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How do Czechs see urban forests?

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ABSTRACT: A public opinion poll about urban forests was carried out from spring 2005 to winter 2005/2006. The distribution of questionnaires took place in all 14 regions of the Czech Republic. The results from the public opinion poll are that most respondents would appreciate the establishment of new urban forests in their neighbourhood. The most common request was for mixed and light forest and the use of natural materials for recreational equipment and natural paths. More than a half of the respondents would use the opportunity to opine about establishing a new urban forest. Most of them would be willing to travel to the forest for up to 30 minutes to use the forest for recreation. Local people would be willing to participate in some forest management and maintenance activities.

Keywords: forest visitors; recreation; sociology; public opinion poll

The field of urban forestry was described and examined in the Czech Republic from different aspects already in the past. The accent was put not only on theory but also on practice. As an example two forest enterprises in Šenov and Zbraslav, whose forests were usually urban forests with special-purpose facilities, could be given, or the Training Forest Enterprise Masaryk Forest in Křtiny, of the Mendel University of Agriculture and Forestry Brno. Surveys about the recreational use of forests in the Czech Republic and also in foreign countries were carried out (Mráček, Krečmer 1975; Hörnsten 2000; Šišák 1996, etc.).

The aim of this thesis and research is to discover the actual opinion of Czechs about urban forests, compare it with results of researches done in the past and apply the results when compiling methodology for the planning, establishment and maintenance of urban forests.

MATERIAL AND METHODS

It was considered that the use of a public opinion poll was the most suitable method for obtaining the required information.

The target group was determined as Czech nationals over the age of 18 years, living in the city. The minimum age limit of 18 years was reduced to 15 years after the questionnaires from all schools were received.

Before formulating the questionnaire used for the public opinion poll, six areas of interest were determined:

field A: What people do for relaxing – how and where do they relax?

field B: Why do they use/do they not use the forest for relaxing?

field C: How do people perceive the forest?

field D: How should the ideal recreational forest look like?

field E: Who should be responsible for the urban forest – who should create/maintain/finance it?

field F: Socio-demographic characteristics of the informants (gender, age, size of community they are living in, educational background, profession, etc.)

The following hypotheses were defined:

1. People visit forests usually at least once a month.
2. The demand for natural recreation is higher when people are not living in a flat or in a house with garden.
3. The most preferable type of forests is a mixed and light forest with clearings.

4. The most preferable materials for recreational facilities (benches, waste baskets…) are natural ones – wood in the first place.
5. People would like to have more urban recreational forests.
6. People would be willing to participate in some activities (for example cleaning litter especially on holidays such as the Day of the Earth, etc.).
7. Some of the questionnaires will be completed by the students themselves, others by their parents and relatives.

The questionnaire comprised the following 32 questions:

field A: questions 1, 2
field B: questions 3–5, 8, 9
field C: questions 7, 10, 11
field D: questions 6 and 17–25
field D/E: questions 12, 13
field E: questions 14–16
field F: questions 26–32.

For clarity, some of the questions were accompanied with photographs. The questionnaire was compiled with the aid of Ing. Ladislav Klika, from the company GfK Prague, s. r. o., which specialises in market research and opinion polling.

Questionnaires were distributed to different secondary schools across the Czech Republic. The teachers were instructed how to explain to the students the purpose of the research and the way of choosing the subjects. Students (but only those living in the city) were told by their teachers to ask their neighbour, living to the right of them, to complete the questionnaire, providing they were over 18 years of age. If an entire family was living next to the student, they could choose any member of the family older than 18 years. However, the minimum age limit was not observed by about one tenth of the respondents, therefore it was reduced to 15 years. Each of the 14 regions had at least one participating school. Each school was sent 30 questionnaires. The exception was Gymnázium Olomouc-Hejčín, which requested 35 questionnaires. Fig. 1 shows an overview of the schools participating in the survey.

After collecting all the completed questionnaires, they were numbered and each school was allocated a code to allow for future identification. To find out the geographical context, groups of questionnaires from each school were sorted into the following regions: North-Western Bohemia (68 respondents), Central Bohemia (89 respondents), South-West Bohemia (47 respondents), Highlands (24 respondents), East Bohemia (68 respondents), South Moravia (100 respondents) and North Moravia (45 respondents) – (Fig. 1).

The questionnaires were entered into Microsoft Office Excel for analysis. Answers to each question were

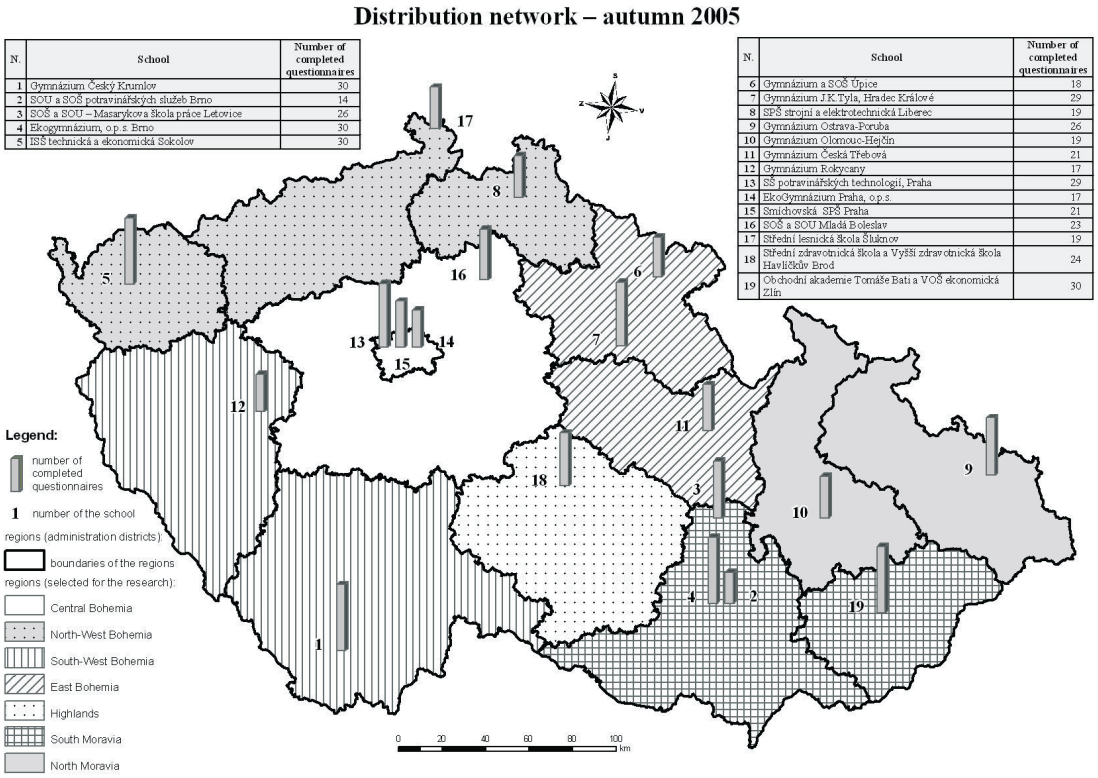


Fig. 1. Schools participating in the distribution network

processed into tables. Results presented in the tables were described and also represented with graphs.

The results of the survey were compared with those of Mráček and Krečmer (1975), who compared results from different countries. With the results from the Research Institute for Opinion Polls from 1971. With the results of Hörnsten from Sweden (2000) and with the results of opinion polls conducted in 2001 for Forests of the Czech Republic (Lesy ČR, s. p.).

RESULTS

There was almost a 77% response to the questionnaire, with 442 being returned, out of a total of 575 distributed. Only one questionnaire was not included in the analysis because it was only partially completed.

Most of the results are summarized in the following figures.

