



# Cultivated Plant Taxonomy NEWS

Issue 1 ■ July 2013

## Cultivating co-operation

Cultivated plant taxonomy is a diverse discipline that, to a greater or lesser degree, affects aspects of plant registration, crop testing, collection curation, academic study, publishing, field botany, retail, legislative enforcement and gardening. Its influence is pervasive in the landscape we inhabit, the materials we use and the food we eat.

The wide-ranging impact of cultivated plant taxonomy should be one of its great strengths, but a failure of workers in the field to maintain lines of communication and look for areas of common ground and opportunities to share resources has left the discipline disorganised, little understood and seriously undervalued.

The Sixth International Symposium on the Taxonomy of Cultivated Plants, to be hosted in Beijing this July, offers a wonderful opportunity to discuss ideas, collaborate and take stock of progress, but it is vital that the acknowledgement of common intent and momentum generated by such a gathering is not permitted to fade after the Closing Address.

It was from such a laudable ambition as this that the International Association for Cultivated Plant Taxonomy was born six years ago at the Fifth International Symposium, but the organisation stagnated and faltered, leaving the need for



a mechanism for facilitating co-ordinated communication and activity still wanting. This, the first edition of *Cultivated Plant Taxonomy News* (CPT News), is an attempt to meet that need.

CPT News is provided by Hortax (The Horticultural Taxonomy Group, [www.hortax.org.uk](http://www.hortax.org.uk)) which this year celebrates its 25th birthday. The Group previously produced a newsletter, *Hortax News*, and, particularly through its website and online forum, seeks to provide an educational resource and further the taxonomic study of cultivated plants. Over the years Hortax has remained constantly active and committed to its purpose and central message: that botanically, culturally, ecologically and legally, cultivated plant taxonomy matters.

■ If you would like to submit material for inclusion in the next CPT News, contact James Armitage ([jamesarmitage@rhs.org.uk](mailto:jamesarmitage@rhs.org.uk)).

Above, clockwise from top left. *Citrus × aurantium*, a hybrid whose selections include 'Ugli', 'Seville', 'Valencia', and 'Navel', from an 1822 aquatint by Angiolini (RHS, Lindley Library); *Brassia Orange Delight* gx, one of more than 150,000 grexes in the RHS Orchid Register (RHS / Carol Sheppard); *Magnolia × loebneri* 'Merrill', a cultivar from Arnold Arboretum, Massachusetts (RHS / Carol Sheppard).

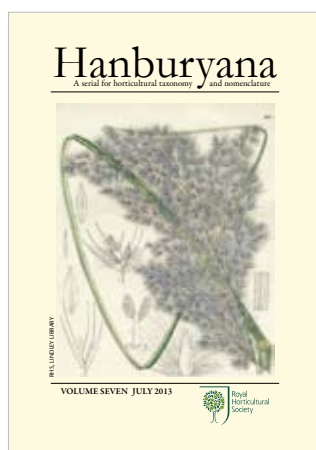
# News in brief

## Draft EU Regulation on Plant Propagating Material Agreed

On 6 May 2013 a draft Regulation was adopted by the Commission reviewing EU legislation on the marketing of seed and plant propagating material (SPPM). This Regulation has been drafted with the intention of granting more responsibility and flexibility to businesses, to streamline administrative procedures, enhance biodiversity and steer plant breeding towards environmental aims. It has far-reaching consequences for those dealing with cultivated plants in the European Union. The draft Regulation can be viewed online ([http://ec.europa.eu/dgs/health\\_consumer/pressroom/docs/proposal\\_aphp\\_en.pdf](http://ec.europa.eu/dgs/health_consumer/pressroom/docs/proposal_aphp_en.pdf)) and further information can be found here ([http://ec.europa.eu/food/plant/plant\\_propagation\\_material/review\\_eu\\_rules/index\\_en.htm](http://ec.europa.eu/food/plant/plant_propagation_material/review_eu_rules/index_en.htm)).

