

Social perception of nature protection in protected areas (Czech Republic case)

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Abstract

Human perception is socially determined. Therefore the attitude of people to nature protection can be hypothesised as dependent on particular socio-economic situation. Main objective of the research reported here was empirical testing the hypothesis presuming broader regional socio-economic context as a decisive factor shaping relationship between local people and representatives of nature protection in selected protected landscape areas in the Czech Republic. The research was designed as a comparative analysis depicting situation in protected areas located in “non-problematic” regional socio-economic context and in parallel, in those embedded in structurally affected regions characterised by permanent relatively high unemployment rate. The attention was paid to subjective aspects of quality of life. In particular, we analysed how local people reflected their current socio-economic situation, and their attitude to nature protection. Triangulation approach was used as a basic format for the analysis, combining questionnaire survey, key informant interviewing and content analysis of local periodicals. Based on the results achieved, we can suggest that in the conditions of the Czech Republic, different overall socio-economic context cannot be considered as the factor differentiating relationship between nature protection and local development.

Key words: nature protection, protected areas management, local population, sociological research

INTRODUCTION

The attitude of man to nature is rather complex, spanning from utilitarian perception of nature in terms of natural resources to its recognition as value per se. Existence of protected areas represents the compromise between the two perspectives. Establishment and management of any particular protected area can thus be considered as a fragile consensus, permanently challenged, between relatively new imperative of nature conservation, and historically developed local and regional practices of land use (e.g. STOLL-KLEEMAN 2001a, MOSE 2007, HUBER et al. 2013).

Related, a cliché has emerged suggesting nature protection to be in contradiction with socio-economic prosperity, mainly due to utilitarian value system dominating in the nowadays society and managerial practices, mostly restrictive, adopted by state administration when defending interests of nature protection in large scale protected areas.

In this discourse, protected areas can be hypothesised as regions socio-economically handicapped, as concerns to the quality of life of local people, compared to “non-protected” areas; and the relationship existing between administration of protected area and local population as shaped primarily by conflict, rather than by cooperation. Both hypotheses were recently tested (by the project “Participative management – a key to minimize conflicts between biodiversity protection and socio-economic development of local communities, re-

alised in 2003–2005) in three Czech Biosphere Reserves, Křivoklátsko, Šumava and Třeboňsko, and rejected on the basis of empirical evidence gained there (TEŠITEL et al. 2005, 2006, KUŠOVÁ et al. 2006, 2008a,b, 2009). We were cautious, however, to generalize these results and apply them to all Czech protected areas, as the three studied areas used for the analysis appeared to be located in regions where serious social conflicts were absent, mainly thanks to the relatively low unemployment rate occurring there (KUŠOVÁ et al. 2008a).

The issue of considering nature as a set of natural resources, expressed obviously in terms of relationship between nature and human consumption, can be traced in professional literature worldwide, articulated however by use of different discourses. In papers depicting situation in Europe and in “developed” countries generally, the wealth is obviously analysed as the predictor of pro-environmental behaviour (e.g. INGELHART 1990, DUNLAP 1994, LIBROVÁ 1994, KORFIATIS et al. 2004, FRANZEN & VOGL 2013, MOSTAFA 2013), whereas in “developing” countries the same issue is, as a rule, articulated in terms of a relationship between poverty and local resources utilisation (e.g. ESCOBAR 1998, SCHERR, 2000, FISHER & CHRISTOPHER 2007, McSHANE et al. 2011, MINTEER & MILLER 2011). Regardless the discourse, however, the attitude of people to nature protection is hypothesised as being dependent on particular socio-economic situation.

Therefore, in order to formulate the statement on the attitude of local people to nature protection that would have more general validity, analysis of protected areas situated in economically problematic regions was suggested as a logical step in structuring our follow-up research (the project “Protected areas – social deal on nature protection” realised in 2011–2013).

MATERIAL AND METHODS

Studied areas

We generally presumed that broader regional socio-economic context could be a decisive factor shaping attitude of local people to both nature protection and representatives of protected landscape areas. Hence, the study was basically designed as a comparative analysis, in frame of which the above mentioned hypotheses were empirically tested in protected areas situated in two socio-economically different regional contexts (Fig. 1). Křivoklátsko Protected Landscape Area (PLA), Šumava National Park (NP) and PLA, and Třeboňsko PLA were supposed to be embedded in “non-problematic” regions. České Středohoří PLA, České Švýcarsko NP, Labské Pískovce PLA, and Lužické Hory PLA, on the other hand, represented protected areas situated within structurally affected regions, which have been facing socio-economic problems for a long time, including structural unemployment (e.g. FĚRTOVÁ & TEMELOVÁ 2011).

The unemployment rate is generally used as an important indicator of economic prosperity (e.g. BEAN & PISSARIDES 1993). Therefore, it was applied as the main parameter to distinguish “problematic” from “non-problematic” regions. In 2010, when the hypothesis was formulated, the unemployment rate was 4–7% in “non-problematic” regions, whereas in the “problematic” ones it amounted up to 10–13%.

Methods

In this paper, the attention is paid to subjective aspects of quality of life. In particular, we analysed social perception of nature protection, i.e. how local people reflect their current socio-economic situation, and their relation to nature protection, with the aim to reveal the extent to which is the image of nature protection influenced by different socio-economic

