

A Unique Call for S.O.S.: Students Around the World are Getting Together for the Project 'Saving Our Species'

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Abstract. *Project S.O.S. (Save Our Species) is an environmental project involving primary school students around the world. The project aims to develop a unique action plan whose main goal is to demonstrate the significance of encouraging students to take the initiative for saving endangered species and threatened areas throughout the world. In this Project, students also develop new ways of gaining knowledge that can only be developed through field work in the 'outdoor classrooms' within the heart of nature. The schools involved in Project S.O.S. have flexible activity plans whose contents have been continuously shared and discussed by the collaboration of the partner schools in the project website.*

The aim of this paper is to present data obtained from the implementations of the labwork, artwork and fieldwork by sharing and discussing the steps followed, the activity sheets and the data collection tools used by the students, the reports based on students' records and the letters sent to the partner schools within the context of Project S.O.S.

Keywords. Environmental project, Endangered species, Threatened areas, Outdoor classrooms.

1. Introduction

When students are given an opportunity to study in a natural setting, they are able to gather data directly using their own senses and careful examination. They observe the interactions between living and non-living components of the ecosystem and also interactions among various life forms. By being directly involved, the students develop not only a cognitive understanding of the environment, but also affective and action skills. When they are encouraged to design investigations in a natural setting they develop a sense of responsibility for that habitat and those who live in that habitat. They can use scientific process skills making use of observation, in-depth questions and experiments to answer the questions. Through

working in a natural setting, students develop a sense of stewardship for the natural world and find their own place within the environment they are studying.

Project S.O.S. has mainly concentrated on the endangered species and their habitats worldwide. The core subjects have been studied by primary school volunteer students from different parts of the world.

Based on the data and findings of the previous pilot project 'Unique and Universal', which lasted three years, Project S.O.S. aims to develop an action plan by gathering the students around the theme of scientifically studying endangered species and their habitats, sharing the data among partner schools and thus drawing global attention to the significance of taking responsible action towards these species. [1,2,3,4,5,6,7]

The project was initiated in Turkey in 2009 with the participation of 122 students from nine primary schools located in Turkey (n=98), the USA (n=6), India (n=5) and Romania (n=13).

Initially, schools were asked to volunteer for the project through the National Eco Schools Meeting held in Muğla, Turkey; the 6th International Hands-on Science Conference held in Ahmedabad, India and the Teacher Training Seminar held at Akdeniz University in Antalya, Turkey in 2009.

With the participation of the nine primary schools and their co-ordinating teachers from Turkey, the USA, Romania and India, a website where all the participants have been able to share their labwork, artwork and fieldwork data has been constructed; initial instructions were given by the first author at the beginning of the educational year 2009. This website has served as a motivating platform on which innovative ideas and unique practices have been constantly

shared and ‘brain stormed’ by the teachers and students involved in the project.

Activity plans were developed to be shared by the schools and ideas were exchanged. Due to the differences between physical settings, flexibility remained a key feature of the implementations realised both at school and also during field work, amongst the participating schools.

During the year, the students were taken on field work trips to make observations according to their activity plans. They formed model water ecosystems and researched the effects of pollutants in still waters, by using scientific methods at the laboratories. In the field, the students took water and soil samples to conduct water quality tests and recorded their findings. They were mainly guided throughout the whole process by the instructions given in the project handbook, ‘*Nature Education in 22 Steps*’ [7].

It is hoped that the students involved in Project S.O.S. will continue to collaborate with their partners in the project. The scientific methods used, together with the close observations they made, should promote their sense of curiosity and their understanding and interpretation of environmental cause-and-effect relationships in nature. As a result of all these practices, in which they view themselves as an intrinsic part, they develop a sense of caring for the natural world, followed by the wish to protect and enhance. Meanwhile, the students’ awareness of natural phenomena increases. Thus they develop positive attitudes towards endangered species and their habitats, by contributing to the project. At the beginning and the end of each semester, pre- and post participation assessment tests are given to the students in order to assess the outcomes of the project on their development.

