



Newsletter of the Weed Society of Victoria Inc.

volume 24 issues 3 & 4 2013

Weedscene

Advocacy, and the splintering of the objectivity fence by Gerry Ho

The severity of punishment meted out to a criminal should increase with the number of offenses, right? Perhaps not, writes Malcolm Gladwell in his latest book, *David & Goliath: Underdogs, Misfits and the Art of Battling Giants*.

On a weekend in June of 1992, Kimber Reynolds, eighteen with long honey-blond hair, dined with a friend at a local Fresno, California restaurant. On their way back to their car, they were waylaid by two men. One grabbed her purse and pointed a handgun against her right ear. Kimber resisted; he shot. She died a day later.

Mike Reynolds, the distraught father, swore to stop this from happening to anybody else. He pushed for a state referendum on his proposal: anyone convicted of a second criminal offense would serve double the sentence currently on the books, and anyone convicted of a third offense will serve 25 years to life, no bargain. The Three Strikes Law, as it was known, was passed in 1994, with the support of 72 per cent of Californian voters – “astonishing,” according to Gladwell, in a state where divisive opinions prevail than not.

Three Strikes seemed to work. Serious crime rate dipped in California, with homicide rate dropping 41.4 per cent

between 1994 and 1998. On closer inspection, things were not so rosy. Three Strikes played upon the rational mind of the would-be criminal: that the cost of crime might not measure up to its benefit. Kimber’s killer, however, was high on meth: not a setting for rationality. Three Strikes targeted the wrong age group, laying longer sentences on older criminals, when statistics showed a proclivity to violent crimes by late teens and men in their twenties. Anyway, crime rates were tumbling across America, not just California, in the 1990s. Studies could not show that Three Strikes consistently reduced crime in the long run. In 2012, after tens of billions of dollars, California all but rescinded the law.

Gladwell makes no reference to weed science in his book. His thesis is, after all, that the intended effect of an action may backflip, beyond a certain point of application. But are we able to take away a lesson in advocacy from Kimber’s story?

In 2008, Ashley Young and Brendon Larson from the University of Waterloo conducted an online survey. They were interested in what invasion biologists make of the protracted debates in invasion biology, including the appropriate degree of advocacy in their field. Young and Larson

explain why advocacy was a moot point: Because invasion biology places a value on biodiversity, and seeks to arrest its decline by containing invasive species, it is a value-laden science, and therefore open to advocacy. (This idea may be extended to weed science, where a more explicit economic value may apply.)

Not too surprisingly, Young and Larson (2011) detected substantial ambiguity in their survey, although respondents were in general agreement for scientific objectivity and communication of judgment. They conclude that, ‘invasion biologists appear to have very different judgments of these species and a wide range of opinions on appropriate advocacy, which suggests that the field would benefit from continued discussion of such issues and more clear differentiation of those specific species that are problematic in particular contexts’.

In an earlier paper, Michael Nelson and John Vucetich (2009), by laying out arguments for and against environmental advocacy, leaned towards the former, and in support of advocacy, ‘only one argument seems robustly sound and valid... scientists, by virtue of being citizens first and scientists second, have a responsibility to advocate to the best of their abilities and in a justified and transparent manner’.

continued on page 3/...

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Contents

COVER STORY

Advocacy, and the splintering of the objectivity fence	1
WSV White List Advocacy Survey: what you said	3

FROM THE PRESIDENT

4

CORRESPONDENCE

Against advocacy	5
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WEED MANAGEMENT IN ACTION

'Wheel Cactus Warriors' and the Tarrangower Cactus Control Group	6
Injecting innovation into a prickly problem	7

NEWS

WSV Fifth Biennial Weed Conference 2014 Update	8
------------------------------------------------	---

DIARY

9

BOOKSHELF

10

COVER PHOTO: *Claytonia perfoliata* (courtesy Fiona Richardson)

Joining the Weed Society of Victoria

The benefits of membership to WSV include:

- Weedscene: newsletter packed full of information
- eWeedscene: regular electronic bulletin on weed news and events
- Discounts to WSV seminars, workshops, conferences and other events
- Opportunities to network with others.

