

# The OGR & Shrub Journal

A publication of the American Rose Society



*R. gigantea*  
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*R. gigantea*

Cliff Orent

Kinship of the Rose” in past issues of the *Journal*, DNA analysis has become *the* method of concretely establishing parentage and relationship among rose varieties, replacing the learned suppositions of the past. In this issue the subject of DNA testing is explored further in an interview with Dr. Malcolm Manners of Florida Southern University, one of the very few facilities in the United States that has conducted DNA analysis on roses.

Finally, thanks to ARS Registration Committee Co-Chair Marily Williams for her contribution to the article on rose classification and registration.

It has been said that printed rose “encyclopedias” and other such books become obsolete the minute they are issued, due to the fact that new rose varieties are coming on the market all the time. While not of this degree, rose articles also become somewhat dated as new information or new varieties emerge that affect their scope and focus. Thus, our initial article in this issue first appeared in the *RNRS Annual*, edited by Milton Nurse, in 2006, and has been revised for the *Journal* by its author, Helga Brichet, Past President of the World Federation of Rose Societies.

As we have seen from Peter Harkness’ article “Ancestry and

**The Editor**



# ROSA GIGANTEA & ITS DESCENDENTS

By Helga Brichet

The world-renowned plantsman and rosarians, Graham Stuart Thomas, referred to the *R. gigantea* as “the Empress of wild roses.” And indeed it is by far the largest wild rose plant – easily attaining 15 metres or more in its natural habitat – with gigantic flowers and hips similar to small apples. (In fact, in NE India, the area of the wild, dangerous Naga tribe, these fruits are sold at markets and are rich in vitamins.) The foliage is evergreen and resistant to disease, the grey-green leaflets long, pointed and tend to droop elegantly. The curved prickles assist the plant as it twines its way through and up and eventually over shrubs and trees in the warm areas – North Eastern India, Burma and South Western China – which it calls home.

The *R. gigantea* appears in a number of forms, the first of which was discovered in 1882 by Sir George Watt, Surveyor General of India, in Manipur at a height of some 2,300 metres. He gave the rose the name *R. macrocarpa*, to underline its huge hips, but later changed the name to *R. xanthocarpa*, stressing the distinctive colour of its fruits.

In 1888 Sir Henry Collett, looking through his field glasses in the Shan Hills, in northern Burma, noticed, at a considerable distance, the wilderness festooned by a rampant plant with flowers up to 14 cms. resembling Magnolias. He named it *R. gigantea* and sent specimens to the botanical gardens at Kew and Calcutta, whence they were sent to François Crépin. The distinguished Belgian botanist in Bruxelles had also received 6 specimens of George Watts’ find from the Botanical Museum in Berlin, which he at first believed to be identical to Collett’s *Gigantea*. Consulting the Kew Herbarium however it was confirmed that the 1882 specimens had received the name *R. macrocarpa*. Crépin rightly predicted an enrichment of the

cultivated European rose, thanks to the splendid form of its enormous corolla and its beautiful foliage. The main differences between the two forms are today understood to be: 1) the colour of the buds and flowers – creamy yellow in the *Macrocarpa* and pure white for the *Gigantea*; 2) the width and number of leaflets – 7-9 for the *Macrocarpa*, 5-7 for the *Gigantea*, and; 3) the colour of the hips – yellow in the case of the *Macrocarpa* and red in the case of the *Gigantea*.

In Yunnan, S.W China, one or more other forms were later discovered by Wilson, Forrest, Hancock and Augustine Henry. It is believed that the characteristic high centres of the Tea and later Hybrid Tea roses of the nineteenth and twentieth centuries derived from earlier Chinese horticultural varieties of the *R. gigantea*. (It should be remembered that the first European variety to be considered a Tea, “Adam,” dates from 1833, and thus long before the *R. gigantea* arrived in the West!) In this respect we are again indebted to diligent and patient generations of Chinese gardeners, who anticipated European rose breeding techniques – notably hand pollination - by very many hundreds of years.

Vintage Gardens



**'Fortune's Double Yellow'**

To my mind, there is no doubt that the variety, which arrived in Europe from the East and is presently sold under the name of “Park’s Double Yellow,” as well as “Fortune’s Double Yellow,” discovered in China in 1845, are of *Gigantea* origin. Peter Harkness, in his beautiful book *The Rose. A Colourful Inheritance*, points out that the *R. gigantea*, together with the *R. chinensis* “Spontanea,” are the two species which, more than any others, influenced the development of the rose.

In April 1896 the *R. gigantea* bloomed for the first time in Europe in the Botanical Gardens of Lisbon, where the Frenchman, Henri Cayeux was its Director. The following year a plant received from Kew several years before produced a number of blooms at the home of Baron Soutellino at Porto, Portugal. Cayeux, who was later to become the Director des Jardins et Promenades de la Ville Le Havre, immediately set about crossing the *Gigantea* with various varieties of Tea roses and Hybrid Perpetuals and using the *Gigantea* both as seed and as pollen parent. In 1903 the first flowers appeared, amongst which was the variety named “Etoile de Portugal.” (*R. gigantea* x “Reine Marie-Henriette.”) This was followed by “Amateur Lopes,” “Belle Portugaise,” “Dona Palmira Feijao” and “Lusitania.”

