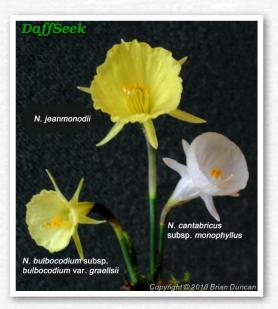
# Hoops in Indiana

~ by Suzy Wert, Indianapolis, IN

Forward: I remember the first time I ever saw a bulbocodium — it was an ADS slide show presentation at an IDS meeting by Helen Link around 1983. The topic was "Miniature and Species Daffodils" and it included the few available named miniature hybrids and all the unpronounceable species that rolled off Mrs. Link's tongue so effortlessly — cute little jonquil requenii, and little white triandrus albus, but when she got to the one and only image of N. bulbocodium near the end of the slide show, I remember thinking to myself that if only I could acquire a bulbocodium, my life would be complete and I wouldn't need another daffodil, **ever!** To say I was smitten would be an understatement — I was in love! Like a Victorian heroine, over the years, I have loved and lost, but my love hasn't diminished with heartbreak. Instead, I've developed a method to grow these beauties in Indiana.



Section Bulbocodium includes all hoop petticoat-style species. It is comprised of five separate species: *N. bulbocodium, N. cantabricus, N. hedreanthus, N. romieuxii* (affectionately called Romeos by me because I cannot pronounce romieuxii — I can barely spell it!), and the newest, *N. jeanmonodii*.



Each of these species, and their subspecies, and their varieties, *and* their wild hybrids would be exhibited in Div. 13, but hoop petticoat-style *man-made hybrids* and *man-made selections*, either named or exhibited under seedling number, are shown in Div 10, as long as they display mostly section Bulbocodium characteristics. Fortunately we have the RHS, *Daffodils to Show and Grow* and Daffseek.org to iron it out!

Each of these species and subspecies and varieties has a wide range of colors, shapes, and sizes of flowers, and identifying them in the wild is left to botanical differences such as length of pedicel and curvature of the tube — and to the people who measure such things. For example, the following are all photos of *B. bulbocodium nivalis*, which doesn't even make sense because "nivalis" means "white as snow" and these are clearly yellow – golden yellow. It turns out they were named this because they grow high in the mountains, in the snow melt.



If you find it difficult to follow along with the confusing text — *N. bulbocodium, N. bulbocodium bulbocodium* and section Bulbocodium, click this <u>link</u> for a table showing the different Bulbocodium species and subspecies. It has growing information, too, based on all the information in John W Blanchard's book, *Narcissus: A Guide to Wild Daffodils*. You can print it or just keep the separate window open for reference.

Back in my early days, we would generalize and say that bulbocodium were golden and bloomed mid-spring, cantabricus were white and bloomed in the fall, hedreanthus were yellow and bloomed in spring and romieuxii were pale yellow, and they bloomed in the winter. All the above were generalizations, but the 21st Century European plant explorers are finding new and rare examples of flowers out of the norm, and to make matters worse, they are becoming available in overseas specialty catalogs, and soon may be finding their way to the regular bulb catalogs!

For example, new this year from the Dutch (2017) is 'Mary Poppins', 10Y-Y, which is a very pale yellow, nearly white, *N. bulbocodium*, smashing the common assumption that *bulbocodiums* were all golden yellow. In fact, 'Mary Poppins' could be a cross between any of the light colored *N. bulbocodium subsp.* — *graellsii, citrinus, pallidulus* or even a rare off-white *N. bulbocodium bulbocodium*. They all require acid soil, and so this one might be hard for me to grow without some soil acidifier.