To apply for membership, download and print the membership application form from the WSV website, www.wsvic.org.au, complete the details and mail to the WSV Secretary.

Weedscene Newsletter of the Weed Society of Victoria Inc.

Contributions to Weedscene are welcomed. Please contact the editor for further information.

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■ Half page	180 mm wide × 128 mm high	\$275.00
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How does one straddle the chasm between scientific objectivity and advocacy?

Michael Soulé (1990) writing in the Society of Conservation Biology's flagship journal, explains how an institution may function without an advocacy badge: 'Above all, the pursuit of scientific excellence in conservation research, publication, and application must be our herald. We should be the supreme court [sic], the ultimate arbiter of what is the best in conservation science. And if other organizations provide more considered counsel to society, then we have no *raison d'être*.'

Strong words, indeed, and ominous ones. If we extend the idea of democracy to collective opinion, what is there to stop the rise of a dissenting viewpoint? One promulgated within the organisation itself? One needs look no further than Soulé's America, where ultraconservative splinter groups making up the Tea Party threaten to rend the Republicans apart. At best, Soulé's ideal organisation will be seen as a know-it-all by its detractors, and will risk earning the vacuous but effective 'Nazi' label for its efforts.

Back to Kimber's story. Mike Reynolds had the best of intentions when he advocated for tougher penalties, but the Three Strikes law fell into the following traps:

- The trap of unwarranted assumptions.

Three Strikes assumed that criminals were cognisant of the cost of a heavier penalty.

- The trap of temporal variation. Three Strikes failed to deter would-be criminals when it mattered most.
- The trap of spatial variation. Three Strikes failed to consider geographic scale during the measure of its success.
- Overgeneralisation. By lumping all third offenses together, Gladwell argues that lengthy incarceration for minor crimes deprived many families of a father figure, which created a new generation of criminals.

Should the WSV advocate? If yes, how do we do so, that we may steer away from pernicious traps, while driving maximum benefits? Given that we are possibly even more diverse than a class of invasion biologists or conservationists, with scientists, practitioners, land managers, State employees, or even people just interested in weeds in our ranks, there may not be a ready and beaten path to an answer.

In this issue of *Weedscene*, we feature a letter from Dr. John Dwyer QC (see page 5), and a summary of online responses (see below and page 4), all of which raises salient points about WSV White List position. (A thank you to all those who have taken to time to pen their thoughts;

we have kept the online responders anonymous, as we had not sought permission to release any names.) To those yet to do so, we encourage you to visit our WSV website and take the survey. The CAWS *Strategic Plan 2013–2018* calls for the provision of advocacy to advance weed management, specifically to 'promote and provide feedback on topical and relevant Australasian weed-related issues'. We'd love to start the ball rolling in our own yard.

Disclaimer: *The opinions expressed in this article are the author's own, and do not reflect the view of the WSV.*

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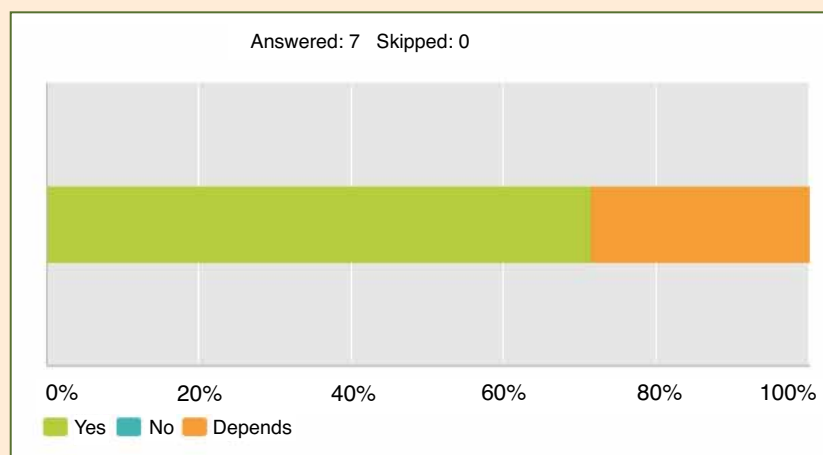
WSV White List Advocacy Survey: what you said

In the last issue of *Weedscene* we asked our members to tell us what form of advocacy the Weed Society should undertake and if the permitted list approach to weeds was a good topic to advocate on. So far we have received seven online responses.

