

## 1. Contestant profile

▪ Contestant name:	Bengi BAYCAN
▪ Contestant occupation:	PhD. Student
▪ University / Organisation	
▪ Number of people in your team:	

## 2. Project overview

Title:	An inventory of vertebrate animals around Akçansa Bozalan Limestone and Clay Quarry and transfer to younger generations
Contest: (Research/Community)	
Quarry name:	Bozalan Clay Quarry

## **Abstract**

Preserving biodiversity is very important for protecting the natural balance. About this matter, scientific studies that made in worldwide are aimed for awareness of people.

This project is contained with 2 stages which is education and social gain. Detected vertebrates (Amphibia, Reptilia and Bird) which located on Bozalan Clay Quarry have took inventory then supported with museum materials and printed 200 brochures of amphibia and reptilia species have obtained from Çanakkale Onsekiz Mart University, Department of Biology, Museum of Zoology; for preserving ascertained species and educating young generations, a seminar were given 64 students from Mahmudiye Primary School. The museum materials that were brought from Zoology Museum, were given as a gift to school's science laboratory for enlightenment and education of future generation at the end of the seminar.

With the scope of social benefit, 20 bird nests were put at the available woodlands and shrubby fields around the Bozalan Clay Quarry with a crew that was created from Çanakkale Onsekiz Mart University, Department of Biology 2nd and 3th grade students in an attempt to rehabilitation of the field. For this purpose, nests were found in the 9 of them.

With this project, it is aimed to reach young generations and provide social benefits through training seminars and field work on human-nature relations.

## Introduction

Bozalan Clay Quarry was chosen for the available research field while at fieldworks for exploration that were started with the project crew at March. (Figure 1).



Figure 1. Working field

Detected amphibia, reptilia and bird species in the fieldworks that performed later, were taken photographs for recording. Thus, detected amphibia, reptilia and bird species at the fieldwork were took inventory.

Also as a part of social benefit and education, a crew that was created from 2nd and 3th grade students of Çanakkale Onsekiz Mart University, Department of Biology were informed about the monitored amphibia, reptilia and bird species in the research field. In the reproduction period of birds, bird nests that prepared were hanged to proper habitats (woodlands and shrubby fields) around the Bozalan Clay Quarry ( Figure 2).



Figure 2. Reptilia observations and hanging of bird nests

Thus rehabilitation of the field was aimed for blocking the secession of birds because of the habitat loss and disturbing factors in the Bozalan Clay Quarry.

As the project targets; a training seminar was given by herpetologist and ornithologist about the biodiversity of Bozalan Clay Quarry vertebrates( amphibia, reptilia and bird), to 64 primary school students in the Mahmudiye Primary School which is near to the field, on the purpose of improving the research abilities and informing of the future generation at June. (Figure 3).



Figure 3. Seminar that given by herpetologist and ornithologist to the primary school students

The seminar was supported with 200 brochures that printed about important amphibia, reptilia and bird species which is located on field and the museum materials that belongs to amphibia and reptilia's which is supplied from Çanakkale Onsekiz Mart University, Department of Biology, Museum of Zoology (Figure 4).





Figure 4. Brochure that prepared for the primary school students

Thus it was ensured that seeing animals perceptibly and being training seminar's catchy and beneficial for students. At the end of seminar; museum materials were gave away to school's science laboratory and brochures were bestowed to students with intent to educating and informing future generations.

Within the scope of training; an education was given about recognizing detected species at Bozalan Clay Quarry by using the museum materials in the Museum of Zoology to 3rd grade students of Çanakkale Onsekiz Mart University, Department of Biology (Figure 5).



Figure 5. Education that were given to the university students at Çanakkale Onsekiz Mart University, Museum of Zoology

### **Materials and Method**

99,27 hectares of Bozalan Clay Quarry were chosen as research field which is located on Bozalan village in Ezine district of Çanakkale (Figure 6).



