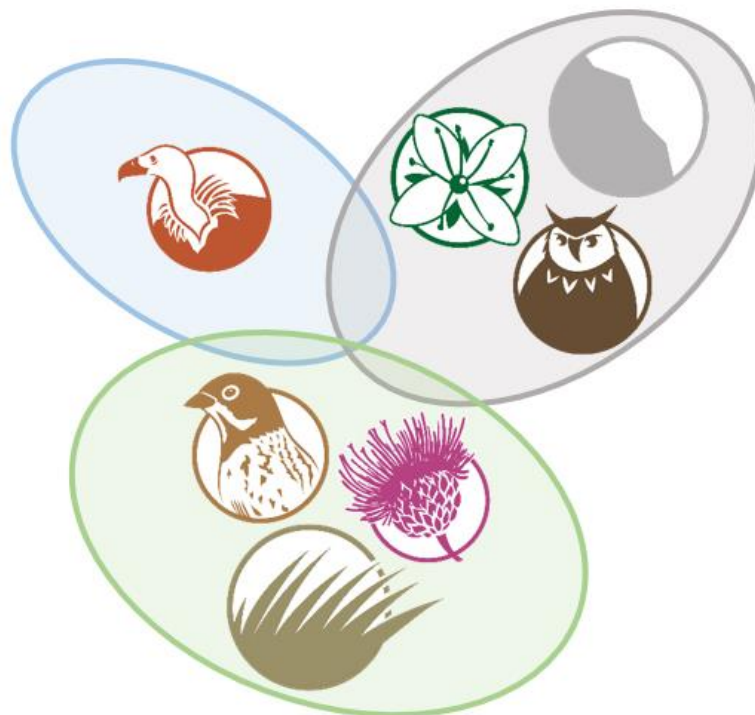


LIKE

Living
on the
Karst
Edge



Educational program

NATURE 2000

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Ana Barešić, PhD

Single-flowered Saw-wort and Ortolan Bunting (2nd workshop)



ortolan bunting
(*Emberiza hortulana*)



Eastern sub-Mediterranean
dry grasslands



single-flowered saw-wort
(*Serratula lycopifolia*)

Basic topic:

Eastern sub-Mediterranean dry grasslands – flora and fauna and the reasons of endangerment. *These habitats are becoming more and more endangered due to the disappearance of human activity (specifically, the cessation of cultivation and mowing), so they are gradually becoming overgrown and turning into forest habitats. Some of the species which have become endangered due to their disappearance are the ortolan bunting and single-flowered saw-wort.*

Key information to be transferred:

- ✓ endangered due to overgrowing of grasslands (habitat disappearance)
- ✓ grasslands in the Učka area are habitats which couldn't survive there without human impact

Topic introduction:

Conversation/discussion questions (example! – we always adapt the questions to the situation and the group!):

- ? Have you ever been to Učka or Čićarija? What is it like there (e.g. are there forests, meadows, rocky lands)? Have you ever been on a meadow, i.e. grassland? What does that habitat look like?
- ? Have you ever heard for the ortolan bunting?
- ? Have you ever seen this plant (*show single-flowered saw-wort*)? Where?

The course of the workshop (recommendation):

Preschool age (3 – 6 years) and children with special needs (total duration 45 – 60 minutes):

Activity	Short description:	Approximate duration (recommendation):
Introduction	The workshop starts with an introduction during which all participants introduce themselves. During the introduction, the participants also state their favourite plant, animal or place in nature.	10 minutes
Topic introduction (presentation and conversation/discussion questions)	The presenter then introduces the topic (title and short description) and starts a conversation with the participants in order to assess their level of knowledge and further course of the workshop. The duration of this part depends on the group. Then he/she presents the topic in more detail through the presentation and conversation. <i>Conversation/discussion questions</i> (above).	10 – 15 minutes

