



# Cultivated Plant Taxonomy NEWS

Issue 2 ■ June 2014

## Culture and taxonomy: new tools for a new understanding

**James Armitage**  
EDITOR

As Chairman of Hortax, one of the things I am enthusiastic to impress on people is the cultural importance of cultivated plants. When they have undergone a process of selection or breeding, plants become examples of living history, forever connected to customs, fashions, events, places and people. In time they can even take on a symbolic significance in folklore, myth and legend.

I was particularly struck by these ideas when visiting China last July to attend the Sixth International Symposium on the Taxonomy of Cultivated Plants in Beijing. As a European, I had not before had the opportunity to meet so many Asian researchers, and I came away with the strong impression that the cultural relevance of the plants they were investigating was an important factor in their work. I hope their message that taxonomic study is a tool that can be used to examine the heritage that plants represent will come to be understood more widely.

In this issue of *CPT News* we feature two articles that I hope will emphasise the links between researchers in the East and West and the common challenges that face them in the future. In the first of these **Zhang Lu**, a delegate and speaker in Beijing, offers



Above, clockwise. *Rosa gallica* 'Versicolor', seen through first-century Pompeian, nineteenth-century Belgian, and twentieth-century English eyes.

her thoughts on the Symposium and analyses the development of these conferences over time. In the second, *Camellia* expert **Jennifer Trehane** discusses how taxonomic information can be lost in translation when plants are moved around the globe.

Also in this edition, **Mike Grant** makes the case for *The Plantsman* as a place to publish horticultural taxonomy and **Penny Maplestone** draws attention to the importance of taxonomic testing in bringing new crop varieties to market. ■

## Hortax on Twitter

Hortax is now social networking! The Hortax Twitter feed offers links to news and observations from the world of cultivated plants. Follow us on **@cptaxo**



► CPT News is circulated free of charge all over the world to institutions, libraries and individuals with an interest in cultivated plant taxonomy, and is a great way of publicising your work. If you would like to write an article for CPT News, please contact James Armitage ([jamesarmitage@rhs.org.uk](mailto:jamesarmitage@rhs.org.uk)).

PHOTOS (CLOCKWISE): STEFANO BOLOGNINI; RHS; LINDLEY LIBRARY; TIM SANDALL.

# News in brief

For more information contact  
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## New banana checklist

A **checklist of banana cultivar names** has been made available online through Bioversity International. Hosted on the ProMusa website ([www.promusa.org/Banana+cultivar+checklist](http://www.promusa.org/Banana+cultivar+checklist)), it is hoped that it will one day provide a complete listing with comprehensive synonymy. Cultivars are listed with their local name and location, the Group into which they are classified and additional notes with some links to images and further information on the Musapedia pages. Edible banana cultivar nomenclature is complicated by the plethora of local names applied to them and the checklist is an important preliminary to further work. Rhiannon Crichton of Bioversity explains, "We hope that the existence of the checklist will stimulate renewed activity in banana cultivar description, classification, understanding of the spatial distribution of cultivar diversity, harmonising *in situ* and *ex situ* germplasm collections and much else."



'Ruhuvia Chichi', a pink-fleshed banana cultivar. Photo. Gabriel Sachter-Smith.

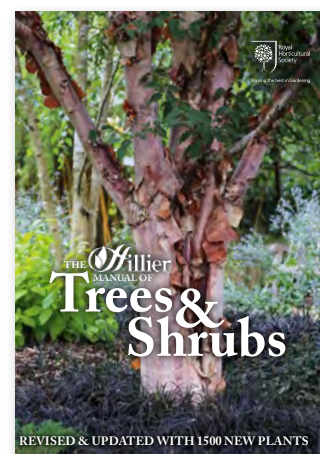
## New ISTA list

The 6th edition of the **ISTA List of Stabilized Plant Names** has been published by the Nomenclature Committee of the International Seed Testing Association. The List is available on the [ISTA website](http://ista.org) and a new web page for searching this nomenclature has now been created on the [GRIN](http://grin.org) website with versions in French, German, Portuguese, and Spanish in addition to English. The Nomenclature Committee now aims to produce a multilingual glossary of common names for crop plants.

