



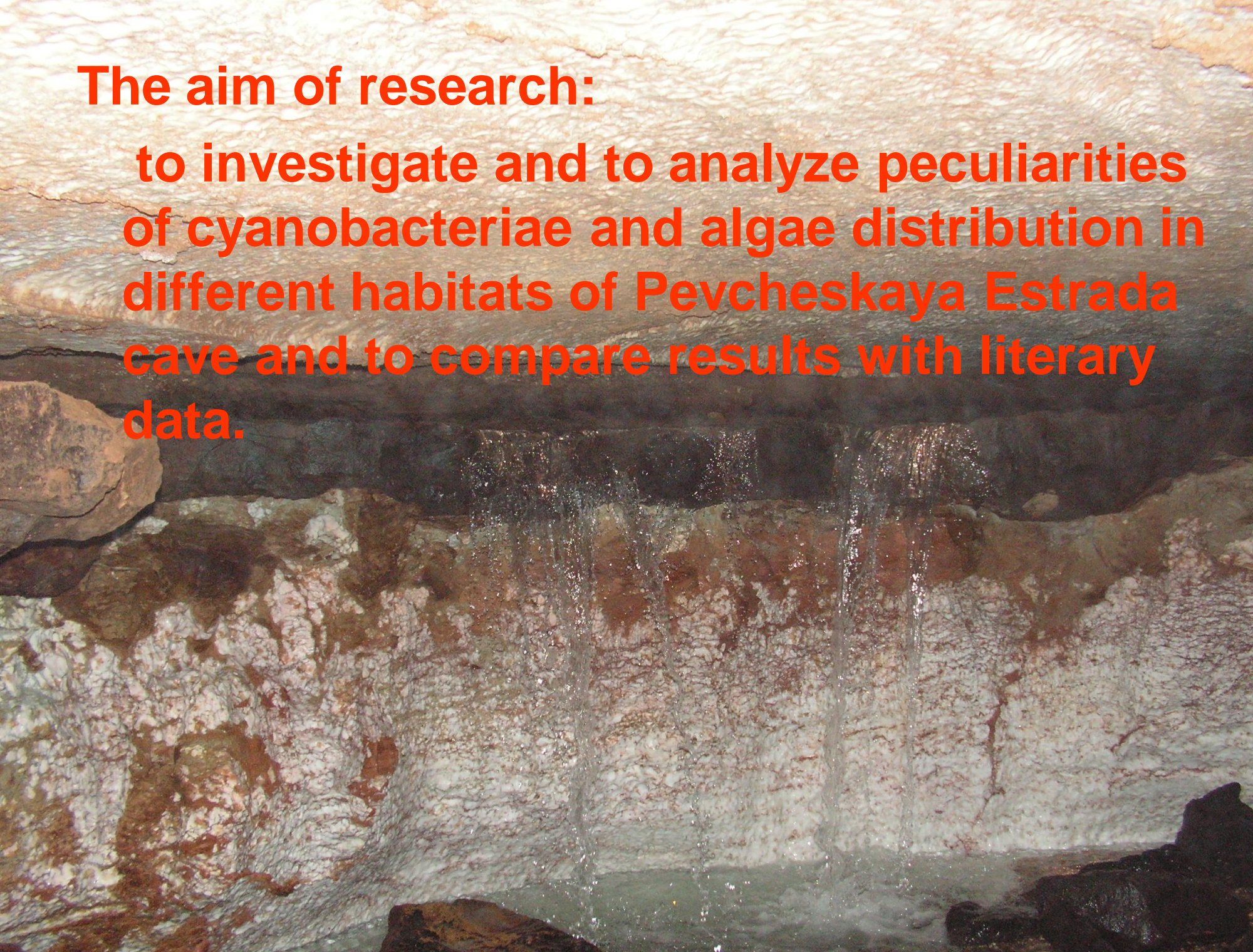
**ECOLOGY OF
CYANOBACTERIAE AND ALGAE
IN PEVCHESKAYA ESTRADA CAVE
(PINEGA, ARCHANGELSKY REGION**