The Management Committee is interested in hearing from more members and has extended the survey deadline until Monday 23rd February 2014. To complete the simple 3-question survey, go to <http://www.surveymonkey.com/s/K9FP659>, or send your views to editor@wsvic.org.au. The background information is on the WSV website and in *Weedscene* Volume 24 Issue 2.

Responses received via Online Survey

QUESTION 1. Should the Weed Society undertake advocacy?



continued on page 4/...



From the President

I am impressed with how well this year's WSV Committee meetings have been running, and our new standard meeting venue (DEPI Bundoora) has been working a treat. And because we have a speakerphone in the meeting room, it's never been easier for Committee members to ring into the meeting and be present remotely. This function really suits those on the Committee who don't live in Melbourne. After all, we are the Weed Society of Victoria, and we want to make it just as easy for any Victorian to join the Committee and to participate in our

meetings, no matter where they live.

Much of the Committee's recent work has been organising for next year's Biennial Victorian Weeds Conference, to be held in Geelong in May 2014. This work is progressing well, and the Committee has requested conference papers from those who have submitted abstracts. Stay tuned for the distribution of the conference program flyer, and for the call to book yourself in to the conference. We have speakers, but we will need an audience too!

Finally, don't forget to participate in any of the on-line surveys that have been sent to you by the Secretary, or have been promoted in this newsletter. For example, we want your opinion on the WSV doing 'advocacy', and we have also distributed a link to a survey on the Australasian Weeds Conferences, which has been developed by our overarching national body, the Council of Australasian Weed Societies (CAWS). Your opinions are important, so make sure you are heard by responding to these surveys.

Michael Hansford

.../continued from page 3 (WSV White List Advocacy Survey)

QUESTION 2: If the Weed Society of Victoria does advocacy, what type of advocacy would best serve it?

1. Promoting policy positions.
2. Continue to provide fora that focus on weeds as an issue to keep the issue in the public eye. Beyond that we should move cautiously into the field of advocacy, taking the white list issue first and building on that later to other issues, whilst keeping the membership on side. We should work generally in concert with CAWS's approach to advocacy, and the approaches of its member societies.
3. Anything that fits with its role as an expert consultant.
4. Andrew Cox's advice *re* types of advocacy should include all he mentions:
 - a. promoting policy positions (important in arguing risks and factored control costs);
 - b. presenting benefits of WSV policies to incumbent governments as well as other political parties (this could be a small part of educating Ecological Literacy to ideologists with scant knowledge and therefore appreciation of weed escalation problems); and
 - c. forming potential allies i.e. NGOs with environmental links (also important for getting public focus on weed issues).
 Government agencies which have had their autonomy of decisions eroded by government policies need to be empowered by WSV expertise to enable them to be able to competently advise the government with certainty on appropriate policies and laws.
5. I see a very exciting role for WSV in mediating discussions about issues. It is very important to highlight certain issues, stimulate debate, and provide expert information across the

spectrum of views or aspects of the issue. From this, more active courses of advocacy may be taken up by some or all of the Society.

6. An unbiased (if possible) mediator / advisor / advocate on weed funding / issues / feedback from community organisations to government.
7. Great idea to do advocacy!

QUESTION 3. Do you think that the Weed Society should support the concept of a 'White List' or 'Permitted List'?

1. Yes.
2. Yes.
3. Yes, but only with lots of publicity about why it is there so that the general public understands the reason, and with exceptions for some useful agricultural species, especially pasture plants.
4. Absolutely! For example, if *Rhamnus alaternus* or *Polygala myrtifolia* (recent invasions) had been on a White List, this area around Nelson may now not be fighting a rear-guard action to manage, let alone attempt eradicating, these two weeds used so prolifically as hedges or decorative plants in local gardens! With national parks both directly north and south of Nelson, this retirement village is a prime propagule for weed dissemination into HEVAE's.
5. I think the way the conversation within WSV is going means that the advocacy might be more around raising awareness of the issue and the different sides of the argument, but I'm not sure we can provide a consensus on supporting the concept of a white list.
6. Good idea to have a permitted list!