## New edition of the *Hillier Manual* published

The eighth edition of ***The Hillier Manual of Trees and Shrubs*** is now available. This is the first update since 2002 and the first edition that has been published by the Royal Horticultural Society and edited by the Society's botanists. Besides its concise descriptions of plants and supplementary information regarding cultivation, introduction dates and notable specimens, the book is also an authoritative taxonomic reference. "We are particularly pleased to have been able to harmonise the nomenclature

and taxonomy in the *Manual* with that of *RHS Plant Finder*," said RHS Botanist Dawn Edwards. "This will hopefully do much to provide a robust and durable set of names for woody plants in gardens." The work was done in close collaboration with consultant editors Roy Lancaster and John Hillier and includes 1,500 new entries, bringing the total to over 13,000. Interesting new entries include *Xanthocyparis vietnamensis*, only described in 2002, and a number of beautiful bamboos of the genus *Borinda*.





## Orchid Register now in line with *Genera Orchidacearum*

The **International Register of Orchid Hybrids** has been updated in line with the forthcoming sixth and final volume of *Genera Orchidacearum* (GO). GO is the output of an international research group working on the classification of orchids and is widely used by the orchid community worldwide. It is the first rigorously tested molecularly based classification of the whole family and shows that pollination syndromes, on which the

classification was previously based, are sometimes unreliable as indicators of genetic affinity.

Updating the Register has been a massive project for the Registrar, Julian Shaw, who has had to create numerous new hybrid genera. "Well over 1,000 new hybrid genera have been erected to accommodate the GO system," reports Julian.

Below. Watercolour on vellum of *Vanilla planifolia* flowers by Claude Aubriet, c. 1700. Identified as *Vanilla flore viridi et albo* by the artist. Photo. RHS, Lindley Library.



## Work begins on online vegetable database

Work is under way at **Science and Advice for Scottish Agriculture (SASA)** on an online database of cereal and vegetable crops. The database will focus on plants for which SASA has statutory responsibility and will provide variety descriptions and information on pedigree and disease resistance. It will be similar in form to the existing European Cultivated Potato Database ([www.europotato.org](http://www.europotato.org)).

## New Zealand cultivar database under construction

Murray Dawson of the **New Zealand Plant Collection Register Project** is overseeing the creation of a database of cultivar names of New Zealand plants with full bibliographic references. Although not yet available online there is an ambition to integrate it with the database of New Zealand plant names maintained by Landcare Research (<http://nzflora.landcareresearch.co.nz/default.aspx>).

## Nursery catalogues digitised

Scanned versions of **6,122 seed and nursery catalogues** have been made available through the Internet Archive (<https://archive.org/search.php?query=collection%3Ausda-nurseryandseedcatalog>). The catalogues are from the US National Agricultural Library's collection and can be downloaded as well as searched.

# Hortax news

For more information contact  
jamesarmitage@rhs.org.uk

## New plant taxonomist directory

It is hoped the Hortax website will soon host a directory of individuals with an interest in cultivated plant taxonomy.

The area would provide a means of sharing work and information and facilitate collaboration. The directory entries would be edited by the individuals featured and, besides listing biographical information and publications, could contain external links and highlight particular areas of interest. If you are interested in setting up a personal page on the Hortax website please email [hortaxgroup@gmail.com](mailto:hortaxgroup@gmail.com)



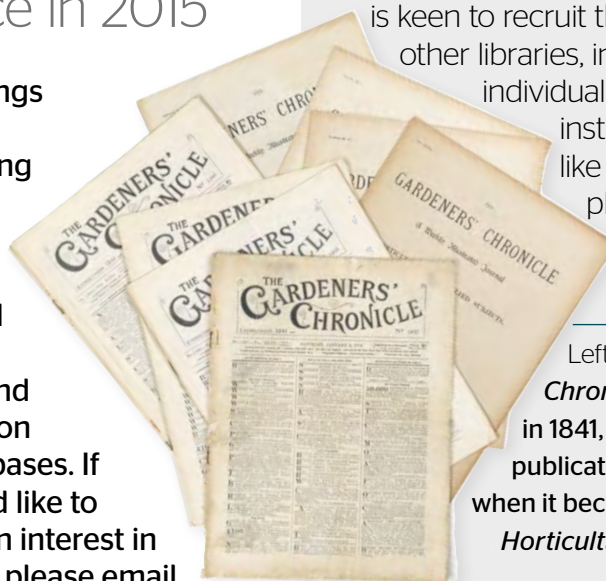
Above. *Sequoiadendron giganteum*, first published as *Wellingtonia gigantea* in the *Gardeners' Chronicle* in 1853.