Game (birds-beak) „Why do I have such a beak?“	The participants will play the game „Why do I have such a beak?“ through which they will learn more about the adaptations in wildlife. We will divide the participants into groups of 4 - 5 persons, and each group will represent a flock of birds. Each „bird“ in the flock will get a different beak with which they will try to collect as much food as possible.	10 - 20 minutes
Revision (drawing)	Additional clarifications and revisions with real-life examples and the end of the workshop. We will revise the topic by drawing single-flowered saw-wort and the ortolan bunting. (The duration depends on the course of the workshop.)	10 minutes
Assessment	Brief conversation about the workshop, feedback from the participants and, at the end, cleaning up the space and used items.	5 minutes
Total duration		45 - 60 minutes

Primary school age (1st - 4th/6th grade) (total duration up to 90 minutes):

Activity	Short description:	Approximate duration (recommendation):
Introduction	The workshop starts with the introduction during which all participants introduce themselves, they receive tags on which they write down their names and which they attach to their clothes.	10 minutes
Topic introduction (presentation and conversation/discussion questions)	The presenter then introduces the topic (title and short description) and starts a conversation with the participants in order to assess their level of knowledge and further course of the workshop. The duration of this part depends on the group. Then he/she presents the topic in more detail through the presentation and conversation. <i>Conversation/discussion questions</i> (above).	20 - 25 minutes
Game (birds-insects) „Birds are looking for food!“	The participants will play the game „Birds are looking for food!“, in which we will divide them into groups (2 - 4 groups, depending on the available space), and their goal will be to collect as many insects as possible. After the game we draw conclusions about the adaptations of various animals together.	15 - 20 minutes
Game (birds-beak) „Why do I have such a beak?“	The participants will play the game „Why do I have such a beak?“ through which they will additionally learn about the adaptations in wildlife. We will divide the participants into groups of 4 - 5 persons, and each group will represent a flock of birds. Each „bird“ in the flock will get a different beak with which they will try to collect as much food as possible. After the game we draw conclusions about the adaptations of various animals together.	20 - 25 minutes
Assessment	Final comments and the end of the workshop, brief conversation about the workshop, feedback from the participants and, at the end, cleaning up the space and used items.	10 minutes
Total duration		75 - 90 minutes

Primary school age (5th – 8th grade) (total duration up to 90 minutes):

Activity	Short description:	Approximate duration (recommendation):
Introduction	The workshop starts with the introduction during which all participants introduce themselves, they receive tags on which they write down their names and which they attach to their clothes.	10 minutes
Topic introduction (presentation and conversation/discussion questions)	The presenter then introduces the topic (title and short description) and starts a conversation with the participants in order to assess their level of knowledge and further course of the workshop. The duration of this part depends on the group. Then he/she presents the topic in more detail through the presentation and conversation. <i>Conversation/discussion questions</i> (above).	20 – 25 minutes
Game (birds-beak) „Why do I have such a beak?“	The participants will play the game „Why do I have such a beak?“ through which they will learn about adaptations in wildlife. We will divide the participants into groups of 4 – 5 persons, and each group will represent a flock of birds. Each „bird“ in the flock will get a different beak with which they will try to collect as much food as possible. After the game we draw conclusions about the adaptations of various animals together.	15 – 20 minutes
Game (campaign) „Protect me!“	We divide the participants into two groups. Each group is assigned a task to make a campaign for protecting a certain species, in this case single-flowered saw-wort or the ortolan bunting, based on the information about the issues related to these species which they have received during the presentation earlier in the workshop.	25 – 30 minutes
Assessment	Final comments and the end of the workshop, brief conversation about the workshop, feedback from the participants and, at the end, cleaning up the space and used items.	5 minutes
Total duration		75 – 90 minutes

Game/activity description:

1. “Birds are looking for food!”

All organisms are in various ways adapted to the habitat they live in. In the course of evolution, numerous animal species have thus significantly changed their appearance so they could survive in their habitat. The better the organism is adapted to its environment, the likelier it is that it will survive, procreate and pass on its genes to the next generation. Colour in animals has an important role in survival (e.g. mimicry is one of protective adaptations related to colour). During the workshop, the participants will imitate a flock of birds in pursuit of food thus learning through careful observation of the environment around them and working in a group. By observation and consideration through the game, we will draw common conclusions, like the one that it is more difficult to spot those animals which better fit into their environment, i.e. which are better adapted, and that colour has an evolutionary advantage for survival.

