

Watching names grow

JULIAN SHAW recounts the history of recording orchid hybrid names, on the 50th anniversary of the RHS's involvement with Sander's List

THIS YEAR MARKS the 50th anniversary of RHS involvement with the International Register of Orchid Hybrids, affectionately known as Sander's List. While European experience with hybridisation of orchids dates from the mid 1800s, in China and Japan cultural appreciation of orchids and orchid breeding goes back much further, the dates and origins of which are probably lost in the mists of time. Hence what follows is from a Eurocentric

viewpoint, rather than a truly international perspective.

The first known record of deliberate orchid hybridisation in Europe was made by a well-known bulb enthusiast. William Herbert of Manchester reported in 1847 that he obtained pods from his cross pollination of *Orchis* x *Ophrys*, but failed to collect and sow the seeds as he was away.

Consequently, it is usually John Dominy, who worked for James Veitch of Chelsea, who is customarily credited with the first orchid hybridisation. Beginning in 1853 he artificially cross-pollinated orchids, deliberately attempting to produce

new hybrids. His labours bore fruit and on 28 October 1856 James Veitch showed a hybrid *Calanthe* flower to John Lindley. The parents were *C. sylvatica* x *C. triplicata* and the plant was named *Calanthe Domini*. Three years later, in August 1859, five *Cattleya* hybrid plants were exhibited at a Horticultural Society meeting in London. The following December 1859, a First Class Certificate, the highest award, was given by the Horticultural Society for *Cattleya* x *veitchii*. On 24 August 1865, Auguste Rivière, of the Jardin du

Luxembourg (the French Senate's orchid collection), displayed a flowering *Cattleya* hybrid he had raised to the French Horticultural Society.