Henrique Rodrigues



**‘Belle Portugaise’**

Of these first hybrids only the “Belle Portugaise” is still available – and indeed very popular – in climates to its taste. There

is a wondrous example in the Municipal Rose Garden in Rome, which was planted in the early 1950s, when the garden was recreated after the 2<sup>nd</sup> World War. It is to be found all along the Mediterranean, in Australia and New Zealand, South Africa and the warmer states of US. Undoubtedly it would also do well in Bermuda and South America. “Belle Portugaise” is a cross between “Souvenir de Léonie Viennot” and *R. gigantea*, the buds are long and elegant, and the semi-double blooms, delicate pink with a touch of apricot. The display is abundant but only once a year. This rose produced two offspring, both in the United States – “Belle Blanche” a mutation, (in my opinion even more beautiful than its parent) and “Susan Louise” attributed to a Mr. Adams in 1929. While the former has retained the characteristic vigour, the latter grows to a large bush, which is covered in soft pink blooms throughout many months and well into November, at least in central Italy

Ashdown Roses



**‘Susan Louise’**

Soon after Cayeux’s work, Mr. Busby, the English head gardener working for the 3<sup>rd</sup> Lord Brougham at his home, Chateau Eléonore, near Cannes, also started experimenting with the *Gigantea*. In 1910 he produced the glorious “Folette” – the name changes at times to “La Follette” and “Sénateur La Follette” – with large, double pink blooms and a distinct perfume. Its parentage was never disclosed. Although Busby’s other creations have been lost, “Folette” may still be seen along the Riviera,

and there is a particularly fine example at Villa Hanbury, near Ventimiglia, the former residence of Sir Thomas Hanbury in Italy.

Maurizio Usai



**‘La Follette’**

Around this time too “Belle Portugaise” was imported into the US by the Italian Dr. Francesco Fenzi, a passionate amateur botanist, who had inherited a bank from an uncle in Florence. He was obviously more interested in plants than finance, for the bank folded and Fenzi preferred to discreetly change name and emigrate to the US with his wife and numerous children. In Santa Barbara, Southern California, he set up a nursery and acclimatizing station where he introduced a great number of valuable foreign plants from around the world. In 1904 he imported the *R. gigantea* directly from India, according to his son Cammillo, and crossed it with the *R. moschata*. Today however, the only variety of his, which is still available, is “Montecito,” named after one of his properties. It closely resembles the Gigantea in growth, flowers and foliage, but has inherited the enchanting perfume of the Moscata. Fenzi was eventually sent by the Italian government to direct an agricultural station in its colony of Libya, where he died

in 1924. Two of his children continued with the nursery in California for a number of years. Today there are efforts to reevaluate the overgrown property as a public park, where there remain a large number of the original plants that Fenzi imported.

Also in Santa Barbara, California, the Reverend George Schoener had made the Gigantea the base of practically all his rose hybridisation, arriving at almost 1,200 crosses, which produced some 20,000 seedlings. Schoener’s work was however plagued by a series of natural calamities including fire and hurricanes, so none of his creations seem to have survived except, perhaps, “Glory of California”, which received a special award at the Bagatelle Rose Trials in 1935.

Le Rose di Piedimonte



**‘Montecito’**

In France in the early twenties, at the historical rose nursery of the Nabonnand family at Golf Juan, the third generation Paul Nabonnand introduced seven hybrid Giganteas, which produced blooms before the Riviera “season” came to an end at Easter. Of these only two are available today: “Emmanuella de Mouchy” a cross between the Gigantea and “Lady Waterlow.” The flowers are very full, a good pink with darker centres, and a translucent quality to the petals. In my garden this variety repeats very well indeed in September, October and November. It is also hardy and may be admired in the garden at L’Häy-les-Roses, near Paris. The second of Paul Nabonnand’s Gigantea crosses to survive is “Sénateur Amic,” the issue of R.

*gigantea* crossed with “General MacArthur.” The blooms are an intense, dark pink, which occasionally flecked with white, well scented and semi-double. A number of blooms also appear in the autumn.

Sherri Berglund



‘Emmanuella deMouchy’

In the meanwhile, on the other side of the world, in Australia, near Melbourne, a gentleman gardener by the name of Alister Clark had started experimenting with the *Gigantea* in the hope of producing varieties suitable for the warm climate. Clark, the son of a Scottish immigrant who had made a fortune during the Australian gold rush, was not interested in producing exhibition roses, so popular in Anglo-Saxon countries, but wanted interesting and healthy garden plants. He was a wealthy man with a passion for gardening, rose, nerine and daffodil breeding, horse racing, fox hunting, golf and photography. Clark released 122 roses of all types between 1912 and his death in 1949. His Hybrid Giganteas are the single greatest group of its type ever bred.

Margaret Furness



‘Jessie Clark’

“Jessie Clark” (1915) was named after his niece and is a cross between *R. gigantea* and “Mme. Martigner.” It is a vigour climber, attaining 6 metres, which flowers early in the spring. The blooms are very large (120mm), single rose pink and fragrant. The foliage is leathery, new growth typically red and the hips round.

“Flying Colours” (1922) The parentage of this variety is unknown, as indeed that of many of Clark’s roses – he did keep approximate notes of his crosses in a notebook however, one evening towards the end of his life, the notebook was left in the garden and that night the rain destroyed all traces of his seedlings’ pedigrees. The flowers of this rose are large, single, and deep pink to red with prominent stamens and slight fragrance. Again it is a vigour climber reaching 6 metres.

