

Principal Editor Murray Dawson

Contributors

Emma Bodley Jefferv Jones Rod Bieleski Jeremy Rolfe lan St George Karl Noldan

Murray Dawson Michael Pratt Philip Simpson

Associate Editor

Typesetting and Production

The Printery, Massey University http://printonline.massey.ac.nz. The New Zealand Garden Journal is published twice a year. All rights are reserved. If there is a desire to reproduce any material in any form, permission is required from the publisher.

The views expressed in the New Zealand Garden Journal are not necessarily those of the Royal New Zealand Institute of Horticulture (Inc.).

Editorial Address

Murray Dawson c/o Landcare Research PO Box 69040, Lincoln 7640, New Zealand Ph: (03) 321 9645 Fax: (03) 325 2418 Email: dawsonm@rnzih.org.nz

ISSN 1173-7425 (Print) ISSN 1179-9153 (Online)

For Membership information please write to: Royal New Zealand Institute of Horticulture, PO Box 85012, Lincoln University, Canterbury, New Zealand Email: office@rnzih.org.nz Website: www.rnzih.org.nz

Front Cover

5

9

Hemerocallis 'Little Grapette'. Photo: Jack Hobbs.

Auckland Botanic Gardens Hemerocallis rust trial 2 Emma Bodley, Rangi Green, Jeffery Jones and Jack Hobbs report on their garden trials of daylilies, Hemerocallis.

Azolla, the wonder plant

Dr R. L. Bieleski reveals some remarkable and unexpected abilities possessed by this water fern.

NZ Orchid Key: a new smartphone app for identifying native orchids

Murray Dawson, Jeremy Rolfe, Michael Pratt and Ian St George outline the development of their recently released smartphone app on New Zealand orchids, and overview some of the remarkable variation found in this native plant group.

From the Editors

The Auckland Botanic Gardens plant trials provide a valuable service to gardeners, by growing a wide range of species and cultivars within a genus, and assessing them to find the hardiest and most disease resistant selections best suited for local growing conditions. Among other plant groups, they have trialled camellias, hydrangeas, roses, Deutzia and Penstemon. In this issue, Emma Bodley and her colleagues report on their recent Hemerocallis rust trials.

Contributor Dr Rod Bieleski makes a return in this issue by providing a fascinating account of the red water fern, Azolla.

Next, Murray Dawson and his collaborators cover their leading work on the development of a smartphone and tablet app for identifying New Zealand native orchids. Portable devices are powerful tools and the use of productivity and identification apps such as this are likely to increase in the future.

On 1st October 2015, the prestigious Tane Mahuta Public Lecture was delivered by well-known author Philip Simpson, as part of the NZARB Annual Conference in Nelson. His lecture, on the native treelands of New Zealand, is published here as a comprehensive article.

We congratulate the 2015 Young Horticulturist of the Year winners, including overall winner Caleb Dennis from Hawke's Bay. Wellington based third place winner Karl Noldan, representing the New Zealand Recreation Association sector, received several prizes, including the Countdown Best Speech Award. Karl's winning speech is reproduced here, followed by his travel report to Melbourne in Sept-Oct 2015.

Murray Dawson and Andrew Maloy

Contents

20

28

29

2015 Tāne Mahuta Public Lecture: The Native **Treelands of New Zealand**

Philip Simpson profiles examples of native treelands around New Zealand, and examines how our rural trees can be protected and sustainably managed.



2015 Young Horticulturist of the Year winning

Karl Noldan presents his award winning speech on environmental sustainability.

2015 Travel report: Melbourne garden landscapes

Karl Noldan reports on his travels to the Australian Landscape Conference in Melbourne and gardens of the area.

Rangi Green Jack Hobbs

Andrew Malov