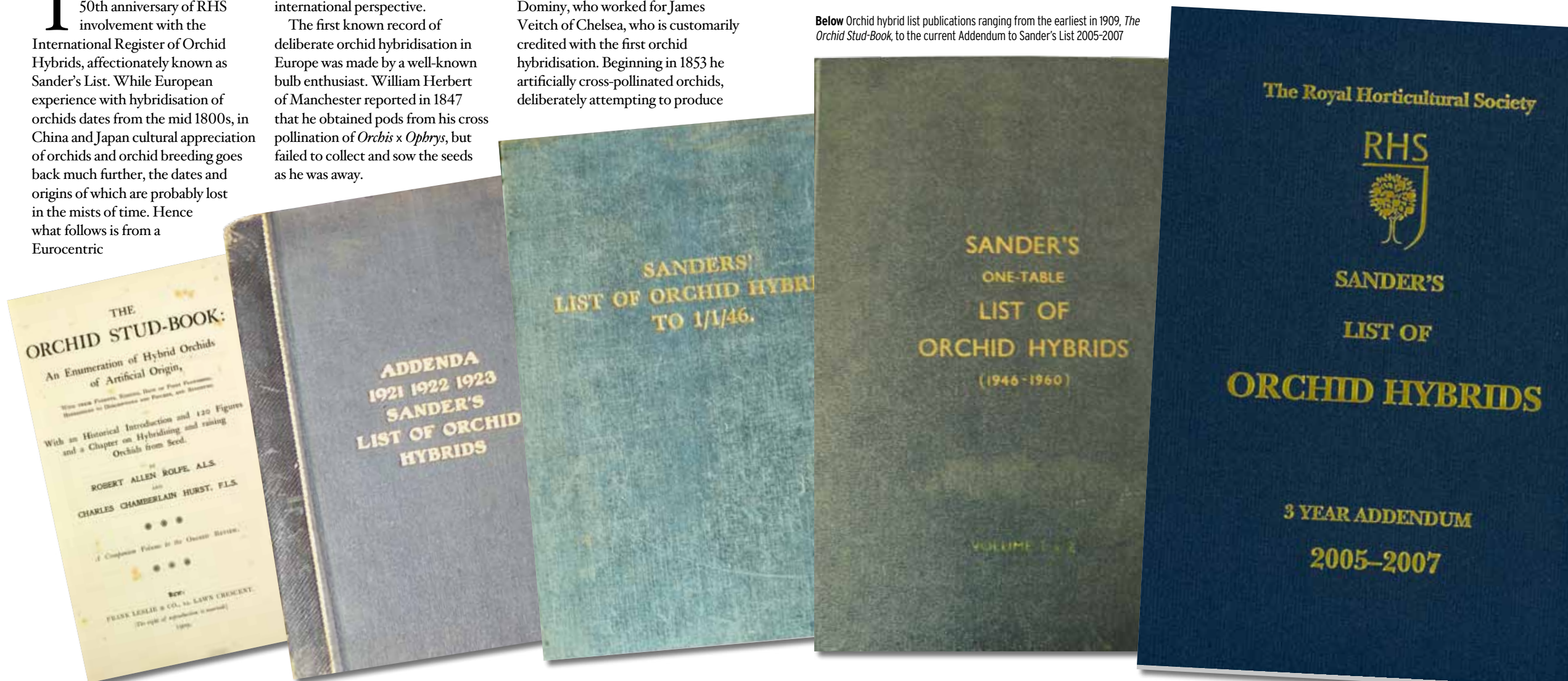
Hybrid lists and bigenerics

The first known list of orchid hybrids was published by FW Burbidge (1847–1905) listing 17 hybrids. From 1871 onwards, the *Gardeners' Chronicle* began to list all new orchid hybrids. It is difficult to enumerate anonymous items, and as interest in hybridisation, or 'muleing' as it was then termed, began to grow, so did the search for

suitable nomenclature. The next year, 1872, Maxwell T Masters, then editor of the *Gardeners' Chronicle*, introduced the first hybrid formula name for a bigeneric hybrid, x *Philageria* for *Lapageria* x *Philesia*, a non-orchid. This method of forming hybrid names was taken up by EF André in 1875, and is now the standard method for forming botanical hybrid generic names.

The next regular listing commenced in 1891 when Robert Rolfe, a botanist at the Royal Botanic Gardens, Kew, began to publish *The Orchid Review*, enumerating new orchid hybrids

Below Orchid hybrid list publications ranging from the earliest in 1909, *The Orchid Stud-Book*, to the current Addendum to Sander's List 2005-2007



with the first and subsequent issues. In 1897 the first tri-generic hybrid formula name arrived in orchids, x *Sophrolaeliocattleya*,

The first Sander's List

What was to become the International Register put in an appearance in 1906, when the first *Sander's List of Orchid Hybrids* appeared. Orchid nursery Sander's of St. Albans, had been publishing *Orchid Guides* for sometime. These gradually contained more and more hybrids, until the 1906 list.

It soon became apparent that

hybrids with more than three genera in their parentage would be made, and the problem of how to coin suitable names greatly exercised several minds at that time.

Eventually, in 1910, EA Bowles proposed the use of the -ara suffix for quadrigeneric names. Although this idea had to wait until 1950 for official adoption into the International Code of Botanical Nomenclature (ICBN), Sander used it in 1922 to register the first quadrigeneric orchid hybrid as x *Potimara* instead of x *Brassolaeliocattlionitis*.

The Orchid Stud-Book

In 1909 a landmark publication listing all known orchid hybrids to 1907, Rolfe & Hurst's *The Orchid Stud-Book*, appeared. This work has never been exceeded for accuracy, thoroughness and scope. It was the work of a Kew-based, though unofficial, team and reflected the botanists' meticulous herbarium and bibliographically based approach to enumerating plants. It should be seen in context with similar official Kew works such as *Index Kewensis* (funded by a legacy from Darwin and the forerunner of IPNI), and the little known Kew horticultural equivalent, *List of Plants Introduced to Cultivation* that commenced in 1896 and ran in annual parts until 1916, which incidentally, also listed new orchid hybrids. Unfortunately, *The Orchid Stud-Book* never appeared as subsequent editions.

Sander's first complete list

By contrast, Sander's list continued to appear, battling against all sorts of economic difficulties thanks to the perseverance of the Sander family. In 1946 a complete *List of Orchid Hybrids to 1/1/46* was published by Frederick Sander. In spite of the title, he was actually somewhat selective and declined to include a number of foreign hybrids, particularly from Germany, probably because the Sander family had been refugees from the Kaiser's regime.

