

# TRAVELLING SUMMER SCHOOL OF KARST IN BULGARIA

## – FIRST RESULTS –



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## TRAVELLING SUMMER SCHOOL OF KARST IN BULGARIA` 2015



## ▶ **Aim**

- ▶ Gathering an authentic opinion of the participants with a view to the necessity, benefits and the effects of the Travelling Summer School of karst.

## ▶ **Tasks**

- ▶ 1. Development of two survey cards - initial and exit one for summarize the information;
- ▶ 2. Carrying out two questionnaires;
- ▶ 3. Analysis of the information.

# Travelling Summer School of karst (2015)

## survey card - first part (initial one)



### Topics

Knowledge about karst and karst sites;

Visited karst sites;

Previous participations in different forms of education connected to the karst;

Relation between karst and human activity;

Profile of the participants.



### Questions

22 - closed (2), closed and open (14) and only open (16) answers.





## TRAVELING SUMMER SCHOOL OF KARST (2015)



### SURVEY CARD – FIRST PART

First name and Family name: .....

Education: .....

Specialty: .....

Specialization in: .....

When did you hear first about karst? .....

Where did you hear talks about karst? (*Answers can be more than one*):

- ☐ a) At school
- ☐ б) In your family
- ☐ в) Among friends
- ☐ г) On TV
- ☐ д) During working meetings
- ☐ е) In show caves
- ☐ ж) In natural or geo-parks
- ☐ з) Other places (*please indicate*)

According to you what is karst? (*Please define*).....

.....

.....

.....

.....

.....

# Travelling Summer School of karst (2015)

## survey card - second part (exit)



### Topics

What did you learn about karst and the karst geo systems?

Evaluation of the Travelling Summer Schools based on some criteria;

Relation between karst and human activity;

Presence of the karst in the education system;

Development of the form Travelling Summer School of karst.



### Questions

25 - closed (6), closed and open (6) and only open (13) answers.



## TRAVELING SUMMER SCHOOL OF KARST (2015)



### SURVEY CARD – SECOND PART

1. The Traveling summer school of karst is about its end. Did it expand your knowledge about the natural phenomenon of karst?

☐ Yes (what exactly, please indicate): .....

.....

☐ No    ☐ I cannot say

2. Did you understand the meaning of “Karst Geosystem” and did it give you better understanding about the specifics of karst?

☐ Yes    ☐ No    ☐ I cannot say

3. What are the basic elements of a karst Geosystem? .....

.....

4. Karst is? (the answers can be more than one)

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Geographical region | <input type="checkbox"/> Natural phenomenon       | <input type="checkbox"/> Physical-chemical process |
| <input type="checkbox"/> Geological process  | <input type="checkbox"/> Geomorphological process | <input type="checkbox"/> Complex of relief forms   |
| <input type="checkbox"/> Underground waters  | <input type="checkbox"/> Biotop                   | <input type="checkbox"/> Ecosystem                 |
| <input type="checkbox"/> Landscape           | <input type="checkbox"/> Natural zone             | <input type="checkbox"/> Result of human activity  |
| <input type="checkbox"/> I cannot say        |   |  |

5. According to you what modern scientific field should be karst attributed to? *(please indicate)*: .....

6. Which from the observed human activities are most dangerous for the natural development of karst geosystems? *(please indicate)*: .....

.....