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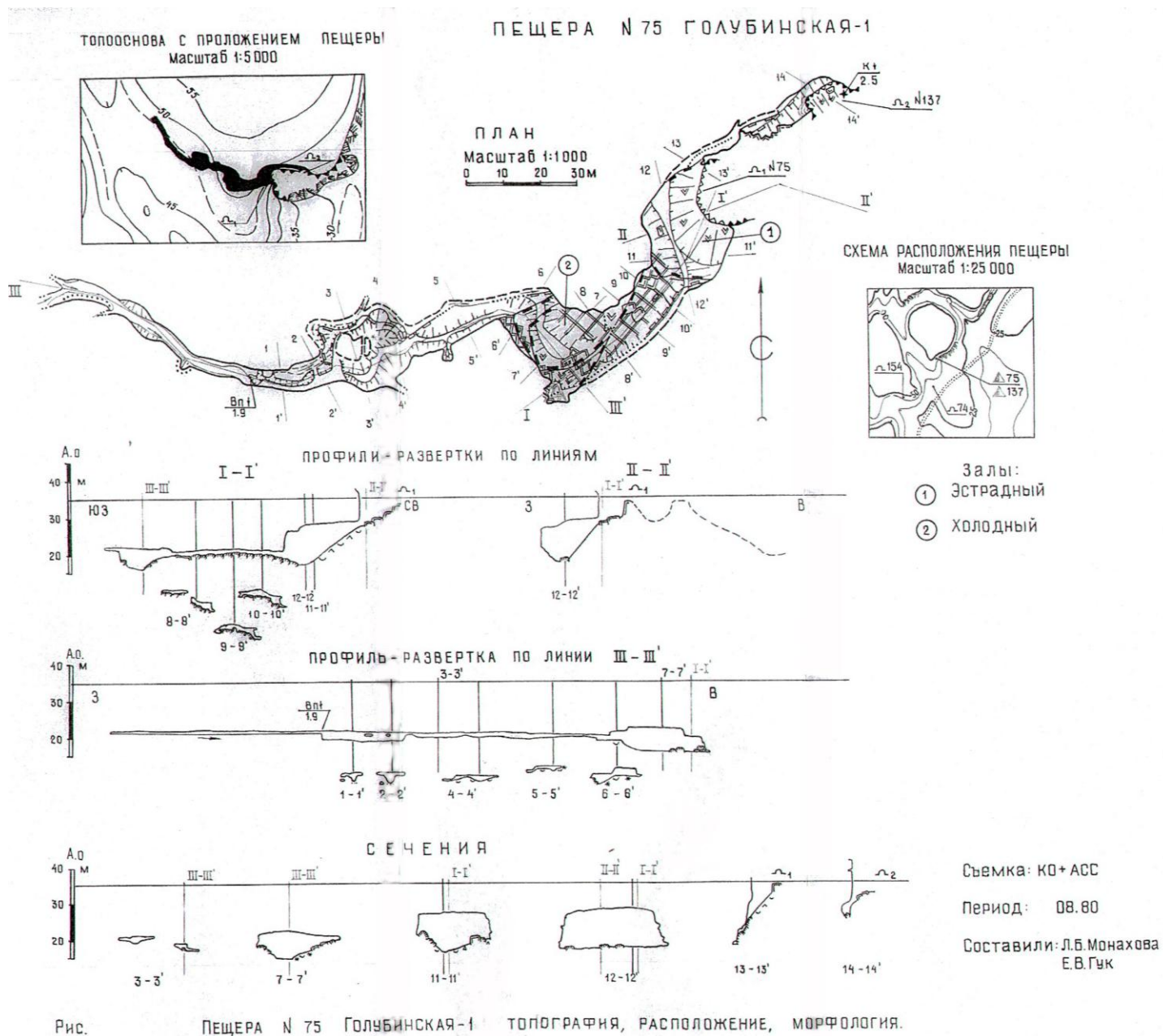
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The aim of research:

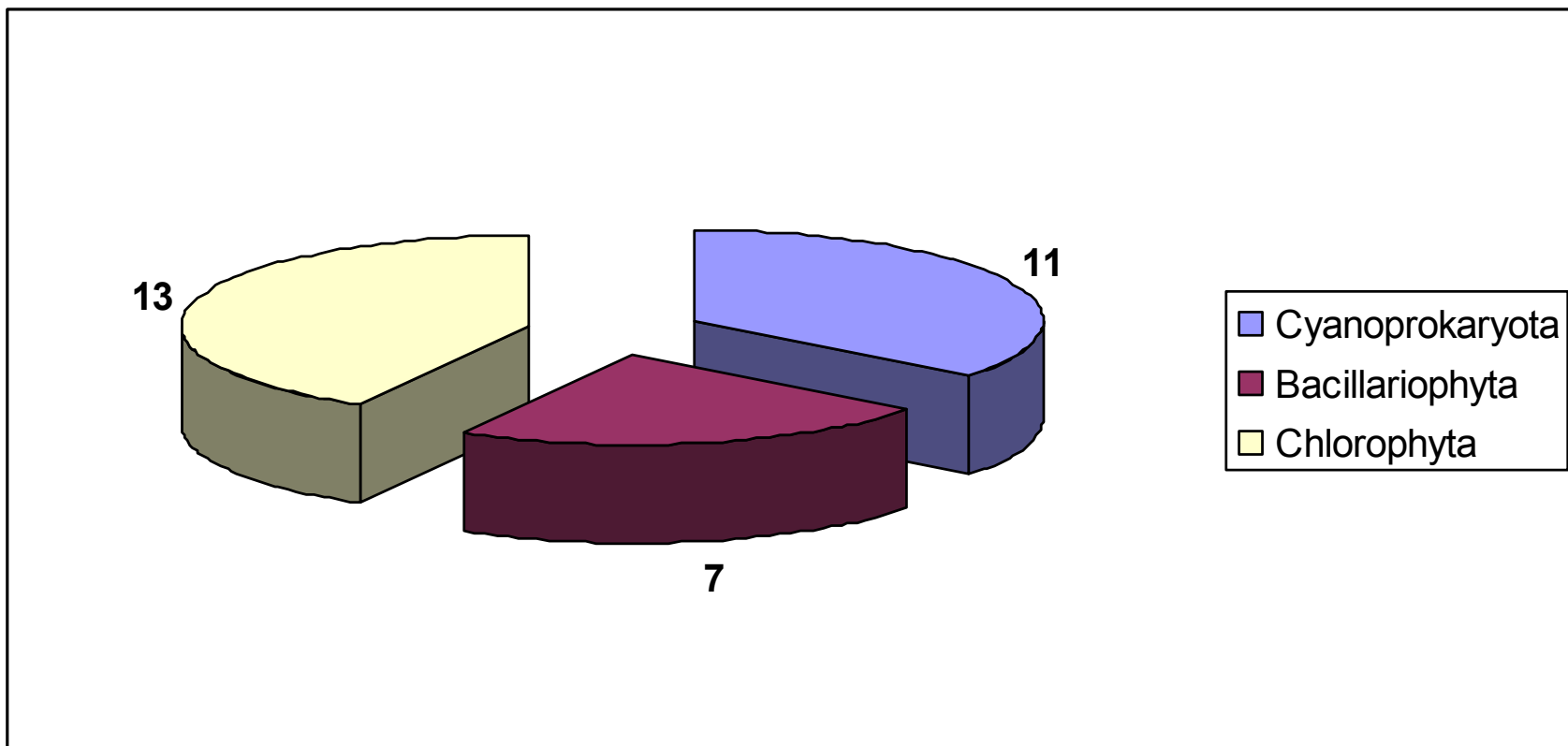
to investigate and to analyze peculiarities of cyanobacteriae and algae distribution in different habitats of Pevcheskaya Estrada cave and to compare results with literary data.



The plan of Pevcheskaya Estrada cave



Cyanobacteriae and algae taxonomic composition of Pevcheskaya Estrada cave



Dominated taxa, most commonly revealed species and life forms spectrum of cyanobacteriae and algae in Pevcheskaya Estrada cave

Division: *Chlorophyta* and *Cyanoprokaryota*

Orders: *Chlorococcales* and *Oscillatoriales*

Families: *Phormidiaceae*, *Chlorellaceae* and *Nostocaceae*

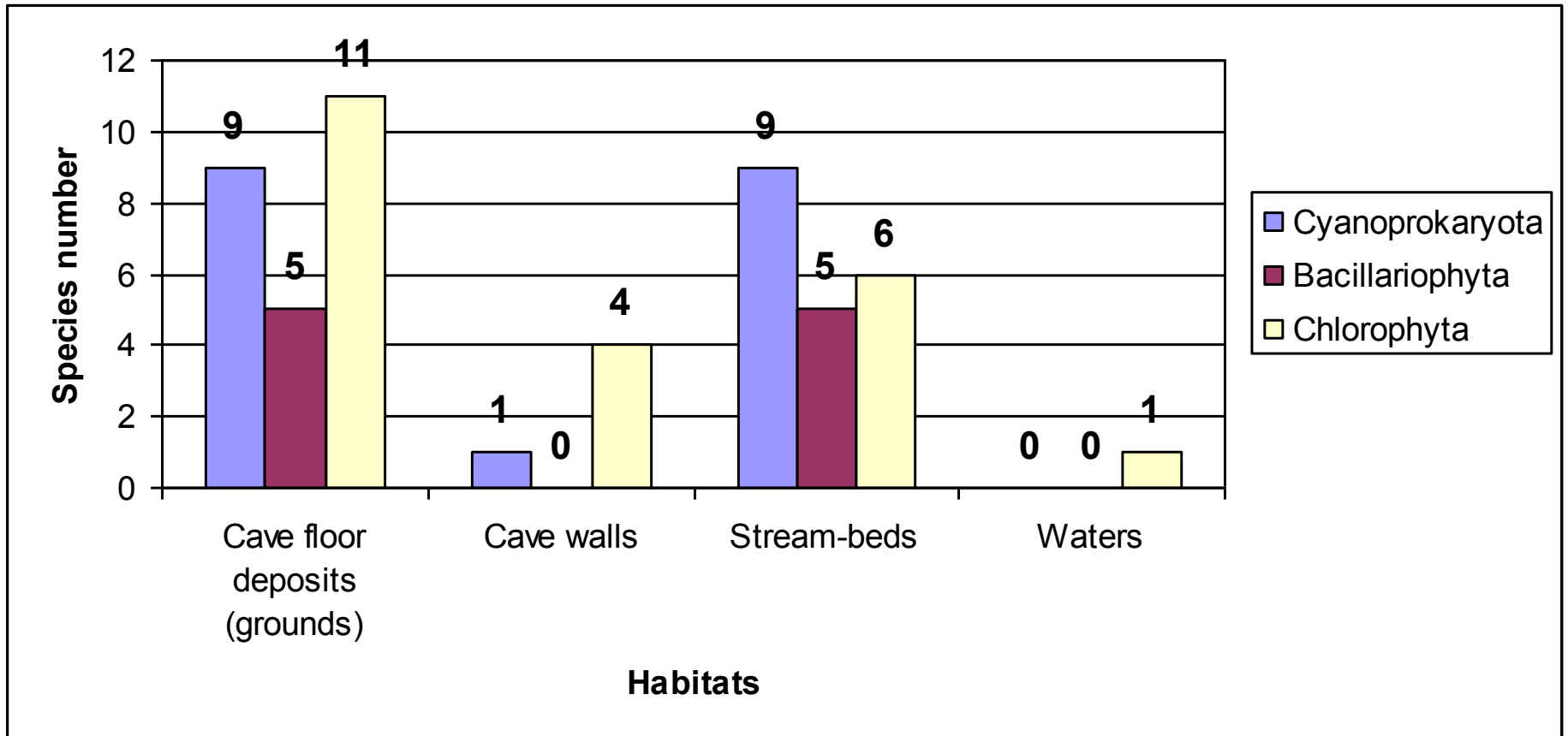
Genera: *Phormidium*, *Leptolyngbya*, *Nostoc*, *Chlorococcum* and *Muriella*

