of the date is 1925, which could be just a labelling mistake.

In any case it apparently is the only suitable original material. This specimen has long tepals (about 9.3 mm long) and long corona (about 5.6 mm long) which permits to differentiate it from *N. scaberulus*.

7. *Narcissus cantabricus* DC. in Redouté, Liliac. 8, sub tab. 486. 1815.-Type citation: "Pseudonarcissus junceis foliis 111, albo flore. Clus. hist. t. 1. p. 166. f. 2.-N. omnium minimus montanus albus. Lob. ic. 119. f. 1. ic. Clus.-N. montanus albus minimus. C. Bauh. pin. 53.-Bulbocodium minimum tenuifolium album. J. B. hist. 2. p. 598. f. 2. ic. Clus."- Lectotype (designated here): Clusius (1601: 166): *Pseudo-narciss juncifol. III. albo flor.*- Epitype (designated here): Spain. Madrid, Aldea del Fresno, embalse de Picadas, 40° 20' 02" N, 04° 14' 53" W, 28 Jan. 2009, *Aedo & Pedrol 16059* (epitype, here designated, MA-779745!; isoeptypes, BM!, C!, LE!, P!, G!, US!, W).

Unfortunately there is no illustration of this species in the *Liliacées* drew by Redouté to De Candolle. On the other hand, no original specimen has been located at G and P herbaria. Thus, Clusius' icon has been selected as lectotype. This drawing shows a plant with five leaves, and a flower shortly pedunculate with the obconic corona of sect. *Bulbocodii* DC. The epithet "cantabricus" suggests that this plant come from the Northern Spain. However *N. cantabricus* is distributed by central and Southern Spain, being the northest known locality about 200 km far from Cantabrian Range. Barra & López (1982: 74) discussed some explanations about this Clusius' mistake. The epitype has four specimens with bulbs with blackish outer tunics, spathe dark brown and white flowers with short peduncles (2-4 mm long). The epitype sheets include a color image of the living plant. Additionally, a sample in Kew spirit is kept at the ancillary collection at MA.

8. *Narcissus cyclamineus* DC. in Redouté, Liliac. 8, sub tab. 486. 1815.- Type citation: "Narcissus hispanicus minor luteus, amplo calyce, foliis reflexis. Theatr. flor. t. 20".- Lectotype (designated here): Rabel (1633, tab. 20): *Narcissus hispanicus minor luteus, amplo calyce, foliis reflexis.*- Epitype (designated here): Spain. Orense, Irixio, Campo, arroyo Viñao, 42° 31' N, 8° 6' W, 22 Feb. 2009, *V.R. Gracia 12580* (MA-779716!; isoeptypes, BM, P, G, US).

Unfortunately there is no illustration of this species in the *Liliacées* drew by Redouté to De Candolle. On the other hand, no original specimen has been located at G and P herbaria. Thus, Rabel icon has been selected as lectotype. This is a curious case since the author of *Theatrum Florae* is not mentioned in this book. The information about authorship was taken from the catalogue record of Digital library of *Real Jardín Botánico* (<http://bibdigital.rjb.csic.es/spa/Libro.php?Libro=2755>) where it is also available this book. The epitype comprises six specimens of different size, showing the short hypanthial tube and the reflexed tepals that identify unequivocally this species. The epitype sheets include a color image of the living plant. Additionally, a sample in Kew spirit is kept at the ancillary collection at MA.

9. *Narcissus dubius* Gouan, Ill. Observ. Bot.: 22. 1773.- Type citation: "Aprili in sylvulis montis Lupi, & saxosis montis Capouladou. Junio in Horto Dei florentem vidi" [pr. Montpellier].- Neotype (designated here): France. Hérault, Marseille, montagne de St.-Loup, 43° 47' N, 3° 49' W, Apr. 1874, *Perret s.n.* (P!; isoneotype, BORD!).

I have searched in main herbaria where duplicates of Gouan are usually mentioned. Curators of K, C, KIEL and SBT kindly answered my request indicating that no original material was found in their herbaria. According

to Savage (1963) there is no original specimen in Smith herbarium at LINN. On the same way no original material is available in Thunberg herbarium at UPS (Juel, 1863). Finally, I have also checked the Haller herbarium at P, without success. Thus a neotype should be designated. I have located in P a well preserved sheet collected in one of the localities indicated in the protologue. This specimen is a part of an *Exsiccata* distributed by the *Société Dauphinoise* under the number 590, which came from the herbarium E. G. Camus (at general herbarium of P there are other two sheets of this *Exsiccata*, one from the herbarium E. Cosson and other without more indications). The right specimen of the two included in the sheet from Camus herbarium is designated as neotype.

