

SEE ECOLOGY VII

2022 • SEPTEMBER 6-9 • ASTURIAS



Xixón | Jardín Botánico Atlántico



PROGRAM



Universidad de
Oviedo

Xixón



Conference website

<https://www.unioviedo.es/seedecol7/>

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Monday, September 5, 2022

Atlantic Botanic Garden ([map](#))

16:00 - 19:00	Registration
17:00 - 19:00	Guided tours of the Botanic Garden
19:00 - 20:00	Welcome reception (Cheese & Cider) at the Linnaeus Pavilion

Tuesday, September 6, 2022

Polytechnic School, University campus ([map](#))

8:30 - 9:00	Registration
	Conference opening
9:00 - 9:45	Antonio Fueyo Silva (Vice-Rector for Research, University of Oviedo) Aurelio Martín González (Gijón/Xixón city councillor) Fiona Hay (International Society for Seed Science) Borja Jiménez-Alfaro (Organizing committee)
	Keynote
9:45 - 10:30	Si-Chong Chen: Macroecology of seed dispersal distance
	Macroecology and evolution of seeds Chair: Sergey Rosbakh
10:30 - 10:45	Filip Vandelooy: Ecological correlates and evolutionary history of post-dispersal embryo growth and embryo growth rate in angiosperms
10:45 - 11:00	Angelino Carta: Macroevolutionary correlation of seed traits in flowering plants: current advances and future prospects
11:00 - 11:30	Coffee break
11:30 - 11:45	Eduardo Fernández-Pascual: The global seed germination spectrum of alpine plants
11:45 - 12:00	Guillermo Valdelvira: Two life-forms - two patterns of seed morphology in Orchidaceae
12:00 - 12:15	Spiridon Oikonomidis: Orchid seed morphometrics as a predictor of germination behavior and some ecological implications
	Seed dispersal and plant-animal interactions Chair: Gemma Hoyle
12:15 - 12:30	Mie Anberg: Directed endozoochory: a hitchhiker's guide for clonal ericaceous plants to successful sexual reproduction
12:30 - 12:45	Diana C Acosta-Rojas: Climate and microhabitat effects on the importance of endozoochory along an elevational gradient in Southern Ecuador
13:00 - 14:30	Lunch

14:30 - 14:45	Daniel García: Role of seed dispersal by animals on secondary succession in Cantabrian mountains: implications for rewilding and forest restoration
14:45 - 15:00	Lisieux Fuzessy: Are large vertebrates redundant in seed dispersal functions and dung beetle attraction in the Atlantic forest?
15:00 - 15:15	Jorge Isla-Escudero: Drivers and functional consequences of an individual-based seed-dispersal network along a natural regeneration gradient
15:15 - 15:30	Raquel Muñoz-Gallego: Dense herbivore populations influence the spatial patterns of seed dispersal and seed predation in the Mediterranean dwarf palm
15:30 - 16:00	Coffee break
16:00 - 16:15	Lucía Acevedo-Limón: Seed-dispersal limitation as a driver of biodiversity deficits in chronically fragmented landscapes
16:15 - 16:30	Alba Cuena-Lombraña: Understanding long-distance seed dispersal by sea currents: first results of experiments on <i>Juniperus</i> , <i>Daucus</i> , <i>Ferula</i> and <i>Pancratium</i> spp. from the Mediterranean basin
16:30 - 16:45	Claudio Açaí Bracho-Estévez: Variation among plant species in seed retention time inside frugivores' gut: relevance and underlying traits

Wednesday, September 7, 2022

Polytechnic School, University campus ([map](#))

8:30 - 9:00	Registration
	Keynote
9:00 - 9:45	Mark Ooi: Using seed ecology to inform biodiversity conservation
	Theory and methods in seed trait ecology Chair: Arne Saatkamp
9:45 - 10:00	Elena Castillo-Lorenzo: Identifying conservation and knowledge gaps in cultivated Brassicaceae: characterization of functional traits in crop wild relatives
10:00 - 10:15	Fernando AO Silveira: Towards a tropical seed and germination trait database
10:15 - 10:30	Carlos Andrés Ordóñez-Parra: Looking for the orthogonality of germination indexes: minimalism meets seeds functional ecology
10:30 - 10:45	Roberta Dayrell: An image analysis tool for automated extraction of diaspore morphological traits
10:45 - 11:00	Peter Poschlod: The seed trait handbook
11:00 - 11:30	Coffee break

