

EMAPI

2023



**16TH International Conference on Ecology
and Management of Alien Plant Invasions**
*Promoting diversity in the science and
management of biological invasions*

23-27 October
Pucón, Chile



Universidad
de Concepción



UNIVERSIDAD
DE LA FRONTERA

LIB

LABORATORIO DE
INVASIONES
BIOLÓGICAS



08:00 - 09:00 **Registration**

08:30 - 08:40 **Welcome words**

08:40 - 09:30 **PLENARY TALK**
Session chair: Bárbara Langdon

The need of making invasion biology more global and inclusive.
Martin A. Nuñez

09:30 - 10:30 **ORAL COMMUNICATIONS**
Session chair: Sabrina Kumschick

Can gardeners identify ‘future invaders’?
Tomos Jones

Why aren’t Australian Acacias more invasive in New Zealand: pests, pathogens, precipitation or propagule pressure?
Philip Hulme

Weed Wide Web: the trade of invasive plants online.
Jacob Maher

Considerations for developing and implementing a safe list for alien taxa.
Sabrina Kumschick

10:30 - 11:00 **Coffee Break**

11:00 - 11:30 **FLASH TALKS**
Session chair: Sabrina Kumschick

Building and implementing knowledge on biogeography, ecology and management of alien plants in high-Arctic Svalbard.
Kristine B. Westergaard

Modelling the macroclimatic-niche potential of non-native plant species across the High-Arctic archipelago of Svalbard: Implications for management.
James D. M. Speed

Restoration as Biocontrol: Mass-Ratio or Diversity-Invasion Theory as Guiding Principle?

Kelly Lyons



Using citizen-science photos to track the phenology of invasive species.

Yves Klinger

11:30 - 12:45

ORAL COMMUNICATIONS

Session chair: Heinke Jäger

Chemical and hormonal control of *Gleditsia triacanthos* L. in a riparian forest of the Pampean Province.

Fabián Del Giorgio

Leaf functional trait variation in native and non-native plant species along an elevational gradient in the Andes of central Chile.

Vinka Anic

Elucidating the patterns and processes of plant invasions in polar ecosystems.

Ian S. Acuña Rodríguez

Blackberry outcompetes endemic tree daisy in Galapagos.

Heinke Jäger

Thresholds and the importance of native seed rain and invasive grasses in limiting understory recruitment in a Hawaiian forest.

Carla D'Antonio

12:45: 13:00

FLASH TALKS

Session chair: Heinke Jäger

When habitats get sentimental: are invasive plants perceived differently in different environments?

Pavel Pipek

Lands of Indigenous People are less disturbed, less accessible, and harbour fewer alien species.

Laura Meyerson

Regulating fruity invasions—the South African experience.

Tumeka Mbobo



13:00 - 14:30

Lunch

14:30 - 16:00

SYMPOSIUM

Session chair: Dave Richardson

Book Launch:

Wattles – Australian Acacia species around the world.

Dave Richardson, Jaco Le Roux, Elizabete Marchante

15 years of managing wattles with small, naturalised populations in South Africa

John Wilson

Australian acacias: a showcase for remote sensing-based mapping and impact assessments of invasive trees

Andre Große Stoltenberg

Out of sight out of mind? Soil legacy effects of Acacia invasions and their implications for restoration in South Africa's Cape Floristic Region

Florencia Yannelli

The 'WATTLES' invasion syndrome

Ana Novoa

16:00 - 16:30

Coffee Break

16:30 - 17:45

ORAL COMMUNICATIONS

Session chair: Llewellyn Foxcroft

Mainstreaming Information on Invasive Alien Species (IAS): The Latin America and Caribbean National Database Network.

Silvia Ziller

Scenario-based games to improve the management of biological invasions.

Wolf-Christian Saul

Testing alternative strategies for management of invasive alien tree species at the expansion front through individual based modelling.

Priscila Ana Powell

Assessing 20 years of implementing ornamental alien plant control in Kruger National.

Llewellyn Foxcroft



Invasive alien species or tourist icons?

Hop on in!