## European mini-conference in 2015

It is hoped RHS Garden Wisley will be the venue for a planned gathering of European cultivated plant taxonomists hosted by Hortax in spring 2015.

There would be no registration costs and food and refreshments would be provided. The theme of the 3-day mini-conference would be Communication and Collaboration, and it would feature lectures and discussion under

the headings Research, Cataloguing the Diversity of Cultivated Plants in Europe, and Registration and Databases. If you would like to express an interest in attending please email [hortaxgroup@gmail.com](mailto:hortaxgroup@gmail.com)



## Lost Names Project

The Lost Names Project is a collaborative effort to bring to light the wealth of inaccessible taxonomic information that waits to be uncovered in early gardening literature.

The first initiative undertaken as part of the Project is to provide a cumulative index to *Gardeners' Chronicle*. This journal was first published in 1841 and ran for more than a century before merging into *Horticulture Week* in the 1980s. It is a periodical of immense value to the study of cultivated plants, being the first place of publication of the names of a great number of garden plants as well as wild taxa. As it is hoped to include all subjects indexed, not just plant names, the project should also be of great service to garden historians and other historical researchers.

At present ten libraries are contributing to the project, but Hortax is keen to recruit the help of other libraries, institutions or individuals. If you or your institution would like to take part please email [hortaxgroup@gmail.com](mailto:hortaxgroup@gmail.com)

Left. *The Gardeners' Chronicle* was founded in 1841, and continued publication until 1985, when it became part of *Horticulture Week*.



# Taxonomy and *The Plantsman*

**Mike Grant has been editor of *The Plantsman* since 2004, before which he was Senior Botanist with the Royal Horticultural Society at Wisley. Here, in conversation with *CPT News*, he advocates the journal as a means of keeping abreast of taxonomic developments in horticulture.**

**What exactly is the function of the *Plantsman*? How does it differ from the RHS members' magazine *The Garden*, for instance?**

*The Plantsman* is essential reading for all informed gardeners and is dedicated to a deeper understanding and appreciation of garden plants. Its core subject matter is in-depth profiles of particular genera, but articles also cover recent plant introductions, plant exploration, results of RHS trials, and plant name changes and developments in taxonomy.

**I'm interested to hear you mention taxonomy. How important is this aspect of the *Plantsman*?**

One of the main functions of the articles is to help ensure garden plants are correctly identified and to provide background information to support this. This thread runs through the genus profiles and accounts of RHS trials in particular.

The journal is also an appropriate place to publish cultivar names,

recombinations and taxonomic treatments and has even been the place of publication of a number of species names in genera of horticultural merit.

**How do you keep on top of nomenclatural change in the world of horticulture?**

I'm a member of the RHS Nomenclature and Taxonomy Advisory Group (NATAG) so I keep up to date with taxonomic advances and proposed name changes that might affect garden plants. These are all discussed and assessed by NATAG before being adopted by the RHS prior to appearing in *RHS Plant Finder*. If a major nomenclatural change is adopted then I will find someone to write an article for *The Plantsman* explaining the change and one of the key functions of the journal is in providing a bridge between scientific workers and horticulturists. Minor changes to names of garden plants and updates to identities of plants in commerce are summarised annually in the June issue.

**What else can the reader expect, apart from items on taxonomy and nomenclature?**

Recent articles include verification of *Hesperantha coccinea* cultivars, *Trachycarpus* in the wild and in cultivation, advances in rose breeding, *Kniphofia* in South Africa, double scented violets, climbing hydrangeas and their relatives, *Rhododendron* species introduced since 1981, plant hunting in Bhutan, In search of Chinese ashes, hard seed coats and propagation, a new species of blue poppy, *Disporum* in cultivation and the results of trials of *Indigofera*, *Roscoea*, climbing *Lonicera* and hardy *Chrysanthemum*. ■

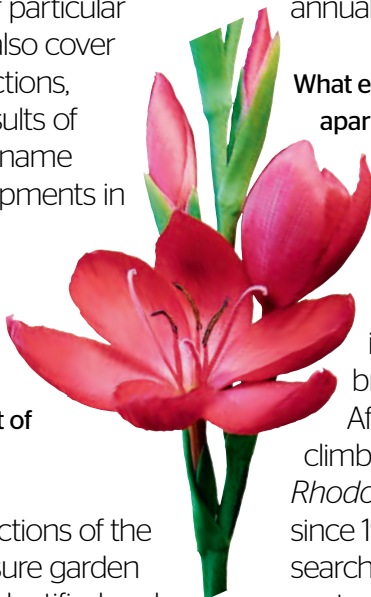
Above. *Hesperantha coccinea* 'Major'.