	Seed functions in plant communities Chair: Fernando AO Silveira
11:30 - 11:45	Silvia Del Vecchio: The role of seed functional diversity in buffering plant communities from species colonization
11:45 - 12:00	Shyam S Phartyal: Easy to grow: assessing the role of regeneration traits in global urban trees selection
12:00 - 12:15	Isis Arend da Silva: Experimental germination responses to different temperature and light regimes and species spatial distributions in a guild of Western Australian annuals
12:15 - 12:30	Sergey Rosbakh: Inferring community assembly processes from functional seed trait variation along a temperature gradient
12:30 - 12:45	Clara Espinosa del Alba: Seed germination responses to microclimatic conditions in alpine communities
13:00 - 14:30	Lunch
14:30 - 14:45	Ryan Tangney: Identifying seed functional traits contributing to seed survival and plant regeneration in fire-prone ecosystems.
14:45 - 15:00	Sarah Jane McInnes: Cracking the code: seed coat chemistry in physically dormant seeds
15:00 - 15:15	Alessandra Fidelis: Burned fruits and heated seeds: are seeds still able to germinate?
15:15 - 17:00	Posters and drinks

Thursday, September 8, 2022

Polytechnic School, University campus ([map](#))

8:30 - 9:00	Registration
	Keynote
9:00 - 9:45	Anna Bucharova: Seeding the future: evolutionary perspective on seed-based restoration
	Seed-based restoration and conservation (I) Chair: Lydia K Guja
9:45 - 10:00	Matthew M Aghai: Addressing seed needs for reforestation in the western United States
10:00 - 10:15	Diana María Cruz Tejada: MedGermDB: building a seed germination database of Mediterranean plants
10:15 - 10:30	Borja Jiménez-Alfaro: Greening Iberian olive groves with native seeds
10:30 - 10:45	Sara Magrini: Selecting native seeds for the revegetation of coastal dunes altered by <i>Carpobrotus</i> species

10:45 - 11:00	Giulia Albani Rocchetti: Germination protocol for herbarium-stored seeds to recover extinct plants
11:00 - 11:30	Coffee break
11:30 - 11:45	Fiona J White: Fit for the future: alpine plant responses to climatic stress after 20 years of seed bank conservation
11:45 - 12:00	Paweł Chmielarz: Frost resistance of pedunculate oak seeds and the implications for their storage
12:00 - 12:15	Sara Villa: Inter-population variability in seed germination, reproductive ecology and genetic structure of a rare chasmophyte (<i>Campanula rainieri</i> , Campanulaceae): insights for conservation purposes
12:15 - 12:30	Bruno Fogliani: Seed ecology of candidate species for restoration of humid forest in New Caledonia: the case of Koniambo Massif
12:30 - 12:45	Mikołaj K. Wawrzyniak: Dormancy release and germination of selected forest species under controlled conditions
13:00 - 14:30	Lunch
	Seed-based restoration and conservation (II) Chair: Alessandra Fidelis
14:30 - 14:45	Héctor Pérez: Understanding germination processes can enhance restoration: a role for the woody endocarp of <i>Morella parvifolia</i> (Benth.) Parra-Os from the south Andes of Ecuador
14:45 - 15:00	Olga A Kildisheva: Seed treatments improve plant recruitment in dryland environment
15:00 - 15:15	Miriam Muñoz-Rojas: Seed bioprimering and pelleting with indigenous microbes for restoring native plants in Australian ecosystems
15:15 - 15:30	Matthew M Aghai: Enhancing direct seeding with unmanned aerial vehicles, operational capacity, and seed technology in the western US and beyond
15:30 - 15:45	Mauro Fois: The project Life SEEDFORCE, an integrated approach for plant translocation
15:45 - 17:00	Coffee and posters

	Atlantic Botanic Garden (map)
	Conference dinner
20:00	Bus transfer from Gijón/Xixón city center to the Botanic Garden
20:30 - 22:30	Dinner
23:00	Bus transfer from the Botanic Garden to Gijón/Xixón city center

Friday, September 9, 2022	
Polytechnic School, University campus (map)	
8:30 - 9:00	Registration
	Keynote
9:00 - 9:45	Andrea Mondoni: Seeds and climate change: what can we learn from alpine and arctic biomes?
	Environmental control of seed germination (I) Chair: Filip Vandelook
9:45 - 10:00	Jerónimo Vázquez-Ramírez: Smaller, lighter, later: effects of a future warmer and drier climate on alpine seeds and seedlings
10:00 - 10:15	Cagatay Tavsanoglu: Germination patterns under climate change in the plants of the Central Anatolian steppe
10:15 - 10:30	Tomasz Andrzej Pawłowski: Adaptation of European beech (<i>Fagus sylvatica</i> L.) to the variable environments in the term of seed germination
10:30 - 10:45	Arne Saatkamp: Multiple relations between seed traits and germination performance change with temperature
10:45 - 11:00	Lydia K Guja: Environment and polyploidy affect germination of rare shrub species
11:00 - 11:30	Coffee break
	Environmental control of seed germination (II) Chair: Elena Castillo Lorenzo
11:30 - 11:45	Gerhard Leubner-Metzger: Molecular mechanisms of allelochemicals in germination and seedling establishment
11:45 - 12:00	Nahema Venceslai: Ecophysiological and molecular mechanisms of blackgrass weed seed bank persistence
12:00 - 12:15	Jake Owen Chandler: Pericarp-elicited transcriptomic and hormonomic changes underpin early life history traits in the dimorphic diaspores of <i>Aethionema arabicum</i>
12:15 - 12:30	Lena Fatelnig: seed priming with gas plasma activated water in Ethiopia's "orphan" crop tef (<i>Eragrostis tef</i>)
12:30 - 12:45	Gemma Hoyle: Impact of red:far red ratios on germination in Australia's tropical mountain cloud forests
13:00 - 14:30	Lunch
14:30 - 14:45	Ruby Paroissien: Effects of fire season on the reproductive effort and seed resourcing of a post-fire flowerer
14:45 - 15:00	Cristian Malavert: Environmental thermal regulation of dormancy in <i>Echinochloa crus-galli</i> (L.) P. Beauv. seeds
	Closing ceremony
15:00 - 16:00	Excursions info, farewell