Having answered questions 30–39 respondents were then asked whether they would use the stated facilities. Art work was of the least interest amongst respondents. It would be certainly or quite likely, used by more than two-tenths of respondents (20.2%). Children's playgrounds would be certainly or quite likely used by almost four-tenths of respondents (37.4%), and nearly a half of the respondents (47.8%) would certainly or quite likely use exercise paths. More than a half of respondents (52%) would be interested in using marked tracks for cross-country skiing, marked running tracks (52.2%) and tables (54.2%). More than six-tenths (61.9%) would use recreational structures, more than two-thirds (66.6%) would make use of marked cycling tracks, and almost three-fourths (72.6%) would use educational walking tracks. The greatest interest from respondents was expressed in using benches – more than eight-tenths (81.9%). The answers of respondents from the youngest age bracket 15–19 years of age are worth noting. This age bracket spends the least amount of their leisure time in nature – only 12% (whereas 32.6% of respondents from 50 to 59 years of age do so). There was a similar response when it came to questioning what type of scenery people preferred to spend their leisure time in. Forests were chosen the most by respondents from the 50–59 age bracket (48.8%), whereas respondents from the 15–19 age bracket chose it the least (30%). Enthusiasm of the youth

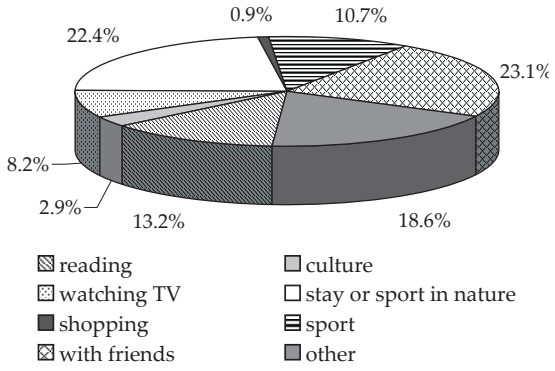


Fig. 2. How do you spend your free time most often?

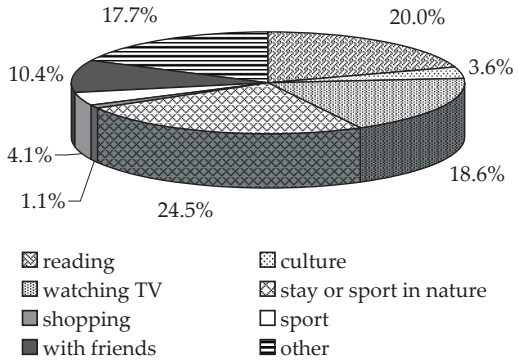


Fig. 3. How do you spend your free time most often when you want to relax?

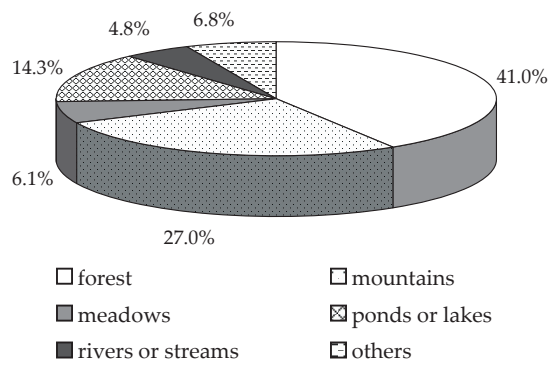


Fig. 4. In which type of landscape, or environment, do you most like to spend your free time?

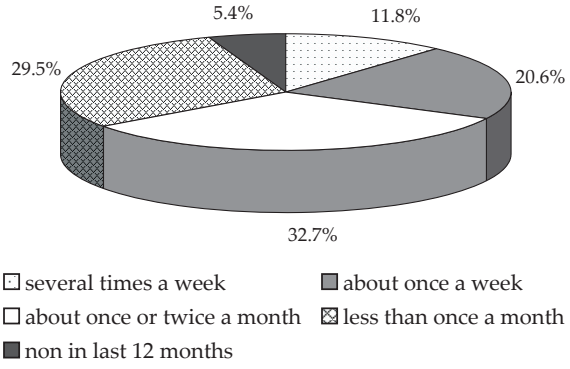


Fig. 5. How often do you visit the forest?

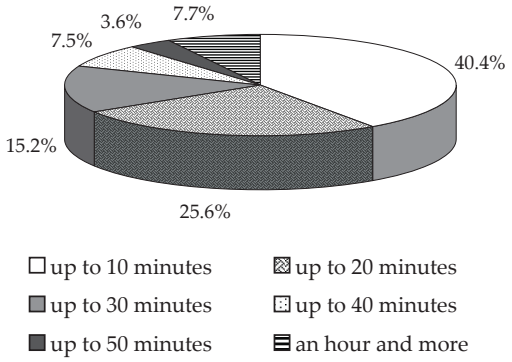


Fig. 6. How far do you travel to the forest?

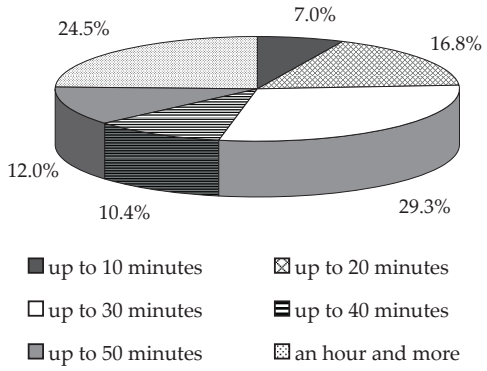


Fig. 7. How far would you be willing to travel for recreation to the forest?

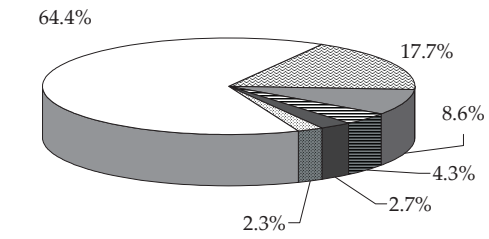


Fig. 8. What do you find is the most recreational element of the forest?

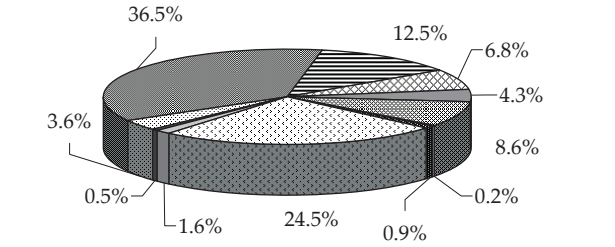


Fig. 9. For which activity do you use the forest most often?

was shown in the answer to the question *"How far would respondents be willing to travel to forests for recreation?"* A whole 39%, far more than in the other groups, would be willing to travel for an hour or over. It is remarkable that a whole 7% of respondents from the 15–19 age bracket experience fear in forests. It might be given to the fact that young people, without sufficient knowledge, often learn about dangers in forest via the media. The various dangers are rapists, poisonous mushrooms, snakes or infected ticks. Some respondents from the 20–29 age bracket also experience fear in forest (3.5%), but it was not noted by anybody else from the other groups. According to more than two-thirds of respondents from the 15–19 age bracket (63%) we should all certainly, or quite likely, be responsible for maintenance of forests. The other groups went for this option less. A full 6% of respondents from the 15–19 age bracket declared that they definitely preferred man-made tracks in forest, for example asphalt tracks. Nobody aged 40 and over stated the same.

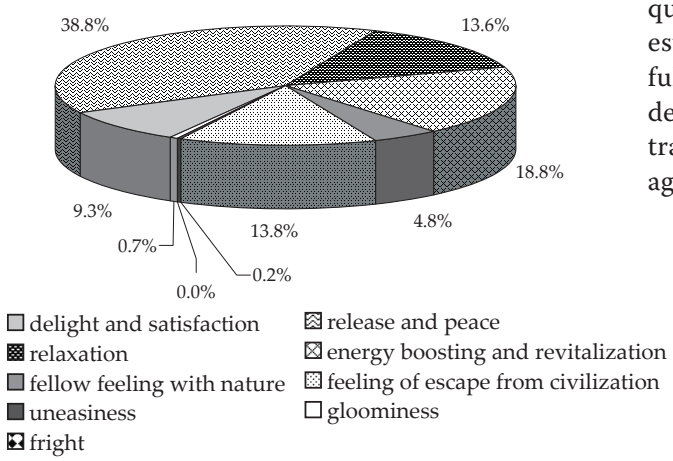


Fig. 10. Which feeling experienced in the forest is most important for you?

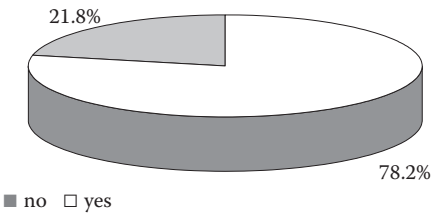


Fig. 11. Would you appreciate establishment of new urban forests in your locality?