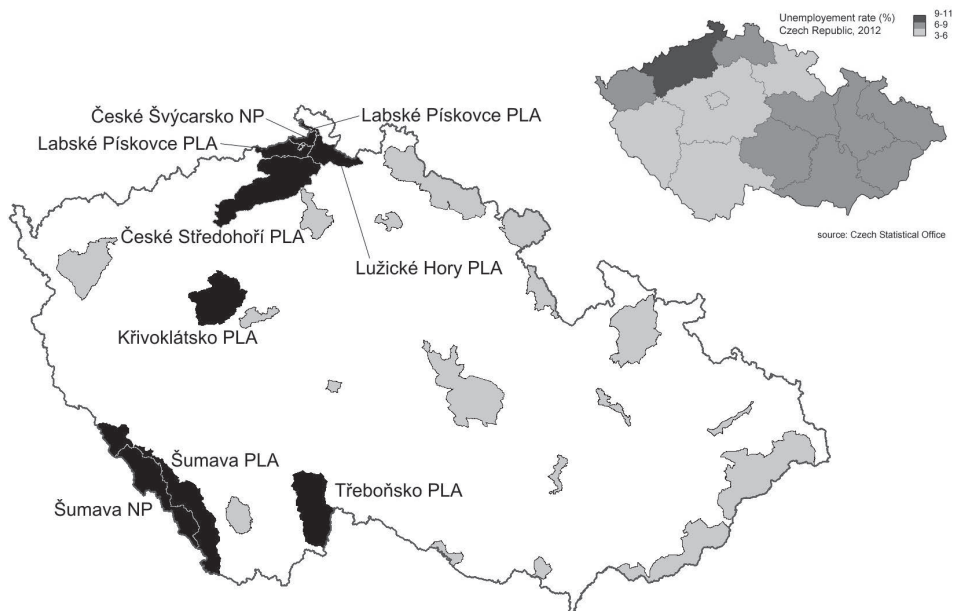


Fig. 1. Map of studied areas.

context. As in the previous research (e.g. KUŠOVÁ et al. 2008a, 2009), triangulation approach was used for analysis, this time combining questionnaire survey, key informant interviewing and content analysis of local periodicals to depict the overall situation in protected areas studied.

Questionnaire survey

Adult population, i.e. people older than fifteen, permanently living in particular studied area was defined as the basic set. The sample was derived from it by use of combination of quota and random sampling, the quota being based on the size of municipality (the following categories of municipalities were used: <50, <200, <1,000, <5,000, and >5,000 inhabitants). The sample was designed to address 1,500 respondents that made it 0.6% out of the basic set. Field research was realised in 2012 by use of interviewers who were contracted for this purpose in each particular studied area. The structure of the sample as to the age, gender, education and occupation see Table 1. In this paper, outputs of the first-level statistical analysis are presented.

Key informant interviewing

Key informant interviewing technique was being used throughout the three-year-lasting research in all studied areas. In total, 63 key informants were addressed by use of semi-standardized interviews, being both representatives of nature protection and mayors of local municipalities as well as experts in nature protection and regional development. The respondents were primary sources of information, and in parallel, consultants providing us by their feedback on results achieved by the other methods used.

Table 1. Structure of the sample. (n = 1500)

Parameter	Category	Relative frequency (%)
Age:	<20 years	13
	21–30 years	16
	31–40 years	18
	41–50 years	18
	51–60 years	13
	>60 years	22
Gender:	man	45
	woman	55
Education:	basic	15
	apprenticeship	25
	secondary	43
	university	17
Occupation:	employee	42
	business	8
	student	16
	at home	5
	retired	23
	unemployed	6

Content analysis of regional periodicals

The aim of the analysis was to document the medial presentation of the relationship between nature protection and communal development in regional periodicals (regional mutations of the “MF-Dnes”, and particular regional “Deník”). It was made operable by use of the following key words: communities, enterprise, cooperation, support, coexistence and conflict. Entire articles were used as recorded units that contained the name of particular protected area together with at least one of the remaining key words. The monitoring was spanning over the period 2000–2011 and was done by use of the Anopress IT, the full-text database of newspaper articles. Quantitative analysis was complemented by qualitative typology of news. In this paper, frequency analysis of key words is presented.

RESULTS AND DISCUSSION

Reflection of current socio-economic situation

It appeared that local people do not feel socio-economically handicapped by the fact that they live in protected areas, generally not intending to move away from the territory (Fig. 2). Locals can be then considered as settled populations. Family and friends, flat or house and local natural amenities appeared to be the main bonds that form their place attachment (Fig. 3). They expressed their relative content with appearance of municipality they live in, as well as with its civic amenities, both infrastructure and services available (Figs. 4–7). The Bohemian Forest (Šumava in Czech) represents the only exception from this general scheme, especially the Šumava National Park.

Attitude of local people to nature protection

Based on data gained by use of questionnaire survey, key informant interviewing and content analysis we suggest that nature protection could not be seen as factor affecting deci-

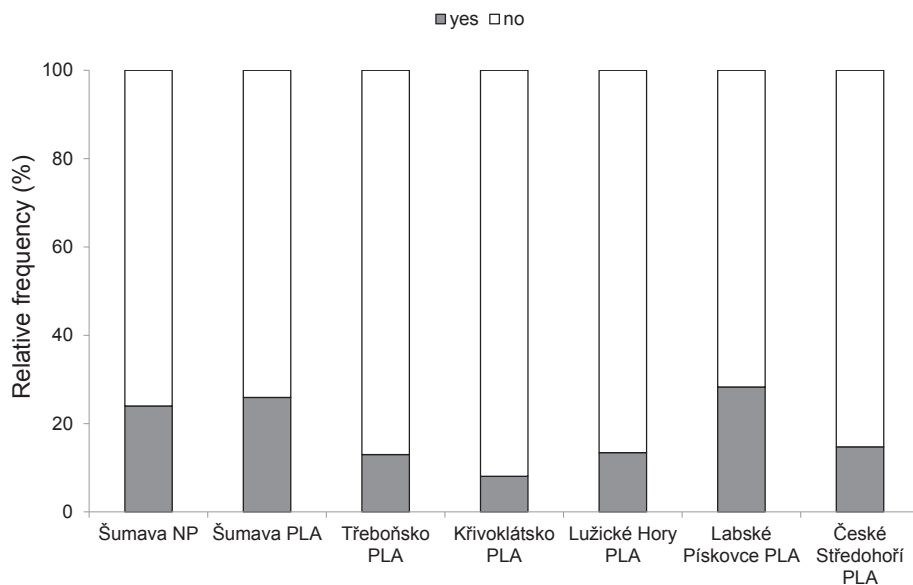


Fig. 2. Do you think on to move out from the territory? (n = 1500)