PHOTOS: RHS / NEIL HEPPWORTH (MIKE GRANT); DAVID ROSS (HESPERANTHA).

“ One of the key functions of the journal is in providing a bridge between scientific workers and horticulturists.

***The Plantsman* is a quarterly magazine published by the RHS. Articles cover plant breeding and selection, new or advanced propagation and cultivation techniques, profiles of prominent horticultural figures, and there are also sections devoted to news, book reviews and readers' letters.**



# Testing times

Penny Maplestone, Chief Executive of the British Society of Plant Breeders, explains how the development and registration of new crop plants is helping tackle global problems and the importance of taxonomic testing to the process.

**T**HE PAST 50 YEARS HAVE seen major advances in UK crop production: a doubling of cereal yields and sugar production, oilseed rape established as the break crop of choice, forage maize adapted for UK growing conditions, and a huge diversification in the range of vegetable and ornamental plants available.

The genetic improvements delivered by new plant varieties have underpinned these changes and, as the world faces up to the major challenges of population growth, climate change and pressure on finite natural resources, the contribution of plant breeding is increasingly recognised as a key factor in



addressing global concerns over food security and sustainable development.

## The value of taxonomic assessment

Taxonomic assessment of new crop varieties lies at the heart of progress in modern plant breeding.

Before seed of a new crop variety can be marketed, it must undergo a rigorous process of statutory testing and characterisation. Once named, successful varieties are placed on a legally binding National List or register of approved varieties.

In the case of wheat, for example, testing involves inspecting some 30 individual plant characters over two years of trialling to verify that the new variety is distinct (i.e. clearly distinguishable from other varieties), that its characteristics are uniform from one plant to another, and that the variety is stable from one generation

Above. DUS growing tests of new wheat varieties for variety registration and PVR usually take two years. Here an off-type is tagged to be counted in a test for uniformity.





to the next. This is known as DUS testing (Distinctness, Uniformity and Stability).

For agricultural crops, National Listing involves additional trials to establish a candidate variety's Value for Cultivation and Use (VCU). This provides an independent assurance that only varieties with improved performance or end-use quality can be approved for marketing.

Left. **Off-type variegated watercress, from a recent application. Some plants have begun to revert back to normal green foliage.** Above and inset. **The SASA (Science and Advice for Scottish Agriculture) DUS trial of celery, grown under cover in a polytunnel, 2013.**

The PVR system also protects and stimulates continued innovation in plant breeding by ensuring that protected varieties are freely available for use as parental material in other breeding programmes. Known as the "breeder's exemption", this process has underpinned the major advances seen in plant breeding since PVR were first introduced in the mid-1960s.

For further information about the business and science of plant breeding visit [www.plantbreedingmatters.com](http://www.plantbreedingmatters.com) ■

## Plant Variety Rights

DUS testing also underpins the unique, internationally recognised form of intellectual property known as Plant Variety Rights (PVR), which provides a further means by which the taxonomy and nomenclature of a new variety can be legally fixed. This protection allows breeders to charge a royalty on the production and sale of protected varieties, so providing a financial return on the investment required to develop a successful new variety.

### ABOUT BSPB

**The British Society of Plant Breeders (BSPB) is the representative body and royalty collection agency for the UK plant breeding industry, comprising more than 60 individual members ranging from multinational and independent businesses to public sector research institutes. The Society represents members' interests on technical and regulatory matters and works to promote continued innovation and investment in UK plant breeding. For more information, go to [www.bspb.co.uk](http://www.bspb.co.uk)**

Zhang Lu is a PhD student at Beijing Forestry University and was a speaker at the Sixth International Symposium on the Taxonomy of Cultivated Plants. Here she presents her impressions of the event and assesses how the Symposia have developed over time.

# Reflections on Beijing 2013



PHOTO: YU CHAO.

