

E D U N A B I O



UNIVERSIDAD NACIONAL DE LA PLATA

Universität
Rostock



Corpoica



UNIVERSIDAD NACIONAL AGRARIA
"Por un Desarrollo Agrario Integral y Sostenible"



Proceedings

International Workshop

La Plata, Argentina

March 6 to 10 2017

**Organizer: Universidad Nacional de La Plata
Faculty of Agrarian and Forestry Sciences.**

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Schedule

05.03. Arrival of participants

06.03. Workshop: Presentation of research lines related with agrobiodiversity in the Faculty of Agrarian and Forestry Sciences (UNLP).

07.03 Workshop: Presentations related to the main outcomes of the Edunabio project

08.03 Excursion to Benito Juárez (Buenos Aires Province) ("La Aurora" farm)

09.03 Excursion to Peri-urban Region of La Plata. (Agostinelli farm and "La nueva esperanza" farm).

10.03. Workshop: discussion about the agrobiodiversity role in agroecosystems with particular emphasis in the visited farms.

11.03. Leaving of the participants

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Participants of the Edunabio activities in Argentina 2017

Family name	First name	Institution
Vasquez Carreño	Diana	Corpoica (Colombia)
Jiménez Sabogal	Hugo	Corpoica (Colombia)
Cruz	Iván	UDCA (Colombia)
Flores	Claudia	University La Plata (Argentina)
Jíos	Jorge	University La Plata (Argentina)
Sarandón	Santiago	University La Plata (Argentina)
Baldini	Carolina	University La Plata (Argentina)
Blandi	María Luz	University La Plata (Argentina)
Bonicatto	María Margarita	University La Plata (Argentina)
Gargoloff	Natalia Agustina	University La Plata (Argentina)
May	María Paula	University La Plata (Argentina)
Paleologos	María Fernanda	University La Plata (Argentina)
Stupino	Susana	University La Plata (Argentina)
Cruz	Jael	UNA Managua (Nicaragua)
Mejía	Francisca	UNA Managua (Nicaragua)
Antúnez Sánchez	Guillermo	University Granma (Cuba)
López Sánchez	Raúl	University Granma (Cuba)
Ramírez Arzuaga	Jorge Luis	University Granma (Cuba)
Bermúdez Carabaloso	Idalmis	University de Las Villas (Cuba)
Lazo Pérez	Leonel	University de Las Villas (Cuba)
De la Fe Rodríguez	Pedro	University de Las Villas (Cuba)
Espinosa	Ray	University de Las Villas (Cuba)
Barranco Olivera	Luis Antonio	University de Las Villas (Cuba)
Eichler	Bettina	University Rostock
Flint	Alfred	University de Rostock

Workshops and field trips

Monday, 06.03.

Welcome and opening words of the Workshop by the Dean of the Faculty Agriculture and Forestry Sciences, Sandra Sharry, and by Prof. Claudia Flores. The Dean explained how important agrobiodiversity is as part of the strategic plan of the Faculty.

In the Workshop of research lines about biodiversity in the Faculty of Agrarian and Forestry Sciences the following activities were developed:

Ing. Agr. Santiago Sarandón (Universidad Nacional de La Plata, Argentina) spoke about the agrobiodiversity role in agroecosystems and he presented the research project of the Agroecology course.

Lic. Carolina Baldini (Universidad Nacional de La Plata, Argentina) presented her research project “Territory in motion: the territorial transformations of the CHP in the last 30 years. A look at the effects of territorial dynamics on regional biodiversity”.

Dra. Fernanda Paleologos (Universidad Nacional de La Plata, Argentina) explained the role of carabids (Coleoptera: Carabidae) as components of agrobiodiversity and its importance for the sustainability of agroecosystems.

Ing. Agr. Agustina Gargoloff (Universidad Nacional de La Plata, Argentina) presented her research project about the management and knowledge of agrobiodiversity on family farms in La Plata and its relation with a sustainable management of agroecosystems.

Lic. María Margarita Bonicatto (Universidad Nacional de La Plata, Argentina) talked about the nexus between sustainability and agrobiodiversity with special emphasis on the analysis of seed conservation and associated knowledge in familiar agroecosystems of La Plata Horticultural Region.

Dra. María Luz Blandi (Universidad Nacional de La Plata, Argentina) spoke about practices, knowledge and perceptions that obstruct agrobiodiversity conservation in La Plata horticultural Region.

Lic. Susana Stupino (Universidad Nacional de La Plata, Argentina) presented her project “Spontaneous plant diversity in horticultural agroecosystems of La Plata and its relation with different styles of agriculture: importance for sustainability”.

Ing. Agr. Paula May (Universidad Nacional de La Plata, Argentina) presented her project of her doctoral thesis “¿Do local seeds contribute to more sustainable agriculture? Study of horticultural varieties, logical and practical of family farmers in La Plata Region”.

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Tuesday 07.03

Workshop of the Edunabio project

Dra. Bettina Eichler-Löbermann (Universidad de Rostok, Alemania) presented the work of the project Edunabio with special focus on the last year's achievements. She also emphasized on the milestones of the project and explained the deadlines and responsible persons for each objective. Special attention was drawn to the possibilities of continuing the work of the Edunabio-team once the project ends.

Francisca Mejía y Jael Cruz (Universidad Nacional Agraria, Nicaragua) presented a summary of results and projection of the EDUNABIO-UNA project. Later Francisca Mejía (Managua), master student of Carolina Vega, presented her work related to fungi as native antagonists to avoid the extensive use of insecticides in crop production. This research is of special interest as part of the training and education work package within the Edunabio project.

Dra. Idalmis Bermúdez Carabaloso (Universidad Central "Marta Abreu" de Las Villas, Cuba), coordinator of master Project of plant biotechnology, presented the incorporation of different aspects of agrobiodiversity into this program.

Dr. Pedro Yoelvys De La Fe Rodríguez, Dr. Leonel Lazo and Dr. Ray Espinosa (Universidad Central "Marta Abreu" de Las Villas, Cuba) presented a methodological work for deepening on Agrobiodiversity in the programs of the Masters in Sustainable Agriculture and Advanced Animal Health at UCLV within the framework of the EDUNABIO project. Additionally, Ray presented the web page of EDUNABIO plan to be linked at UCLV, he received recommendations for improving it. Also, the vice-rector of UCLV Dr. Luis A. Barranco Olivera introduced the UCLV, showed the institutional video and invited all members to the International Convention UCLV-2017.

Dr. Raúl López Sánchez (Universidad de Granma, Cuba) explained the action carried out under the EDUNABIO program with a particular emphasis on the teaching of Agrobiodiversity in the master's programs of the University of Granma.

Dr. Alfred Flint (Universidad de Rostok, Alemania) presented the main outcomes of the work package "Evaluation". He showed an example of the evaluation of courses. This work was supported by the project "Kosmos" of the University of Rostock. He presented in detail the concept and items of the evaluation sheet which should be filled in by the students involved in the training courses modified during the project. Questions are related to time, skills, quality, literature etc. He also explained the importance of going forward on this step as a key result of the project EDUNABIO

Dr Jorge Jíos (Univesidad Nacional de La Plata, Argentina) spoke about the activities carried out in the framework of the EDUNABIO project. He highlighted the relevance of chemical subjects in master courses on agrobiodiversity. After that, Jorge Jíos students presented their research:

Lic. en Química María Gabriela Echeverría explain about the metals determined by ICP in samples of Cuban plant species: outlook and perspectives

Srta. María Ximena Ferro presented her final career work of the bachelor in chemistry and environmental technology: biogas and bio fertilizers by anaerobia biomass digestion.

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Dr. Hugo Rodolfo Jiménez Sabogal and Er. MSc. Diana Rocío Vásquez Carreño from Corporación Colombiana de Investigación Agropecuaria (CORPOICA), Colombia informed about Corpoica's contribution to EDUNABIO.

Ivan Cruz from Universidad de Ciencias Aplicadas y Ambientales (UDCA), Colombia presented the results of the research project "Vulnerability of coffee plantation in agroforestry due to climate change".

Wednesday 08.03

Field trip to Benito Juárez city (SE of Buenos Aires Province) to visit "La Aurora" farm. This farm was declared by FAO as one of them 50 successful case of the Agroecological approach application in the world.

The following issues were carried out during the field trip:

I) Ing. Agr. Eduardo Cerdá (La Aurora technical advisor) explained about the particularities of this farm and the agroecological transition process. He pointed out the ecological, social and economic benefits of the agroecological production and explained the agroecological practices they have applied and clearly showed its benefits compared with non-agroecological farms.

II) Discussion between the farmer (Mr. Juan Kiehr), the technical advisor (Ing. Agr. Eduardo Cerdá) and the attending public.

III). Guided tour by Juan Kiehr and Eduardo Cerdá through the whole farm (aprox. 650 ha big). They demonstrated in the field several agroecological practices like the crop rotation, the combined planting of wheat and clover and the use of the latter for bovines feeding after wheat is harvested, the inspection of the soil macrofauna, the inclusion of bovines in the system and its benefits. The agroecological practices are applied even in animal productions, e.g. bovines are not dewormed with Ivermectin as its faecal excretion is harmful for the dung beetles, key insects for the dung recycling and soil natural fertilization.

In these activities (I, II and III) participated numerous students, technicians and farmers.

Thursday, 09.03.

Excursion to Peri-urban Region of La Plata. (Agostinelli farm and "La nueva esperanza" farm) known as La Plata horticultural "belt" (the most important horticultural sector of Buenos Aires province).

Before the excursion started Ing. Agr. (Msc) Claudia Flores, informed the participants about the reality of the La Plata Horticultural Region highlighting their historical shape and the different types of farmers and production styles that exist in the Region.

For the excursion two different farms as examples of different styles of production (conventional and organic respectively) and the use of agrobiodiversity and agrochemical application were chosen. First the "Agostinelli" farm, an intensive production farm for tomatoes under greenhouses and a modern irrigation system for water, fertilizers and pesticides, this production ends on a processing plant was visited. Afterwards an

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agroecological farm, “La nueva esperanza”, with a high variety of crops and fruits and the owner explained all agroecological practices they have applied in order to avoid the use of pesticides was visited.

The participants gave special thanks to Msc Claudia Flores for the organization of the workshop.

Friday, 09.03.

On the last workshop day the role of biodiversity in the agroecosystems, with special emphasis on the ones visited during the week was discussed.