Acceptance of the term grex

With each edition of the ICBN the requirements for acceptable and uniform naming of botanical taxa increased and became more formalized. Some botanists desired to bridge the no-man's land between botany and horticulture, and bring similar order and stability to cultivated plant names. In 1953 WT Stearn, who had drafted the first



The first recorded orchid hybrid *Calanthe Dominii* was bred by John Dominy at James Veitch's nursery

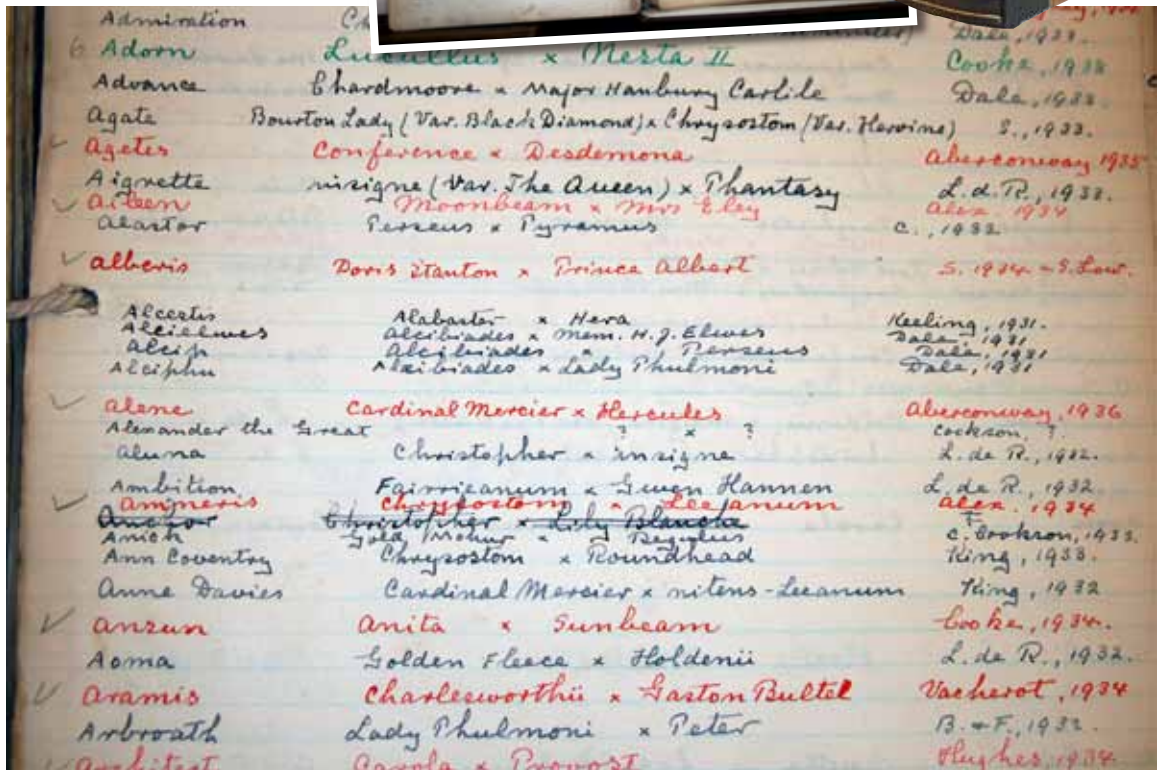
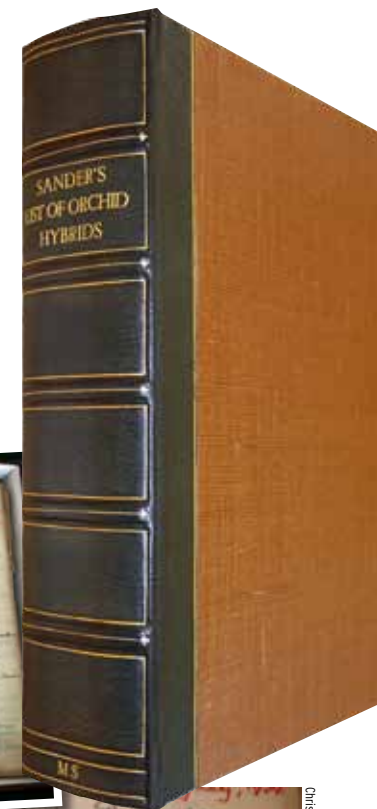
Courtesy of Peter Sander