Anna Carr

17:45 - 18:00

FLASH TALKS

Session chair: Llewellyn Foxcroft

Review of the invasive, yet economically beneficial, *Rosa rubiginosa* L. (Rosaceae) within southern Africa.

Stephanie Payne

Evaluation of the effectiveness of two herbicides for the elimination of *Pinus radiata* D. Don., in the context of native forest restoration in the foothills of Nahuelbuta, Chile.

Natalia Alejandra Cáceres Novoa

18:00 - 18:15

Break

18:15 - 19:15

PLENARY TALK

Session chair: Jaco Le Roux

Designing research for impact: the case of invasive *Prosopis* trees in eastern Africa.

Brian van Wilgen

19:15 - 20:45

POSTER SECTION + OPENING RECEPTION



08:30 - 09:30

PLENARY TALK

Session chair: Rafael Zenni

Ecology and management of plant invasions for (sub)tropical ecosystem restoration.

Michele De Sá Dechoum

09:30 - 10:30

ORAL COMMUNICATIONS

Session chair: Andres Fuentes-Ramirez

Synergies between wildfires and plant invasions: Moving forward to protect threatened old-growth forests of *Araucaria araucana*.

Andres Fuentes-Ramirez

A novel protocol for assessing impacts of invasive alien species on threatened biodiversity assets.

Jens Froese

Impact of large invasive herbs on the compositional, functional, and phylogenetic structure of native plant communities.

Margherita Gioria

Restoration worse than invasion? Insights from a comparative study on soil biota and functioning in the case of *Reynoutria* spp.

Fanny Dommaget

10:30 - 11:00

Coffee Break

11:00 - 11:30

FLASH TALKS

Session chair: Andres Fuentes-Ramirez

Testing novel applications of satellite imagery developed by Copernicus mission for tracing the effects of *Ailanthus altissima* invasion on natural ecosystems in a Mediterranean island.

Flavio Marzialetti

River degradation: what role do invasive plants play in riverbank erosion?

Zarah Pattison

11:00 - 11:30

Impacts of invasive plants on vegetation
in protected areas of Nepal.
Suneeta Bhatta



Ecological and functional trait-environment joint
modelled responses of aliens and native plants of
Marion Island.
Luis R. Pertierra

Roads in the Chilean Andes: Consequences for
Biodiversity and Microclimate.
Eduardo Fuentes-Lillo

11:30 - 13:00

SYMPOSIUM

Session chair: Aníbal Pauchard

**The IPBES Assessment of invasive alien species
and their control: the process, the results and the
challenges ahead.**

Aníbal Pauchard, Laura Meyerson, Phil Hulme,
Rafael Zenni and M. Loreto Castillo

13:00 - 14:30

Lunch

14:30 - 15:30

ORAL COMMUNICATIONS

Session chair: : Ileana Herrera

Genetic insights into convergent evolutionary
responses in native insects to plant invasion.
Dylan Geraghty

Native herbivores rapidly evolve to utilise invasive
host plants.
Jaco Le Roux

Effects of the control of an invasive tree on the
structure of a plant-frugivore network.
Brisa Marciniak de Souza

When roses go rogue: Expanding ranges of invasive
Rosaceae in South Africa.
Sandy-Lynn Steenhuisen

15:30 - 16:00

FLASH TALKS

Session chair: Ileana Herrera



The bacteriome of *Acacia longifolia*: new insights into its seed and root-nodule communities.
Cristina Máguas

Biogeography, taxonomic structure, and ecological impacts of alien plants in Nigeria.
Israel Borokini

Species' habitat niche strongly affects their global naturalization success.
Jan Čuda

Differences in entomofauna assemblages associated with *Eucalyptus* spp.: could this help explain why only a limited number of species have naturalized in the Mediterranean?
Vanessa Lozano

16:00 - 16:30

Coffee Break

16:30 - 18:00

SYMPOSIUM

Session chair: Rafael Zenni

Developing national lists of invasive alien species, analysis of pathways, impact assessments, and priority settings for prevention and early detection for a megadiverse, continental-scale country: the Brazilian experience.

