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WILDCAT (*FELIS SILVESTRIS* SCHREBER, 1777) IN UKRAINE: MODERN STATE OF THE POPULATIONS AND EASTWARDS EXPANSION OF THE SPECIES

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Modern state of the wildcat populations in Ukraine is analyzed on the basis of detailed review and analysis of its records above (annotations) and before (detailed cadastre) 2000. Data on 71 modern records in 10 administrative regions of Ukraine are summarized, including: Lviv (8), Volyn (1), Ivano-Frankivsk (2), Chernivtsi (31), Khmelnytskyi (4), Vinnytsia (14), Odesa (4), Mykolaiv (4), Kirovohrad (2) and Cherkasy (1) regions. Detailed maps of species distribution in some regions, and in Ukraine in general, and the analysis of the rates of expansion as well as direction of change in species limits of the distribution are presented. Morphological characteristics of the samples from the territory of Ukraine are described.

Keywords: wildcat, state of populations, geographic range, expansion, Ukraine.

INTRODUCTION

Wildcat (*Felis silvestris* Schreber, 1777) is a rare mammal species, included in the all editions of the Red Data Book of Ukraine (1980, 1994, 2009), and known in Ukraine mainly in most western regions. There are many threats for this species, from direct extermination to decreasing of food base, and from lost of habitats to hybridization with domestic cats. There are just a few special publications deal with this species in Ukraine, but most of them concern with morphological variability [14, 21, 38–39] or separate records [23–24, 28 etc.].

While some researchers paid attention to hybridization between wild and domestic cats [14, 27, 40], other colleagues described just "clear" samples, without discussion

about hybridization [30, 39]. Currently, there is dominant viewpoint about absence of “true breeding lines” of wild cat (pure-bred wild cats) in Europe [27]. This point of view to the Carpathian population in Ukraine was also attributed [42]. Recent investigation of all available samples from Ukraine shown that up to 70 % of samples are hybrids (or free-ranging *F. catus*), and just 30 % are pure-bred *F. silvestris* [21].

Descriptions of the species range in the east of its geographical distribution are very pure and incomplete also. Some data appeared in general reviews of fauna (for ex., [4–5, 10, 26, 30–31, 37, 41]). There are a few brief notes about wildcats in nature [17, 22–23, 28]. Important sources on population state and distribution in Ukraine are the sketches in all issues of the Red Data Book of Ukraine (RDBU) [1, 20, 24]. Main goal of this work is analysis of known records of *Felis silvestris* in Ukraine (except Carpathians) during next period after RDBU last edition and preparation of prognosis deal with new changes of the species geographic ranges.

MATERIAL

Original data include samples of wildcat from some localities, including Bukovyna, both Western and Eastern Podillia, and several easternmost localities of wildcats geographical range in a whole, from Mykolaiv, Kirovohrad and Cherkasy Regions. For compared and analysis of new data, all known records of *Felis silvestris* northwards and eastwards of the Carpathians were compiled. Codes of regions name used in cadastre: L – Lviv, V – Volyn, F – Ivano-Frankivsk, N – Chernivtsi, H – Khmelnytskyi, V – Vinnytsia, O – Odesa, M – Mykolaiv, K – Kirovohrad, R – Cherkasy regions.

It was very important task to select data on wildcat records from the records of feral cats. Authors reject all questionable information, so the final number of records is less of an initial set of findings. In some cases, when the main morphological sights set correspond to a wild type, but we had doubts in some data, asked for help from experts in morphology of wildcats (Dr. M. Rozhenko, I. Dykyy, V. Shelvinsky etc.). Conclusions about deviations from the wild type were made, nurseries were noted: color irregularities in the color of the muzzle, the deviations in the overall color tone, changing the proportions of the body (in particular, the relative length of the tail and paws) and other features. Both such cases are marked in the text (localities L1 and M4).

The map of species distribution was compiled using software MapInfo 7.0. Previous versions of maps of species distribution were borrowed from the I–III editions of the Red Data Book of Ukraine. Mentioned collections are attributed as: NNPM – National Museum of Natural History Ukr. Acad. Sci., ZMLU – Zoological Museum of Luhansk National University, ZMOU – Zoological Museum of Odesa National University. Skulls were measured using caliper.

FORMER REVIEWS OF SPECIES OCCURRENCE IN UKRAINE

Most of old publications a had style of short faunistic notes [6, 33] or description of mammal fauna in a whole [8, 30]. The maps of wildcat distribution in Ukraine under three successive editions of the Red Data Book of Ukraine (1980, 1994, and 2009) presented on the Figs. 1, A–C.

Old views of the species distribution in Ukraine are assumed wide distribution of wildcats in four regions: Polissia (North of Ukraine), Carpathians, western Podillia (West of Ukraine), and North-Western Black Sea Region (SW of Ukraine).

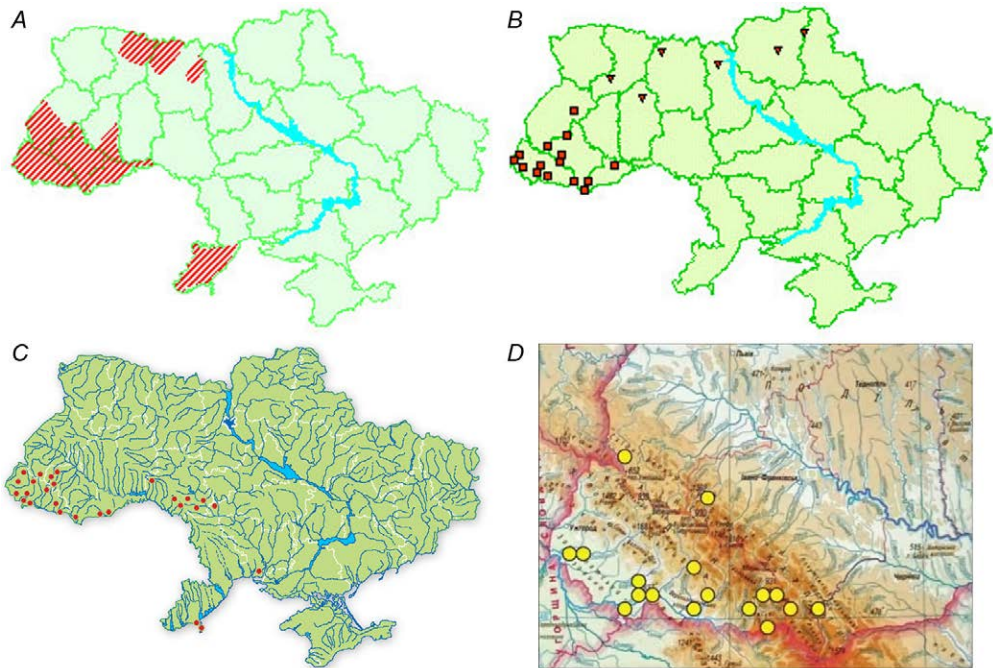


Fig. 1. Successive phases of changes in viewpoints on wildcat geographical ranges according to three editions of the Red Data Book of Ukraine: *A* – first edition 1980 [1]; *B* – second edition 1994 [20]; *C* – third edition 2009 [24]; *D* – Red Data Book of the Ukrainian Carpathians [13]

Рис. 1. Послідовні фази змін у поглядах на географічне поширення kota лісового згідно з трьома виданнями Червоної книги України: *A* – перше видання 1980 р. [1]; *B* – друге видання 1994 р. [20]; *C* – третє видання 2009 р. [24]; *D* – Червона книга Українських Карпат [13]

1) **Carpathian Region.** Wildcat in this region was very widely described, and its range were described two times in details in review by K. Tatarynov in 1956 [30] (just designation of possible areas of distribution) and recently in the Red Data Book of the Ukrainian Carpathians [13] (17 localities on the map, without details). There are several particular publications, among them descriptions of new records in Carpathian National Park [7] and some records in Bukovyna [34].

2) **Polissia.** All old records in Volyn Region and Central Polissia up to Chernigiv Region in the East (for ex., [9], see: Fig. 1, *A–B*) are considered as erroneous and associated with feral domestic cats [21]. Despite this fact, some authors considered that Volyn Region (Western Polissia) was as a part of a wildcat geographical range (for ex., [30]: p. 97)¹. Later, in 1983, the same author noted that wildcat finally was disappeared in Polissia [32]. However, it is not true: there were several modern records of wildcats in the Western Polissia, incl. territory of the Shatsk National Park (I. Horban', pers. com.). So, M. Prushynski described the direct observation of wildcat in June 1992 in the edge of forest near nearby village Pischa in Shatsk District [36].

3) **Podillia.** In the Podillia this species was known since researches in 1930s, but it was described by one record only in Yampil District of Vinnytsia Region [8]. In both Khmelnytsky and Ternopil Regions wildcats were not registered during long time. Afterward,

¹ In the text, K. Tatarynov notes, that several cats were captured in adjacent Rivne Region (p. 94).

L. Shevchenko has described her finding of wildcat's kitten in the South-East of Vinnytsia Region in 1976 [21]. Until recently, the data on Western Podillia (for ex. for Khmelnytsky Region) were absent but some reports were only now reported (see below).

4) **Black Sea Region** is one of the well-studied areas, including Danube Delta and Lower Dnister wetlands. This area is under attention of cat researchers since time of O. Brauner [6, 8, 33]. Mygulin [8] has mentioned only several records of wildcats, and all of them were associated with Dnister floodplain (mostly territory of modern Moldova)². Afterward, notes about wildcats in this region appeared sporadically, but since the mid 1990s, a regular flow of new information began [12, 17, 19]. So, in Danube Delta there were about 20 registrations during 1995–2000 [12]. Currently, we have regular new communications about records of wildcats in this region [2, 10, 18, 35] (details below). From this region, one of easternmost record of wildcat from Lower Dnipro area (nearby Kherson) was reported [15]³.

In generally, known geographical range of *Felis sylvestris* in Ukraine deals with most western regions, mainly with the Carpathian Mts and Transcarpathian Lowland. Researchers have described that the ranges of this species were very differently (see: Fig. 1). Most of them were considered as Carpathians species. Records in Polissia were considered as former and very old. Concerning the Podillia, viewpoints were not stable: this species was not mentioned earlier for Podillia (in 1980, 1994) in RDBU, it was referred for Eastern Podillia (in 2009) in latest edition.

NEW MOST IMPORTANT DATA

Main attention was paid to the data since 2000. New records from several different regions which were earlier outside of wildcat range were reported.

1) **Middle Dnipro**. The main reason for the analysis of situation in Ukraine, the record of the cat in the vicinity of Cherkasy almost on the banks of the Dnipro (in Chyhyryn District) was reported (Fig. 2). This finding was demonstrated in September 18 of 2013. Among important details there are: weight 9.8 kg, body length (*L*) 65+ cm, tail (*Ca*) 33 cm, ear length 5+ cm, hindfoot 16 cm (measurements using photo with scale); sex – male; age – *subadultus* (despite the large body size, skull without developed sagittal crest); backside of foots and end of tail were in black color. This record was described below with code “R1”. The collected material (skull) was deposited in work collection of I. Zagorodniuk. Cranial dimensions were presented in Table 1.

2) **Dnipro Upland**. New original record from Kirovohrad Region was reported (record “K1” in the following text and map on Fig. 11). In January of 2013, we obtained for short-term research a skin of large cat with large size and typical for wildcat coloration (Fig. 3). Cat was trapped as a feral domestic cat in January, 2012. General coloration of fur and distribution of dark bands on the body and tail was a typical for *Felis sylvestris*. It was measured by overall dimensions, the skin was characterized by following dimensions: *L* = 74.8 cm, *Ca* = 25.4 cm, *Au* = 5 cm (Table 1). The cranial dimensions were unknown (skull in collection of poacher). Exact locality was also not known. It was only record of wildcat in Kirovohrad Region.

² These records based on the review by O. Mygulin are shown on Fig. 7.

³ One skin with large size and typical fur coloration was recorded in collection of poacher (Ye. Roman, pers. com.). However, later (1994–2014) wild cat ever recorded in the wetlands or the Dnipro River Delta, as well as in the region of Black Sea Reserve in a whole (Z. Seliunina, pers. com.).



Fig. 2. *Felis silvestris* from Chyhyryn District, Cherkasy Region. This wildcat was killed by hunters in September, 2013 (photo of September 21, 2013). Besides large body size, also dark circles and black end of tail as well as black backside of hindfoot are expressed. Photo by O. Halushko (skull in collection of authors)

Рис. 2. Кіт лісовий з Чигиринського району, Черкаська обл. Цей кіт був убитий мисливцями у вересні 2013 р. (фото 21.09.2013). Крім великих розмірів тіла, виразно видно темні кільця і чорний кінчик хвоста, а також чорні підшви задньої лапи. Фото О. Галушко (череп у колекції авторів)



Fig. 3. Skin of *Felis silvestris* from Kirovograd Region (L = 65+ cm). Cat was killed in January 2012. Photo by I. Zagorodniuk (ZMLU, Luhansk)

Рис. 3. Шкіра *Felis silvestris* із Кіровоградської обл. (L = 65+ см). Кіт здобутий у січні 2012 р. Фото І. Загороднюка (Зоологічний музей Луганського національного університету)

3) **Middle South Bug region.** New data from this region was reported during 2013–2014 from several localities, situated mainly in the middle part of Bug river: in Kryve Ozero District (Sekretarka), Pervomaisk District (Grushivka) and Domanivka District (Marynivka). All wildcats from these localities were like to animals with some hybrid features: relatively small body size, small deviations in coloration etc. (see: Fig. 4).

4) **Western Podillia.** Important data from Khmelnytsky Region were collected by M. Drebet et al. The authors have reported about eight known records of the wildcats, six of which are required the testing, and two of them were significant more. One of them in Chemerivtsi district (between villages Khropotova and Slobidka Smotrytska) in July of 2007 was collected; and there the hunter had killed one specimen in hornbeam-oak forest and passed it in his private collection (sign “H1” on the map: Fig. 6). One modern record more in this province (H2) was taken from place in Kamianets-Podilskyi District (nearby Surzhyntsi village) where M. Drebet (in July 27, 2013) observed one adult animal with two kittens in the tract “Surzhyntsi ravine” in ravine with a stream nearby from rocky place with oak-hornbeam forest (on the slopes of valley of the Ternava river). All other (6)

records were also concerning with territory on the “Podilski Tovtry” National Park in the southern and southern-west districts of the Khmelnytskyi Region.

5) **Lviv Region (Roztochchia and Skole Beskids)**. Two wildcats were trapped nearby villages Ivana-Franka and Unyatychi (locality nearby from “Naguyevychi”, Drohobych District (Lviv Region)). In December of 2010, animal was killed by hunter as a “domestic cat” (Fig. 5); one cat more was registered (alive) in July 2013 (nearby from previous locality in 8–10 km, south from Unyatychi (information from M. Pashko). Skin of first specimen (saved without tail) was in the private collection. One specimen more from village Mokrotyn in the Zhovkva District (in August, 2007) was trapped. This sample had some features of hybrid specimen: presence of black spots and relatively small body size. Sample from Mokrotyn was deposited in ZMD.



Fig. 4. Wildcat trapped by hunters in Mykolaiv Region, namely in the Middle South Bug region (specimen deposited in hunting shop for sale). Body length of this sample was 68 cm, tail 32. Photo by A. Andrusenko

Рис. 4. Кіт лісовий, здобутий мисливцями в Миколаївській області, в районі середньої течії Південного Бугу (зразок виставлено в мисливському магазині для продажу). Довжина тіла цього зразка становить близько 68 см, хвоста – 32 см. Фото А. Андрусенка



Fig. 5. Wildcat trapped by hunters in Drohobych District, Lviv Region (photo from hunter forum “Hunting Ukraine”, with permission from author)

Рис. 5. Кіт лісовий, здобутий мисливцями у Дрогобицькому районі, Львівська обл. (фото з мисливського форуму “Ловецтво України”, з дозволу автора)

6) **Bukovyna (Chernivtsi Region and adjacent districts of Ivano-Frankivsk Region)**. New (since 2000) records appear due to targeted collection of new data that was organized by I. Skilsky. In total, there were more than 30 records from 9 administrative districts, listed below. Most of them was collected from middle-height and lower altitudes of North Carpathians macroslope from hunters and forestry workers. Several findings were confirmed by exterior dimensions and weight of the cats as well as pictures of the animals.

REVIEW OF ALL NEW RECORDS (after 2000)

In this chapter we have summarized all literature data and the original reviews of all new records of the *Felis sylvestris* in Ukraine since 2000. Some of these data were published in the articles deal with Eastern Podillia [21–23, 28] and Lower Dnister [2, 10, 17]. New data was also published for Bukovyna (Chernivtsi Region) [34] and Transcarpathians (Zakarpatska Region) [4, 5].

So, some authors have described new records of wildcats in 6 southern administrative districts of the Vinnytsia Region. These records were based on killed, finding and observation of 20 specimens [21, 23] as well as one new record in Odessa Region, namely in Velyka Mykhailivka District [2, 22]. Three of these records with some details

in Vinnytsia Region namely in Trostianets, Kryzhopil and Tomashpil Districts district were earlier described [23]. Probably, all of these records were mentioned in the map of species distribution, presented in the Red Date Book of Ukraine [24].

Table 1. Number of wildcat records after 2000 and estimations of abundance of its nature population in different regions of Ukraine

Таблиця 1. Кількість знахідок kota лісового після 2000 р. та оцінки рясноти його природних популяцій у різних регіонах України

Big region	Administrative regions	Estimated number of populations	Number of records described below*
Transcarpathians	Zakarpatska Region	in Zakarpattia about 1150 sp. [39], later decreasing to 260–450 sp. [4] ⁴	not considered
Northern Carpathians	Lviv, Ivano-Frankivsk & Chernivtsi Regions	in Carpathian regions of Ukraine (except Zakarpattia) about 650 sp. [39]; in Chernivtsi Region was > 70 sp. [34], after 2005 about 120–160 sp. [11]	41 localities (most of them were described at first; > 50 sp. were trapped)
Roztochchia & Western Polissia	north of Lviv Region & Volyn Region	There were 1 recent record in Lviv Region (east) and no in West Polissia, but there were 6 old records in nearest parts of Central as well as Eastern Polissia (Fig. 1, B). 5 records describer here; there are more them 20 records in this region during last 2 decades, most them were not published (I. Horban', pers. com.)	2 localities (5 sp., 4 of them were collected)
Western Podillia	Ternopil & Khmelnytskyi Region	8 records, among them there were just 2 reliable (M. Drebet, pers. com.)	2 localities (4 sp., one of them was collected)
Eastern Podillia	Vinnytsia Region	50 specimens in one forestry [28], up to 100–120 in a whole (sum of all data)	8 localities (14+ sp. trapped, 3 sp. collected)
Dnipro region	Kirovohrad & Cherkasy Regions	about 10–15 specimens; in 2008–2013 it was first records for all the time [21; this article]	3 localities (5+ sp. observed or trapped, 5 sp. were collected)
Northern Black Sea region	Odesa & Mykolaiv Regions	15–30 or more (post [10, 35]), trend to decreasing (M. Rozhenko, pers. com.) (data were only for SW of Odesa Region.)	8 localities (16+ sp. observed or trapped, 6+ sp. were collected)

Comment: * In parenthesis: numbers of known observations, collected or killed specimens were given.

Примітка: * У дужках подано кількість відомих особин, яких спостерігали, колекціонували або здобули.

New important data from Vinnytsia Region were published in 2012 in relation to records of species in Chechelnyk and Trostianets Districts (south-east of the Region) [28]. The stable population of wild cat (density in centre of the population was about 50 specimens for 200 sq. km) in the easternmost foothills of the Podillia Upland (nearby from the border with Odessa Region) was reported [28]. According to this results, during long time local hunters considered all wild cats as feral domestic animals, and often shoot these cats for “clearing of land” from alien animals, especially during hunting martens.

On the other hand, Dr. M. Rozhenko described several records of *Felis sylvestris* in the Dnister Delta and pointed 3 important facts: 1) wildcat was primary registered only

⁴ Some modern authors, based on investigation of 1 skull, concluded: “During recent years, population size became noticeably increase, especially in Transcarpathians” [21, p. 149].

in 1998 after more than 15 years of its absence, 2) there was a small but sustainable local population in this region with absolute number about 5–7 specimens, 3) during 2012–2013 essential population growth took place, and number of cats increased at least twice or three times [10, 17; M. Rozhenko, pers. com.]. This species was earlier mentioned in description of mammal fauna of Natural Reserve “Dnister marshes” [19], and recently for Velyka Mykhailivka District [2].

New data from Danube Delta in 2006–2007 were obtained [35]. So, in 2006, one died cat was found in the area of fishery nearby the Stentsivka-Zhebryanivski wetlands and, in may of 2007, two kittens were found of Yermakiv Island on the territory of the Danube Biosphere Reserve.

Data on number of known records, absolute and relative abundance of wildcats in different regions of Ukraine were summarized in the Table 1.

List of records after 2000

The records were listed in geographical order in the following text (from west to east). All listed findings were presented on the map with the same codes (Fig. 6–8, 10–11).

Volyn Region (Fig. 6):

V1. Shatsk District, vic. of lake Moshne, bank of drainage channel in forest; date: 06.2003, leg.: I. Horban' date: 2008, leg.: I. Horban'; material: direct observation; publication: [36]. Comment: later, about 2008–2009 M. Prushynski observed one more wildcat near lake Moshne (Shydlovsky, pers. com.).

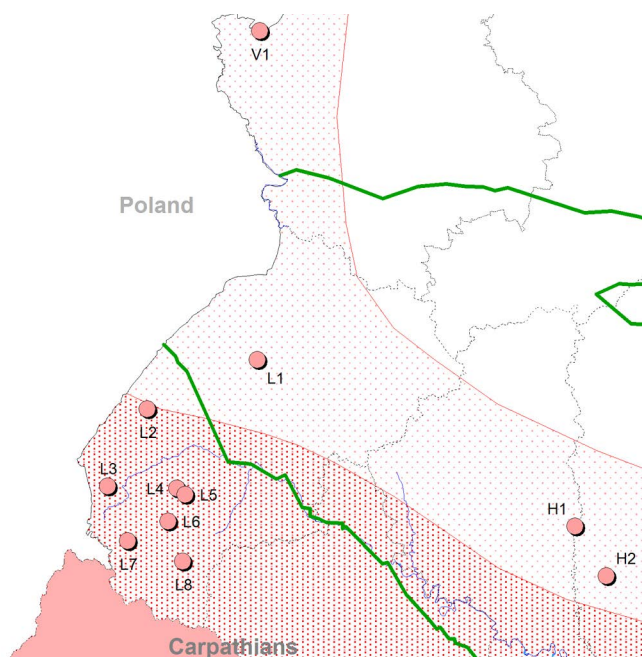


Fig. 6. Fragment of map of wildcat distribution in the West of Ukraine (except of Zakarpatska Region, which was colored in dark, where distribution was solid and described recently; see: Fig. 1, D). Light-gray polygon mark new range, which was still not known

Рис. 6. Фрагмент мапи поширення (за винятком Закарпаття, що зафарбоване темним, де поширення є суцільним і описане нещодавно; див: рис. 1, D). Світло-сірий полігон позначає новий ареал, що не був відомий дотепер

Lviv Region (Fig. 6):

L1. Zhovkva District, village Mokrotyn, oak-hornbeam forest; date: August 16, 2007; leg.: T. Proyshyn (det. I. Dykyy); material: skin and skull in collection of ZMD (No 985, dimensions in Table 2; presence of some features of hybrid specimen); publication: this article;

L2. Mostyska District; date: 2014; leg. hunter; material: sample in collection of State Nat.-Hist. Muz. (Lviv; N. Cheremnykh, pers. com.); publication: this article;

L3. Staryi Sambir District, mountain part (without details) village Mizhenets (I. Dykyy, pers. com.); date: “today” (2005: I. Dykyy, pers. com.); leg. & material: unknown (“it is found”); publication: [3];

L4. Drohobych District, between villages Ivana-Franka and Unyatychi (3 km northwards), loc. “Naguyevychi”, deciduous forest; date: December 2010 (cat was killed during hunting as “domestic cat”), leg. M. Pashko (pers. com.); material: skin (without tail) in private collection; publication: this article (photo see: Fig. 4);

L5. Drohobych District, south from village Unyatychi (8–10 km SE from **L1**), dense deciduous forest; July 2013, leg. M. Pashko (pers. com.); material: direct observation; publication: this article;

L6. Drohobych District, mountain part (without details); date: “today” (publication in 2013); leg. & material: unknown (“it was found”); publication: [3];

L7. Turka District (without details); date: “today” (publication in 2013); leg. & material: unknown (“it was found”); publication: [3];

L8. Skole District (without details); village Tysovets (I. Dykyy, pers. com.); date: “today” (September 18, 2011: I. Dykyy, pers. com.); leg. & material: unknown (“it was found”); publication: [3].

Ivano-Frankivsk Region (Fig. 7):

F1. Kosiv District, vic. of village Kosmach, loc. “Zavoieia”; date: beginning of 2000th; leg.: forestry worker (database of I. Skilsky); material: observation; publication: this article;

F2. Verkhovyna District, vic. of village Perkalab, Perkalab forestry; date: string or summer of 2010 (sometimes single and solitary specimens were observed); leg.: S. Matiychuk; material: unknown; publication: this article.

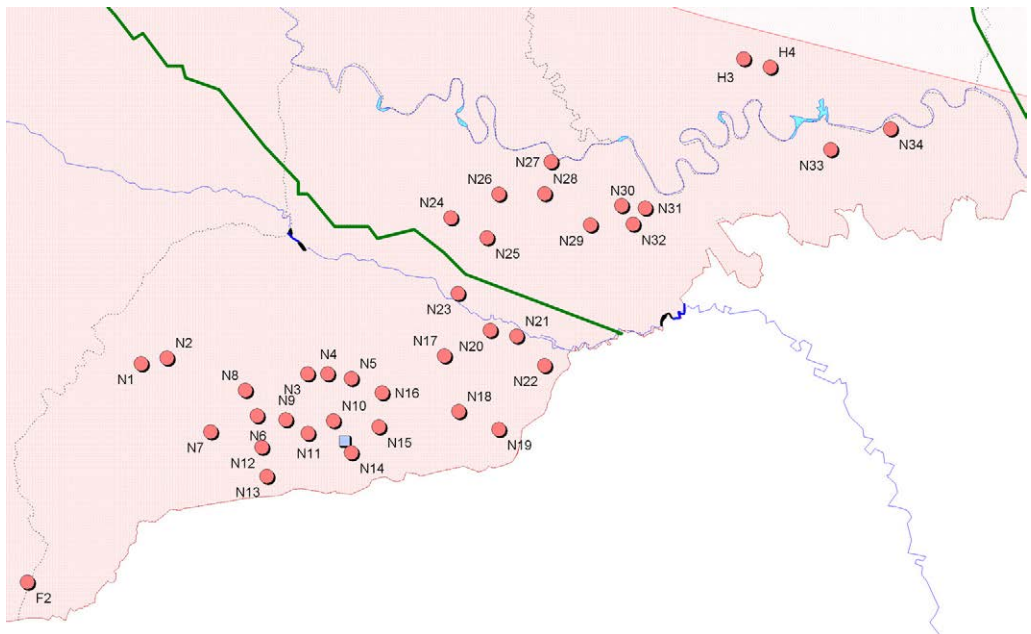


Fig. 7. Fragment of the map of the wildcat distribution in Bukovyna (Chernivtsi Region and close areas of Ukraine). Closed area was area of the species distribution according to last edition of RDBU (2009) [24]

Рис. 7. Фрагмент мапи поширення kota лісового на Буковині (Чернівецька обл.). Темна заливка – ареал поширення виду згідно з останнім виданням Червоної книги України (2009) [24]

Chernivtsi Region (Fig. 7):

Data concerning with this Region were collected in database by Dr. I. Skilsky. All mentioned below data were not published earlier. Before 2000, new find of wildcat was described for Verkhni Petrivtsi Forestry, Storozhynets (“Hlyboka”) District, where large

adult male was killed by hunters March 2, 1998 [34] (skin with skull were passed to NMNH, No 13292 after [21], measurements are listed in Table 2). Tkachuk mentioned records for several administrative districts (without details) [34];

N1–N2 – Vyzhnytsia District: **N1**. Vyzhnytsia District, village Beregomet, Natl. Park “Vyzhnytski” date: 2002; leg.: I. Skilsky; material: 3 ind. / 7900 ha. **N2**. Vyzhnytsia District, village Beregomet, hunting economy “Beregomet”; date: 2001, 2002; leg.: I. Skilsky (2001), O. Marchuk (2002); material: 24 ind. / 11 200 ha (2001), 25 ind. / 11 200 ha (2002);

N3–N6 – Storozhynets District (North). **N3**. Storozhynets District, Storozhynets, lands of Storozhynets hunting organization; date: 2001, 2002; leg.: I. Skilsky; material: 8 ind. / 52 200 ha (2001), 12 ind. / 52 200 ha (2002); **N3a**. Storozhynets District, Storozhynets, Chernivtsi military forestry; date: 2001, 2002; leg.: I. Skilsky; material: 6 ind. / 18 100 ha (2001), 9 ind. / 6 100 ha (2002); **N4**. Storozhynets District, Storozhynets, hunting economy “Storozhynets”; date: 2001, 2002; leg.: I. Skilsky (2001), S. Chystov (2002); material: 19 ind. / 24 239 ha (2001), 27 ind. / 24 200 ha (2002); **N5**. Storozhynets District, vic. of village Ropcha, edge of beech forest; date: December 11, 2010, February, 2011, December 22, 2002; leg.: resident & poacher; material: 1 young male (12 kg; typical coloration, 2010), 1 ind. (2012), 1 young female (6 kg), (2011, with photo); **N6**. Storozhynets District, hunting economy “Zubrovitsia” (near state border); date: unknown (about 2008–2012); leg.: S. Chystov; material: 1.2 ind. / 1000 ha;

N7–N13. Storozhynets District, Storozhynets, hunting economy “Storozhynets”; date: January–February, 2006; material: 30 ind. (**N7**: Gilchanske forestry – 6; **N8**: Banyliv forestry – 7; **N9**: Chudei forestry – 1; **N10**: Verkhni Petrivtsi forestry – 9 ind.; **N11**: Yizhivtsi forestry – 2; **N12**: Krasnoilsk forestry – 3; **N13**: Laura forestry – 2);

N14–N19 – Hlyboka District: Hlyboke District, 3 locs: vic. of village Korchivtsi (**N14**), Kamiianka (**N15**), Pidlisne (=Yordaneshy) (**N16**), Valya Kuzmina (**N17**); date: January–November, 2000 and 2003; leg.: resident; material: regular observation of single animals. **N18**. Hlyboka District, vic. of village Stanivtsi; date: January 19, 2003; leg.: resident; material: 1 large male (7 kg, killed by poachers). **N19**. Hlyboka District, vic. of village Turiatka, lands of hunting economy “Turiatka”; date: 2001; leg.: I. Skilsky; material: 10 ind./12200 ha;

N20–N22 – Hertsa District: **N20**. Hertsa District, vic. of village Radhospivka, forest; date: 2000 (spring); leg.: resident; material: 1 ind. (vocalization). **N21**. Hertsa District, vic. of village Bancheny, forest; date: 2000; leg.: resident; material: 1 ind. (observation). **N22**. Hertsa District, vic. of Hertsa, date: January 15, 2002; leg.: resident; material: 1 ind. (female, killed by poacher);

N23–N25 – Novoselytsia District: **N23**. Novoselytsia District, vic. of village Magala, forest; date: January 12, 2001; leg.: resident; material: 1 ind. **N24**. Novoselytsia District, vic. of village Chornivka, beech forest; date: October, 2010; leg.: F. Travinska; material: 2 ind. (killed). **N25**. Novoselytsia District, vic. of village Toporivtsi, former agricultural field among reed; date: November 10, 2000; leg.: resident; material: 1 ind. (female, killed by poacher);

N26–N32 – Khotyn District: **N26**. Khotyn District, vic. of village Bochkivtsi, hunting economy “Khotynske” (Klishkivtsi forestry), oak virgin forest; date: autumn 2010; leg.: forestry worker; material: 1 large male (“jumped out from the hollow of large felled oak”). **N27**. Khotyn District, vic. of village Rashkiv, beech forest edge; date: March, 2010; leg.: M. Mykhailuk; material: 1 ad. **N28**. Khotyn District, vic. of village Klishkivtsi, hunting economy “Prydnistrovske” (Klishkivtsi forestry); date: December, 2009; leg.: resident; material: 1 male ad. (killed by poacher). **N29**. Khotyn District, vic. of village Stavchany; date: January, 2003; leg.: resident; material: 1 male ad. (killed by poacher). **N30**. Khotyn District, vic. of village Vornytchany, island forest; date: August–September, 2009, July, 2010; leg.: I. Didoruk; material: 1+1 ad. (trapper by hunting dog). **N31**. Khotyn District, vic. of village Dankivtsi, island forest; date: August–September, 2009, July, 2010; leg.: I. Didoruk; material: 1+1 ad. (trapped by hunting dog). **N32**. Khotyn District, vic. of village Pashkivtsi, island forest; date: August–September, 2009, July, 2010; leg.: I. Didoruk; material: 2 ad. (2009) + 1 ad. (2010) (all trapper by hunting dog);

N33. Kelmentsi District, vic. of village Maiorka, loc. “Polyvaniv Yar”; leg.: Ya. Kogutiak; date: II half of May, 2013; material: several specimens; publication: this article;

N34. Sokyriany District, vic. loc. Korman’, Nat. Park “Khotynski”, bank of the Dnister Reservoir, rocks with bushes; date: September, 2011; 1 ad. (killed by poachers), leg.: Ya. Kogutiak; material: regular observations during last time; publication: this article.

Khmelnytskyi Region (Fig. 8):

H1. Gorodotskyi District, vic. of village Ivankivtsi, tract "Ivankivtsi reserve", oak-hornbeam forest; date: January, 2011; leg.: V. Martynyuk and M. Tarasenko (c/o M. Drebet); material: direct observation of 1 adult and tracks on snow; publication: this article;

H2. Chemerivtsi District, between village Khropotova and Slobidka Smotrytska, tract "Horby", hornbeam-oak forest, date: July, 2007; leg.: hunter (c/o M. Drebet); material: 1 sp., stuffed specimen in a private collection; publication: this article;

H3. Kamianets-Podilskyi District, vic. of village Surzhyntsi, tract "Surzhyntsi ravine", oak-hornbeam forest on the slopes of the Ternava River valley, ravine with a stream; date: July 27, 2013; leg.: M. Drebet; material: direct observation of 1 adult with 2 kitten; publication: this article;

H4. Kamianets-Podilskyi District, vic. of village Vykhatnivtsi, Nature Reserve "Sovynyi Yar" (engl.: "Owl Ravine"), oak-hornbeam forest; date: July, 2013; leg.: V. Martynyuk (c/o M. Drebet); material: direct observation of 1 adult; publication: this article.

Vinnitsia Region (Fig. 8):

One of the detailed studied regions of Ukraine in last decade. Some new data were obtained by A. Pyrkhal in 2009 during special questionnaire for forestry workers.

V1. Bar District, loc. unknown; date: between 2005–2009; leg.: unknown; material: unknown (direct observation? = "registered records"); publication: [22];

V2. Tomashpil District, loc. unknown; date: August, 2007; leg. O. Drach (direct observation of cat) and M. Shkvyrya (inspection of lair and tracks); material: lair with tracks of cat and direct observation of cat (pers. comm. of hunting specialist O. Drach); lair on a forested slope in the cracks of the cretaceous outputs at a height of 2 m; publication: [23] (also: [22], without details);

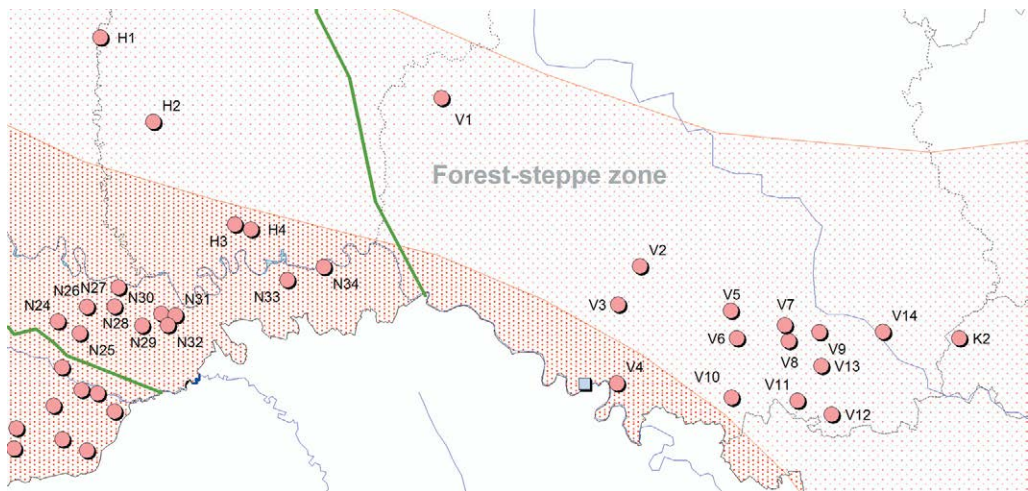


Fig. 8. Fragment of map of wildcat distribution in Podillia (Khmelnytskyi and Vinnitsia Regions and close areas of Chernivtsi Region). Closed area was area of species distribution according to last edition of RDBU [24], light-gray polygon mark new range, which was not known in RDBU

Рис. 8. Фрагмент мапи поширення kota лісового на Поділлі (Хмельницька та Вінницька області). Темна заливка – ареал поширення виду згідно з останнім виданням Червоної книги України [24], світло-сірий полігон позначає новий ареал, що не був відомий у Червоній книзі України

V3. Tomashpil District, village Stina, tract "Stinka"; date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article;

V4. Yampil District, Severynivka forestry, tract "Kryve"; date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article;

V5. Kryzhopil District, Zabolotne forestry, tract "Sokolovska Dachka"; date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article;

V6. Kryzhopil District, Kryzhopil Forestry; date: June, 2007; leg. M. Shkvyrya; material: lair was found in a hollow of pretornal part of oak tree (65 × 50 cm), were two kittens with typical for *F. sylvestris* coloration were trapped (left in the nature); publication: [23] (also: [22], without details). Photo of kitten (make by A. Sahaydak) was presented to authors and presented here (Fig. 9);

