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AGRICULTURAL LAND IN VOJVODINA AS ROE DEER HABITAT – HUNTING - TOURISM ASPECT

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Summary

This paper is aimed at the acquisition of scientific data on the dynamics of development and actual status of roe deer populations on agricultural lands in Vojvodina (which occupy about 90% of its territory), and their utilisation for the advancement of hunting-tourism activities. The research is based on the following scientific methods: field research (monitoring and questionnaires), content analysis, measurement and evaluation of roe deer trophies, comparison and statistical method (descriptive statistics). The observed increasing trend in roe deer density and shooting in the field hunting grounds in Vojvodina (excepting the period 1992-2000), proves that this big game species is adapted to habitats with dominant arable crops. Despite the attained results, which are at the level of the European average, the potentials of roe deer, as the important hunting-tourism resource of Vojvodina, have not yet been sufficiently exploited, therefore an additional improvement of hunting management and hunting-tourism marketing is still required.

Key words: *roe deer, Vojvodina, agricultural land, hunting tourism.*

JEL: *Q29, Q19*

Introduction

The base of hunting, as a branch of economy, is game as a natural resource, which is in Serbia categorised as the general public (state) resource. Game is a significant (although not also a major) economic potential, but it is much more significant as the best bio-indicator of environmental quality. For this reason, any intervention in that natural resource, whether it is production, cultivation, protection or utilisation, has to take into account its conservation and enhancement, i.e. game populations and their habitats. The most important objective is to ensure the sustainability of hunting management and to

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preserve the game populations for future generations (Šelmić, Gačić, 2011). According to Prentovic et al. 2012 in most cases, rural areas have rich ecosystems and fairly preserved biodiversity, which provides favorable conditions for development of besides agriculture and forestry other economic activities such as water management, tourism, craftsmanship, urban planning, fishing, hunting, etc.

Game is the most important hunting-tourism resource and the key element of each hunting-tourism product, therefore, the offer of good quality individuals (in sufficient numbers and with valuable trophies) is the main condition of the success, i.e. profitability of any hunting-tourism destination (Prentović, 2005a,b, 2006). The Autonomous Province of Vojvodina is one of the most prestigious hunting-tourism destinations in South-Eastern Europe (Prentović, 2011). It occupies about 21,500 km^2, which accounts for about ¼ of the Republic of Serbia territory. With the exception of two low mountains - Fruška Gora (539 m a.s.l.) and Vršačke Planine (641 m a.s.l.), it is mostly a lowland and flat region. The most represented soil type is chernozem, which covers about 60% of the total area (the fertility of this soil type is high, and it is considered as the best soil for plant production), then humogley and alluvial soil (16.2% i.e. 9.0%, respectively). The greatest part of the area is agricultural land (about 17,900 km^2 or 83.3% of the total area), and forests and other wooded lands cover about 1,430 km^2 (6.7%), which makes Vojvodina one of the least forested regions in Europe. Infertile lands occupy about 2,170 km^2 or 10% (built-up areas and inland water areas). All the municipalities in Vojvodina account for more than 70% of agricultural land, except Beočin (45.6%), Sremski Karlovci (50.4%) and Šid (59.7%). This indicates that Vojvodina has a high potential for agricultural production, not only based on its good-quality soil (plough land and gardens occupy about 90% of arable land), but also because of its mild climate, plentiful water and long tradition. Generally, the soil in Vojvodina is not contaminated, so it is suitable for the production of highly valuable and safe food (Lazić et al., 2011, Sekulić et al., 2011).

The structure of agricultural soil in Vojvodina points out clearly that the prevalent form is arable-vegetable production. Simultaneously, agricultural lands (plough land, gardens, meadows, pastures) are permanent or temporary habitats to many game species, in which their cultivation is planned and their utilisation is rational. Special attention is drawn to roe deer (*Capreolus capreolus*), as the only big game species which also lives in the conditions of cultural steppe and which thrives on large parcels under monocultures. It is our most numerous and biologically and economically most valuable big game species, whose habitats in Vojvodina are for the most part agricultural lands. In the scope of hunting economy, roe deer has a high economic value, both for hunting (trophy as an attractive hunting-tourism motive), and for the production of gastronomically valuable venison. However, the habitat specificity (agro-bio-top) makes the most important cultural measures significantly more difficult, and therefore also the planned and rational management.