Developing national lists of invasive alien species, impact assessments, and priority settings for prevention and early detection for a megadiverse, continental-scale country
Rafael Zenni

Developing national lists of invasive alien species, analysis of pathways, impact assessments, and priority settings for prevention and early detection for a megadiverse, continental-scale country: the Brazilian experience
Silvia Ziller

Brazilian National Invasive Alien
Species Strategy and Challenges for
Implementation of Target 6 of the
Kunming-Montreal Global Biodiversity
Framework
Tatiani Chapla



18:00 - 18:15 **Break**

18:15 - 19:15 **PLENARY TALK**
Session chair: Florencia Yannelli

Unleashing the power of interdisciplinary research:
the interplay of human and social factors as drivers
of biological invasions.
Ana Novoa Pérez

19:15 - 20:45 **POSTER SECTION + GAMES & BEERS**



08:30 - 09:30

PLENARY TALK

Session chair: Aníbal Pauchard

Plant invasions in mountain areas of the Andes: current status and the role of tourism and recreation.
Agustina Barros

09:30 - 10:30

ORAL COMMUNICATIONS

Session chair: Elizabete Marchante

Potential hotspots for plant invasions in northern Canada.
Peter Kotanen

Plant invasions in habitats: a big picture.
Petr Pyšek

Preserving the Earth's paradises: assessing the threat that alien plant invasions pose to conservation efforts in protected areas.
Maria Loreto Castillo

Whole-plant functional ecology of invasive species: what are we missing?
Jason Fridley

10:30 - 11:00

Coffee Break

11:00 - 13:00

ORAL COMMUNICATIONS

Session chair: Elizabete Marchante

Climate-induced changes in phenological cycles of native and exotic ephemeral species in Fray Jorge's thorn scrub.
María del Pilar Fernández M.

What have we learned with the use of the global climatic niche in alien plant species? a brief review using two examples of our recent investigation.
Ramiro Bustamante

Global hotspots of the origin of naturalized flora?
Alessandra Kortz

Prevalence in historic nursery catalogues and taxonomy best predict which non-native ornamental species have naturalised in New Zealand.

Thomas N. Dawes



Limits to plant invasions at the edge of the Arctic.

Vicki M. Zhang

Spatial patterns of plant invasions in Uruguayan grasslands.

Anaclara Guido

Your weed, my Instagram selfie! Invasive alien plants that 'improve' the landscape Tourists and the tourism industry challenging the control of charismatic invasive plants in Aotearoa New Zealand.

Brent Lovelock

13:00 - 14:30

Lunch

14:30: 16:00

SYMPOSIUM

Session chair: Bruce Osborne

Plant Invasions and Coastal Dune Systems: linking fundamental science with management, restoration, and nature conservation.

A risk screening of potentially invasive plant species in European-Atlantic coastal dune habitats.

Bram D'hondt

Functioning and interactions associated with invasive species: the particular case of *Acacia longifolia*.

Cristina Maguas

Appearances Can be Deceptive: Contrasting Impacts of a Native and an Invasive Plant Species on Coastal Dune Ecosystems.

Bruce Osborne

Management of plant invasions in southern Brazil.

Silvia Ziller

Plant Invasions and Coastal Dune Systems: linking fundamental science with management, restoration and nature conservation.

Elizabete Marchante

Mussununga: The little-known and threatened white-sand ecosystem in the Brazilian Atlantic Forest
Gustavo Heringer



Jack of all trades? Mechanisms behind the positive feedback invasion of the Hottentot fig on the Mediterranean coast, a life-history perspective
Erola Fenollosa

16:00 - 16:30 **Coffee Break**

16:30 - 17:30 **PLENARY TALK**
Session chair: Aníbal Pauchard

Addressing invasive species in a changing world:
Does climate change matter?
Jeff Dukes

17:30 - 18:30 **CLOSING CEREMONY**

Panel discussion on diversity in invasion science.
Moderator: Florencia Yannelli

Awards, thanks and future challenges.
Aníbal Pauchard

20:30 - 24:00 **CONFERENCE DINNER**



Thursday 26

09:00 - 17:00

FIELD TRIP
Guided tour of the Huerquehue National Park.
Only for previously registered participants.