1.1 Summary of Study Species and Sites

The endangered species, together with their threatened habitats, as selected by the nine volunteer schools located in Turkey, the USA, Romania and India involved in S.O.S. Project are summarized in Table 1.

2. Methodology

Country	School	Study Area	Study Species
Turkey Coordinator country	Göktürk Primary School	Ankara Beynam Forests	Imperial Eagle <i>Aquila heliaca</i>
	Kavaklıdere Primary School	Ankara Atatürk Forest Farm	Angora Rabbit <i>Oryctolagus cuniculus</i>
	Şehit Öğretmen Nuriye Ak Primary School	Diyarbakır Dicle-Fırat Rivershed	Euphrates Soft- shelled Turtle <i>Rafetus euphraticus</i>
	Uzunmustafa Primary School	Düzce Efteni Lake	Caucasian Festoon <i>Zerynthia caucasica</i>
	İnci Narin Yerlici Primary School	Orhaniye Çetibeli Sığla Forest	Anatolian Sweetgum Tree <i>Liquidambar orientalis</i>
	İ Private Ekin College	Seyrek Menemen Gediz Delta	White Stork <i>Ciconia ciconia</i>
USA	Roland Park Country School	Baltimore Butterfly Meadows in Chesapeake Bay Watershed	Monarch Butterfly <i>Danaus plexippus</i>
Romania	School Number 5 Satu Mare	Satu Mare River Tur Valley	Noctule Bat <i>Nyctalus noctula</i>
India	Panchayat Union School	Cuddalore Kundiyamallur Lake	Bird species at Kundiyamallur Lake

2.1 Participants

122 students from nine primary schools located in Turkey, the USA, India and Romania have been voluntarily involved in Project S.O.S.

Table 1. Selected species and their habitats

2.1.1 Turkish Sample

The total number of students joining the project from Turkey was 98, from six schools located in Ankara, İzmir, Orhaniye, Diyarbakır and Düzce. The students ranged in age from 9 to 15 years.

The Table 2 shows the number of students involved in the project from different locations in Turkey.

Table2. Number of Students joining the project in Turkey

School and Location	# Stu.
Göktürk Primary / Ankara	20
Kavaklıdere Primary / Ankara	15
Uzunmustafa Primary / Düzce	22
Şehit Öğretmen Primary/ Diyarbakır	6
İnci Narin Primary / Orhaniye	15
Ekin College/ İzmir	20
Total number	98

2.1.2 The USA Sample

The number of students varies throughout the year. In the months of September to November the Butterfly Club, which is the alternative name of Project S.O.S., is large because that is when the Monarch butterflies are in the area. In the spring (February to May) there are only about six students - that is when they are mainly working in the garden. They ranged in age from 10 to 13 years.

2.1.3 Romanian Sample

Thirteen students from School Number 5 in Satu Mare, Romania took part in the project. Some of the students had previous experience in outdoor fieldwork. The students ranged in age from 13 to 14 years.

2.1.4 Indian Sample

Five students from Kundiyamallur in Cuddalore district, India took part in the project. The students ranged in age from 13 to 15 years.

3. Summaries of Project Activities Performed by Partner Schools

A sample of one semester action plan that was created by the first author was shared by the partner schools on the website at the beginning of the educational year, in order for the partner schools to be generally informed. Following this step, each school was expected to create their own unique action plan that is most appropriate for their physical settings, curriculum agenda and their surrounding environment.

3.1. Göktürk Primary School, Ankara, Turkey

In Göktürk Primary School, following a preparatory period, the project had a prompt start in December 2009. The students were already studying the Eco Schools Project and they were very excited by the idea of a new environmental project to action. A series of meetings followed.

They researched local endangered species generally and decided to study the Imperial Eagle. Their activity plan was constructed by exchanging ideas through brain storming. At the beginning of the study, the students were set assessment tests. They prepared Power Point presentations and a poster. The poster was presented on their Project S.O.S. Bulletin Board.

While drawing Imperial Eagle figures on the picture forms, they realized that they could distinguish significant differences between Imperial Eagles and the other eagle species.