## *Hanburyana* Vol. 7

The latest volume of *Hanburyana*, the journal of horticultural taxonomy and



Above. ***Hanburyana* Volume 7, which has just been published by the RHS Science Dept, includes several proposals to amend the ICNCP as well as papers on the Korean willow-leaved spicebush, *Magnolia × pruhoniana*, and a new hybrid in *Cytisus*.** Below. ***Geranium* ROZANNE ('Gerwat'), a 2000 introduction protected by Plant Breeders' rights.** Photo. RHS / Tim Sandall.



nomenclature, has now been published and, along with the six previous volumes, is available online ([www.rhs.org.uk/Plants/RHS-Publications/Journals/Hanburyana](http://www.rhs.org.uk/Plants/RHS-Publications/Journals/Hanburyana)). Volume Seven contains four papers proposing amendments to the *International Code of Nomenclature for Cultivated Plants* as well as other articles on a range of taxonomic subjects.

## Daffodils on the Agenda at Monocot Conference

Monocots V, the 5th International Conference on Comparative Biology of Monocotyledons (New York Botanic Garden, 8-12 July 2013), will host a special Symposium on the systematics and population biology of *Narcissus*.

## New CPVO Guidelines with Explanatory Notes Produced

The guidelines and notes issued to help those applying for European Plant Variety Rights to formulate a suitable name have been extended ([www.cpvo.europa.eu/documents/lex/guidelines/VD\\_Guidelines\\_explanatory\\_note\\_EN.pdf](http://www.cpvo.europa.eu/documents/lex/guidelines/VD_Guidelines_explanatory_note_EN.pdf)). Denominations which misleadingly suggest a relationship to a pre-existing cultivar are considered unacceptable and other changes relate to the number of letters' difference required in order for denominations to be judged distinct.

## New RHS Head of Science Appointed

Dr Alistair Griffiths has been appointed the new Head of Science at the Royal Horticultural Society. Alistair's ►



◀ previous role was as Horticultural Science Curator at the Eden Project in Cornwall and his PhD was on the role of *ex situ* management in the conservation of the critically endangered Seychelles endemic *Impatiens gordonii*. He has stated a strong commitment to horticultural taxonomy.

Above. KAVB have published a new list of *Galanthus* cultivar names (see panel, right).

Clockwise from top left.

*G. nivalis* f. *pleniflorus*

'Flore Pleno', *G.* 'Cornwood

Gem', *G.* 'Jacquetta',

*G.* 'Primrose Warburg'.

Photos. Tim Sandall.

## Recent Publications in Cultivated Plant Taxonomy

The last year has seen the release of a wealth of new titles relevant to the taxonomy of cultivated plants. Below is a selection of some of the most significant.

**Ashburner, K. & McAllister, H.** (2012). *The Genus Betula: a Taxonomic Revision*. Kew Publishing: London.

**Auders, A. G. & Spicer, D. P.** (2012). *The RHS Encyclopedia of Conifers* (2 vols). Kingsblue Publishing Ltd: Cyprus.

**Cribb, P. & Frosch, W.** (2012). *Hardy Cyripedium: Species, Hybrids and Cultivation*. Kew Publishing: London.

**Hay, A., Gottschalk, M. & Holguin, A.** (2012). *Huanduj: Brugmansia*. Kew Publishing: London.

**Mathew, B.** (ed.) (2013). *Genus Cyclamen: Science, Cultivation, Art and Culture*. Kew Publishing and The Cyclamen Society: London.

**Pigott, D.** (2012). *Lime-Trees and Basswoods*. Cambridge University Press: Cambridge.

**Riffle, R. L., Craft, P. & Zona, S.** (2012). *Encyclopedia of Cultivated Palms* (2nd ed.). Timber Press: Portland, Oregon.

**Van Dijk, H. & Snoeijer, W.** (2013). *Galanthus: a list of cultivar names*. KAVB Royal General Bulbgrowers' Association: Netherlands.

