

THE FIGHT AGAINST AND DISAPPEARANCE OF WOLVES (*CANIS LUPUS* L., 1758) IN THE DANUBE PLAIN AND THE MOLDAVIAN PLATEAU BETWEEN THE SIRET AND PRUT RIVERS (ROMANIA)

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The paper analyses the population dynamics of wolves (*Canis lupus* L., 1758) after the Second World War in the Danube Plain and the Moldavian Plateau between the Siret and Prut rivers, which are regions located in southern and eastern Romania. The intense efforts to combat this mammal by various means are highlighted in much detail. Hunting wolves was allowed up until 1996, after which point it became a protected species. By 1960–1965, wolves had already disappeared in most of the plain areas, but in the higher and well-forested areas of the Moldavian Plateau they persisted until 1990–2000. The last wolf hunted was in 1995 in Vaslui County.

Keywords: disappearance of wolves, Danube Plain, Moldavian Plateau, Romania.

INTRODUCTION

The analysed territory is located outside the Carpathian Mountains arch, both in the south and in the east, up to the Danube and Prut rivers, respectively. It includes the Danube Plain (the counties of Dolj, Olt, Teleorman, Giurgiu, Ilfov, Călărași, Ialomița and Brăila, including the country's Capital) and the 4 counties in Moldavia between the Siret and Prut (Galați, Vaslui, Iași and Botoșani). The forest cover of this area is only 9.2%, and the maximum altitude is 491 m in Mesteacăn Hill, in Botoșani county. The total area of the 12 counties is almost 60,000 km², which makes up 25% of Romania's territory.

The wolf, a slender mammal, has a strong trunk and limbs (Murariu, 2022). The fur color is reddish-gray in summer, while gaining shades of gray and black in winter (Grimmberger, 2017). It is an animal with great ecological amplitude and has a lifestyle that involves long journeys and occasional feeding. A recognized carnivore, the wolf is adapted to the capture and consumption of prey species, generally large in size (Chiriac *et al.*, 2017).

In our paper we will follow the post-1945 spatio-temporal dynamics of this species.

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After the Second World War (1941–1945), the number of wolves on the entire territory of Romania was very high. “*The only reason for the excessive reproduction of wolves is the lack of systematic and general control*” Philipowicz mentioned in 1944 (p. 29). The causes that led to this situation were: the seizing of hunting weapons in 1941, the enrolling and deployment of hunting personnel for the war, the difficulty of obtaining gun permits, the increase in price or the non-existence of ammunition. The large number of wolves was also due to the intense poaching of deer during the war, thus drastically reducing the natural food resources of wolves; consequently, they attacked domestic animals around rural localities or even within them.

Once the war was over, an intense campaign began to combat wolf populations using various methods: shooting, the use of metal traps, the use of toxic substances (generally poisoned animal carcasses), the capture and destruction of cubs in their dens, and even capturing them in hidden trap pits.

A decision of the Ministry of Agriculture and Domains on the combatting of wolf number through poisoning was in effect from 1942 to 1945. It was followed by another decision of the same Ministry (no. 2939 of October 12, 1945) which imposed the use of strychnine capsules (initially nitric strychnine, only to switch to sulfuric strychnine starting 1949) to kill wolves. Following another decision of the same ministry, also from 1945, shepherds were allowed, under certain conditions, to have a firearm in their sheepfolds to guard their cattle against wolves.

Between 1946 and 1948, the National Directorate of Game Economy demanded the intensification of wolf population control. For example, by order no. 300478 of January 30, 1946, all territorial structures were required to take measures for the “*destruction of wolves by all means*”.

Wolf traps were manufactured at the “Astra Vagoane” factories in Braşov.

In the winter of 1948–1949, the former Ministry of Forestry initiated the first post-war national wolf control campaign.

It was allowed to hunt wolves all year round, according to the Law on the organisation of the hunting economy of July 9, 1947, as well as according to Decree no. 76 of February 28, 1953 on the hunting and fishing economy in mountain waters. On January 13, 1953, Decision no. 108 was also issued by the Council of Ministers and touched on the destruction of wolves on the territory of Romania; in its first article, it stated that this was an “*action of public interest*”.

Although the destruction measures led to a moderate decrease in wolf populations, their number increased again due to the winter of 1953–1954, which, to this day, is seen as the hardest winter in southern and eastern Romania. During this time, the very cold weather was reinforced by exceptional wind speeds (up to 120 km/h), and the heavy snow turned into snowstorms and snowdrifts, reaching heights of up to 6 m. In that situation, the wolf populations, quite numerous, were left without food sources, quickly dispersed throughout the analysed territory, entering many human settlements and attacking domestic animals. Şeitan-Bogdan (1969, p. 129) notes that, at that time “*wolves often stalked households*”. Even the

national hunting magazine informed that “*the destruction of wolves must be done quickly and thoroughly until the population is completely wiped out*” (no. 2/1955, p. 8).

As a result of the renewed expansion of wolf populations, a new Decision (no. 1341) was issued by the Council of Ministers on September 4, 1957, regarding the species’ liquidation endeavours on Romanian territory. Financial prizes were also awarded up until 1962 to those who distinguished themselves in the wolf hunting efforts. According to the Law on Game Economy and Hunting no. 26 of November 5, 1976, wolf hunting was still allowed all year round.

Starting 1970, capturing cubs in their dens has no longer been a practice and, starting 1980, the elimination of wolves using toxic substances (letolin, strychnine, cyonan) has very much been restricted (strychnine has been excluded starting 1982). The use of poisons has been prohibited since 1991 (Ionescu & Ionescu, 1995).

It was also during that period that a change in attitude towards wolves became present, which took the form of the transition from destruction control actions (Pop, 1974).

The control of wolf populations was an important action even in 1988 (“*we must hunt the wolf more intensely*” was the exhortation in issue no. 4 of the national hunting magazine of that year, p. 13).

Subsequently, according to Law no. 13 of March 11, 1993 on Romania’s accession to the Convention on the Conservation of European Wildlife and Natural Habitats, the wolf was classified as a highly protected species.

It ceased being hunted only after the Law on Hunting Grounds and Game Protection no. 103 of September 23, 1996 was adopted. According to this law, the hunting of this animal was outlawed.

In 1995, Dumitru Murariu classified the wolf among the rare and endangered species, and in 2005 included this mammal in Romania’s Red Book of Vertebrates.

MATERIAL AND METHOD

There hasn’t been a study performed that would follow the status of this mammal after the Second World War and up to its disappearance in the lowlands of the southern and eastern parts of Romania. To achieve this objective, we considered seven activities:

1. researching and extracting relevant data from the archives of the forestry units in the 12 counties;
2. identifying and analysing specialised periodical publications;
3. conducting surveys in various forestry and agricultural institutions;
4. interviewing the locals from the many rural localities in the counties of the study area;

5. carrying out field research in the counties of Vaslui, Galați and Ialomița that would enable the identification of the last specimens by the tracks left in the snow layer next to the corpses of the deer abandoned having been fed on;

6. highlighting the normative acts related to both wolf hunting and protection;

7. identifying the toponyms that preserve to this day the memory of the existence of this mammal in the analysed region.