Terms: biodiversity, habitat, adaptations

Material: paper insects (bright and dark), scissors, adhesive tape

Procedure:

Before the workshop it is necessary to determine the space which will serve as the „habitat“ in which the „flock of birds“ will feed. A certain number of insects of various colours should be stuck to the walls and the floor (if the workshop is carried out in open space, the exact path should be determined, and the insects should be allocated on the path). The insects will be the food the participants will have to find. The students should be divided into groups, introduced to the area and explained that they are now birds that feed with insects and that they need to find as much food as possible. They should be given a certain time for feeding (e.g. 5 minutes).

Upon completion, discuss with students how colour affects the ability to find food and talk about mimicry (e.g. meadow insects are most commonly green, but those on the tree bark are dark, etc.) and adaptations for surviving. Through this activity the students learn how to observe carefully and work in a team.

2. “Why do I have such a beak?”

Each habitat has its limited sources and types of food. Animals which are better adapted to various types of food are more likely to survive and to pass on their genes to next generations. On the other hand, some animals are highly specialised for a certain type of food, which is why they adapt their appearance as well. The participants will be able to see that in this game. They will imitate birds with different beaks, and while feeding, they will have to select the type of food which they can most easily reach with regard to their beak. Each participant will get a different tool (spoon, tweezers, clothes peg, scissors, plastic knife) which serves as a beak, and they will collect different food with it (staples, rubber bands, toothpicks, pasta, beans, etc.) into their stomach (plastic cup). At the end of the exercise, the score will be written down in the table and then analysed.

Terms: adaptations, biodiversity, habitats

Material: scissors, spoons, clothes pegs, tweezers, plastic cups, staples, rubber bands, toothpicks, pasta, beans, etc.

Procedure:

We divide the participants into groups of 4 - 5 persons and ask them to sit down in a circle. Then we assign each participant in the group a different tool (spoon, tweezers, clothes peg, scissors, plastic knife) which serves as a beak. Next, we explain to them that they are now birds and that the tool is their beak. The other hand is their wing, they must keep it behind their back and are not allowed to use it as help. Then we throw the first round of food in the middle of the group (e.g. staples) and give the birds 1 - 2 minutes to collect as much food as they can. After that we stop, and the birds count how much food they have collected with their beak and write it down in the shared table (we instruct the younger participants to write down whether they have collected a little or a lot of food whereas older participants may write down the exact number). After the first round we repeat everything with the rest of the food (e.g. rubber bands, toothpicks, pasta, beans). At the end of each round they write down the score. At the end of the game we write down the score on the poster for specific types of beaks and food and analyse the results together. At the same time, we discuss the adaptations of bird beaks to specific food.

At the end we play another round in which we throw mixed food. Depending on the beak, each bird will start collecting food they can most easily pick up, i.e. for which they are specialised.

3. „Protect me! (devising a campaign for species protection)

We present single-flowered saw-wort and the ortolan bunting to the participants and explain why they are endangered and why we should protect them. In addition, we work out all the possible ways for protecting both species and their habitats (see specialised texts). Next, we divide them into groups and assign a task to conduct research on the selected species and make a campaign for their protection.

Terms: protected species, single-flowered saw-wort, ortolan bunting

Material: scissors, glue, felt-tip pens, posters

Procedure:

We divide participants into groups of 5 – 6 participants. Each group is assigned a task to make a campaign for protecting a certain species, in this case single-flowered saw-wort or the ortolan bunting, based on the information about the issues related to these species which they have received during the presentation earlier in the workshop. We advise them to conduct research on the species and then devise a campaign for their protection which they will present to everyone.

Final words

Dear all,

we hope that this educational program will help you design workshops or activities related to the protection of nature, and that it will serve as a tool to learn more about the species that have been studied as part of the LIKE project. It is conceived as a starting place where you can get basic insights about these species, the difficulties we face in protecting them as well as the habitats they inhabit, but it also provides us with knowledge on how to help them. We hope that it will be the starting point for developing your own educational activities and transferring these insights to future generations. If you have any additional questions or comments regarding the program itself, please direct them to ana.baresic@gmail.com, thank you.

Good luck with the workshops 😊!