The neotype has two flowers well developed (plus other in blossom), with a corona relatively longer in relation to tepals, which permits to differentiate it from *N. pachybolbus*.

10. *Narcissus pachybolbus* Durieu, Rev. Bot. Recueil Mens. 2: 425. 1846-47.- Type citation: "Il croît à Oran, dans les lieux incultes mais fertiles de la plaine".- Lectotype (designated here): Algeria. Oran, au bout du Ravin Blanc, 35° 40' N, 0° 40' W, 16-19 Feb. 1842, *Durieu s.n.* (BORD!).

Although the original herbarium of Durieu is kept at P no syntype was located there. I have check in other herbaria where duplicates of Durieu are usually mentioned. Curators of AUT, B, FI, G, L, OXF and W kindly answered my request indicating that no original material was found in their herbaria. Fortunately in BORD six duplicates of the original collection are kept. Four sheets included only bulbs and leaves poorly preserved. Other sheet has a scape with flowers bad conserved. The last sheet had two scapes, one (on the right side) almost all destroyed, and other well preserved which is here selected as lectotype.

The lectotype selected is in accordance with original description, with tepals and corona white, a dense inflorescence, twisted leaves and a short corona (in relation to tepals).

11. *Narcissus pallidulus* Graells, Indic. Pl. Nov.: 9. 1854 \equiv *Narcissus triandrus* subsp. *pallidulus* (Graells) Rivas Goday ex Fern. Casas in Fontqueria 2: 37. 1982.-Type citation: "Crescit in rupestribus regionis submontanae montium Carpetanorum: ad alt. 2500-4000'; etiam inveni in nemorosis Argandae aliisque Castellae".- Lectotype (designated here): Spain. Madrid, El Escorial, Silla de Felipe II, 40° 35' N, 4° 7' W, *Graells s.n.* (MA-591812!; isolectotypes, BM, GOET, MACB-56584, MPU, OXF, P!).

The Graell's herbarium was founded in the *Gabinete de Ciencias Naturales de el real Colegio Alfonso XII* in the monastery of El Escorial (Carrasco *et al.*, 1996, 2001). According to Carrasco *et al.*, (1996: 96) there are four syntypes of *N. pallidulus*: two at the monastery, one at MACB, and one at MA. Bueno & Sánchez Mata (1988: 155) indicated some additional original material at BM, GOET, MPU, OXF, and P (and with some doubts LY). The sheet at MA has nine specimens with bulb plus one flowering fragment. I selected as lectotype the specimen at the lower left of the sheet. It has tepals shorter than the hypanthial tube and only one leaf, which permits to differentiate *N. pallidulus* from *N. triandrus* L. s. str.

12. *Narcissus papyraceus* Ker Gawl. in Curtis's Bot. Mag. 24, tab. 947. 1806.- Type citation: "The bulbs of this plant are usually imported by the owners of Italian warehouses immediately from Italy".- Lectotype (designated here): Ker Gawler (1806, tab. 947).- Epitype (designated here): Italy. Sardinia. San Giovanni di Bindua, Iglesias, 39° 17' 58" N, 8° 29' 31" W, 20 Jan.

2009, *Bacchetta et al. s.n.* (MA-783474!; isoeptypes, BM!, C!, CAG!, LE!, P!, G!, US!, W!).

According Stafleu & Cowan (1979: 522) Ker's manuscripts and drawings are at K but no information about his herbarium is attainable. Thus the only available original material is the drawing published in the protologue which here formally designed as lectotype. The epitype selected is in accordance with original description, with both tepals and corona white, and has been collected in Italy as was stated in the protologue.

13. *Narcissus rupicola* Dufour in Roem. & Schult., Syst. Veg. 7: 958. 1830.- Type citation: "In rupium fissuris prope Buitrago in Castilia".- Lectotype (designated here): Spain. Madrid, Buitrago, 41° 0' N, 3° 38' W, Apr., *Dufour 26* (BORD!).

At Dufour's herbarium in BORD there is a sheet labelled by himself with a handwritten description of *N. rupicola*. This sheet has a specimen at the right upper corner that should be excluded of the type. It has a long peduncle and a long hyphantal tube which suggest that it is *N. assoanus*. On the left part of the sheet there are three specimens, one of them with bulb, which is here chosen as lectotype.