It is now nearly a year since the Sixth International Symposium on the Taxonomy of Cultivated Plants was hosted in Beijing but the impression it left has not faded with time.

This was the first of the Symposia to be held in Asia and consequently it attracted more Asian botanists' attention than ever before, including researchers from China, South Korea and Japan. This diversity was reflected in the wide range of research interests reported on in the oral and poster presentations which, among other topics, covered morphological variation of *Hibiscus syriacus* in the central Korean peninsula, conservation of endemic *Iris* in eastern China, a new species of waterlily from Thailand and grain *Amaranthus* genotypes in South Africa. In a series of presentations a Chinese team of researchers gave a clear and detailed account of their work on cultivated *Chrysanthemum*, from hybridisation to cultivar identification using techniques ranging from morphological comparison to molecular analysis. It was striking that Asian researchers focused mainly on resource collection and the taxonomic study of cultivated plants and their relationships with wild taxa, while the efforts of European researchers were concentrated more on nomenclatural matters, particularly cultivar registration and the standardisation of cultivated plant names.



## Historical context

While the central themes of the Beijing Symposium – nomenclature and taxonomy – were unchanged from the first Symposium held in Wageningen in 1985, the intervening 27 years have seen progression in many areas. For example, the prediction made in Wageningen by Vernon Heywood that computers would be widely used in the taxonomy of cultivated plants has now been fully realised.

The second symposium dealt more with nomenclature than the first. Specifically, registration of several genera was featured relating to cultivars of orchid and pea. The use of the internet in registering *Triticale* cultivars hinted at things to come.

With the development of technology, modern techniques (AFLPs, SSR markers, RAPD-PCR) have been widely employed in breeding and taxonomy, and, since the third Symposium in 1998, research assisted by these molecular tools has been reported, discussed and compared with traditional morphological study.

From the fourth symposium on, Asian research has been represented led especially by Professor Jin Xiaobai from China. He illustrated the problems faced by those using the Chinese language in following the rules of the ICNCP and suggested modifications to help countries using ideograms. Continuing this, in the latest Symposium Japanese researcher Hiroyuki Ikentani outlined similar barriers in applying the ICNCP in Japan. The fourth Symposium also offered the opportunity to assess the



Above. Beijing Botanical Garden. Photo. Primlarp Wasuwat. Below. Zhang Lu.

“ The Beijing Symposium will encourage solutions to be found through wider international cooperation.



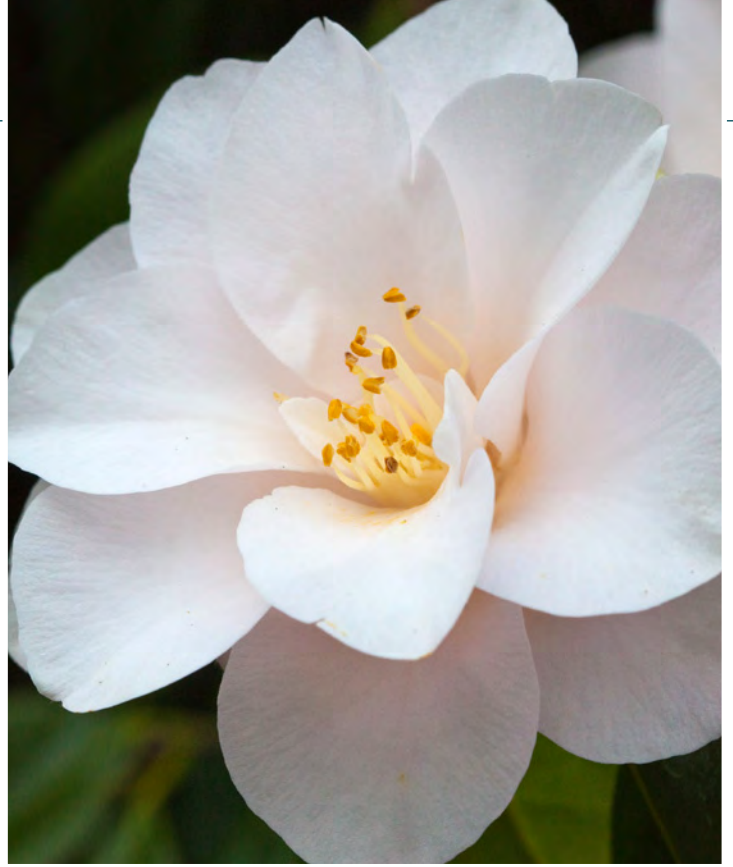
progress that had been made after 50 years of the ICNCP.