The in-depth study of various detailed aspects has helped us to not only highlight a territorial dynamic, but also to establish relevant conclusions as to the spatio-temporal dynamics of the species.

The research results are provided below, organized by county in alphabetical order.

RESULTS

Botoșani County

After World War II, there were a great many wolves. For example, in Dracșani, in the winter of 1945/1946, wolves were “*many, charging through villages*” (Central National Archives of Romania, Ministry of the National Culture Fund, File 434/1946, p. 21). There were packs of 5–10 specimens.

Intense control actions took place on October 26, 1948 in Guranda forest, on November 6, 1949 in Liveni forest (Manoleasa) and in the forests of the Coșula area. In 1950, on the territory of Manoleasa commune (on the Prut) alone, 6 wolves were killed, and between January and May 1951, around the city of Botoșani, 4 adult wolves were hunted and 7 cubs were killed in their dens.

Throughout 1952, in the northwest of the county alone, 28 specimens were hunted on the territories of the localities: Pomârla (4), Cristinești (4), Hilișeu (3), Văculești (3), Horlăceni (3), Cracalia (3), Mihăileni (2), Corlățeni (2), Dimăcheni (2) and Dumbrăvița (2). During the first half of 1954, 10 cubs were captured in the Dorohoi region.

At the beginning of the 1960s, the number of wolves had decreased significantly. Thus, in 1962, in Cristinești Forest, only one specimen was hunted, and in 1965, only 6 wolves were caught in the county (2 in Pomârla and one each in Corni, Copalău, Corlățeni and Văculești). In 1966, the last wolf in the county was shot in the forests of Ibănești.

This mammal was also reported in September 1969 in Baisa Forest, 10 km west of the municipality of Botoșani. In 2007, a wolf (♂) was detected in the area between the villages of Vârfu Câmpului and Ionășeni, coming from Ukraine (the state border is about 15 km away).

The last (lone) wolf on the territory of the county appeared in 2014 in the Ștefănești area, having entered from the Republic of Moldova (where it subsequently returned).

Several place names related to the wolf have also been preserved in the county: Culmea Lupăria [*“Wolf Den Crest”*] southeast of Copalău, Valea Lupului [*“Wolf Valley”*] and Dealul Lupului [*“Wolf Hill”*] (Broscăuți commune), Dealul Lupăria [*“Wolf Den Hill”*] (Dersca commune), Dealul Lupăria [*“Wolf Den Hill”*] (Dobârceni commune), Dealul Lupăria [*“Wolf Den Hill”*] (Brehuești-Vlădeni commune) and the village of Lupăria [*“Wolf Den Village”*] in the commune of Prăjeni.

Brăila County

In Tufești, in the winter of 1945–1946, wolves came to the village. In 1948, numerous specimens were in the north-west of the county in Vișani, Racovița, Măxineni, Grădiștea, Corbu (Geacu, 2007), coming from the Subcarpathian area.

The forests and, especially, the reed beds in the Danube valley and the Brăilei Pond favored the reproduction of wolves, with many cubs being identified there. For example, in July 1949 alone, 49 wolves were shot in the reed areas on the territory of Mărașu commune. Subsequently, in 1955, 3 wolves were hunted there. A wolf hunting action took place on October 26, 1949 in the area around the village of Mihai Bravu. At the beginning of 1950, on the territories of Mărașu and Frecăței communes, there were *“many packs of wolves that cause great damage to the inhabitants’ livestock”* (*Vânătorul* Magazine, no. 1/1950, p. 23). As a result, significant wolf hunts took place on April 16 and August 4, 1950 in Mărașu.

After the severe winter of 1953–1954, in the former administrative district of Brăila alone, 36 wolves were killed. In March 1957, many wolves were also killed in the large forest near Bertești (1,900 ha). That same year, wolves were reported in the west of the county, near Făurei. Between 1957 and 1958, there were 14 metal traps for catching wolves in the Ianca Forest District, and 4 each in the Bertești Forest District and the Brăila Forest District.

The last wolf in the county was shot in 1971 in Balta Brăilei. Shepherds from the village of Roșiori reported wolf attacks on sheep flocks (Murariu, 1976).

Two toponyms related to the wolf have also been preserved in this county – Movila Gura Lupului [*“Wolf Mouth Mound”*] to the northeast of Victoria commune and Movila Lupului [*“Wolf Mound”*] in Surdila-Găiseanca commune.

Călărași County

In 1945, in Chirnogi, wolves kept crossing from Bulgaria to Romania, over the frozen waters of the Danube River. During January 1951, wolf control actions were carried out in Duduitu forest, on the Danube. In 1952, 3 wolves were shot

right near the city of Călărași, but cubs were also killed in their dens (among them, 7 on the territory of the Sărulești commune, but there were other cases as well). At the end of the hard winter of 1953–1954, 7 specimens were shot near Ciulnița commune alone. Occasionally 3 individual appear in 2003 (Lungu, 2017), coming from Dobrogea.

Dolj County

In the village of Răchita (Seaca de Pădure commune) in the winter of 1945–1946 wolves attacked sheep right in the village. Between January 1 and March 31, 1950 alone, 21 wolves were killed in the county. It was near the town of Băilești in 1952, that 9 wolves were shot, while the following year 9 more wolves were killed, alongside 8 cubs in their den. There were many wolves in the 1950s in the reed beds and forests of the Danube valley. For example, in October 1953 alone, near Bistreț, 5 wolves were killed and 8 cubs were captured from their den. In the harsh winter of 1953–1954, wolves attacked sheep within Dioști commune, as well as in neighboring Celaru. In November 1953, wolves were also shot in the villages of Negoești and Amărăști (Melinești commune), in the northern extremity of the county.

The last wolves were reported in the 1960s, because Pârvescu (1971) no longer mentioned the species.

A toponym referring to the wolf was also preserved – the Lupoia [*“The She-wolf”*] stream (Fărcaș commune).

Galați County

In 1947, the number of wolves was on the rise. At that time, for example, in the forest massif of Buciumeni, the packs consisted of 5–7 specimens. In the Tecuci area, 24 wolves were killed in 1949 (6 of which were cubs) and 49 were done away with in 1950. In June 1950 alone, 8 cubs were captured on the territory of Bălăbănești commune.

In 1952, in Gârboavele Forest north of Galați 14 specimens were detected, and in the former administrative district of Tecuci, wolves attacked sheepfolds, following which 28 wolves were killed.

During the 1952–1957 period, in the northern part of the county alone, 40 specimens were shot, 20 of which in 1957 alone. Near the city of Galați, 6 specimens were hunted at the end of the hard winter of 1953–1954. That winter, a wolf of impressive size entered the village of Gohor, causing damage to

households, and was ultimately killed by locals with pitchforks and clubs. That winter, wolves had also entered villages, attacking sheep and pigs.