Poetry and drawing competitions were organized at the school. First, second and third prize winning ceremonies followed these competitions. From these drawings, a calendar was created by the students. Each week on Wednesdays, a seminar whose topic was the question of ‘What can we do to protect the Imperial Eagles?’ was delivered by the students in the classes. The stories about Imperial Eagles written by the students were shared by the students in classes. Through all these activities the students’ mutual interest towards Imperial Eagles was awakened.



Figure 1. Birdwatching around Mogan Lake

Following the field work, photographs were placed on the bulletin board. Other students at school became more interested in and concerned about the project practices and many students at school wanted to get involved in the project.

The students corresponded with their Romanian and American counterparts.

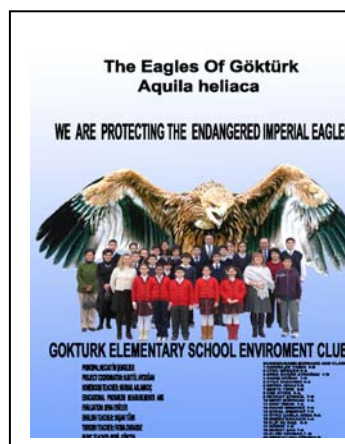


Figure 2. Poster designed by students at Göktürk Primary School

The first field trip with students took place in May 2009 to Eymir Lake in order to search for the habitat of the species. This visit was accompanied by the Middle Eastern Technical University 'METU' Birdwatching Society.

The second trip was in June 2009 to Mogan Lake. The S.O.S. Team in Göktürk Primary had support from the METU Birdwatching Society on their second trip also.

3.2 Kavaklıdere Primary School, Ankara, Turkey

In Kavaklıdere Primary School, following the choice of Angora Rabbit as their study subject, the students' increasing interest in rabbits resulted in them researching a wide variety of this species. The students adopted rabbits and

brought them to the school.

Pre-tests were administered to the students. They prepared bulletin boards, carried out research and recorded their findings. In May 2009, a field trip was made with students to Atatürk Forest Farm. The students were informed about the fact that it was not possible to see a pure Angora Rabbit around anymore and those ones that could be seen were hybrids. With the hope of being able to observe at least a few Angora Rabbits, they contacted the Ministry of Agriculture and Forestry.



Figure 3. Caring for rabbits at Kavaklıdere Primary School

The research about the Angora Rabbit was reinforced by creative techniques. The students wrote many poems, stories, composed songs and prepared power point presentations. They also created posters and brochures for their presentations. After the post-project tests were administered, their certificates were given and a closing party organized.



Figure 4. Poster created by the students at Kavaklıdere Primary School

3.3 Şehit Öğretmen Nuriye Ak Primary School, Diyarbakır, Turkey

Five volunteer students accompanied by five teachers were involved in Project S.O.S. at Şehit Öğretmen Nuriye Ak Primary School. The

Nature Help Team was formed and activity plan was constructed. The first creative work achieved was designing the poster and logos.



Figure 5. S.O.S. Poster designed at Şehit Öğretmen Nuriye Ak Primary School

Pre-project assessment tools were administered to the students at the beginning of the study. In these tests it was clearly observed that the students' knowledge about endangered species and the causes of extinction were limited.

The first outdoor work was achieved in the school garden by observing the soil components and the living beings on it. They enclosed four different areas of one square meter on the ground and called them *stations*. These *station observations* helped them to realize the fact that there was a great variety of creatures on a place even as small as one square meter. During the outdoor work, they were enthralled and astonished by observing the abundance of nature, about which, as they themselves emphasized, they had previously been unaware.

Great interest in Project S.O.S. was reflected by the students after the work was presented on Bulletin Boards in the school hall in May 2010.



Figure 6. Observing soil at Şehit Öğretmen

Nuriye Ak Primary School

Students did not know about the scientific terminology of water quality tests such as pH, ppm and dissolved oxygen, prior to the field trips. While conducting the tests on water quality at the laboratory, they became familiar with these terms. Field trips followed the laboratory implementations.