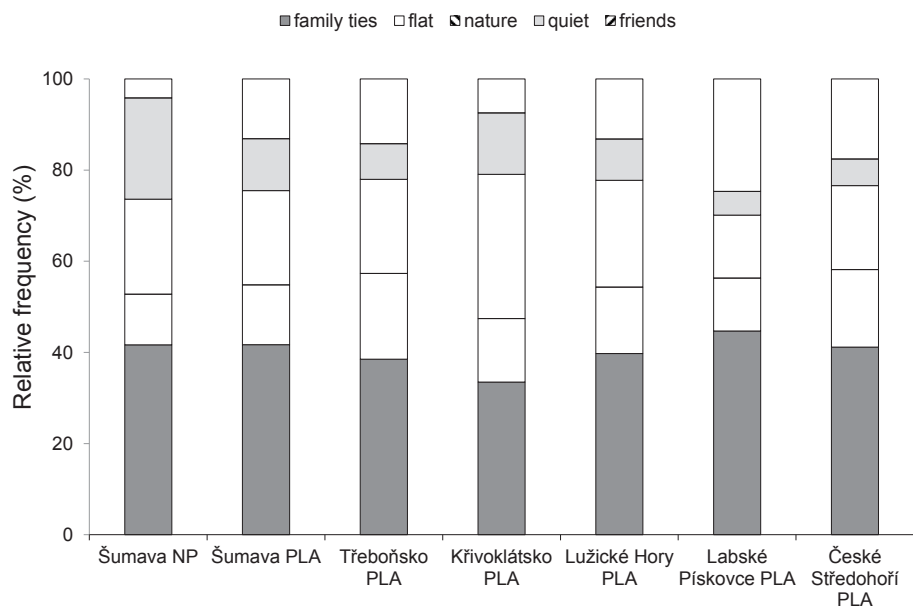


Fig. 3. Main bonds to the locality. (n = 1500)

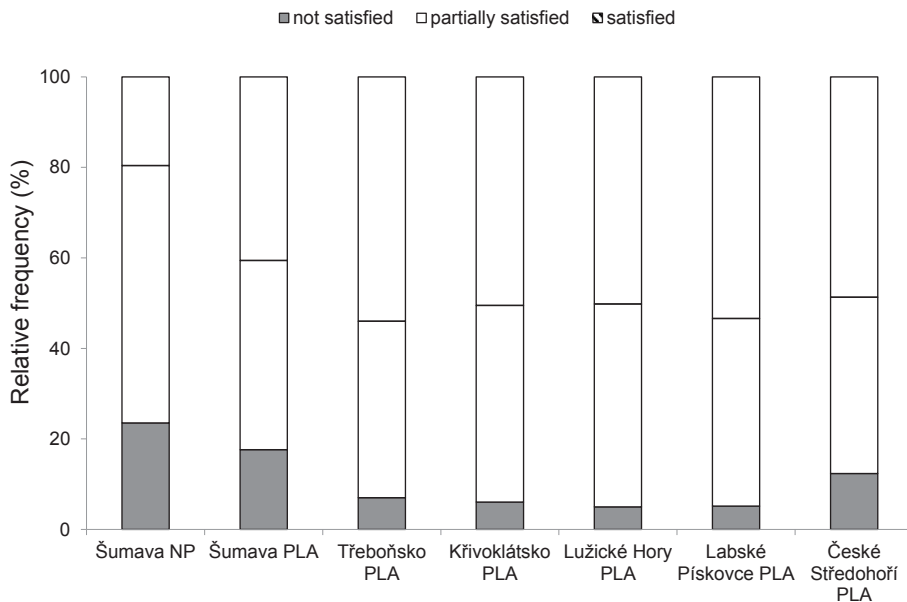


Fig. 4. Are you satisfied with the appearance of your municipality? (n = 1500)

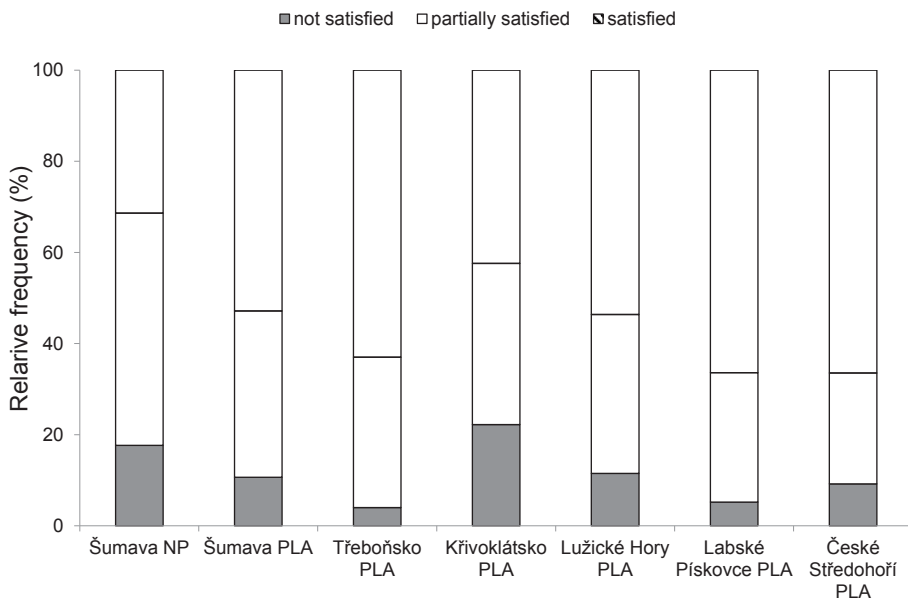


Fig. 5. Are you satisfied with technical infrastructure available in your municipality? (n = 1500)

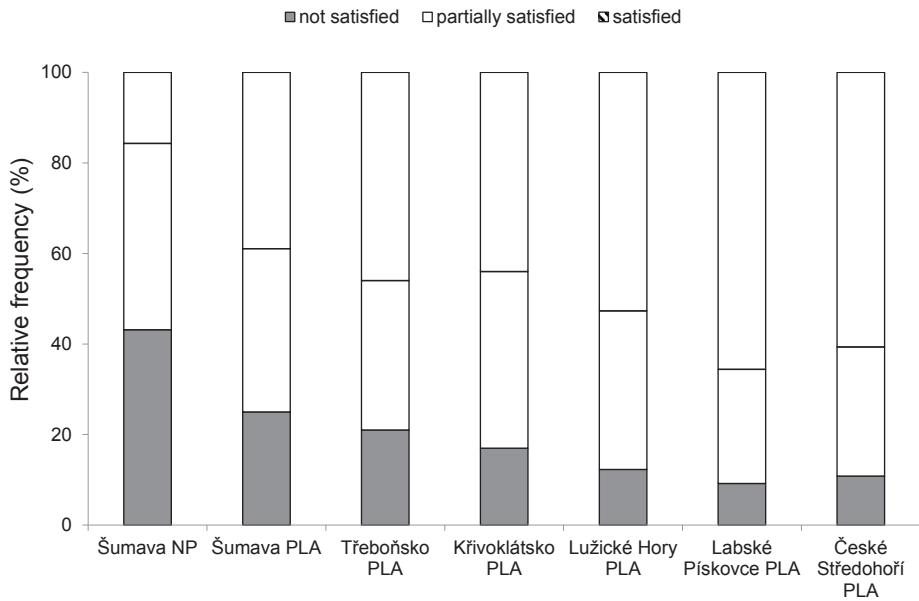


Fig. 6. Are you satisfied with services available in your municipality? (n = 1500)

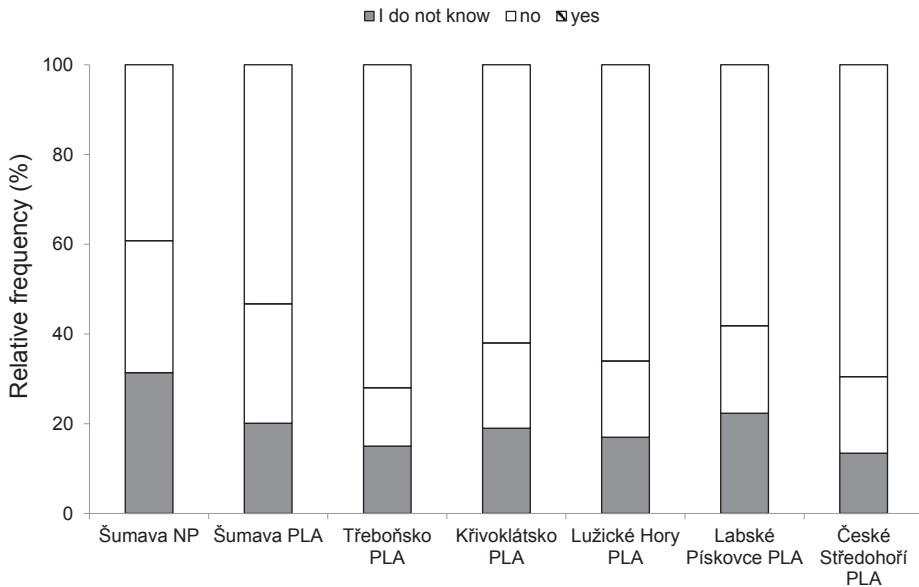


Fig. 7. What do you think, is your municipality equipped adequately to its size? (n = 1500)

vely everyday life of local people. Nature protection (in terms of the existence of protected area) is attributed by positive connotations as a rule. People either appreciate the fact that they live within the area like this or they do not take this fact in consideration at all (Fig. 8). Most of them even consider protected area to be an advantage of the region contributing positively to the quality of their life (Fig. 9). Situation in the Bohemian Forest is different in this respect from that in the other large scale protected areas. Significantly more people attributed protected area with a poor image. The Bohemian Forest appeared to be the only studied area where subjective perception of the situation differs from objectively measured data describing civic amenities (KUŠOVÁ et al. 2008a, 2009).

Interviews with providers of touristic facilities revealed that protected area has recently been associated with the image of the region with nature of high quality. Consequently, the fact that hotels or pensions are located in protected area started to be used as a “certificate” of some kind documenting quality of local environment, which is then, subconsciously, related to quality of services provided by the facility in general (TĚŠITEL 2013, ZELENKA et al. 2013). Evidence documenting that protected area is used as an attractor can be found on webpages and other promotional materials of local hotels and pensions. It is not surprising then that respondents considered existence of protected area as being positively related to touristic attractiveness of the region (Fig. 10), the potential of which could still be realised (Fig. 11).

Administration of protected area is a state administration first of all. Therefore most of communication goes this way – as a routine administrative process. The analysis of medial image of the relationship between nature protection and communal development led us to the suggestion that situation in protected areas could be described as standard one with examples of both conflict and cooperation relatively balanced. In 2011, only the Bohemian Forest (especially the Šumava National Park) did not fit to this scheme. Incidence of prob-

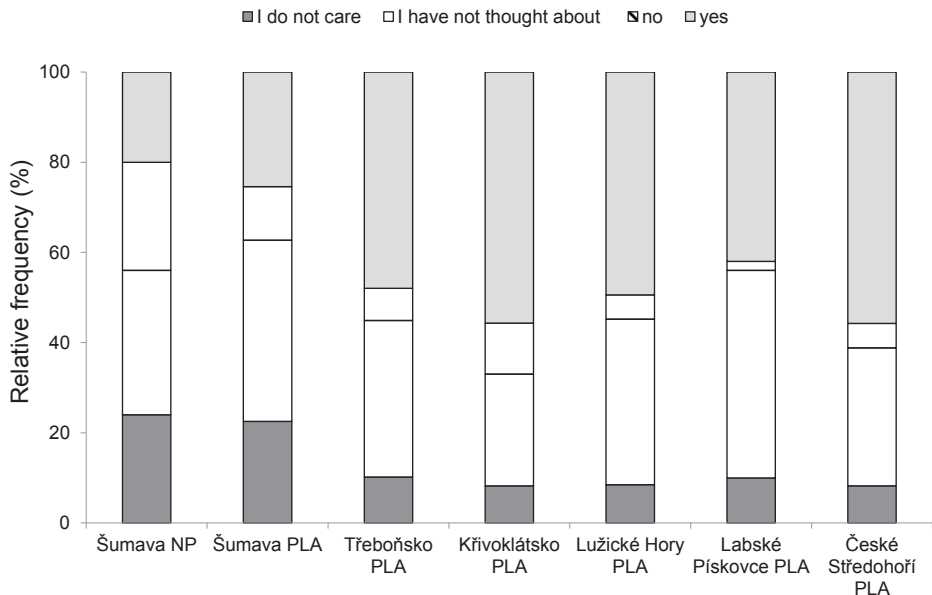


Fig. 8. Do you like the fact that your municipality is located within the protected area? (n = 1500)