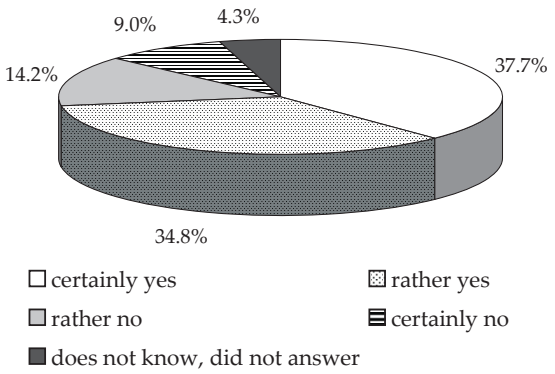


Fig. 12. Would you appreciate establishment of new urban forests in your locality, even if it meant a decrease in the number of parking places?

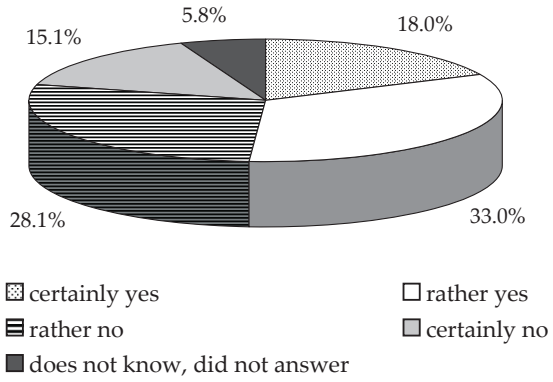


Fig. 13. Would you appreciate the establishment of new urban forests in your locality even if it entailed a limitation of ground communications and therefore made your usual journey to work longer?

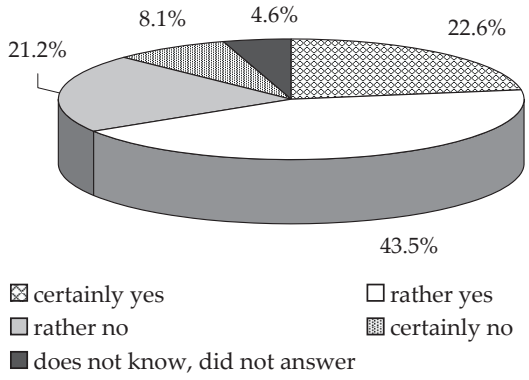


Fig. 14. Would you appreciate establishment of new urban forests in your locality, even if it meant more people visiting the area?

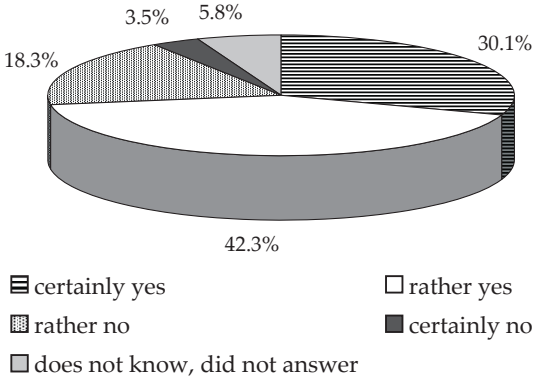


Fig. 15. Would you appreciate establishment of new urban forests in your locality, even if it meant a cut in local authority spending in other areas for three years?

In addition to the already mentioned interesting or unexpected results like the fact that younger generations experience fear in forests, it is worth noting that answers to the question relating to having dogs in forest did not differ much from dog-owners and people who do not keep dogs. It is also an interesting fact that men use forests to sunbathe more than women. This evidently stems from the more discreet forest surrounding. It is also important that a large percentage of respondents would like to have marked cross-country skiing tracks, cycling and hiking tracks in urban recreational forests, and they think there is a lack of them. There is a similar situation when it comes to educational walking tracks or exercise tracks.

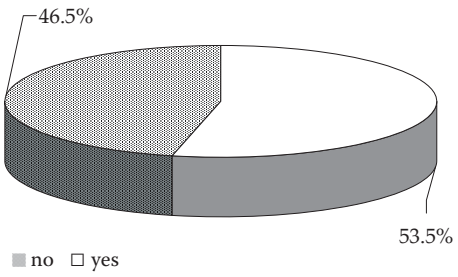


Fig. 16. Would you take advantage of giving your opinion about the establishment of a new urban forest?

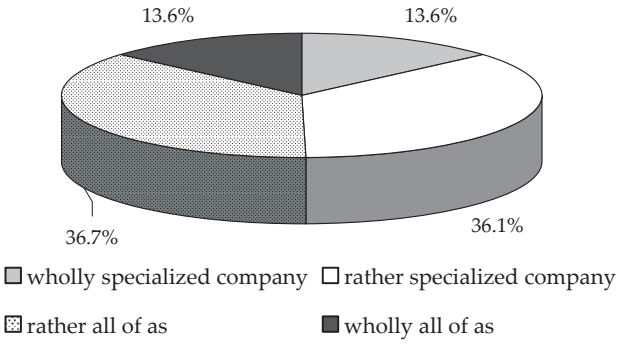
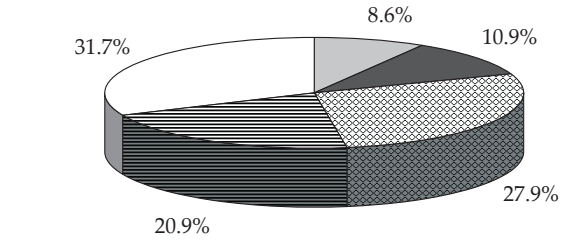
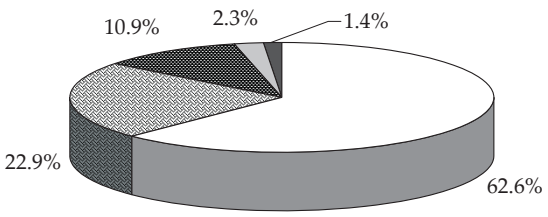


Fig. 17. Who should be responsible for the forest maintenance?



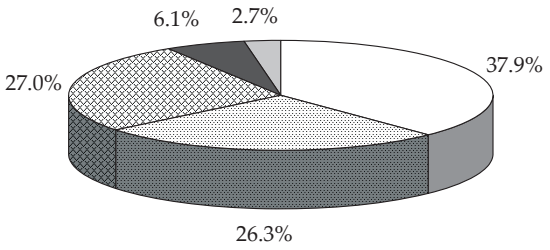
only specialized company
specialized company, partly people from the locality
half and half people from the locality and specialized company
people from the company and only occasionally specialized company
only people from the locality

Fig. 18. Who should manage litter collection, for example on holidays such as The Day of the Earth?



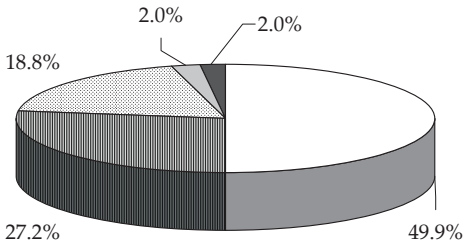
only specialized company
specialized company, partly people from the locality
half and half people from the locality and specialized company
people from the company and only occasionally specialized company
only people from the locality

Fig. 19. Who should be responsible for the maintenance of the roads and forest tracks?



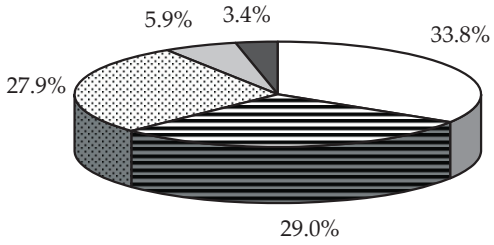
only specialized company
specialized company, partly people from the locality
half and half people from the locality and specialized company
people from the company and only occasionally specialized company
only people from the locality

Fig. 20. Who should manage the planting of new trees?



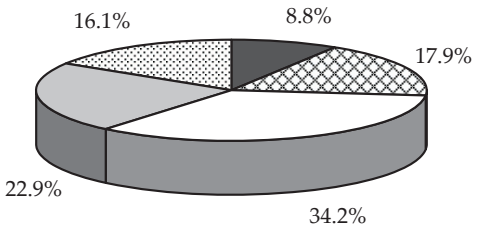
only specialized company
specialized company, partly people from the locality
half and half people from the locality and specialized company
people from the company and only occasionally specialized company
only people from the locality

Fig. 21. Who should be responsible for the provision and maintenance of playground equipment?



only specialized company
specialized company, partly people from the locality
half and half people from the locality and specialized company
people from the company and only occasionally specialized company
only people from the locality

Fig. 22. Who should manage the construction and maintenance of nature trails?



only specialized company
specialized company, partly people from the locality
half and half people from the locality and specialized company
people from the company and only occasionally specialized company
only people from the locality

Fig. 23. Who should manage the construction of nesting boxes, feeders, etc.?