Correspondence

Against advocacy

I am writing in response to the proposal set out in the recent issue of *Weedscene* (Vol. 24 Issue 2 2013) that the Society should engage in advocacy for a White List of permissible plants. In my view that issue is far too contentious for the Society to adopt an advocacy role in support of the proposal.

The role of the Weed Society of Victoria is to promote an interest in weeds and methods of control. It promotes serious consideration of issues about weeds, and, as it has in the past, fosters research into and discussion of such issues. But it should not take sides or adopt policy positions on matters where opinions differ among members of the Society. The scientific community does not speak with one voice on many questions, including the notion of invasive species. The proper role of the Society is to encourage the debate, not to advocate for one view. The Society should function as a learned society on the subject of weeds, not as a partisan for one position when there is no unanimity on the issue.

The Society should not advocate for the adoption of what is proposed as a White List approach to weeds. There are many contentious issues involved in the proposal. The view that native plants outside their natural range are *ipso facto* weeds is one. There are serious problems about the concept of natural range, as I argued years ago (2004 Proceedings of 14th Australian Weeds Conference, eds B.M. Sindel and S.B. Johnson, p. 458). The concept involves taking the distribution of plants, as it was when Europeans first recorded them, as something to be kept unaltered for all time. But what the Europeans found in Australia was not pristine wilderness. The landscapes were cultural landscapes, shaped over millennia by aboriginal people (as Bill Gammage has now persuasively demonstrated in *The Biggest Estate on Earth: How Aborigines made Australia*). There were profound changes in the distribution of flora over this time. It is

clear that plant distributions changed in the past and should be expected to change in the future, especially when climate change is taken into account. Many plants have a natural propensity to spread if they can. I see no reason to regard a plant extending its range as a weed on that account.

Another contentious issue is the nativist assumption that any naturalised exotic is a weed. Serious scientists have argued for the view that we should not judge a plant by its origins (see the references in my Keynote Address to the 18th Australian Weeds Conference 'Messages and metaphors: is it time to end the war on weeds?' 2012 Proceedings ed. V. Eldershaw p. 297). My view is that naturalised aliens which have become part of the flora should only be regarded as weeds if they are troublesome. I accept of course that some plants cultivated in gardens may become weeds in some circumstances, but that does not mean that they are weeds in all circumstances. Weediness of a plant always depends on the circumstances. The very notion that lists can be compiled of plants that are and are not weeds throughout a region, a State or the nation, in every place and in all circumstances, is seriously problematic. The compilation of a Permitted List is fraught with contentious issues. I see it as a deeply troubling proposal, which the Society should not advocate. The Society should not become a department of (adopted as the symbol) the Weed Police.

There may be other values, such as cultural significance, to be considered in deciding whether to ban the movement and sale of species. They not considered in the White List proposal. There are also serious matters of the personal freedom of gardeners involved in the proposal. Gardening is part of our civilisation, 'more ancient than agriculture' as Johann Hamann argued more than 200 years ago. The creation myths of many cultures begin with an Arcadian garden followed by exile

and a life of agricultural toil, as with the Garden of Eden in Genesis. The value of gardening derives in large part from the reciprocal interaction with nature that gardening requires. To succeed one must live in harmony with nature. Gardening should not be controlled by the State except where clearly necessary for the good of the community. It has not been established that there is a serious real threat to the community from the supposed thousands of potentially invasive and unrestricted plant species, or that there is a risk of harm such as would warrant such draconian bans in a free society. These are important matters to be weighed in a balanced approach to the proposal. I note that a large number of plants widely cultivated in gardens are included in the indispensable publication *Weeds of the South-East*. Would much loved plants such as daffodils (adopted as the floral emblem of the Cancer Council of Australia), for example, make it onto the Permitted List?