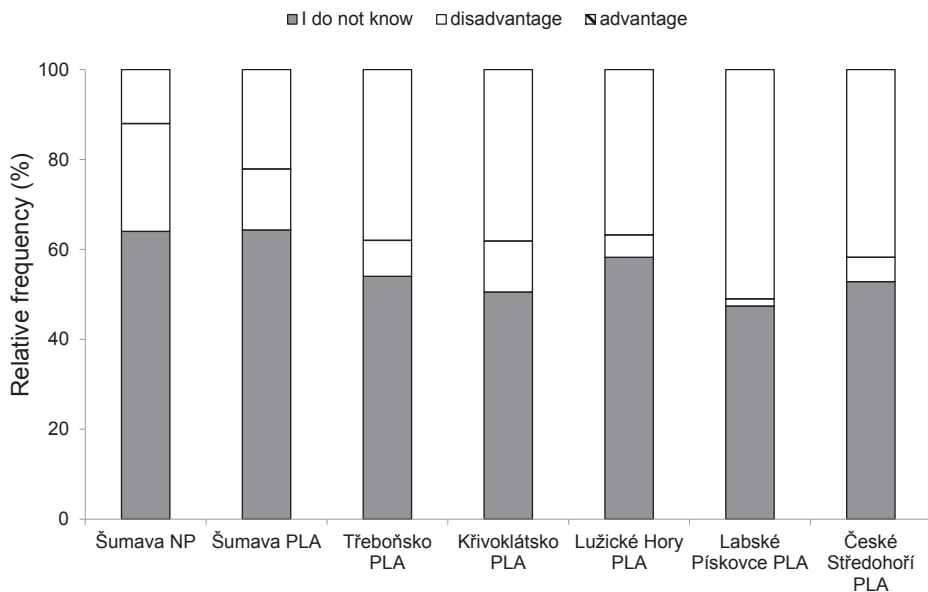


Fig. 9. The existence of protected area could be considered ...? (n = 1500)

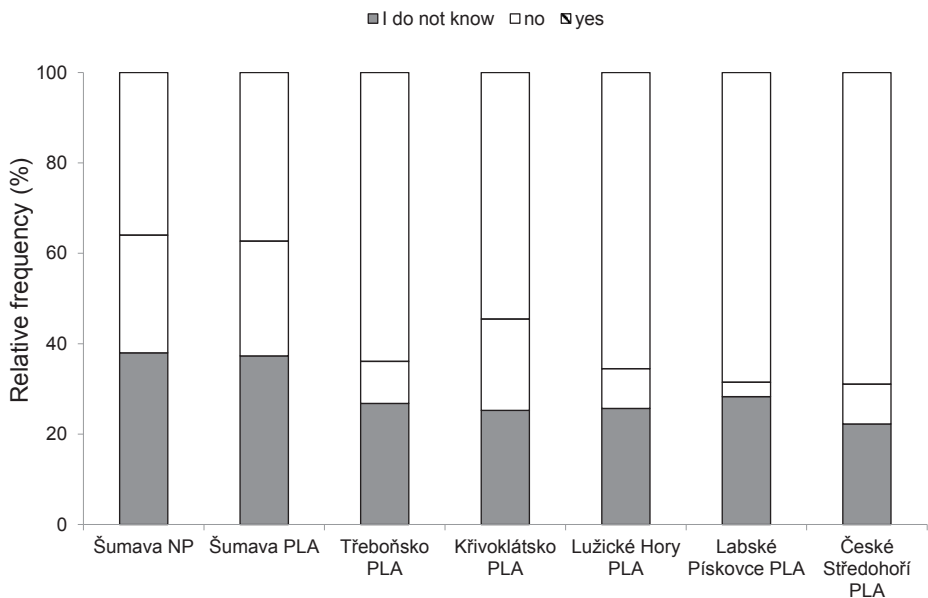


Fig. 10. Does protected area increase touristic attractiveness of the region, what do you think? (n = 1500)

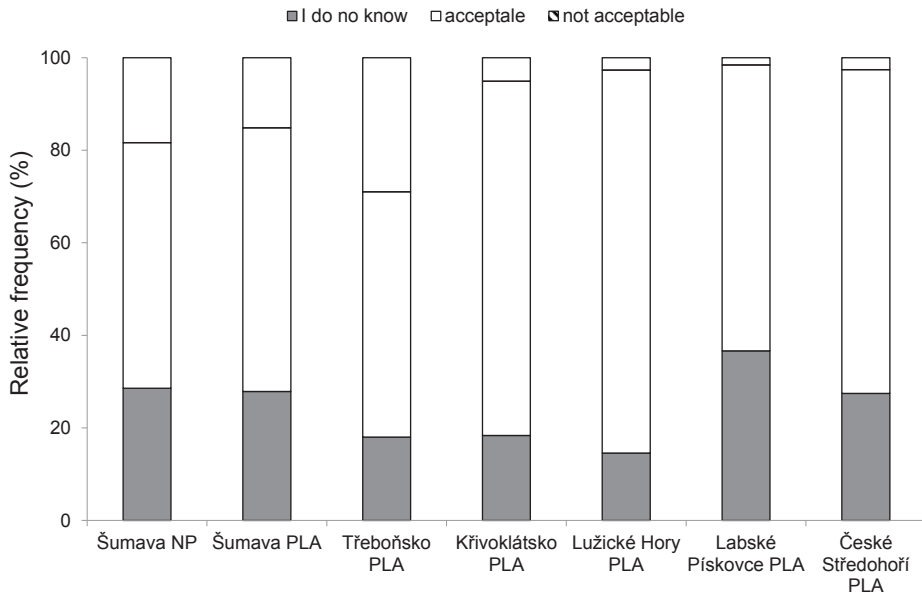


Fig. 11. According to your opinion, is during the season number of tourists in the region ...? (n = 1500)

lems related to the Bohemian Forest was several times higher, compared to the remaining protected areas (Fig. 12). The high number of articles reflected never ending clashes related mainly to the zoning of national park, new Act on the Šumava National Park and management of the bark-beetle calamity. Since 2013 however, we have been witnessing completely different situation. The frequency of relevant records has remained the same, the qualitative analysis, however has documented profound change in the content in favour of examples of cooperation. The change in communication and promotional strategy of the national park is evident. For a long time, it was targeted primarily to visitors to the area, nowadays it is also aimed to improve the national park image towards local residents.

In all the protected areas studied, nature protection is obviously perceived as “another inevitable state bureaucracy we have to deal with sometimes”. Hence, relationship between local people and administration of protected area can be described in terms of standard “neighbourhood relations”, i.e. as one primarily based on personal communication. The fact that only few people are in direct contact with administration of protected area (Fig. 13) seems thus to support the suggestion of marginal importance nature protection has in everyday life of local people even in protected areas. There are two “good news”, at least, for administrations of protected areas resulting from the data gained. Firstly, when evaluating “quality of administration” people tended to make concrete-person-targeted statement, rather than to evaluate the institution as a whole (Fig. 14). Hence, there are primarily individual people that make the image of the institution, not its association with nature protection. Secondly, there is a relatively big difference in evaluation of attitude of local public towards administration of protected area, in dependence on who do it, the public or the administration itself. The administration tends to adopt a-priori self-defending standpoint as they are generally convinced that they are “not loved” by the public. This persuasion can be explained by the fact that it is based on information derived from a very specific sample of local popu-

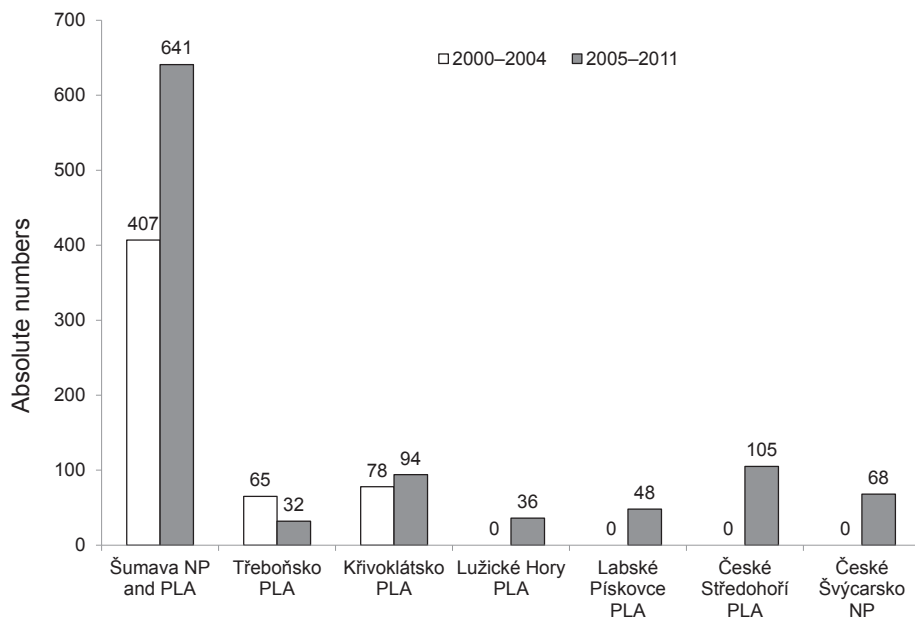


Fig. 12. Number of articles matching the key words.

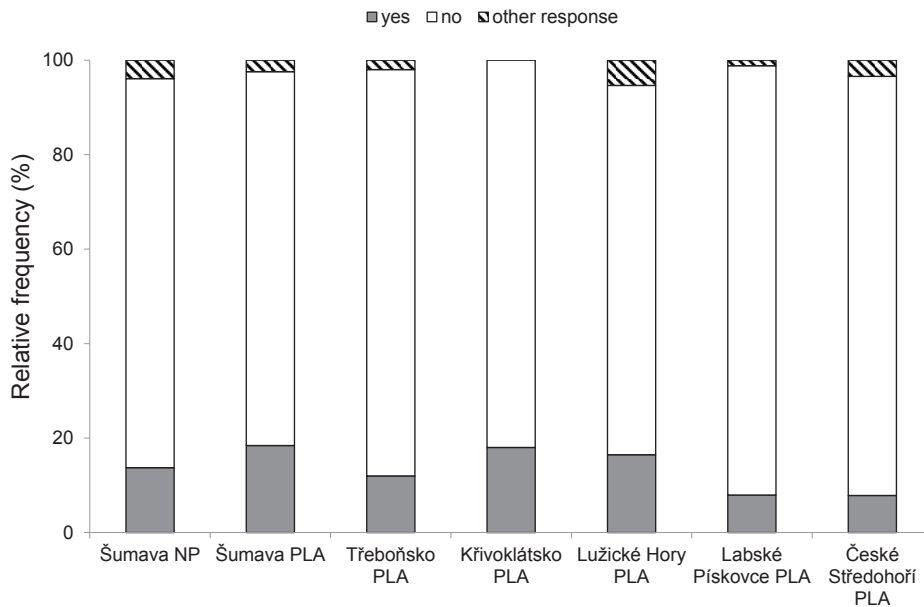


Fig. 13. Are you in contact with the people at the protected area administration? (n = 1500)