## Tributes Paid Following Death of Dr James Cullen

Principal Editor of *The European Garden Flora* James Cullen passed away on 11 May 2013 aged 77. James was Assistant Regius Keeper at the Royal Botanic Garden, Edinburgh from 1972 to 1989 where the focus of his work was on *Rhododendron* classification. He was author of *The Orchid Book* (1992), *Handbook of North European Garden Plants* (2001) and *Hardy Rhododendron Species* (2005) and his contribution to the advancement of cultivated plant taxonomy was immense. (Photo: CUBG.)





# Plant Heritage

## Current projects

Plant Heritage's focus in its 35th year is on two major projects: the Threatened Plants Project (TPP), which is four years old this year, and the revision of requirements for holding National Plant Collections agreed last year and to be implemented during 2013/14.

Formerly the NCCPG, Plant Heritage is based in the UK and aims to be recognised as the foremost charity dealing with the conservation of cultivated plants.

Here, Plant Conservation Officer Mercy Morris provides an update of the organisation's present activities and future aspirations.



## Threatened Plants Project

The TPP provides a means of evaluating the rarity and conservation value of cultivars and has now assessed the conservation status of cultivars in 240 genera. More than 6000 threatened cultivars have been identified to date, half of which are held in National Plant Collections.

Work is also progressing on integrating aspects of the project into our collections assessment and recruitment processes, thus providing a means of guiding potential collection holders to genera, species, or groups of plants most in need of conservation.

The TPP also allows garden curators to assess the value of their collections from a conservation perspective. This consists of identifying, from the genera assessed to date, those plants that are most under threat and helps inform decision-making and resource allocation when replanting or planning propagation.

## New Requirements

The requirements for National Plant Collections have remained largely ►



Above. *Hamamelis x intermedia* 'Harlow Carr'. Photo. RHS / Carol Sheppard. Right. *Nepenthes* 'Princess'. Photo. RHS / Carol Sheppard. Below. *Dahlia* 'Twynning's Smartie'. Photo. RHS / Tim Sandall.





◀ unchanged since collections were first invited into the scheme in 1981. To allow for a greater degree of flexibility and provide a clear focus on conservation, Plant Heritage will change the way it assesses new collections.

In addition to this a new scheme will be introduced, whereby members can conserve single plants or groups of threatened plants (level of threat determined by the TPP), which will be registered centrally. It is hoped that this will provide a searchable resource of plant material to augment both the National Collections and the TPP.

## Future plans

To continue to work on international cooperation with counterparts in France (CCVS), Germany (Netzwerk Pflanzensammlungen), the Netherlands (SNPC & NPC), USA (NAPCC) and Australia (GPCA).



Above. A nomenclatural standard specimen of *Geum* 'Bell Bank' (left), once almost lost to cultivation, but now an important garden plant. Photo. RHS / Carol Sheppard.





# Watercress

## DUS testing begins for an ancient vegetable crop

**Lesley McCarthy of Science and Advice for Scottish Agriculture (SASA) discusses the development of a procedure for DUS testing of an ancient crop that is enjoying a resurgence in popularity.**



The beneficial dietary and medicinal properties of watercress have been known for thousands of years. The first commercial production was developed during the 16th century in Erfurt, Germany but it wasn't until 1808 that large-scale growing took place in the UK when William Bradbury constructed watercress beds at Springhead in Kent (Spencer, 1995). Today, watercress is still produced in Kent but other areas of production include Hampshire, Wiltshire and Dorset. In the 2011 and 2012 season 65ha of watercress were grown, representing 0.05% of the total field vegetable production in the UK (Defra, 2012).

Of the five white-flowered species in the genus *Nasturtium*, it is the two-row watercress, *Nasturtium officinale* W.T. Aiton, and the one-row watercress, *N. microphyllum* (Boenn. ex Rchb.) Rchb., that are principally found in cultivation. A natural hybrid, *N. × sterile* (Airy Shaw) Oefelein, occurs between ►



Above. Young plants of watercress 'John Hurd's 98 Special'. Photo. SASA.