## TRAVELLING SUMMER SCHOOL OF KARST IN BULGARIA` 2015

















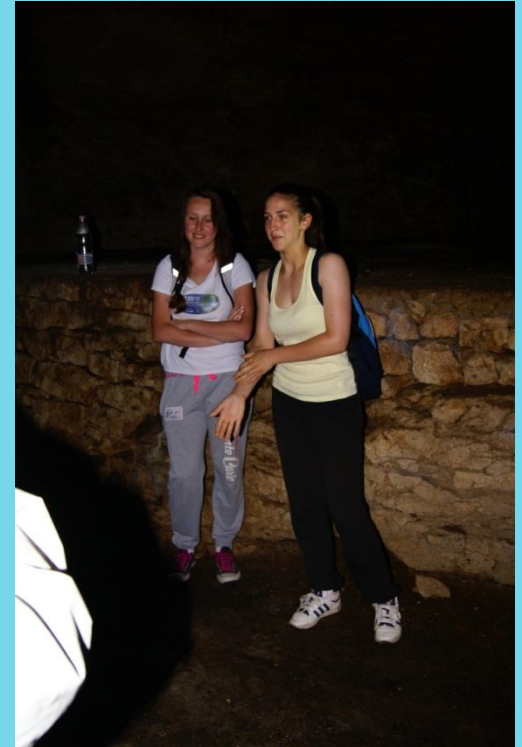














## Evaluation of the Travelling Summer School - according to the participants

How do you estimate the Traveling Summer School of Karst in Bulgaria (by an ascending scale from 1 to 5)					
<i>Participants groups</i>	<i>total</i>	<i>teachers</i>	<i>students</i>	<i>bulgarians</i>	<i>foreigners</i>
<i>Number of people gave answers - total and by groups</i>	29	12	12	15	14
<i>Maximum number of points - total and by groups</i>	145	60	65	75	70
<i>Evaluation according to:</i>	(%)				
<b>A. Preliminary organization</b>	<b>95,17</b>	<b>98,33</b>	91,67	89,33	<b>94,29</b>
<b>B. Organization of the actual event</b>	95,52	95,00	<b>96,67</b>	92,67	<b>100,00</b>
<b>B. Choice of route</b>	93,10	95,00	90,00	93,33	92,86
<b>Г. Representativeness of sites</b>	<b>96,55</b>	<b>98,33</b>	<b>96,67</b>	<b>97,33</b>	95,71
<b>Г. Topics and quality of the training program</b>	92,41	95,00	<b>88,33</b>	93,33	91,43
<b>Д. Emotional atmosphere</b>	95,86	<b>98,33</b>	94,17	<b>97,33</b>	<b>94,29</b>
<b>E. New knowledge about karst attained</b>	92,41	<b>91,67</b>	<b>96,67</b>	<b>88,00</b>	97,14

first results



## Evaluation of the Travelling Summer School - according to the participants

first  
results

How do you evaluate the Traveling school by the following criteria?					
<i>Participants groups</i>	<i>total</i>	<i>teachers</i>	<i>students</i>	<i>bulgarians</i>	<i>foreigners</i>
<i>Number of people gave answers - total and by</i>	<b>30</b>	<b>12</b>	<b>13</b>	<b>16</b>	<b>14</b>
<b>A. Time of taking place</b>	<b>%</b>				
Suitable	<b>80,00</b>	<b>75,00</b>	<b>92,31</b>	<b>87,50</b>	<b>71,43</b>
<b>Б. Duration</b>					
Normal	<b>76,67</b>	<b>66,67</b>	<b>76,92</b>	<b>75,00</b>	<b>78,57</b>
<b>В. Length of the route according to the duration</b>					
Balanced	<b>70,00</b>	<b>50,00</b>	<b>84,62</b>	<b>62,50</b>	<b>78,57</b>
<b>Г. Choice, number and representativeness of the surface karst sites in this program</b>					
Enough	<b>83,33</b>	<b>83,33</b>	<b>84,62</b>	<b>87,50</b>	<b>78,57</b>
<b>Д. Choice, number and representativeness of the underground karst sites in this program</b>					
Enough	<b>83,33</b>	<b>83,33</b>	<b>84,62</b>	<b>93,75</b>	<b>71,43</b>
<b>Е. Choice, number and representativeness of cultural-historical sites in this program</b>					
Enough	<b>70,00</b>	<b>83,33</b>	<b>61,54</b>	<b>56,25</b>	<b>85,71</b>
Too many	<b>23,33</b>		<b>30,77</b>	<b>37,50</b>	
<b>Ж. Way of lecturing, field demonstrations and experiments</b>					
Easy to understand	<b>80,00</b>	<b>75,00</b>	<b>84,62</b>	<b>93,75</b>	<b>64,29</b>
<b>З. Level of new knowledge achieved</b>					
High	<b>70,00</b>	<b>83,33</b>	<b>69,23</b>	<b>87,50</b>	<b>50,00</b>
Medium	<b>23,33</b>				<b>42,86</b>
<b>И. Level of positive emotional impact</b>					
High	<b>83,33</b>	<b>91,67</b>	<b>76,92</b>	<b>87,50</b>	<b>78,57</b>
<b>Й. Evaluation of living conditions</b>					
Very good	<b>66,67</b>	<b>75,00</b>	<b>61,54</b>	<b>68,75</b>	<b>64,29</b>
Good	<b>26,67</b>		<b>30,77</b>	<b>25,00</b>	<b>28,57</b>
<b>К. Evaluation of food and food regime</b>					
Very good	<b>53,33</b>	<b>75,00</b>	<b>38,46</b>	<b>68,75</b>	<b>35,71</b>
Good	<b>36,67</b>		<b>46,15</b>	<b>18,75</b>	<b>57,14</b>