N. 'Mary Poppins', 10Y-Y photo: Carlos Van der Veek, Fluwel.com

The big picture in one paragraph is that to grow Bulbocodiums successfully in Indiana, one needs to realize they are on a different schedule than other daffodils and they are also on a different schedule than our Indiana weather (seasons). By following this proposed schedule, one can have Bulbocodiums blooming from late-February through late-April. Hold the bulbs out of the ground at more or less room temperature and then (re)plant them in early November, later than almost every other kind of daffodil. After planting they'll root and start to throw foliage, but in a normal year any early foliage will stay short before bitter winter weather sets in (it stops growing due to cold and resumes as things start to warm up). The flowers will bloom in the spring, some quite early, others not until mid-late season. Just keep watering them through May, June and early July and then dig them when they turn brown in late July or August. We're trying to delay fall bloomers to bloom in the spring, and by late planting, it's pretty easy to do. They prefer to be cured and held over summer at temperatures in the 70s, and so my recommendation is to hold them inside the house over summer.

Bulbocodiums are cold hardy, but they may not *all* be cold hardy down to -20 F°. I don't think anybody really knows the absolute lowest temperature for any given clone, but a rule of thumb is that the yellow and golden ones are cold hardy in all but the most bitter winters, and the more petunoid they are, the more likely they are only semi-hardy at around  $-5^{\circ}$  F.



N. 'Julia Jane' 10Y-Y was once the most coveted hoop of them all because of its giant flared flower, called petunoid. It used to be terribly expensive, but is now about \$1.00 a bulb at Brent and Becky's.

There is one combination, considered the most beautiful, that may not be truly hardy in Indianapolis and possibly farther south. It has two things to watch for – the exaggerated

petunoid form and a white or nearly white color. Lawrence Trevanion, in Australia, and other breeders with more favorable climates than ours, have seedlings coming on with both of these characteristics. These may not be hardy at temperatures less than 0° F. I have had success with a number of species and named varieties, and one is 'Julia Jane', but we've had such mild winters the last two years, I *still* don't know how hardy any of them is!





Two bulbocodium seedlings of petunoid form from Lawrence Trevanion in Australia.

These are both light colored and petunoid, leading me to believe they would be only marginally hardy in Indianapolis.

True *N. bulbocodium* and its subspecies, except *N. bulbocodium obesus*, require an acid soil. If you can grow blueberries and have success with rhododendrons, your soil is acidic enough. They also require a great deal of water, and unlike other daffodils, do not seem to be plagued by basal rot due to poor drainage. Keep an eye to the sky, and if it doesn't rain, start watering in early November, stop in winter, but as things look to be growing, start watering again and water through spring to summer as long as the foliage is green, even if it gets hot.

Bulbocodiums can be divided into hybrids and species, and what I'm finding is that the most common and easily grown hybrids are almost always a combination of pH neutral or even alkaline-loving species crossed with one of the very acid loving species. The combination negates the need for any special soil prep, at least as far as pH goes, though baled sphagnum peat moss is always a big part of my Bulbocodium soil mix.

The Dutch clones of 'Diamond Ring', 'Oxford Gold' and 'Julia Jane' are either related to *N. b. obesus* (pH neutral) or they are a combination of pH neutral to alkaline-loving species or hybrids crossed with pH acid parents, but once one steps out of the Dutch pipeline, it's time to do some research. <u>Here</u> is a sheet of all known species in section Bulbocodium, along with sun and pH requirements. If you see a hybrid you would like to grow, a quick look up on Daffseek should give you the parents, and I think Mendelian inheritance will help guide us on the pH requirements of a given clone. Do a mental pie chart: If one parent is *N. b. obesus* (pH neutral) and the other parent is  $\frac{1}{2}$  *N. cantabricus* (pH neutral to alkaline) and  $\frac{1}{2}$  *N. bulbocodium bulbocodium* (pH acid), then according to the chart, you have  $\frac{3}{4}$  pH neutral and  $\frac{1}{4}$  acid loving hybrid. That is a small enough

percentage that a simple addition of peat moss to the soil mix will be enough to change the pH to what it prefers.