This paper is aimed at the attainment of scientific data on the dynamics of development and actual status of roe deer populations on agricultural lands in Vojvodina (hunting grounds managed by Hunting Associations), and their utilisation for the enhancement of hunting management and hunting-tourism activities.

Material and methods

The analysis of the dynamics of roe deer population density in Vojvodina was based on the data originating from different sources and documents: statistical bulletins and yearbooks (Federal and Statistical Office of the Republic of Serbia); official records of the Hunting Association of Vojvodina (Novi Sad), Hunting Association of Serbia (Belgrade) and the Public Enterprise "Vojvodinašume" (Novi Sad); Long-term Programme of Hunting Development in SAP Vojvodina (1984); Long-term Programme of Hunting Development in Vojvodina 2000-2010 (2000); Programme of Hunting Development in Serbia 2001-2010 (2001). The above data enable a reliable determination of the trends of roe deer density and shooting in Vojvodina in the period 1961-2011.

Trophy structure of roe deer populations in Vojvodina was analysed based on the data obtained by the evaluation of 1,902 trophy males taken over the period 2001-2005. The trophies originate from the hunting grounds managed by Hunting Association of Vojvodina by its members - Hunting Associations, of which 1,016 are from Bačka (9 hunting grounds) and 886 from Banat (3 hunting grounds). The trophies were evaluated by competent commissions consisting of certified trophy evaluators, according to the formula and the rules of the International Council for Game and Wildlife Conservation - CIC (n=1,341), according to the shorter evaluation procedure by coefficient 0.23 (n=561). After trophy evaluation, the unique criteria for medals were applied: gold (130 and more points), silver (115-129.9) and bronze (105-114.9).

Results and discussion

On the territory of Vojvodina, there are nine hunting regions[4], aiming at the realisation of unique national hunting policy, long-term rational management of game species populations and efficient undertaking of appropriate measures in hunting grounds. Based on the Law on Game and Hunting ("Official Gazette RS", number 18/10), Provincial Secretariat of Agriculture, Water Economy and Forestry, established altogether 147 hunting grounds within the above hunting regions, of which 18 are specific purpose hunting grounds[5], 13 hunting grounds in the area of registered fishponds, 115 hunting

4 Based on Article 34, paragraph 1 of the Law on Game and Hunting ("Official Gazette RS", number 18/10), the Government of the Republic of Serbia passed the Decree on the Establishment of Hunting Areas on the Territory of the Republic of Serbia ("Official Gazette RS", number 91/11). On the territory of Vojvodina, pursuant to the Decree, 3 hunting areas were established in each of the three regions - Bačka, Banat and Srem. However, after the new establishment of hunting grounds in Vojvodina (2010-2012), the total hunting area managed by hunting associations was not significantly changed, nor was its attitude to vegetation and crops. This points out that the data from the Programme of Hunting Development in Vojvodina (2000) and Serbia (2001) can still be considered actual and representative.

5 Specific purpose hunting grounds are established in the areas of the National Parks and in the areas with the majority percentage of state forests and other wooded lands. They are managed by Public Enterprise "Vojvodinašume" (17 hunting grounds) and the National Park "Fruška Gora".

grounds in the wild (the so called "open hunting grounds" managed by Hunting Associations), and one private hunting ground.

In hunting grounds managed by Hunting Associations (about 90% of the total hunting area in Vojvodina), roe deer is the principal and almost the only reared big game species, and the trophies of taken males are the main source of revenues from hunting management. The dominant land use in these hunting grounds is agricultural land which occupies about 17,470 km^2 or 87.9%, and forests and other wooded land cover about 530 km^2 or 2.7% (Long-term Programme of Hunting Development in Vojvodina 2000-2010). However, in forest hunting grounds in Vojvodina, especially in fenced hunting grounds, or fenced parts of hunting grounds (specific purpose hunting grounds), roe deer is only a secondary big game species.

The most favourable conditions for game survival on agricultural lands are observed in hunting grounds with more significant crop diversity, and also in small holdings. On the other hand, the regrouping of land parcels and the application of modern agricultural machinery, together with incorrect application of chemicals, cause the devastation of autochthonous vegetation in many hunting grounds in Vojvodina[6]. Also, the low percentage of forests and wooded lands in hunting grounds managed by Hunting Associations (2.7%) has an adverse effect on the survival and density of principal reared species of small game, such as brown hare and pheasant. For this reason, over several past decades, population density of small game has decreased significantly in hunting grounds on agricultural land in Vojvodina, especially the density of grey partridge, whose populations are on the verge of extinction.

In addition to adverse effects of intensive agriculture, natural conditions of the habitats in Vojvodina are further aggravated by industrial production (waste emissions into the atmosphere and discharges to watercourses), road infrastructure (emission of exhaust gases, game disturbance and wildlife-related traffic accidents, fragmentation of habitats), disasters (floods and droughts), predator species, and man-made specific effects (e.g. illegal hunting, nomadic pastoralism, irrigation channel revetment with plastic foils, etc.). On the other hand, the main favourable effects in hunting grounds on agricultural lands in Vojvodina are sufficient quantities of diverse food during the vegetation period and somewhat later on (remnants of agricultural crops).

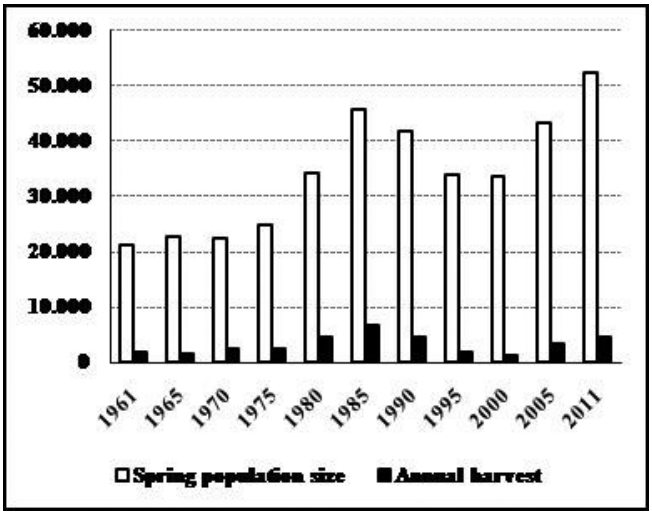
Globally unfavourable habitat conditions for the survival of many game species did not have an adverse effect on roe deer population density and distribution (Burbaite, Csányi, 2009). Furthermore, from a typical species living in minor forest complexes with many openings and clearings, because of which roe deer is said to belong to forest margins, it has become an important and a rather numerous participant of agro-ecosystems (Gačić, 2005a). It dwells in diverse habitats up to the limit of forest vegetation (about 2,000 m a.s.l.). However, its most favourable habitats are undulated submontane areas with alternating small parcels of mixed forests, meadows and arable lands (Šelmić, Gačić, 2011). The most important requirement regarding the habitats (excepting food) refers to natural laws which make it

6 See more in Andric et al, 1989.

possible to avoid predators and man (Aanes et al., 1998). Thanks to its relatively small body, it can survive in isolated groves or thickets, even in tall grasslands, which ensure the necessary shelter. Generally, roe deer is successfully adapted to changed human-induced environmental conditions. Also, roe deer is highly tolerant to extreme climate effects (it inhabits the climates from the hot and dry Mediterranean to cold boreal forests), and it can live in the areas where the snow reaches the level of its chest, about 1 m in extreme cases (Linnell et al., 1998).

Roe deer is an autochthonous big game species in our region. It is the most numerous big game in Europe, which is also the case on the territory of Serbia (therefore also Vojvodina). However, in a greater part of Serbia, the present roe deer density and the degree of utilisation are significantly below the natural habitat potentials. Hence, the most important plan documents in the field of hunting (e.g. Programme of Hunting Development in Serbia 2001-2010), thanks to roe deer biological and high economic significance as an autochthonous and hunting species, stress the increase in density and the improvement of structure (sex and age), as well as the improvement of roe deer trophy value, as one of the strategic decisions in the direction of Hunting Development in Serbia.