During the 1956–1958 period, there were 14 metal wolf traps in the county's Forest Districts.

The fallow deer (*Dama dama*) colonised the forests of the Adam village area (Drăgușeni commune) were attacked by wolves in 1957, although 40 had been eliminated between 1952 and 1957 (20 in 1957 alone). In December 1958, a pack of wolves entered their acclimatization pen in the Jerdia-Stroiu forest, killing 17 deer and leaving only 6 alive (Geacu & Loghin, 2004). Also due to the wolf attack, the fallow deer population had dropped from 34 specimens in 1964 to only 4 in 1966 (1 ♂ and 3 ♀).

In Vlădești, in the Prut Valley, in May 1955 alone, a pair (♂, ♀) was shot, and their 4 cubs were captured; the hunter was awarded 675 Lei!

The county authorities reported the existence of 46 wolves in 1957, 22 in 1959, 18 in 1964 and 1966.

38 wolves were eliminated in the county in 1958 (10 in Certești, 6 in Munteni, 5 each in Băneasa and Furceni, 3 in Drăgușeni, 2 each in Barcea and Poiana and 1 each in Movileni, Cruceanu, Adam, Brăhășești and Frunzeasca). In 1963, 27 wolves were killed (10 in Smulți, 6 each in Adam and Condrea, and 1 each in Rădești, Berești, Scânteiești, Buciumeni and Barcea), 18 in 1965 (6 in Rădești, 3 in Condrea, 2 each in Suceveni, Adam, Barcea and Tg. Bujor, and 1 in Certești), and only 4 in 1966 (in Rădești, Adam, Furceni and Nicorești) (Geacu, 2021).

In 1969, around the village of Căuiești, remains of deer carcasses were found eaten by wolves. In 1972, the Tecuci Forestry District still kept a few iron traps used for catching wolves. A wolf skin was handed over to the county warehouse of the former Pre-industrialization and Acquisitions Office in 1975.

Only one specimen each was hunted in 1969, 1970 and 1971 in the Furceni region alone (they had come from the Vrancea Subcarpathians). Between 1973 and 1976, 2–3 wolves were shot annually in the forests of the north of the county alone. Later, during some wild boar hunts carried out between 1976 and 1978 in the forests of Drăgușeni commune, there were even 4–8 wolves being shot at any given time. It was also in 1978 that one specimen was shot on the territory of Tuluțești commune and another between the villages of Țepu and Gara Berheci. Only one wolf was killed in the county in 1982.

In 1983, wolves caused damage to a sheepfold near the village of Știețești (Drăgușeni commune).

Wolf tracks were found during the harsh winter of 1984–1985 in Hanu Conachi Forest, as well as in the forests east of Barcea. At that time, the species

had also appeared in the Priponești-Ghidigeni area, with another specimen being spotted when crossing the Siret River near the village of Poiana. That winter, the wolves reported in the west of the county had also entered from the Vrancea Subcarpathians.

In November 1985, the county's last specimen was shot, southeast of Berești. The fur – 2.05 m long – was kept by the hunter until 2009.

At the beginning of 1996, during a severe frost, two wolves were seen around the village of Pleșa, on the border with Vaslui County (Geacu, 2021). Later, in the spring of 2008, at a sheepfold in Gănești (Cavadinești commune), wolves killed 30 lambs. Shortly afterwards, between July 1–14, 2008, 3 wolves killed and ate 12 deer from Pogănești Forest (Suceveni commune). Their tracks (fur and blood traces) were found all throughout the forest. In both cases, the specimens had entered from the Republic of Moldova (where they subsequently returned).

We have also identified a series of toponyms referring to this mammal in the territories of the following localities: Gohor (Valea Lupului [*“Wolf Valley”*]), Braniștea (Gâtu Lupului [*“Wolf Neck”*] agricultural field), Munteni (La Lupărie [*“Wolf Den”*] agricultural land), Movileni (La Lupărie [*“Wolf Den”*] land), Vârlezi (Lupoiaia [*“The She-wolf”*] *Acacia* plantation), Bursucani (Lupoiaia [*“The She-wolf”*] *Acacia* plantation), Crăiești (Valea Lupului [*“Wolf Valley”*]), Piscu Lupului [*“Wolf Peak”*] hill), Foltești (Lupoiaia [*“The She-wolf”*] agricultural land), Cuca (Dealul Lupului [*“Wolf Hill”*]), Bălăbănești (Valea Lupului [*“Wolf Valley”*]), Roșcani (Valea Lupului [*“Wolf Valley”*]), Bălășești (Râpa Lupului [*“Wolf Cliff”*]), Râpa Lupului [*“Wolf Cliff”*] *Acacia* plantation).

Giurgiu County

It was also near the commune of Oinacu that wolves were spotted in 1942 crossing from Bulgaria to Romania, passing over the Danube River on ice. At the beginning of 1950, 2 wolves were shot right near Giurgiu. In the summer of 1952, the wolves reached this city. At the end of the hard winter of 1953–1954 there were many wolves in the forests of the Comana Forest District.

This animal was hunted in the 1950s and 1960s in the forests of Ghimpați and Vlad Țepeș localities (Vasilu, Almășan, 1969). On January 23, 1955, an action to eradicate wolves was carried out in Valea Nebună Forest, located between Bulbucata and Milcovățu communes.

On December 29, 1968, a wolf was shot near the village of Vadu Lat.

This mammal has not been reported in the county since 1970.

Ialomița County

After World War II, the number of wolves was high. For example, in the town of Țândăra wolves attacked sheep and foals in 1946. In 1947, the wolf population was higher compared to the previous year, many specimens calling Balta Ialomiței their home.

“In the reeds of the Danube ponds and even on the open plains, wolves still roam in alarmingly large numbers” was the phrasing in issue no. 6 of 1953’s *Vânătorul* Magazine (p. 2). In 1956, many specimens from the reeds and forests of Balta Ialomiței were massively entering Bărăganului Plain. Right near the town of Urziceni, 3 out of a pack of 4 were shot in 1957.

As a result of the control efforts, the number of wolves decreased drastically so that, for example, in 1974, Iana mentioned that, in Bărăganului Plain, the wolf was *“very rarely seen, mostly during migrations”* (p. 94). Shepherds from Valea Ciorii commune also mentioned wolf attacks on sheep flocks (Murariu, 1976).

The last wolves shot in the county were: one in the winter of 1961–1962 on the territory of Bărcănești commune, and another one in Dridu commune in 1979.

In the spring of 2002, in the large Groasa forest (1,500 ha, Axintele commune) in the west of the county, the tracks of a pair of wolves were identified in the snow, along with the corpses of deer they had eaten (Geacu, Papari, 2024). It seems that the pair had crossed the frozen Danube from Bulgaria (40 km away). Later on, a few specimens briefly entered the eastern extremity of the county, as shown by the map published by Predoiu (2010). They crossed the Danube from Dobrogea, as they also came from Bulgaria.