A field trip was organised to the Fırat Riverside. The students took water samples from the river, observed and tested two types of parameters in order to get qualitative and quantitative data during the field work. These were: *Physical parameters* of water quality, such as temperature, depth, and turbidity. *Chemical parameters* of water quality, such as DO (dissolved oxygen) and pH.

Colorimetric tests were conducted to analyze water samples. During the testing activities and observations, La Motte test kits were used.

In April 2009, the third outdoor study was undertaken by the project team students in the school garden, for a second observation and comparison on soil quality. They were very surprised when they observed that worms were replaced by the ants on spring.

A presentation on soil characteristics, flora, fauna and the causes of soil pollution was delivered to the students. Thus, the students started to answer for themselves the question, *Why does a species become endangered?* Additional information, concerning the extreme rarity of this turtle, which is nearly extinct in the wild, reinforced the students' keenness to prevent such tragedies in future.

In the laboratory, a basic experiment was set up using four jars filled with sample from the Fırat River; river water with detergent added; plain tap water; and tap water with detergent added, in order to test *'The effects of detergent on water environments'*.

The students observed the colour changes in the water samples. They recorded and compared their findings.

As far as the students' observations were concerned, there had been a slight change in the colour of the plain river water sample. There had been no significant colour change in either jar of tap water. They also reported the fact that there had been a vivid green colour change in the jar containing river water with detergent added to it. As a result of all this observations made by the students, they could understand and highlight the

human impact on the destruction of nature, for the first time throughout the project period.

The students wrote impressive poems, compositions and letters filled with nature protection messages. The post-project tests were administered to the students in June 2010 and their certificates were presented at the closing ceremony.



Figure 7. Euphrates Soft-shelled Turtle surrounded by rubbish, as seen through the eyes of a student at Şehit Öğretmen Nuriye Ak School

3.4 Uzunmustafa Primary School, Düzce, Turkey

The project started with the participation of twenty-two volunteer students on 18th January 2010 at Uzunmustafa Primary School in Düzce. The butterfly *Zerynthia caucasica* was the species studied, together with its threatened habitat, Efteni Lake. The students researched the properties of this species and its habitat.

The meetings for the team members were planned twice a week, each of which lasted two hours. Pre-project assessment tests were administered to the students before the project work was started. Themes such as: '*Protecting nature, the endangered species, Zerynthia caucasica, Efteni Lake and their significance*' featured on the bulletin board, which was prepared by the students themselves.

In the laboratory, the students prepared natural pH indicators by using red cabbage and instant coffee filter papers. As a further step, they also prepared separate solutions in water of lemon juice; vinegar; toothpaste; flour; orange juice; fertilizer; aspirin; and coca cola. By testing the pH of these different solutions and painting the colour change observed on indicator papers onto a separate box, they developed a pH observation kit. They then took this kit into the field to make

comparisons when conducting water tests.

They took water samples from Efteni Lake to set up model aquatic environments in the laboratory. In this lab experiment, five jars were filled with plain tap water. Then, original water samples taken from Efteni Lake were added to improve the quality of model. The jars were placed by the window in direct sunlight kept at ambient room temperature.

The students were told that these model aquatic environments were used to test *effects of fertilizer and other pollutants that came from homes*.

The students brought in samples of household products to use in the experiments. It was explained that they would be conducting pollutant tests with the models that were set up before.

One jar was used as the '*control*'. Three of the jars were used as '*the students' household product samples*' and the last one was used as the '*excessive fertilizer*' sample.

Two tablespoons of selected detergent; enough motor oil to cover the surface; ¼ to ½ cup of vinegar; two teaspoons of plant fertilizer were added to each jar and the carefully labeled jars were left in the sunlight as before.

The students were asked to observe the jars every other day and record their observations.



Figure 8. Testing effects of pollutants

Artwork creations based on the theme *Zerynthia caucasica* followed the labwork implementations. Students created puzzles out of posters and prepared a drama about the species and the lake.

The presentations and drama work were delivered to all primary classes and 1st graders at school by the Project S.O.S. team.

The Forestry Faculty of University of Düzce was visited by the students in order to learn

about the special plants that *Zerynthia caucasia* prefers.