The fifth Symposium attempted to address the problem of establishing cultivar names as printed catalogues become rare and this is still an issue requiring resolution.

## Looking to the future

New technologies have substantially facilitated the classification and taxonomic reconsideration of a large number of cultivars. Moreover, the internet offers an unprecedented means of addressing nomenclatural matters and stabilising names. However, numerous difficulties remain such as settling the relationship between the Linnaean naming system and that of cultivated plants and the conflict that often exists between scientific and market-driven nomenclature. The Beijing Symposium will encourage solutions to be found through wider international cooperation, which is fostered by being able to meet colleagues, not only to share research, but also to interact face to face. I feel the Symposium offered me a great opportunity to make new contacts and friends. ■

Jennifer Trehane, author of *Camellias, the Gardener's Encyclopedia*, discusses the important Registration work of the International Camellia Society and the nomenclatural proliferation that can occur when East meets West.



# Camellia conundrums

**I**N ADDITION TO the cultivation since ancient times of *Camellia sinensis* for tea, other species of camellia have been grown as ornamentals in China for probably over 1,800 years and are now grown throughout the temperate world. Desirable selections were originally described by scholars, first in China, then in Japan, using oriental names in oriental script but on their arrival in the West on the clippers bringing tea to Europe they were immediately renamed, using the Latinised terminology popular at the time. A beautiful, formal double white flower introduced in the 1790s was variously named 'Flore Plena Albo', 'Albo Pleno' and 'Alba Plena', while 'Hagoromo', an ancient Japanese cultivar imported into Italy in 1886, was promptly renamed 'Magnoliaeflora' ('Magnoliiflora'). A popular and distinctive camellia, this name appeared in all nursery catalogues in the West until the original name

was eventually reinstated in the late 20th century.

International trade increased as the introduction of new species encouraged breeding in temperate countries around the world and names were often changed (especially in translation) as plants were exchanged by enthusiasts and nurserymen.

By 1961 Charles Puddle, head gardener at Lord Aberconway's Bodnant Garden in North Wales, was working with Albert Fendig, a lawyer and camellia enthusiast in Georgia, USA, and Ralph Philbrick of the L.H. Bailey Hortorium, New York to try to bring order to the situation. Puddle suggested that an International Camellia Society should be formed with the main objective of producing a checklist of all known camellia cultivars. He wrote to 1,000 camellia enthusiasts







Far left. *Camellia japonica* 'Hagoromo', an ancient Japanese cultivar imported into Italy in 1886. Photo. RHS / Carol Sheppard. Left. *Camellia japonica* 'Anticipation', which is sold in China as 'Qiwang'. Photo. Jennifer Trehane.

around the world and the International Camellia Society (ICS) was formed in 1962, becoming the International Registration Authority for the genus in the same year.

The initial checklist compiled by Ralph

Philbrick consisted of about 15,000 camellia names published between 1752 and 1958 and the work was carried on by Australian Tom Savige, who taught himself oriental scripts in order to better understand the treatment of Chinese and Japanese cultivar names.

The International Camellia Register was completed by Tom Savige and eventually published by the ICS in 1993 in two volumes containing a synonymised list of 32,000 published cultivar names and including the origins, history and morphological characters of each plant. An appendix was provided of 9,000 oriental cultivar names, equating their presentation in Japanese or Chinese characters with transliterated versions in Latin script. A second supplement was produced by New Zealander Neville Haydon in 2011 and in the same year the whole Register was put online by Professor Gianmario Motta and his team at the University of Milan.

Despite these advances, nomenclatural challenges still abound. New camellia cultivars bred from traditional genetic stock that display genuinely different characteristics are becoming

Many older garden specimens have lost labels and some have been graced with new names to identify them. Examples include 'The Count's Buttonhole', a name provided by the owners of the Palheiro Gardens, Madeira for a 150-year-old camellia acquired by the garden's well-dressed originator; and 'Captain Martin's Favorite' for a double-flowered *C. japonica* in Magnolia Gardens, South Carolina. Such practices can sometimes cause confusion and *C. japonica* 'Elegans', raised in 1831, has gathered more than 25 synonyms over the years!

uncommon nowadays and to give the impression of novelty retailers sometimes resort to renaming existing plants. Consequently plants sold as 'Golden Anniversary' might prove to be 'Jury's Yellow', 'Gwenneth Morey' or 'Dahlohnega'.