Looking at the parents will give you a good idea on deciding, "How acid is acid?" Mitimoto, 10W-Y, is the cross of (Nylon Group x *N. b. ssp bulbo. var conspicuous)* 



Mitimoto is 50% N. b. conspicuus which contributes 50% "acidic" pH genes



Mitimoto is 50% Nylon Group Nylon Group is 50% *N. r. romieuxii* and contributes 25% "not picky" pH genes



Mitimoto is 50% Nylon Group Nylon Group is 50% *N. c. var. foliosus* and contributes 25% "somewhat alkaline"

## In-Depth Directions for a Bulbocodium Planting:

In early November, site your area: Bulbocodiums can take a great deal of water, so drainage isn't as much of an issue as it is for other bulbs. The east, south or west side of pines would be good, but not 100% necessary, as there are many soil acidifiers on the market one can use once a year: sulfate of potash and a product called pH Down will lower the pH. *N. bulbocodium* do not need 100% sun....just 4-6 hours a day is enough. Full sun is fine, too, but they will need a ground cover or grass/weed covering to keep the bulbs cool as the ground heats up in late spring and into summer. *N. cantabricus* and *N. romieuxii* will definitely need some sort of ground cover to keep the bulbs cool since they prefer full sun.

Bulbocodiums are best planted in baskets because they tend to both increase well and split up. A large bulb can have 4-8 flower stems which come up one after another (this is why their bloom time is so long). Even very small bulbs seem to bloom, but tiny ones will need a year or two. Dig a rectangle bed about 5" deep, and as wide and long as it takes to contain a basket for each variety plus a little extra on the sides. Plan on 1 1/2" - 2" between baskets.

The day before planting, make your planting mix: Use 1/3 moistened sphagnum peat, 1/3 sand, and 1/3 garden soil which will come from excavation. The resultant mix will be very heavy and moisture retentive, which bulbocodiums like, but I always feel the need to add spent potting mix or straight Perlite to add some chunkiness. Mix everything together, break up any clods of your garden soil, likewise the peat. Let sit for a day.

Now for something tricky: There are two ways to acquire Bulbocodium bulbs — from a commercial enterprise or from a friend/trade/swap. The bulbs from Holland can be huge, about the size of homegrown poets and baskets containing those larger bulbs will have to be planted deeper than the ones planted with the smaller bulbs by at least an inch. Limit yourself to 1 large bulb per basket, or up to 9 home grown bulbs or 20 of the teeny-tiny pieces of puffed rice-sized bulbs.



There are a dozen bulbocodiums in baskets under these rocks. I've been told that 5 bulbs, well grown, can increase to nearly 200 in 4 years' time. *~photo: Aberdeen Group, American Rock Garden Society* 

Whether you're planting big Dutch bulbs or bulbs from a friend, plant the bulbs with the base about 1/2 way down the baskets. Be sure the entire green rim of the berry/Easter basket is covered with soil — sun will degrade the baskets in just a month or two. After the underneath soil settling, and maybe a little mulch, they should be 2" deep from the base for winter. This is for the little bulbs. There will be some big Dutch bulbs, and these go about an inch deeper, ok? They still get planted 1/2 way down the basket, but the entire basket will be 1" lower in the ground than the others.





Bulbocodiums planted in berry baskets. These are used for either one of the Dutch-sized bulbs or up to nine of the smaller "homegrown" bulbs.

Backfill the rectangle with some of your peat-soil mix so the baskets with the little bulbs are about level with the ground, but the ones with the Dutch bulbs would be an inch under soil level. Put the empty baskets in your rectangle about 1  $\frac{1}{2}$  -2" apart. We are counting on them settling a little bit and light covering of shredded bark mulch across the top will bring the area back to soil level and cover the edges of the baskets.

Flood the bulbs once after planting and level it off again. The soil between the baskets will settle more than the soil in the baskets...just push it down gently and add more.

Make sure they get rain until the soil freezes, and water from the hose or a watering can if you don't get an inch a week.

I mulch mine only after watering and only after I'm sure they're rooted, and as the soil is freezing (December in the last couple of years.). I use bark mulch, but also white pine needles, and I use a big handful over each basket, about 4-5 inches high. If the foliage comes up, it's shaded by the needles. I feel their foliage can freeze just fine, it's only when the sun hits the frozen foliage while the ground is frozen (and therefore the roots are frozen) that they run into trouble.