Contact:
Andrés Fuentes-Ramírez
andres.fuentes@ufrontera.cl



09:00 - 11:00 **WORKSHOP 1**

The legacy of plant invasions: identifying the drivers of changes in plant trajectories during restoration and how to manage them.
Leading organizer: Florencia Yannelli

11:00 - 11:30 **Coffee Break**

11:30 - 13:00 **WORKSHOP 1. SECOND PART**

The legacy of plant invasions: identifying the drivers of changes in plant trajectories during restoration and how to manage them.
Leading organizer: Florencia Yannelli

13:00 - 14:00 **Lunch**

14:00 - 16:00 **WORKSHOP 2**

Co-design of invasive plant management projects: lessons learned and the way forward.
Leading organizer: Michele de Sá Dechoum

16:00 - 16:30 **Coffee Break**

16:30 - 18:00 **WORKSHOP 2. SECOND PART**

Co-design of invasive plant management projects: lessons learned and the way forward.
Leading organizer: Michele de Sá Dechoum



FLASH TALKS POSTERS

ID	Autor	Title
FT1	K. B. Westergaard	Building and implementing knowledge on biogeography, ecology and management of alien plants in high-Arctic Svalbard.
FT2	J. Speed	Modelling the macroclimatic-niche potential of non-native plant species across the High-Arctic archipelago of Svalbard: Implications for management.
FT3	K. Lyons	Restoration as Biocontrol: Mass-Ratio or Diversity-Invasion Theory as Guiding Principle?
FT4	L. Meyerson	Lands of Indigenous People are less disturbed, less accessible, and harbour fewer alien species.
FT5	Y. Klinger	Using citizen-science photos to track the phenology of invasive species.
FT6	P. Pipek	When habitats get sentimental: are invasive plants perceived differently in different environments?
FT7	T. Mbobo	Regulating fruity invasions—the South African experience.
FT8	S. Payne	Review of the invasive, yet economically beneficial, <i>Rosa rubiginosa</i> L. (Rosaceae) within southern Africa.
FT9	N. Cáceres	Evaluation of the effectiveness of two herbicides for the elimination of <i>Pinus radiata</i> D. Don., in the context of native forest restoration in the foothills of Nahuelbuta, Chile.
FT10	J. Molofsky	Evolution of invasiveness in a hybrid knapweed complex post-introduction.



POSTERS

ID	Autor	Title
P21	A. Gazda	Science in the face of the global change: is planting non-native forest tree species in forests the best solution?
P22	J.M. Castillo	Invasive spread of alien <i>Spartina densiflora</i> upstream with sea level rise in an acidic, metal-polluted estuary.
P23	M. San José Alcalde	Control of invasive plants in Galapagos: costs and challenges.
P24	K. Pyšková	The impact of invasive plants on large herbivores in Kruger National Park: how to measure it and what it really means for nature conservation?
P25	M. Greve	Setting up monitoring programme to assess the beneficial – and potentially unintended – impacts of mouse eradication on a sub-Antarctic island.
P26	J. Moyano	Management strategies to reduce invasive pine spread and impact in Patagonian grasslands.
P27	M. Adami	Legacy effect and potential for natural regeneration of plant communities after the control of a non-native tree in coastal dunes.
P28	T. Arellano	The Role of Trails in the Redistribution of Non-native Plants in Mountain Ecosystems of Central-Southern Chile.
P29	P. Arroyo-Vargas	Small area, big problems? Invasion assessment of exotic plant species in an urban-surrounded protected area of south-central Chile.
P30	S. Benavides	Stakeholders network for the management of invasive species <i>Pinus contorta</i> in <i>Araucaria araucana</i> forest in Chile.
P31	K. Berchová	Landscape Drivers of Plant Invasion – Impacts and Implications for Landscape Management.
P32	A. Borges	Spatial distribution at a farm level of

Ulex europaeus L. in the Eastern region of Uruguay.



