



N. serotinus near Barrancos, on the Portuguese side of the border with north-west Andalusia (photo John David)

Autumn daffodils in Andalusia

Sally Kington

THE MIGHTY GUADALQUIVIR, second only to the river Douro for length in Spain, comes down through Andalusia from the ends of the Sierra Morena, sweeps through Cordova and Seville and floods out into the Atlantic near Cadiz. A daffodil that inhabits the river's flood plain, as well as higher lands to north and south, is one that has hitherto been taken, in all its range, to be *Narcissus serotinus* of Linnaeus (1753). This is a starry daffodil, short-stemmed, with spreading pure white petals, that occupies not only Andalusia, but also the east coast of Spain, the Mediterranean coasts of many other countries, southern Portugal and the Atlantic coast of Morocco (Blanchard 1990). All of its populations were treated as *N. serotinus* until recently when a consistent difference was

recognised between those with a yellow corona and those in which the corona was orange or brownish orange.

Spanish botanists Zoila Díaz Lifante and Cristina Andrés Camacho (2007) interpreted the difference as that between a yellow morph that was true *N. serotinus* and an orange morph that was actually *N. obsoletus*, identifying the latter with Haworth's *N. obsoletus* of 1819, which was itself tied to Parkinson's *Narcissus albus Autumnalis medio obsoletus* of 1629. They made Parkinson's plate the 'type' of the plant, but as an image cannot be fully analysed, an epitype, or interpretative type, was designated (Aedo 2010), which was a specimen of the orange morph from a colony near Morón de la Frontera in Andalusia. The epitype fixes the name

obsoletus on the orange morph, a treatment which the Royal Horticultural Society (RHS) accepts; and because it dates from 1819, the name *N. obsoletus* takes priority over the name *N. miniatus* that was published for the orange morph by Derrick Donnison Morgan, Harold Koopowitz and Ben Zonneveld (2005).

Background to this nomenclature was given in *Daffodil, Snowdrop and Tulip Yearbook 2009-2010* by John David, head of taxonomic research at the Royal Horticultural Society (RHS) and responsible for RHS ICRA's cultivar registers. It will be reflected in updates to the list and classification of *Narcissus* names in the *International Daffodil Register* (Kington 2008). Wanting to learn not only from the literature but also from study of plants in the wild, John joined Brian Duncan, Juan Andrés Varas and me on a trip to western Andalusia to see what the changes meant.

Thanks to a happy coincidence, the week in 2016 when we were able to visit (21–28 October) was one in which most autumn daffodils in the region were in full flower. We saw five of the six taxa distinguished as species for autumn flowering there, including the two morphs of *N. serotinus*. Naming them in accordance with the revisions described above, they were *N. cavanillesii*, *N. elegans*, *N. obsoletus*, *N. serotinus* and *N. viridiflorus*. We were too early for *N. papyraceus*. We saw three of the four named hybrids: *N. × alentejanus* (*cavanillesii* × *serotinus*),¹ *N. × alleniae* (*obsoletus* × *viridiflorus*) and *N. × perezlarae* (*cavanillesii* × *obsoletus*). We looked to no avail for the fourth, *N. × xanthochlorus* (*cavanillesii* × *viridiflorus*). We thought we saw a hybrid of *serotinus* and *obsoletus*.

Narcissus serotinus* and *N. obsoletus

Areas on our way where *N. serotinus*, the yellow morph, grew without admixture of the orange morph were north of the Guadalquivir. Those where *N. obsoletus*, the orange morph, prevailed were to the south. Such geographical difference between the territories of the two morphs as we found them reflected something of the opinion of Díaz Lifante and Camacho (2007) that in

southern Spain *N. serotinus* in general occupies more northerly and western parts than the more southerly and easterly *N. obsoletus*, which in fact ranges all round the Mediterranean.

So, north-west round the coast from the mouth of the Guadalquivir, on the Portuguese side of the border where it comes down with the river Guadiana to the sea at Castro Marim, we found *N. serotinus* – all over worn grass among shrubs and boulders on the slopes of the town's old and mighty fortifications. Damp spots were thick with both flowered and budded stems.

Then inland and to the north, still just in Portugal, it was *N. serotinus* that lay outside the border town of Barrancos, in high, open land where it filled the grassy ditch by the wayside and covered level ground beyond the fence under wide-spaced evergreen oaks (*Quercus rotundifolia*). Here as at Castro Marim, *Scilla autumnalis* grew prettily purple among it. Here too were pink and purple, crocus-like *Merendera* and white-belled autumn snowflake, *Acis autumnalis*. Over the border and into Andalusia at about that latitude, *N. serotinus* was in undulating country on a sloping field of cattle-cropped grass, with the river Múrtigas nearby.

South of the Guadalquivir, on the other hand, just south of Cadiz at Sancti Petri, in one of the few remaining open spaces between ever-engulfing development along the coast, *N. obsoletus* was flourishing in sandy soil in long grass. It was on its own insofar as *N. serotinus* was not present, but it had plenty of other company, for *N. cavanillesii*, *N. viridiflorus* and hybrids of it with each of these were there. A solitary pine gave *N. viridiflorus* some semblance of the shade it prefers. Dubbed the 'lab' site by botanist and botanical artist Rafa Díez Domínguez, this was certainly a place with a rich brew of species and hybrids.

Narcissus obsoletus also lay further down the coast, near El Palmar, where again the land was level and sandy. Here it grew among clumps of fan palm (*Chamaerops humilis*) that stood around a wide area almost devoid of grass but coated yellow with *N. cavanillesii*, a yellow that was patched with purple by *Scilla*.



N. serotinus with yellow corona (left) and *N. obsoletus* with orange, the first from the Múrtigas valley in north-west Andalusia, the second from the coast below Cadiz (photo John David)

Then there was an overlap: on the east side of the plain, in the environs of Morón de la Frontera and ten kilometres (6.25 miles) south of it near Villamartin, between the most northerly site for *N. obsoletus* on our journey and the most southerly for *N. serotinus*, there were leapfrogging sites for each of them.

The long straight road crossing hot flat land from Seville to Morón held *N. serotinus* at first, roughly on the latitude at which we had seen it at Castro Marim. It had colonised an isolated grove of eucalyptus, spreading all over the almost bare ground in the shade beneath the trees, sharing the sunny short grass on its fringes with fellow opportunist *N. cavanillesii* and leaving *N. × alentejanus*, the hybrid between the two of them, to long grass on the outskirts. *Scilla* was here, also white spires of sea squill, *Drimia maritima*. Ten kilometres further along and moving further south, *N. serotinus* still showed up, this time in thin grass among a scattering of old olive trees.

But as the mighty outline of the Sierra de Esparteros came into view and we closed on Morón, there was the orange of *N. obsoletus* instead. It was with *N. cavanillesii* and their hybrid *N. × perezlarae* in worn and traffic-polluted grass between the road and the back walls of houses in the village, opposite a defunct petrol station. It was in a ploughed field on the petrol station side too. And indeed we had passed without realizing it until afterwards

the site on the same road where its epitype had been collected.

The isolated bulk of Esparteros gives you your bearings for miles around, a massive hump of limestone outlying the sierra, rising abruptly out of the plain. Roads that left Morón to go south either side of this obstacle were also home to *N. obsoletus*, crowding the grass in wayside ditches where no cultivation of the fields stretching away into the hinterland could disturb them. But one of these spokes of roads ran right under Esparteros and there on the steep rock-strewn slope of the mountain was *N. serotinus*, though John saw one *N. obsoletus* too. The *N. serotinus* was extraordinary for a widely varying diameter of flower and widely variable width and shape of petal – though all that I saw were definitely yellow of corona. *Narcissus cavanillesii* was here too but no hybrids of it with *N. serotinus* as far as we could see. Gerd Knoche did find a hybrid at this site however, and published it with the town's name as *N. × moronensis* (2008).



On a site east of Villamartin occupied by both *N. serotinus* and *N. obsoletus* this seemed to be a hybrid between the two (photo Sally Kington)

Unfortunately, Fernández Casas was meanwhile naming the same hybrid *N. × alentejanus* from a site in the Alto Alentejo on the Portuguese border north of Andalusia (2008), and that name achieved priority by seven months.