In a reversal of the renaming of early Chinese introductions to Europe, Western cultivars such as 'Raspberry Ice', 'Desire' and 'Anticipation' are being sold in China as 'Bingshanmei' (冰山美), 'Xinyuan' (心愿) and 'Qiwang' (祈望).

The inclusion in hybridisation programmes of recently discovered species such as *C. azalea*, which produces flowers year-round, as well as tropical species with yellow flowers, promises to provide fresh impetus to camellia breeding. The registration and characterisation of a new generation of camellia cultivars is an international effort the ICS is happy to lead. ■

Below. *Camellia japonica*. Watercolour on paper by an unknown 19th century Japanese artist, from an album titled *Plantae Icones Japonicae* (RHS, Lindley Library).





# Border control: the EU in your garden

RHS Head of Horticultural Taxonomy John David summarises proposed new legislation



**OVER THE PAST YEAR A set of proposed regulations that affect cultivated plants has emerged from the EU Commission. This is not a coincidence, as some of the regulations are part of a larger package of measures designed to improve consumer protection and food quality, under the banner of “smarter rules for safer food”.**

### **The Plant Reproductive Material regulation**

The proposal with potentially the most impact on cultivated plants is the Plant Reproductive Material regulation, which became widely but misleadingly known as the seed law. This was designed to ensure reliability and consistency of quality for plants propagated for sale or exchange between professional operators. It was never the intention to control exchanges of plants between individuals or small-scale movement of plant material, although that was a major concern for many.

The means of control was to be through a requirement that any plant variety in trade should be registered with a central body, planned to be the CPVO in Angers, and also through national offices. This registration system was similar to that used for Plant Breeders' Rights (PBR), without any of the protection offered by PBR, and would, no doubt, have brought in a further system of rules for naming to add to the systems laid out by the ICNCP and for Statutory naming under UPOV. There were to be two levels of registration. Those species listed

in Annex 1 would have a quasi-PBR approach, which would be costly and a considerable burden to those registering the variety. For anything not in Annex 1, there was a requirement for an Officially Recognised Description (ORD), although it was not clear from the text how much detail would be necessary to provide an ORD. Annex 1 largely applied to crop plants, but did not recognise that some crop plants have ornamental varieties. There was a further concern that the regulations would apply to National Plant Collection Holders and potentially undermine their valuable conservation work.

The regulation was published in May 2013. From the outset it was clear that the authorities had no idea of how many cultivated plants could be affected, as was demonstrated when it was revealed to them that there are over 70,000 plants listed in *RHS Plant Finder* alone. Working with others in the horticultural industry, with colleagues in Defra and with like-minded organisations in other European countries, the RHS was able to put amendments into the legislation by the December 2013 deadline. In the end, both EU Parliament committees handling the legislation rejected it outright at their meetings in January 2014. This was followed by a vote in the full Parliament in March, which likewise overwhelmingly rejected the legislation. The Council of Ministers then recommended that the EU Commission redraft the regulation. This is not likely to take place until much later in 2014; we hope that this will give us an opportunity to feed into the process when the Commission begins work on it again.

PHOTO: RHS / TIM SANDALL

## The Invasive Alien Species (IAS) Regulation

This was passed by the EU Parliament at the end of April 2014 and is set to come into force early next year. It aims to introduce common measures against invasive non-native species across the whole of the European Union, recognising that a problem in one country can easily spread to others and that common action is required to control problem species. The strictest level of control is a total ban on possession of a species, and this will apply to any species listed as being of "Union concern". Other controls would apply and these will be mandatory on member states. The Commission will now begin work on preparing the list, which will need to be agreed by member states.

It is widely stated that horticulture is the main pathway of introduction of IAS, but much depends upon what you define as invasive; some would include any species that has managed to establish itself in the wild in that category. While there is a risk that some garden plants may find their way onto the list, given the cost and administrative burden associated with a species of Union concern, it is not likely that many garden plants will be listed, although it could include some of the more rampant aquatics. Member states will have the option to prepare lists of national or regional concern, which they can share with adjacent member states to request assistance in

*Rosa rugosa*, a frequently cultivated species of Asian origin already listed as a Schedule 9 invasive in England and Wales. Photo. RHS, Lindley Library.



ensuring that relevant species are controlled in their territories. These lists are likely to have more species on them. In addition the legislation also focuses on pathway controls and with horticulture being a major pathway, we can expect more pressure in this direction.