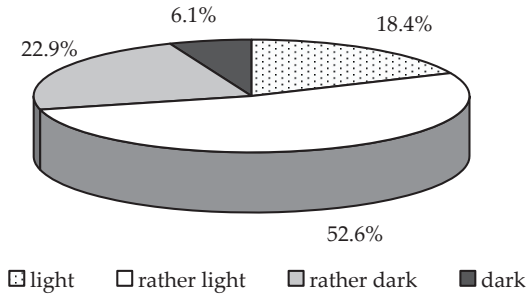


Fig. 24. Do you prefer light or dark forest?

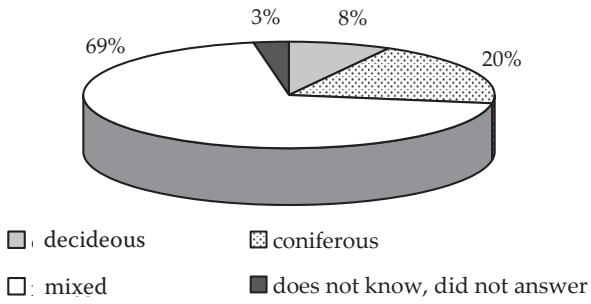


Fig. 25. Which forests do you like most?

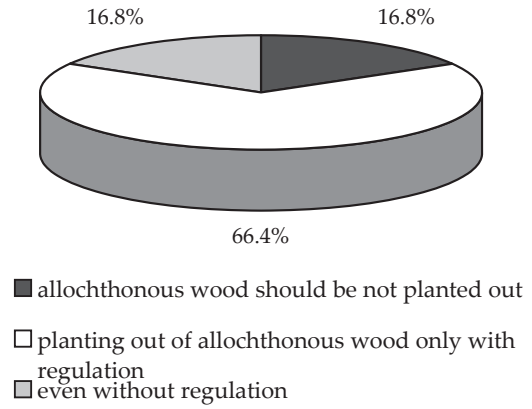


Fig. 26. Should there be a regulation for planting allochthonous wood in the urban forests?

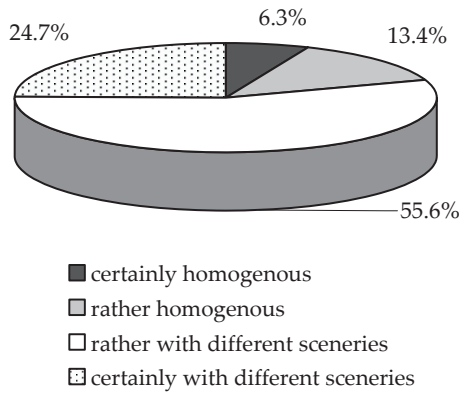


Fig. 27. Do you prefer homogeneous woodland, or forest with different sceneries?

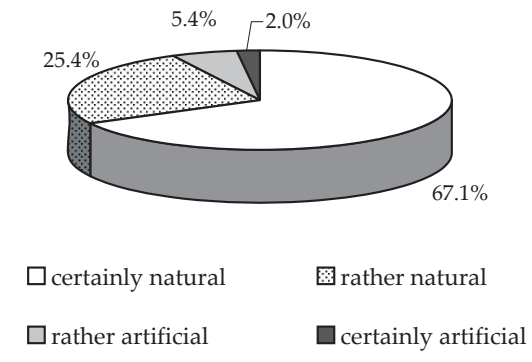


Fig. 28. Do you like more natural paths in the forest, or artificial surfaces e.g. asphalts?

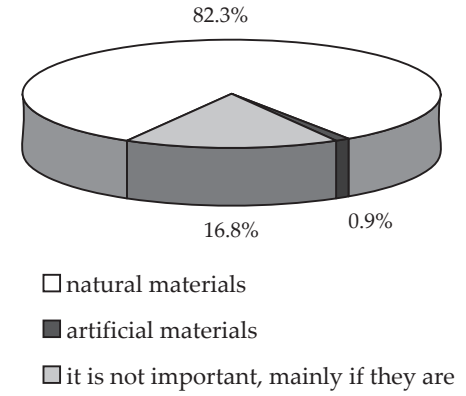


Fig. 29. Which materials would you like to see used for recreational facilities in the forest?

Confirmed/Unconfirmed hypotheses

1. Hypothesis No. 1 – confirmed as 65.1% of respondents visit forests at least once a month.

2. Hypothesis No. 2 – not confirmed as it was discovered that respondents that live in a house with a garden have a bigger need for recreation in nature to relax (25.6%) than those living in a house without a garden (16.7%). Just as respondents that live in a flat with a garden (28.1%) have a bigger need for recreation in nature than those living in a flat without a garden (22.8%).

3. Hypothesis No. 3 – confirmed on the grounds that more than seven-tenths of respondents (71%) prefer light or rather light forests, seven-tenths (69.8%) preferring mixed forests, and four-fifths (80.3%) certainly or quite likely prefer forests "with changing sceneries" (that is forests that have both open and closed space).

4. Hypothesis No. 4 – confirmed since more than seven-tenths of respondents (71%) like the natural

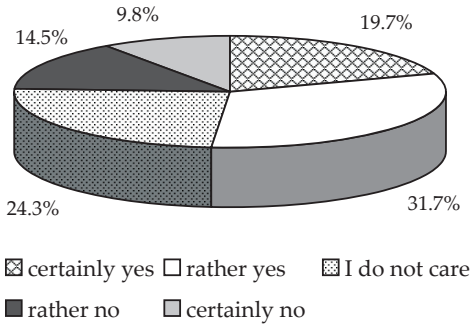


Fig. 30. Should there be playgrounds in the urban forest?

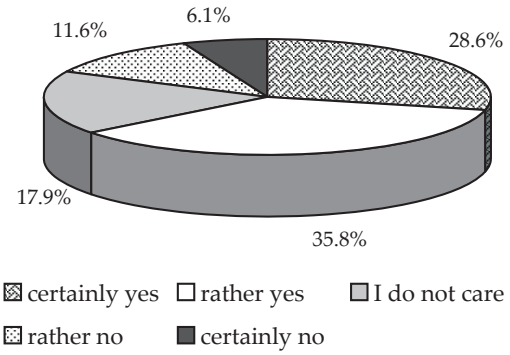


Fig. 31. Should there be recreational structures in the urban forest?

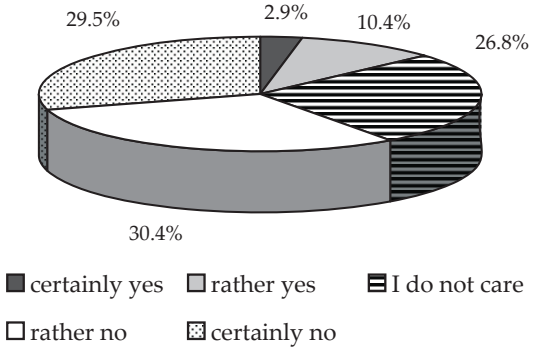


Fig. 32. Should there be works of art in the urban forest?

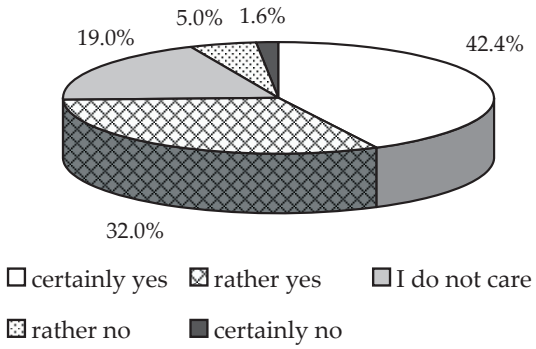


Fig. 33. Should there be marked running tracks in the urban forest?

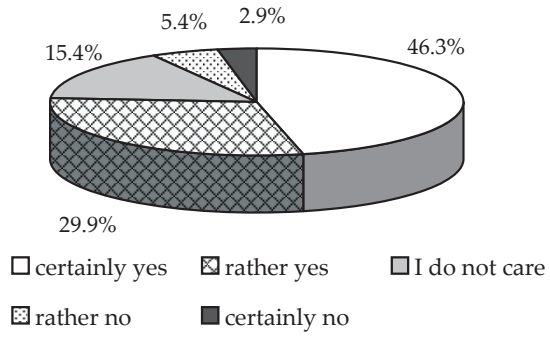


Fig. 34. Should there be marked cycle tracks in the urban forest?