As they start coming up in late winter or early spring, start removing the pine needles. Water with cold water to get the frost out of the ground. Leave enough needles to prevent soil splash in heavy rains, or better yet, switch it out for more bark mulch. Either way, add extra mulch when things heat up in late April. Foliage of Bulbocodiums becomes hilariously long after bloom, so while adding 4-5" of pine needles in late April may sound strange, you'll find the foliage becomes very long and is straggling everywhere!

In the spring when they bloom, the frosts and freezes that come and go don't bother them, except it's startling to see the collapsed flowers when they freeze, much as a Morning Glory does in the afternoon, but they open again when they thaw. I think they're the only daffodil to do this.

After bloom, and by that I mean after the whole batch of bulbs in a basket has opened and they are past perfection, add some sulfate of potash to a gallon of water and water them well. Use the directions on the package at half-strength. Even if we've had rain, get them fertilized with liquid potash. Do it every three weeks. Continue watering as long as they remain green, even if it's really hot outside.

Before you dig them up, or more accurately, pull them up for the summer, find the edges of the baskets. Then lift them about 2 weeks after they turn completely brown which can be as late as the end of July. If they aren't brown by then, don't pull them, just stop watering and come back to them a week later. Put the baskets on a baking tray lined with pea gravel. They absolutely need to be on gravel for the convection air movement it provides or the soil turns sour and they die. It's the only time I've lost them in storage. Leave the cookie sheet with baskets in the house or basement, about 70 degrees, over the rest of the summer and until early November re-planting.

Sometime in this process, either directly after pulling up the baskets or before replanting, you will no doubt like to know what kinds of increase you've gotten from your various varieties. Go ahead and decant the baskets onto a tray and count them! It is at this time you'll want to analyze and probably adjust the planting site and the planting mix. Does the mix seem nice and soft and loose or is it hard and uninviting? Do the bulbs seem too small? If you've fertilized with the sulfate of potash, then perhaps the addition of a little bat guano or rock phosphate along with some myccorhizal fungi would help with this, or perhaps more sunshine is needed. Count them, fondle them, swap them or just replant them.



Why go to all this trouble for some little bulbocodiums? Because besides being so darn *cute!*, they bloom and bloom and bloom and bloom. Daffseek.org might show a bloom time of season 2 (early mid-season) for a certain variety, but what it doesn't say is that the same bulb will still have flowers, and showable flowers, in season 4 (late midseason)

*Photo left:* These 2 bulbs have been blooming for 2 1/2 weeks and still have flowers! *Photo: JC Schou* 

#### Breeding with Bulbocodiums

Both the pollen and the stigma are easy to reach, and they're all fertile with a number of standard and species daffodils, but no matter what you choose as the other parent, the progeny don't seem to pick up many characteristics other than bulbocodium — not the shape, not the color. They all look like their bulbocodium parent. Only the size seems to change, and not by much! Sometimes you'll get two flowers per stem, but the flowers are still bulbocodium shaped! On bulbocodiums, you can easily breed the lemons with the golds, the early with the late, or the fluted with the ruffled to come up with your own unique varieties of hoop petticoats, but getting a 10W-P by breeding Pink China x N. romieuxii won't happen in F1 or F2.



to breed with more modern flowers. F1

*Photo right*: Steve Vinisky said he was aiming for a 10Y-R, but got this butterscotch colored bulbocodium, instead. He didn't give the parentage, except it was two bulbocodium-type seedlings of his. F2 or F3 *Photo left:* Here is one from Larry Force, and it's the best  $1^{st}$  Gen I've ever seen between any kind of bulbocodium and a standard. He says it has a giant 12" stem, inherited from Pink China. It is Ta Julia 6/90 (Tarlatan x Julia Jane) meaning a hybrid which is 3/4 *N. romieuixii* x Pink China. The beauty of this flower is that it is probably tetraploid with 28 chromosomes, making it easier





*Left:* N. 'Fat Rascal', a named hybrid, is *N. b. obesus* x *N. triandrus* and sometimes has two bulbocodium - shaped flowers per stem. Notice the droopy, thick, fleshy foliage from *N. b. obesus*. Now imagine how long and sinewy it will be 6 weeks after bloom! *Photo: Dryad Nursery* 

Our gardens need Bulbocodiums! You can chose varieties which bloom with the snowdrops, and even a little before the snowdrops, all the way to show time. Most are mountain dwellers, and they take our fits of false starts in the spring in stride. They bloom well, multiply well, and are less expensive than most other miniatures with a bloom that give a lot of bang for its buck. All-in-all they are worth the time and trouble it takes to give them a happy home by not letting them root too early.