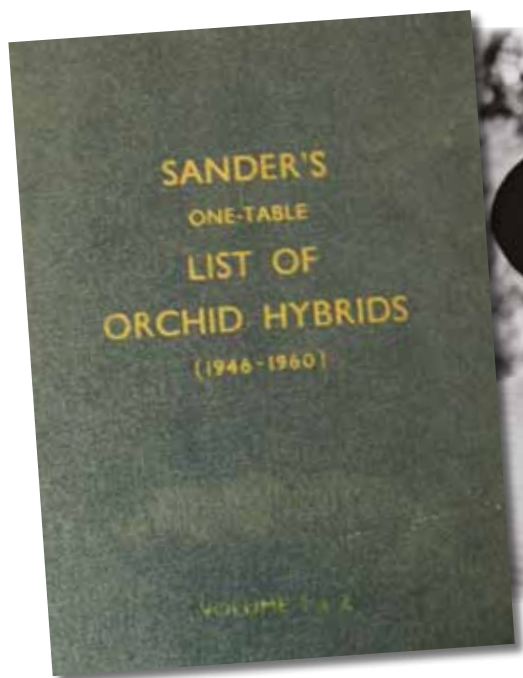
Left Frederick Sander (1876-1951) and his wife Isobel. Frederick was the second son of renowned 'Orchid King', HFC Sander (1846-1920), and kept the List of Orchid Hybrids for the first 50 years

Right and below Frederick Sander's original 1945 handwritten manuscript for the 1946 volume

In 1946 Frederick Sander published a complete *List of Orchid Hybrids*



Chris Parvetic Young Orchid Foundation with permission from Peter Sander



Courtesy of Peter Sander

Frederick Sander's nephew, David Sander (1911-1975), and his wife, Barbara, both worked on the publication of the two-volume *Sander's One-Table List of Orchid Hybrids 1946-1960*

International Code of Nomenclature for Cultivated Plants introduced the term grex. It is a Latin word meaning flock. Stearn had the idea of applying it to a collection or flock of individual seedling plants that resulted from a hybrid cross. A clever communicator, Stearn decided to meet Sander at Whipsnade zoo, not too far from the St. Albans nursery, to talk over his idea among a few flocks of live animals. As Stearn used to muse, 'Whether it was the presence of the animals or not, I don't know. But, he did accept the idea.' Faced with ever increasing work load and costs, Sander's introduced an application form and a registration fee (5 shillings, 25p) in 1957.

A two-volume Sander's List
The year 1960 was pivotal for the orchid register. Sander's published their greatest monumental work, a two-volume list of hybrids issued by David Sander. With his assistant, Marjorie Wreford, they spent an estimated 50,000 hours from 1952

The monumental, two-volume list published in 1960 took 50,000 hours to compile

compiling it. It was to be Sander's final compendium. At the 3rd World Orchid Conference in London hosted by the RHS that year, negotiations resulted in the transfer of the orchid list compilation to the RHS, who also took on Marjorie Wreford as staff.

Under the RHS

The following year, 1961, the RHS commenced orchid registration work. A guiding body was formed, the Orchid Registration Advisory Committee (ORAC). It still functions today as the Advisory Sub-Committee on Orchid Hybrid Registration (ASCOHR).

By 1969 Marjorie Wreford's health

was failing, so Doreen Hunt was temporarily taken on to compile the register. In 1970 Marjorie Wreford retired, and the RHS employed Jack Greatwood as registrar. Jack was famous for his 'nothing shall be changed' stance on nomenclature, and he retained the post until his retirement in February 1990. He did much to enhance orchid registration by his kindly and detailed correspondence with the, by now, global community of registrants.

