

# Global Soil Biodiversity Initiative

Wim van der Putten

Netherlands Institute of Ecology and Wageningen University  
and

Diana Wall, Richard Bardgett, Johan Six, Luca Montanarella, Elizabeth  
Bach

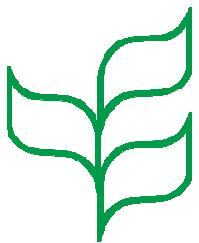
Launch of the Global Soil Biodiversity Atlas in France,  
28<sup>th</sup> November 2016

# **“A nation that destroys its soils destroys itself.”**

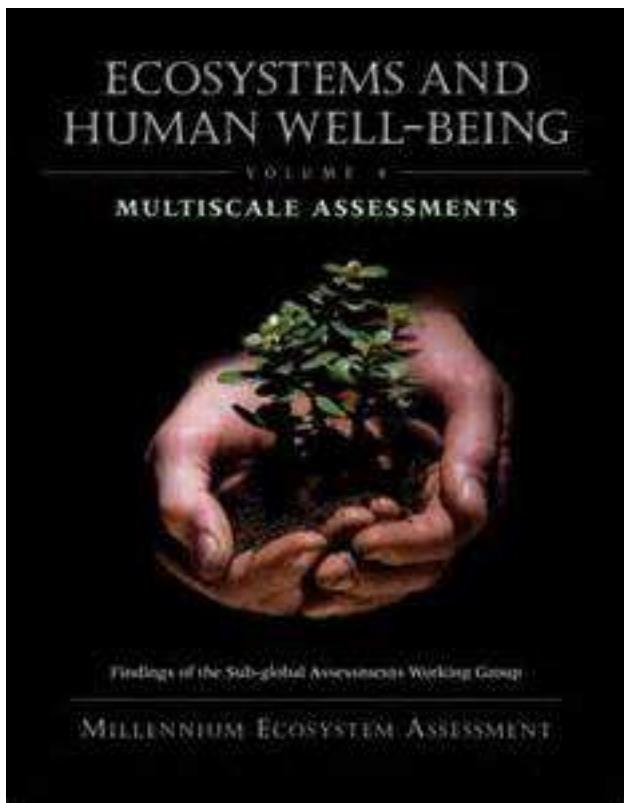
**Franklin D. Roosevelt**

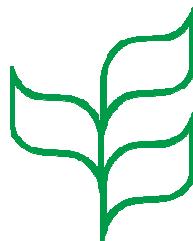


**Everything we eat, drink, wear and  
breathe passes through the soil**

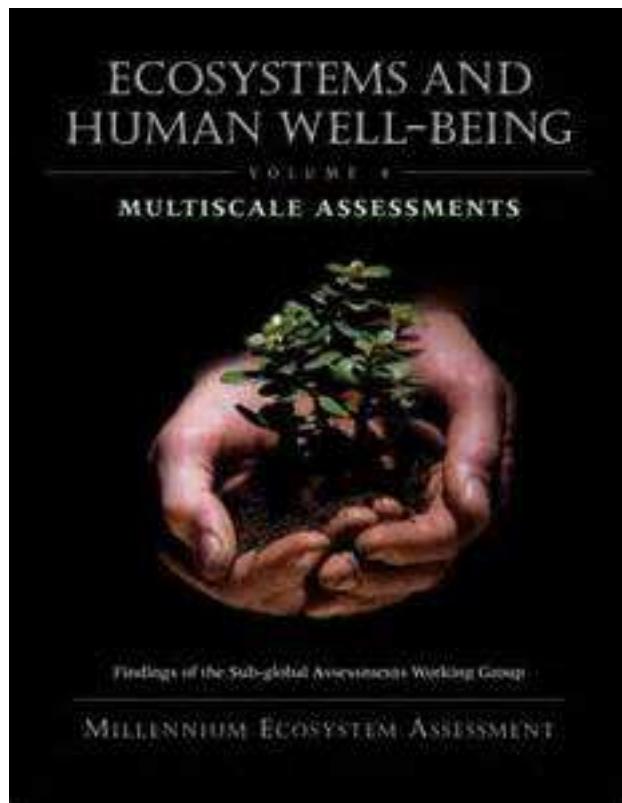


## Convention on Biological Diversity





Convention on  
Biological Diversity



GLOBAL SOIL  
PARTNERSHIP

However, little attention for soil biodiversity

# 2010: Global Soil Biodiversity Initiative founded

## Current GSBI Scientific Advisory Committee



**Diana Wall**  
*Scientific  
Chair*



**Elizabeth Bach**  
*Executive  
Director*



**Fred Ayuke**



**Richard Bardgett**



**Ciro Gardi**



**Nobuhiro  
Kaneko**



**Fatima Maria de  
Souza Moreira**



