

2021-2022 ANNUAL REPORT



Uruguay

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- Organization and Number of Staff: 1
- Funding by: Ministerio de Ambiente and grants of the United States Embassy
- Cooperating Organizations/Individuals: United States Embassy
- GLOBE Schools: 174
- GLOBE Protocol Areas: Atmosphere, Hydrosphere, Biosphere, Pedosphere
- Number of Schools Reporting Data over Past Year: 8
- Data uploaded this last year: 801

Program Implementation, International Cooperation in GLOBE Network, and Activities over Past Year (categorized by GLOBE Strategic Plan 2018-2023 Goals):

EDUCATION

Workshops given:

- 10th March- 13th April: Pedosphere on-line Course in the Educantel platform from Uruguay. It was an international course with attendants from Argentina, Peru and Uruguay.

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51 teachers were certified and the Uruguayan teachers could attend the in-person practical workshop that I organized at School 88 “Alfred Nobel” as the host. I invited Henry Ortiz (International Master Trainer in Soils) to give the workshop with the funds obtained from the grant of the Embassy (hotel and expenses). 24 teachers attended the whole day workshop on the 5th April where they practiced in the fields the soil protocols: soil temperature, soil moisture, soil characterization, sampling with auger, exposing of soil profiles, soil pH, soil N-P-K, soil infiltration and bulk density (experiments in class). I would like to highlight that the students of 6th grade of Dario Greni, the teacher and Headmaster of the School, accompanied the activity as they had been trained for this by the teacher.

- 11th July – 12th September: Second edition of the Citizen Science and Monitoring of Butterflies online course. It involved Atmosphere protocols and Land cover classification protocol, apart from some initiation to butterflies and its ecology, as well as tools to observe and identify them and register the information. Teachers from Argentina, Guatemala, Mexico, Peru, Paraguay and Uruguay attended with a total of 24 certified teachers. They finished the course and immediately were invited to participate in the Spring campaign to observe butterflies and register the environmental measures.

- ❖ Participation in the GLOBE LAC Academic Committee from August to October 2022. In this frame we were mandated to elaborate 12 learning activities for the region and 4 more related to digital literacy. I contributed with the Atmosphere activities and one related to Pedosphere and one to Hydrosphere. Also included in this task, a series of webinar for the region is included.

- ❖ **Visits to schools** to give mini workshops on different topics related to GLOBE Protocols and activities:

On 17th June we were invited to Colegio Ciudad Vieja, a private school that participates in the program since 2019. There, two teachers, Natalia Peraza and Silvana López are developing GLOBE at Secondary school with students of 1st., 2nd. and 3rd. grades. There we gave a talk about Clouds and organized an activity to identify different kind of clouds. After that, they took me to visit a special garden they created in a public space behind the school, where they located the atmospheric shelter and planted a lot of native species to work on the butterflies and atmospheric variables campaign. About 50 students participated in this activity. (See photo in annex)

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On 21st June I was invited to School No. 88 Alfred Nobel, because of the in person presentation of Gabriela Bentancur-Viglione, the advisor entomologist that supports the project Butterflies and the environmental variables. She gave a presentation for the new groups involved in the butterflies research and also the students gave her a walk through the garden at school to identify probable species for butterflies to feed of and host. (See photo in annex)

Another visit was the **6th September** to Rural School No. 13 in Rincón Sauce del Yí, Florida, where the host teacher organized an annual meeting of 10 multigrade schools with single teachers in Sauce del Yí, in the department of Florida. They were all rural schools and I made two presentations: one for the children from preschoolers to 3rd grade and the other for children from 4th to 6th grade.

A total of 10 teachers and 60 students participated in the activity. Three of the teachers are already been certified in GLOBE in different courses and spheres. (See photos in Annex 1)

- ❖ The 12th September I was invited by Denise Yost to take part of the selection committee for the position of Education lead in GIO. It was a process that involved reading some specific documents, the candidates' curriculums, participating in virtual meetings with the committee and interviews with the candidates. It provided me the experience of being part of an international selection process I had never been before and know in detail the inclusion politics and sharing with my colleagues in the committee. My presence in this committee represented the international representation, and specially of the LAC Region.

SCIENCE

- Support three schools that prepared their research projects to send to the IVSS 2022, finally only two of them participated with three projects.
- Participation as judge of the IVSS 2022, for the fourth term evaluating 6 projects from United States, LAC and Asia regions.
- After the Pedosphere Workshop given in March with Henry Ortiz, various teachers organized field trips to study soil in their schools or parks with the proper characteristics to take the students. For this purpose, they borrowed from the Coordination a lot of instruments and materials they need for the activities:
-soil thermometers

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-pH meters and pH paper

-N-P-K kits

-Soil color books

-buffer substances

-liquid thermometers for air temperature

-12 cm nails to measure soil temperature, etc.

I am encouraging them to present their researches to the Virtual Science Symposium in January 2023.