Saturday, September 10, 2022	
	Excursions
9:00	Meeting point at the Polytechnic School, University campus (map)
Before 20:00	Stops in Gijón/Xixón city and the Polytechnic School
Posters	
(Names refer to the first author, they may differ from presenters)	
	Seed dispersal and plant-animal interactions
P01	Harsh Yadav: Plants on the ride: tracking the research diversity globally on endozoochory
P02	Tereza Mašková: Are seeds of wind-dispersed species really more oily? - The revised relationship between dispersal syndromes and seed nutrients
P03	Michele Di Musciano: The evolution of plant dispersal syndromes and seed traits: evolutionary cues and diversification
P04	Victor González-García: Unmasking the perching effect of the pioneer Mediterranean palm <i>Chamaerops humilis</i> L.
P05	Barbora Lepková: Seed dispersal by ungulates – from seed traits to landscape level
Seed functions in plant communities	
P06	Heloiza L Zirondi: <i>In situ</i> seed storage affects germination responses to fire-related cues in Cerrado species
P07	Emma Ortúñez: Testa extensions in orchid seeds: mechanisms to attach the bark of trees
P08	Giacomo Trotta: Alien and native seed germination performance might shape the species assembly of temperate grasslands under a global warming
Seed-based restoration and conservation	
P09	Chantelle Doyle: Pairing population genetics with seed and seedling traits to quantify inbreeding impacts on an endangered species
P10	Petra Hlásná Čepková: The impact of ozone treatment on seed germination and pathogen infections in wheat, barley, triticale and rapeseeds
P11	Sara Magrini: Seed lipid thermal fingerprints of Mediterranean terrestrial orchids in relation to their ecology and <i>ex situ</i> conservation
P12	Amelia J Martyn Yenson: <i>Ex situ</i> conservation guidelines for Australia's national plant treasures
P13	Lucy Commander: Best-practice guidelines for threatened plant translocation, native seed use, and plant germplasm conservation

P14	Luciano Di Martino: <i>Ex situ</i> conservation experiences for seven threatened taxa: the case of the Life FLORANET project for the conservation of plant biodiversity in the Apennines (Italy)
P15	Marco Vuerich: Success of native hay-seed mix for dry grassland restoration: do not neglect the role of soil seed bank
P16	Vanessa Hernández-Mendoza: Ecology and physiology of coastal dune plant seeds as a model for their conservation
P17	Esteban Ramírez: Seed priming to optimize germination in <i>Arthrocnemum</i> Moq.: a prime halophyte candidate for agricultural and biotechnological uses
P18	Candido Galvez-Ramírez: FLEURS LOCALES, a project on the value chain of native seed production in south-western Europe
P19	Sofia Kourmpetli: Reducing seed losses in commercial seed production through understanding of the genetic mechanisms controlling seed shattering
Environmental control of seed germination	
P20	Fernanda Caro Beveridge: Germination thresholds and stress tolerance of Australian native species under a changing climate
P21	Miguel Ángel Copete: Seed ecology of <i>Atropa baetica</i> Willk. as a possible explanation for its rarity
P22	Lorenzo Pinzani: Comparative studies on seed germination in related <i>Aquilegia</i> species (Ranunculaceae)
P23	Belén Luna: Timing of fire during summer determines seed germination in Cistaceae
P24	Spyridon Oikonomidis: Cone/seed morphometry and germination ecophysiology of <i>Juniperus drupacea</i> at the westernmost area of its global distribution (Mt. Parnon, Greece)
P25	Marta Pérez: Physiological and molecular mechanisms of <i>Lepidium sativum</i> seed longevity and vigour
P26	Deshika L Muthuthanthirige: Ecophysiology seed traits of Devil's claw (<i>Martynia annua</i> ; Martyniaceae)
P27	Raquel Gasparini: What method is the best? Comparison between different smoke treatments on the germination of Cerrado species
P28	Valter Di Cecco: Seed colour reveals the bet-hedging strategy in an endemic species of Central Apennines (Italy): <i>Astragalus aquilanus</i>
P29	Lina Podda: <i>Acacia saligna</i> and <i>Vachellia karroo</i> : germination ecophysiology of two invasive species in the Mediterranean Basin

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