Figure 6. Bozalan Clay Quarry

In fieldworks, amphibia species were taken by hand or water scoops from aquatic areas. Cool and humid areas like tree trunks, were examined and observed species were collected by hand. Terrestrial turtles were caught by hand. Lizards were caught with gloves by looking under the rocks. By observing the current habitat and especially looking under the rocks, observed snake species were caught with gloves or snake hook. All specimens which is collected were released to the nature after determining species and taking photographs. Collins Bird Guide (Mullarney and others, 1999), Türkiye ve Ortadoğu'nun Kuşları (2009), Kuş Gözlemcisinin Cep Kitabı-Avrupa'nın Kuşları (2002) were used for identification of bird species. To identifying bird species which is living in and around the project site and migrating; binoculars (Steiner 7X50, Nikon 8X40 and 10X46), telescopes (Nikon 20-45X60 mm) and teleobjective cameras (Canon 400, Nikon 200-500 and Panasonic 35-420 mm) were used.

## Discussion

As the conclusions of fieldworks made in Bozalan Clay Quarry which is located on Bozalan village in Ezine district of Çanakkale, 7 amphibia and reptilia species were identified in total (Table 1).

Family	Scientific Name	Turkish Name	IUCN	CITES
Ranidae	<i>Pelophylax ridibundus</i>	Ova Kurbağası	LC	-
Bufo	<i>Bufo bufo</i>	Siğilli Kurbağa	LC	-
Testudinidae	<i>Testudo graeca</i>	Tosbağa	VU	-
Anguidae	<i>Pseudopus apodus</i>	Oluklu Kertenkele	DD	-
Lacertidae	<i>Lacerta trilineata</i>	İri Yeşil Kertenkele	LC	-
	<i>Ophisops elegans</i>	Tarla Kertenkelesi	LC	-
Colubridae	<i>Eirenis modestus</i>	Uysal Yılan	LC	-

Table 1. Detected amphibia and reptilia species in the Bozalan Clay Quarry

21 bird species were identified in total (Table 2).

Family	Scientific Name	English Name	IUCN	CITES	MIGRATION	DOMESTIC
Ciconidae	<i>Ciconia ciconia</i>	White Stork	LC	-	+	-
	<i>Ciconia nigra</i>	Black Stork	LC	EK-II	+	-
Accipitridae	<i>Aquila heliaca</i>	Eastern Imperial Eagle	VU	EK-I	+	-
	<i>Aquila chrysaetos</i>	Golden Eagle	LC	EK-II	+	-
	<i>Hieraaetus pennatus</i>	Booted Eagle	LC	EK-II	+	-
	<i>Circaetus gallicus</i>	Short-toed Snake Eagle	LC	EK-II	+	-
	<i>Buteo buteo</i>	Common Buzzard	LC	EK-II	+	-
Laridae	<i>Larus cachinnans</i>	Yellow-legged Gull	LC	-	-	+
Columbidae	<i>Columba livia</i>	Rock Dove	LC	-	-	+
	<i>Streptopelia decaocto</i>	Eurasian Collared Dove	LC	-	-	+
Strigidae	<i>Athene noctua</i>	Little Owl	LC	-	-	+
Picidae	<i>Dendrocopos syriacus</i>	Syrian Woodpecker	LC	-	-	+
Alaudidae	<i>Galerida cristata</i>	Crested Lark	LC	-	-	+
Motacillidae	<i>Motacilla flava</i>	Western Yellow Wagtail	LC	-	+	-
Muscicapidae	<i>Erithacus rubecula</i>	European Robin	LC	-	-	+
	<i>Oenanthe oenanthe</i>	Northern Wheatear	LC	-	+	-
Paridae	<i>Parus major</i>	Great Tit	LC	-	-	+