Crossing over higher land, spurs of the Sierra de San Juan, we came down onto the plain again near Villamartin; and at a site where both *N. serotinus* and *N. obsoletus* were present, jostling for space in parts of a ditch where the hedge hadn't completely grown over it, there seemed to be a hybrid between the two. Not only was there a large clump of flowering stems, which contrasted dramatically with the single stems we had usually seen of both putative parents, but the floppy, reflexed petals look different from either of them too, and John peered closely enough to see that the point where filaments and tube were joined was intermediate between them.

Five kilometres (3.1 miles) down the road and *N. serotinus* appeared again, with *N. cavanillesii* and offspring *N. × alentejanus*, but that was the last *N. serotinus* for us, for after another 5km it was *N. obsoletus* again and *N. obsoletus* from there on south, with *N. cavanillesii* following after.

Molecular studies by Isabel Marques and others support the distinction between *N. serotinus* and *N. obsoletus* (2017), and so does morphology. Besides the difference in corona colour between yellow in *N. serotinus* and orange in *N. obsoletus*, Díaz Lifante and Camacho draw up a number of other outward characteristics by which the two may be distinguished. Particularly telling, they say, is the difference in terms of the position of the shorter filaments in the tube. I didn't follow this one up myself, but did watch out for two others: the shape and colouring of the tube; and the outline of the corona at rim.

One tube shape and colouring did seem to go with *N. serotinus*, whose tube was more or less abruptly inflated at about mid-point, where it changed from self-coloured to striped. Another went with *N. obsoletus*, in which the tube gradually widened along its length and was only rarely and lightly striped above. To my eye, however, the outline of the corona at rim did not so neatly distinguish one morph from the other.

Díaz Lifante and Camacho recorded a difference between definitely circular in *N. serotinus* and rarely circular but frequently triangular in *N. obsoletus*; I thought I saw circular, sub-circular or triangular outlines in both of them. Brian's instant differentiator, useful at a distance from a moving car, was that *N. serotinus* is more often than not looking up at you.



N. cavanillesii at a roadside south out of Morón de la Frontera, in an area where both *N. serotinus* and *N. obsoletus* occurred and it hybridized with each of them (photo Sally Kington)

Narcissus cavanillesii

Vivid yellow, and an upright little plant, *N. cavanillesii* has narrow, strap-shaped petals which are at first erect and closed then spread open to reveal wisps of long stamens standing out from a corona that is really only an undulating ridge. Spindly stems are usually topped by a solitary flower. When on occasion there were two, the overall effect was of a slightly lighter yellow, petals were shorter and broader and the corona yet further diminished.

Keeping company with both *N. serotinus* and



N. × alentejanus, hybrid between *N. cavanillesii* and *N. serotinus* (photo Sally Kington)



N. × perezlarae, hybrid between *N. cavanillesii* and *N. obsoletus* (photo Sally Kington)

N. obsoletus, we found *N. cavanillesii* at three of our ten sites for *N. serotinus* (hybridizing at two of them) and eight of our 17 for *N. obsoletus* (hybridizing at five). It was with *N. serotinus* where that and *N. obsoletus* overlapped, but not in northerly areas where *N. serotinus* was on its own. Whereas it was with *N. obsoletus* not only at the overlap but also in southerly areas where that was the single one of the two morphs in occupation. We found their respective hybrids: *N. × alentejanus* the name for that between *N. cavanillesii* and *N. serotinus*, which tended to white petals and yellow corona like *N. serotinus*; and *N. × perezlarae* for *N. cavanillesii* and *N. obsoletus*, which seemed to have *N. cavanillesii* in its yellow perianth and *N. serotinus* in an orange-tinged corona. Both had the narrow, mostly inflexed petals of *N. cavanillesii*. At the *N. obsoletus* site opposite the petrol station earlier on, the range of tone between yellow and whitish yellow petals in the several different hybrids we saw of that and *N. cavanillesii* suggested to John that of the two, *N. cavanillesii* was not always the male parent or *N. obsoletus* the female.