- Attendance of the LAC virtual Regional Meeting on 11th and 12th May. Two teams from Uruguay exposed their researches at this meeting: Darío Greni from School no. 88 (Canelones) and Alejandra Morfín from School no. 2 (Salto) with their students. The invitation to attend was also spread to some specific teachers who were active at the moment of the meeting.
- Attendance at the GLOBE Virtual Annual Meeting 2022 from 25th to 28th July.
- New nomination in July to the Mentor Trainer process, as the process initiated last year by e-mail was not taken into account and this year it was decided the candidate should nominate through the website form, filling all the requirements needed to postulate. I got my certification in August.
- Nowadays, attendants of the Citizen Science and Monitoring of Butterflies Course, are monitoring butterflies in their countries for the Spring campaign from 1st September to 30th November. Teachers are from Argentina, Guatemala, Mexico, Paraguay, Peru and Uruguay observing these measurements and it is foreseen a virtual meeting at the end of the year to share experiences and data.

COMMUNITY

- With the six schools participating in the Butterflies and environmental variables Campaign after the Citizen science and monitoring of butterflies course in 2021 (1st edition), we organized a **drawings and photographs competition** for two categories: School and Secondary Education. They could participate with three drawings and three photographs each as a maximum and we had wonderful works that were awarded with cameras, one atmospheric shelter and some instruments for them and the schools. The observation took place at their homes (gardens, balconies) or parks near their homes, or the school. 60 photographs and 39 drawings were presented and evaluated by a jury formed by a painter (Lic. Laura Vila), a Communications specialist (Lic. Claudia Mongiardino) and the entomologist advisor of the project (Dr. Gabriela Bentancur-Viglione). (See photos of the winning photos and drawings in annex)

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TECHNOLOGY

- Some new instruments and materials were purchased with the grant obtained last year from the United States Embassy. We stood this grant in June 2021, and obtained the funds in October to start purchasing and some other funds were destined to other purposes related to GLOBE in the country. We purchased pH meters, conductivity meters, anemometers, surface temperature thermometers and dissolved oxygen, nitrates and N-P-K kits, as well as calibration buffers.

COMMUNICATIONS

- A star for Uruguay was written about the Pedosphere Workshop with the participation of Henry Ortiz, but has not been published yet as it is waiting to be translated and adapted by the GLOBE Communications team.

Plans and Ideas for Next Year:

- Organize a new hydrosphere course for Uruguayan teachers and another workshop learning and reviewing advanced protocols in the four spheres to refresh knowledge and be updated. Maybe invite some Master trainers or Mentor trainers to do it more attractive.
- Work with teachers on data entry, as they do research but most of the time do not upload data. We will implement some webinars or work online in individual sessions with each teacher who is active and requires support.
- Continue with the visits to schools as this activity encourages teachers to work in GLOBE and students like to have hands-on science activities.
- Participate in the LAC Academic Committee with new tasks for the region.
- Encourage and guide teachers and students to present their science projects to the IVSS 2023.
- Provide teachers with the instruments/materials they require for specific periods in time in order to accomplish their researches. I send also some publications elaborated by the ministry professionals, related to native species, pollinators, protected areas and related issues.

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(not active now)

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PHOTOS OF THE ACTIVITIES DRAWINGS AND PHOTOGRAHS COMPETITION ON BUTTERFLIES



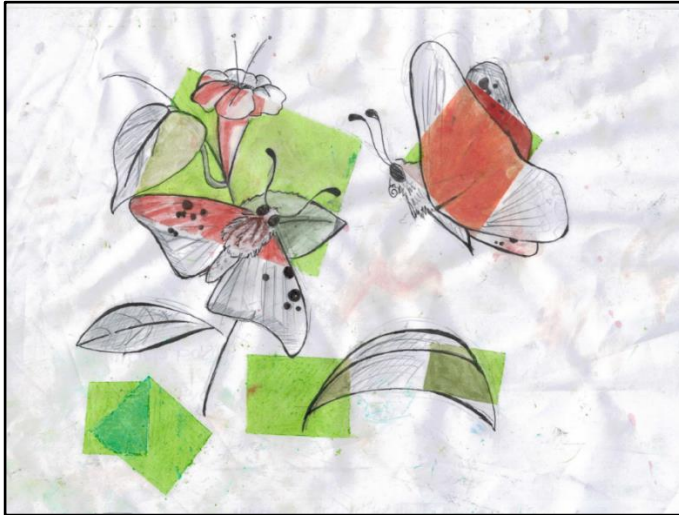
**First place Drawing (School):
Matilde Urroz**