This specimen has a very short peduncle (about 1 mm long), a straight tube of 25 mm long, and an irregularly lobed corona 6 mm long which permit to distinguish it from other related species, as *N. scaberulus* and *N. cuatrecasasii* Fern. Casas, M. Lainz & Ruiz Rejón.

I have check in other herbaria where duplicates of Dufour are usually mentioned. Curators of BR, FI, K, LD, LY and P kindly answered my request indicating that no original material was found in their herbaria.

14. *Narcissus scaberulus* Henriq. in Bol. Soc. Brot. 6: 45. 1888.- Type citation: "Ad

Oliveira do Conde leg. A. Tavares Floret martio et aprile".- Lectotype (designated here): Portugal. Beira Alta, Oliveira do Conde, Penha do Vieiro, 40° 26' N, 7° 58' W, Apr. 1887, *A. Tavares s.n.* (COI!).

In COI is kept a sheet with two different collections. On the right side of this sheet there is a specimen with a printed label from *Flora Lusitanica Exsiccata*. It is from the original locality but collected in March 1888. This *Exsiccata* was probably distributed after publishing the name.

On the left side there are two specimens one of them without bulb. The label indicates that both comes from the original locality, and that one of two was cultivated (probably the specimen without bulb). Henriques (1888) stated that he cultivated the new species at Coimbra, and probably pressed just a scape to conserve the bulb. These specimens are clearly original material since they was collected in April 1887. The label indicating that they was a holotype was added in 1967 by A. Fernandes. However, the possibility of yet more additional sheets being found in other herbaria means that the designation of a lectotype here is necessary. Thus I selected the scape with two flowers as lectotype. The flowers show the short tepals and corona which permit to distinguish *N. scaberulus* from other related species.

15. *Narcissus tazetta* L., Sp. Pl.: 290. 1753.- Type citation: "Habitat in Galliae Narbonensis, Lusitaniae, Hispaniae maritimis".- Lectotype (designated by Barra & G. López (1984: 356)): LINN-412.9 digital image!— Epitype: Spain. Gerona, La Junquera, 42° 24' 08" N, 2° 53' 18" E, 11 Mar. 2008, *Medina & Sequeira 4337* (MA-764368!).

According to Jarvis (2007: 691) LINN 412.9 is not original material for the name since it lacks the relevant *Species Plantarum* number, and consequently should be considered

a post-1753 addition to the herbarium. Thus this author rejects Barra & López' typification and indicated that there are two available original elements: a) Herb. Burser III: 35 (UPS) and, b) Clusius, Rar. Pl. Hist. 1: 159, 160 (1601). However the lacks of this number is not a positive evidence that the specimen is a post-1753 addition to the herbarium. It could be just an oversight. I think that to reject this typification would be necessary any positive documentation, such as a letter indicating when the specimen was sent to Linnaeus. While such evidences are not found the typification should be maintained. On the other hand, it could be a pointless argument because both LINN 412.9 and Burser III: 35 fit very well with the current concept of *N. tazetta*, and no real change will be obtained for modifying the lectotype. According to Barra & López (1984) the localities mentioned in the protologue was taken from Clusius and Bauhin's synonyms and are not relevant in the typification.

Section *Tazetae* DC. is a complex group which has been divided in many species separated by minor details such as colours of different flower parts (Arrigoni, 2006; Foggi *et al.* 2005). Although in general morphology LINN-412.9 fits very well with the current concept of *N. tazetta* (Barra & López, 1984) an epitype would be necessary to avoid any ambiguity (art. 9.7 of the Code). The epitype here proposed is a recent collection from the natural area of *N. tazetta*, plus a sample preserved in Kew spirit in the MA ancillary collection. It has also been photographed before pressed to shows its yellow corona and its pure white tepals.

16. *Narcissus triandrus* L., Sp. Pl. ed. 2, 1: 416. 1762.- Type citation: "Habitat in Pyrenaeis".- Lectotype (designated by Barra & López (1982: 70)): Clusius (1611): *N. juncifolius albo flore reflexo, fig. 1.*- Epitype (designated here): Portugal. Douro Litoral, pr. Lordelo, 41° 14' N, 8° 24' W, 21 Feb. 2009, Aedo

16088 (MA-779842!; isoeotypes, BM!, C!, COI!, LE!, P!, G!, US!, W!).

Barra & López (1982) selected this drawing to preserve the traditional use of the name. The lectotype was reproduced by Barra & López (1982). It has tepals longer than hypanthial tube and numerous leaves. These authors discussed about the original locality which seem to be a reduction of those of Clusius ("... in Pyrenaeis & etiam in Hispaniis conquirere jubet..."). At the present *N. triandrus* is not known in Pyrenean range, being the nearest localities towards SW of Pamplona (Navarra). The epitype here designated has two leaves (per bulb) bicarinated along abaxial side, and flowers pale yellow with tepals longer than the tube which distinguished this taxon from subsp. *pallidulus*. The epitype sheets include a color image of the living plant. Additionally, a sample in Kew spirit is kept at the ancillary collection at MA.

17. *Narcissus viridiflorus* Schousb., Jagttag. Vextrig. Marokko: 157, tab. 2. 1800.-Type citation: "Copiose legi in loco elevato, saxoso, humido juxta Tingidem, quando itur ab arce ad montem Shibil kibir, mox dextroversum flectendo cursum inter hortos mare versus. In istmo arenoso inter Gibraltariam et pagum St. Rocque sito, et Neutral Ground dicto, hanc plantam rarissimam etiam observavi".- Lectotype (designated here): Morocco. *Schousboe s.n.* (C digital image!).

According to Stafleu & Cowan (1985: 309) the herbaria of Schousboe is kept at C. The four sheets found at C were collected from Morocco, and probably came from the first locality mentioned in the protologue. Among them the most suitable to be selected as lectotype is those labelled as IDC 133 III.6, which has a well developed plant with bulb and a 3-flowered inflorescence. This is a easily differentiated species by its green flowers with

a short corona, long hypanthial tube and narrow tepals.

I have checked in other herbaria where duplicates of Schousboe are usually mentioned. Curators of BR, FI, GOET, K, L, LD, S and W kindly answered my request indicating that no original material was found in their herbaria.

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BIBLIOGRAPHY

- ARRIGONI, P.V. -2006- Taxonomical and chorological contribution to the Sardinian flora. *Boccone* 19: 33-48.
- BARRA, A. -2002- Notas sobre *Narcissus* L. (Amaryllidaceae), II. *Anales Jard. Bot. Madrid* 59: 350-351.
- BARRA, A. & G. LÓPEZ -1982- Notas sueltas sobre el género *Narcissus* en España. *Anales Jard. Bot. Madrid* 39: 67-78.
- BARRA, A. & G. LÓPEZ -1984- Tipificación de los táxones del género *Narcissus* (Amaryllidaceae) descritos por Linneo. *Anales Jard. Bot. Madrid* 40: 345-360.
- BUENO, A.G. & D. SÁNCHEZ MATA -1988- Sobre la obra botánica de M. P. Graells (1809-1898). *Taxon* 37: 151-156.
- CLUSIUS, C. -1601- *Rariorum plantarum historia*. Antwerpiae.
- CLUSIUS, C. -1611- *Exoticorum libri decem...Curae posteriores*. Leiden.
- BRIGGS, J.B. -2002- Economics of *Narcissus* bulb production, in: Hanks, G.R. (ed.), *Narcissus and Daffodil*, Taylor & Francis, London & New York.
- BURDETH, M., A. CHARPIN & F. JACQUEMOUD -1981- Types nomenclaturaux des taxa ibériques décrits par Boissier ou Reuter: I. Gymnospermes a Graminees. *Candollea* 36(2): 543-584.
- CARRASCO, M. A., D. PEREA & A. GARCÍA -1996- Types of species described by M. P. Graells (1809-1898), found in the Real Colegio Alfonso XII (San Lorenzo del Escorial, Madrid). *Bot. Complut.* 21: 87-97.
- CARRASCO, M. A., C. MARTÍN-BLANCO & D. PEREA -2001- Herbaria of E. Carreño (1818-1841) and M. P. Graells (1809-1898) discovered in the Real Colegio Alfonso XII of San Lorenzo de El Escorial, Madrid, Spain. *Taxon* 50: 587-591.
- DESFONTAINES, R. L. -1798/99- *Flora atlantica*. L. G. Desgranges, Paris.
- DÍAZ LIFANTE, Z. & C. ANDRÉS CAMACHO -2007- Morphological variation of *Narcissus serotinus* L. s.l. (Amaryllidaceae) in the Iberian Peninsula. *Bot. J. Linn. Soc.* 154: 237-257.
- DONNISON-MORGAN, D., H. KOPOWITZ, B. ZONNEVELD & M. HOWE -2005- *Narcissus miniatus* Donnison-Morgan, Koopowitz & Zonneveld sp. nov. a new species from southern Spain. *Daffodils Snowdrops Tulips* 2005-2006: 19-26.
- FERNANDES, A. -1969- Keys to the identification of native and naturalized taxa of the genus *Narcissus* L. *Daffodil Tulip Year Book* 1968: 37-66.
- FERNÁNDEZ CASAS, J. -2010- Acerca de *Narcissus hedraeanthus* (Webb & Heldreich) Colmeiro (Amaryllidaceae). *Adumbrationes ad Summae Editionem* 36: 1-18.
- FERNÁNDEZ CASAS, J. & J.M. PIZARRO -2007- Acerca de *Narcissus obsoletus*. *Adumbrationes ad Summae Editionem* 24: 1-18.
- FOGGI, B., B. FAZIO, P. LUZZI & G. CIUFFI -2005- Tipificación dei nomi di alcune specie appartenenti al genere *Narcissus* L. sect. *Tazettae* DC. (Amaryllidaceae) descritte da Filippo Parlatore. *Parlatorea* 7: 23-26.
- HENRIQUES, J.A. -1888- Aditamento ao catalogo das Amaryllideas de Portugal. *Bol. Soc. Brot.* 6: 45-47.
- JARVIS, C. -2007- *Order out of Chaos*. The Linnean Society, London.
- JUEL, H.O. -1863- *Plantae Thunbergianae*. Uppsala.

- KER GAWLER, J. -1806- *Narcissus papyraceus* (L.) Curtis's Bot. Mag. 24, tab. 947.
- LAÍNZ, M. -2007- Eugène Bourgeau (1813-1877) y su viaje astur de 1864. Actas I Congreso de Estudios Asturianos 6: 75-93.
- MATHEW, B. -2002- Clasificación of the genus *Narcissus*, in: Hanks, G.R. (ed.), *Narcissus and Daffodil*, Taylor & Francis, London & New York.
- MCNEILL, J., F. R. BARRIE, H. M. BURDET, V. DEMOULIN, D. L. HAWKSWORTH, K. MARHOLD, D. H. NICOLSON, J. PRADO, P. C. SILVA, J. E. SKOG, J. H. WIERSEMA & N. J. TURLAND -2006- International Code of Botanical Nomenclature (Vienna Code). *Regnum Vegetabile* 146. A.R.G. Gantner Verlag KG.
- MEIKLE, R.D. -1970- *Narcissus rupicola* ssp. *pedunculatus*. Curtis's Bot. Mag. 178, tab. 577.
- MENDOÇA, F.A. -1927- Une nouvelle espèce de *Narcissus*. *Compt.-Rend. Hebd. Séances Mém. Soc. Biol.* 96: 1253-1254.
- MENDOÇA, F.A. -1930- Uma nova espécie do género *Narcissus*. *Bol. Soc. Brot.* ser. 2, 6: 317-319.
- MURRAY, J.R. -2002- Review of pharmaceutical patents from the genus *Narcissus*, in: Hanks, G.R. (ed.), *Narcissus and Daffodil*, Taylor & Francis, London & New York.
- PARKINSON, J. -1629- *Paradisi in sole paradisis terrestres*. Humfrey Lownes and Robert Young, London.
- PUGSLEY, H.W. -1933- A monograph of *Narcissus*, subgenus *Ajax*. *J. Roy. Hort. Soc.* 58: 17-93.
- RABEL, D. -1633- *Theatrum Florae*. Lutetiae Parisiorum, apud Petrum Firens.
- SAVAGE, S. -1963- *A catalogue of the Smithian herbarium*. London.
- STAFLEU, F.A. & R.S. COWAN -1979- Taxonomic literature, ed. 2, vol. 2. *Regnum veg.* 98.
- STAFLEU, F.A. & R.S. COWAN -1985- Taxonomic literature, ed. 2, vol. 5. *Regnum veg.* 112.
- STAFLEU, F.A. & R.S. COWAN 1988. Taxonomic literature, ed. 2, vol. 7. *Regnum veg.* 116.
- STAFLEU, F.A. & MENNEGA, E.A. -2000- Taxonomic literature, ed. 2, suplement VI: Do-E. *Regnum veg.* 137.
- WEBB, D.A. -1980- *Narcissus* L. in: Tutin, T.G., Heywood, V.H., Burges, N.A., Moore, D.M., Valentine, D.H., Walters, S.M., Webb, D.A., Chater, A.O. & Richardson, I.B.K., *Flora Europaea* 5: 78-84. Cambridge University Press, Cambridge.