A toponym has also been preserved in this county – Movila Lupoaicelor [*“She-wolf Mound”*], northwest of Amara commune.

Iași County

It is the most forested country within the analysed area, with 87,000 ha of forest land. They have favored not only the existence, but also the persistence of wolves until the beginning of the 1990s. At the beginning of 1953, a work plan was drawn up *“to involve as many hunters as possible in the action of eliminating wolves, which, in recent years, have multiplied considerably”* (*Vânătorul* Magazine, no. 4, 1953, p. 20). Thus, during the first quarter of that year, 43 wolves were killed, and during the first half of the following year, 78 wolves were shot and 29 cubs were captured in their dens.

In 1958, 184 wolves were killed, followed by another 55 during the first half of 1960. In the spring of 1961, the presence of 46 wolves was reported in the county, whereas in 1969 only 30 were spotted. Later on, due to combatting efforts, the population decreased and the number of eliminated wolves was small. The Table 1 shows the number of wolves hunted in this county between 1968 and 1989.

Table 1

Number of wolves hunted in Iași County between 1968 and 1989

Years	1968	1971	1972	1973	1974	1975	1976	1977	1978	1979
No.	15	15	4	8	4	10	10	6	5	2

Years	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
No.	1	10	6	4	3	3	11	2	9	6

Some years, only a some of the spotted specimens could be shot, as follows:

- in 1975, 16 wolves were spotted but only 10 were hunted;
- in 1978, 7 wolves were spotted and 5 were hunted;
- in 1979, out of the 9 specimens spotted, only 2 were shot;
- out of the 8 specimens reported in 1980, only one was hunted;
- in 1984, only half of the spotted wolves were hunted;
- out of the 11 wolves spotted in the spring of 1989, only 6 were hunted.

In 1990, the presence of 8 wolves was reported in Iași County.

The former Pre-Industrialization and Procurement Office of the Ministry of the Textile Industry was actually the one to take over 11 wolf skins from Iași County in 1974 and one skin in 1975.

The region where there were the most wolves and where they endured the longest as part of the ecosystem was the *Central Moldavian Plateau*, a well-forested in the south of the county. In 1949, the population of wolves was quite numerous in this area. Between 1950 and 1954, one hunter from the village of Jigoreni (Țibănești commune) alone killed 32 wolves using hidden pits. In 1959 and 1960, several specimens were hunted in the forests of Sinești (1,000 ha) and Scânteia (6,500 ha), and in Gheorghiuoia Forest (6,700 ha, Mădârjac commune) cubs were killed while in their dens.

In 1955, a pen was built for the acclimatization of red deer (*Cervus elaphus*) near the source of Cărbunăria stream (between the communes of Bârnova and Schitu Duca), where the first specimens were brought. In order to have this species survive, given the large number of wolves existing in the area at that particular moment, an intense control action was carried out. For example, in 1956 alone, 39 wolves were shot on the Poieni hunting grounds (with 6,400 ha of forest) (Geacu, Bordeianu, 2011). The then forestry brigadier Iosif Lăpușanschi, who took care of the colonisation of both red deer and fallow deer, had about 100 wolf furs back at the pen! He was one of the most skilled wolf hunters. In winter, he would do as follows: he would sit on a sled camouflaged all around with corn stalks, the sled would be tied to a horse driven by his wife and taken into the forest; the wife would return to the canton with the horse, and he would remain camouflaged in the forest, unnoticed by the wolves, whom he would hunt at leisure. Brigadier Lăpușanschi would spend entire nights camouflaged in the forests to eliminate the wolves (Fig. 1).

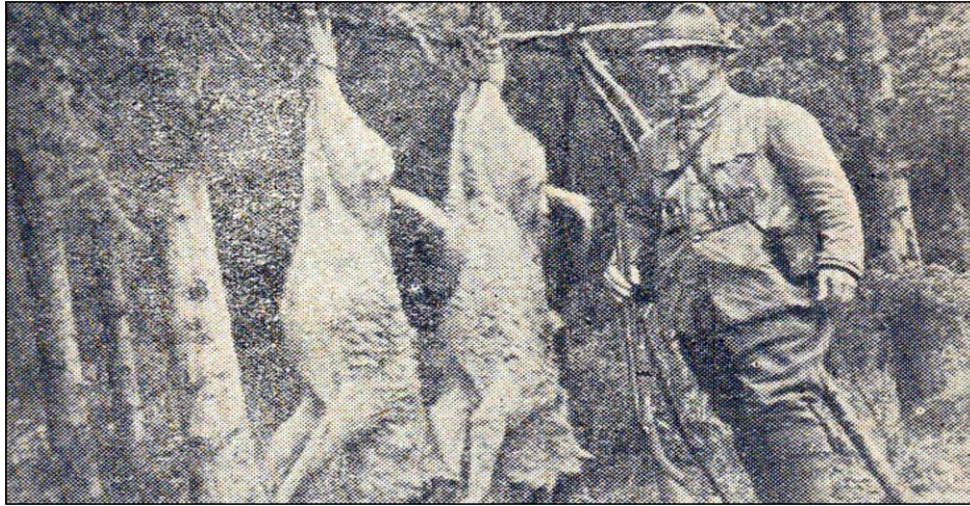


Figure 1. Forestry brigadier Iosif Lăpușanschi photographed in 1957 with two wolves shot in the forests in the south of the city of Iași.

It was also in 1955 that fallow deer (*Dama dama*) were colonised in Poieni, but this mammal did not survive in the area, mainly due to the presence of wolves (in the 1950s and 1960s, up to 10 wolves were shot there annually). In February 1961, the Iași Regional Forestry Directorate reported the presence of 29 wolves in the south of the county alone.

Between 1971 and 1989, 90 specimens were hunted in the Central Moldavian Plateau, most (30) in the southwestern extremity in the forests of Brădicești (Table 2, Fig. 2).

Corpses of deer eaten by wolves were found on the grounds. For example, in 1982, not far from the village of Boroșești (Scânteia commune), the corpse of a Roe deer was found, while on June 25, 1991 a female roe deer was killed by wolves in the forests around the village of Poieni, etc. In fact, on the Poieni hunting grounds, there were wolves between 1986 and 1990 (in February 1990 there were 8 specimens spotted in the forest area between the localities of Poieni and Schitu Duca).

In the winter of 1993–1994, fresh wolf tracks were observed in the snow in the place called “Larice”, between the communes of Schitu Duca and Dobrovăț. One specimen was shot but it quickly entered a bush; however, a few drops of blood were noticed (it had probably been narrowly hit by the bullet).

After 1990, in the forests of Brădicești (2,200 ha) 4 wolves were spotted in 1991, 5 in 1992, 4 in 1993, and 3 in 1994. The last wolves reported in Iași County in 1995 were from those forests – two specimens coming from the Republic of Moldova (where they subsequently returned).