**6th grade – School No. 88 Alfred
Nobel (Canelones)**



**First place Photography (School): Evelyn Rodríguez
5th grade – School No. 2 Etelvina Migliaro (Salto)**

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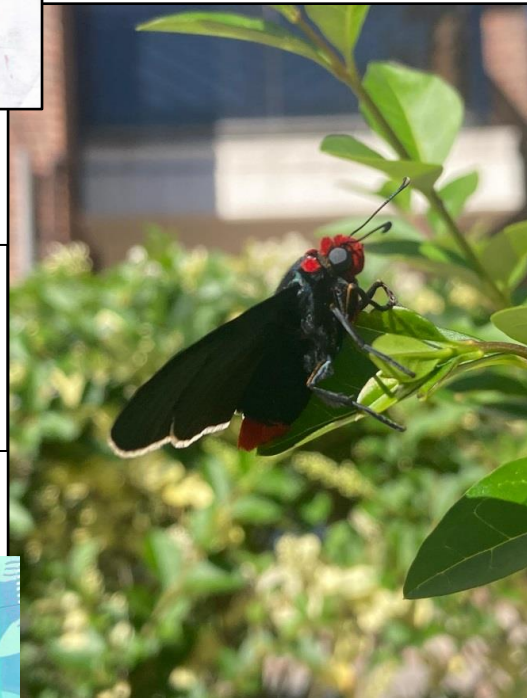


**First place Drawing
(Secondary school level):
Katalina Montandon**

1st grade – Colegio Ciudad

**First place Photography
(Secondary school level):
Katalina Montandon**

1st grade – Colegio Ciudad



**Katalina with one of the
prizes of the contest: a
meteorological shelter**

Colegio Ciudad

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VISITS TO SCHOOLS



**Colegio Ciudad Vieja,
Montevideo**

**3rd. grade Secondary
school students**

**Meeting of 10 rural schools in Sarandí del Yi, Florida
5th. grade students doing the pH game (hydrosphere)**



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PEDOSPHERE FIELD WORKSHOP IN APRIL



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Gabriela Bentancur-Viglione visited School No. 88 Alfred Nobel, in Las Violetas, Canelones for a presentation and identify plant species suitable for butterflies



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ACKNOWLEDGMENT LETTER OF THE RURAL SCHOOLS PARTICIPATING IN THE GLOBE PRESENTATION

Evaluación de la Jornada del 7 de septiembre de 2022.

Agrupamiento Capilla del Sauce

Lugar: Escuela N° 13 del departamento de Florida.

Propuesta a cargo de la Coordinadora Nacional del Programa Globe: Andrea Ventoso.

Escuela N° 12 total 6 alumnos: 4 en primer ciclo y 2 en segundo ciclo
Escuela N° 13 Total de alumnos: 1 en Segundo Ciclo
Escuela N° 84 1 alumno de Segundo Ciclo
Escuela N° 60 4 alumnos de primer y segundo ciclo.
Escuela N° 63. 6 alumnos de Primer y Segundo Ciclo.
Escuela N° 66 - 7 alumnos, 4 de 1er nivel y 3 de 2do nivel
Escuela N° 46 - 13 alumnos, 9 primer ciclo, 4 segundo ciclo.
Escuela N° 115 - 17 alumnos, 7 primer ciclo, 10 segundo ciclo.
Escuela N° 118- 3 alumnos todos de primer ciclo.
Escuela N° 48: 7 alumnos de primer y segundo ciclo ..

En la presente jornada nos agrupamos diez escuelas de la Zona de Capilla del Sauce, departamento de Florida, con aproximadamente 60 alumnos. En dicha jornada la Coordinadora explicó el trabajo del programa Globe y su importancia, utilizando como recurso una PPT. Además se localizó a Uruguay en el mapa y del mismo modo se hizo con la cuenca del Río Negro. Se acercó a través de imágenes, distintas especies ícticas que se pueden encontrar en dicha cuenca, citando algunos ejemplos. Se hizo especial importancia en la caracterización de las especies y en cómo se puede abordar la calidad del agua dulce a través del Programa GLOBE. Luego, en la tarde, se dividió a los niños en primer nivel y segundo nivel. Primer nivel abordó a través de un cuento con láminas muy sugerentes, el tema contaminación de los ríos, propuesta acorde, ya que los alumnos disfrutaron y comprendieron; demostrándose ello en una posterior socialización grupal. Segundo nivel, realizó diferentes experiencias con el PH del agua y la importancia de conocer los valores que este implica. Los alumnos en esta instancia se veían motivados y muy atentos a la propuesta. Fue significativa, clara y adecuada a la temática del Proyecto del Agrupamiento en el cual se está trabajando: Año internacional de la Pesca y la Acuicultura. Insumos muy valiosos que se retoman en el trabajo de aula, para dar continuidad al mismo.

La problemática ambiental, genera un impacto en la calidad de la comunidad de nuestro territorio. Una realidad común, para todos los actores que interactuamos en un mismo espacio. Hoy agradecidos a ustedes por esta maravillosa oportunidad de interactuar, hacer y ver con nuestros niños, el compromiso y la participación activa en la modificación positiva de la realidad, para asegurar a ellos, a nosotros y a las nuevas generaciones mejores condiciones de desarrollo. Un trabajo maravilloso y recomendable que esperamos se siga promoviendo.

Firman y agradecen las escuelas participantes:

