The questionnaire survey in selected large protected areas of the Czech Republic

Karel Matějka [1)], **Drahomíra Kušová** [2)], **Jan Těšitel** [2)]
[1)] IDS, Na Komořsku 2175/2a, 143 00 Praha 4, Czech Republic, matejka@infodatasys.cz
[2)] University of South Bohemia in České Budějovice, Faculty of Agriculture, Studentská 13, 370 05 České Budějovice, Czech Republic

The aim of the survey realised within the project GA CR P404/11/0354 "Protected areas - social deal on nature protection" was to map the relationships of local people to the territory in which they live, their satisfaction with conditions of everyday life and their relationships to nature conservation.

Methods

Field research was realised in the period June – September 2012 by use of interviewers who were contracted for this purpose in each particular model area. Prior field research, they were appropriately trained by project team members. After, when we were taking back the filled-in questionnaires, we interviewed them in order to get information on the context, i.e. on their various observations gained during the process of questionnaire survey.

In total 1 511 respondents were addressed this way. Thanks to the chosen method of data gathering, the return of questionnaires was 100%. Afterwards, two questionnaires were excluded from the sample as they appeared to be not completely filled. Hence, 1 509 questionnaires passed to the next step. The data were coded, and made ready for processing by statistical methods. In the first step, nominal and ordinal variables were processed.

Survey was realized in four regions - the following categories of protected areas:

- A - National Park (NP) Šumava + Protected Landscape Area (PLA) Šumava (296 questionnaires);
- B - PLA Třeboňsko (100 questionnaires);
- C - PLA Křivoklátsko (100 questionnaires);
- D - PLA Lužické hory + PLA Labské pískovce + PLA České středohoří + (1013 questionnaires); the NP České Švýcarsko belongs to this group too, but the territory is not inhabited

Adult population, i.e. people older than fifteen, permanently living in particular model area was defined as the basic set. The sample was derived from it by use of combination of quota and random sampling on the base of specific algorithm. The basic settlement unit was defined as the basic unit for calculation. It may be represented by the whole municipality or by a part of the municipality. Population data were taken from population census 2011. The number of questionnaires (Q_i) for particular basic settlement unit i was then derived by use of three parameters: the number of people living in the whole model area (N), the number of people living in the particular basic settlement unit (n_i), and total number of questionnaires expected to be distributed within the particular model area (Q):

$$Q_i = \lfloor Q \times n_i / N \rfloor + e_i$$

where $\lfloor x \rfloor$ mean integral part of the real number x, and e_i is randomly equal to 0 or 1 (the randomness was applied within group of settlements of similar size). The last requirement on the selection procedure consists in the fact, that the minimum number of questionnaires in one

basic settlement unit was 4. If calculated $Q_i < 4$, similar settlements should have been grouped and all questionnaires were gathered from one randomly selected settlement of the group.

The program DataCollector of the company IDS (Matějka, 2013) was used for both data coding and processing. According to the questions in the questionnaire was defined project structure. The structure of the data file will be described together with an analysis of frequency of responses in the first part of the results in this paper. Graphs of the frequencies according to the protected areas were generated by the DataCollector software.

Contingency tables and factor analysis of categorical variables

Basic questions about processing of data on collected questionnaires are: Is it possible to create groups of the questions (variables) and consequently groups of the questionnaires? There is a difference on the collected data surveyed distinct regions? The variables represent a multidimensional space, which can be processed by the multivariate analysis. The basic method of multivariate analysis consists in the description of the degree of relationship for each pair of variables. This dependence was evaluated by tool of the contingency tables, in which the dependence of the variables could be tested using χ^2-test. The X value (the test statistic) was calculated according to the equation

$$X^2 = \sum_{r=1}^{R}\sum_{c=1}^{C}\frac{\left(n_{r,c} - e_{r,c}\right)^2}{e_{r,c}}$$

where $n_{r,c}$ is the observed number of combinations of the r-th category of the first variable (response) and the c-th category of the second variable; R is total number of categories in the first variable (number of rows), and C is such number of categories in the second variable (columns); $e_{r,c}$ is the expected number of such cases under condition of independence. It can be assumed that X^2 meet the χ^2-distribution with f = (R-1) (C-1) degrees of freedom. The relationship could be characterized by a probability of the first kind error for the χ^2-test.

The X^2 values were re-calculated to the so-called Cramer's V. This value can be interpreted similarly to Pearson's correlation coefficient by real variables with normal distribution:

$$V = \sqrt{\frac{X^2}{n\left(\min\left(R,C\right)-1\right)}}$$

Square matrix **V** of all values V for all combinations of the analyzed variables was processed similarly as is usual in the matrices of the correlation coefficients according to the methods of factor analysis. The matrix **V** was constructed for all pairs of categorical and ordinal variables, except for pairs for which the absolute binding was detected (V = 1). Relationships between variables were graphically depicted as the position of the variables in the ordination space of the first two or three factor axes.

Results

The general hypothesis tested by the project suggests that the attitude of people to nature protection is dependent on particular socio-economic situation, hence region-specific to some extent. Therefore, we started to study variables, which manifest regional variability (statistically proven dependency between the particular variable and the variable “region” in the data set). It is fair to say that in this stage we report selectively on variables meeting the above-mentioned criterion, and that it is a description only, not interpretation. The interpretation will be the task of the year 2013.

Data structure and response frequencies

The questionnaire used had the same structure as the one used in survey realised in 2004 (Matějka, 2005; Těšitel et al., 2005)). Hence, we could compare the results. In the following text, particular questions are described as they appeared in the questionnaire. Graphs are used at variables/questions that manifest regional variability.

Model area

Data field REGION: NP Šumava (value 1), PLA Šumava (2), PLA Třeboňsko (3), PLA Křivoklátsko (4), PLA Lužické hory (5), PLA Labské pískovce (6), PLA České středohoří (7).

Question 2: What does make you to stay here

(Please, mark at maximum three possibilities from the list)

Data fields - response: Q2_1 - family, Q2_2 - flat Q2_3 - nature, Q2_4 - quiet, Q2_5 – friends, Q2_6 - job Q2_7 – house for recreation, Q2_8 - garden, Q2_9 – healthy environment, Q2_10 – I am used to be here, Q2_11 – something else, Q2_12 – there is in fact nothing to make me stay here.

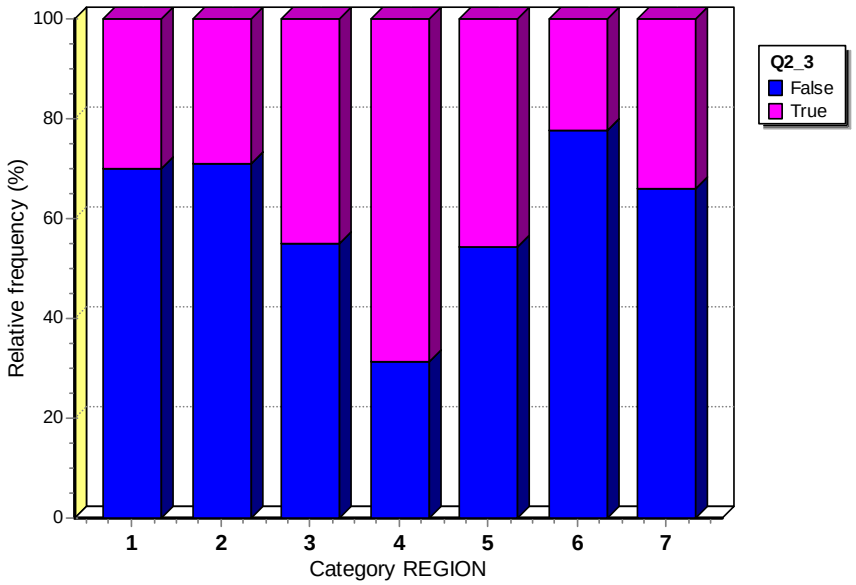


Fig. 1. Question 2 - Nature does make me to stay here. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.240; p = 0.000).

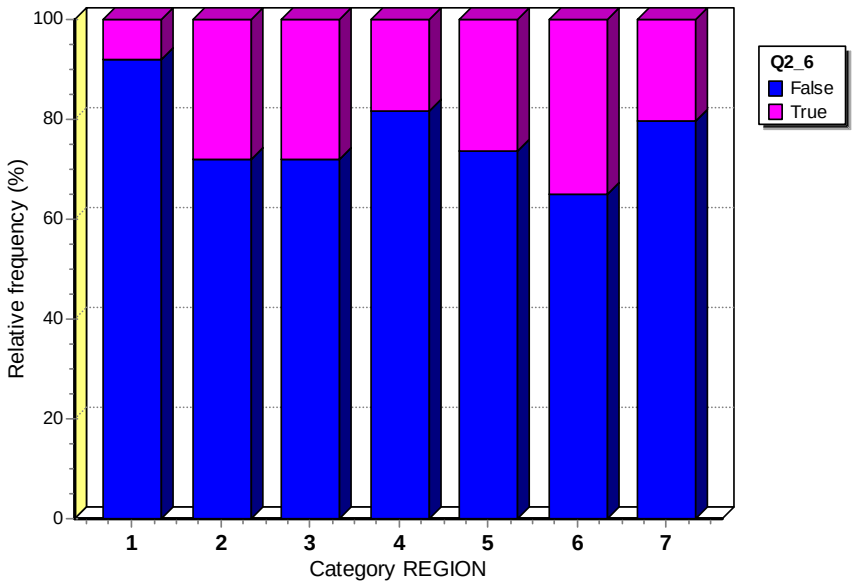


Fig. 2. Question 2 - Job does make me to stay here. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.144; p = 0.000).

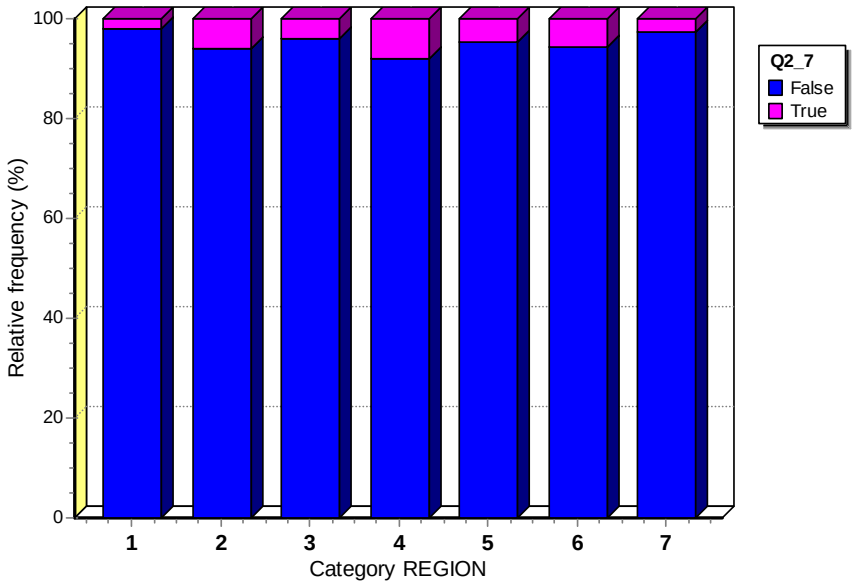


Fig. 3. Question 2 - The house for recreation does make me to stay here. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.082; p = 0.116).

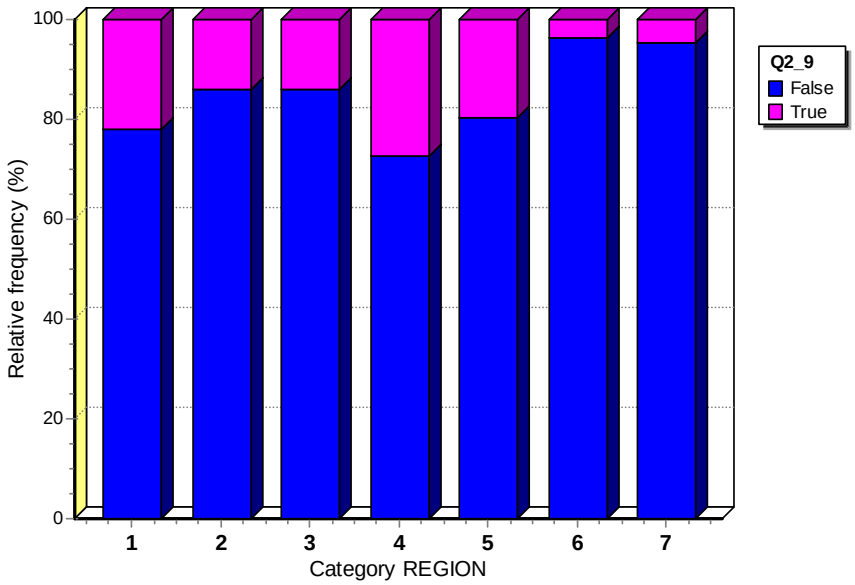


Fig. 4. Question 2 - The healthy environment does make me to stay here. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.240; p = 0.000).

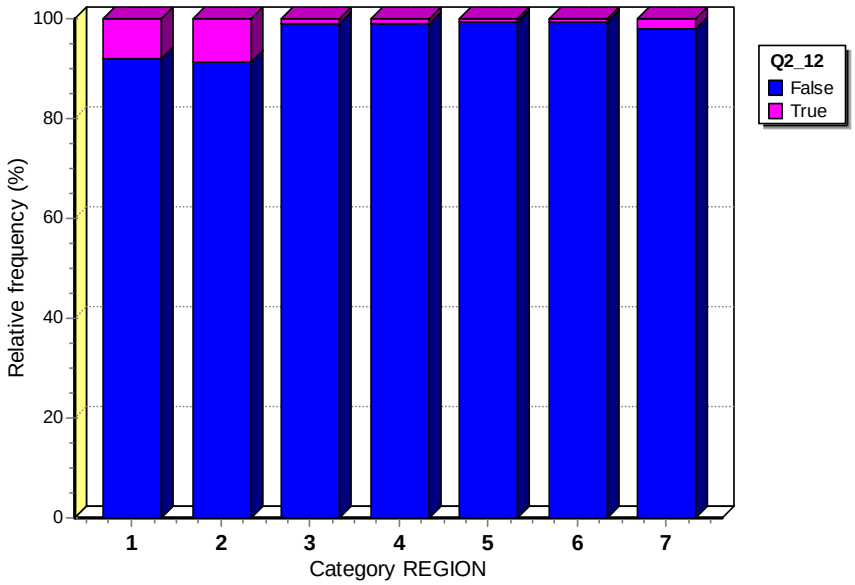


Fig. 5. Question 2 - Nothing does make me to stay here. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.178; p = 0.000).

Question 3: Do you think about to leave out of the territory

Data field Q3: yes (value True), no (False).

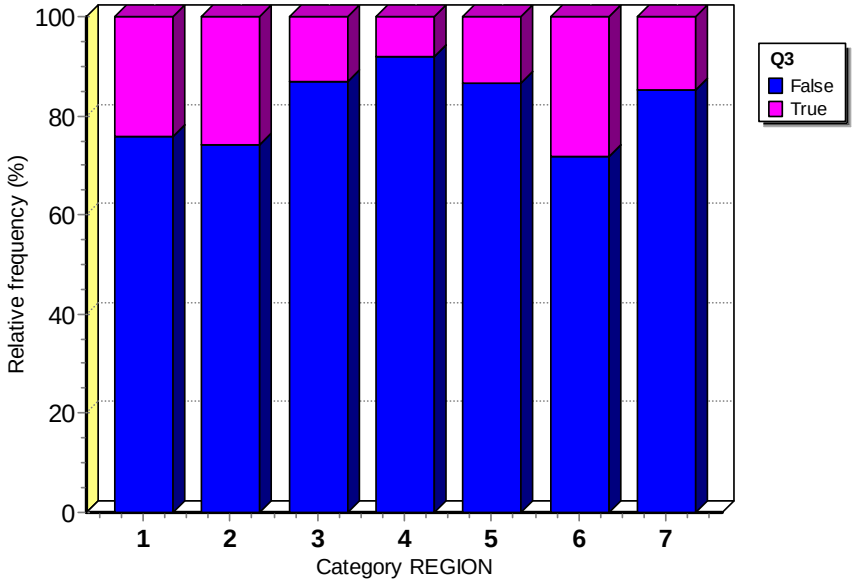


Fig. 6. Question 3 - Do you think about to leave out of the territory? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.172; p = 0.000).

Question 4: Are you contented with your municipality as it looks like

Data field Q4: yes (2), partly (1), no (0).

Question 5: Are you contented with technical infrastructure in your municipality

(electricity, gas, water piping, waste water system, telephone, etc.)

Data field Q5: yes (value 2), partly (1), no (0)

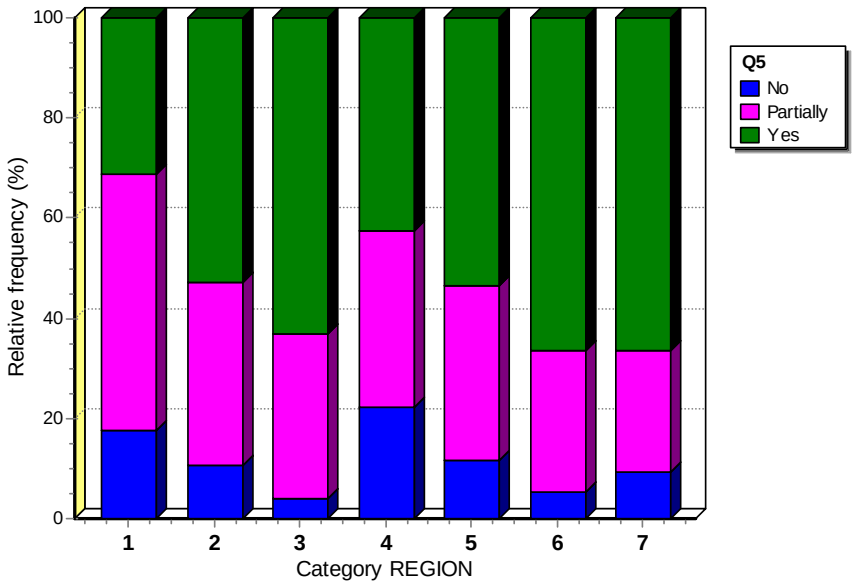


Fig. 7. Question 5 - Are you contented with technical infrastructure in your municipality? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.151; p = 0.000).

Question 6: Are you contented with services in your municipality
(hair dresser, shops, pub, post service, medical care, school, etc.)
Data field Q6: yes (value 2), partly (1), no (0)

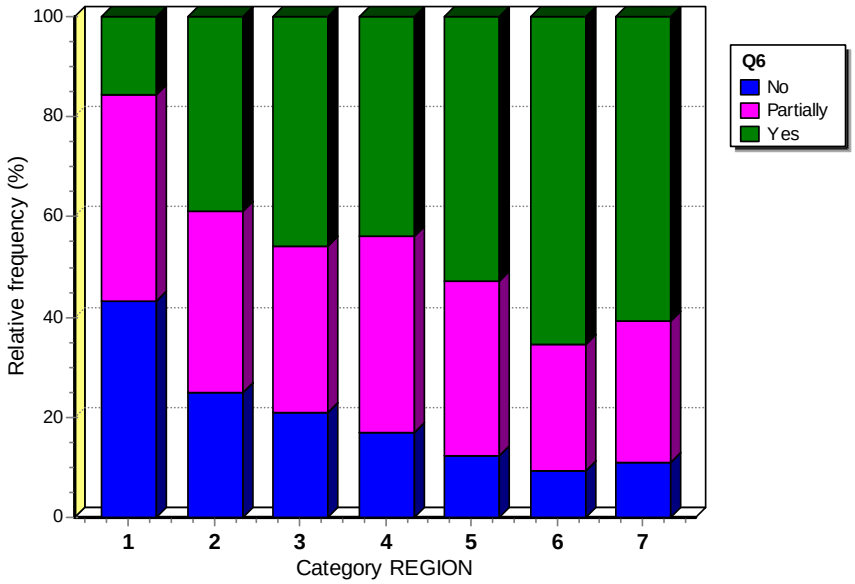


Fig. 8. Question 6 - Are you contented with services in your municipality? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.188; p = 0.000).

Question 7: Do you think that facilities you have in your municipality are adequate to its size
Data field Q7: yes (value 1), no (0), I do not know (-1)

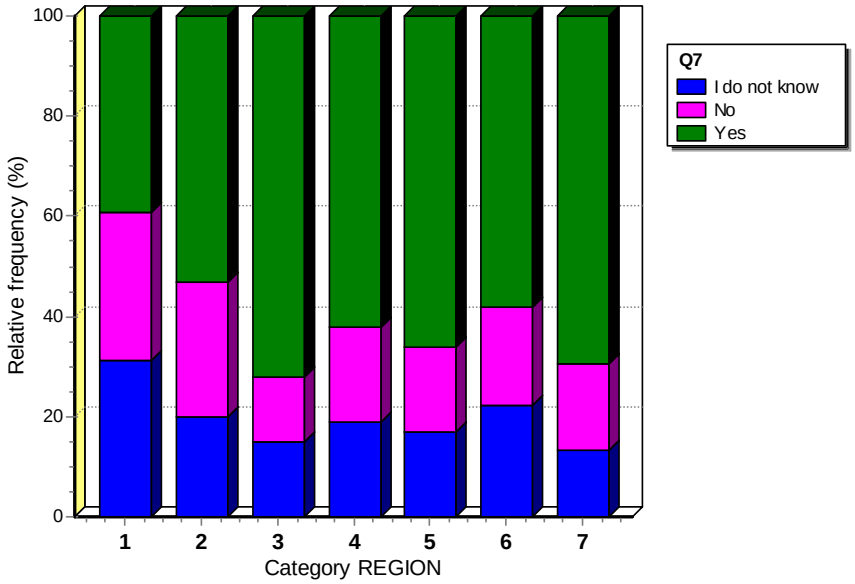


Fig. 9. Question 7 - Do you think that facilities you have in your municipality are adequate to its size? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.119; p = 0.000).

Question 8: Do you think that you can actively participate in decisions on important issues in taken in place you live?
Data field Q8: yes (value 2), partly (1), no (0)

Question 9: Are you contented with your present economic status
Data field Q9: largely yes (value 0), largely no (2)

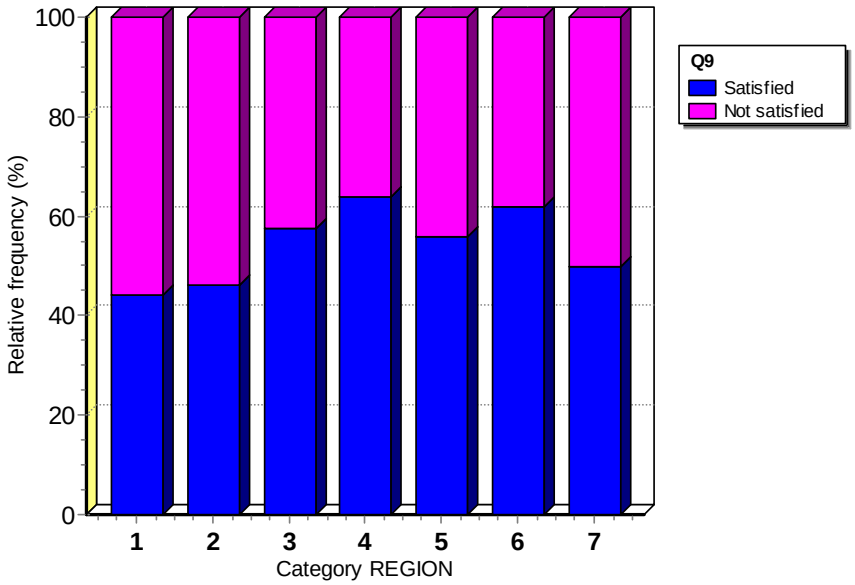


Fig. 10. Question 9 - Are you contented with your present economic status? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.121; p = 0.001).

Question 10: Do you know the logo of your protected area
Data field Q10: yes (value True), no (False)

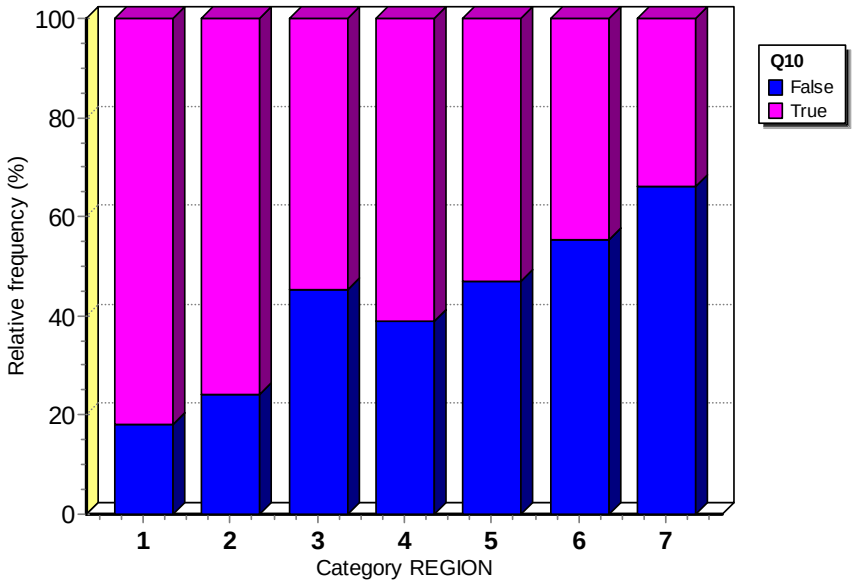


Fig. 11. Question 10 - Do you know the logo of your protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.314; p = 0.000).

Question 12: Are you pleased that your municipality is within protected area

Data field Q12: yes (value 1), no (0), I do not know, I have not thought about it (-1), I do not care about it (-2)

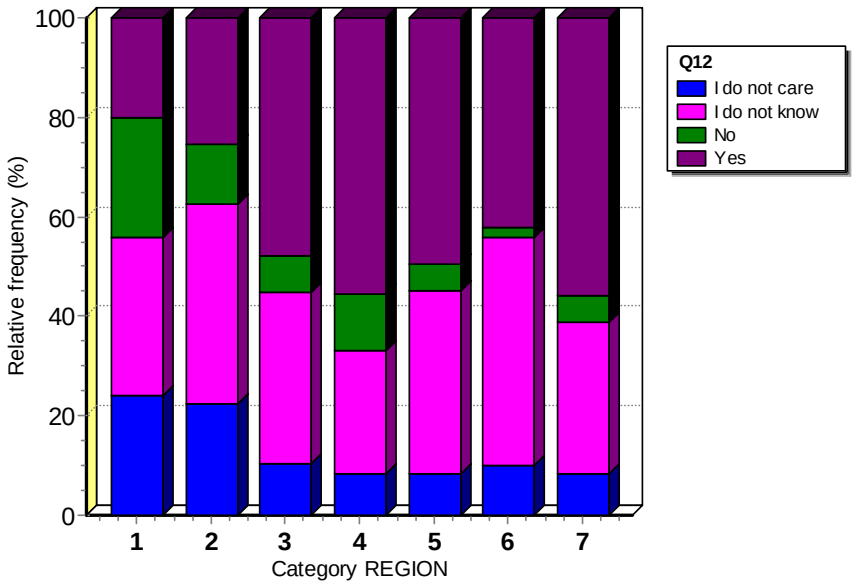
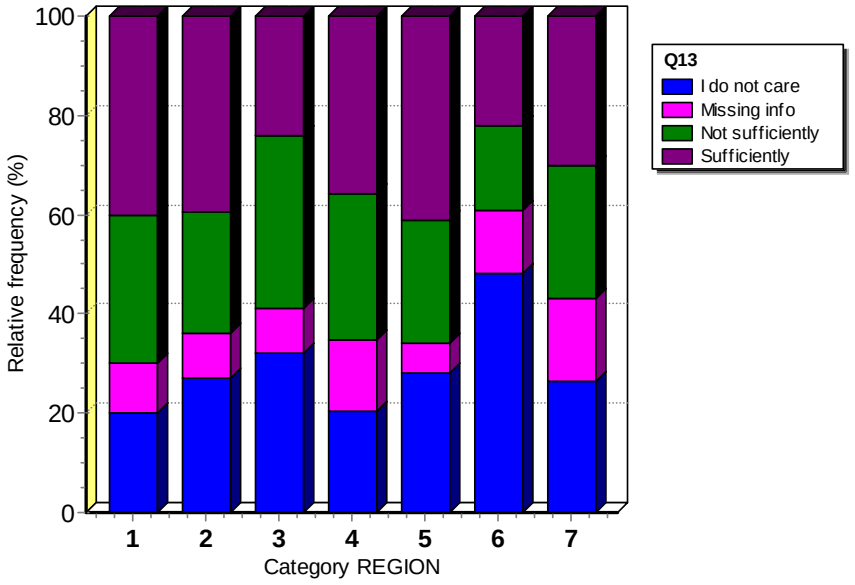


Fig. 12. Question 12 - Are you pleased that your municipality is within protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.179; p = 0.000).

Question 13: How do you feel informed about what is happening in the protected area

Data field Q13: sufficiently (value 2), rather insufficiently (1), I miss the information absolutely (0), I do not care about it (-1)



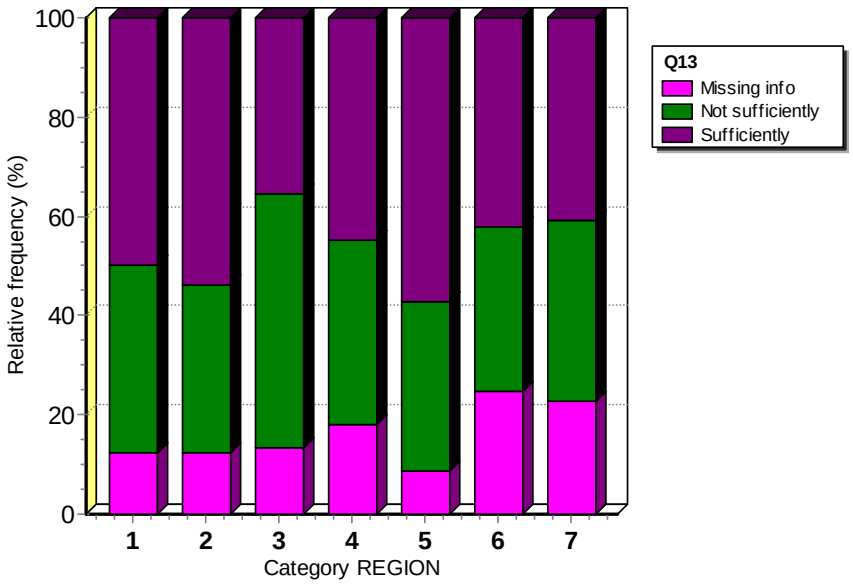


Fig. 13. Question 13 - How do you feel informed about what is happening in the protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.141; p = 0.000).

Question 14: What is your source of information on what is happening in the protected area

Data fields Q14_1 - TV, Q14_2 - radio, Q14_3 - press, Q14_4 – civil associations, Q14_5 – friends and acquaintances, neighbours, Q14_6 – information centres of protected area Q14_7 – information materials of protected area administration (billboards, brochures, leaflets, etc.), Q14_8 – official correspondence with protected area administration, Q14_9 – municipality representatives, Q14_10 - Internet, Q14_11 – other source.

The Internet is the only source of information with significantly different use in particular regions. Among the all model areas, it is used least frequently in the PLA Křivoklátsko, where on the other hand municipality representatives seem to play an important role of source of information.

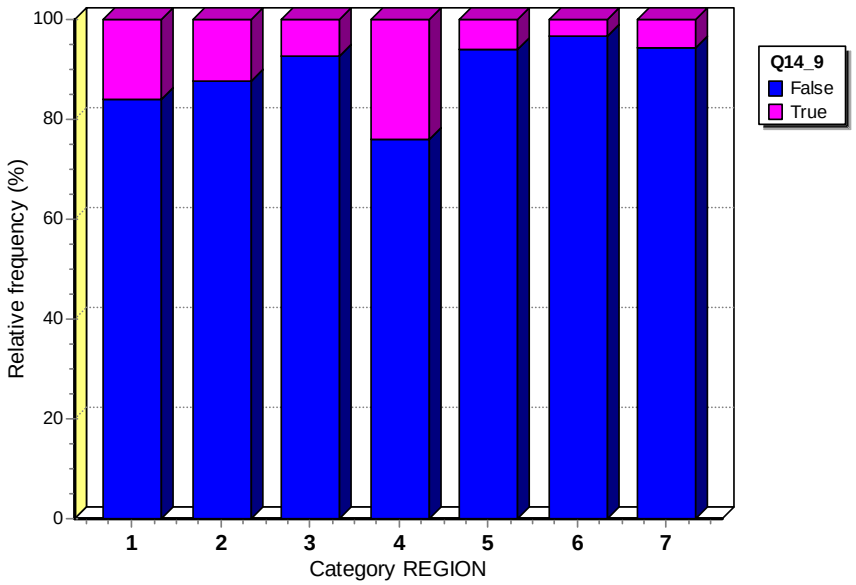


Fig. 14. Question 14 - Municipality representatives as a source of information for respondents. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.048; p = 0.219).

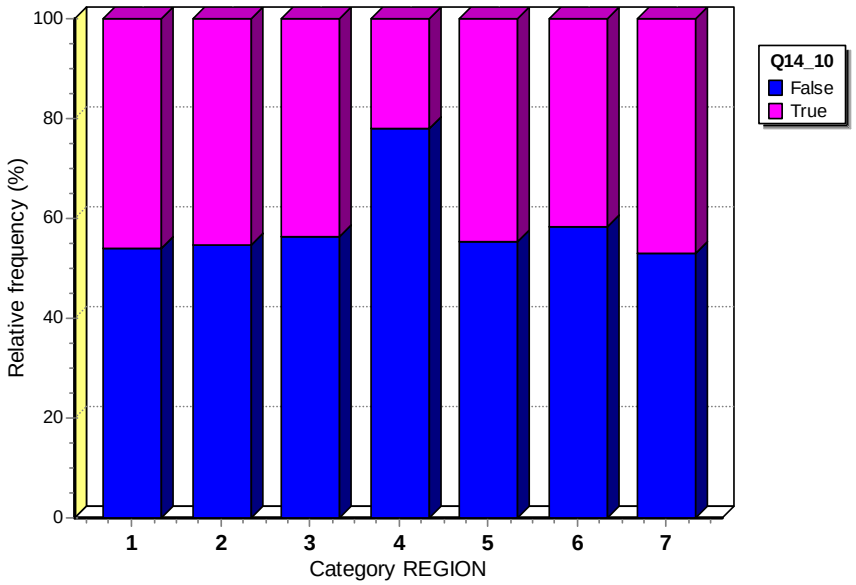


Fig. 15. Question 14 - Internet as a source of information for respondents. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.090; p = 0.021).

Question 15: How is your life influenced by protected area

Do you consider its existence to be rather ...

Data field Q15: advantage (value 1), disadvantage (0), I do not know (-1)

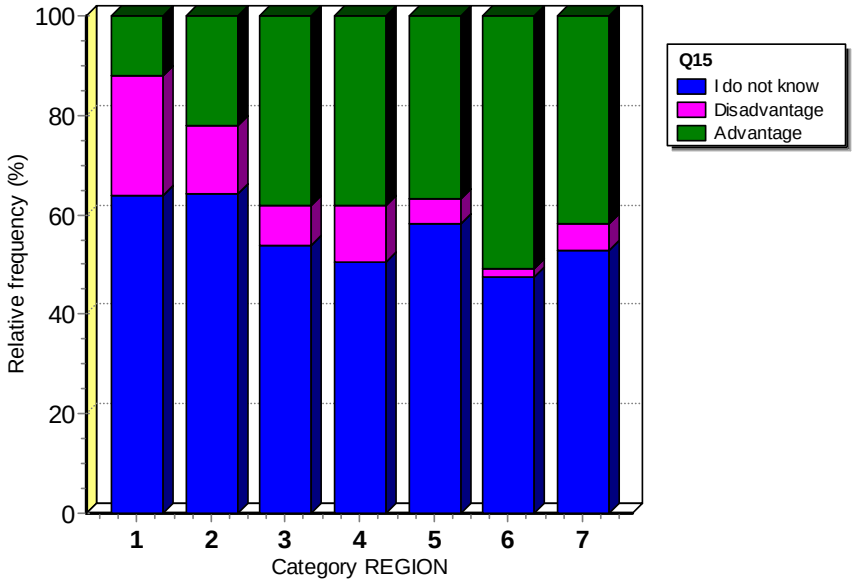


Fig. 16. Question 15 - How is your life influenced by the protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.180; p = 0.000).

Question 16: Do you have any idea on how to make use of the existence of the protected area

Data field Q16: yes (value 1), no (0), I do not know (-1)

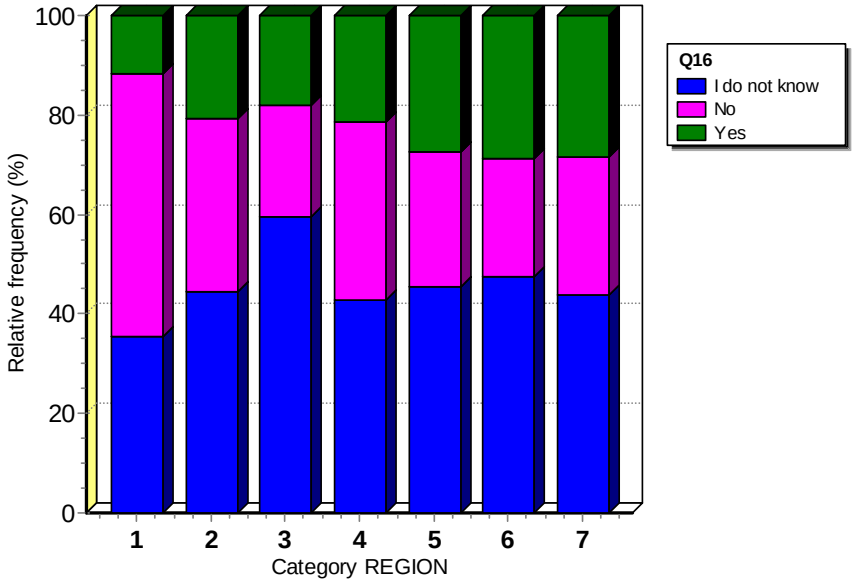


Fig. 17. Question 16 - Do you have any idea on how to make use of the existence of the protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.111; p = 0.000).

Question 17: Do you think that if the protected area would be absent, quality of life of local people will be

Data field Q17: (value 2), the same (1), worse (0), I do not know (-1), other response (-2)

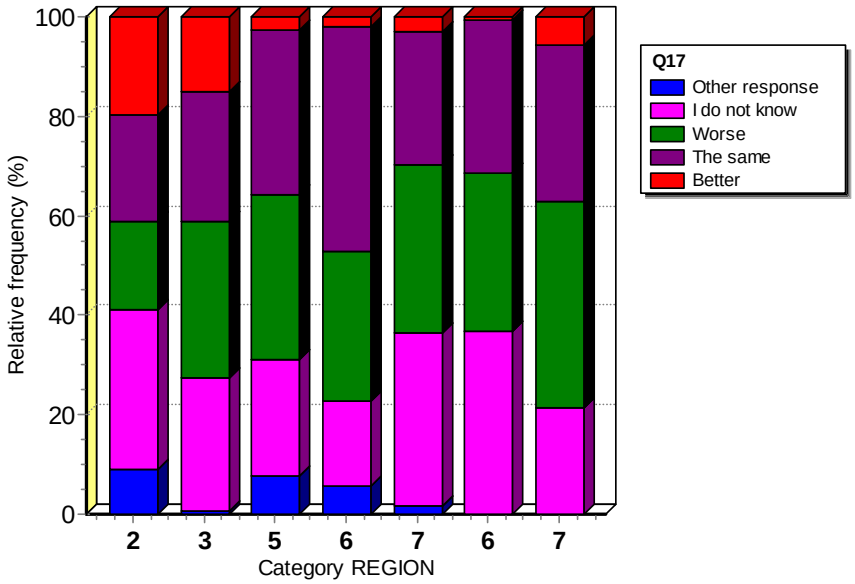


Fig. 18. Question 17 - Do you think that if the protected area would be absent, quality of life of local people will be ... Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.146; p = 0.000).

Question 18: Imagine that protected area has been cancelled. Would you recognize it?

Data field Q18: yes (value True), no (False)

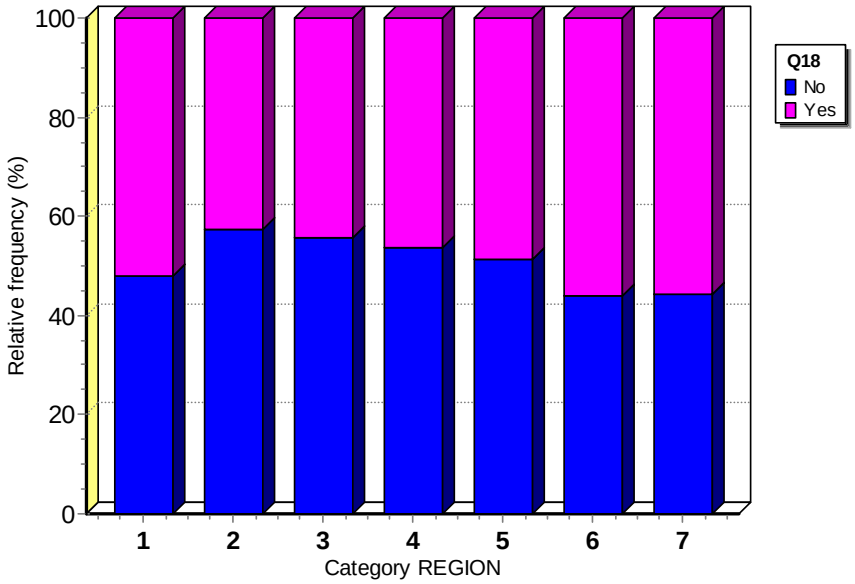


Fig. 19. Question 18 - Would you recognize cancellation of the protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.106; p = 0.010).

Question 19: Do you think that protection are increases attractiveness of the region for tourists

Data field Q19: yes (value 1), no (0), I do not know (-1)

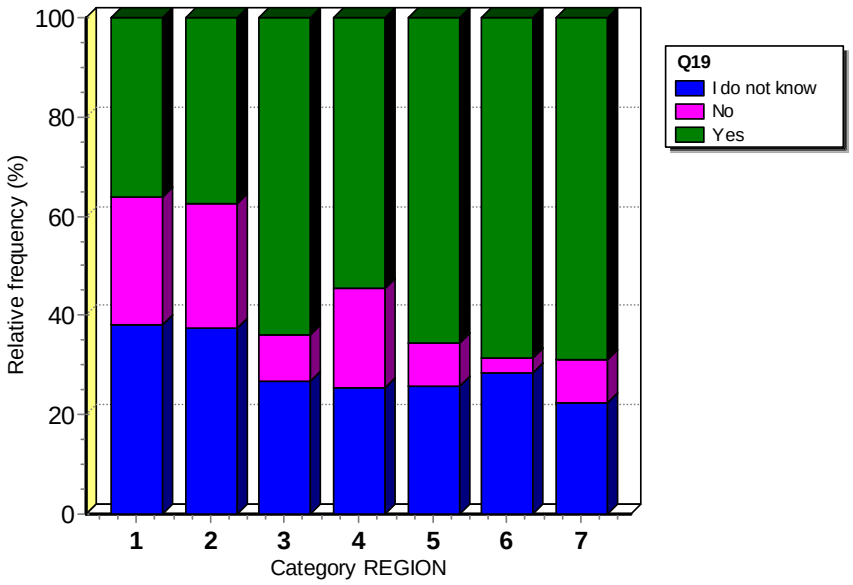


Fig. 20. Question 19 - Do you think that protection are increases attractiveness of the region for tourists? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.206; p = 0.000).

Question 20: According to your opinion, the number of tourist present in the region during the season is

Data field Q20: acceptable (value 1), not acceptable (2), I can not judge (-1)

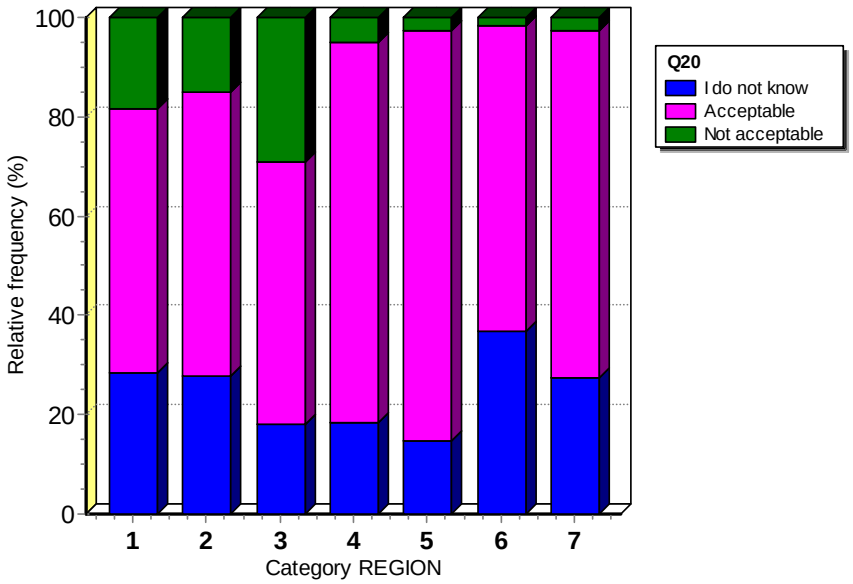


Fig. 21. Question 20 - According to your opinion, the number of tourist present in the region during the season is ... Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.248; p = 0.000).

Question 23: Do you think that administration of protected area is represented by people who do well professionally, as well as communicate properly with locals
Data field Q23: yes (value 2), not all of them (1), no (0), I do not know (-1)

Question 24: Are you in contact with them?
Data field Q24: yes (value -1), no (2), other response (3)

Question 25: Do you know management plan of your protected area?
Data field Q25: yes (value True), no (False)

Question 27: Do you think that your protected area is as well UNESCO Biosphere Reserve?
Data field Q27: yes (value 1), no (0), I do not know (-1)

Question 29: Have you ever participated in activities related with nature protection?
Data field Q29: yes (value 1), no (0), other response (-1)

Question 30: Do you or your family use outdoor facilities of the protected area administration (educational trail for pedestrians or bikers, information billboards, information centres, training centres, etc.)?
Data field Q30: yes - often (value 2), yes - sometimes (1), no (0)

Personal data 1: gender
Data field SEX: man (value 1), woman (2)

Personal data 2: Age
AGE: up to 20 (value 1), 21 – 30 (2), 31 – 40 (3), 41 – 50 (4), 51 – 60 (5), more than 60 (6)

Personal data 3: Education
Data field EDUC: primary school (value 1), apprenticeship (2), secondary school (3), university (4)

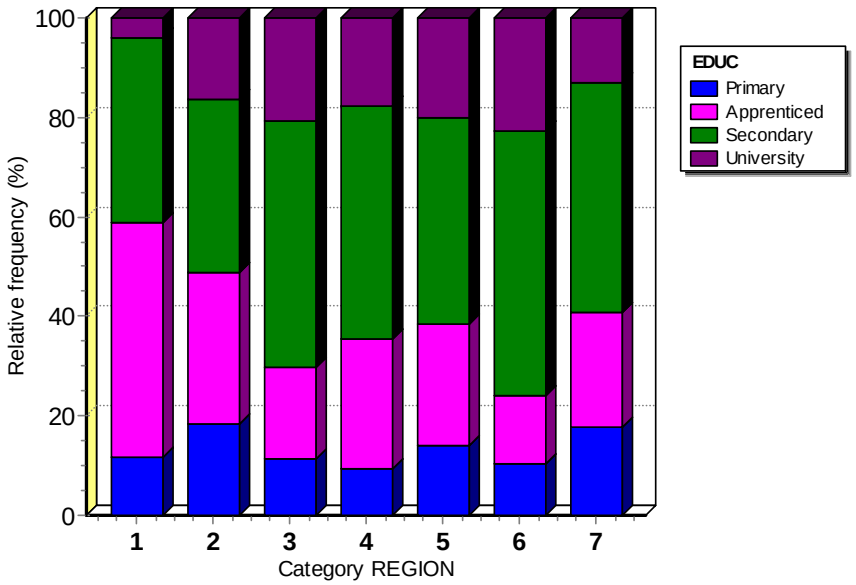


Fig. 22. Education of the respondents. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.124; p = 0.000).

Personal data 4: Profession

Data field PROF: employee (value 1), entrepreneur (2), student (3), maternity leave / housewife (4), retired5), unemployed (6)

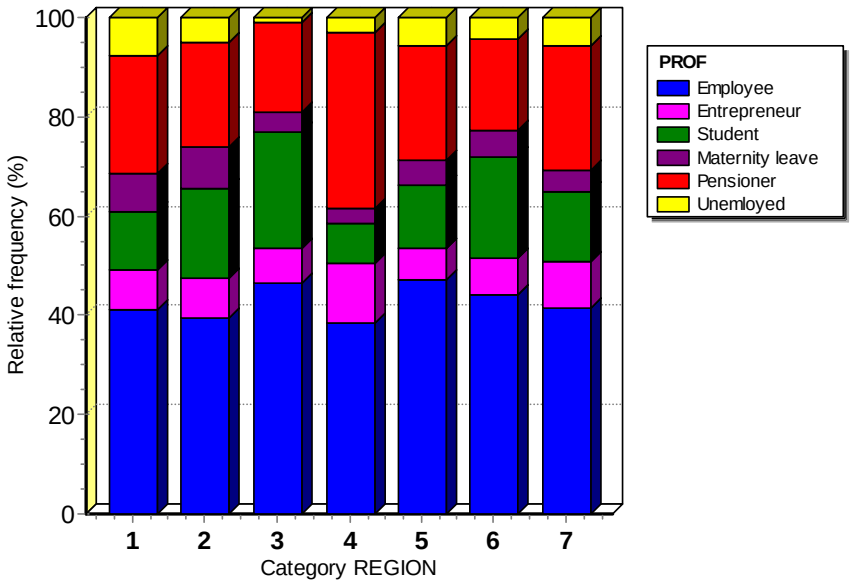


Fig. 23. Profession of the respondents. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.078; p = 0.038).

Personal data 5: Do you commute to work/school out of the protected area
Data field COMMUTE: yes (value 1), no (0), I do not know (-1)

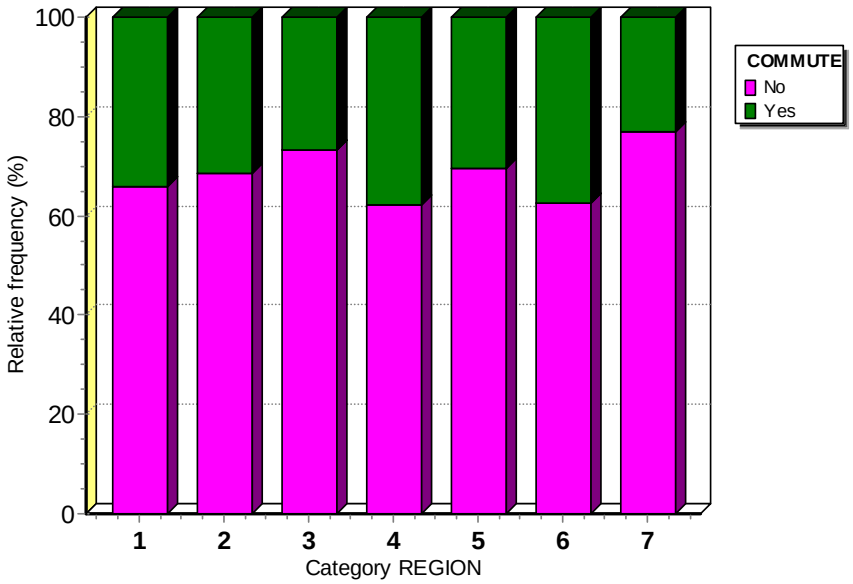


Fig. 24. Do you commute to work/school out of the protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.115; p = 0.000).

Personal data 6: Do you own a real estate within the protected area
Data field OWNER: yes (value True), no (False)

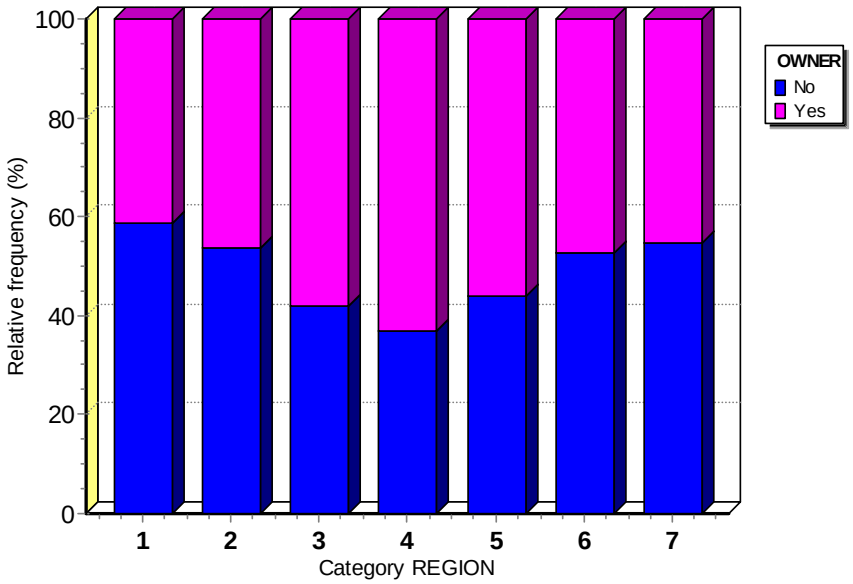


Fig. 25. Do you own a real estate within the protected area? Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.118; p = 0.002).

Personal data 6a: If yes, could you specify it

Data fields REAL_1 - field, REAL_2 - forest, REAL_3 - garden, REAL_4 - pond, REAL_5 – house for permanent living, REAL_6 – recreational facility, REAL_7 – facility used for production (e. g. workshop, storehous, cowhsed, …), REAL_8 – building plot, REAL_9 – something else

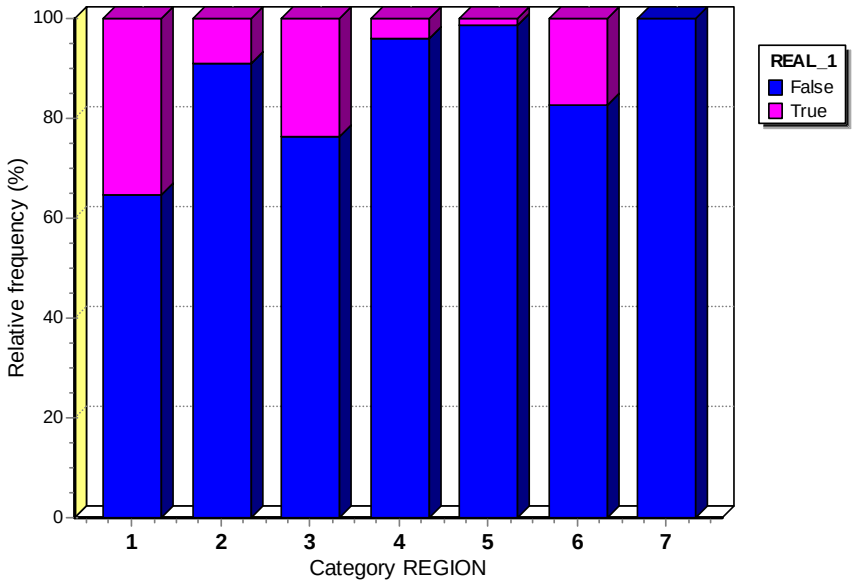


Fig. 26. Distribution of respondents according to whether they are owners of land - field (according to the record in the real estate) in the protected area. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.052; p = 0.156).

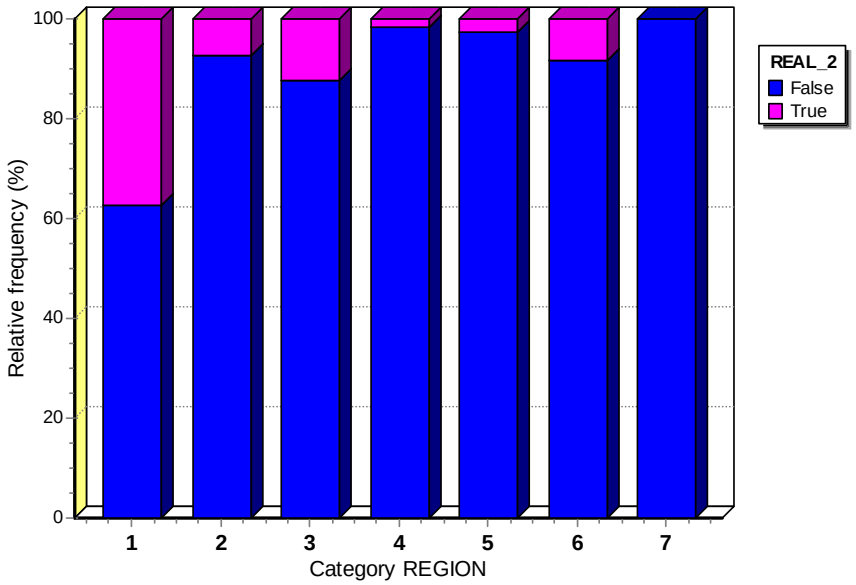


Fig. 27. Distribution of respondents according to whether they are owners of land - forest stand (according to the record in the real estate) in the protected area. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.031; p = 0.400).

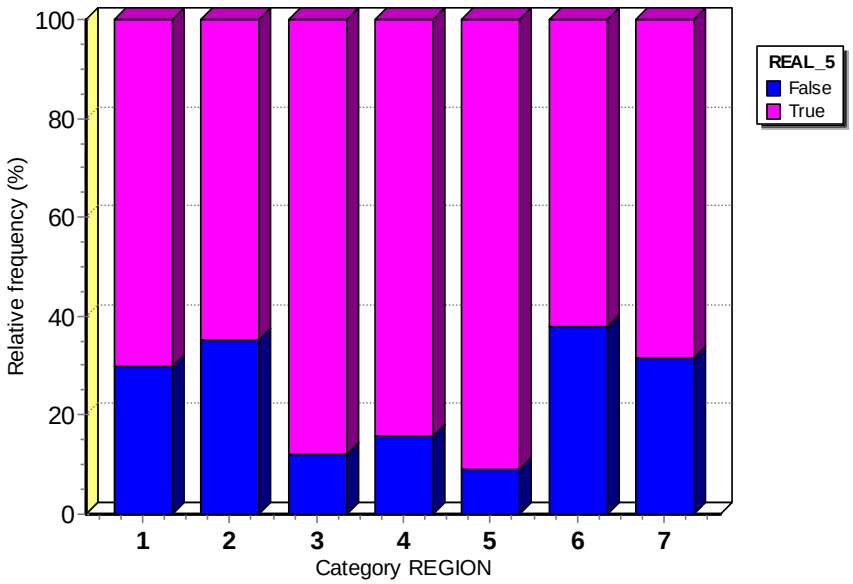


Fig. 28. Distribution of respondents according to whether they are owners of house for permanent living in the protected area. Difference among regions 1 - NP Šumava, 2 - PLA Šumava, 3 - PLA Třeboňsko, 4 - PLA Křivoklátsko, 5 - PLA Lužické hory, 6 - PLA Labské pískovce, 7 - PLA České středohoří (V = 0.257; p = 0.000).

Variable dependency and multivariate analysis

Absolute relation (V = 1) was observed for pairs of variables (REAL_8, Q2_5), (REAL_6, Q2_6) and (Q14_1, Q2_7), so the three variables firstly listed in these pairs was excluded from the further analysis.

Factor analysis shows that the first few axes explain a relatively small proportion of the total data variance, which is similar in the case of similar data. The same situation was also by data collected at 2004 (Matějka, 2005).

Table 1. Explained variability of data based on the first four axes factor analysis computed between categorical variables from the survey.

Axis	Eigenvalue	Total variance (%)	Cumulative Eigenvalue	Cumulative variance (%)
1	5.765	9.94	5.765	9.94
2	2.419	4.17	8.184	14.11
3	1.909	3.29	10.094	17.40
4	1.689	2.91	11.783	20.32

Based on the selection of relations between variables by value V > 0.40, several groups of variables can be identified. These variables may be selected to assign respondent to a group:

- Variable dependent on age of respondent: Q2_6 - PROF - AGE - OWNER;
- Owners of buildings for private use: Q2_7 - REAL_5 - REAL_9;
- Owners of land estates: REAL_1 - REAL_2.

During further investigation, it is possible to find other groups of variables that are related to each other significantly:

Group A, which describes the respondent attitude to protected areas:
• Q12 - Are you pleased that your municipality is within protected area?

• Q15 - How is your life influenced by protected area?
• Q17 - Do you think that if the protected area would be absent, quality of life of local people will be better/ worse?
• Q18 - Imagine that protected area has been cancelled. Would you recognize it?

Group B, which includes variables describing the respondent attitude to the character of the village where he lives:
• Q5 - Are you contented with technical infrastructure in your municipality?
• Q6 - Are you contented with services in your municipality?
• Q7 - Do you think that facilities you have in your municipality are adequate to its size?

Group variables dependent profession (PROF) and age (AGE):
• EDUC - Education
• Q14_10 - What is your source of information on what is happening in the protected area? : Internet.
• Q3 - Do you think about to leave out of the territory?
• Q2_6 - What does make you to stay here (please mark three possibilities at maximum from the list)? : The job.
• OWNER - Do you own a real estate within the protected area?

Most variables are significantly dependent on the region of investigation. From them we can mention the most important variables:
• Q10 - Do you know the logo of your protected area? (W = 0.31)
• Q13 - How do you feel informed about what is happening in the protected area? This variable is most strongly related to the variable last.

There is a group of the questions, for which the answers do not differ significantly among the observed regions. It is represented by the questions (in parentheses is the probability of error calculated based on χ^2-test):
• Q2_7 (p = 0.116) - What does make you to stay here? : House for recreation
• Q8 (0.805) - Do you think that you can actively participate in decisions on important issues in taken in place you live?
• Q14_4 (0.296) - What is your source of information on what is happening in the protected area? : Civil associations
• Q14_8 (0.253) - ditto: Official correspondence
• Q14_11 (0.997) - ditto: Other source
• REAL_3 (0.096) - Do you own garden (as land estate) in the protected area?
• REAL_4 (0.105) - Do you own pond (as land estate) in the protected area?
• REAL_8 (0.092) - Do you own building plot (as land estate) in the protected area?

Responses between men and women significantly differ on some questions. The most significant differences were found for the following ones:
• PROF (p = 0.000)
• COMMUTE (0.000)
• Q2_1 (0.000) - What does make you to stay here? : Family
• Q12 (0.002) - Are you pleased that your municipality is within protected area?
• Q15 (0.008) - How is your life influenced by protected area?
• Q16 (0.002) - Do you have any idea on how to make use of the existence of the protected area?

• Q23 (0.007) - Do you think that administration of protected area is represented by people who do well professionally, as well as communicate properly with locals?
• REAL_1 (0.011) - Do you own field (as land estate) in the protected area?
• REAL_7 (0.009) - Do you own facility used for production (as land estate) in the protected area?

Out of employment, however, the relationships between answer and respondent sex is generally low, as evidenced by the low V value, which vary between 0.08 and 0.12.

The ordination space of the first two or three axes is plotted in Figs 29–30. There is also a group of the strongest (the most important) relations between variables marked. It is therefore evident that the character of the answers seems to be significantly dependent not only on the respondent attitude to the nature protection/conservation, which is described by the group of questions Q12, Q15, Q17 and Q18, but is dependent also on the respondent age and education. An in-depth analysis of the differences in attitudes of the population towards the nature protection/conservation in different regions must be carried out separately within different subgroups of the population (at least) according to age and education.