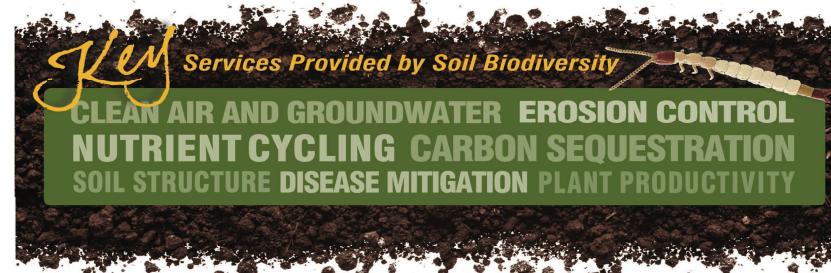
**Luca  
Montanarella**



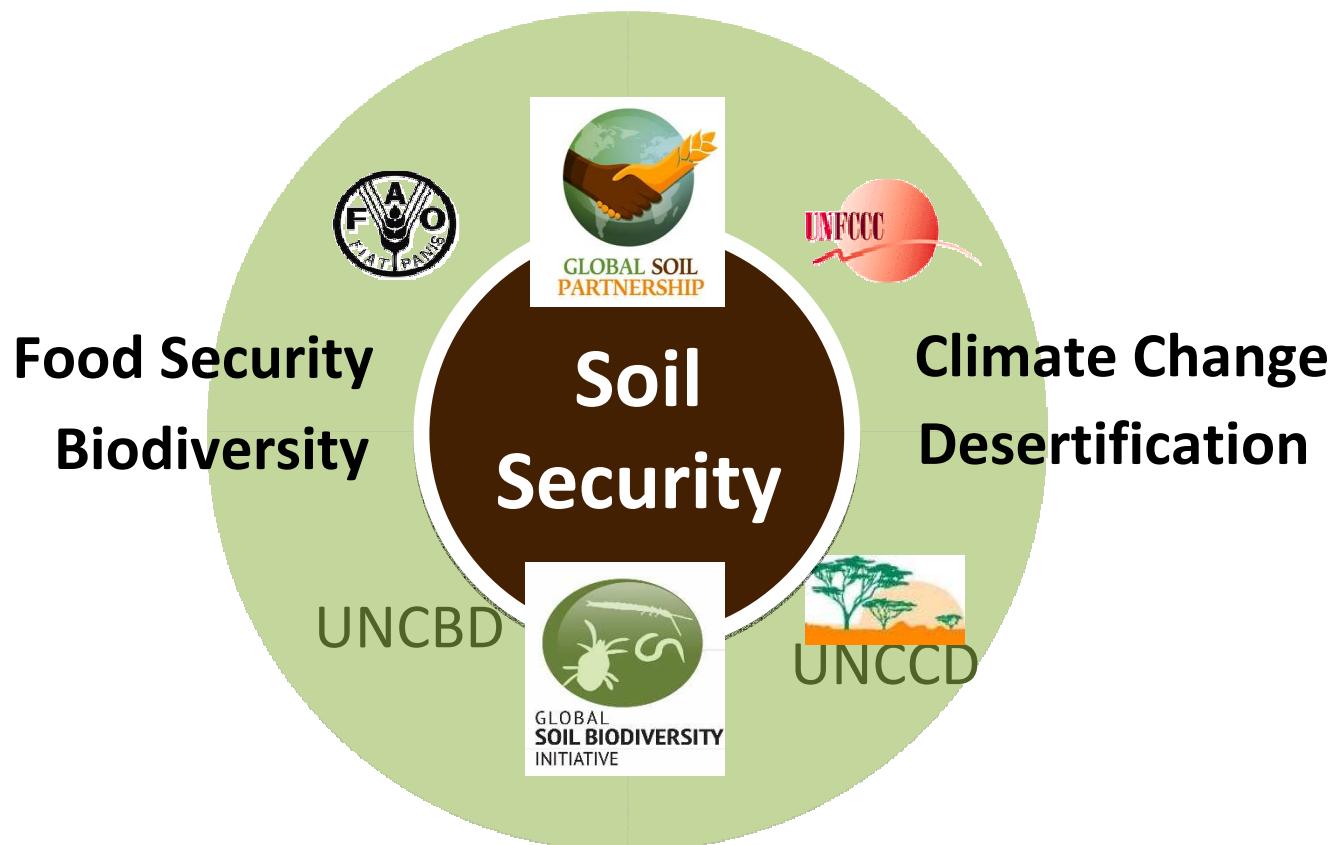
**Johan  
Six**



**Wim van  
der Putten**



Now is the time to include organisms in soil policies

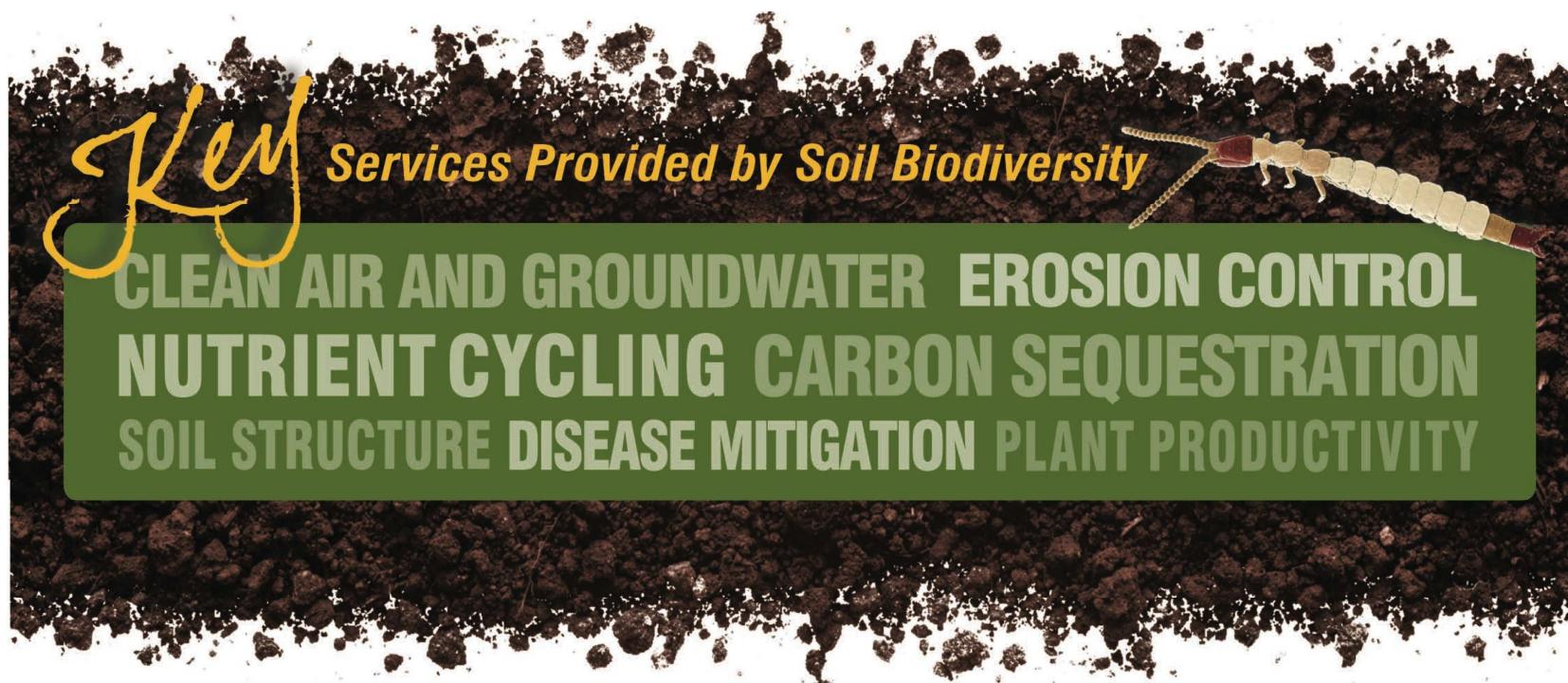




# GLOBAL SOIL BIODIVERSITY INITIATIVE

A SCIENTIFIC EFFORT

[www.globalsoilbiodiversity.org](http://www.globalsoilbiodiversity.org)



The Global Soil Biodiversity Initiative (GSBI) is a bottom-up collaboration of international scientists dedicated to advancing the knowledge of soil biodiversity science and ecosystem services for use in policy and management of global terrestrial ecosystems.

# Participate Today!

*Have you signed up to participate in GSBI? JOIN US!*



*Join us & learn more*

**[WWW.GLOBALSOILBIODIVERSITY.ORG](http://WWW.GLOBALSOILBIODIVERSITY.ORG)**





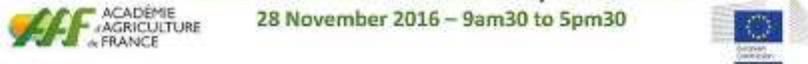
# GLOBAL SOIL BIODIVERSITY INITIATIVE

A SCIENTIFIC EFFORT

HOME ABOUT ACTIVITIES EDUCATION GROUPS MEETINGS RESOURCES NEWSROOM BLOG CONTACT JOIN

French Academy of Agriculture & European Commission Symposium  
Launch of the Global Soil Biodiversity Atlas in France  
28 November 2016 – 9am30 to 5pm30

click for info



## ABOUT THE GSB

The Global Soil Biodiversity Initiative was launched in September 2011 and is open to all those interested in developing a coherent platform for promoting the translation of expert knowledge on soil biodiversity into environmental policy and sustainable land management for the protection and enhancement of ecosystem services.

## NEWSROOM

- Vineyards adversely affect soil quality
- Anthrax sickens 12 in western Siberia, and a shaved-out reindeer corpse may be to blame
- Ecological Society of America Soil Ecology Section Report
- Ecological Inspirations: soils, herbivores, and chronosequences
- Tibet's gold rush may be coming to an end
- PlantVillage: developing plant disease app

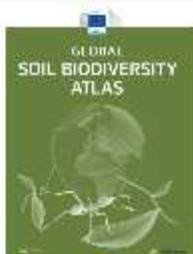
[more news...](#)

## MEETINGS OF INTEREST

- 2016 International Congress of Entomology
- BioCrust2
- COST Action "KEYSDOM" The role of Soil Fauna on Soil Organic Matter Dynamics
- International Long Term Ecological Research Open Science Meeting
- IUFRO Regional Congress for Asia & Oceania