We looked hard for the supposed hybrid of *N. cavanillesii* and *N. viridiflorus* published as

N. × xanthochlorus (Fernández Casas 2011). But at the specified site in the far south-west, a little way inland from the Atlantic coast near Tarifa, found only the *N. viridiflorus* parent.

Narcissus viridiflorus

For me, *N. viridiflorus* is the star turn. Haunting the coast, it was on sandy sites both at Sancti Petri as said above and in umbrella pine forests behind Roche. In the forest it stands in slanting sunbeams in glades among fan palm and pistachio, its narrow grey-green petals and tiny, matching green corona evading one's glance first time round, its long, narrow, wide-apart petals, silvery green, turned back from a small, prettily scalloped corona of a slightly denser tone and texture. Theo Sanders, who with his wife Petra had kindly shown us the way to these coastal sites, pointed out that there were leaves on some unflowered bulbs but none on any of the flowered ones.

Narcissus viridiflorus hybrids with *N. obsoletus* are called *N. × alleniae* (Donnison-Morgan 2000) and we were disappointed not to see them where we had done so in a previous year, along the road south out of Medina Sidonia. They were at the 'lab' site on the coast at Sancti Petri however, with



▲ *N. viridiflorus* in a coastal pine forest behind Roche (photo John David). ▼ *N. × alleniae*, hybrid between *N. obsoletus* and *N. viridiflorus* (photo Sally Kington)



several flowers held at right angles to the stem on long light green tubes, their petals whitish green, narrow like *N. viridiflorus*, their coronas green too but darker than either tube or petal.

Narcissus elegans

Our journey began and ended with *N. elegans*. On arrival, we left Malaga airport to drive straightaway north into the Sierra de Camarolos; we returned that way a week later. Along the road east from Villanueva de Cauche to Colmenar, among low shrubs on steep and stony slopes at the foot of a limestone crag famous for its challenge to rock-climbers, many many stems of up to fifteen flowers apiece filled the spaces. They were on rocky outcrops either side of the road too, and ran down grassier slopes among boulders below it.

Narcissus elegans is as elegant as its name implies: sweet-scented flowers loosely balanced on stems neither tall nor short; narrow and pure white petals waywardly and gracefully twisted, the corona tiny but emphatic, straight-sided but then with the rim incurved, its colour a suave brownish orange or olive green at first, then clear bright orange.

This was the site where *N. elegans* was first noticed in mainland Spain, by Joaquin Ramírez López in 2007 (Ramírez López 2007). He wrote that it had until then been known only from north-west Africa, southern Italy, Sicily and Majorca. John Blanchard would also add Corsica and Sardinia (Blanchard 1976).

It was such a large colony that I wondered why it had been only so recently recognised; or if such size were simply a sign of the speed with which increase can follow newly colonising seed; or the flowers had previously been taken to be something else – Carlos Aedo does say in *Flora Iberica* that poor specimens at this site resemble *N. obsoletus* (2013). The two could be said to look alike, but clear differences are described by Díaz Lifante and Camacho (2007). We ourselves were struck by the regularly multi-flowered stems compared with those of one or two flowers or occasionally three in *N. obsoletus*, by the fact that leaves were showing by 2-3cm whereas we had found them absent from flowered stems of *N. obsoletus* or only just showing, by the contrasting corona shape, which was definitely round in *N. elegans*, never tending to triangular as in *N. obsoletus*,



N. elegans north of Malaga, at the one site where it has so far been observed on mainland Spain (photo Sally Kington)

and by the corona rim that in *N. elegans* was entire and in *N. obsoletus* divided.

One of our seven and a half days was rained off, torrentially, and unusually for one-track-minded daffodil hunters, we went sight-seeing instead, in Seville – Juan Andrés a tower of strength in tracking down good tapas for lunch. But the sun shone for the other six and a half: shone on the area where *N. serotinus* from north of the Guadalquivir overlapped *N. obsoletus* from the south; on the other autumn-flowering daffodils in and around the river's flood plain; on the ramifications of hybrids; and on the mystery of the discovery only in the last decade of *N. elegans* in mainland Spain.

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1 Parentages are laid out here with names in alphabetical order rather than with seed before pollen parent as in garden hybrids where the direction is known.

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