Left. **Beds of watercress at Chalke Valley Watercress Farm, Wiltshire.**  
In 2011-2012, 65ha of watercress were grown in the UK. Photo.  
RHS / Tim Sandall. Below. **Watercress 'Old Flame'.** Photo. SASA.

◀ these two species, and, as the name suggests, is mostly sterile, so requires vegetative propagation. Triploid hybrids also exist within the genus.

Watercress is the latest of 16 vegetable and three agricultural crops to be grown in trials at Science and Advice for Scottish Agriculture (SASA) for the purpose of establishing Distinctness, Uniformity and Stability (DUS) in new cultivars. The aim of the test, once successfully completed, is to allow the registration of new cultivars onto a National List or for the award of UK Plant Breeders' Rights (PBR). In the case of PBR the new cultivar must meet the extra condition of being novel. Examination of DUS at SASA is also conducted on behalf of the European Community Plant Variety Rights Office (CPVO).

There are currently two watercress cultivars that have UK PBR. These are 'John Hurd's 98 Special' and the purple-leaved 'Old Flame'; the latter began the examination for DUS at SASA in 2008. At this time Niall Green and George Campbell sourced reference collection material and grew a broad range of watercress accessions to discern the variation within characters. This

allowed them to revise the DUS characteristics used for assessing distinctness and compile the only guideline currently available for testing watercress – the United Kingdom National List/PBR Technical Protocol for the official Examination of DUS ([www.fera.defra.gov.uk/plants/plantVarieties/nationalListing/documents/protocolWatercressDUS12.pdf](http://www.fera.defra.gov.uk/plants/plantVarieties/nationalListing/documents/protocolWatercressDUS12.pdf)). This work has established a process for the examination of watercress cultivars currently undergoing DUS testing which include two applications from CPVO and one for UK PBR.

Despite its long history of cultivation, the area given over to growing watercress in the UK remains small. However, the current resurgence in its popularity as a vegetable crop and the recent increase in DUS applications suggests it may be showing the green shoots of revival.



## References

**Defra (2012).** Basic Horticultural Statistics 2012. Spreadsheet of Statistics Table 11 ([www.defra.gov.uk/statistics/foodfarm/landuselivestock/bhs](http://www.defra.gov.uk/statistics/foodfarm/landuselivestock/bhs))

**Spencer, C. (1995).** *The Vegetable Book*. Conran Octopus Limited, London.



# Registration

## Online Checklist of Australian Cultivars Launched

The Australian Cultivar Registration Authority has been registering Australian native plant cultivars for over 50 years and has now succeeded in making available a web resource that will greatly facilitate the study of these plants. The Checklist of Australian Plant Cultivars Project provides a single website which can be used to research all Australian plant cultivar names, their descriptions, and places of first publication ([www.anbg.gov.au/acra/apni-cultivars.html](http://www.anbg.gov.au/acra/apni-cultivars.html)).

## New *Salix* Registrar

The International Poplar Commission (IPC) has taken on responsibility for all *Salix* cultivars (both ornamental and those developed for other uses such as biomass crops). Their Registrar will be Prof. Julia Kuzovkina ([jkuzovkina@uconn.edu](mailto:jkuzovkina@uconn.edu)). She is based at the University of Connecticut, 1376 Storrs Road Unit 4067, Storrs-Mansfield, Connecticut 06269-4067, USA. The IPC will continue to deal with forestry cultivars of *Populus*, for which Prof. Kuzovkina is now also the International Registrar.

Right. *Salix fargesii*. Photo. RHS / Carol Sheppard.