Table 2

Number of wolves hunted on hunting grounds in the Central Moldavian Plateau between 1971 and 1989

Hunting grounds / Years	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	Total
Poieni	-	-	-	-	-	-	1	-	-	1	2
Schitu Duca	-	-	-	-	-	-	1	1	-	-	2
Mogoșești	-	-	-	-	-	-	-	-	1	-	1
Horlești	-	1	-	-	1	-	-	-	-	-	2
Gheorghiuoia	1	-	-	1	-	-	-	-	-	-	2
Popești	2	-	-	-	-	-	-	-	-	-	2
Sinești	3	-	-	-	-	-	-	-	-	-	3
Brădicești	-	-	-	-	-	8	1	-	-	-	9
Boroșești	-	-	-	1	-	-	-	-	-	-	1
Țibana	2	-	-	-	-	-	1	1	-	-	4
Mironeasa	-	-	1	-	-	-	-	1	-	-	2
Grajduri	1	1	-	-	-	-	-	-	1	-	3
Brăiești	5	1	2	-	-	-	-	-	-	-	8
Total	14	3	3	2	1	8	4	3	2	1	41

Hunting grounds / Years	1981	1982	1983	1984	1985	1986	1987	1988	1989	Total
Poieni	1	-	-	-	-	-	-	-	-	1
Brăiești	1	-	-	-	-	2	-	-	-	3
Brădicești	2	2	2	-	-	6	-	6	3	21
Grajduri	2	2	2	3	3	2	1	3	3	21
Țibana	1	-	-	-	-	1	1	-	-	3
Total	7	4	4	3	3	11	2	9	6	49

There were also wolves in *the forests at the source of the Bahlui River* (15,000 ha), in the north-west of the county. For example, in the 1940s, in Deleni, wolves were “*in quite significant numbers, tearing through cattle and sheep during winter*” (Central National Archives of Romania, Fond Ministry of National Culture, File 495/1942, p. 278). The number of specimens hunted was not significant: 6 in 1959, 2 in 1971, 2 in 1973, 1 in 1974, 4 in 1975, 2 in 1976, 1 in 1978 and 3 in 1981.

In *the Moldavian Plain*, the last wolf was hunted in 1977 in the Turia forest area near the village of Perieni.

There were wolves also in the reedbeds, bushes and forests of *the Prut Valley*. In 1945 there were entire packs of wolves in the commune of Prisăcani. In the spring of 1961, 2 wolves were spotted around the village of Cârpiți (present-day Victoria), 4 in Golăești (3 of which were shot), and 4 in Prisăcani. In 1969,

a 3-specimen pack was reported not far from Trifești. Between 1972 and 1978, 10 specimens were hunted in the valley, the last one being killed in 1978, also in the Trifești area (Table 3).

Table 3

Number of wolves hunted in the Prut Valley, on hunting grounds, between 1972 and 1978

Hunting grounds / Years	1972	1973	1974	1975	1977	1978
Trifești	-	-	-	1	1	1
Victoria	-	-	-	1	-	-
Tomești-Cristești	1	1	-	-	-	-
Răducăneni	-	1	-	-	-	-
Gorban	-	1	1	1	-	-
Total	1	3	1	3	1	1

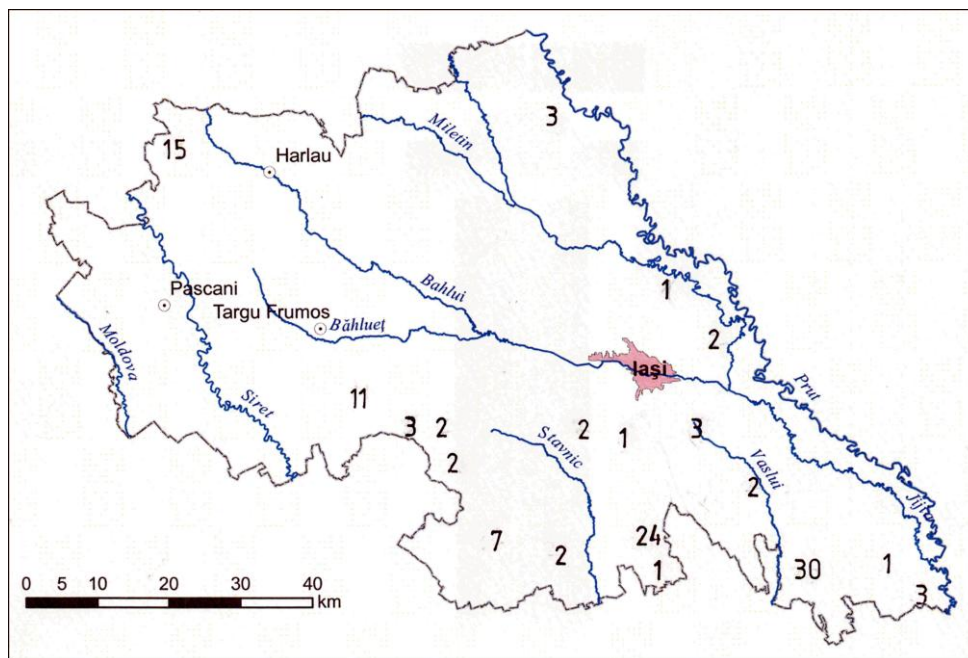


Figure 2. Location where wolves were hunted in Iași County between 1971–1989 (number of specimens).

Occasionally a few individuals appeared in 2002 and 2003 (Lungu, 2017).

Wolves were reported even *near the city of Iași*. Thus, in 1943, in Zahorna (present-day Horlești, Rediu commune) “during winter, the wolves also came to the village for prey” (Central National Archives of Romania, Ministry of the

National Culture Fund, File 1428/1943, p. 31). In the winter of 1948–1949, 6 cubs were captured in Cornești Forest. On January 27, 1952, in Aroneanu Forest, out of a pack of 9 specimens, only 3 were shot. It was also here that a wolf was hunted in July 1953.

Worth mentioning is also the fact that in the scientific collections of the Natural History Museum of Iași two wolf specimens are preserved, one hunted near Ruseni (several km northeast of Iași), dated February 21, 1949, and another from Popești Forest, dated May 3, 1960.

On the territory of this county, place names related to the wolf have also been preserved: the villages of Lupăria [*“Wolf Den”*] (Cotnari commune), Picioru Lupului [*“Wolf’s Foot”*] (Ciurea commune) and Valea Lupului [*“Wolf Valley”*] (Rediu commune), then Dealul Lupului [*“Wolf Hill”*] (Cucuteni commune), Dealul Lupului [*“Wolf Hill”*] (Strunga commune), Valea Lupului [*“Wolf Valley”*] (Bălțați commune), Dealul Lupăria [*“Wolf Den Hill”*] and Valea Lupăria [*“Wolf Den Valley”*] (Deleni commune).

Ilfov County

Even near the Capital – the municipality of Bucharest –, a wolf (♂) was shot on January 11, 1941 in Cernica, and an impressive pack was reported not far from the commune of Ștefăneștii de Jos in 1949. However, in 1953, Călinescu recalled that in the forests north of Bucharest wolves were *“rare, only passing through”* (p. 212).

The last time wolves were reported was in 1974, when they attacked the fallow deer in Brânzeasca Forest (Moara Vlăsiei commune), killing two of them.

In Ilfov, two place names related to the wolf have also been preserved: the village of Lupăria [*“Wolf Den”*] and Movila Lupăria [*“Wolf Mound”*], both on the territory of the commune of Ciolpani.

Olt County

After the World War II, the number of wolves was high here as well. Between 1944 and 1945, the locals of Colonești and Comani were concerned about this, and in Groșani (Vulpeni commune) the wolves attacked sheep right in the village. In Trepteni (Vitomirești commune) *“the wolves have reproduced and are causing great damage to the sheep”*, as a document from 1946 stated (Central National Archives of Romania, Ministry of the National Culture Fund, File 540/1946, p. 48).

In the administrative district of Slatina, 12 wolves were shot and 2 cubs were captured in their dens in 1952, while between 1955 and 1958, 56 wolves were shot, and in 1959 another 4. It was also in the Slatina area that the last wolf was killed in 1962.

There were many wolves in the forests north of the town of Balș. For example, 3 cubs were captured in their den in 1956, and 10 wolves were shot and 3 cubs were killed in 1964, while in 1965 7 wolves were hunted. The skull of an adult specimen can be found in the Natural Sciences Department of the Oltenia Museum in Craiova; it comes from Călui and is dated October 28, 1957 (Goga, 2012).

In 1959, wolves broke into the roe deer (*Capreolus capreolus*) colonisation pen in the Olteț meadow near Balș and ate 17 fawns. On November 15, 1969, 2 wolves broke into into the roe deer population pen in Comănița Forest (25 km north of Slatina) and killed 50 fawns (16 ♀ and 34 ♂), as well as a mature ♂ roe deer (Geacu, 2009).

One night in 1974, the red deer (*Cervus elaphus*) acclimatization pen in Bistrița Forest (10 km northeast of Balș) was attacked by wolves and, of the 13 existing fawns, 7 were eaten (3 ♂ and 4 ♀). Due to the presence of wolves, the 6 remaining fawns were taken to Reșca Forest, north of Caracal where wolves were not present (Geacu, 2010).

A specimen was hunted in the county in 1975. In the spring of 1976, wolves were reported in the Olt Valley near the Milcovu din Vale village, not far from the city of Slatina.

The last wolf in Olt County was hunted in in 1984 in Leleasca Forest, on the northern extremity of the county.

In the forest between the villages of Seaca and Optășani, also in the north of the county, there is a place called “La lupărie” [“*Wolf Den*”] where there used to be specially dedicated areas equipped with traps and hidden pits for catching wolves (Ciobanu, Florica, 2010). There is also Vâlcea Lupoiaia [“*She-wolf Glade*”] in the commune of Corbu.

Teleorman County

Following the severe winter of 1953–1954, the wolf population was numerous (for example, many were spotted between the village of Odobeasca and the Drăcșani railway station north of Roșiori de Vede). At the same time, several specimens were killed in Vârtoapele. Two specimens were reported around Vișoara commune in the early 1960s.

The skull of an adult specimen can be found in the Natural Sciences Department of the Oltenia Museum in Craiova; it comes from Glavacioc (Argeș County), a locality on the border between Argeș County and Teleorman County, and is dated March 1, 1966 (Goga, 2012).

In Argeș county, wolves have not been reported since the late 1960s.

There is also a toponym that reflects the presence of this mammal – Valea Lupului [“*Wolf Valley*”] in Brânceni commune.

Vaslui County

In the surroundings of the city of Vaslui, 6–10 wolves were shot annually in 1946, 1947 and 1948, 34 wolves were killed between August 1950 and August 1951, only 5 were killed in 1957, another 11 were killed in 1959, and 8 were killed in 1963.

Some wolves had reached the edge of the villages, as was the case in 1952 in Negrești (5 were shot), in March 1960 in Pușcași (one specimen hunted), in February 1964 in Roșiești (one specimen hunted), in February 1965 near the village of Corbu (8 were killed), and in January 1968 in Muntenii de Sus.

In the spring of 1969, the presence of 17 wolves was reported in this county. Between 1974 and 1995, 216 wolves were shot in the county (Table 4).

Table 4

The number of wolves hunted in Vaslui County between 1974 and 1995

Year	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
No.	7	4	8	4	15	11	17	15	26	18	16

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
No.	11	11	12	16	11	5	3	1	3	1	1

Some years, only a few of the specimens spotted could be shot. Below are some such cases:

- in 1975, 1977, 1985, 1990, 1991 only half of wolves spotted were hunted;
- in 1976 out of the 8 specimens spotted only 3 were hunted;
- in 1979 out of the 27 reported wolves only 11 were shot,
- in 1989 almost all the spotted wolves were hunted;

The number of wolves reported in the county was: 12 in 1989, 10 in 1990, 6 in 1991, 9 in 1992, 8 in 1993, 6 in 1994, 6 in 1995, and 9 in 1996.

Three wolf skins were handed over by the county to the former Pre-Industrialization and Procurement Office in 1974, and one in 1975.

Wolves were reported until 2005 in the hills to the northeast of the county, and especially in the well-forested hills south of Huși.

Thus, the number of wolves reported in the spring of 1952 alone was 178, in the following areas: Bunești – 32, Șișcani – 30, Pogănești – 20, Crețești – 20, Hoceni-Vutcani – 18, Cârliğați (present-day Pădureni) – 18, and 10 each in Arsura, Boțești, Tătărani and Huși. In the winter of 1950/1951, 6 wolves were hunted in the forest of the village of Idrici alone.

In January-February 1952 in the Tanacu area, wolves “*caused great havoc and damage to the citizens of the commune and neighboring villages by eating their sheep and even large cattle*” (*Vânătorul Magazine*, no. 3, 1952, p. 22). In 1957, a pack of 4 was reported, and in June 1958 8 wolves were hunted here.

In 1953, 17 specimens were destroyed in the former Huși administrative district, to be joined by another 15 in 1959. In 1957, 12 wolves were shot in Valea Teiului Forest, and in December of that year, 12 specimens were killed in the forest of the Crețești-Oltenești communes.

In the area between the villages of Gugești and Boțești, 18 wolves were shot between January 1954 and February 1955. One specimen was also hunted there in 1988, 1990 and 1991, respectively.

Wolves were also killed in the Bunești hunting reserve in 1974 (2), 1975 (2), 1978 (1) and 1988 (1). On that reserve, Vasile Tănăsucă was the ranger skilled in hunting wolves or catching cubs in their dens.

After 1965, in the large forests south of Huși alone there was a population nucleus of wolves until 2005. Thus, in 1966, 8 specimens (6 young and 2 old) were killed in Șișcani Forest, in 1978, 2 more were shot north of the village of Barboși, in 1981, another one was killed west of Voloseni. Between 1985 and 1995, 39 wolves were killed in that area (Table 5, Fig. 3).

Table 5

The number of wolves hunted on the hunting grounds south of Huși between 1985 and 1995

Hunting grounds / Years	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Hurdugi	-	-	-	-	1	1	-	1	-	-	-
Barboși	-	-	-	1	1	-	-	-	-	-	-
Șișcani	-	2	1	4	1	1	1	-	2	1	-
Voloseni	2	1	1	1	2	-	-	-	-	-	-
Dobrina	2	2	5	3	-	1	-	-	-	-	1
Total	4	5	7	9	5	3	1	1	2	1	1

In the forest on Dobrina Hill, people found carcasses of roe deer eaten by wolves. At the same time, the colonised fallow deer (*Dama dama*) did not endure here because of the wolves.

The large forests (almost 14,000 ha) of the Barboși-Șișcani-Dobrina area (south of Huși) favored the continuation of a few wolves until 2001. The solitary specimens reported between 2002 and 2005 in the forest on Dobrina Hill had entered from the Republic of Moldova (where they subsequently returned) (Table 6).

Table 6

The number of wolves observed in the forests southwest of Huși between 1996 and 2005

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Nr.	9	7	6	6	5	4	1	1	1	1

Wolves were spotted: on the Șișcani - Cetățuia - Crețești hunting ground, in Grumezoaia, Găițoaia, Făgădău-Elan, Răgoasa and Uliu, on the Dobrina - Plotonești hunting ground, in Satu Nou, Dealu Huși, Dobrina, Pădureni, Vlăscineasa, and on the Barboși - Zgura hunting ground, in Păriș, Pruna and Dealu Mănăstirii.

In 1993, a massive male (visually estimated at that time to weigh about 60 kg) had entered from the Republic of Moldova and was reported around the village of Valea Grecului, from where it reached the forest east of the village of Târzii, only to then return across the Prut.

The Prut River Valley was, until the 1960s, a real “nursery” for wolves, with reedbeds, shrubby areas or trees where they could breed freely, as the combatting efforts were restricted given the border area with the former Soviet Union. For example, in August and September 1950 “*the wolves had reproduced at an alarming rate*” (*Vânătorul Magazine*, no. 9, 1950, p. 23). Many cubs were then killed in their dens. In 1958, Anghelide showed that the wolves were “*in large numbers and could never be fought effectively*”, and that they “*cause immense damage to livestock on an annual basis*” (1958, p. 11).

In 1952, 12 wolves were shot in the vicinity of Vetrișoia commune alone. In the reedbeds of the Prut at Lunca Banului, 10 wolves were killed in 1952 and another 18 in 1960. In 1956, in the former state agricultural unit of Pojorăni-Vetrișoia, large losses of sheep were recorded due to wolves attacking the flocks in broad daylight. Even in 1983–1985, a few specimens were found in Pojorăni and Pogănești in the Prut Valley.

In the northwest of the county, between 1959 and 1962, 27 cubs were captured in their dens in the forests of the Băcești Forest District and, on May 10, 1963, another 8 cubs were captured in a forest near the District alone. In the spring of 1966, 50 adult wolves and their cubs were killed in the same forestry unit. Wolves were also hunted around the town of Negrești (2 in 1978, one in 1985 and another in 1987).

For *the southern part of the county*, we would recall that in the first 8 months of 1949 alone, 23 specimens were killed (8 in February alone), and in the first semester of 1954 – 42 adult wolves were shot and 14 cubs destroyed in their dens. In 1958, 4 wolves were killed in the forest near the village of Bădeana, another 5 were killed in March 1960, and 1 further specimen was killed in 1985. On the administrative territory of the city of Bârlad, 9 wolves were shot in 1957, one was killed and 8 cubs were captured in their dens in 1962, and two adult wolves were shot in 1985, while another one was killed in 1989. In 1989, an adult specimen was shot on the territory of the commune of Roșiești. In the Perieni area, a specimen was shot in 1987 as well, and another one was killed in the forests near Popeni in 1985. In the forests around Mireni, one specimen was hunted in each of the years 1985, 1986 and 1990.

We also we have some data for *the central part of the county*. For example, in the first half of 1960 only, 14 wolves were shot in the area of Costești commune. This mammal was hunted also in the area of Bogdănița village (3 specimens in 1986 and another in 1989). In the large Gădeasa forest (2000 ha, Florești commune), in 1957 only, 10 wolves were shot and 4 others were injured. In the 1980s they were also hunted (1 in 1986, 2 in 1988, 2 in 1989).

In the *northern part of the county*, wolves endured in the Tăcuta-Dănești-Solești area, where, for two decades (1971–1991) 23 specimens were hunted, most of them (8) in 1981. In the large forests (5,700 ha) of Tăcuta, wolves were also reported in the following years – 2 in 1992, 3 in 1993, 4 in 1994. In the winter of 1984/1985, 4 wolves were spotted between the villages of Draxeni and Dănești, and the remains of a deer they had consumed were also found.

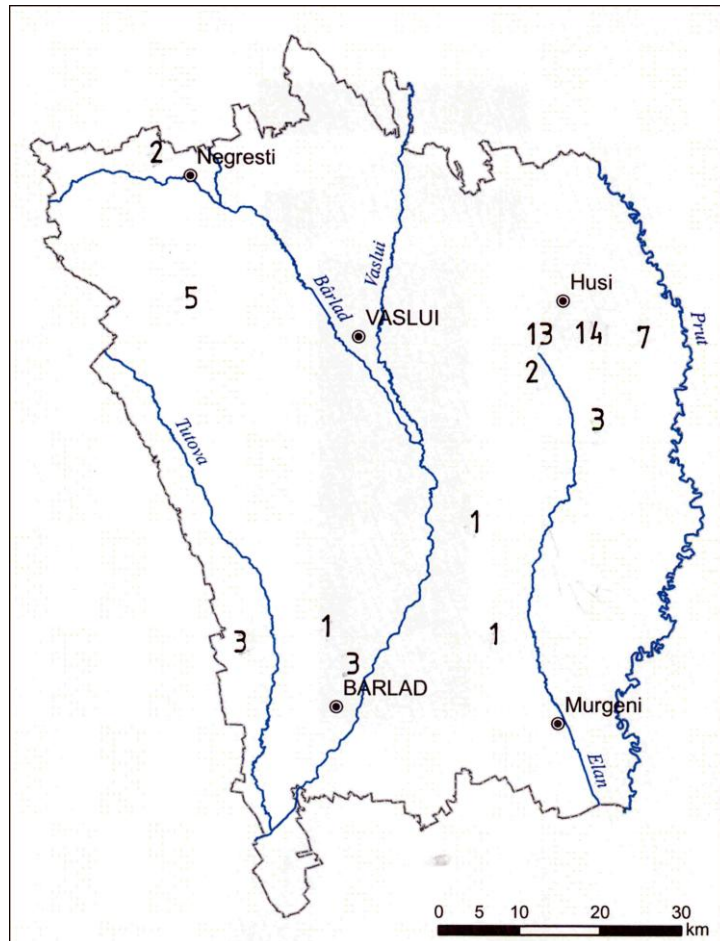


Figure 3. Location where wolves were hunted in Vaslui County between 1985–1995 (number of specimens).