Margaret Furness



‘Golden Vision’

“Golden Vision” (1922) is the issue of “Maréchal Niel” crossed with the *Gigantea*, and has double fragrant, yellow flowers, which fade to cream and are recurrent blooming. The foliage is light green, prickles are few. This climber may reach 4 metres.

“Squatter’s Dream” (1923) is a second generation Hybrid *Gigantea* bush rose, which was named after a racehorse. The long pointed apricot-orange buds open to semi-single, slightly cupped, bright saffron flowers,

which fade to creamy yellow. They are fragrant and fully recurrent blooming.

Queen Otisblue



**'Squatter's Dream'**

"Lorraine Lee" (1924) is perhaps the best known of Clark's varieties. It too is a second generation Hybrid Gigantea bush rose, being a cross between "Jessie Clark" and "Capitaine Millet." Clark considered the colour and habit of this variety unsurpassed by any of his later roses. The flowers are rosy apricot-pink, semi-double and cupped. They are fragrant and fully recurrent. The foliage is grey-green and there are few prickles. "Lorraine Lee" produced three offspring, the sports "Baxter Beauty" and "Mab Grimwade" as well as "Lady Mann," issue of an unknown cross, in 1940. "Climbing Lorraine Lee" appeared in 1932.

Cass Bernstein



**'Lorraine Lee'**

"Baxter Beauty" is, like its parent, a bush rose, and has double, golden-apricot, cupped

flowers, which are fragrant and fully recurrent. The bush is evergreen and may bloom in the winter. "Mab Grimwade" is rather similar in colour, but short in growth, attaining at most 80 cms.

"Lady Mann" is also a bush rose with semi-double, rosy salmon to mid pink flowers with prominent stamens. It is fragrant and fully recurrent, and forms a large – 2m x 1.25m – bush.

"Tonner's Fancy" (1928) is a climber with double, globular, white to blush pink flowers in the spring only. The foliage is extremely disease resistant.

"Traverser" (1928) The flowers bloom early in the spring, are semi-double, cream to yellow, and often in clusters. They are slightly fragrant. The leaves are heavily veined and healthy. This climber may reach 6 metres.

"Courier" (1930) is probably a cross of the Gigantea with "A. Joseph" and a large, climbing rose. The double, soft creamy-pink flowers, which show prominent stamens, bloom in early spring.

David Elliott



**'Nancy Hayward'**

"Nancy Hayward" (1937) still a great favourite in Australia! The large, single, cerise pink flowers with slight fragrance are fully recurrent. The leaves are smooth and mid to deep green. New growth is bronze.

"Pennant" (1941) is possibly a cross between "Flying Colours" and "Lorraine Lee." The early spring flowers are double,

cupped and profuse, of a rich begonia pink. There are few prickles on this vigour climber.

“Mrs. Richard Turnbull” (1945) is the last of Clark’s Gigantea crosses. The large, single lemon yellow, fading white flowers have attractive stamens and appear in the early spring. It is an extremely vigorous climber with few prickles.

As said, Alister Clark’s breeding records were lost, and a number of his varieties were previously taken to be Hybrid Giganteas, but now thought to be incorrect. This is perhaps the case of “Kitty Kininmonth.”

Identification becomes particularly difficult in the second generation of crossings:

“Scorcher”, which is taken by some to be a Hybrid Gigantea, produced a number of offspring, including such lovely varieties as Cicely Lascelles, Zara Hore-Ruthven and Mary Guthrie. Peter Cox, on the other hand, in an addendum to his excellent book on Australian Roses, mentions that some rosarians indicate “Princes” as a possible hybrid Gigantea, but he is not convinced. Of a different opinion is the well-known rosarian living in Tasmania, Susan Irvine, who also discovered another variety attributed to Clark in the garden of Mrs. Oswin, and thus named it “Mrs. Oswin’s Gigantea.”

Vintage Gardens



**‘Kitty Kininmonth’**

Recently - 2008 - I visited a delightful display garden of Clark’s roses, which is successfully managed by a combination of municipal

workers and garden club volunteers in the community of Bulla, where Alister’s home, Glenara, was situated and where he gardened all his life. Sixty six of his varieties have been planted and it is hoped that perhaps a few more might be found. The vast majority of these are completely unknown in Europe and indeed outside Australia. All(?) of Clark’s Hybrid Gigantea varieties have now been imported to Italy to complete the collection at my home, where visitors are most welcome.

Viru Viraraghavan



**‘Pink Prelude’**

Until recently work with the Gigantea seems to have been abandoned, but now a number of European breeders are experimenting in that direction, as well as at least one American, Mr Rupert, a rosarian in Tasmania, Mrs. Lilia Weatherby, and also the Indian, Viru Viraraghavan, some of whose creations I should like to mention. “Manipur Magic” is a cross between “Reve d’Or” and *R. gigantea*. “Evergreen Gene”, (“Cargiant 3” – the code name) is a cross between “Carefree Beauty” and *R. gigantea*. “Naga Belle” is a second generation cross, as is also “Sirohi Sunrise,” while “Pink Prelude” and “Golden Threshold” belong to the third generation. “Apricot Tea” ( now renamed “Krishna’s Peach”) is a cross between “Safrano” and a *R. gigantea* seedling.

