



EWRS Working Group Meeting on "Germination & Early Growth" Perugia, Italy, 26-28 May 2020

First circular

We invite you to the EWRS Working Group meeting on Germination & Early Growth to be held in Perugia, Italy on 26-28 May 2020. The scope of the working group includes all processes involved during the transition from seeds to seedlings, and from buds (on creeping roots, rhizomes, stolons etc.) to vegetative shoots, in the life cycle of weeds. The scope has recently been expanded to include vegetative means of reproduction. Germination (sprouting) and early growth are important processes of weeds emerging from seeds and from buds on vegetative plant organs, and knowledge of these processes is important for understanding weed population dynamics and may aid in weed control timing and decisions.

The aim of the meeting is to bring together researchers with interest in this topic to exchange and discuss their experiences and findings with other colleagues. You are invited to attend this meeting by sending your registration along with the proposed title, name(s) and address(es) of author(s), and one page abstract. Please forward this circular to any interested colleagues in your institution/country. Abstracts could be on topics such as:

- Weed seed bank dynamics
- Seed dormancy, germination, seedling emergence and early growth of weeds
- Reproduction and sprouting dynamics of vegetative structures and buds

The meeting will be preceded by a workshop on modelling seed germination and emergence. The workshop will cover important topics related to the peculiar aspects of statistical modelling of seed germination/emergence (e.g. data type, data manipulation and reformatting, between-group comparisons, censoring), the biological and theoretical underpinnings of germination models in relation to temperature (thermal time), water (hydrotime), combination of water and temperature (hydro-thermal time), and other factors. The workshop will be based on the R statistical environments and will provide both lectures and hands-on experiences in working with germination data analyses and building models. The workshop will be run by Andrea Onofri (University of Perugia, Italy) and Mohsen B. Mesgaran (University of California, Davis, USA).

Location

The workshop and working group meeting will be held at the Department of Agricultural, Food and Environmental Sciences (DSA3), University of Perugia, located at the 10th Century *San Pietro* Benedictine abbey.

The DSA3, formerly Faculty of Agriculture in Perugia, was founded in 1896 and is known as one of the oldest and most famous faculties of Agriculture throughout Italy.

Perugia is situated in the centre of Italy (Umbria region), half way between Florence and Rome. The town is located on the top of a hill (about 500 m a.s.l.) in an area known as “the green heart of Italy” due to its beautiful, evergreen countryside. Perugia offers several Etruscan, Roman and Renaissance historical sites. Moreover, it is relatively close to the picturesque medieval towns of Assisi (20 km), Todi (30 km) and Gubbio (40 km).

In late-May, the weather in Perugia may be very pleasant, with mild daytime temperatures, ranging from 20 to 25°C at daytime. Rainfall levels are usually low, although year-to-year variability may still be rather high.

Preliminary Programme

	26-5-2020	27-5-2020	28-5-2020
8:00 - 9:00	Travelling to Perugia	Registration and uploading of R packages	
9:00-10:45		Modelling workshop Lecture 1 Hands-on exercises	Informal meeting: Discuss old common experiments (publication)
10:45-11:00		Coffee Break	Coffee Break
11:00 - 12:30		Modelling workshop Lecture 2 Hands-on exercises	Continued meeting: new common experiments
12:30-13:30		Lunch	Lunch
13:30-15:45		Modelling workshop Lecture 3 Hands-on exercises	Oral presentations + discussion (15 minutes including discussion)
15:45-16:00		Coffee Break	Coffee Break
16:00-18:30		Registration and uploading of R packages	Oral presentations + discussion (15 minutes including discussion).
19:00	Welcome cocktail		Meeting Dinner

Abstract submission and proceedings

Those who are interested in presenting a communication/poster should send their abstracts by the 29th of February, to Kirsten Tørresen (kirsten.torresen@nibio.no). The authors can express their preference for oral/poster, although the final decision will be taken by the Scientific Committee, taking into account the programme timeline. Abstracts should not exceed 2 pages (all included) and will not be peer-reviewed; the authors will be fully and solely responsible for the content of their abstracts. The workshop material will be made available online. Abstracts of presentation will be collected in a booklet of proceedings (on print with ISBN) and will also be made available online on the EWRS working group website.

Cost/Fee

The registration fee will cover welcome cocktail, lunches, coffee breaks, field trip and meeting dinner, proceedings.

The instructions for payment will be provided in the coming Circulars.

Registration fee	Euro
Regular fee (delegates and accompanying persons)	150
Students	120

EWRS can give subsidies to early career scientists (below 35 years of age), giving an oral or poster presentation, covering travel/accommodation costs up to 500 Euro per person. The interested scientists should send an application letter with a brief CV (showing their early career status), a short motivation letter and a budget of estimated costs, together with the abstract. Please send the

above documentation to Kirsten Tørresen (kirsten.torresen@nibio.no) before the 29th of February 2020. The subsidy will be awarded according to the EWRS rules.

Deadlines

- 1st circular/invitation – announcement in newsletter/website/via e-mails – 31 December 2019
- Abstract submission – 29 February 2020 (send to: kirsten.torresen@nibio.no)
- 2nd circular with draft program – 30 March 2020
- Deadline for registration (without abstract) – 15 April 2020 (send to: kirsten.torresen@nibio.no)
- 3rd circular with final programme – 1 May 2020

Travel information

By plane

1. Direct Flight to Perugia - The Umbria International Airport has connections from/to London Stanstead (daily flights), Brussels (Tue and Sat) and Catania (Tue, Fri, Sun).

2. Flying to the International Airport Roma Leonardo da Vinci and then to Perugia by train (preferably to be booked in advance; check train timetables and buy tickets at www.trenitalia.com). Usually, it is necessary to take a train from Fiumicino to Roma Termini and from there to Perugia (note: do not use any other stations, such as Perugia Università or Perugia Ponte San Giovanni: they are not handy). From Roma Termini to Perugia there are daily direct trains every second hour. Other trains run from Roma Termini to Foligno and, from there, you will find connections to Perugia. Allow 30 minutes from gate to the Station in Fiumicino.

3. Flying to the International Airport Roma Leonardo da Vinci and then to Perugia by bus (see timetables below or visit "Sulga bus service" at www.sulga.it). Tickets can be bought onboard.

Bus service: Rome Airport (Terminal 3) to Perugia

Departure time	Arrival time	Frequency
9:00	12:45	Mon, Tue, Wed, Thu, Fri, Sat
12.30	16.15	Mon, Tue, Wed, Thu, Fri, Sat, Sun
14.30	18.15	Mon, Tue, Wed, Thu, Fri, Sat
16.30	20.15	Sun + holidays
17.00	20.45	Mon, Tue, Wed, Thu, Fri, Sat

one-way ticket = 22 Euro

For the return flights from the International Airport Roma Leonardo da Vinci, the bus service (see timetables below) in the morning is to Fiumicino while in the afternoon is to Rome - Railway Tiburtina station and then to Airport by tube/train (20-45 min)

Bus service: Perugia to Rome

Departure time	Arrival time	Destination	Frequency
6.33	10.10	Rome Airport - Terminal 3	Mon, Tue, Wed, Thu, Fri, Sat
8.00	11.10	Rome Airport	Mon, Tue, Wed, Thu, Fri, Sat
7.30	10.40	Rome Airport	Sun + holidays
8.30	11.40	Rome Airport	Sun + holidays
9:00	12.10	Rome Airport	Mon, Tue, Wed, Thu, Fri, Sat
14.30	18:00	Rome Airport	Mon, Tue, Wed, Thu, Fri, Sat
14.30	16.55	Rome - Railway Tiburtina station	Sun + holidays
17.30	19.45	Rome - Railway Tiburtina station	Mon, Tue, Wed, Thu, Fri, Sat, Sun

one-way ticket = approx. 20 Euros

- to the International Airports in Florence or Ancona or Pisa and to Perugia by train (check train timetables at www.trenitalia.com)

By train

Please check timetables at www.trenitalia.com

By car

- from Milano (460 km) or Bologna (250 km) or from Firenze (160 km)
highway A1 (Milano - Roma) - exit Valdichiana - take the freeway to Perugia
- from Roma (170 km)
highway A1 (Roma - Milano) - exit Orte - take freeway E45 to Perugia

Meals

Coffee and lunch will be served in a room close to the meeting room.
Workshop dinner will be organised in a restaurant close to Perugia.

Accommodation

Hotel reservation is left to the participants. Please, remember that Perugia is on a hill and roads are, sometimes, very steep. Thus, we suggest that you reserve a hotel or B&B in the town center. We point out some possible accommodations, which are at comfortable walking distance from the workshop venue and close to the historical town centre.

Hotel	Category	Distance to workshop venue (on foot)	Link
Signa	** / ***	3 min	https://www.hotelsigna.it
Sangallo	****	10 min	http://www.sangallopalacehotel-perugia.com
Rosalba	**	15 min	https://www.hotelrosalba.com
Priori	***	20 min	http://www.hotelpriori.it
La Rosetta	****	20 min	https://www.perugiaonline.com/larosetta/
Fortuna	***	20 min	https://www.hotelfortunaperugia.com

Organising committee

Kirsten S. Tørresen - NIBIO, Norwegian Institute of Bioeconomy Research (NIBIO), Division of Biotechnology and Plant Health, Ås, co-ordinator of EWRS WG Germination and Early Growth

Francesco Tei - Department of Agricultural, Food and Environmental Sciences, University of Perugia

Andrea Onofri - Department of Agricultural, Food and Environmental Sciences, University of Perugia

Euro Pannacci - Department of Agricultural, Food and Environmental Sciences, University of Perugia

Scientific Committee

Kirsten S. Tørresen - Norwegian Institute of Bioeconomy Research (NIBIO), Division of Biotechnology and Plant Health, Ås

Mohsen B. Mesgaran – Department of Plant Science, University of California, Davis

Alireza Taab – Department of Agronomy and Plant Breeding, Faculty of Agriculture, Ilam University, Ilam, Iran, deputy co-ordinator of EWRS WG Germination and Early Growth

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