The following article appeared in the Indiana Ledger Oct 2017, and is here for archival purposes.

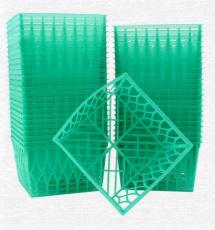
## **Hoops in Indiana**

## ~by Suzy Wert

Not *basketball* hoops, but the *Hoop Petticoat daffodils* of the section Bulbocodium! These little things are weeds in the south, but up here, they actually require **extra** effort to keep alive. Most hoops are perfectly cold hardy, but the white ones are less so because of the (probable) influence of *N. cantabricus*.

The more serious problem for us is that they are out of synch with our seasons, usually throwing foliage at the same time, or shortly after, they root in the fall. Once the ground freezes, the roots freeze, too, halting their ability to supply moisture to the leaves. If the sun hits frozen foliage when the ground is frozen, it will lead to desiccation in the form of foliage burn, and then possibly to more severe conditions of scorch or fire, first weakening, and then eventually killing the bulbs.

A hardy bulb that is out of synch with our seasons simply needs an attitude readjustment in the form of annual lifting, and subsequent re-planting at the appropriate times. The easiest way to do this is to plant them late, sometime in November, in little baskets -- <u>strawberry baskets</u> or the larger <u>Easter baskets</u>. They need about a month of growing in November to set those roots, and in that month, the foliage could grow as much as 1 1/2 inches tall, which is short enough to shield from the sun with pine needles or bark mulch, gently placed, as winter is here for the season.



Fragile Strawberry baskets Photo: Amazon Fragile Easter Baskets Photo: Amazon

Planting in baskets allows easy "pick up" in late July, which is a month later than our traditional June digging month. I believe you will find the hoops stay green (and need watering if it doesn't come from the skies) until sometime in the middle of July. In Dutch catalogs, Brent and Becky's, for example, there are 3 affordable hoop petticoat style daffodils from section Bulbocodium. All of them are ADS miniatures:



**'Diamond Ring', 10Y-Y** - season 1 bloomer; a selection of *N. bulbocodium obesus*.

'Diamond Ring' Photo: Brent & Becky's Bulbs



**'Oxford Gold', 10Y-Y** - season 2 bloomer; a cross of (*N. bulbocodium* x ?) X *N. jonquilla*. Oxford Gold sets seed easily.

'Oxford Gold' Photo: HW Hyde



**'Julia Jane', 10Y-Y** - season 4 bloomer; a selection of *N. romieuxii romieuxii* found in the mountains of Morocco by Englishman Jim Archibald in the 1960s. It had formerly been a specially bulb, hard to acquire, but was picked up and propagated by the Dutch about 20 years ago. Julia Jane isn't megaphone shaped as the other two, it is somewhat a chameleon – usually lobed and petunoid in form, but it can also roll back. *'Julia Jane' Photo: John Scheepers* 

Of these, it is perhaps 'Julia Jane' which could be the most beautiful, but also the most cold tender. Years ago, when Brent and Becky first started carrying it, the USDA hardiness zones were listed in the catalog as zones 6-8, but as recently as this year, I see it has been changed to Z4-8 in their catalog.

A note on Brent and Becky's Bulbs – I use their catalog frequently to describe affordable flowers which can double as landscape or show flowers, depending on the article I'm writing, because they do such a great job of curating the flowers

for us. The three mentioned above have been chosen for us out of 100s, if not 100os, of possibilities. They are good growers, very floriferous, and clump up nicely instead of splitting apart. Readers interested in specialty bulbocodiums are encouraged to <u>click this link</u> to an article on our <u>website</u> which delves deeper into this exotic and unusual section.