Two toponyms related to the wolf were preserved on the territory of Vaslui county: the villages of Lupești [*“Wolves’ Lair”*] (Mălușteni commune) and Valea Lupului [*“Wolf Valley”*] (Gherghești commune).

CONCLUSIONS

The wolf is a predatory species with a pronounced territorial and population dynamics, conditioned by food, its habitat and the anthropogenic impact. Through their natural sensors, wolves detect and attack especially weak, feeble, sick, old or injured specimens, thus contributing to maintaining the health and vigor of species, therefore becoming a zoelement of natural selection.

However, in the territory taken into analysis, wolves reproduced at an intense rate after 1940 due to the lack of combatting efforts during the Second World War (1941–1945), but also due to the expansion of populations throughout the region during the hardest winter of the 20th century (1953–1954). In general, during the winters of the 1950s–1960s, wolves still appeared quite frequently in the analysed region.

The issue of combating this mammal that has been regarded since ancient times as a dangerous animal and a large carnivorous predator, has always been at the forefront of people concerns, due to the significant damage caused to other wild and domestic species.

During the 1940–1956 period, the large number of wolves was not correlated with the small number of game species that provided them with food, which determined that the main source of food for the wolf was domestic animals. This is especially due to the fact that it has an increased resistance to lack of food and can travel up to 40 km to procure it. Thus, when the specimens of the spontaneous fauna available no longer covered their energy needs, the wolves attacked domestic animals.

After the Second World War, and especially between 1948 and 1965, there was the direct persecution of the species was performed more vehemently, as highlighted in the paper through the many interesting details offered (not only isolated shootings, but real shooting campaigns, the use of toxic substances and metal traps, the capture and killing of cubs), but also the indirect combatting efforts through the reduction of favorable habitats via the intensification of human activities, at it was known that the analysed region has a very high degree of anthropization.

As a result of the intense combatting efforts, towards the end of the 1960s wolves disappeared from the plain regions. However, they still existed in some forest areas of the Moldavian Plateau. At the same time, land improvement works in the Prut and Danube meadows carried out between 1950 and 1965 led to the destruction of the habitats where wolves bred.

It was also because of the wolves that the Dama dama herds colonised in Iași and Vaslui counties did not last long. Furthermore, wolves also killed cervide specimens in acclimatised pens in the counties of Olt (*Capreolus capreolus*, *Cervus elaphus*) and Galați (*Dama dama*).

Until 1996, wolves could be hunted all year round, as they were considered pests. Later on, this mammal became a protected species.

The last two small wolf “nuclei” of but a few specimens were in the well-forested areas of the counties of Iași (1990–1994) and Vaslui (2000–2001).

A few specimens reported more recently, but for a short period of time, entered from Romania from neighbouring countries: from Ukraine (in Botoșani county), from the Republic of Moldova (in Botoșani, Iași, Vaslui and Galați counties) or from Bulgaria (Ialomița county).

Overall, within the 60,000 km² of the lowland regions of southern and eastern Romania (excluding Dobrogea), the last wolf hunted was in 1995 in Vaslui County and the last wolf reported was in 2014 in Botoșani County. In Figure 4 they were represented the places where the last specimens were hunted, but also the places where the last individuals were observed in different counties.

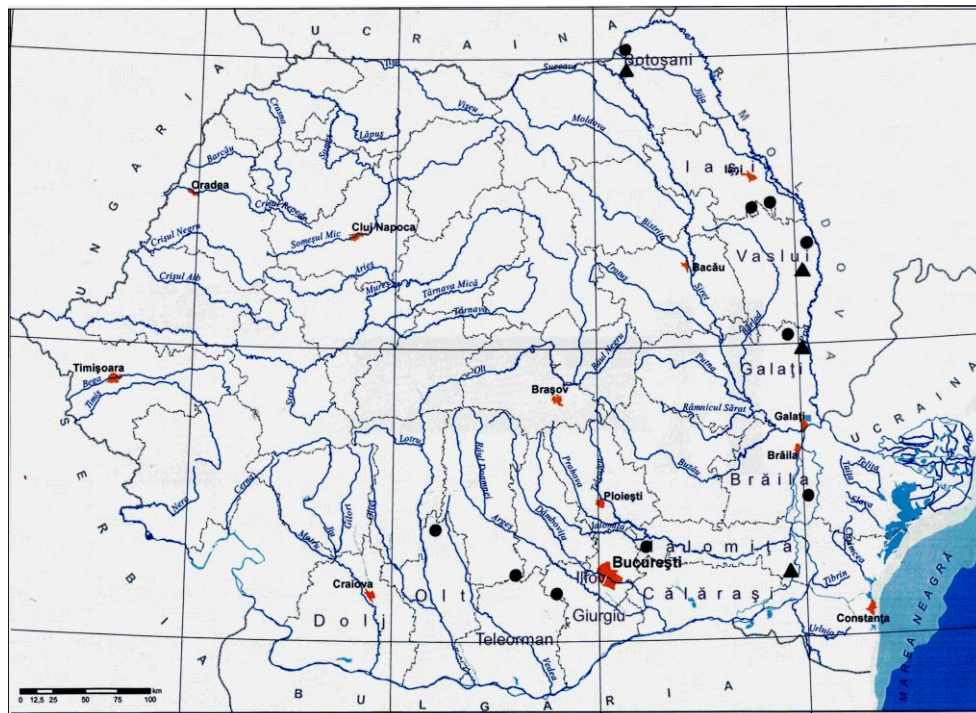


Figure 4. Map of the study area with the component counties. The marks on the map indicate: the places where the last specimens were hunted (●), but also the places where the last individuals were observed (▲) in different counties.

We have also identified a number of 40 toponyms (mostly in Galați and Iași counties) that preserve, to this very day, the memory of this mammal in the analysed region.

The constant regression of wolf populations post-1955, both numerically and spatially, and their eventual disappearance from the Danube Plain and the Moldavian Plateau between the Siret and Prut rivers, is not only an example of the direct anthropogenic intervention on a faunal species, but also an example of biodiversity erosion. The disappearance of wolves “freed up” an ecological niche, which was subsequently occupied by jackals (*Canis aureus*).

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