## Evaluation of the Travelling Summer School - according to the participants

How do you evaluate the fact that the participants in the traveling school are:					
	<i>total</i>	<i>teachers</i>	<i>students</i>	<i>bulgarians</i>	<i>foreigners</i>
<b>A. From different nationalities</b>					
Positive	96,67	100,00	92,31	93,75	100,00
<b>B. From different age groups</b>					
Positive	90,00	91,67	84,62	81,25	100,00
<b>B. Of different educational levels</b>					
Positive	90,00	83,33	92,31	93,75	85,71
<b>Г. People of different interests</b>					
Positive	86,67	83,33	84,62	87,5	85,71

first results





## Change in the attitude to the karst

<b>Did you get more interested in karst and in what aspects?</b>	
	<b>%</b>
<b>Yes, as a specific landscape for tourism and recreation</b>	<b>53,33</b>
<b>Yes, as sites for speleo-tourism and sports</b>	<b>46,67</b>
<b>Yes, professionally</b>	<b>36,67</b>
<b>Yes, business interests</b>	<b>0,00</b>
<b>Other reasons</b>	<b>10,00</b>
<b>No</b>	<b>6,67</b>

<b>Did the Traveling School motivate you to take part in new initiatives relating to karst and if yes, please indicate ?</b>					
	<b>total</b>	<b>teachers</b>	<b>students</b>	<b>bulgarians</b>	<b>foreigners</b>
<b>Yes, in a competition about karst</b>	<b>63,33</b>	<b>75,00</b>	<b>69,23</b>	<b>68,75</b>	<b>57,14</b>
<b>Yes, in an Olympiad about karst</b>	<b>33,33</b>	<b>41,67</b>	<b>30,77</b>	<b>37,50</b>	<b>28,57</b>
<b>Yes, in the International year of karst and cave</b>	<b>46,67</b>	<b>50,00</b>	<b>38,46</b>	<b>56,25</b>	<b>35,71</b>
<b>Yes, in courses in Speleology and Karstology</b>	<b>30,00</b>	<b>50,00</b>	<b>7,69</b>	<b>43,75</b>	<b>14,29</b>
<b>Yes, in actions of cleaning karst territories</b>	<b>50,00</b>	<b>58,33</b>	<b>46,15</b>	<b>56,25</b>	<b>42,86</b>
<b>Yes, in development and maintenance of thematic rubrics in Internet</b>	<b>16,67</b>	<b>16,67</b>	<b>15,38</b>	<b>25,00</b>	<b>7,14</b>

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## Benefits for the participants

What did the Travel School of Karst offer you in addition?					
	total	teachers	students	bulgarians	foreigners
Positive emotions	80,00	91,67	76,92	81,25	78,57
New contacts	83,33	83,33	76,92	93,75	71,43
Wider general culture	66,67	75,00	53,85	68,75	64,29
Generated new ideas	63,33	81,82	46,15	68,75	57,14
Offered new perspectives for professional dev	30,00	54,55	7,69	31,25	28,57
Motivates me for more active contacts with n	56,67	41,67	84,62	50,00	64,29
Helped me to overcome some fears and comp	20,00	25,00	23,08	6,25	35,71
Other	3,33				7,14

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Is there a future for the Travelling Summer School?

first results

# conclusion

- ➡ **The Travelling Summer School of karst** suggested easy way of education where for a short period of time all the participants had the opportunity to get know in situ the most important characteristics of the main types of karst in North Bulgaria and the evolution models of the karst genesis.
- ➡ Gave them the opportunity to increase their knowledge on different levels according to their initial competence for the essence, characteristics and the variety of karst and karst geosystems on the base of specific examples of the visited karst areas.
- ➡ Introduction in situ of the practical problems of different types of karst areas through direct participation in workshops and discussions with local administrations, companies and authorities, related to karst.
- ➡ The Travelling Summer School of karst proves that teachers of different subjects and different professional specialization could work in a team because of the specific of the karst and its interdisciplinary in this form of education. This, in turn, creates a real opportunity to test different options for cross-curricular connections – one of the latest contemporary educational problems.

THANK YOU FOR YOUR ATTENTION