Preliminary conclusions

Satisfaction with current economic situation is slightly higher by peoples in all areas, with the exception of the Šumava (both NP and PLA).

Residents of the model areas are relatively satisfied with the fact that they live in large protected areas or this fact has been excluded from thinking in their everyday life. The Šumava do not respond this scheme. Almost a third of respondents understand life in areas with high conservation status as a disadvantage, as something that negatively affects their quality of life.

People usually appreciate the protected area as a major tourist attractor. This view is widely shared in our model areas (50-75 % of respondents). Šumava sets itself apart. Here, hold this view only less than 40 % of respondents.

All model areas are similar in the majority of people living there is not considering to move out of the area. The young generation (respondents up to twenty years) was the only group that has expressed a desire to move out. The potential mobility is a natural phenomenon in this generation, regardless of whether they live in a protected area or not. They are at the beginning of his professional career, undocked still in life, even in the territory.

First results indicate that it is the Šumava, which would be different in many characteristics from the other model areas. This fact does not correspond to our hypothesis. We had expected that they would rather distinguish protected areas in the north part of the Czech Republic, which are located in regions that have long socio-economic problems (Kušová et al., 2006, 2008, 2009).

Concrete way by which nature protection measures are implemented by Administration of particular protected area seems to be more important factor in the process of forming attitude of people to nature protection, than the general socio-economic context.

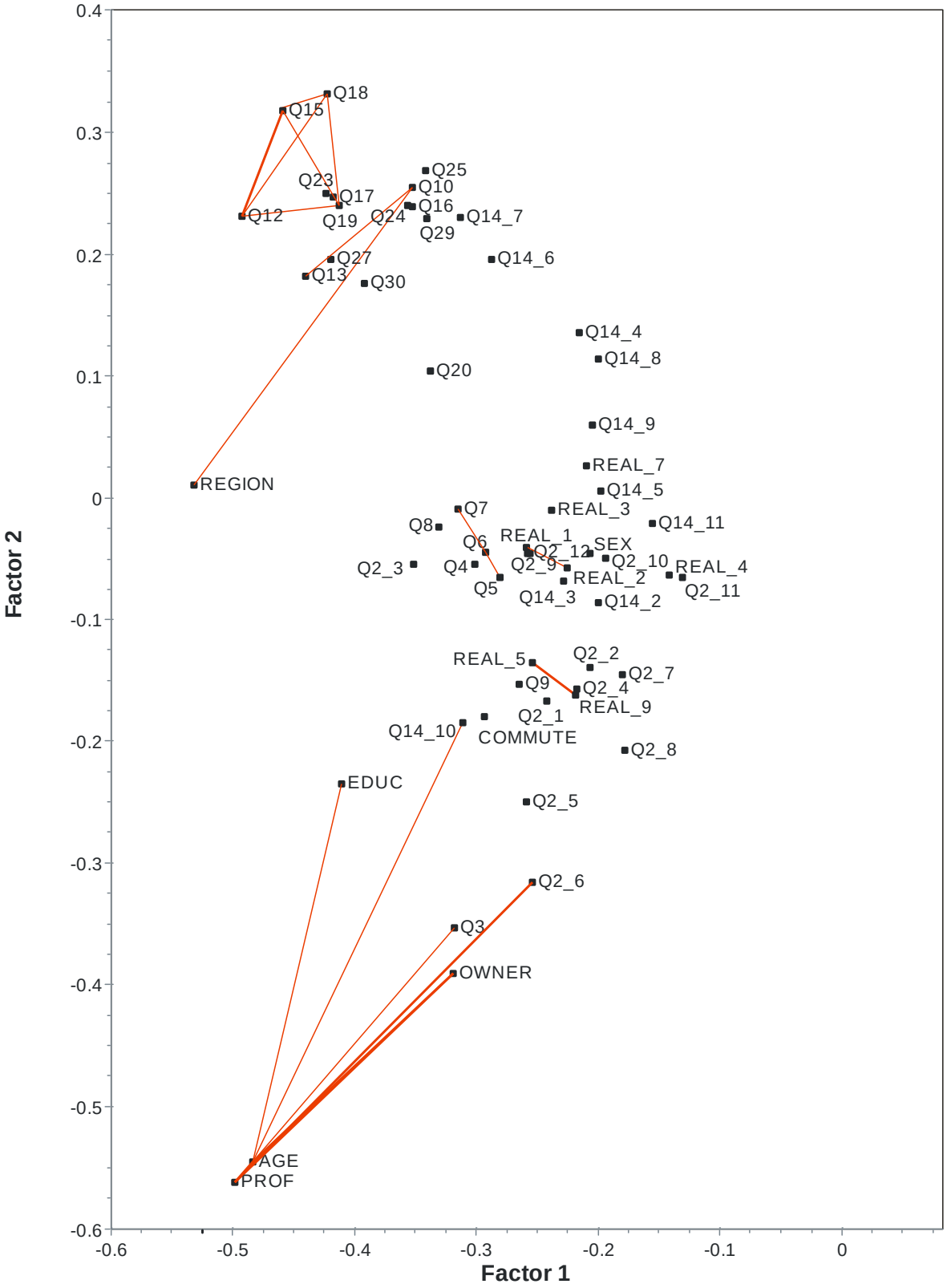


Fig. 29. Factor analysis of categorical variables from the survey for all regions (all data); the space of the first and second axis. The most important relations between variables are shown.

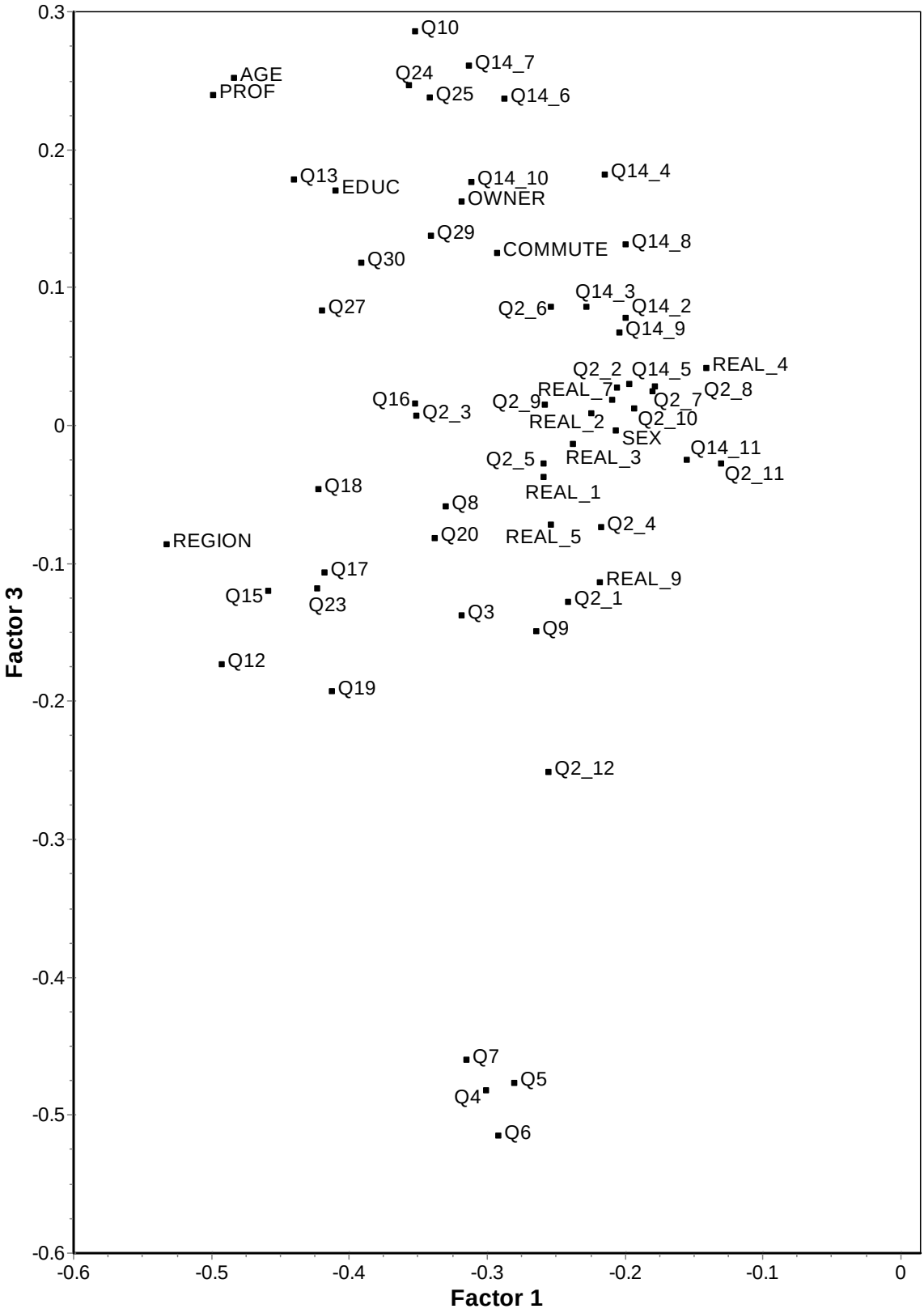


Fig. 30. Factor analysis of categorical variables from the survey for all regions (all data); the space of the first and third axis.

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