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How to give visibility to soil: attractive and innovative educational initiatives of the Spanish Society of Soil Science (SECS)

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Knowledge transfer to society: soil education and evidence syntheses in agro-environmental science

How to give visibility to soil: attractive and innovative educational initiatives of Spanish Society of Soil Science (SECS, www.secs.com.es)

https://meetingorganizer.copernicus.org/EGU2020/EGU2020-22011.html

The SECS was founded in 1947 with the main of promoting the study and knowledge of Soil Science and the collaboration and interaction among all members to carry out activities that raise awareness all sectors of society on the importance of the soil and the need for its protection. Thus, different research activities, educational programs and cooperation agreements with different Educational Centers and with the Administration, Universities, Museums, National and International Parks and Institutions related to Nature, Ecology, Soil Conservation and Land Management were performed. This gives visibility to soil among students at different educational levels and people from different society sectors. Diverse and innovative teaching and technical resources to stimulate, in an attractive way, the knowledge of this non-renewable natural resource on a human scale, are elaborated. Events organization: congresses, workshops, conferences, courses, exhibitions, video making, soil competitions (photography, classification, PhD work) educational and social activities, laboratory experiments, field trips, visits to Institutions related to soil. The active participation in SECS events and FAO and IUSS activities is promoted.



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INITIATIVE: PRESENCE OF A PERMANENT SOIL ROOM IN THE MUSEUMS (MHN)

Permanent soil room Coordinator: E. García-Rodeja http://www2.usc.es/museohn



Natural History Museum (MHN, Santiago de Compostela USC, Spain)

PERMANENT SOIL ROOM

The soil is a living system that can be included in the Museums Natural History Museum (USC): 35.000 visitors per year

AN ARTIFICIAL REPRODUCTION OF SOIL

It is made with polystyrene coated with mortar to which the natural soil components have been adhered

It is a very attractive and illustrative didactic element, which can be included in different institutions related to soil. A simple look at it, clearly makes visitors representing different sectors of the society, aware of the soil



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RECENT EXAMPLES OF INNOVATIVE AND ATTRACTIVE RESOURCES: The comic "Living in the soil"

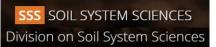
TEMPORAL EXHIBITION *"SOIL-ART: PAINTING WITH SOILS" Pictures of José Caballo* <u>Aim</u>: to know the soil throughout the painting (combination of science and art)

Paints were made directly with soil samples of different soil profiles collected to elaborate the Map of the Temperate Humid Zone of Spain (1975)

- <u>36 paintings of different themes</u> (landscapes, villages, pieces of cultural heritage)
- The corner of the painter", material (soil samples) and elaboration process
- <u>Two videos</u> "Soils and Colors" and "Components and Color of the Soil"
- <u>A serie of showcases</u> showing the most relevant aspects of the diversity and origin of the soil color (minerals, horizons, profiles..)

Natural History Museum (Santiago University, Spain), March-August 2015: 15.000 visitors

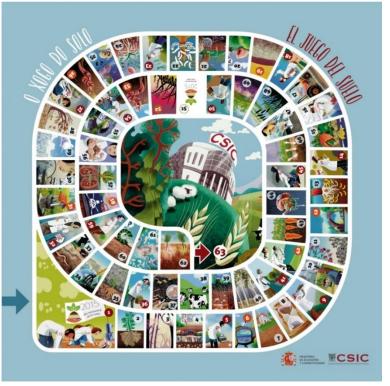






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"THE SOIL GAME", learning and playing with soil



"NATURE IN FAMILY", discovering the soil









A didactic resource aimed at the students and general public (children, teenagers and adults) which, following a similar dynamic to the "Goose Game", seeks to transmit basic notions of the soil importance and the need for protecting it



Visit to soil profile, collect samples, reproduction of the soil profile at event place, activities related with different soil properties and play with soil (soil game, filtration, erosion, texture, painting with soil,...)



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After the fire " winner of "FUEGORED Educational Award 2018"



Project "After the fire", <u>FAO/GSP's Soil Painting</u> <u>Competition 2017"</u>, IES Pontepedriña, Spain









OTHER SECS ACTIVITIES

-SECS annual award to best PhD -Photo, video, and soil field competitions (international and Nationals) -Theoretical and practical talks in different institutions -Temporal soil exhibitions -Field trips, visits to Soil Room Museum -Participation in FAO and IUSS activities -Annual Calendar, SJSS, NEWS-SECS -Courses related with diverse soil aspects - Call to select best soil experimental work in secondary school to participate in the Innovative Teaching Symposium of the Latin-American Congress of Soil Science



Knowledge transfer to society: soil education and evidence syntheses in agro-environmental science

HOW TO GIVE VISIBILITY TO SOIL?

-Soil researchers should be aware about the importance of dissemination actions to transfer soil importance to the society and the need to protect it (without soil it is not possible the life in the planet)

-The elaboration of diverse, innovative and attractive didactic resources specific for each sector of the society, allows us to organize, in collaboration with different specialists and Institutions, diverse divulgation actions using these tools to transfer successfully the soil knowledge to the participants of these events

-Museums, Natural Parks, Educational Centres, and other Institutions related with Nature and Land Management, are excellent platforms to transfer the soil knowledge to diverse sectors of society (thousands of persons from different countries)

Thanks



SECS SOCIEDAD ESPAÑOLA DE LA CIENCIA DEL SUELO

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