Graph 1. Reported spring population size and annual harvest of roe deer (*Capreolus capreolus*) in Vojvodina 1961-2011



Source: Savezni zavod za statistiku (1963–2003): Statistički bilten "Šumarstvo", br. 267-2359, Beograd and Republički zavod za statistiku (2005–2012): Bilten "Šumarstvo u Republici Srbiji", br. 442–552, Beograd, Dugoročni program razvoja lovstva Vojvodine 2000–2010, Lovački savez Vojvodine, Novi Sad and Program razvoja lovstva Srbije 2001–2010, Lovački savez Srbije, Beograd.

During the previous fifty-year period (1961-2011) there was an increase in roe deer density in the field and lowland hunting grounds managed by the Hunting Association of Vojvodina through Hunting Associations, except during the period 1992-2000 (Graph 1). Our results

show that the estimated roe deer density was the highest in spring 1985 (45,828 individuals or 2.4 animals per km^2), which is higher than the average roe deer density in Europe during 1984 (1.5 animals per km^2) (Burbaite, Csányi, 2009). Also, from 2001 to 2011, the average density of roe deer in Vojvodina increased from 1.8 animals per km^2 to 2.4 animals per km^2, which was equal to average roe deer density in Europe during 2005 (2.2 animals per km^2).

The highest roe deer density occurs in West and Central Europe (Burbaite, Csányi, 2009). The above authors report that from 1984 to 2005, the average roe deer density in Europe increased from 1.5 animals per km^2 to 2.2 animals per km^2. In 1984 the greatest roe deer density occurred in Germany (5.7 animals per km^2), Austria (5.5), Luxembourg (5.0) and Denmark (3.5). Also, in 2005 the highest density was found in the same 4 countries: Denmark and Luxembourg (9.3), Austria (8.9) and Germany (8.4). Their data show that 31.6% of the European roe deer population lives in Germany and 37% of roe deer are shot there.

Estimated roe deer density in spring 2011 (52,500 individuals) and the registered shooting during 2010/2011 (4,500 individuals) are almost equal to the values which are planned for 2010 (52,400 individuals) and 2009/2010 (4,560 individuals) within the Long-term Programme of Hunting Development in Vojvodina for the period 2000-2010. However, the values are still substantially lower compared to the values which were previously planned for 1990 (64,180 individuals) and 1989/1990 (7,700 individuals) within the Long-term Programme of Hunting Development in Vojvodina for the period 1982-1990. The above projections were, according to present-day assessments rather real, because they were based on density trends in the previous period (Programme of Hunting Development in Serbia 2001-2010). So, it can be concluded that the dynamics of roe deer population development in Vojvodina during the period 1961-2011 was not in proportion to habitat natural potentials. The main reasons for such state of affairs are: unprofessional management in many hunting grounds (e.g. unprofessional shooting per sex and age structure, or inadequate and insufficient winter feeding); unplanned and excessive utilisation (shooting a higher number of trophy individuals than planned, or illegal hunting); unprofessional shooting selection (especially of female individuals); as well as fencing of many forest hunting grounds for intensive rearing of big game (red deer and wild boar).

In the Hungarian hunting grounds, on similar habitats, the greatest problems in roe deer hunting management occur because of overestimating the real density, as well as because of insufficient shooting of females and excessive shooting of the best males. The above problems are not only the result of mistakes in the roe deer population strategy, but also the result of degradation in habitat quality (Csányi, 1989). The changes in Hungary from the middle of the seventies – monoculture cultivation, intensive application of machinery and chemicals, have become a general problem. Moreover, numerous shelterbelts are removed and the diversity of agro-bio conenoses decreased both in cultivated and in weed species. All the above facts caused the decrease in the economic capacity of the habitats, and roe deer had to change their feeding habits and to consume inadequate nutrients over the autumn and winter periods (Farkas, Csányi, 1990). The measures proposed for the improvement of roe deer hunting management in Hungary are: (1) more accurate census

of populations (including age structure), control of shooting per density and structure, and the determination of optimal population density; (2) intensive selection of young males with low-ranking antlers and the protection of middle-aged males with good antlers; (3) improvement of habitat conditions and supplementary feeding. The above measures can also be applied in roe deer hunting management in field hunting grounds in Vojvodina (Gačić, 2005a, b).

The registered shooting of roe deer in Vojvodina hunting grounds was the highest in the period 1982-1990 (before the disintegration of the former Yugoslavia) and it ranged between 5,390 and 6,900 individuals. It is well known that shooting is the basic method of planned and rational use of reared game species. However, our results show that registered shooting in the period 1961-2011 was occasionally disproportionate with the estimated roe deer density (Graph 1). The degree of roe deer utilisation compared to spring density ranged between 2.7% (1962) and 15.2% (1983)[7]. These values agree with the results reported by other authors (Burbaite, Csányi, 2009). Their studies show that in 1984 it varied from 2.4% (Belarus) to 44.2% (Austria) with an average of 22.1%; in 2005 it varied from 0.02% (Turkey) to 43.3% (Walloon region of Belgium) with an average of 21.6%. Also, the Programme of Hunting Development in Serbia 2001-2010, states that roe deer annual shooting accounting for 10-12% of the spring density is real in the managed hunting grounds and professionally managed hunting grounds. However, the degree of roe deer utilisation in hunting grounds of Vojvodina in the period 1995-2011 ranged between 6.5% (1999) and 8.6% (2011), which is a very modest result which is not in harmony with the natural habitat potentials.

Table 1 shows the trophy structure of males in spring hunting in Vojvodina (Bačka and Banat)[8] in the period 2001-2005. One of the main goals of roe deer hunting management is the sustainability of high-quality and vital populations with all elements of structure which ensure successful reproduction and valuable trophies (Gačić, 2006). The realisation of this goal ensures the real conditions for economic utilisation of hunted individuals (revenues from the sale of trophies and meat). In addition to their high economic significance, trophies are simultaneously an indicator of individual quality and health, living conditions in the hunting grounds and hunting and rearing activities. In the hunting grounds managed by Hunting Associations in Vojvodina, the males with the highest trophies, and therefore the highest economic value, are mainly shot by foreign hunters, so in most hunting grounds the hunting plan is realised already at the beginning of the hunting season[9]. However, the specificity of

7 During the period 1982-1990 (when shooting was the highest), the average degree of roe deer harvesting compared to spring density accounted for 14.4% (ranging between 13.6% and 15.2%).

8 The region of Srem was not taken into account because of the lowest roe deer density, and because the registered shooting has mainly of the selection character.

9 Hunting season for males lasts from 15th April to 30th September, and for females and fawns from 1st September to 31st January, which is determined by the Regulation on the proclamation of close season of the protected game species (Official Gazette of RS, no. 9/12), which was passed by the Minister of Agriculture, Forestry and Water Management and the Minister of Environment, Mining and Spatial Planning.

habitat conditions (agro-bio-top) makes the hunting significantly more difficult, especially regarding the age and trophy value assessment (Gačić, 2005b).

During the first study year (2001) the analysis consisted of 336 trophies, of which 169 from Bačka (=90.2 points, min-max=26.0-140.6) and 167 from Banat (=81.5 points, min-max=23.2-142.2). The most valuable trophy was taken in the hunting ground Jaruge (Novi Bečej). The greatest number of analysed trophies were below 69.9 CIC points (32.7%), and 19.9% trophies achieved medal status by the number of medal winning CIC points (Graph 2). During the second year (2002), 392 trophies were analysed, of which 193 were from Bačka (=91.3 points, min-max=23.2-137.5) and 199 from Banat (=83.4 points, min-max=23.9-140.5). The most valuable trophy was from the hunting ground Jaruge (Novi Bečej). The greatest number of analysed trophies were below 69.9 points (25.0%), and 21.2% trophies achieved medal status. During the third year (2003), 441 trophies were analysed, of which 244 were from Bačka (=89.6 points, min-max=24.4-179.6) and 197 from Banat (=87.4 points, min-max=41.6-143.7). The most valuable trophy was from the hunting ground Kapetanski Rit (Kanjiža). 19.5% of trophies achieved medal status. During the fourth year (2004), 336 trophies were analysed, of which 195 were from Bačka (=87.6 points, min-max=29.4-148.1) and 141 from Banat (=91.3 points, min-max=31.9-139.4). The best trophy was taken in the hunting ground Senćanski Salaši (Senta). 22.0% of trophies achieved medal status. During the fifth year (2005), 397 trophies were analysed of which 215 were from Bačka (=90.3 points, min-max=38.9-155.0) and 182 from Banat (=90.3 points, min-max=47.5-150.7). The most valuable trophy was from the hunting ground Senćanski Salaši (Senta) 22.1% trophies achieved medal status.

Table 1. Trophy structure of males in spring hunting in Vojvodina 2001-2005

Hunting ground	Total (N)	Total trophy score (CIC points)				
		≤69,9	70-104,9	105-114,9	115-129,9	130≥
Kapetanski rit (Kanjiža)	437	79	271	40	30	17
Senćanski salaši (Senta)	201	13	126	31	22	9
Gornji rit (Mol)	68	18	37	4	7	2
Donji rit (Ada)	73	16	32	12	8	5
Bečejski salaši (Bečej)	61	7	32	10	11	1
Lalinske livade (Odžaci)	176	62	100	7	6	1
Bačka	***1,016***	***195***	***598***	***104***	***84***	***35***
Begej (Zrenjanin)	164	83	75	5	1	-
Jaruge (Novi Bečej)	346	52	191	50	37	16
Veliki siget (Novi Kneževac)	376	106	204	45	18	3
Banat	***886***	***241***	***470***	***100***	***56***	***19***
VOJVODINA	**1,902**	**436**	**1,068**	**204**	**140**	**54**

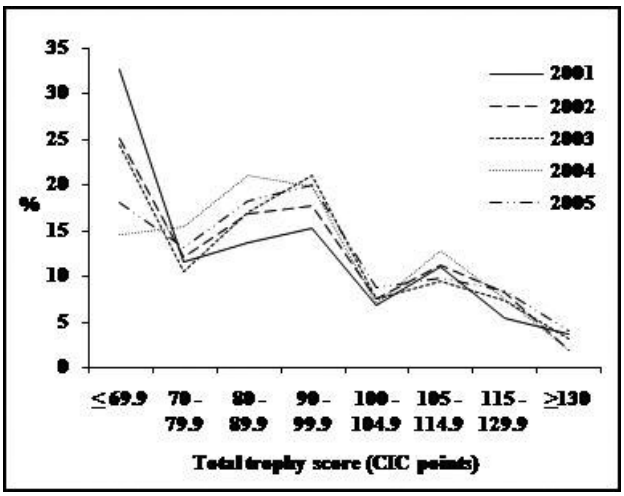
Source: Gačić (2005 a, b)

Our results show that during the five successive years (2001-2005) 1.8–4.0% of trophies were of gold medal quality, 5.4–8.3% of trophies were of silver medal quality, and 9.3–12.8%

of trophies were of bronze medal quality (Graph 2). However, the research performed in Hungary during the period 1981-1985 (Szidnai, Köller, 1987) shows that in the total annual shooting of males, trophy percentage in medal was less than 10%, and in total annual shooting of both males and females, trophy percentage in medal accounted for less than 4%. Similarly, in Hungary over the period 1973-1986, annual trophy percentage in medal ranged from the lowest 4.4% (1986) to the highest 9.7% (1981) (Farkas, Csányi, 1990). The higher trophy percentage in medal which was determined in our study is explained by the fact that the analysed samples (total 1,902 trophies) consisted mainly of male trophies shot in trophy hunting, of which a great number (n=561) was rated according to the shortened procedure, using the coefficient 0.23 (without the measurement of antler volume), which results in a higher total score than by using the formula of the International Council for Game and Wildlife Conservation - CIC (Gačić, 2005a). Also, the total number of analysed trophies per individual years actually consists of a smaller part (about 30%) of the total shooting of males in the field hunting grounds in Vojvodina.

Some authors (Hromas, 1983) report that annual number of shot males with trophies in medal is narrowly related to spring density of roe deer populations and to total removed individuals (both shooting and losses). This author reports that in Czechoslovakia, the average annual harvesting of males with trophies in medal over the period 1966-1976 accounted for 0.07% of the spring population density, and it varied between 0.03% and 0.15%.

