

# I Escuela de Invierno y V Taller de Ecología Microbiana I Winter School and V Workshop in Microbial Ecology



December 15 to 17, 2020

University of Havana, La Habana, Cuba

## Report

The **I Winter School and V Workshop in Microbial Ecology** was held in the Students House of Havana University, in La Habana between 15 and 17 of December of 2020. This is the first Summer School in Microbial Ecology organized in the country. We were celebrating four Workshops in Microbial Ecology since 2015 organized by the Research Group in Microbial Ecology from School of Biology, Havana University. In this edition, the workshop was as part of the Winter School because the expositors (posters) were the students of the school, showing their results in different topics in microbial ecology.

The call of the workshop was posted in the website of the School of Biology and divulged by the Cuban Society for Microbiology and Parasitology, Biochemistry and Molecular Biology Session from Chemistry Cuban Society, University Network of Biotechnology and Biomedicine and Agromicrobios-Cuba Network (Annex: Call).

The main objectives were to reinforce and expand the interactions among experts and young microbial ecologists at the country level, ii) to contribute to the human resources formation in the research in microbial ecology and iii) to promote a fruitful collaboration in research and training of human resources in microbial ecology in Cuba. Also, the activity permitted extends the network of Cuban researches working in different fields in Microbial Ecology.

In the School, 22 prestigious professors and researchers from 13 institutions belonged to four provinces in the country were participated. They offer 22 conferences and one round panel. Due to the COVID-19 situation, two conferences were on-line, one of them from Spain (University of Vigo). Forty two students were participated in the school, belonged to 16 institutions from five provinces of the country. Also, three high advantage students from Scientific Students Group for Microbial Ecology were there. In general, 64 people from 25 institutions (universities, research center, university hospital, and other) from seven provinces were jointed. In the workshop 34 research works were presented by the students related with their results. They were discussed by each student in electronic poster form in the presence of the professors of the school. The experience was qualified as fruitful, rewarding, useful, necessary, interesting and with excellent organization and academic level by the students. They suggest expand of this kind of events systematically, specially focused on the training of human resources with discussion of their own research results. Overall we

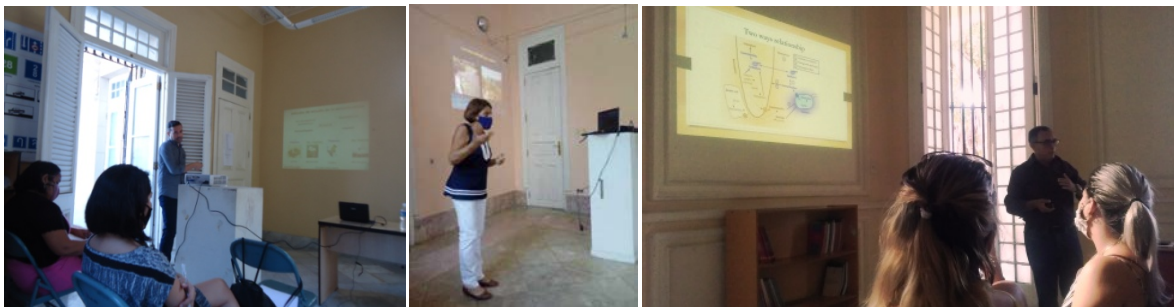
consider that this was an extremely effective use of ISME funds to promote wide range of topics in microbial ecology at country level.

The School and workshop was divided in three sessions: Microbial Ecology in Soil environments, Ecology of Aquatic Ecosystems and Aeromicrobiology, considering the main filed of work in Microbial ecology in Cuba (Annex: Programs of each session). The main workshop thematic are concerning to plant-microbe interaction, ecology of plant pathogens, biotechnology, soil microbiology, inside and outside air mycology, material biodeterioration, aquatic microbiology (freshwater and marine ecosystems), antibiotics resistance and bioremediation. A prize by session was selected among the students works presentation.

The ISME funding was used to support the logistic of the school, specifically materials, meals for participants and their transportation. Also, we offer fellowships for four students from different provinces of the country. They and one invited professor were benefits with the accommodation, both from provinces outside the Havana city. A social lunch was prepared to promote the opportunity for the exchange among the participants, including students and professors. Several researchers and students use the occasion to discuss about the joint project collaboration for the future.

The ISME logo was used in the call of the workshop, the certificate of attendance, the opening of the workshop and the ISME work was divulged during the event. You can find enclosed to this abstract of the results of the school-workshop different used material such as: call, scientific program, certificate of attendance, printed cup delivered as poster prize, as well as several pictures.

### Professors conferences



### Students electronic Poster presentation



Discussion in Poster session



Closing ceremony



Award delivery at the closing ceremony

General group picture