From this visit, the idea of forming a plant bank by drying, pressing and laminating the plant species living in the adjacent area was developed by the students, for the very first time.

The importance of meadows and green fields for ecological life was emphasized during the visit to the National Office for Agriculture. The project students undertook interviews with the elderly people living in built-up town areas, which had once been green pastures. The sorrow of these elderly people because their grandchildren could not find a suitable green area to play anymore was witnessed by the team students during the interviews.

Before the field visits took place, the students' observatory skills were improved through games. The significance of making careful observations were discussed with the students and the games were occasionally played at the beginning of meetings to test their observation skills.

A field trip took place in the nearby surroundings of the River Asar around the school. The students recorded their observations on to the observation sheets during the outdoor work. Water quality tests were conducted to measure pH; dissolved oxygen; temperature; and turbidity. The observed and measured parameters from the River Asar by the Project S.O.S. Team on 13th May, 2010 were as follows:

Efteni Lake (a wetland area) was the main study site for Project S.O.S. by Uzunmustafa Primary School in 2009-2010. The number of birds living around this wetland area has been estimated as approximately 150. The students bird-watched and searched for the Caucasian Festoon Butterfly's favourite milkweed plant (*Aristolochia Iberica*) during this visit. Unfortunately, they were not able to find any signs of this plant species in the area.



Figure 9. Testing water quality parameters during field work.

During the second visit to the same area, the students mostly concentrated on using their five senses and thus improving their natural observation skills. They were instructed to perform a silent 'Five-Minutes-Notice' when they arrived at the area. They were then asked to write down what they sensed in the wetland during the five minutes of peace and quiet. At the end of the period, they described their observations.

At the second field trip organized to Efteni Lake, water quality parameters were observed and measured, and the findings were recorded by the team students.

Before and after the field trips, the students answered the questions on the field work tests in order for their pre- and post-project knowledge to be assessed and compared. High levels of eutrophication (the invasion of lakes and ponds by plant material) on the water surface were observed by the students. Table 4 indicates the measured parameters from Efteni Lake.

At the end of semester, it was observed that the students' motivation for sustaining this project work was rapidly accelerated and they decided to collaborate with NGOs next year. The presentation of their stewardship certificates took place at the closing party.

3.5 İnci Narin Yerlici Primary School, Orhaniye, Turkey

For the students, adapting to the studies concerning Project S.O.S. was an easy process because they already had been involved in the Eco Schools Projects for a number of years. The team had support from a NGO throughout the whole project period. After the species to be studied and its study area were determined, the project was started with fairly easy and interesting spontaneous activities such as drawing pictures of *Liquidambar orientalis* and creating songs. The initial number of volunteer students in the project was seven and as the project progressed, this number went up to fifteen. Amongst them there were students who had not been involved in any environmental project before. The meetings with the team were organized as often as twice a week and in most lunch breaks.

The assessment tests were administered to the students both at the beginning and at the end of project year and it can clearly be seen that there is a statistically meaningful difference in the end of project answers given by the students to identical test questions. Moreover, when the picture forms which were administered for the

second time to the team members are observed, it is obvious that the drawings of study species are far more detailed in the students' later efforts.

A model of an Anatolian Sweetgum Tree was produced by the team students and mounted onto the wall in the school hall. The method of making the model by cutting each leaf and seed from paper ensured that students learned the properties of the tree very well. The students also prepared a poster identifying the provinces in which the Sweetgum Tree was most abundant.



Figure 10. Preparing model of Anatolian Sweetgum Tree

The students decided to prepare a metal plaque with the project name on it and composed a song. They emphasized that because of this song they had learned the Latin name of Anatolian Sweetgum Tree, *Liquidambar orientalis* very well. The name of Anatolian Sweetgum Tree was mounted on the door of one of the classrooms. The bulletin boards prepared with messages and news about the Project S.O.S., featuring team members conducting experiments holding test tubes and other scientific equipment, attracted attention from many of the other school students.