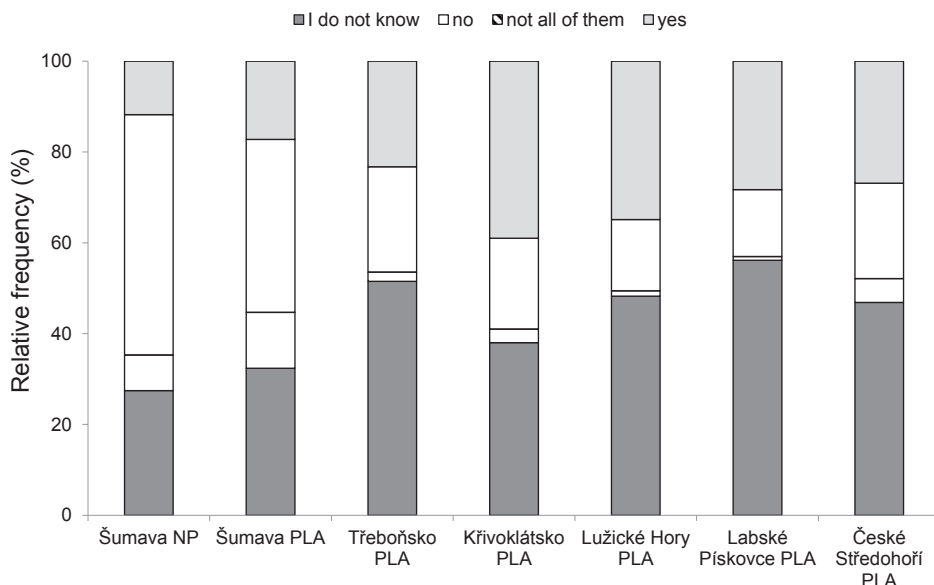


Fig. 14. According to your opinion, are the people at the protected area administration doing well their job? (n = 1500)

lation – their clients. Such a sample, however, can be supposed to be biased rather than representing local population as a whole. If we use representative sample, as we did, we can draw another picture, documenting relative friendly attitude of locals to the administration of protected area.

The contradiction between subjective and objective evaluation of the situation in the Bohemian Forest (particularly in the national park) appeared to have its historical roots which can be traced up to the mid-1990s (MATĚJKA 2012). At that time, mayors of some local municipalities started to draw the picture of the Šumava National Park (administration) as an “external enemy” just to take the intention away from mistakes they had made in municipality management. The conflict was heavily publicised. By using media for this purpose, they succeeded in developing medial image of the national park as one limiting profoundly all local economic activities. This cliché was used generally, which consequently led to its subconscious acceptance as a “reality” by local public. The cliché was kept alive as well intentionally. Being in opposition against all the park is doing has become inevitable attribute of the role local mayors are expected to play. It is fair to say that self-oriented and to some extent “arrogant” behaviour of the national park administration towards the region, as it was evident de facto since its inception, contributed profoundly to the durability of the above mentioned cliché, regardless all the auxiliary infrastructure the park implemented in the region, which in fact contributed to local development. The situation begun to change in 2013 after the national park administration adopted new promotional strategy, and using the same technique of medial promotion, started to represent itself as a more open and more local-development-supporting institution.

Naturally valuable areas are attributed by the image of tourist destinations (BARTOŠ et al. 2011, ČIHAŘ & GÖRNER 2012, GÖRNER & ČIHAŘ 2013). The relationship between tourism and nature protection was studied in depth in the Bohemian Forest where “sound environment” and “well-preserved nature” are two principal attributes representing comparative advantage

of the region and form thus the base for local socio-economic development. Given the fact that locals assume rural tourism to be a long-term base of the local economy in the area, where “certified nature” is the prominent tourist attraction, the positive role of nature protection, hence the administration of protected area is seen as evident, as it helps to keep the nature of a region in an “appropriate” shape (e.g. NOLTE 2005).

CONCLUSIONS

Summed up, our general hypothesis presumed that relationship between nature protection, as it is executed within Czech large-scale protected areas, and socio-economic aspirations of local people would be decisively shaped by overall regional socio-economic context. Based on empirical data and information gained in our studied areas, we suggest this hypothesis should be rejected. Though there are differences in overall socio-economic milieu, in which particular studied areas are situated, they appeared to be insignificant in this respect. They are evidently too small and standard of living of local people in all the studied areas is still too distant from the point that would be considered poverty and supposed to generate their more “predatory” behaviour towards nature as a resource. Therefore we can come to more general conclusion stating that, in Czech conditions, different overall socio-economic context, defined in terms of different unemployment rate, cannot be considered a factor differentiating relationship between nature protection and local development.

On the other hand, we can agree with STOLL-KLEEMAN (2001a,b) and SCHENK et al. (2007) when they suggest that different shaping of the above mentioned relationship can be explained as the result of concrete behaviour of administration of particular protected area applied when it tries to implement concrete nature protection measures within the area under its jurisdiction. In this context, *ceteris paribus*, time available for both nature protection and socio-economic aspirations to adjust to each other, has appeared to be one of decisive factors shaping the relationship.

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REFERENCES

- BARTOŠ M., KUŠOVÁ D., TĚŠITEL J., NOVOTNÁ M., KOPP J., MACHÁČEK J., MOSS L.A.G. & GLORIOSO R.S., 2011: *Amenitní migrace do venkovských oblastí České republiky [Amenity migration to rural areas of the Czech Republic]*. Lesnická práce s.r.o., Kostelec nad Černými Lesy, 196 pp. (in Czech).
- BEAN C. & PISSARIDES C., 1993: Unemployment, consumption and growth. *European Economic Review*, 37: 837–854.
- ČIHAR M. & GÖRNER T., 2012: Indicator system of Czech national parks and biosphere reserves: Some developing trends in the Šumava National Park. *Silva Gabreta*, 18: 49–58.
- DUNLAP R.E., 1994: International attitudes towards environment and development. In: *Green Globe Yearbook of international co-operation on environment and development*, BERGENSEN H.O. & PARMANN G. (eds) Oxford University Press, Oxford: 115–126.
- ESCOBAR A., 1998: Whose knowledge, whose nature? Biodiversity, conservation, and the political ecology of social movements. *Journal of Political Ecology*, 5: 54–82.
- FĚRTOVÁ M. & TEMELOVÁ J., 2011: Prostorová specifika strukturální nezaměstnanosti na úrovni obcí v České republice [The spatial aspects of structural unemployment at the municipal level in the Czech Republic]. *Czech Sociological Review*, 47: 681–715 (in Czech).
- FISHER B. & CHRISTOPHER T., 2007: Poverty and biodiversity: measuring the overlap of human poverty and the biodiversity hotspots. *Ecological Economics*, 62: 93–101.
- FRANZEN A. & VOGL D., 2013: Two decades of measuring environmental attitudes: A comparative analysis of 33 countries. *Global Environmental Change*, 23: 1001–1008.
- GÖRNER T. & ČIHAR M., 2013: Local attitudes on protected areas: evidence from Sumava National Park and Su-