<i>Corvidae</i>	<i>Corvus cornix</i>	Hooded Crow	-	-	-	+
<i>Sturnidae</i>	<i>Sturnus vulgaris</i>	Common Starling	LC	-	-	+
<i>Passeridae</i>	<i>Passer domesticus</i>	House sparrow	LC	-	-	+
<i>Emberizidae</i>	<i>Emberiza melanocephala</i>	Black-headed Bunting	LC	-	+	-

Table 2. Detected bird species in the Bozalan Clay Quarry

## Results

In Mahmudiye Primary School, ornithologist and herpetologist were performed a seminar that was made a contribution to improving learning and researching abilities of 64 school children at the end of seminar. As purposed in the project title, recognition the animals found in the Bozalan Clay Quarry was provided for new generations.

Within the project, 15 university students has gained the ability of observation by the conclusion of the fieldworks at the Bozalan Clay Quarry. It was ensured that awareness of recognizing the species in the field and making benefit for future projects, knowledge and skill.

Within the social gain, nesting activities were observed in 9 of 20 bird nests that were positioned around the Bozalan Clay Quarry in avialable habitats at the reproduction period for rehabilitation of the field. By this means secessions from the field were blocked about 45% and it has been a positive impact for reproduction activities (Figure 7).



Figure 7. Nesting materials in bird nests

Ultimately, more comprehensive education seminar was carried out about collected specimens from Bozalan Clay Quarry for university students at Çanakkale Onsekiz Mart University Department of Biology, Museum of Zoology. Thus, species in the field were introduced with specimens that found in the museum.



Upon the biodiversity contest which is organised with the cooperation of AKÇANSA ÇİMENTO and HEIDELBERG CEMENT, social benefit and training works were actualised efficiently in total with 79 students from the different age groups.

### **References**

K Mullarney, L. Svensson, D. Zetterstorm, P.J. Grant. The Collins Bird Guide. The most complete field guide to the birds of Britian and Europe, Collins (1999).

Hayman, P., ve Hume, R., 2005. Kuş Gözlemcisinin Cep Kitabı-Avrupanın Kuşları. Kuş Araştırmaları Derneği Yayınları, Ankara.

Porter, R.F., Chirestensen, S., Schiermacker-Hansen, P., 2009. Türkiye ve Ortadoğu'nun Kuşları Doğa Derneği Yayınları, Ankara.

**To be kept and filled in at the end of your report**

**Project tags (select all appropriate):**

This will be use to classify your project in the project archive (that is also available online)

**Project focus:**

- ☐ Beyond quarry borders
- ☒ Biodiversity management
- ☒ Cooperation programmes
- ☐ Connecting with local communities
- ☒ Education and Raising awareness
- ☐ Invasive species
- ☐ Landscape management
- ☐ Pollination
- ☒ Rehabilitation & habitat research
- ☐ Scientific research
- ☐ Soil management
- ☒ Species research
- ☒ Student class project
- ☐ Urban ecology
- ☐ Water management

**Flora:**

- ☐ Trees & shrubs
- ☐ Ferns
- ☐ Flowering plants
- ☐ Fungi
- ☐ Mosses and liverworts

**Fauna:**

- ☒ Amphibians
- ☒ Birds
- ☐ Insects
- ☐ Fish
- ☐ Mammals
- ☒ Reptiles
- ☐ Other invertebrates
- ☐ Other insects
- ☐ Other species

**Habitat:**

- ☐ Artificial / cultivated land
- ☐ Cave
- ☐ Coastal
- ☐ Grassland
- ☐ Human settlement
- ☐ Open areas of rocky grounds
- ☐ Recreational areas
- ☒ Sandy and rocky habitat
- ☐ Scree
- ☐ Shrub & groves
- ☐ Soil
- ☐ Wander biotopes
- ☐ Water bodies (flowing, standing)
- ☐ Wetland
- ☐ Woodland

**Stakeholders:**

- ☐ Authorities
- ☒ Local community
- ☐ NGOs
- ☒ Schools
- ☒ Universities



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