Viru and his wife Girija visited me some years ago in Italy and brought from India a plant, which he had grown from seed of the *Gigantea* in his garden, and which he believed to be the *R. gigantea*. But when the first flowers appeared came the surprise, for they were very double and show the extraordinary ability to deepen in colour with age - from the white buds, tinged with green to a rich butter yellow - and an enchanting tea perfume. It has been registered under the name “Double Cream.”

Maurizio Usai



**‘Double Cream’**

However to my mind, one of the most beautiful of all Hybrid Giganteas was brought to Europe from China by a group of Italian rose enthusiasts. This rose received notoriety in the book “The Quest for the Rose” by Martyn Rix and Roger Phillips, published in 1993, and inspired the Italian friends to follow the same itinerary. And indeed along the road to Li Jiang in the Yunnan Province they came across this splendid variety – the “Li Jiang Road Climber”. It has large, semi-double, pure shell-pink blooms, which tend to nod, so that one may enjoy them from

beneath. The once flowering strong climber in full bloom is a delight to behold.

So, if you have the conditions which these plants require, that is, a warm climate and the necessary space, where they may cover high walls or trellises, decorate pergolas and trees or, even better, be planted alone on lawns, the Hybrid Giganteas are plants of the highest ornamental interest, giving abundant blooms each year. If you are uncertain as to whether your climate is suitable, the only thing I can say is – try! My home in central Italy is at 400 metres above sea level, while a friend of mine living north of Bolzano in northern Italy, where there was a metre of snow last year, successfully grows “Emmanuella de Mouchy” and the “Li Jiang Road Climber.”

All the Hybrid Giganteas in my collection will gradually be made available to the rose-loving public via the “Roseraie du Désert” in Panjas, France, near the Spanish border, belonging to the Anglo-American couple Becky and John Hook. I am sure they will give you as much pleasure as they have given me.

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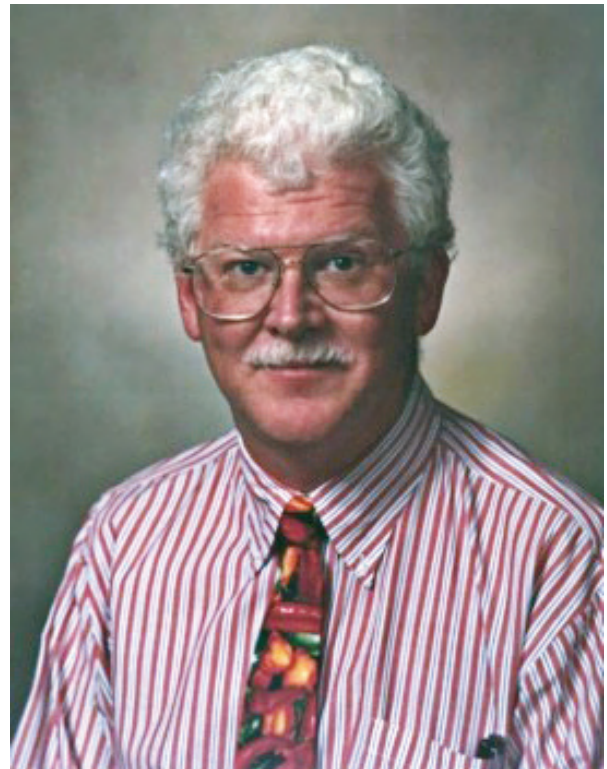
## Q. & A. With Dr. Malcolm Manners

### **How did Florida Southern College get into the business of DNA research?**

I've been interested in old garden roses for a long time, and have for many years been aware of numerous purported misidentifications, questions about parentage, etc. So the interest in solving such problems has always been there, but not the means of doing so. Then several years ago, molecular geneticist Dr. Nancy Morvillo came to Florida Southern to join the faculty. When I heard that she was planning to start a program of undergraduate student research, testing DNA, it occurred to me that our interests might be mutually beneficial. So I approached Dr. Morvillo about the possibility, and she was interested. Some work had already been done at North Carolina State and Texas A&M, so some of the preliminary procedures had already been worked out for roses, so they were a logical and relatively easy group of organisms to work with.

### **Assuming that the research you have done on roses is only a small part of the department's activity, what other types of plants and projects has FSC undertaken? What projects are you working on at the present time?**

We're very predominantly an undergraduate teaching institution, so there is not a lot of other research happening in our department. We do maintain an arboretum of citrus varieties on the campus, as well as teaching plots of various turfgrasses, but not really research projects. Then of course we have had a rose mosaic virus heat therapy program on campus, founded in the mid-1980s, and we still maintain the virus-free variety collection for distribution to nurseries,



although we have not heat treated any new roses in several years.

### **Can you describe in layman's terms the process you go through to get a DNA profile on a particular plant?**

Dr. Morvillo's lab uses the RAPD-PCR method, which is a fairly quick and easy system. We start with a small, soft, rapidly growing leaf. The sample is ground up and goes through a series of procedures to extract the DNA and separate it from all the other cell components. Think of a DNA molecule like a very long chain (often with millions of "links"). We use primers -- short bits of DNA that we purchase -- which will attach at various points along that chain of rose DNA. In different roses, they will attach at different locations on that long chain.

In very closely related roses (e.g., parent/offspring or two siblings) there will be many areas of DNA where the primers will connect at exactly the same spot, whereas in unrelated or distantly related roses, they may

seldom connect at exactly the same spots. Then the PCR process makes copies of the chains of DNA *between* those primers. If primers **are** connected near each other, the chain in between will be quite short; if they connected far apart on the DNA, the chain in between will be longer. The PCR process multiplies up those short segments until we have about 4 billion copies. That's enough to work with in the lab.

The sample is then placed on a plate of what looks and feels very much like clear gelatin. Then we run an electric current through the gel, which causes the DNA to migrate down the plate. Think of trying to shake spaghetti through a series of sieves -- shorter pieces will move through rather quickly, whereas longer pieces will get tangled up in the sieve, and so will move more slowly. The longer the piece, the less distance it will travel in a given period of time. Exactly the same thing happens as the DNA (think spaghetti) tries to migrate down the gel plate (think sieves). After a period of time, the various chunks of DNA will have distributed themselves in a neat pattern, which may be seen by dyeing them with a stain, then shining a black light on them.

For any given rose, the pattern of DNA bands should always be the same. It's like a bar code on an item for sale, or a fingerprint -- it uniquely identifies that variety. For closely related roses, there will be several bands that are identical, but with some that don't match. And for totally unrelated roses, there may be few or no identical bands. When comparing two roses, we usually repeat the process several times, using a different set of primers each time. Different primers produce different banding patterns. With five or six primers, we can usually tell quite a lot about the relatedness of two roses. The test tends to miss tiny differences in very closely related roses. For example, a color sport variety will usually appear to be identical to its sport parent.

**What is the extent that DNA analyses of roses “X” and “Y” can tell you about their close - or distant - relationship, shared ancestry, etc.?**

It's pretty easy to see a direct parent-offspring relationship. The offspring will have approximately half of its DNA bands identical to those of the parent. If we have both parents and the offspring, each of the offspring's bands should match up with bands of one or the other of the parents. Sibling roses will generally share quite a lot of bands, but it is more difficult to demonstrate that they're siblings, unless the parents are also available for testing. The method is very good at demonstrating that one rose is a sport of another, since their DNA bands will appear to be identical or nearly so.

As for what DNA testing (by RAPD-PCR or any other known method) *cannot* tell us -- it can't hope to identify a rose all by itself. It's good at comparing two roses, but cannot do much with the DNA of one rose, all by itself. So in answering questions such as “is ‘Champneys’ Pink Cluster’ the offspring of *Rosa moschata* and ‘Old Blush’, it works well, since we have all three. But to answer “is the rose I grow the true, original ‘Slater’s Crimson China?’ will be impossible, unless I have a known specimen of the original ‘Slater’s Crimson China’ with which to compare it, and I do not.

**To what extent are research facilities such as that at FSC sharing information on their DNA analyses? For example, if you wanted a profile of *R. glauca*, could you get that information from another source without having to do the testing yourself?**

Yes, there is quite a lot of room for collaboration there. And we try not to do much replicating of work already done by other labs. However, since lab conditions vary somewhat from day to day, batch to batch, and certainly from lab to lab, we usually will run a sample from all of the roses

in question, rather than just looking at data from a previous run, if possible.

**What other institutions or facilities in the U.S. are conducting, or are capable of conducting, similar types of plant research, other than N.C. State and Texas A & M mentioned earlier?**

Almost any university with an agriculture or biology program (or any other program dealing with genetics) would likely have the technology to do this type of work. But I'm not aware of other schools in the USA currently actually doing such work with roses. I'd think it likely that someone at the University of California at Davis would be, but I don't know that for sure.

**Were you to be given a grant to completely fund your own pet project regarding roses, what would it be?**

I think we'd enlarge our current work, beginning with the Noisette class, and then moving to the closer, then more distant, relatives -- Chinas, Teas, Bourbons, etc. The more of those groups that we can compare, the better will be our understanding of their true historic relationships, either corroborating the historical literature about their origins and relationships, or clarifying those areas in which the written history may be in error.

**Your focus and interest seems to be on the recurrent-blooming types? Is there research being done in Europe or elsewhere on the once-blooming families?**

Yes, there has been some work done in France on the Gallicas and some other once-blooming types. [See Peter Harkness' article in the *American Rose* of a couple years ago.]

**Now that the parentage of Autumn Damask has been determined, it would appear that the next mystery would be that of the Cabbage Rose, *R. x centifolia*. Are**

**you aware of any ongoing research to delve into its parentage?**

P.J. Redoute



*R. centifolia* {AEN 'Cabbage Rose'}

No. Someone may be, but I've not heard of that research.

**If I were to bring a found rose to you, one in the Tea/China/Noisette family, and requested FSC to do a DNA analysis thereof, assuming you had sufficient "known specimen" markers to refer to, how much of a donation would I need to make to the department i.e. what would be the round number cost of such a project?**

That's very difficult to estimate. The chemicals are not particularly expensive, so the main cost is labor. To date, we've had summer research projects funded by various organizations, in which they give enough to pay a couple students to work for the summer -- probably \$7000 to \$8000. And two students can, in 10 weeks, run quite a lot of analyses. So it's difficult to estimate the cost of any one of those smaller projects -- a single small project would likely never get done, unless there were enough other projects lined up to make it worth hiring the students for the entire summer.