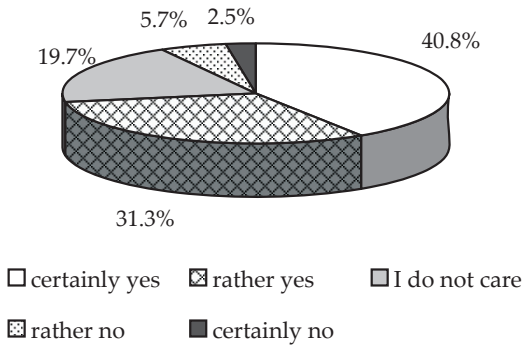


Fig. 35. Should there be designated tracks for cross-country skiing in the urban forest?

materials that are used to make recreational elements in forests. The question of preferences for specific materials was not further researched in the final version of the questionnaire.

5. Hypothesis No. 5 – confirmed as almost four-fifths of respondents (78.2%) would welcome the creation of new urban forests in their neighbourhood.

6. Hypothesis No. 6 – confirmed since more than a half of the respondents (53.5%) would take the opportunity to express their opinion on the creation of a new forest, according to 36.7% we should all certainly or more likely take care of the maintenance, and 13.6% think we should all certainly maintain forests ourselves. For example when it comes to regular litter disposal, 24.7% of respondents declare that it should be looked after by a specialized company and also, partly, by people living in the neighbourhood, according to 28.3% it should be equally split between a specialized company and locals, 11.1% think it should be done by locals and rarely a specialized company should be involved, and according to 10.4% locals should take care of it themselves. Litter removal, for example on the Day of the Earth should be, according to 10.9% of respondents, looked af-

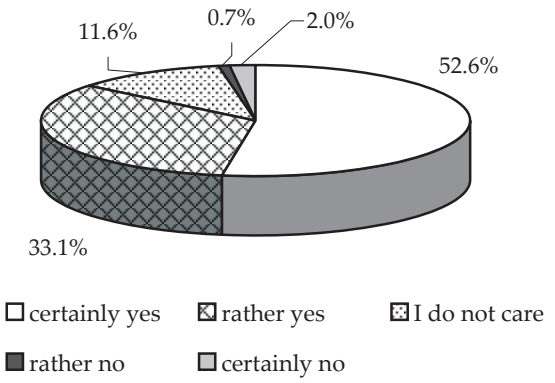


Fig. 36. Should there be educational nature trails in the urban forest?

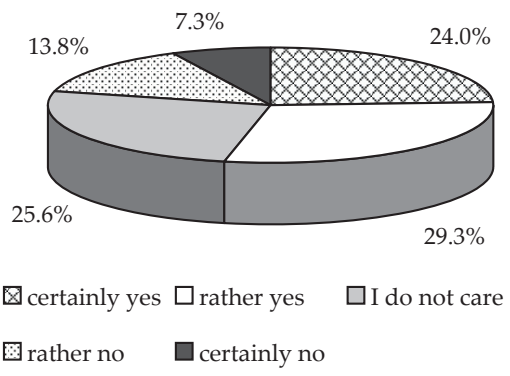


Fig. 37. Should there be exercise tracks in the urban forest?

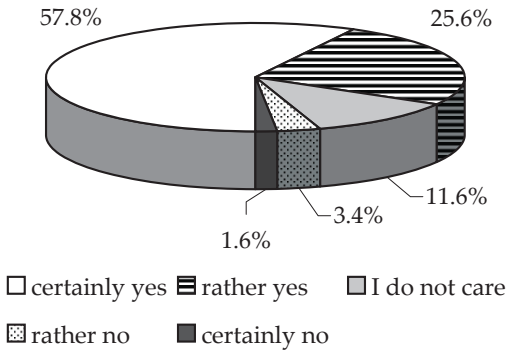


Fig. 38. Should there be benches in the urban forest?

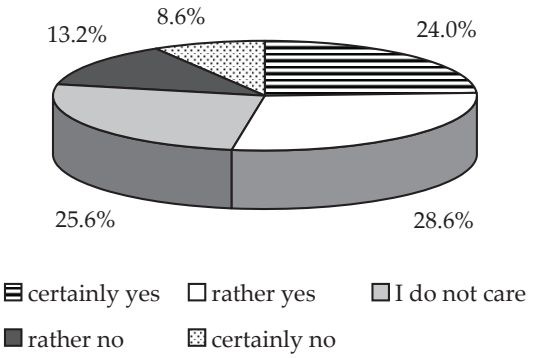


Fig. 39. Should there be picnic tables in the urban forest?

ter by a specialized company and partly by locals, 22.9% declare it should be equally split between a specialized company and locals, 20.9% think it should be done by locals and only rarely a specialized company should be involved, and according to 31.7% locals should do it themselves. When it comes to producing bird boxes, feeders and so on 17.9% of respondents declared it should be done by a specialized company and also, partly, by locals, according to 34.2% it should be equally split between a specialized company and locals, 22.9% think locals look after it and only rarely a specialized company should be involved, and according to 16.1% it should be done by locals themselves.

Table 1. Socio-demographic characteristics of the informants

Gender		Age (year)		Education		Occupation		City (inhabitants)		Housing	
Men	170	15–19	100	without education	1	student	130	up to 5 thousand	87	flat without garden	202
Women	271	20–29	86	basic school	78	maternity leave	14	up to 10 thousand	53	flat with garden	57
		30–39	85	high school without graduation	74	employee	195	up to 20 thousand	68	family house with garden	6
		40–49	101	high school with graduation	157	businessman	42	up to 50 thousand	34	family house without garden	176
		50–59	43	college/university	131	pensioner	34	up to 100 thousand	61		
		60 and more	26			unemployed	11	over 100 thousand	138		
						others	15				
Total	441		441		441		441		441		441

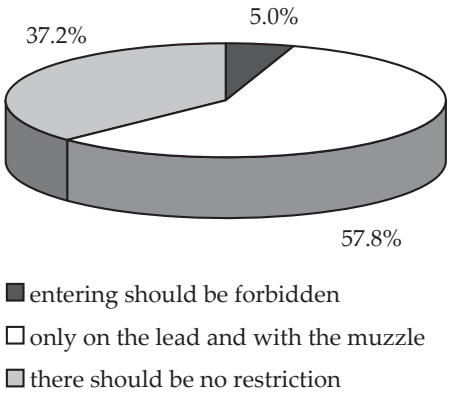


Fig. 40. Should dogs be allowed to run free, kept muzzled and on a lead, or banned altogether?

7. Hypothesis No. 7 – confirmed with regard to the number of respondents aged 15–19 (100) and 40–49 (101).

DISCUSSION

Whilst making the questionnaire it was taken into account that respondents could be experts as well as laymen, therefore all technical terms were explained. Socio-demographic characteristics, such as gender or age, which could often be considered as sensitive areas, were placed at the end of the questionnaire. This increases the number of respondents who also answer these sensitive questions. It would be more suitable to draft the questionnaire in a more specific way (for example in the question on benches it should be questioned whether respondents feel there is a lack of them and how, according to respondents, they should be arranged, etc). However, with respect to the possibilities whilst collecting the data greater detail was ignored.

To get answers from respondents coming from various social classes, age groups or other an element of randomness was chosen when questioning potential respondents. High school students were asked to get their neighbour who lives on the right side of them to fill out the questionnaire. It was required that the targeted people are over 18 years of age (higher probability in stability of opinion) and they live in a city. The age (minimum 18 years old) condition was however, not met by approx. one-tenth of students. It is supposed that, in some cases, students that were asked to distribute the questionnaire actually filled them in themselves.

For the opinion poll on recreational urban forests it is appropriate to use video recordings of various types of forests together with a discussion or to visit various types of forests again accompanied by discussion. These methods can bring better and more detailed results, but they are time-consuming and very expensive. Questionnaire distribution with the help of schools is a suitable system, due to time and money constraints, and in comparison with the previous surveys this brings good results. This system was chosen from several proposed alternatives supposing that there will be good cooperation with schools and thereby a high return of filled out questionnaires.