The correct naming of invasive plants remains a problem with any legislation and one which sits on the boundary between the two relevant codes, the ICN and the ICNCP. Added to which are the problems that arise from a poor understanding of the identification and circumscription of these plants amongst those who will have to enforce the rules. These two issues, when taken with the broad definition of "species" to include any subspecies, variety, form, selection (i.e. cultivar) or hybrid including that species as a parent, will have significant implications for horticulture. This could mean that perfectly innocuous cultivated plants would come within the scope of the regulation simply because they are derived from a listed species. For these reasons the IAS legislation should be of concern to anyone who grows or propagates cultivated plants.

## The Nagoya Protocol

The third piece of legislation to affect horticulture is the implementation of the Nagoya Protocol on Access and Benefit Sharing. This is an international agreement, following on from the Convention on Biological Diversity, which was passed in 2010 but requires signatory governments to enact legislation to enforce the provisions of the agreement. The relevant legislation was passed by the EU Parliament in September last year and is likely to come into force either late this year or early in 2015. At the same time, the UK Government has been looking at implementing the regulation in the UK, in terms of monitoring use of genetic resources and deciding penalties for breaches of the regulation. The main provisions of the EU legislation relate to monitoring and controlling the use of genetic resources from other countries and ensuring that such genetic resources that are used have been obtained in accordance with the Nagoya Protocol and relevant national legislation. It places on users of genetic resources a requirement to carry out due diligence on any material they use and to be able to show that it has been obtained and used legitimately. It also proposes mechanisms to assist with this, including promoting "good practice protocols" and establishing reference collections with plants that are available for use in accordance with the Protocol. ■



## Recent publications in cultivated plant taxonomy

The following is a selection of some recently published books of relevance to the taxonomy of cultivated plants. Please let us know if there are works you wish to see included in the next issue of *CPT News*. In addition, it is hoped future editions might also feature book reviews, so be in touch if there is work of yours you would like to be covered.

**Armitage, J.D., Edwards, D. & Lancaster, N. (eds) (2014) *The Hillier Manual of Trees and Shrubs*. Royal Horticultural Society: London.**

**Clayton, D. & Cribb, P. (2013). *The Genus Calanthe*. Natural History Publications in association with Kew Publishing: Borneo.**

**Grey-Wilson, C. (2014). *Pasque-flowers. The Genus Pulsatilla. A Guide for Gardeners, Horticulturists and Botanists*. The Charlotte-Louise Press: Norfolk.**

**de Jong, P. & Kolster, H. (2013). *Euonymus, een kleurrijk geslacht*. KNNV Publishing: Zeist.**

**Jin, X. and Zhang, Q. (eds) (2014). *Proceedings of the VI International Symposium on the Taxonomy of Cultivated Plants. Acta Horticulturae 1035*.**

**Lee, J. (2013). *Landscape Plants of Arabia*. Gilgamesh Publishing Ltd: London.**

**Rammeloo, A. (ed) (2014). *Hamamelis Cultivar Names - Checklist 2014*. Arboretum Kalmthout: Antwerp.**

**Shaw, J. & Griffiths, H. (2014). *Sander's List of Orchid Hybrids*. Royal Horticultural Society: London.**



PHOTO: RHS / TIM SANDALL.

*Pulsatilla vulgaris* subsp. *grandis*. See Recent Publications, left.

## About Hortax

Hortax, formed in 1988, is a small committee of European plant taxonomists and horticulturists with a professional interest in the classification and nomenclature of cultivated plants.

The committee meets to discuss topics of relevance to the *International Code of Nomenclature for Cultivated Plants* (ICNCP) and seeks to find solutions to the plentiful problems presented by humanity's attempts to classify the plants it grows.

## Members

James Armitage (Chair)  
Saskia Bodegom  
Chris Brickell  
Phil Clayton  
Natalie Iwanycki  
Myra Johnson (Secretary)  
Sabina Knees  
Tony Lord  
Valéry Malécot  
Victoria Matthews  
Lesley McCarthy  
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