P33	G. Brundu	Scents of Australia in the Mediterranean: results of the first survey on the total number of introduced <i>Eucalyptus</i> species.
P34	S. Carrasco	Invasive plants in Bosque Pehuén, biological legacies of past logging activities in a private conservation area.
P35	A. Castelo Branco Figueiredo	Invasive non-native species in federal protected areas in Brazil: an assessment based on management plans.
P36	J. Kelly	The Weed Remote Sensing Community of Practice (WRS CoP): a new platform to facilitate collaborative research networks, improved education, and uptake of technologies for weed remote detection.
P37	D. Clements	The Biology of Invasive Plants Series Provides Critical Information on Global Invasion Pathways and Risks.
P38	K. da Silva Wanda	Anthropogenic habitats drive functional traits and herbivory in Neotropical spontaneous urban flora.
P39	J. de Almeida	Decreased functional dispersal traits of spontaneous plants in urban areas.
P40	E. Marchante	Establishment and early impacts of the first biocontrol agent against an invasive plant in continental Europe.
P41	M. Vitkova	European synthesis of alien <i>Robinia pseudoacacia</i> -dominated vegetation types.
P42	M. Vojík	Growing in the rain: the effect of nitrogen atmospheric deposition on invasive plants in different habitats.
P43	J. Van Valkenburg	The large Gunnera's (<i>G. tinctoria</i> and <i>G. manicata</i>) in Europe in relation to EU regulation.
P44	L. Vásquez-García	Comparison of the effects of a native and a non-native species on soil

carbon and nitrogen in sand dunes in southern Chile.



P45	E. Fenollosa	Machine learning in invasion ecophysiology: novel methods to assess spatio-temporal plant stress from RGB images.
P46	P. Díaz	Establishment of <i>Sporobolus cryptandrus</i> (Torr.) A. Grey (poaceae) - a new invasive species in Hungary.
P47	A. Pauchard	Invasive plant species across elevational gradients: How different functional groups perform in the Andes mountains of Chile.
P48	J. Pergl	Impact of alien and native plants on vegetation and soil: from herbs to woody species.
P49	S. Reyes	The invader shrub <i>Chrysanthemoides monilifera</i> (boneseed) negatively impacts native plant communities in a Mediterranean zone in Central Chile.
P50	O. Toy-Opazo	Fire and plants: Role of vegetation flammability in wildfire risk in wildland-urban interface zones of south-central Chile.
P51	L. Adams	The role of mammals in seed dispersal of fleshy-fruited invasive alien plants in the Grassland Biome of South Africa.
P52	M. Sheehan	Strategies upon strategies - bringing biosecurity RD&E together in Australia and opportunities for international partnerships.
P53	M. Ortiz	Can invasive species be part of multifunctional landscapes? Exploring values and perceptions.



FLASH TALKS POSTERS

ID	Autor	Title
FT11	F. Marzialetti	Testing novel applications of satellite imagery developed by Copernicus mission for tracing the effects of <i>Ailanthus altissima</i> invasion on natural ecosystems in a Mediterranean island.
FT12	Z. Pattinson	River degradation: what role do invasive plants play in riverbank erosion?
FT13	S. Bhatta	Impacts of invasive plants on vegetation in protected areas of Nepal.
FT14	L. Pertierra	Ecological and functional trait-environment joint modelled responses of aliens and native plants of Marion Island.
FT15	E. Fuentes-Lillo	Roads in the Chilean Andes: Consequences for Biodiversity and Microclimate.
FT16	I. Borokini	Biogeography, taxonomic structure, and ecological impacts of alien plants in Nigeria.
FT17	J. Čuda	Species’ habitat niche strongly affects their global naturalization success.
FT18	C. Máguas	The bacteriome of <i>Acacia longifolia</i> : new insights into its seed and root-nodule communities.
FT19	V. Lozano	Differences in entomofauna assemblages associated with <i>Eucalyptus</i> spp.: could this help explain why only a limited number of species have naturalized in the Mediterranean?



