

EXPLOITATION OF HUNTING AND FISHING TOURISM IN GALAȚI COUNTY, ROMANIA

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Key words: hunting tourism, fishing tourism, hunting species, Romania.

Abstract. Galați county is a geographical area that is less valued in terms of tourism, but which benefits by a natural tourism potential. The aim of this study is to identify the potential and the activities of the hunting and fishing tourism. Exploitation of hunting and fishing activities in touristic aim is only partial because of the lack of touristic infrastructure and the lack of collaboration with various travel agencies from this branch of tourism. Proposals that would help the future development and improvement of tourism activity are from “wildlife watching tourism” domain: capturing images with the camera, observing the behavior of hunting species without affecting them, providing information for those interested in the hunting behavior and life fauna, creating a wildlife museum and last but not least, upgrading the transport infrastructure.

Introductory Elements

Hunting and fishing tourism are controversial by their nature: ecological associations denounces them (but MacKay & Campbell, 2004, present the situation in which local people have a generally positive attitude towards hunting, if it is for economic or sporting aims) because they considers that it affects the connections within an ecosystem, while the associations of hunting and fishing claim that thorough these activities the stability of that ecosystem is maintained – there are also other authors which claim the same thing: through development projects a forest ecosystem is protected, while providing the necessary resources for hunting and fishing sports (Baur et al., 2012, Upneja et al., 2001). Another problem is the illegal activities of hunting and fishing (poaching). These forms of tourism raise more and more terminological issues, because according to specific associations, hunting tourism (hunting) can mean the process of hunting itself, completed with

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extraction of pieces (harvesting trophy), but it can also mean the simply process of observation of the fauna in its natural environment and capturing images.

This paper aims to study the hunting and fishing tourism activities recovered in Galați county, who enjoying a rich biodiversity. There are not numerous research works in Romanian about Galați county, especially on this subject. From the serie of general research works we are identified authors like Ielenicz, Comanescu (2006), Cocean, Filip (2008) who presents general considerations about the natural potential that influencing tourist activity. The research works from international scientific journals dedicated to this form of tourism, however, are numerous: Kroupová et al. (2014) conduct a review of scientific literature on this field and distinguished five segments on demand from hunting and fishing tourism (usual hunting activities, occasional hunting activities, fishing, hunting without killing, complementary activities) the difference between ordinary hunter and the tourist who practice hunting tourism being that the latter must undertake a journey to the place of hunting and pay a fee generally high (Nygard, Uthardt, 2011). The research related to hunting and fishing tourism include mathematical models - Naevdal et al. (2012) propose a bioeconomic model for game hunting trophies applied to elk in Scandinavia and Sun et al. (2015) performed an analysis of the economic impact who has the sightings on the wildlife. Øian and Skogen (2015) brings further details on the legal and moral implications of these types of tourism activities.

For our research, statistical data and informations was obtained from the websites of the institutions that are managing this area: Galați National Agency for Fisheries and Aquaculture, General Association of Hunters and Sport Fishermen (AJVPS), Galați Forestry Department, National Company for Fishery Resources, Galați Division for Agriculture and Rural Development, Ministry of Environment and Climate Change, National Institute of Statistics, Galați Department of Statistics, The National Agency for Environmental Protection - Galați, local boards of villages with actual hunting, such as aquatic and fishery areas, The Law 406/2006 - Hunting and hunting protection Law and The Law 317/2009 - Fisheries and Aquaculture Law.

1. Hunting and Fishing potential in Galați County

1.1. *Hunting's potential fund.* The hunting, according to the *Hunting and hunting protection Law no. 407/2006*, consists in all the wild animals that can be hunted, and includes all types of land, irrespective of ownership, so defined in order to ensure greater stability in wildlife hunting, except areas located outside the city limits, national parks and scientific areas, natural heritage lands, and strictly protected areas in the wetlands of national importance.

This county is located in the south-east of Romania, in the Romanian Plain, with a specific wildlife (Figure 1). According to centralized data and information from *Order No. 193/30 April 2002*, The Ministry of Agriculture, Food and Forestry, on updating the delimitation of hunting areas in Romania, in Galați county there are 44 hunting areas, having 418312 ha.

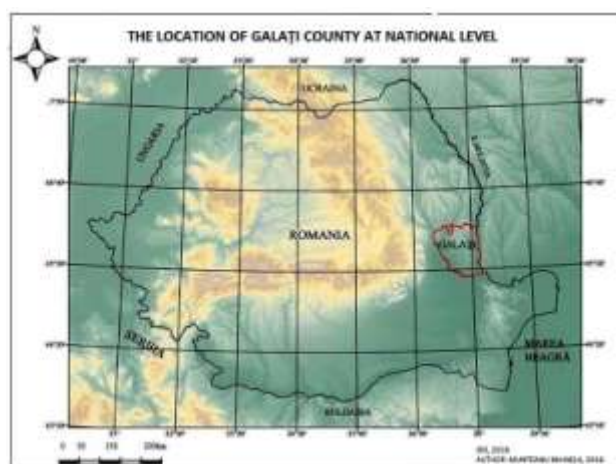


Figure 1. The study area – Galați county.

The hunting areas in the county are managed by AJVPS Galați (36 areas) and also by Galați Forestry Department, a subunit of the National Forests Division - Romsilva. The hunting areas that are managed by the Galați Forestry Department were in number of 8 in 2010 and are located in: Certești, Hanu Conachi - Fundeni, Barcea, Ghidigeni, Adam, Drăgușeni, Liești and Suceveni.

In the south-east of the county there are three hunting areas located in the communes of Nămolosa, Hanu Conachi and Liești. Nămolosa hunting area has a total area of 6276 ha, divided into body of water (canals, ponds, lakes) - 120 ha, forests - 369 ha, arable land - 5123 ha and pasture - 644 ha. Hanu Conachi area has a total productive hunting area of 9488 ha, from which: forests - 1260 ha, arable land - 5805 ha, orchard - 70 ha, body of water - 750 ha. In Liești there is a hunting area with a total area of 8672 ha, from which: body of water - 50 ha, pasture - 225 ha arable land - 7035 ha.

The fauna of the three hunting funds consists of species of hunting interest established by the Law No 407/2006: fallow deer (*Cervus elaphus*), hare (*Lepus europaeus*), pheasant (*Phasianus colchicus*), wild boar (*Sus scrofa*), deer (*capreolus capreolus*), partridge (*Perdix perdix*), quail (*Coturnix coturnix*). The evolution of the hunting herds, according to data from the *Ministry of Environment and Forests* for 2001-2010 are showed in Table 1. There is a decrease in the

number of these species, because of some factors, such as: lack restocking with species, various diseases, harvest rates, changes in environmental parameters, insufficient quantity of food, deforests.

Table 1: Herds of hunting of areas from Galați Forestry Department.

Species	Speafications	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Deer</i>	Effective	259	222	221	206	183	180	168	173	170	161
	Share extracted	21	11	9	10	10	11	10	11	10	12
	Harvest	3	4	0	8	8	10	9	8	9	1
<i>Roebuck</i>	Effective	517	469	485	447	451	442	404	435	422	418
	Share extracted	19	18	31	27	22	18	22	29	24	28
	Harvest	10	4	17	13	19	17	21	24	24	1
<i>Wild boar</i>	Effective	186	186	195	187	196	195	181	192	178	172
	Share extracted	60	50	63	55	55	62	65	75	66	57
	Harvest	31	34	37	28	42	37	56	65	58	13
<i>Rabbit</i>	Efectiv	3949	5290	4904	3313	4286	4103	4033	3398	3244	3265
	Cota extras	560	680	540	490	340	335	340	385	385	440
	Harvest	153	610	433	331	297	232	288	287	288	92
<i>Wild cat</i>	Efectiv	17	16	9	8	12	19	29	31	22	20
	Share extracted	3	5	0	0	0	0	0	0	0	0
	Harvest	1	0	0	0	0	0	0	0	0	0
<i>Pheasant</i>	Effective	1133	1201	929	902	947	989	1343	1343	1507	954
	Share extracted	165	145	60	65	93	95	175	100	170	125
	Harvest	193	33	32	31	24	54	60	70	0	40
<i>Partridge</i>	Effective	269	279	309	862	975	1215	1073	1135	1084	1269
	Share extracted	40	40	40	60	135	180	185	185	80	195
	Harvest	10	17	8	26	100	2	28	32	31	0
<i>Fox</i>	Effective	103	98	123	124	98	93	100	84	88	74
	Share extracted	75	60	47	61	51	55	59	46	68	61
	Harvest	60	22	19	48	41	45	57	46	62	29
<i>Ferret</i>	Effective	95	81	105	93	64	42	41	98	93	48
	Share extracted	19	12	16	42	31	22	18	26	28	23
	Harvest	6	2	15	34	27	6	16	24	25	10
<i>Weasel</i>	Effective	95	90	107	100	90	48	46	54	53	54
	Share extracted	6	10	13	9	23	14	15	23	23	22
	Harvest	0	1	11	9	17	4	12	20	21	14
<i>Jackal</i>	Effective	0	0	0	0	0	2	2	4	3	5
	Share extracted	0	0	0	0	0	2	2	4	3	2
	Harvest	0	0	0	0	0	0	0	4	3	0
<i>Muskrat</i>	Effective	89	82	139	110	48	35	45	52	56	77
	Share extracted	0	10	7	0	11	11	11	19	15	19
	Harvest	0	10	0	0	6	1	1	2	3	0

Source: Ministry of Environment and Climate Change – Hunting areas

Hunting area from Barcea has a productive hunting area of 1612 ha of forest, 8680 ha of arable land and 2500 ha of pasture. According to the data compiled in the period 2001-2010, of all existing hunting area in the Galați county, managed by the Forestry Department, the one belonging to the Barcea has the most complex amenities: food for wild species, hunting buildings and facilities, areas planted with

various crops for wild animals species. In 2005 and 2008, the hunting area was populated with pheasant species, called Dorasca male or female, aged by one year with 100 pieces from Vrancea DS and 100 pieces from Iasi DS. The trophies were obtained by hunters from Spain, Italy, France and Switzerland for wild boar, fallow deer but by Romanian hunters too.

The hunting areas from the north of the county, managed by the Forestry Department Galați, are located in the areas of Ghidigeni, Certești and Adam communes; in the east part of the county a hunting area is located in Suceveni commune.

Hunting area from Certești has 1054 ha total production area of which 619 ha pasture, 6373 ha arable land 1915 ha forest and 51 ha of unproductive hunting area. Adam Hunting Fund has a total area of 7029 hectares productive area of which 2085 ha pasture, 2489 ha of arable land, 2507 ha forest, 11 hectares of water surface. And these funds are populated with hunting species listed in the law 407/2006: wild boar (*Sus scrofa*), deer (*Capreolus capreolus*), fallow deer (*Dama elaphus*), wild cat (*Felis silvestris*).

Under current laws, in order to maintain ecological balance, improving hunting species quality, conservation of biodiversity, the perpetuation of protected species and hunting funds, there are organized sessions of hunting for the allowed species.

In Table 1 is centralized the total number, extract and harvest quota of the species that are part of the hunting stock under the law 407/2006, managed by Galați Forestry Department, in 2001-2010. The main animal of these hunting stocks is the hare (*Lepus europaeus*). The deer ranks as the second one in this county, followed by fallow deer, boar, pheasant and partridge. Pheasant species have the highest importance in plain areas, this species was introduced first in the west of Romania and then generalized. Multiplying both in the nature and in farms, pheasant is a great hunting value, because of its gourmet quality. The fallow deer actually has a total estimated decrease (from 259 specimens in 2001 to 161 specimens in 2010); disappeared in other European countries, fallow deer is a hunt species of great importance.

1.2. The potential of fish stock

Fisheries areas, defined in the *Law of Fisheries and Aquaculture no. 180/2008*, includes all species of fish populations, crayfish, mussels and other aquatic creatures.

The hydrographic network of Galați is rich, three of the largest watercourses of the country are trecând via this county: Danube, Siret and Prut. The total area occupied by wetlands in the county of Galați is 13019 hectares. The Danube River runs through the Galați county on a length of 22 km, between the junction with the

Prut and Siret rivers. Siret River crosses Galați on a distance of 163 km and the river Barlad on a distance of 55 km.

According to statistical data centralized by the National Association for Fishing and Aquaculture – Galați, there are seven piscicultural and 13 ponds for fishing production in Galați county (2007): Lozova - Braniștea, Mălina - Movileni, Mața Rădeanu –Vădeni village, Cavadinești, Brateș – Tulucești, Vlădești, Sovârca – Oancea; ponds are located in the following localities: Potcoava – in Braniștea, Tălăbasca – in Tudor Vladimirescu, Pochina – in Suceveni, Vlașcuța – in Măstăcani, Valea Mărului – in Valea Mărului, Corni – in Corni, Cotoroaia – in Certești, Trei Ștejari – in Târgu Bujor, Zătun – in Vânători, Corod – in Corod, Prut Isle – in Galați. The most important aquatic ecosystems located on the lower course of Siret are Potcoava Puddle, Tălăbasca Puddle, Lozova and Mălina, of which the first two are natural protected areas (natural reserve type).

The most common species of fish found in ponds located along the lower course of the river Prut are: carp (*Cyprinus carpio*), zander (*Stizosteidon lucioperca*), roach (*Rutilus rutilus*), bleak (*Alburnus Alburnus*), bream (*Abramis brama*). Compared with the production by the fisheries farms, fish production who can be obtained from natural ponds does not exceed 100 kg fish/ha.



Figure 2. Corni Puddle. Photo by Mihaela Munteanu, 2015.

Corni Puddle (Figure 2) is located in Corni village, located in the central north of Galați. It has an area of 15 hectares, with 10 hectares of water surface; from 2005 is a private propriety. Here are the following fish species: common carp (*Cyprinus carpio*), perch (*Ctenopharyngodon idella*), bighead carp (*Arsttchthys nobilis*), catfish (*Silurus granis*). The puddle is decorated with 30 pontoons, has no special infrastructure. The rules and conditions for the puddles activities are set by the administrator under the following Act: fishing fees is 50 RON/day, allowed with 4 rods, the chosen place on arrival can not be changed until the start of a new

day fishing, camping possibilities on the bank, maximum amount of fish that can be taken is 5 kg, the bathing is strictly prohibited, possibility of night fishing payment by paying a fee of 20 RON/night. During the fishing season, especially on weekends, the pond is visited by a significant number of fishing and nature enthusiasts, the provenance of visitors are mainly from the county but there are foreign tourists too, mainly from Italy, having the hunting as a main purpose.

Valea Mărului Puddle is located in Valea Mărului, in the central-north part of the county. It has an area of 2 hectares with a water surface area of 1.5 hectares. The puddle is arranged in the center of a habitable area, it is a private property, setted up in 2007, it has two pantons, on the left is arranged a playground for children, a gazebo, a log cabin with four seats, kitchen, and in front of the lodge, there is a barbecue hut. The puddle is populated with species such as: common carpus, bighead carpus. From the conducted research, this pond is preferred by families. Rules and conditions for fishing activities are set by the puddles's administrator.

2. Infrastructure and funding for hunting and fishing tourism

For the practice of hunting and fishing, the infrastructure needs to be more complex than other forms of tourism infrastructure. The hunting and the fishing areas are presented in the Figure 3, with the touristic infrastructure. Regarding accommodation, for these forms of tourism are mainly used hunting lodges and campsites. There are also added specific hunting weapons, admitted by *Law 407/2006*, tools and equipment for recreation and sport fishing admitted by *Law 180/2008*.

In Galați county there are three hunting lodges, two of which are managed by the Galați Forestry Department and the third one is obtained with European funds, belonging to the manager of Nămolosa hunting area; for the fisheries/recreational activities, there is nowadays a camping possibility only at Valea Mărului Lake; for Zătun Puddle, there has been achieved an European funded project which includes the arrangement of accommodation and camping areas.

The hunting lodge from Nămolosa was built in 2011 and it is located in the commune with the same name and it is administered by the "Black Valley Hunting Lodge" Association. This cottage has recorded the highest number of tourist arrivals (600 in 2012-2013).

Stroiu hunting lodge, built between 1979-1980, is located in Adam village, from Drăgușeni commune and it is managed by the Galați Forestry Department; until 1989 it was used to host the president of Romania when he participate to hunting activities organized by Adam hunting area.

Barcea hunting lodge is located in Dorasca forest, from Barcea commune, and it is administered by the Galați Forestry Department. It was built in 1981 and modernized in 2005.

In order to improve and use efficiently the hunting and recreational fishing activities in the county of Galați it was achieved implementation of projects financed by the European Union or by local authorities. In 2014 it was obtained the eligibility of the following projects: “*The estoration of the potential of Zătun Puddle for fishery species with commercial interest*” (594592 RON) and “*The organization of Zătun Puddle, a leisure seafood area*”, (1.485 millions RON).

If until now the administration of Zătun Puddle offers modest facilities to those who were spending their summer to relax, through these projects, facilities will be significantly improved by investing in redevelopment of the entertainment base (building and equipping a camping area with cabins, two resting areas - spaces for relaxing and playgrounds for children, a traditionally furnished six shelters and six observation towers). It is also planned to establish seven leisure pontoons, building a parking and improvements in infrastructure for access, but also investments in plant water supplies, sewerage and sewage treatment plant and lighting. In the recreation area will be placed tables, wooden benches, umbrellas, lounge chairs, waste baskets and grills.

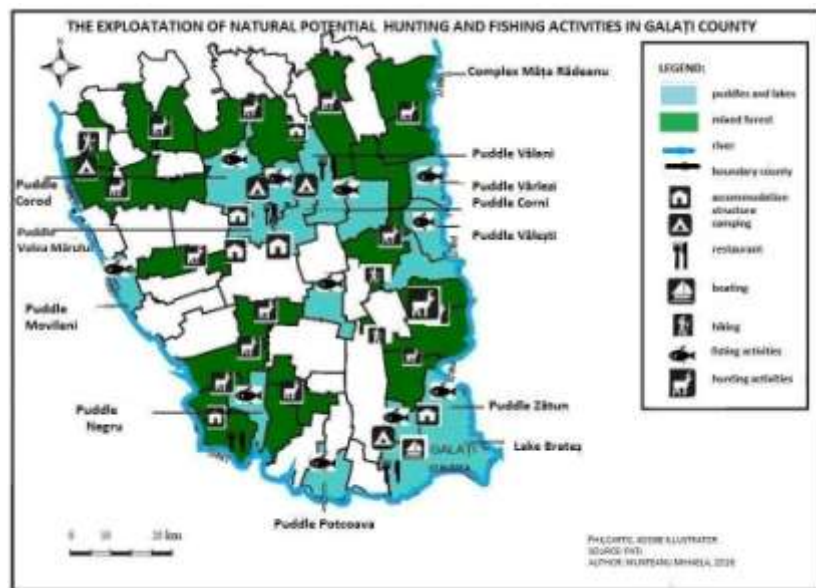


Figure 3. The hunting and fishing areas in Galați county and the specific touristic infrastructure.

Also in Nămolosa commune was implemented a project, from 2012, which contributed to improvements in hunting tourism by building a hunting lodge financed by the European Union through Local Action Group (GAL) Southeast

Vrancea. The total value of the project is 96471 Euros, financial aid grant is 82000 Euros, the difference being borne by the applicant. The building was chosen to be built in a village that is not known as a touristic attraction, but there is a puddle that has fisheries and wildlife potential (hunting area with 6000 ha)

A local project initiated by the “Black Valley Hunting Lodge”, called “Habitat”, proposed after decreasing the number of partridge specimen in particular, but also rabbit and pheasant, want to preserve the habitat of these species.

3. SWOT analysis of the activities of hunting and fishing tourism in Galați County

SWOT analysis of tourism activities hunting and fishing in Galați county is based on research obtained in the field, in discussions with local authorities and hunting/fishing areas managers, on documenting about the sites of associations of national and county hunters and fishermen and also on the economic and social development strategy of Galați county for 2011-2020.

The favorable factors (strengths) which have impact on hunting and fishing tourism development are the ones mostly related to natural potential: the existence of large areas of forest with a rich fauna of hunting, the existence of 36 hunting areas managed by different associations, large areas with water, having a significant fisheries resources, the presence of protected areas Natura 2000 of national and Community interest: Floodplain of the Lower Siret and Floodplain of the Lower Prut; annual organization of various festivals and competitions: annual organization of various festivals and gourmet competitions with seafood and hunting specific, getting a significant number of European projects to develop fishing tourism, but also a smaller number for hunting tourism development.

The restrictive factors (weaknesses) – in the recent years there is a significant decline in the repopulation with species of hunting and fishing interest; Transport infrastructure is poorly developed - some areas are inaccessible because of the poor road network and lack of an airport; food infrastructure is underdeveloped in rural areas with tourism potential; failure in promoting the touristic areas, failure in signalling touristic areas, failure in signalling touristic paths and walking trails, maintaining them in an inappropriate way, the lack of a touristic information center, lack of collaboration with travel agencies; insufficient financial resources of local administration to support the development of this type of tourism.

The risk in exploiting the potential of the hunting and fishing in Galați county is represented by the poaching/illegal trade with wild animals; the existence of areas with high risk of flooding; compliance with applicable legislation (using approved equipment, compliance periods for hunting and fishing, harvest quota compliance); intense deforestation affects the habitat of terrestrial species.

Opportunities in developing the hunting and fishing tourism in Galați county, consist in the recent tourism infrastructure development, accessing European funds, creation of public-private partnerships to promote sustainable tourism. Registration of the accommodation establishments and touristic services offered by this research area in the Romanian agencies network and in some European programs for promoting tourism in collaboration with other agencies, the updating of the existing tourism infrastructure.

Conclusions

From the study conducted on the field and by the study of research papers, we can conclude that the potential of hunting and fishing is not used entirely in Galați, both objective reasons (poor transport network and accommodation, insufficient promotion of the area - lack of touristic information centers in Tecuci, Târgu Bujor and Berești, the internet site should be updated regularly, the existing staff to be trained) and subjective (unwillingness of the population to accept such forms of tourism, kind of controversial, reserved mainly for the “elites”). Every commune with natural and developed tourism potential should have information panels in visible locations. Fishery and hunting areas managers should cooperate with various agencies and with the local authorities, in order to be able to promote their services; this is another important aspect. The investments in road infrastructure are essential too.

For mass tourism are necessary arrangements pertaining exclusively by an aesthetic side: the establishment of observation towers (for a form of tourism based on observing wildlife, not the collection of trophies), benches and umbrellas made by reed, arranging camping areas, building huts, maintenance of the puddle vegetation from the dams, the existence of boats for public, setting up a space for preparing seafood menus, areas for waste, qualified personnel, including a tour guide, fencing the area where the birds are nesting, printing leaflets containing the rules in the puddle, discounts for those having fishing license, a playground for children, the existence of means of transport to link with urban centers.

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- *** http://www.rosilva.ro/unitati_silvice/Galați_1_17.htm - Direcția Silvică Galați
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