In order to get the questionnaires distributed evenly over the whole of the Czech Republic, there was cooperation with at least one school in each of the 14 regions. With regard to the number of inhabitants a minimum number of 3 schools were chosen for Prague in advance, and a minimum number of 2 schools for Brno. Provided that a sufficient number of questionnaires did not come back, a supplementary distribution and collection of data with the help of schools from randomly selected regions was taken into account.

The confirmation of hypothesis No. 6 could be debateable. Respondents were answering the question *"Who, according to them, should take care of particular operations connected with the maintenance of recreational urban forests?"* Referring to some of the activities, for example production of bird boxes and feeders, it was frequently stated that this should be carried out by locals themselves or locals cooperating with a specialized company. These answers however do not yet express that people are personally willing to take part in these activities. The percentage of people willing to actually join in would be notably smaller. Despite this fact, we can assume, based on some of our experiences both here and abroad, that successful respondents' participation in the care of our recreation forests and their environment is possible, and also desirable.

Hörnsten (2000) used photographs during her survey to establish peoples' forest preferences and found that photos showing an open landscape, with easy accessibility to walks, gained the most positive response. Similar preferences were found by respondents to this survey, with 71% respondents preferring a light or medium-light forest, 69.8% preferring a mixed forest and more than four fifths (i.e. 80.3%) rather, or surely, preferring a forest with "varied scenery" (and also forests which varied open spaces with closed overgrowth.)

65% of people polled in a survey by the University of Freiburg also showed their preferences to a mixed forest (Mráček, Krečmer 1975) for the areas of Porúří and Schwarzwald. In another survey (Mráček, Krečmer 1975), conducted in the German area of natural park on Faunus Mt., between 1965 and 1966,

about 76% of visitors preferred mixed forests, 21% coniferous forests and 3% deciduous.

According to Hörnsten (2000), one of the mentioned conclusions concerning the distance of a recreational forest is the accessibility of the forest by foot. This acknowledges the fact that housing developments should be planned with the nearest forest within one kilometre and not further than two kilometres. There is no other option than to agree with these conclusions. The current survey investigated for how long respondents would be willing to travel to forests for recreation. More than a half of those polled would be willing to travel for up to 30 minutes. However, the method of travel (by foot or car, etc.) was not specified. Despite the fact that this question has not been examined, we can assume that the distance reached by foot will increase the frequency of wood visits. The results of the study by the University of Freiburg (Mráček, Krečmer 1975) showed that 95% of those questioned preferred nearby forests. A local forest was not specified, but we can assume that it could be reachable by foot.

According to the surveys held for the Forests of the Czech Republic in 2001, a quarter of inhabitants often visit woodland and one third at least occasionally – thus more that a half of the people often visit woodland. It is interesting that the frequency of forest visits is not perceptively influenced by the size of a person's town or village. Only among people who live in villages with less than 499 inhabitants, is there an above average number of 36% who often visit forests. On the other hand, young people, up to 29 years of age (19.9%) and people with basic education – unskilled workers (15.0%) attend forests less often. There is a slight increase in the frequency of woodland visits among older age groups, and those with a higher level of education and/or social status. These statements are difficult to compare with the actual survey as the questionnaires did not include options such as 'often' and 'occasionally' but particularly time data, such as 'several times a week', 'probably once a week', 'probably once to twice a month', 'less than once a month' and 'not in the last 12 months', etc. On the contrary, the results of the Vienna Forest Survey (Mráček, Krečmer 1975) are specific. The majority of visitors go once a week (65%), 19% attend once a month, 9% go to the woods occasionally and 7% go daily. According to the actual survey, 11.8% of respondents went to the woods in their free time several times per week, 20.6% about once a week, 32.7% about once to twice a month, 29.5% less than once a month, whilst 5.4% did not visit the forest in the last 12 months. The survey conducted by the University of Freiburg, covering the area Porúří and Schwarzwald (Mráček, Krečmer 1975) found that 70% of those questioned look to the forest as a method of relaxation. According to the actual survey, more than two fifths of respondents (41%) prefer to spend their free time in woodland, 27% in the mountains, 14.3% by ponds or lakes, 6.1% in meadows, 6.8% in other unspecified types of countryside and 4.8% by rivers or streams.

According to the research of the Vienna Forest Survey (Mráček, Krečmer 1975), the main reason for visiting the woods, for 23% visitors, is peace and relaxation, fresh air for 21%, walks and strolls for 19%. 16% visitors are attracted by their love of the forest, 14% are interested in observing wildlife, 5% of people go to pick berries and mushrooms and 2% of visitors go due to other reasons. The actual survey investigated similar aspects, but using the following two questions: *"For what activities do you mostly use the forest?"* and *"What is it about the forest that most helps you to relax?"* The findings were that 36.5% of respondents used the forest for walking, 24.5% for gathering mushrooms and forest berries, 12.5% for walking a dog, 8.6% for riding a bike (or roller-skating), 6.8% for walking with children, 4.3% for running, 1.6% for hunting and fishing, 0.9% for swimming, 0.5% for sunbathing, 0.2% for doing exercises and 3.6% for other activities. The most important element, for 64.4% of people, is the whole atmosphere, for 17.7% peace and quiet, for 8.6% fresh air, for 4.3% the movement of tree-tops, for 2.7% the bird song, and for 2.3% the scenery.

Hörnsten (2000) presented results from research conducted in Sweden, which compared data from between 1977 and 1997. The number of people picking forest berries (blueberries, cranberries, etc.) declined by over one third over the course of the period. However, the proportion of people gathering mushrooms did not change during the same period. The relationship with the forest remains the same, but the use of the forest has been evolving, from a source of food to that of pure recreation.

According to research, carried out in 2001 for the Forests of the Czech Republic, people judge a forest on its environment and for the level of relaxation it provides. The natural resources e.g. gathering of forest berries, wood logging and the socio-economic benefit for the countryside are perceived as being less important. The use of the forest for hunting holds the smallest importance. The survey referenced by Mráček and Krečmer (1975) showed that 79% of visitors want marked paths; 55% ask for asphalt tracks but 45% are opposed. The survey in a natural park in the Taurus mountain range showed that walkers pre-

fer soft tracks. The actual survey showed that 67.1% of respondents have a preference for forest paths constructed with natural materials, 25.4% prefer ways of natural character, 5.4% partially artificial paths and 2% prefer totally artificial paths.

The research proves that the respondents perceive forests as a pleasant place for recreation and the majority of respondents would appreciate creation of new forests in their environment. When creating new recreation forests, or while maintaining current forests, the participation of experts from all branches of ecology, forestry, landscape architecture and also local people is welcome. They should be given an opportunity for personal expression and active participation from the beginning; e.g. planning new forests or the planning of long-term forestry care. The forest visitors need to be educated in e.g. ecology, design and management of urban forests, how to treat forests properly, etc. According to research concerning the social values of Czech citizens, such activities as showing respect to nature and living in harmony with nature are not valued enough. The suggested initiatives, to get the public involved in the care of local forests, can bring positive results. There are also projects working within the area of urban forests. The RAISE project in Baltimore is an example where The Urban Resources Initiative organises their Outward Bound programme (an international "outdoor" educational programme). Burch and Grove (1993) say that the programme channels the development of organizational and leadership skills of local youth, whilst contributing to the forest community. Additionally, the personal aspect of the programme encourages the development of self-confidence and self-esteem amongst the participants, which they would otherwise miss in their lives.

To fulfil all of the requirements of forest visitors would mean the creation of many new forests, substantial investment in the facilities of existing forests, and also increased cooperation between the experts from different forestry branches and the public. The analysis of the results from actual survey, and previous surveys, gives an insight into the characteristics the forest should have in order to fulfil the requirements of visitors. It implies that the ideal forest is a mixed, light forest with varied scenery. People want the serenity of the forest protected, especially with a limit on motor vehicles. However, conversely, they also want to improve vehicle access and car parking facilities. Also, the use of natural materials for technical and recreation facilities in the forest environment is ideally required and also the visitors prefer paths constructed from natural materials. The discovery that visitors would welcome the chance to express their opinion about their local forest, and that they would be willing to participate in some activities in the area of a forest care is especially valuable. This may prove to be a great challenge, as it has already been suggested that the involvement of local people in activities related to forestry care could bring the following positive results: improvement in the relationship between people and their local forest (creating a sense of 'ownership'), a greater probability that these people will not pollute and damage their forest, the establishment of better social relationships in the local community and financial savings in forestry maintenance. However, the negative side could be e.g. undirected and amateurishness work and a lack of forestry expertise, but this could be avoided by sufficient liaison between relevant forestry experts and members of the public. Activities in which both the public and the experts could get involved are e.g.: planting new trees, litter collection (not the routine emptying of bins, but maybe a quarterly clean-up), the production and/or installation of bird boxes and bird tables (as needed), designing trails, creating informative nature walks and exercise paths (as needed), creating new, or marking existing, running routes, cycle routes, cross country skiing routes and hypo routes (as needed). It is debatable whether it is worth devoting so much time to urban forests. Because of our aging population, there will be an increasing number of retired people with lots of free time. Due to lifestyle changes, the pace of life is getting faster and more stressful. This trend is surely going to continue. The need for quality recreation facilities in a natural environment will increase. Not everyone wants to spend their recreation time in the forest, but the number of people who want to live in close proximity to a wooded area is expected to grow, as a reaction to urban growth. This is illustrated by increasing interest in properties that are in more rural areas. For town dwellers, a pleasant view over a green area, such as a park, has a positive effect on the psyche of the individual and society as a whole. The proximity of a forest has lots of advantages for town inhabitants: improved climate and air quality, a positive impact on people's mental outlook and also, perhaps, social advantages of living in a green urban environment. Finally, we have to consider the relationship between bigger swathes of forest in urban areas and the ecological impact on the countryside.

The goal of this research – to establish the current opinions of Czechs, with regard to urban woodland and comparing these findings with the results of

established surveys – was reached. The results of the study will consequently be used when compiling methodology for the planning, establishment and maintenance of urban forests. The results of the survey and potential methodology could lead to an increase in the development of urban forestry.

Acknowledgement

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Jak vidí Češi příměstské rekreační lesy?

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ABSTRAKT: V období od léta 2005 do zimy 2005/2006 byl proveden průzkum veřejného mínění o příměstských rekreačních lesích. Distribuce dotazníků probíhala ve všech 14 krajích České republiky. Z průzkumu vyplynulo, že většina respondentů by uvítala vznik nových rekreačních lesů ve svém okolí. Převážně je žádán smíšený a světlý les, používání přírodních materiálů na rekreační prvky a cesty přírodního charakteru. Více než polovina respondentů by využila možnost vyjádřit se k založení nového lesa. Nejvíce respondentů by bylo ochotno cestovat za rekreací do lesa do 30 minut. Na některých aktivitách spojených s péčí o rekreační lesy by se byli lidé ochotni podílet.

Klíčová slova: návštěvníci lesa; rekreace; sociologie; průzkum veřejného mínění

Cílem práce a výzkumu bylo zjistit aktuální názory obyvatel České republiky na příměstské rekreační lesy, porovnat je s již uskutečněnými průzkumy a v návaznosti využít zjištěných výsledků při zpracování metodiky zakládání, managementu a péče o příměstské rekreační lesy.

Cílovou skupinou pro provedený dotazníkový průzkum byli občané České republiky ve věku 18 let a starší, bydlící ve městě. Dolní hranice 18 let byla po obdržení vyplněných dotazníků snížena na 15 let.

Byly stanoveny následující hypotézy:

1. lidé většinou navštěvují lesy nejméně jednou měsíčně,

2. potřeba rekreace v přírodě je větší, pokud lidé nebydlí v bytě či domku se zahradou,

3. nejpreferovanějším druhem lesa je smíšený světlý les s otevřenými prostorami,

4. nejpreferovanějšími materiály na rekreační prvky (lavičky, odpadkové koše…) jsou přírodní materiály – nejvíce dřevo,

5. lidé by chtěli mít ve svém okolí více příměstských rekreačních lesů,

6. na některých aktivitách (např. úklid při významných dnech jako je Den Země apod.) by se byli lidé ochotni podílet,

7. některé dotazníky vyplní studenti sami, event. jejich rodiče a příbuzní.

Návratnost dotazníků byla téměř 77 %.

Téměř čtvrtina (tj. 23,1 %) respondentů tráví volný čas nejčastěji s přáteli a druhá téměř čtvrtina (tj.

22,4 %) pobytem či sportem v přírodě. Větší tendenci trávit volný čas pobytem či sportem v přírodě mají ženy (24,4 %) než muži (19,4 %). Pro trávení volného času v přírodě má 41 % respondentů nejraději les, 27 % hory, 14,3 % rybníky či jezera, 6,1 % louky, 6,8 % jiné nespecifikované typy krajiny a 4,8 % řeky či potoky.

11,8 % respondentů chodí do lesa ve volném čase vícekrát týdně, 20,6 % asi jednou týdně, téměř třetina (tj. 32,7 %) asi jednou až dvakrát měsíčně, další téměř třetina (tj. 29,5 %) méně než jednou za měsíc a 5,4 % za posledních 12 měsíců les nenavštívilo. Více než dvě pětiny respondentů (tj. 40,4 %) má les, který navštěvují za účelem rekreace, ve vzdálenosti do 10 minut, 25,6 % do 20 minut, 15,2 % do 30 minut, 7,5 % do 40 minut, 3,6 % do 50 minut a 7,7 % ve vzdálenosti hodiny a více.

Největším rekreačním prvkem je pro lidi z více než tří pětin (tj. ze 64,4 %) celková atmosféra, ze 17,7 % klid, z 8,6 % čistý vzduch, ze 4,3 % šumění korun stromů, z 2,7 % zpěv ptáků a z 2,3 % průhledy mezi stromy.

Téměř tři čtvrtiny respondentů (tj. 71,9 %) využívá les ke sběru hub a lesních plodů, 70,1 % k procházkám, 29,5 % k jízdě na kole (či kolečkových bruslích), 29 % k procházkám se psem, 23,4 % k procházkám s dětmi, 17 % k běhání, 4,8 % k lovu zvěře a ryb, 4,8 % ke koupání, 4,3 % ke cvičení, 2 % k opalování a 14,1 % k jiným účelům.

Téměř tři čtvrtiny respondentů (tj. 74,8 %) prožívá v lese uvolnění a klid, více než polovina (tj. 50,8 %) odpočinek, téměř polovina (tj. 48,1 %) načerpání energie a obnovení sil, 29,9 % radost a uspokojení, 27 % pocit útěku od civilizace, 17,2 % pocit sounáležitosti s přírodou, 2,3 % strach, 0,7 % nepříjemné pocity a 0,7 % stísněnost.

Téměř čtyři pětiny respondentů (tj. 78,2 %) by uvítalo vznik nových rekreačních lesů ve svém okolí.

O pravidelný úklid odpadků by se podle více než čtvrtiny respondentů (tj. 25,4 %) měla starat pouze specializovaná firma, podle téměř další čtvrtiny (tj. 24,7 %) specializovaná firma a částečně i lidé z okolí, podle 28,3 % stejným podílem specializovaná firma i lidé z okolí, podle 11,1 % lidé z okolí a pouze výjimečně specializovaná firma a podle 10,4 % sami lidé z okolí.

O údržbu cest by se podle více než tří pětin respondentů (tj. 62,6 %) měla starat pouze specializovaná firma, podle více než pětiny (tj. 22,9 %) specializovaná firma a částečně i lidé z okolí, podle 10,9 % stejným podílem specializovaná firma i lidé z okolí, podle 2,3 % lidé z okolí a pouze výjimečně specializovaná firma a podle 1,4 % sami lidé z okolí.

O prořezávání stromů by se podle tří čtvrtin respondentů (tj. 75,1 %) měla starat pouze specializovaná firma, podle 15,2 % specializovaná firma a částečně i lidé z okolí, podle 5,7 % stejným podílem specializovaná firma i lidé z okolí, podle 2,3 % lidé z okolí a pouze výjimečně specializovaná firma a podle 1,8 % sami lidé z okolí.

O výrobu hracích prvků pro děti by se podle téměř poloviny respondentů (tj. 49,9 %) měla starat pouze specializovaná firma, podle více než čtvrtiny (tj. 27,2 %) specializovaná firma a částečně i lidé z okolí, podle téměř pětiny (tj. 18,8 %) stejným podílem specializovaná firma i lidé z okolí, podle 2 % lidé z okolí a pouze výjimečně specializovaná firma a podle 2 % sami lidé z okolí.

O instalaci hracích prvků pro děti by se podle více než poloviny (tj. 53,7 %) respondentů měla starat pouze specializovaná firma, podle více než čtvrtiny (tj. 25,4 %) specializovaná firma a částečně i lidé z okolí, podle 16,6 % stejným podílem specializovaná firma i lidé z okolí, podle 2,5 % lidé z okolí a pouze výjimečně specializovaná firma a podle 1,8 % sami lidé z okolí.