# Rose Classification Reexamined

By Jeff Wyckoff

Opinions are like navels...everybody has one. However, when considering the writings of rosarians in the U.S. and around the world, you might think that some of us are sporting “innies” and “outies” all over our torsos, given the multitude of differing opinions about roses we seem to hold. We continue to see conflicting opinions between modern rose lovers and OGR people, exhibitors and “garden” growers, arrangers and “hort” aficionados, “Chemical Alis” and earth mothers, etc. About the only thing U.S. rosarians seem to hold in common is the [misguided] belief that, one way or another, the American Rose Society is at the root of all our problems.

OK, make that two things, the second being that the current ARS Classification System isn't perfect.. Nobody is entirely happy with it, and everybody has a way in which it should be altered or fixed. Some rosarians think it is skewed towards exhibitors, others toward breeders and propagators, and still others towards the rose-buying public, leaving horticultural accuracy as the poor stepsister. As with debates over species roses, the “lumpers” contend with the “splitters”, arguing for fewer or more categories, for both OGRs and for modern roses. Many rosarians long for the return of the rambler class, while others think David Austin's roses should have a class all to themselves. It seems as if everyone has an axe to grind, an ox to gore, or whatever other idiom you wish to apply.

So why should I be any different? My primary issues with our present system are: 1) the Miscellaneous Old Garden Rose Class, and; 2) inconsistencies in the process in which roses are currently assigned to that classification. The Misc OGR class first appeared in *Modern Roses 9*, published in 1986. Although a brief article on MR9 by

editor Pete Haring appeared in the *American Rose* magazine in November of 1985, no mention was made or rationale given for the elimination of some previous classes from MR8, e.g. Hybrid Alba, or the creation of new classes, such as Climbing Bourbon, Climbing China, and Miscellaneous OGR. Presumably this last class came about to take care of those roses that 1) were clearly introduced before 1867, but did not fit conveniently into one of the then-existing classes, or; 2) were OGRs but had no parentage listed.

Marily Williams



‘Allard’ [*R. xanthina* hybrid]

The Misc OGR class may have been a useful or perhaps even necessary class at the time, but in the intervening 25 years we have come a long way in terms of being able to identify, categorize, and classify roses. The opening of the garden, and the records, of Sangerhausen, recent efforts by French rosarians to identify the roses in the many gardens in France and surrounding countries, and efforts by the World Federation of Rose Societies to preserve and classify “endangered” roses, those that can be definitely traced to only one or two gardens, all are evidence of the increasing interest and scholarship being brought to bear on heritage, as well as modern, roses around the world.

Given this atmosphere of information and inquiry, coupled with near-instantaneous communication via the internet, I would propose that the Miscellaneous OGR class has become obsolete, a sort of dumping ground for roses that could, and should, be placed into existing categories, and that the class should be dropped. As it stands, it is a tacit admission that we, the ARS, the International Cultivar Registration Authority – *Rosa*, doesn't know or can't decide what to do with these roses, so we'll just sweep them under the rug for now. Rather than this approach, the ARS should be aggressively taking the lead and placing these "miscellaneous" roses into the class that is most appropriate, given the current classification system and the present state of rose research and scholarship.

Marily Williams



**'Duplex'** [*R. pomifera* hybrid]

Would such an approach make everyone happy? Certainly not. It would become one more bone of contention for rosarians to argue over, but this is just more of the "been there – done that" that exists now. Would such an approach be accurate and definitive? Again, no. What it would be, however, is an honest effort to solve the problem, and one which, like the entire classification system, is subject to change and alteration as new information becomes available.

There are a number of approaches that could be taken to placing miscellaneous or questionable roses into an existing OGR class. These would include:

- Seeing where the variety was classed in 19<sup>th</sup> century catalogs and other literature, e.g. William Paul's *The Rose Garden*, an avenue which admittedly has already been extensively mined.
- If the parentage, or even possible parentage, of a variety is known, preference should be given to the class of the seed parent, since the characteristics thereof are most often observable in the offspring, compared to those of the (purported) pollen parent.
- Affinity. This simply means that a knowledgeable rosarian will look at the bloom and bush habit/characteristics of the disputed variety and declares: "This most resembles the Damasks", so hence it becomes a Damask. A prime source of this type would be knowledgeable nurserymen and other propagators, who depend upon an accurate description and class assignment to sell the rose. Affinity is *not* the same as growth habit, but rather is a thorough examination of all botanical features of a variety – blooms, prickles, bracts, leaves, sepals, etc. in order to determine similarities with those same features of a given rose class or family.

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**'Dupontii'** [*perhaps descended from R. gallica x R. moschata* hybrid]

None of these is a cure-all for classifying Miscellaneous OGRs, but taken together they would go a long way toward moving disputed varieties into other classes. A final strategy would be that, for those few varieties that could not be sorted by one or more of the above methods, they simply be classed as a **shrub**. Anathema, you say?! Well, consider this: there are approximately 150 species roses recognized by the majority of taxonomists today. Of this number, the hybrids of *Rosae gigantea*, *kordesii*, *moyesii*, *moschata*, *rugosa*, and *wichurana* are already classed as (Classic) shrubs in the Modern Rose section of the ARS Classification scheme. This is because, with the exception of *R. moschata* in 1540, all of their dates of discovery or introduction fall after 1867, the “magic” date for the separation of OGRs and Modern Roses.

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‘**Fortuniana**’ [ supposedly *R. banksiae* x *R. laevigata* ]

Consider further that the hybrids of *Rosae bracteata*, *chinensis*, *eglanteria*, *foetida*, *gallica*, *multiflora*, *sempervirens*, *setigera*, and *spinossissima* are presently classed as Old Garden Roses. What then of the hybrids of the other c. 135 species which date prior to 1867? They are shunted off into other, **modern rose** classes, primarily those of Large Flower Climber and Shrub. This is because

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‘**Frankfurtana**’ [probably *R. cinnamomea* x *R. gallica*]

the ARS has determined that, unless the hybrids of any particular species are of a significant number, or unless there is current hybridizing activities with that species, these roses will be placed in an appropriate modern rose class in order not to overload the OGR section with classes that may have only one or two entries. Examples: until the fairly recent addition of the Hybrid Gigantea class to the Modern Rose section, at least partially driven by Viru Viraraghavan’s breeding activity with *R. gigantea*, well-known varieties such as ‘Kitty Kininmonth’ and ‘Belle Portugaise’, both of which have *R. gigantea* as the pollen parent, were classed as LCIs, while a number of recognizable *canina* hybrids such as ‘Abbotswood’ [*R. canina* x unknown] or Rudolf Geschwind’s ‘Crème’ [(*R. canina* x Tea) x (*R. canina* x Bourbon)] are classed as shrubs. So, as we see, convenience already dictates that a number of apparent OGRs are classed as modern roses.

*Modern Roses 8* contained the classes of Hybrid Alba, Hybrid Blanda, Hybrid Canina, Hybrid Hugonis, Hybrid Laevigata, Hybrid Macounii, Hybrid Macrantha, Hybrid Nitida, Hybrid Nutkana, Hybrid Rubrifolia, and Hybrid Suffulta, none of which exist in *MR12*. Among other changes, *MR9* dropped Hybrid Rubrifolia but added Hybrid Bourbon, and further adjustments to the classification system came with *MRs 10 & 11*. Each new edition of *Modern Roses* brings additional alterations, based upon recommendations by the ARS Classification Committee and

approved by the Board of Directors in the periods between subsequent editions of *Modern Roses*. Thus, moving what are now Miscellaneous OGRs to the shrub class does not mean that they are forever consigned to purgatory; further research and a possible reorganization of the shrub category (!) might resurrect them as early as *MR13*.

Marilyn Williams



**'Polliniana'** [*R. arvensis* x *R. gallica*]

What should be the basis for classification of all roses – whether OGR's, "found" roses, or modern hybrids? Do we base classification on parentage? On affinity? DNA analysis? A combination?

Traditionally, the discipline of taxonomy has used the study of diagnostic characteristics (affinity) in developing classification systems, i.e., ordered schemes which indicate natural relationships. The study of homologous features (homologous features, like 5-digit appendages, are the result of evolution from a common origin; analogous features, like wings of bats (mammals) and birds, are only superficially similar) is used to construct the phylogeny (family tree) of all living things; phylogeny represents the underlying hierarchical structure of the relationships. In other words, parentage is inferred from the study of physical characteristics; it is not used to determine the relationships.

Our discussion of roses, unhappily, begins at a level which is outside the scope of a scientific classification system. In taxonomy,

a "taxon" is a category or group within the system. The lowest-level taxon in a system is the species. We are dealing at the level of cultivar, which is "off the map". Our classification system for cultivars below the level of species cannot be a true, botanical system. This puts us in the position, I think, of being forced to use parentage and affinity in combination, unless we have conclusive DNA evidence. In my opinion, parentage is best used at levels closest to species and where we have good documentation of the cultivar's heritage. Affinity is best used for very complex hybrids or for those whose heritage is unknown.

I think, also, that we are forced to rely on the opinions of knowledgeable and respected rosarians, whether they are amateurs or professionals (as a note, much of the historically important work in taxonomy has been done by amateurs.) A couple of very good diagnostic checklists have been distributed and used by some of the heritage rose groups and rose rustling groups. I think that those people who are active in the efforts to locate and identify "found" roses have, for the most part, done an excellent job of basic classification. Whether we have done an adequate job of annotating "found" roses is a different, but solvable, problem.

To summarize, I think my views could be stated as follows:

1. Our present classification system is not perfect and should be flexible and changeable. It should follow a scientific basis whenever possible, but must recognize that a strictly botanical approach is not practical or appropriate for complex hybrids.
2. The Miscellaneous OGR class cannot be completely eliminated, but both it and the Shrub class should be vigorously reviewed and members moved to more specific classes when possible.
3. We must rely on both professionals and knowledgeable amateurs to

classify rose cultivars. DNA analysis should take precedence when available, but without it we have to use the analysis of homologous features, combined with a knowledge of parentage, to classify cultivars.

Marily Williams  
Co-Chair, ARS Registration Committee

Excluding synonyms, there are now 51 varieties currently listed by *MR12* as Miscellaneous OGRs. A number of these are listed in *MR12* as species hybrids, i.e. having one or more species as a direct parent, and according to the classification principle listed above, *all should be classed as shrubs* (parentage information on each variety is taken directly from *MR12*).