Species: *Nostoc punctiforme* f. *populorum* and *Leptolyngbya boryana*

Most commonly revealed species: *Nostoc punctiforme* f. *populorum* and *Leptolyngbya boryana*

Life forms spectrum: hydr.8Ch8P4B4CF3amph.2H1X1

Cyanobacteriae and algae taxonomic composition of different habitats in Pevcheskaya Estrada cave



Dominated taxa of cyanobacteriae and algae from different habitats in Pevcheskaya Estrada cave

Taxa	Cave floor deposits (grounds)	Cave walls	Stream-beds	Waters
Divisions	<i>Chlorophyta</i>	<i>Chlorophyta</i>	<i>Cyanoprokaryota</i>	–
Orders	<i>Chlorococcales</i>	<i>Chlorococcales</i>	<i>Oscillatoriales</i> and <i>Chlorococcales</i>	–
Families	<i>Phormidiaceae</i> , <i>Nostocaceae</i> and <i>Chlorellaceae</i>	<i>Chlorellaceae</i>	<i>Phormidiaceae</i> and <i>Nostocaceae</i>	–
Genera	<i>Phormidium</i>	–	<i>Leptolyngbya</i> , <i>Phormidium</i> and <i>Nostoc</i>	–
Species	<i>Nostoc punctiforme</i> f. <i>populorum</i> and <i>Leptolyngbya boryana</i>	<i>Chlorella vulgaris</i>	<i>Nostoc punctiforme</i> f. <i>populorum</i>	–

**Most commonly revealed species and life forms spectrum
of cyanobacteriae and algae from different habitats
in Pevcheskaya Estrada cave**

	Cave floor deposits (grounds)	Cave walls	Stream-beds	Waters
Life forms spectrum	Ch7B4hydr.4 P3CF3amph.2 X1H1	Ch3hydr.1P1	hydr.6P3CF3 B3Ch3amph.1 X1	Ch1
Quantity of species	25	5	20	1
Mean quantity of species in one sample	7,6	1,7	7,3	0,3
Sum of abundance number	145	11	53	1
Mean quantity of abundance number in one sample	20,7	3,7	17,7	0,3

Cyanobacteriae and algae species composition resemblance of different habitats in Pevcheskaya Estrada cave

3	0 %		
2	33 %	16 %	
1	8 %	71 %	27 %
	4	3	2

Notes: 1 – cave floor deposits; 2 – walls; 3 – stream-beds; 4 – waters.

**Cyanobacteriae and algae species composition
resemblance of different habitats
between caves Pevcheskaya Estrada,
Golubinsky proval and Kueshta**

Pevcheskaya Estrada	Cave floor deposits (grounds)	Cave walls	Stream-beds	Waters
Golubinsky proval	51	36	41	100
Kueshta	21	21	30	29

CONCLUSIONS

1. 31 species and infraspecific taxa of cyanobacteriae and algae from 3 Divisions, 9 orders, 18 families and 25 genera were revealed in Pevcheskaya Estrada cave.
2. The greatest quantity of species, mean quantity of species, sum of abundance number and mean quantity of abundance number in one sample were revealed in the cave floor deposits. Such law was discovered in situated near Golubinsky proval cave. Although these indices in habitats of some other caves were as much as possible in the stream- and lake-beds. Possible, this is the influence of geographical location.
3. Resemblance of cyanobacteriae and algae species composition from different habitats between Pevcheskaya Estrada cave and situated in Bashkortostan Republic (South Urals) Kueshta cave lower in the average than between Pevcheskaya Estrada cave and situated near Golubinsky proval cave. Possible, this is also the influence of geographical location.



*Thank You very much
for Your attention!*