POSTERS

ID	Autor	Title
P54	K. Moloji	Seed dispersal and germination of <i>Cotoneaster pannosus</i> on Afromontane grasslands of eastern Free State, South Africa.
P55	L. Rossignaud	Native vegetation structure, landscape features, and climate shape non-native plant richness and cover in New Zealand native shrublands.
P56	L. Fernandez	The status of biological invasions and their management in the Prince Edward Islands.
P57	A. Baggaley	Inference for epidemic models with time-varying Infection rates: Tracking the dynamics of oak processionary moth in the UK.
P58	R. Olano	Evaluación de estrategias de control de Tojo en predio ganadero de Uruguay.
P59	M. Didier	Hydrogeomorphological processes of rivers and plant invasions. What interactions in the case of Asian knotweeds?
P60	F. Yannelli	Better to be naïve: Eco-evolutionary experience better explains invasion success of <i>Senecio inaequidens</i> than soil conditions.
P61	L. Malekana	Impact and Management of Range Expanding Rosaceae Species Along Elevational Gradients in the Maloti Drakensberg.
P62	M. Večeřa	A unified database of alien plants for Europe: Example of mapping biogeographical and ecological patterns of plant invasions on a continental scale.
P63	X. Pan	From South America to China: Biogeography of the invasiveness of <i>Alternanthera philoxeroides</i> .
P64	M. Asth	Monitoring of biological invasions in

linear infrastructure projects:
methods for a rapid field
assessment.



P65	M. Asth	Cascading colonization and the invasion process in a linear infrastructure development in Brazil.
P66	M. Leishman	Gardening Responsibly: New tools to reduce the risk of ornamental plant invasions.
P67	R. García	<i>Pinus contorta</i> alters microenvironmental conditions and reduces plant diversity in Patagonian Ecosystems.
P68	B. Gooden	Variation in interactions between a host weed and its biocontrol agent across broad climate and spatial gradients.
P69	M. Hejda	Habitat occupancy by naturalized alien plants: differences between the Old World and New World.
P70	I. Herrera	The Genus <i>Kalanchoe</i> in Ecuador: from Gardens to Wildlife.
P71	J. Kutlvašr	Relatively new invasive species in Europe: <i>Senecio inaequidens</i> . Review of its biology, distribution, impact and management.
P72	A. Lara	“Naturaleza Intrusa”: Scientific outreach about Invasive Alien Species.
P73	C. Leal	Is there an effect of <i>Pinus radiata</i> invasion on the regenerative dynamics of remnant <i>Nothofagus alessandrii</i> forests after a mega-fire?
P74	S. Martins	Invasive aquatic plants in the Mondego River basin (Portugal) and efforts to improve management.
P75	J. Zäh	Douglas fir in Germany and Chile - A potential threat for natural communities across continents?
P76	A. Mathieu	Ten years of <i>Acacia mangium</i> control in French Guiana: from awareness to engagement of stakeholders.



P77	M. Vítková	SEED-ASICS: A new global network for monitoring plant invasions in cold environments as a result of global changes.
P78	K. Ocampo-Zuleta	Fire, life histories, and plant invasion.
P79	E. Fenollosa	Thriving in the unknown: Unraveling the invasive potential of <i>Aptenia cordifolia</i> .
P80	P. Sánchez	How rural communities perceive the invasion of <i>Pinus radiata</i> in south-central Chile?: Inputs for community control programs.
P81	H. Skalovaç	Thermal requirements of native and alien plant species in cold environments.
P82	M. Vásquez	Functional trait variation of <i>Ulex europaeus</i> along mountain altitudinal gradients in Colombian high mountains.
P83	C. Vera	How many seedlings of <i>Pinus radiata</i> are needed to invade native forests in central Chile?
P84	V. Palma	The aromaticity of plants as an organoleptic characteristic that influences the dynamics of forest fires in Roble-Laurel-Lingue forests in south-central Chile.
P85	L. Cordeiro	How the control of <i>Carpobrotus acinaciformis</i> can affect bee pollination networks?
P86	T. Dvirna	<i>Asclepias syriaca</i> L. in Ukraine: economic value against environmental impact



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Conference Organizers



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