- mava Protected Landscape Area. *Environment and Pollution*, 2(2) <http://dx.doi.org/10.5539/ep.v2n2p1> (downloaded on 19 May 2014)
- HUBER M., JUNGMIEIER M., LANGE S. & CHAUDHARY S., 2013: *Knowledge, parks and cultures: Transcultural exchange of knowledge in protected areas: case studies from Austria and Nepal*. Johannes Heyn Verlag, Klagenfurt, 235 pp.
- INGELHART R., 1990: *Culture shift in advanced industrial society*. Princeton University Press, Princeton, 484 pp.
- KORFIATIS K.J., HOVARDA S. & PANTIS J.D., 2004: Determinants of Environmental Behavior in Societies in Transition: Evidence from five European Countries. *Population and Environment*, 25: 563–584.
- KUŠOVÁ D., TĚŠITEL J., MATĚJKA K. & BARTOŠ M., 2006: Socio-economic conditions in selected biosphere reserves. *Silva Gabreta*, 12: 157–169.
- KUŠOVÁ D., TĚŠITEL J., MATĚJKA K. & BARTOŠ M., 2008a: Biosphere reserves – an attempt to form sustainable landscape (A case study of three biosphere reserves in the Czech Republic). *Landscape and Urban Planning*, 84: 187–197.
- KUŠOVÁ D., TĚŠITEL J. & BARTOŠ M., 2008b: Biosphere reserves – learning sites of sustainable development? *Silva Gabreta*, 14: 221–234.
- KUŠOVÁ D., TĚŠITEL J. & BARTOŠ M., 2009: Biosphere reserves as learning sites for sustainable development (a case study of the Czech Republic). In: *Social Development*, ELLING L.R. (ed.) Nova Publishing, New York: 87–124.
- LIBROVÁ H., 1994: *Pestří a zelení: kapitoly dobrovolné skromnosti. [The colourful and the green: chapters on voluntary modesty]*. Veronica, Brno, 218 pp. (in Czech).
- MATĚJKA K., 2012: Závěr [Conclusions]. In: *Lesy Šumavy, lýkožrout a ochrana přírody [Forests in the Bohemian Forest, bark beetle and nature protection]*, KINDLMANN P., MATĚJKA K. & DOLEŽAL P. (eds) Karolinum, Praha: 273–278 (in Czech).
- MC SHANE T.O., HIRSCH P.D., TRUNG T.C., SONGORWA A.N., KINZIG A., MONTEFERRI B., MUTEKANGA D., VAN THANG H., DAMMERT J.L., PULGAR-VIDAL M., WELCH-DEVINE M., BROSIUS J.P., COPPOLILLO P. & O'CONNOR S., 2011: Hard choices: Making trade-offs between biodiversity conservation and human well-being. *Biological Conservation*, 144: 966–972
- MINTER B.A. & MILLER T.R. 2011: The New Conservation Debate: Ethical foundations, strategic trade-offs and policy opportunities. *Biological Conservation*, 144: 945–947.
- MOSE I. (ed.), 2007: *Protected areas and regional development in Europe: Towards a new model for the 21st Century*. Ashgate Publishing, Hampshire, 249 pp.
- MOSTAFA, M.M., 2013: Wealth, Post-materialism and Consumers' Pro-environmental Intentions: A Multilevel Analysis across 25 Nations. *Sustainable Development*, 21: 385–399.
- NOLTE B., 2005: *Tourism in Biosphärenreservaten Ostmitteleuropas. Hoffnungen, Hindernisse und Handlungsspielräume bei der Umsetzung von Nachhaltigkeit*. Mensch und Buch Verlag, Berlin, 242 pp.
- SCHENK A., HUNZIKER M. & KIENAST F., 2007: Factors influencing the acceptance of nature conservation measures – A qualitative study in Switzerland. *Journal of Environmental Management*, 83: 66–79.
- SCHERR S.J., 2000: A downward spiral? Research evidence on the relationship between poverty and natural resource degradation. *Food policy*, 25: 479–498.
- STOLL-KLEEMAN S., 2001a: Opposition to the designation of protected areas in Germany. *Journal of Environmental Planning and Management*, 44: 109–128.
- STOLL-KLEEMAN S., 2001b: Barriers to nature conservation in Germany: a model explaining opposition to protected areas. *Journal of Environmental Psychology*, 21: 369–385.
- TĚŠITEL J., KUŠOVÁ D., MATĚJKA K. & BARTOŠ M., 2005: *Lidé v biosférických rezervacích [People in biosphere reserves]*. Institute of Systems Biology and Ecology ASCR, České Budějovice, 56 pp. (in Czech).
- TĚŠITEL J., KUŠOVÁ D. & BARTOŠ M., 2006: Rural areas development – local needs and external forces. In: *Rural Development Capacity in Carpathian Europe*, FLORIANCZYK Z. & CZAPIEWSKI K. (eds) European Rural Development Network, Institute of Agricultural and Food Economics, Institute of Geography and Spatial Organization, Polish Academy of Science, Warsaw: 87–97.
- TĚŠITEL J., 2013: *Tourism management – a tool to communicate local development with nature protection*. Habilitation thesis, University of Economics, Prague, 139 pp. (deposited in the library of the Faculty of Economics, University of Economics, Prague)
- ZELENKA J., TĚŠITEL J., PÁSKOVÁ M. & KUŠOVÁ D., 2013: *Udržitelný cestovní ruch – management cestovního ruchu v chráněných územích [Sustainable tourism – management of tourism in protected areas]*. Gaudeamus, Hradec Králové, 327 pp. (in Czech).

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