Graph 2. Trophy structure of males in spring hunting in Vojvodina 2001-2005



Source: research by authors

Hunting tourism is a special form of tourism and its main specificity is the fact that the creation of the motive for this kind of tourism depends on the availability of game for hunting. However, by the realisation of hunting tourism, the game is consumed (shot), so the hunting-tourism offer is limited by game density. For this reason, the hunting-tourism offer should be based on shooting plans, macro-geographically (by regions, for the entire Province and

Republic) and micro-geographically (by hunting ranges, hunting grounds) (Programme of Hunting Development in Serbia 2001-2010).

In the majority of hunting grounds managed by Hunting Associations in Vojvodina, the roe deer trophies are major sources of revenue for hunting management. In addition to trophy fee, a hunter pays for the entrance to the hunting ground and all other costs of hunter programme (organization of the hunt, manipulation of shot animals and game trophy rating), as well as accommodation costs (full board and extra services). The fee depends on the trophy weight in grams (trophies with total score up to 150.0 CIC points) according to the price list issued by the steering committee of the Hunting Association, which should be in accordance with the price list issued by the steering committee of the Hunting Association of Serbia. The provision for hunting-tourist services is determined by a contract between the hunting ground user and tourist agency. The fee for one shot roe deer with trophy up to 249 g is 100 EUR, and the fee for one shot roe deer with trophy in medal, especially the golden one, can reach several thousands of Euros, so each hunting year a significant revenue is earned from the hunting tourism "sale" of roe deer. There are no precise and systematised data on the total hunting-tourism turnover in Vojvodina, or on the revenues in hunting management of roe deer populations. However, the official data (Graph 1) show that roe deer in many hunting grounds in Vojvodina is not sufficiently exploited, although it is a very attractive segment of hunting-tourism products, and the most numerous and economically the most valuable species of big game. Consequently, the earned income is still substantially below the potential of the natural habitats.

Conclusion

The study results point to the fact that roe deer populations in lowland habitats on agricultural lands in Vojvodina over the past fifty years have doubled their density, which is especially significant from the aspect of economic (and particularly hunting-tourism) utilisation of this natural resource. In addition to their great adaptation ability, which characterises this most numerous and economically the most valuable big game species, a contribution to the increase in its population density in Vojvodina is also better hunting management than it was the case in the past, as well as sufficient quantities of diverse food for this game species during the growing season and for some time later on (remnants of agricultural crops).

Despite the significant improvements in hunting management (excepting the stagnation and decrease in the last decade of the past century), the achievements are still not compatible with the optimal potentials, especially in the sphere of hunting-tourism utilisation of roe deer. This is because there are some weaknesses, first of all unprofessional hunting management and low-quality tourism marketing in a considerable number of hunting grounds. The necessary condition for the solution of these weaknesses is the engagement of a higher number of highly professional staff in forestry, agriculture, veterinary medicine, economy and hunting-tourism employed in hunting grounds, administrative organs responsible for hunting affairs, tourist organisations and hunting-tourism agencies.

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POLJOPRIVREDNO ZEMLJIŠTE U VOJVODINI KAO STANIŠTE SRNEĆE DIVLJAČI – LOVNO-TURISTIČKI ASPEKT

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Rezime

Cilj ovog rada je sticanje naučnih saznanja o dinamici razvoja i aktuelnom stanju populacija srneće divljači na poljoprivrednom zemljištu u Vojvodini (koje zauzima oko 90% njene teritorije), kao i korišćenje istih za unapređenje lovno-turističke delatnosti. U istraživanju su korišćene sledeće naučne metode: terenski rad (sistematsko posmatranje i intervjuisanje), analiza sadržaja, merenje i evaluacija trofeja srndaća, komparacija i statistički metod (deskriptivna statistika). Evidentan je trend povećanja brojnosti i odstrela srneće divljači u poljskim lovištima Vojvodine (izuzev perioda 1992-2000), što dokazuje da se ova vrsta krupne divljači adaptirala na staništa sa dominantnim ratarskim kulturama. Uprkos ostvarenim rezultatima, koji su na nivou evropskog proseka, još uvek nisu u dovoljnoj meri iskorišćeni potencijali srneće divljači kao važnog lovno-turističkog resursa Vojvodine, zbog čega je neophodno da se dodatno poboljša lovno gazdovanje i lovno-turistički marketing.

Ključne reči: *srneća divljač, Vojvodina, poljoprivredno zemljište, lovni turizam.*

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