The students planted young Anatolian Sweetgum Trees in Hisarönü village within the framework of Forestry Week activities on 25th of March, 2010.



Figure 11. Planting young Anatolian Sweetgum Trees in Hisarönü Village

Two field trips were organized to Çetibeli Forest, Marmaris. Prior to the experiments, the students performed a 'Five-Minutes-Notice' whilst they were standing quietly, listening to the sounds and smelling the scents of the forest. After the experiments had been carried out, they photographed the trees and played some appropriate games to reinforce the experience.

According to their own reports, going on a field trip and conducting scientific tests was an unforgettable experience for all of the students who participated in Project S.O.S. at İnci Narin Yerlici School. They were even excited when testing the temperature of water.

Three sub-teams were formed to perform field tests. Their observations and ideas were exchanged and their findings were interpreted by these groups. As far as the tests were concerned, there was no significant difference in their findings.

3.6 Ekin College, İzmir, Turkey

Project S.O.S. was begun in December 2009 at the privately-funded Ekin College, with twenty volunteer students and one teacher. After the study subject and study area were determined as the White Stork and the Gediz Delta, the students researched the species and the area, produced posters and exhibited their works on the school Bulletin Board.



Figure 12. Posters of the White Stork produced by the team members at Ekin College

At the beginning of the project period, the students were assessed with attitude tests, knowledge tests and picture forms.

The school intends to continue the project in the year following the initial study.

3.7 Roland Park Country School, USA

The 'Save Our Species Club' at Roland Park Country School had a special name, 'The Butterfly Club'. In September 2009, when the students returned from summer break, they went straight into action because this is the season when Monarch Butterflies migrate through their area. Students learned to identify the caterpillars, the chrysalis and the butterfly and quickly learned what milkweed looks like.

Then they started to look for the caterpillars, to catch them for rearing in captivity. The Monarch butterfly changes from an egg into a caterpillar and then into a chrysalis. The adult butterfly emerges from the chrysalis about thirty days after the egg is laid. By bringing the caterpillars inside during their metamorphosis, this resulted in a high survival rate. The students brought in fresh milkweed leaves every day for the caterpillars, until they changed into the chrysalis stage. The caterpillars ate a great deal of milkweed and grew tremendously.

Butterfly chrysalis attaches to a leaf of milkweed and hang in the air suspended by a thin strand of silk. The students watched this process closely in the small containers where they raised the Monarch butterflies. Once the butterflies hatched, the students tagged them and released them, hoping that they would survive the 3500 mile journey to Mexico, where they spend the winter.

In the spring, Monarch butterflies begin the return journey north to spend the summer in areas where milkweed grows wild. They reproduce several times during the summer. Students were very interested in following the Monarch's life and also connected, through the internet, with their migration on the 'Journey North' website.

To encourage the Monarchs, the club created a butterfly garden in the school grounds to grow several kinds of milkweed, as well as various nectar plants to attract the adult butterflies. The students planted several different kinds of plants in the butterfly garden and learned to identify them. They had over twenty-five different plants, including five species of milkweed for the caterpillars.

The opinions of the teacher partner for Project S.O.S. is given below:

'The garden has been growing for five years and is now quite mature. Next year the students will begin to "split" some of the plants and sell samples to families of the school who want to establish a butterfly garden. All of the plants are perennials, which means they return to growth each spring and thus do not have to be replanted every year. Their seeds are saved in the autumn and used to breed new plants in order to fill any gaps in the garden.'



Figure 13. Monarch Butterfly at Roland Park Country School

'Soon, the students will also sell these young seedlings to interested people. In this way the S.O.S. Club is able to help the Monarchs, which are endangered, by both rearing the young caterpillars to increase the survival rate and also by expanding their habitat, by increasing the garden supply of nectar and larval plants essential to their survival'

3.8 School Number 5, Satu Mare, Romania

The 8th graders began their involvement in an environmental project a few years ago, with their participation in the pioneer project 'Unique and Universal'. [1,2,3,4,6] They enriched their knowledge about the world and endangered species, raising their awareness that the Earth is not ours to abuse, but to protect - nowadays more than ever!