Computerisation begins

Once again the RHS called upon Doreen Hunt, this time appointing her as registrar. During her tenure, computerisation of the register began. Shortly afterwards on 31 March 1992 Peter Hunt, one-time Kew orchid botanist, took early retirement from his post as a polytechnic lecturer and joined Doreen as a list compiler. Doreen and Peter inherited a huge backlog of applications; by enormous effort it was cleared on 7 November 1992.

Eventually, computerisation was completed which greatly improved the service to registrants by reducing the time taken to process applications from about three months to just a few days. In February 2001 Peter and Doreen Hunt retired and the present registrar and assistant took on the register. We started work in January to ensure a seamless transition.

Filling the gaps

So in early 2001, I inherited a list of names. One of the first necessities was to provide anchors to these names in the form of bibliographic references that transforms it from a mere list to a scholarly work, a useable nomenclator. Now, nine years on, I am still working through the pages of Rolfe and Hurst's 1909 classic, *The Orchid Stud-book*, and other early literature in a bid to fill some of the gaps in the register. The aim is to lift the register to the standard of excellence set by Rolfe and Hurst. The task of verifying the names has now been completed for the generic, hybrid generic and species names. But the grex names are a different matter, there are so many, 143,500 at the last count.

Moving in line with the Codes

Another major direction has been to bring the names into harmony with the ICBN and the International Code of Nomenclature for Cultivated Plants (ICNCP). The names of genera, hybrid genera and species are subject to the ICBN; while grex and cultivar names fall under the ICNCP. Application of the ICBN has resulted in changes to generic names in use, for example *Colax* replaced by *Pabstia*, and *Caularthron* replacing *Diacrium*. It has resulted in changes of hybrid generic names in use, x *Hawaiiara* for example is based on a geographical locality rather than the name of a person so had to be replaced. It is a point worth noting that these names



A selection of letters from the Sander's family archives, sent by hybridisers from all round the world wishing to register their new hybrids for publication in Sander's List of Orchid Hybrids

cannot be registered. They are used to enable registration of grex names, but are subject to the higher authority of the botanical world.

Grex names and registration procedures are now guided by the ICNCP, rather than a separate *Handbook on Orchid Registration and Nomenclature*. This has been another goal of this registrar, to

integrate orchid nomenclature with that of the rest of the horticultural world. To this end, the ICNCP has itself undergone some modification. In the recent eighth edition, a new taxonomic rank was introduced for the grex, clarifying its relationship to the Group and making it possible to name re-makes of a grex using different parental varieties.

Taxonomic changes

Of course, these changes are minor compared to those induced by implementing changes in taxonomy. In contrast to the ‘nothing shall ever be changed’ approach that marked the Jack Greatwood years, the major task of recent years has been adapting the register to the new classification that employs data from DNA sequences, notably as published in the series *Genera Orchidacearum*. So far, well over 25,000 grexes have had to be reassigned to new hybrid genera. This has been a mammoth task, only possible because the register is computerised. In addition, the registrar is supported in diverse ways by a large team, including an assistant, Hannah Griffiths, and some quite remarkable computer boffins. I can also consult with several exceedingly knowledgeable RHS staff, a global network of fellow botanists, and ASCOHR, whose indefatigable chairman, Johan Hermans, skilfully focuses informed debate among the group of botanists and orchid growers at its bi-annual meetings. In turn, the registrar provides information and



Johan Hermans

International Orchid Hybrid Registrar, Julian Shaw advice on all sorts of nomenclatural questions to the global orchid community, from editors and authors to individual growers.

Improving online access

Hand-in-hand with these changes has come the increased need to make this information widely accessible. All the old hybrid generic names are still retained in the register tied to their former grexes. An increasing amount of information is being added in the form of short descriptions and nomenclatural notes. It is planned to make these fields available and fully searchable online towards the end of 2010 or early 2011. A fact not always appreciated is the scale of the RHS, which has many other projects and commitments among which orchids must await their turn to flower.

Those who do not embrace DNA based taxonomies or simply find it too difficult to switch to a new set of names, may gain comfort in the assurance that before long they should be able to search the register using the familiar older hybrid generic names, in parallel with the novelties.

There are limits to the extent to which the RHS can subsidise orchid registration. So the folk with the

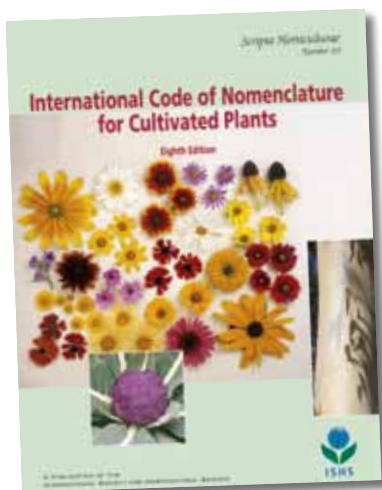
calculators have decided to aim for a 75 percent cost recovery for orchid registration by 2012. This resulted in the first increase in registration fees for 20 years at the beginning of 2010, with a current recovery rate of about 67 percent. This seems to go with the register; Sander’s were always dogged by financial wolves at the door.

Inventive naming

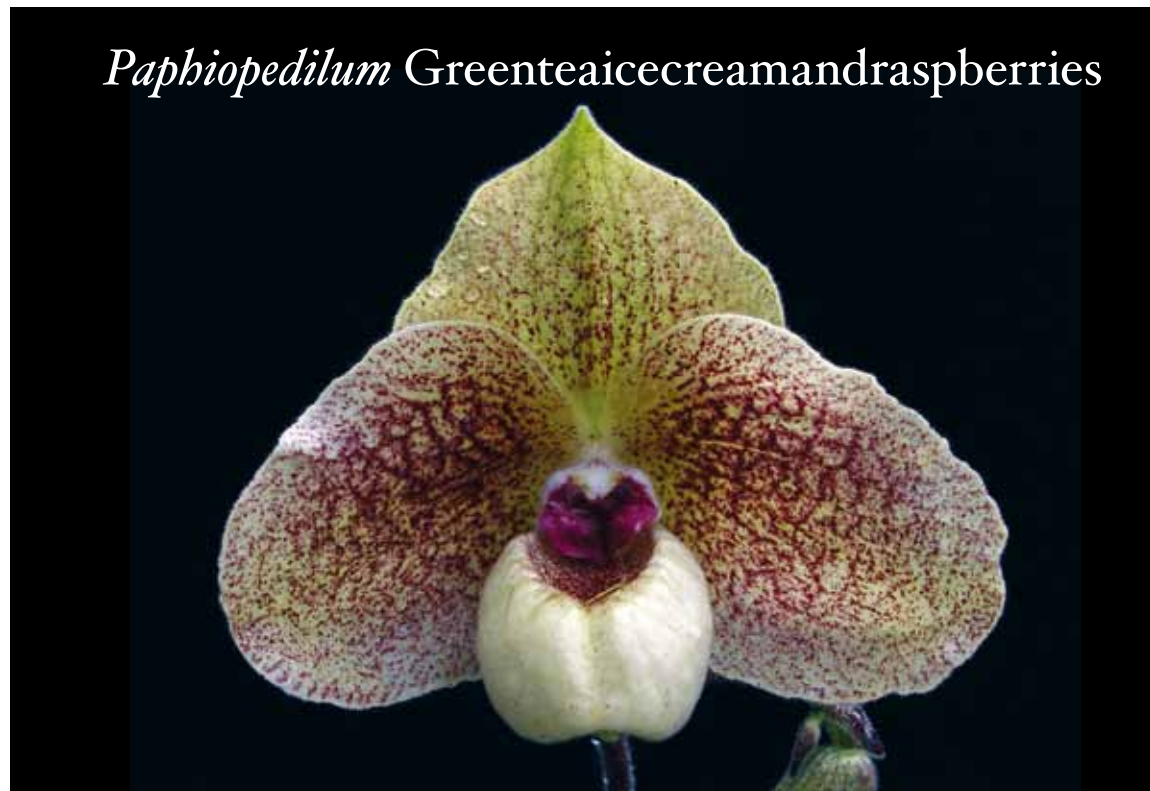
The register can be seen to reflect social history as many of the names commemorate popular people, places and events of the time. For example, *Disa* Glasgow Orchid Conference was registered in 1993 to mark the location of the 14th World Orchid Conference. The name game continues to grow and there are some skilled players. Current regulations state that a name must be no longer than 30 characters. Recently the first name of this exact length was registered, *Paphiopedilum* Greenteaicecreamandraspberries. The hybridiser, Robert-Jan Quene said, ‘I wanted to come up with a name that was exactly 30 characters. In Dutch we tend to combine words into one long word. When this *Paphiopedilum* flower opened, it had a mint green background and magenta spots, so that is how I came up with the name. Many people have bought the plant from us just because of the eye-catching name, even people as far afield as Russia have ordered it.’

And what of the future? Work continues to improve the quality and accuracy of the register’s contents. There is the remainder of the *Genera Orchidacearum* series to implement, work to improve access online, and there are the many hybrids that have so far not been registered. There will always be new challenges to meet as orchid names continue to grow. ■

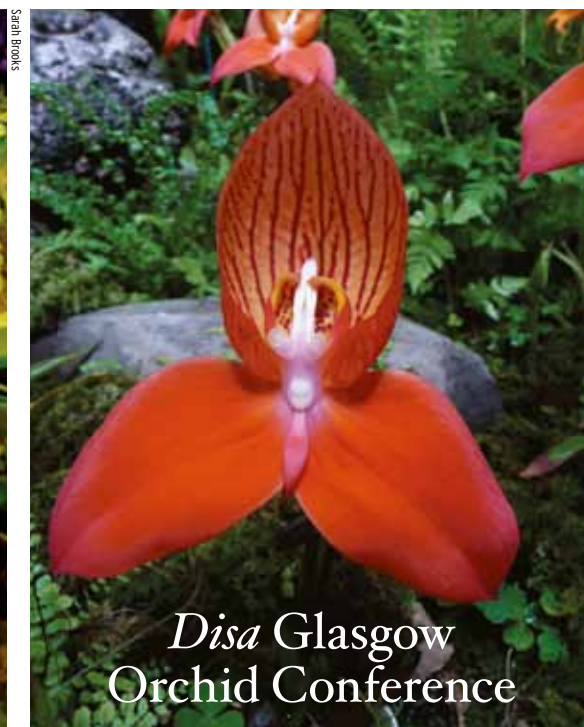
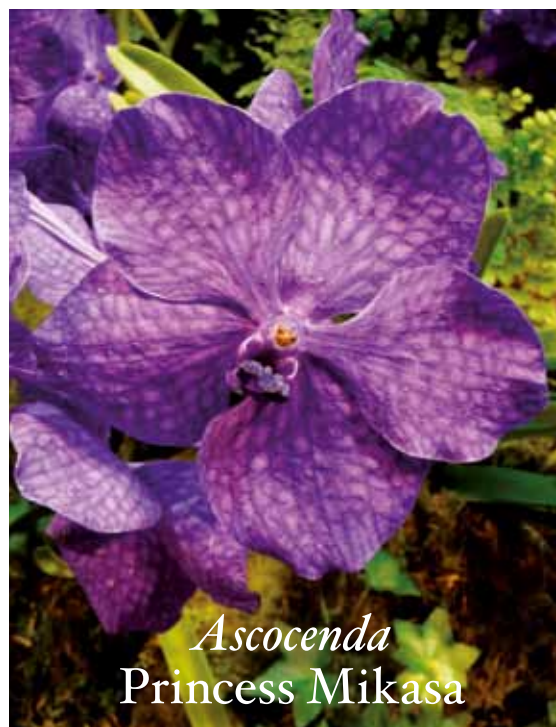
JULIAN SHAW is the International Orchid Hybrid Registrar, and Secretary of ASCOHR



The current edition of the ICNCP introduces a new taxonomic rank for the grex, clarifying its relationship to the Group



Robert-Jan Quene



Sarah Brooks