Unlike, say, the Invasive Species Council, the role of the Weed Society of Victoria is to foster serious discussion of such issues, not to advocate for a policy position on them. A uniform scientific and expert voice on the issues I have mentioned does not exist. The Society should not speak as if there is only one true position.

The Society should not engage in advocacy for a White List or Permitted List of exotic species. It should not promote policy positions on weeds beyond arguing strongly for serious thought and research to be given to them.

Yours sincerely,
Dr. John Dwyer QC



Weed management in action

'Wheel Cactus Warriors' and the Tarrangower Cactus Control Group Inc.

The Tarrangower Cactus Control Group Inc. (TCCG) was originally formed in November 2008 as a network of Landcare volunteers from the Maldon, Baringhup and Nuggetty Landcare groups within the Mount Alexander Shire. The TCCG now has a close working relationship with Parks Victoria, is still a 'Member Group' of the Farm Tree and Landcare Association and has very recently become an incorporated body.

Our single focus is the eradication of wheel cactus (*Opuntia robusta*) from the local environment. This cactus was declared a **Noxious Weed** in Victoria in 1961 and recently, a **Weed of National Significance** in 2012. These noxious plants must not be propagated, sold or transported, and landowners are required to prevent the growth and spread of these plants on their property.

Wheel cactus is believed to have been introduced from Mexico to Australia as an ornamental plant in the 1800s, but probably only planted in a garden on the edge of the Maldon township in the early 1960s. Over the past few decades it has become very well established around the Maldon district, especially in the very rocky granite hill areas around Baringhup and Nuggetty. This weed has already infested approximately 10,000 hectares of public and private land in our district, including the Maldon Historic Reserve, with some infestations so heavy the land is barely accessible. Lands infested with wheel cactus have a considerable negative impact on native fauna and flora, as well as on the availability of suitable lands for grazing and agriculture, therefore affecting both our local environment and economy.

Wheel cactus has thick skinned, disc or wheel like lobes covered with prickles

and spines, and when mature has yellow flowers and red fleshy fruit. Individual plants can grow to 3 and 4 metres high. Wheel cactus is a close cousin to prickly pear (*Opuntia stricta*) and although very similar in appearance, has a very different growth pattern to prickly pear (in our region), the result of which means that wheel cactus is growing out of control while prickly pear plant growth remains *in situ* and localised.

Wheel cactus is a particularly serious weed as it is an extremely difficult plant to destroy (hence suitably named *robusta*!) Currently, the most efficient methods of control are by the manual removal of small plants and chemical injection of lobes on medium and large plants. Both methods are extremely time consuming and labour intensive. The seeds, which are spread by crows and foxes, can survive for up to 20 years in the soil. The TCCG continues



The problem: *Opuntia* infestation across Mount Alexander landscape. Photo: TCCG.

to investigate the most effective control methods and trials of a biological agent are in progress.

Central to our program of eradication are our 'cactus killing' Community Field Days. These are held monthly from April to November, on both private as well as public land. Held in association with Parks Victoria, the field days help to raise awareness and engage the community in tackling this serious local environmental issue. Attendance at the field days usually varies between 30 and 50 local residents. As well, the field days offer landowners one on one support, and provide technical advice and equipment loans.

Apart from the regular Community Field Days, the TCCG aims to raise awareness of this noxious weed and encourage volunteer participation, through the distribution of information leaflets and regular local media releases. The TCCG also participates in the annual Maldon and Baringhup Agricultural Show and the Maldon Easter Parade, as



Working the injector. Photo: TCCG.

well as having an association with the Connecting Country landcare group, the Victorian Mobile Landcare Group Inc., Monash University Environment Club, and

Ballarat and Lalor Secondary Schools. We now hope to inform an even wider audience with the recent release of our website; you can find us at www.cactuswarriors.org.

Lee Mead

Injecting innovation into a prickly problem

By the time I had negotiated the back roads to a property a few miles out of Maldon, Wheel Cactus Warriors were already dots on the undulating landscape, stabbing with injector guns at wheel cactus that occasionally dwarfed the volunteers. Dismounting, I was promptly handed a gun connected via a tube to a chemical reservoir backpack, a safety vest, a can of spray paint, and a pair of gloves, and sent into sortie.

Killing cacti is not too physically demanding: inject outer lobes with a gun tip, withdraw to create an air pocket, and squeeze the trigger to decant glyphosate into the heart of the wheel. Rather, the problem was that the Warriors had already made short work of the population. In the end, I found a straggler. I did the deed, marked an X with spray paint, and returned for a quite undeserved sausage sizzle.

The injector (used on larger plants: smaller ones are dug up and buried, or squished underfoot) arose from private enterprise. Developed by farmer Barrie McKnight and his son Robert, and improved by now-TCCG President Ian Grenda, this technique has helped the group attract attention and funding from State agencies. Ian says that the TCCG is constantly looking for better ways to control wheel cactus. The one war on this weed does not end after a single battle.

Gerry Ho



Opuntia robusta, marked for death row.
Photo: Gerry Ho.



WSV Fifth Biennial Weed Conference 2014 Update

The WSV is delighted to snare Sean Dooley as a keynote speaker. Sean Dooley is a Melbourne author who has worked as a television comedy writer. He is a contributor to *The Age*, ABC radio and 3RRR, writing and talking about birds, environmental issues, sport and, well, anything, really. But his greatest claim to fame is that in 2002 he broke the Australian birdwatching record for seeing the most species in the one year. He then wrote about it in *The Big Twitch*, thereby publicly outing himself as a bird-nerd.

With his veritable smorgasbord of talk topics, stringing Dooley to weeds may be a convoluted, but entertaining, trail. Be pleasantly surprised.

We have accepted an exciting mix of papers for presentation at the 4th Biennial Victorian Weeds Conference covering a range of invasive plant and animal issues. Two days of presentations will feature the latest information about some of our 'favourite' invasive species: *Pittosporum undulatum*, *Opuntia aurantiaca* (tiger pear), *Vachellia karoo* (karoo thorn), *Iva axillaris* (poverty weed), *Nassella neesiana* and *N. hyalina* (Chilean and cane needlegrasses), plus the inaugural Chilean Needlegrass Forum, presented by the Victorian Farmers Federation; and from the animals world – rabbits.



Sean Dooley, author, inspiration speaker, social commentator, entertainer, and soon-to-be WSV Weeds Conference keynote speaker. Picture credit: bookedout.com.au

Aligning faithfully with the conference theme: *Invasive Plants and Animals – contrasts and connections*, will be a presentation entitled 'African boxthorn (*Lycium ferocissimum*) and its animal synergies in Australia'. And an interesting twist will have us learning about using sniffer dogs to detect hawkweed. There will be biocontrol stories from the past (*Asparagus asparagoides*, bridal creeper) and plans for the future (*Polygala*, Bellarine pea). There are some weed spread modelling, weed risk assessment and decision support presentations from around Australia (WA, NSW and Vic).

We'll cover several aspects of community involvement in weed management including presentations from the Victorian Serrated Tussock Working Party and The Victorian Blackberry Taskforce, as well as council perspectives on practical weed mapping and keeping track of weed control. We'll take a nostalgic look at the Keith Turnbull Research Institute in Frankston, achievements over its 50 years of operation and now, a research institute no more. And for another first for the Victorian Weed conference, we'll be treated to some artwork from weeds and restoration projects.

The Delicious Pest

What better way to control a pest than to put it on a menu?

Local diver and seafood exporter David Allen will explain how his pioneering sea urchin export industry helps save our shallow reefs, while chef Adam Upton-

Browning cooks up a \$90 three-course sustainable seafood banquet, matched with Victorian wine and beer.

Left Bank Melbourne, 2–9 March 2014, www.melbournefoodandwine.com.au/event-calendar/the-delicious-pest-4727.

Fines for serrated tussock

Two Deep Creek landowners were fined a total of \$1442 for failing to comply with a legal notice to control serrated tussock on their properties. DEPI Biosecurity Officer Gerry O'Keeffe said that the landowners failed to meet their obligations, despite Deep Creek landowners being asked to control the weed in June.

Giving a RATS Summer Edition

Issue 7 covers glyphosate resistance in sowthistle (*Sonchus* spp.), barnyard grass, and research on alternative techniques to solve glyphosate resistance. Also a review of SnapCard iOS/Android mobile app that assesses how well your spray rig is operating. www.agronomo.com.au/giving-a-rats/.



Grains Research & Development Corporation's GroundCover TV

GroundCover TV reports on GRDC-supported R&D to help grain growers adopt rewarding and improved farming practices, and complements GRDC's Ground Cover newsletters. Episode 11 covers spray drift

technology, an insect ID app, the Australian Grains Genebank and other topics. www.grdc.com.au/GCTV11.

Experts uphold science-based approach to legislation

27 November – An international group of 235 experts and organisations have published a joint statement, calling for a science-based approach for EU-wide legislation on invasive alien species. Piero Genovesi, Chair of IUCN SSC Invasive Species Specialist Group (ISSG), says: 'The latest scientific data on invasives needs to be taken into account when prioritising action by the EU. It is essential to know where and how species arrive into Europe, how they are spreading, and their actual and potential impact to ensure that action is effective.'

Issue 33 of the ISSG Aliens invasive species bulletin features a story on feral camel management in Australia, and a

report on *Salvinia molesta*, an Australian Weed of National Significance. www.issg.org/pdf/aliens_newsletters/A33.pdf.

YouTube education

The GRDC has released a series of YouTube videos on windrow burning for wind seed capture and destruction, 'double knock' strategy for managing glyphosate-resistant weeds in summer fallow, and spray application of herbicides. Enter the playlist URL, scan the QR code, or click on the link on our WSV website. www.youtube.com/playlist?list=PL2PndQdkNRHGRipNhkDYN2dJWAY1-oH9W.



Diary

Parks Victoria Falls Creek Summer Hawkweed Survey Volunteering 6–10, 13–17 and 20–24 January 2014.

These are fully booked at press time, but email Yohanna Aurisch (yohanna.aurisch@parks.vic.gov.au) in case a filler crops up.

54th Annual Meeting of the Weed Science Society of America and the 67th Annual Meeting of the Canadian Weed Science Society 3–6 February 2014, Vancouver, Canada. Go to: wssa.net/meeting/annual-meeting/

XIVth International Symposium on Biological Control of Weeds 2–7 March 2014, Kruger National Park, South Africa. Go to: www.isbcw2014.uct.ac.za

26th German Weed Science Conference 11–13 March 2014, Braunschweig, Germany. Go to: www.unkrauttagung.de

10th workshop of the European Weed Research Society working group: Physical and Cultural Weed Control

16–19 March 2014, Alnarp, Sweden
Go to: www.ewrs.org/pwc/

4th International Symposium on Weeds and Invasive Plants 18–23 May 2014, Montpellier, France. Go to: invasive.weeds.montpellier.ewrs.org

Weed Society of Victoria Fifth Biennial Conference 13–15 May 2014, Geelong, Victoria. See this issue for more information. Go to: www.wsvic.org.au

Special International Workshop on Weeds and Invasive Plants

24–26 June 2014, Pyrenees, Spain. Organised by Roger Cousens, attendees 'must be prepared to debate vigorously'! Other workshop criteria are at: andinallanos.weebly.com

New Zealand Plant Protection Society Conference 2014 12–14 August 2014, Taupo, New Zealand. Go to: www.nzpps.org

19th Australasian Weeds Conference 1–4 September 2014, Hobart, Tasmania. Go to: australasianweeds2014.com.au

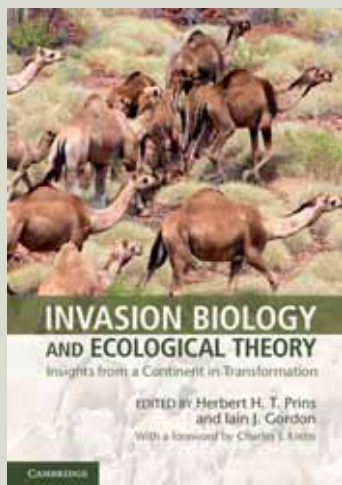




Bookshelf

Invasion Biology and Ecological Theory: Insights from a Continent in Transformation

edited by Herbert H. T. Prins and Iain J. Gordon



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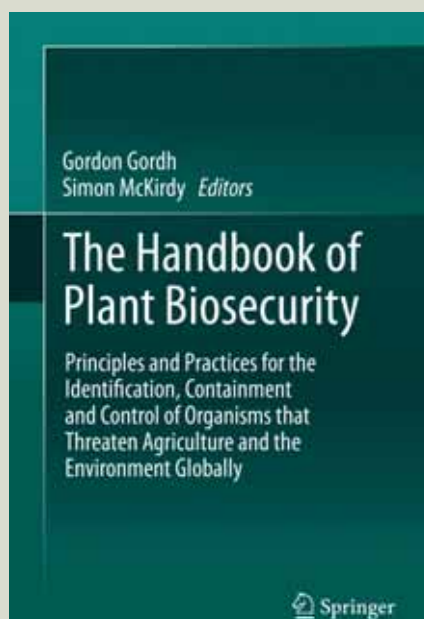
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Available January 2014. www.cambridge.org

Many conservationists argue that invasive species form one of the most important threats to ecosystems the world over, often spreading quickly through their new environments and jeopardising the conservation of native species. As such, it is important that reliable predictions can be made regarding the effects of new species on particular habitats. This book provides a critical appraisal of ecosystem theory using case studies of biological invasions in Australasia. Each chapter is built around a set of 11 central hypotheses from community ecology, which were mainly developed in North American or European contexts. The authors examine the hypotheses in the light of evidence from their particular species, testing their power in explaining the success or failure of invasion and accepting or rejecting each hypothesis as appropriate. The conclusions have far-reaching consequences for the utility of community ecology, suggesting a rejection of its predictive powers and a positive reappraisal of natural history.

The Handbook of Plant Biosecurity: Principles and Practices for the Identification, Containment and Control of Organisms that Threaten Agriculture and the Environment Globally

edited by Gordon Gordh and Simon McKirdy



Published by Springer, hardcover and ebook, 723 pages, 161 illustrations, 134 illustrations in colour.

ISBN 978-94-007-7365-3 (ebook); 978-94-007-7364-6 (hardcover)

Price: €166.59 (ebook); €199.99 (hardcover). www.springer.com

The Handbook is arranged in 23 chapters written by 85 world experts who systematically explain the substance of Plant Protection (Biosecurity). The Handbook is the first comprehensive treatment of regulations, policies and procedures used to protect domestic agriculture and natural resources from attack by invasive alien species via international trade and travel. Case studies explain complex regulatory programs involving significant invasive organisms, including insects, plant pathogens and weeds.

Automation: The Future of Weed Control in Cropping Systems

edited by Stephen L. Young and Francis J. Pierce



Published by Springer, hardcover and ebook, 265 pages, 47 illustrations in colour. ISBN 978-94-007-7512-1 (ebook); 978-94-007-7511-4 (hardcover)

Price: €118.99 (ebook); €139.99 (hardcover). www.springer.com

This book shifts the paradigm that weeds can only be controlled using broadcast applications of chemical and mechanical techniques in distinct spatiotemporal scales, also referred to as integrated weed management. In fact, true integrated weed management is more than just diversification of techniques and for the first time could be achieved using advanced technologies. Automated weed control is not the proverbial 'silver bullet', but an entirely new approach in cropping systems where multiple weed control strategies are available for use at the same time.

To date, no other resource exists on this important and rapidly advancing topic of automated weed control in cropping systems. In the near future, a new approach will be needed for managing weeds, especially with the challenges of weed resistance to herbicides, off-site movement of soil, fertilizers, and chemicals, an increasingly non-agrarian public, labour shortages, economies in recession, and the continued rural to suburban land use conversion. Automation is part of the solution.