At the beginning of the 2009-2010 educational year, together with their volunteer teacher, they became involved in Project S.O.S. They selected as their study species and study areas the Noctule Bat, with the River Tur Valley as its endangered habitat.

Within the framework of the project, they completed questionnaires; listened to experts telling them about the endangered species; and absorbed, processed and internalised the information received, thereby making it their own to pass on, because theirs are the voices that will be heard in future generations.



Figure 14. Drawing the Noctule Bat at School Number 5, Satu Mare

The opinions of the partner teacher of Project S.O.S. are given below:

'They left the school this year to fulfill their destiny to high school and, later on, at college and university. All of them will choose different paths in life but there are things that will keep them together in their fight to protect the environment.

Wherever they may go, they will always remember endangered species like the Grey Stork, the White Headed Duck, the Pool Frog, the Golden Eagle, the Monarch Butterfly or the Noctule Bat. [1,2,3,4,6]

They will tell their children about endangered species and protected areas, making our work worthwhile'.

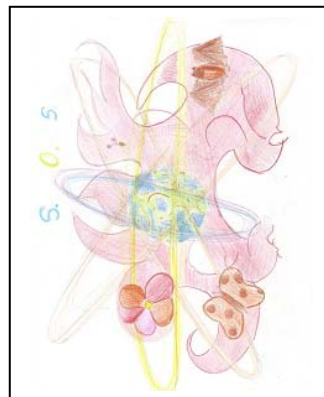


Figure 15. A logo for S.O.S Project designed by a student at School number 5

3.9 Panchayat Union School

Five Students from Panchayat Union School, Kundiya Mallur, India, together with their volunteer teacher, were involved in Project S.O.S. in December 2009.

The selected study area by the school was Kundiya Mallur Lake. Selected species have not been reported as yet. At the beginning of the project, the first field trip took place at Kundiya Mallur Lake in Cuddalore district. Since then, no further data has been reported.

It is hoped that the school will continue to collaborate with its project partners in following years.



Figure 16. Field trip at Kundiya Mallur Lake with Panchayat Union School

4. Conclusions

Project S.O.S. was carried out in the 2009/2010 Educational Year with 98 students from six schools in Turkey, 13 students from one school in Romania, 6 students from one school in the USA, and 5 students from one school in India. Within the frame of Project S.O.S: (1) A unique study species and its habitat were

selected by each partner school, (2) A website was constructed as a common data sharing platform; (3) An activity plan that was flexible but based on shared practices was scheduled; (4) Field trips were organized by each school. The number of field trips remained flexible, depending upon the different physical conditions of the partner schools; (5) Concerning the activities, Science and Art were two closely related disciplines applied; (6) The findings and letters were shared among all schools throughout the project period; and finally, (7) The partner schools confirmed that they wished to continue the project in the subsequent years.

Throughout the year, the students were encouraged to participate in field trips (organized near their school), where they could observe the cause-effect relationships among living and non-living organisms. Furthermore, under the guidance of the project teacher, the students carried out their own experiments with the soil and water samples taken from study areas. Their observations and experiments helped them collect data which contributes to understanding possible effects (physical, chemical or biological) on endangered species and threatened habitats. In each school (see above pictures), they created a Project Corner to share their findings with their peers and used internet connections and emails to share their findings with their colleagues in other countries. Finally, they developed shared ideas into action plans for protecting endangered species and threatened habitats.

Project S.O.S. showed the vital importance of taking students on field trips in order to develop their motivation to take action to protect the natural environment. During the project, easily accessible materials were used for the experiments. We, the authors, recommend that other teachers follow similar strategies to encourage and develop responsible behaviour amongst students towards the environment in general, and, in particular, species and natural regions.

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Ümit Çakır, Teacher in Kavaklıdere Primary School, Ankara, Turkey

Dilek Balaban Teacher in Uzunmustafa Primary School, Düzce, Turkey

Senem Şahin, Teacher in Private Ekin College, İzmir, Turkey

Cihan Şen, Teacher in İnci Narin Yerlici Primary School, Orhaniye, Turkey

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