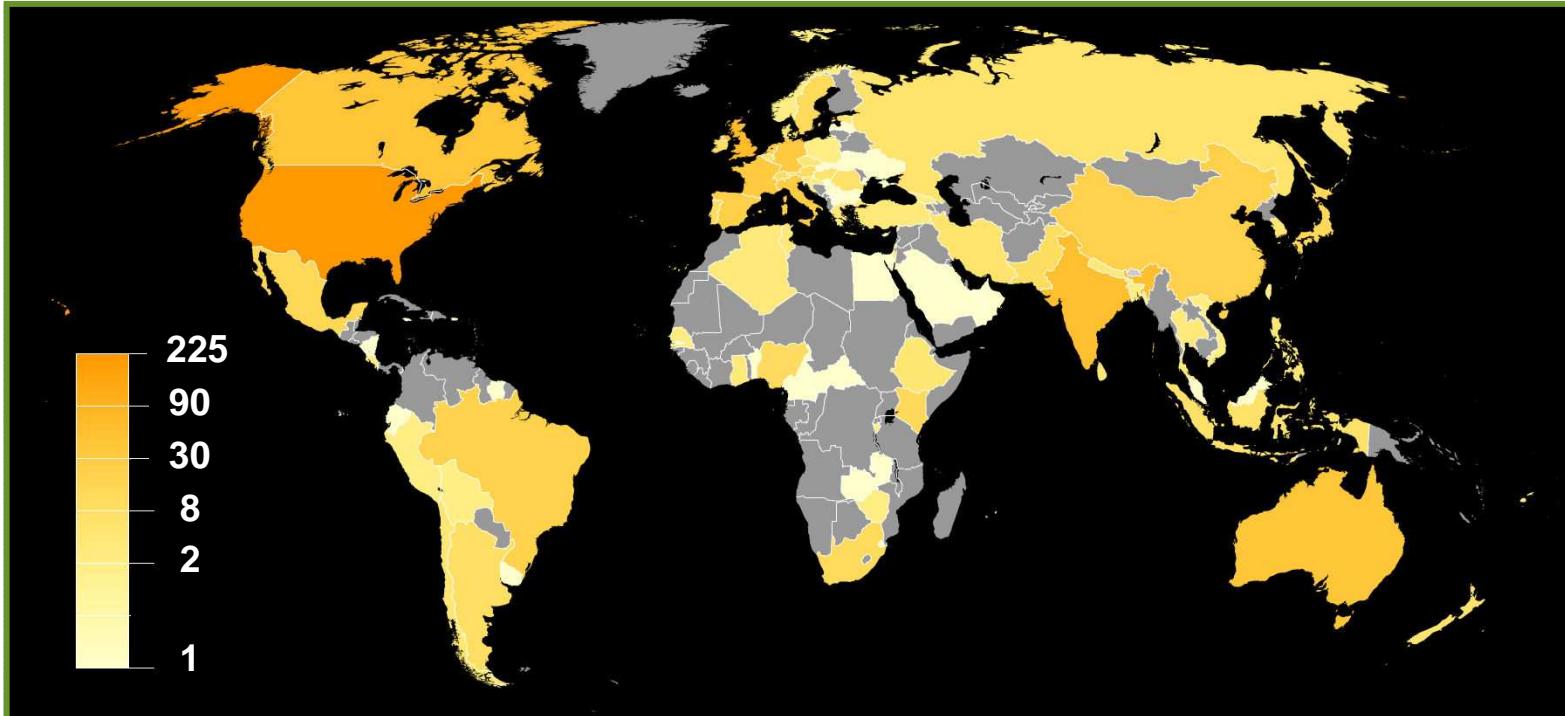
[more](#)

## Help translate the Global Soil Biodiversity Atlas!



We are seeking translators for the Global Soil Biodiversity Atlas. We are first focusing on Spanish. We encourage using this task as a teaching tool and encourage instructors of soil ecology courses this fall to contact us to learn how you and your students can help! We will make sure all parts of the Atlas are covered to complete the translation.

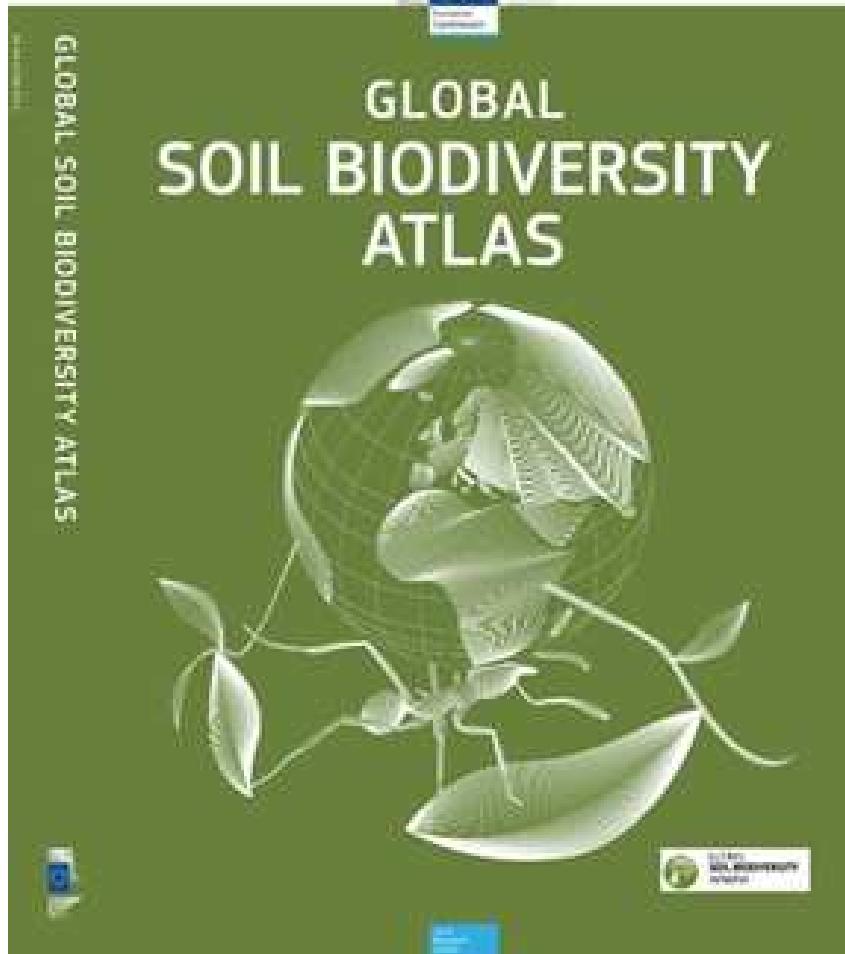
# Participation



Africa 63 - Asia 146 - Australia/Oceania 47 - Europe 318 - North America 286 - South

- Provide a reservoir of **>900** specialists globally and regionally
- Contribute to scientific updates and policy actions
- Address all aspects of soil biodiversity and ecosystem services

# Some activities of the Global Soil Biodiversity Initiative



- Database synthesis
- Harmonization of methods
- Soil biodiversity education
- Early career scientists
- Urban soil biodiversity



Todays'  
celebration!

Untitled layer

- 📍 Washington, D.C.
- 📍 Moab, UT
- 📍 Flagstaff, AZ
- 📍 Phoenix, AZ
- 📍 Goiania, Brazil
- 📍 Rolim de Maoura, Brazil
- 📍 Edinburgh, Scotland
- 📍 Nairobi, Kenya
- 📍 Bengaluru, India
- 📍 Nara, Japan
- 📍 Fort Lauderdale, FL
- 📍 Manchester, UK
- 📍 Bolivia
- 📍
- 📍 Freemantle, Western Australia
- 📍 Paris, France
- 📍 Canberra, Australia

Global Soil Biodiversity Atlas  
launch sites



# Global Soil Biodiversity Atlas Launch Sites

# THE FIRST GLOBAL SOIL BIODIVERSITY CONFERENCE

Assessing soil biodiversity and its role for ecosystem services



GLOBAL  
SOIL BIODIVERSITY  
INITIATIVE

Palais des Congrès, Dijon, France

2-5 DECEMBER 2014

Home

Conference Information

Programme

Location

Commercial Opportunities

Deadlines

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Opportunities >](#)

International



GLOBAL  
SOIL BIODIVERSITY  
INITIATIVE



United Nations Convention  
to Combat Desertification



Convention on  
Biological Diversity



With the Patronage of

**View the programme here – Thank you for your interest in the First Global Soil Biodiversity Conference. We have reached maximum capacity and online registration is now closed. »**

## First Global Soil Biodiversity Conference

- Assessing soil biodiversity and its role for ecosystem services

2-5 December 2014 | Palais des Congrès, Dijon, France

Please note this conference is now sold out. To add your name onto our waiting list please email us at [gsbi1@dijon.inra.fr](mailto:gsbi1@dijon.inra.fr)

The Global Soil Biodiversity Initiative (GSBI) and EcoFINDERS are pleased to announce the First GSBI Conference - Assessing Soil Biodiversity and its Role for Ecosystem Services, to be held in Dijon, France, December 2-5th, 2014. This will be a dynamic international meeting summarizing the current state of knowledge and recent advancements in the science of soil biodiversity.

The conference will provide a venue to meet and discuss current research efforts in soil biodiversity and its links to earth processes, and to promote interdisciplinary collaboration. The goal of this meeting is promote scientific research on the role of soil biodiversity for ecosystem functions and ecosystem services, and to integrate such understanding into international environmental agendas, sustainable policy and land management decisions.

Send in your

**VIDEOS**

Contribute a video on soil organisms  
<http://www.globalsoilbiodiversity.org/submitvideo>

Call for  
Young Scientists:

<http://www.globalsoilbiodiversity.org/tp-call-for-young-scientists>



# What's next?



GLOBAL  
SOIL BIODIVERSITY  
INITIATIVE

## 2<sup>nd</sup> Global SOIL BIODIVERSITY CONFERENCE



HOME    ABOUT    REGISTRATION    SUBMISSION    PROGRAMME    CONTACT

Committees

General Information ►

15-20 October 2017

Invitation Letter

Venue

Accommodation

Social Program

Sponsors

Awards

Joining the Mailing List

Location

2<sup>nd</sup> Global Soil Biodiversity Conference

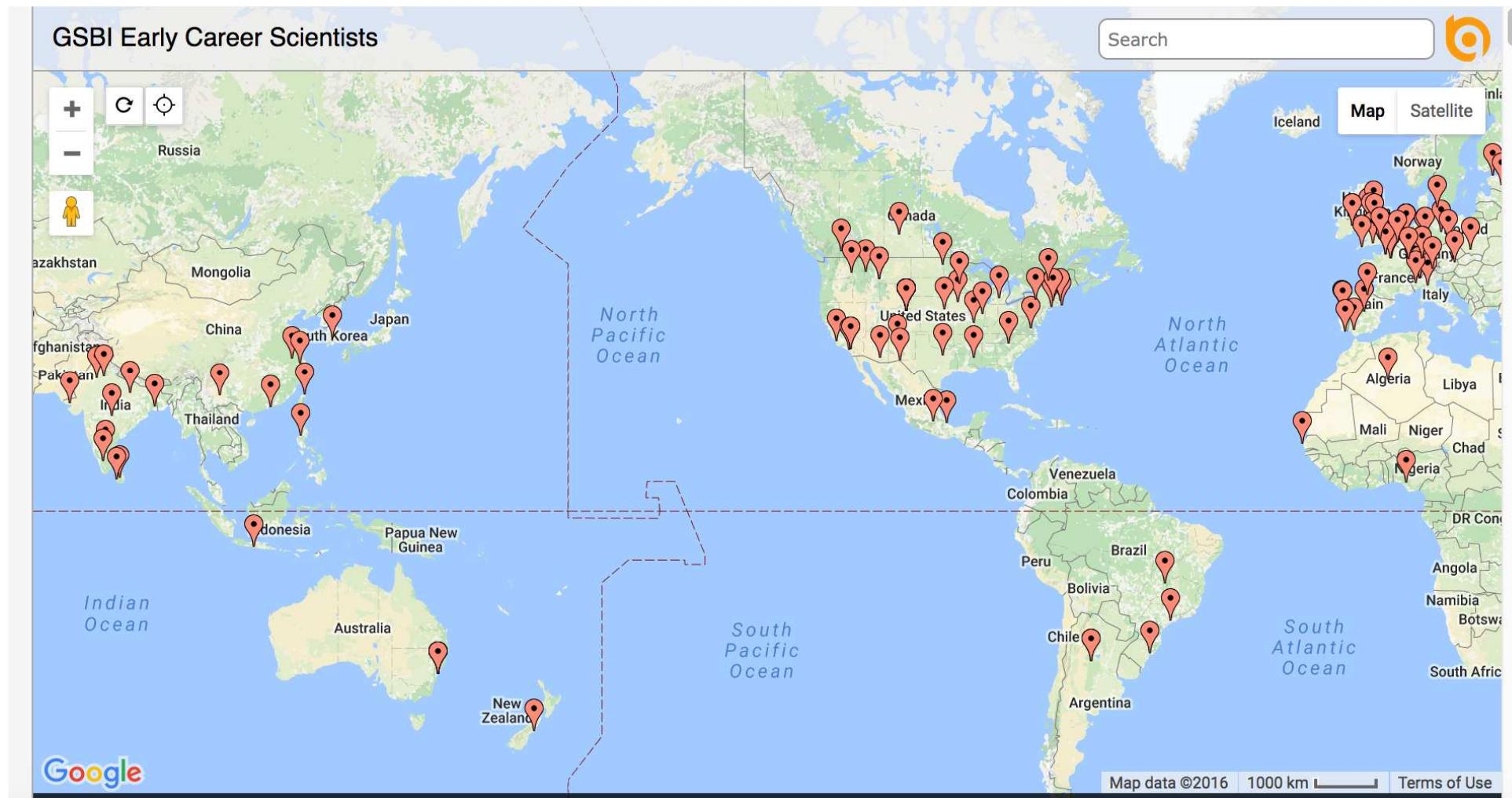
### Welcome

The China Soil Microbiome Initiative (CSMI) and Global Soil Biodiversity Initiative (GSBI) are pleased to announce the second Global Soil Biodiversity Conference (GSBC2) will be held from 15-20 October 2017 in Nanjing, China.

### Deadline

- December 19, 2016  
Proposal for organized oral session
- February 28, 2017  
Abstract submission
- May 18, 2017  
Proposal for roundtable and workshop
- June 18, 2017  
Early bird registration

# Support the next generations!



# Toward a global platform for linking soil biodiversity data

*Kelly S. Ramirez<sup>1,2\*</sup>, Markus Döring<sup>3</sup>, Nico Eisenhauer<sup>2,4</sup>, Ciro Gardi<sup>5</sup>, Josh Ladau<sup>6</sup>, Jonathan W. Leff<sup>7</sup>, Guillaume Lentendu<sup>8</sup>, Zoë Lindo<sup>9</sup>, Matthias C. Rillig<sup>10, 11</sup>, David Russell<sup>12</sup>, Stefan Scheu<sup>13</sup>, Mark G. St. John<sup>14</sup>, Franciska T. de Vries<sup>15</sup>, Tesfaye Wubet<sup>2, 8</sup>, Wim H. van der Putten<sup>1, 16</sup> and Diana H. Wall<sup>17</sup>*

# EU action on soils

- Soil Framework Directive withdrawn in May 2014
- Commission intend to produce further proposals, likely to be legislative
- Similar objectives, different methodologies? E.g. land recycling target



<https://www.people4soil.eu/>



ABOUT TEAM PARTNERS PROMOTE

EN

SIGN

## SAVE THE SOIL



GREENPEACE



### VIDEO



6.98k  
Shares



6.95k



European citizens have the right to recommend EU legislation via the European Citizens' Initiative (ECI). A European citizens' initiative is an invitation to the European Commission to propose legislation, and it has to be backed by at least one million EU citizens, coming from at least 7 out of the 28 member states. We have 12 months to collect 1 million signatures in all Europe. The last day of the signature gathering will be 12 September 2017.

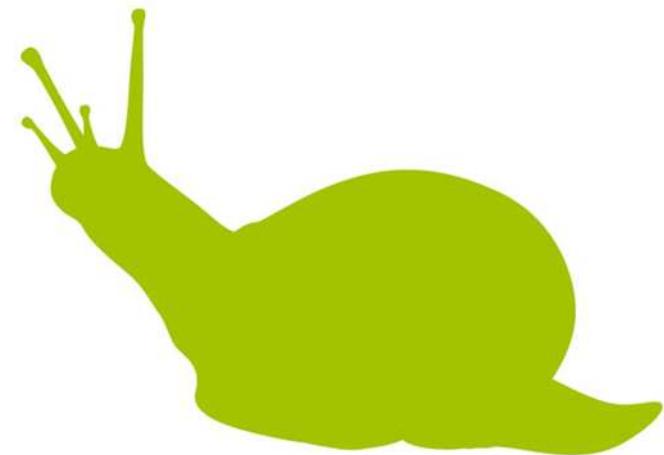
# European Academies of Science Advisory Council Work group

- Climate control and consequences of climate change
- Health of humans, animals, and plants
- Food quality and security
- Habitat, landscape, cultural, and biodiversity security

Specialists from 18 European countries  
Report on threats and opportunities of soils  
Due Fall 2017

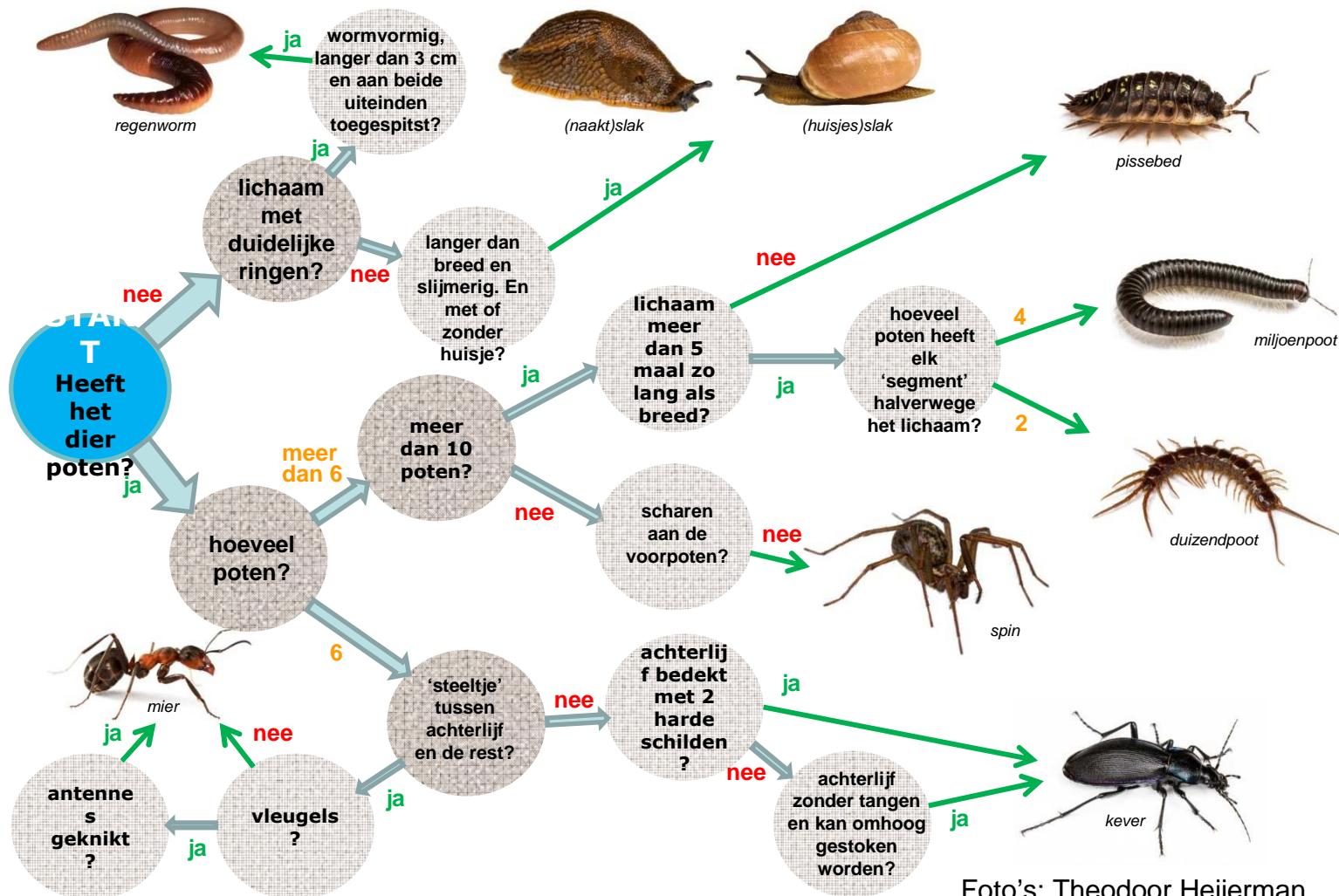


# Education and outreach



Soil animal counting day

# Soil animal day in The Netherlands



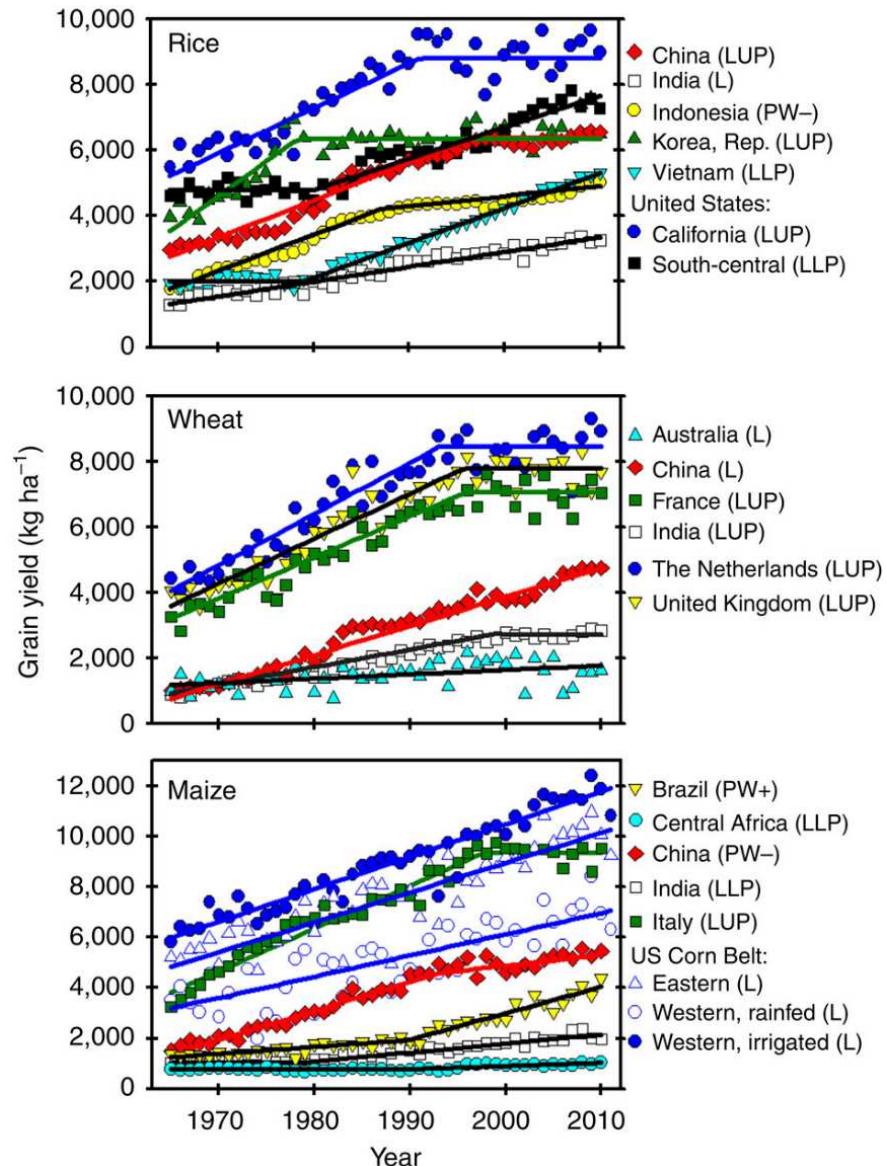
## Search map



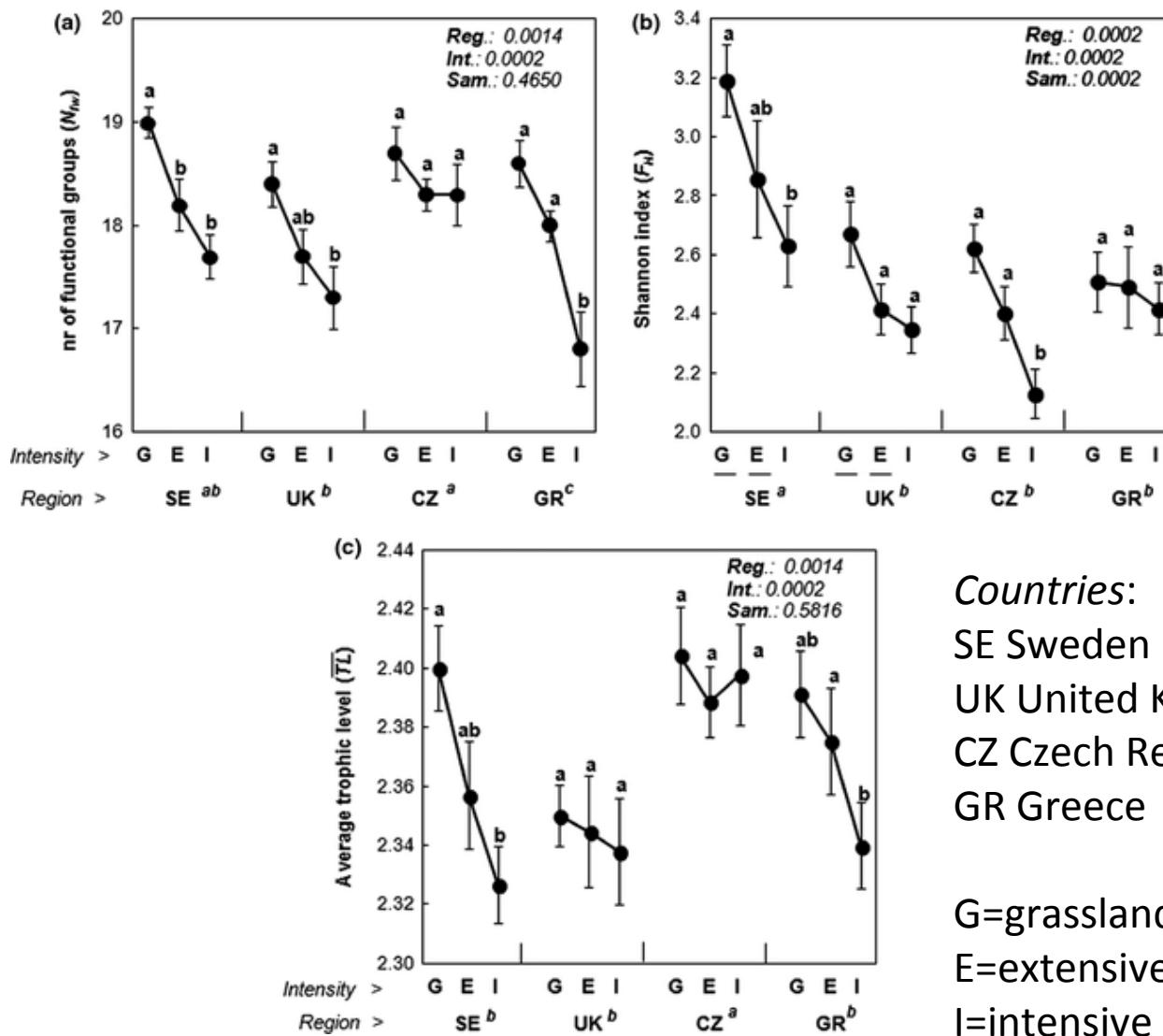
# Soil animals at 8 o'clock news!



NEDERLANDS INSTITUUT VOOR ECOLOGIE  
NETHERLANDS INSTITUTE OF ECOLOGY



Trends in grain yield of the three major cereal crops for selected regions since the start of the green revolution in the 1960s



*Countries:*  
 SE Sweden  
 UK United Kingdom  
 CZ Czech Republic  
 GR Greece

G=grassland  
 E=extensive agriculture  
 I=intensive agriculture

## Loss of soil biodiversity in Europe owing to intensification of agriculture

# Feed the World = Feed the Soil



Bardgett and van der Putten Nature 2014

# Participate Today!

*Have you signed up to participate in GSBI? JOIN US!*



*Join us & learn more*

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