## Changes to ICRA's

There have been some significant changes to the list of ICRA's as given in Appendix I of the Cultivated Plant Code (Directory of International Cultivar Registration Authorities) and these will be reflected in changes to the web pages on the ISHS website ([www.ishs.org/nomenclature-and-cultivar-registration/icra](http://www.ishs.org/nomenclature-and-cultivar-registration/icra)). A list of new Registrars is given below and further changes to contact details can be found on the Hortax website ([www.hortax.org.uk/changes-to-icras.html](http://www.hortax.org.uk/changes-to-icras.html)).

**ASTILBE** [Lakeland Horticultural Society]. New Registrar: John Ashley, Lakeland Horticultural Society ([secretary@holehirdgardens.org.uk](mailto:secretary@holehirdgardens.org.uk))

**AUSTRALIAN CULTIVAR REGISTRATION AUTHORITY.** New Registrar: Paul Carmen ([acra@anbg.gov.au](mailto:acra@anbg.gov.au))

**BOUGAINVILLEA** [Indian Agricultural Research Institute]. New Registrar: Dr T. Janakiram, Indian Agricultural Research Institute (IARI) ([tolety07@gmail.com](mailto:tolety07@gmail.com) or [headflori@iari.res.in](mailto:headflori@iari.res.in))

**BRUGMANSIA, DATURA** [American Brugmansia & Datura Society, Inc.]. New Registrar: Helmut J. Posch ([registrar@ibrugs.com](mailto:registrar@ibrugs.com)). The ICRA name is now The International Brugmansia & Datura Society, Inc.

**COPROSMA, HEBE, LEPTOSPERMUM, PHORMIUM & PITTOSPORUM** [Royal New Zealand Institute of Horticulture]. New Registrar: Murray Dawson, Landcare Research, New Zealand ([dawsonm@rnzih.org.nz](mailto:dawsonm@rnzih.org.nz))





**HEMEROCALLIS** [American Hemerocallis Society]. New Registrar: Kevin P. Walek, 102 Manahoac Court, Lake Frederick, Virginia 22630-2097, USA

**IRIS** [American Iris Society]. New Registrars: John I. Jones & Joanne Prass-Jones (jijones@usjoneses.com)

**LAGERSTROEMIA** [United States National Arboretum]. New Registrar: David Kidwell-Slack (david.kidwell-slack@ars.usda.gov)

**MAGNOLIA** [Magnolia Society, Inc.]. New Registrar: Matthew S. Lobdell (matt.lobdell@gmail.com). The ICRA name is now Magnolia Society International

**NELUMBO** [International Waterlily and Water Gardening Society]. New Registrar: Prof. Tian Daike, Chenshan Botanical Garden, Shanghai (dktian@sibs.ac.cn)

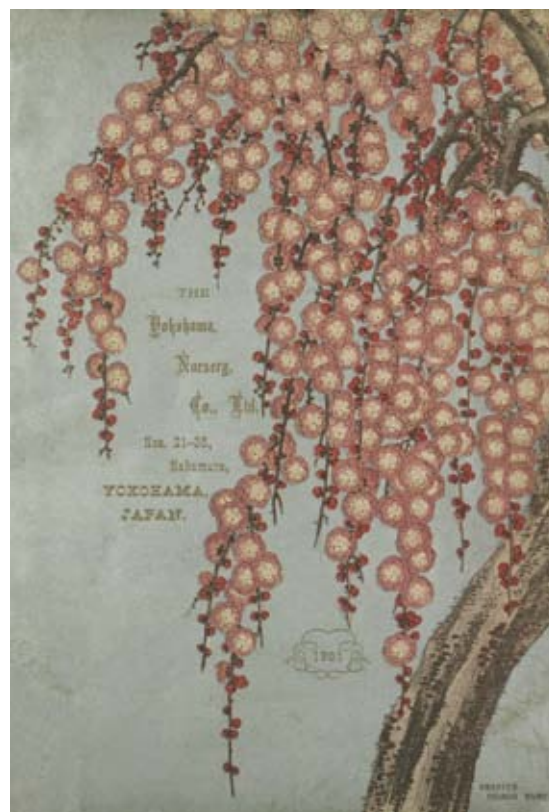
**NYMPHAEACEAE** [International Waterlily and Water Gardening Society]. New Registrar: Tamara Kilbane (tamara.kilbane@botanicgardens.org)