Pro rekreaci dává 18,4 % respondentů přednost světlému lesu, více než polovina (tj. 52,6 %) spíše světlému lesu, 22,9 % spíše tmavému lesu a 6,1 % tmavému lesu. Nejvíce dávají přednost všechny skupiny dotazovaných spíše světlému lesu. Preference smíšených lesů převládaly ve všech skupinách. Les jednotného charakteru se nejvíce líbí 6,3 % respondentů, spíše jednotného charakteru 13,4 %, spíše les se"střídáním scenerií" více než polovině (tj. 55,6 %) a určitě les se „střídáním scenerií" téměř čtvrtině (tj. 24,7 %).

67,1 % respondentů dává rozhodně přednost cestám v lese přírodního charakteru, více než čtvrtina (tj. 25,4 %) spíše cestám přírodního charakteru, 5,4 % spíše cestám upraveným a 2 % rozhodně cestám upraveným.

Podle 5 % respondentů by měl být psům vstup do rekreačních lesů zakázán, podle téměř tří pětin (tj. 57,8 %) by měli mít psi povolen vstup výhradně na vodítku a s košíkem a podle 37,2 % by měl být psům umožněn volný pohyb po rekreačních lesích. Liberálnost k pohybu psů po rekreačních lesích klesá s věkem.

Hrací koutky pro děti by v rekreačním lese podle téměř pětiny respondentů (tj. 19,7 %) určitě měly být a podle téměř třetiny respondentů (tj. 31,7 %) spíše měly být. Umělecké objekty by v rekreačním lese podle 2,9 % respondentů určitě měly být, podle více než desetiny respondentů (tj. 10,4 %) spíše měly být, podle 30,4 % respondentů by spíše neměly být, podle 29,5 % by určitě neměly být a více než čtvrtině (tj. 26,8 %) je to jedno. Značené běžecké stezky by v rekreačním lese podle více než dvou pětin respondentů (tj. 42,4 %) určitě měly být a podle téměř třetiny respondentů (tj. 32 %) spíše měly být. 27,9 % respondentů by značené běžecké stezky určitě využívalo. Značené cyklostezky by v rekreačním lese podle necelé poloviny respondentů (tj. 46,3 %) určitě měly být a podle 29,9 % respondentů spíše měly být. Více než dvě pětiny respondentů (tj. 42,6 %) by značené cyklostezky určitě využíva-

ly a 29,3 % respondentů by určitě využívalo značené lyžařské běžecké stezky.

Naučné stezky by v rekreačním lese podle více než poloviny respondentů (tj. 52,6 %) určitě měly být a podle téměř jedné třetiny (tj. 33,1 %) spíše měly být. Téměř dvě pětiny respondentů (tj. 37,9 %) by naučné stezky určitě využívalo a 34,7 % by je spíše využívalo. Stezky zdraví by v rekreačním lese podle téměř čtvrtiny respondentů (tj. 24 %) určitě měly být a podle 29,3 % respondentů spíše měly být. 22,4 % respondentů by stezky zdraví určitě využívalo a 25,4 % by je spíše využívalo. Lavičky by v rekreačním lese podle téměř tří pětin respondentů (tj. 57,8 %) určitě měly být a podle čtvrtiny respondentů (tj. 25,6 %) spíše měly být. Tři pětiny respondentů (tj. 60,8 %) by lavičky určitě využívaly a 21,1 % by je spíše využívalo. Stoly by v rekreačním lese podle téměř čtvrtiny respondentů (tj. 24 %) určitě měly být a podle 28,6 % respondentů spíše měly být. Téměř tři desetiny respondentů (tj. 29,9 %) by stoly určitě využívaly a téměř třetina (tj. 24,3 %) by je spíše využívala.

Potvrzení/nepotvrzení hypotéz:

1. Hypotéza č. 1 byla potvrzena, protože nejméně jednou měsíčně lesy navštěvuje 65,1 % respondentů.

2. Nedošlo k potvrzení hypotézy č. 2, neboť větší potřebu rekreace v přírodě za účelem odpočinku mají respondenti bydlící v domě se zahradou (25,6 %) než v domě bez zahrady (16,7 %) a zrovna tak je potřeba rekreace v přírodě vyšší u respondentů bydlících v bytě se zahradou (28,1 %) než u respondentů bydlících v bytě bez zahrady (22,8 %).

3. Hypotéza č. 3 byla potvrzena, protože více než sedm desetin respondentů (tj. 71 %) dává přednost světlému či spíše světlému lesu, sedm desetin (tj. 69,8 %) smíšenému lesu a čtyři pětiny (tj. 80,3 %) spíše či určitě lesu se „střídáním scenerií" (tedy i lesům, kde se střídají otevřené prostory s uzavřeným porostem).

4. Hypotéza č. 4 byla potvrzena, protože více než sedmi desetinám respondentů (tj. 71 %) se líbí přírodní materiály použité na rekreačních prvcích lesa. Otázka preference konkrétního materiálu nebyla v konečné podobě dotazníku zkoumána.

5. Hypotéza č. 5 byla potvrzena, protože téměř čtyři pětiny respondentů (tj. 78,2 %) by uvítaly vznik nových příměstských rekreačních lesů ve svém okolí.

6. Hypotéza č. 6 byla potvrzena, protože více než polovina respondentů (tj. 53,5 %) by využila možnost vyjádřit se k založení nového lesa a přednést svůj názor a podle 36,7 % bychom se o údržbu lesa měli starat spíše my všichni a podle 13,6 % výhradně my všichni.

7. Vzhledem k počtu respondentů ve věku 15–19 let (100) a ve věku 40–49 let (101) se potvrdila hypotéza č. 7.

Naplnění všech požadavků návštěvníků lesa by znamenalo vytvořit mnohé nové rekreační příměstské lesy, značné investice do rekreačního vybavení dosavadních lesů a také do vytvoření fungující spolupráce mezi odborníky z různých oblastí a mezi veřejností. Porovnání výsledků aktuálně provedeného výzkumu s výsledky již dříve provedených výzkumů nám dává určitou představu o tom, jaké vlastnosti by měl mít les, aby odpovídal v podstatě požadavkům návštěvníků. Z toho např. vyplývá, že je žádán převážně les smíšený, světlý a se střídáním scenerií, že si lidé přejí v lese hájení klidu (zejména omezením vjezdu motorových vozidel), na druhé straně však doporučují zlepšit příjezdové a řízené parkovací poměry. Dále je žádáno používání přírodních materiálů na technické a rekreační prvky v prostředí lesa a rovněž cesty návštěvníci preferují spíše přírodního charakteru. Zejména cenné je poznání, že návštěvníci lesa by uvítali možnost vyjádřit se k otázkám spojeným s rekreačním lesem v jejich okolí a že by byli ochotni se na některých činnostech z oblasti péče o les podílet. To lze brát jako velkou výzvu.

Naskýtá se také otázka, proč vůbec věnovat příměstským rekreačním lesům tolik pozornosti. S tím, jak stárne naše populace, bude přibývat starších lidí v důchodovém věku se značným množstvím volného času. Díky měnícímu se životnímu stylu obyvatel dochází ke zrychlování životního tempa a k nárůstu stresových situací. Tento trend bude jistě pokračovat i nadále. Bude tedy vzrůstat potřeba míst pro kvalitní rekreaci v přírodě. Rekreace v přírodě není preferována celou společností, ale preference blízkosti přírodních lokalit, tedy i lesů, bude podle předpokladů stoupat s technizací prostředí a s růstem městské zástavby. Dokazuje to i např. větší atraktivita lokalit v blízkosti zeleně při prodeji bytů či pozemků. Již pohled na přírodní plochy, zelenou barvu a vytvořený horizont v jinak urbanizovaném prostředí má příznivý účinek na psychiku jedince, a tím i společnosti. Blízkost lesů má pro obyvatele měst řadu výhod a účinků: zlepšuje se klima a kvalita ovzduší ve městě, dochází k příznivému ovlivnění zdravotního stavu obyvatel, urbanistický celek přítomností zeleně nabývá na atraktivnosti, zeleň příznivě ovlivňuje sociální vazby a vztahy mezi obyvateli apod. Samozřejmě v neposlední řadě je třeba brát v úvahu vztah větší plochy lesů v příměstských oblastech na ekologické vazby v krajině apod.

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