- ‘**A Feuilles de Bengale**’ Hybrid canina
- ‘**A Feuilles de Fraxinelle**’ Hybrid canina
- ‘**Aksel Olsen**’ [*R. helena* x unknown]
- ‘**Allard**’ a form or hybrid of *R. xanthina*
- ‘**Duplex**’ *R. pomifera* x Unknown
- ‘**Fortuniana**’ Supposedly [*R. banksiae* x *R. laevigata*]
- ‘**Francofurtana**’ Probably [*R. cinnamomea* x *R. gallica*] Possibly [*R. majalis* x *R. gallica*]
- ‘**Involuta**’ [*R. spinosissima* x *R. tomentosa*]
- ‘**Polliniana**’ [*R. arvensis* x *R. gallica*]
- ‘**Reversa**’ Assumed to be [*R. pendulina* x *R. spinosissima*]
- R. micranthosepium** [*R. agrestis* x *R. micrantha*]

Another large group of Misc. OGR entries are “Found Roses”. These fall into two categories: some that are identified by *MR12* as found roses, as well a group of eleven others, with no information on hybridizer, parentage, or date of introduction given, whose names strongly imply that they are found roses. They are:

- Maile’s Double Pink (found)
- Maile’s Pink Quill (found)
- Tom’s Smelly Pink (found)

Cromwell School

- Dale’s Ragged Pink
- Dorothy’s Front Porch
- Key Rock Rose
- Loburn Rose
- Memorial Day Rose
- Miner’s Cottage
- Old Nanaimo Rose
- Old Stone School
- Six Fours Auri
- ‘**Ulla Land**’

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‘**Reversa**’ [*R. pendulina* x *R. spinosissima*]

The problem of how to deal with “found roses” is a thorny one, but the ARS appears to compound it with an inconsistent approach to the issue. Case in point: the April 2004 issue of *Gold Coast Roses*, a publication of the Gold Coast chapter of the National Heritage Roses Group, listed over 400 “study names” of found roses; all of these appeared in double quotation marks in the 2003 edition of the *Combined Rose List*, with a horticultural class, color class, and a list of the nurseries that carried that variety. Many of these varieties do not appear in the 2009 *CRL*, as a couple of nurseries have gone out of business and non-profitable varieties have been dropped by those still in existence.

A sampling of the first four dozen names on the *Gold Coast Roses* list shows that approximately half of them appear in the *MR12* data base. Information given includes the horticultural and color classes for each; all but three appears in small-type, without an Approved Exhibition Name, and without parentage, but none is identified as a found rose. Of the three exceptions, ‘Arcata Light Yellow’ is now ‘Weisse New Dawn’, a sport



of 'New Dawn', 'Belfield' has been declared synonymous with 'Slater's Crimson China', and 'Beaute Inconstant' has been identified as 'Beauté Inconstante, a Tea from Pernet-Ducher in 1892.

The point of this, and the questions to be asked of the ARS treatment of found roses, include:

- Why are some found roses with no known parentage classed as Misc. OGRs, while others, also with no known parentage, have a regular horticultural classification? Presumably this is because someone with a knowledge of old roses, - the finder, a nurseryman, or other - has studied the rose and declared its affinity for a certain class. However, if this is indeed the case, this would indicate that those found roses that *are* classed as "miscellaneous" are being accepted without parentage *and* without any declared affinity for an OGR class, meaning in essence that the ARS is taking the finder's word that any given variety is, or at least looks like, "some kind of OGR" without any supporting evidence.
- Why are not *all* the found roses listed in the *Gold Coast* article included in the ARS data base?
- If those *Gold Coast* roses that are in the data base were given traditional OGR classifications based on affinity, why cannot all those varieties now classed as Misc. OGRs be given the same treatment?

A clearly defined and consistently applied policy on 1) conditions for the acceptance of found roses for the *Modern Roses* data base, and; 2) method of assigning those that are accepted to an existing rose class, could be another significant step in reassigning Miscellaneous OGRs to other categories.

The remaining varieties in the Misc. OGR class present a variety of problems, albeit

none insurmountable, in trying to move them to other existing classes. However, this reassignment further calls into question the suitability of the present system and these same existing classes. For example, rather than dumping "orphan" species hybrids like those listed above into the already overcrowded shrub class, might not a better solution be to create a new "Species hybrid" class under the OGR section of the system? Such a class could encompass not only those varieties that have at least one species parent, but not enough siblings to warrant a class of their own, but also such "faux" species as *R. x centifolia* and *R. x damascene*. Further, with or without the addition of such a class, the shrub conglomerate (it has outgrown the "class" definition) needs an overhaul, but that's the subject for another rant at another time.

Any rose classification system can be compared to a Rubik's Cube or similar puzzle: just as soon as you move something to take care of one problem, you discover that in the process you've created another problem, or even more than one. Nonetheless, attempts to improve the present system can and should be made, or at least considered, periodically. As the buying public's tastes change, or as the muse touches hybridizers differently, different types, styles, and even families of roses will emerge over time. The ARS classification system should be flexible enough to reflect these, rather than trying to fit the new into an old model

Peter Beales Roses



'D'Orsay Rose' No parentage given

# Miscellaneous OGRs

Marily Williams



**'Lucens Erecta'** William Paul 1921 No parentage given

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**R. micranthosepium** [*R. agrestis* x *R. micrantha*]

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**'Blanc Pur'** 1827 Mauget No parentage given



**'Rose d'Amour'** No parentage given

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