**PASSIFLORA** [Passiflora Society International]. New Registrar: Shawn Mattison (passiregistrar@gmail.com)

**PELARGONIUM** [British and European Geranium Society]. New Registrar: Stephen Pollard (stephen.pollard2@ntlworld.com). The ICRA name is now The Pelargonium and Geranium Society

**POPULUS** [International Poplar Commission of F.A.O.]. New Registrar: Prof. Julia Kuzovkina, 1376 Storrs Road Unit 4067, Storrs-Mansfield, Connecticut 06269-4067, USA (jkuzovkina@uconn.edu)

Right. A depiction of a *Prunus mume* cultivar on the cover of an early 20th century nursery catalogue. Photo. RHS, Lindley Library.



**PRUNUS MUME** [Chinese Mei Flower and Winter-Sweet Association]. New Registrars: Prof. Qixiang Zhang, Beijing Forestry University (13901153775@163.com) and Prof. Manzhao Bao, College of Horticulture and Forestry Science, Huazhong Agricultural University (mzbao@mail.hzau.edu.cn)

**QUERCUS** [International Oak Society]. New Registrars: Eike Jablonski (eike.jablonski@education.lu) and Ryan Russell (russellry76@yahoo.com)

**SAXIFRAGA** [Saxifrage Society]. New Registrar: Adrian Young (saxifraga100@gmail.com)

**WOODY PLANT GENERA** (other than those specifically catered for by other ICRA's). New Registrar: Dr Susan K. Pell (SusanPell@bbg.org)

# Questions for consideration

Go to the Hortax forum ([www.hortax.org.uk/forum.html](http://www.hortax.org.uk/forum.html)) to have your say on the questions below.

## Reuse of names

In large horticultural genera where marketable names are at a premium, will denying the resurrection of a long-forgotten name simply act to persuade breeders and retailers that the cultivated code is an irrelevant hindrance to the practicable use of names?

Under Article 30.2, the ICNCP provides a stringent list of provisos that would disqualify the reuse of a cultivar, Group or grex name within a denomination class. The intention is clearly to prevent the duplication of names except where there is absolute certainty that ambiguity will not ensue; but does it do a disservice to the horticultural trade by demanding an unreasonable degree of assurance that a name is completely redundant before permitting re-use?

## Names that cross codes

Is it ever satisfactory to move names from governance under the botanical code to the cultivated code? The transference of epithets published under the ICN to the ICNCP can cause difficulties. *Hedera hibernica* 'Hibernica' appears simultaneously to

recombine the original name *H. helix* var. *hibernica* in two different ways and for two different purposes. As taxonomic opinion may differ or change over time, names transferred from the ICN to the ICNCP are fundamentally unstable as epithets, being nomenclaturally valid under one person's taxonomy but invalid under another's. Once having been established under the ICN, can a taxon ever be defined by its circumscription rather than its type as is demanded by the ICNCP?

## Wider use of grexes

The concept of the grex is well understood by growers of orchids and grex names are used in a consistent and useful way. Formerly the grex has had a wider use in cultivated plant nomenclature, and in recent publications on *Brugmansia* and *Nepenthes* a grex-like system of classification has been employed. Would it be beneficial to have a concept of the grex that could be used more widely?



Above. *Cypripedium* Baron Schroeder gx, painted by Nellie Roberts c.1898–1910 (RHS, Lindley Library).

## New plant names leaflet now available

To download the new Hortax guide to cultivated plant names, go to [www.hortax.org.uk/hortax-leaflet.html](http://www.hortax.org.uk/hortax-leaflet.html)