V7. Trostianets District, Tsybulivka forestry, tract "Haidamatska Balka"; date: until 2009; leg.: residents; material: questionnaire in May–August, 2009; publication: this article; **V7a.** Trostianets District, Tsybulivka forestry, tract "Tsybulivska Dachka"; date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article;

V8. Trostianets District, between village Torkanivka and village Tsybulivka; date: between 2006–2008; leg.: B. Sus (data from poachers); material: 12 trapped cats, 5 of them were investigated, 1 (skull) has been passed to MNHN, No 31 6285 (No after [21]); publication: [21, 28];

V9. Trostianets District, nearby village Obodivka, Obodivka Forestry; date: November, 2007; leg.: unknown (cat was captured by dog); material: there are photo and skin measurements (place of deposit of photo, skin and body measurements unknown); publication: [23]. Additional data: in 1976, brood of wildcats was found in this District, and one kitten was captured and then it lived in captivity during one year [21]. **V9a.** Ibid., village Obodivka; date: April 20, 2008; leg.: M. Skvyrya (cat was captured by dog); material: skull in MNHN, No 16285 (number after [21]⁵), fur color is typical for *F. sylvestris*; publication: [21, 23];

V10. Pishchanka District, Pishchanka forestry, track "Kukulianska Dachka"; date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article;



Fig. 9. Forest cat (*Felis sylvestris*) from Vinnytsia Region: *A* – kitten which was found in a lair (photo by A. Sahaydak, beginning of June, 2007, Kryzhopil Forestry); *B* – cat grown to adult age in the Kyiv Zoo (photo by S. Hrygoryev, July 06, 2012, cat from Chechelnyk District)

Рис. 9. Кіт лісовий (*Felis sylvestris*) із Вінницької обл.: *A* — кошеня, знайдене в лігві (фото А. Сагайдака, поч. 06.2007, Крижопільське лісництво); *B* — кіт, який виріс до дорослого віку в Київському зоопарку (фото С. Григор'єва, 06.07.2012, кіт із Чечельницького району)

⁵ Exact locality (Obodivka), data (just "Trostianets District, April, 2008") and collector were clarified later by L. Shevchenko (pers. com.).

V11. Chechelnyk District, Brytavka forestry, botanical reserve "Brytavski"; date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article; **V11a.** village Brytavka; date: April 24, 2010; leg.: hunter; material: 1 killed cat (rabies were found); publication: this article;

V12. Chechelnyk District, vic. of village Chervona Hreblia; date: between 2006–2012; leg.: B. Sus; material: unknown (regular victims of hunters, large abundance); publication: [28]; **V12a.** Chechelnyk District, loc. unknown (probably the same as VN12; data: unknown (between 2005–2009); material: unknown ("registered records"); publication: [22];

V13. Chechelnyk District, Dokhnianske forestry (vic. of village Dokhno); date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article;

V14. Bershad District, Bershad forestry, tract "Ustianska Dacha"; date: until 2009; leg.: residents (c/o A. Pirkhal); material: questionnaire in May–August, 2009; publication: this article; **V14a.** Bershad District, loc. unknown; date: between 2005–2009; leg.: unknown; material: unknown ("registered records"); publication: [22].

Odesa Region (Fig. 10):

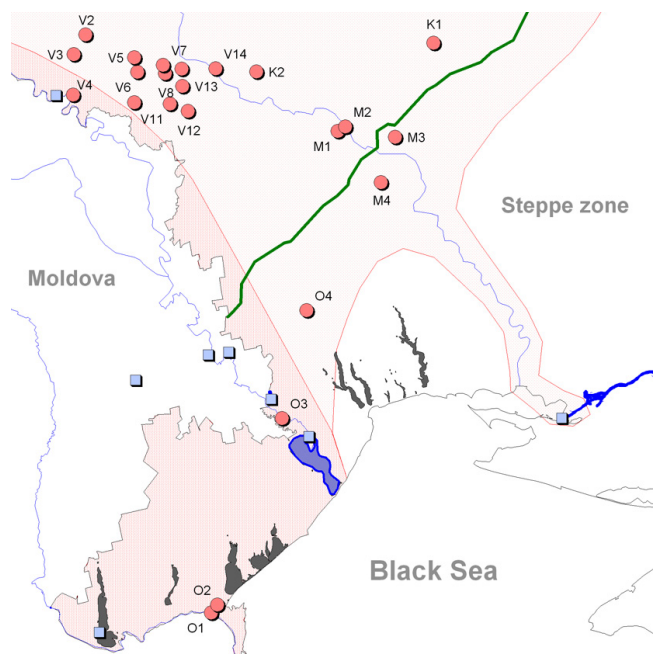
O1. Vylkiv District, Danube Delta, Stentsivka-Zhebryanivski wetlands; date: November 23, 2006; leg.: employee of Danube Biosphere Reserve; material: died cat was found in the area of fishery, skin was passed to ZMOU (No 2.2006), observation of two kittens; publication: [35];

O2. Vylkiv District, Danube Delta, isl. Yermakiv (25th km of the Kilia (Chilia) branch of Danube, territory of the Danube Biosphere Reserve); date: May 22, 2007; leg.: G. Tokar; material: two kitten in hole of old *Salix alba* in riverine forest; publication: [35];

O3. Biliaivka District, vic. of village Yaski; date: 2000–2010; leg.: M. Rozhenko (first record after 15 year of species absence in the Dnister Delta was on December 11, 1998 [17]); material: captured male in 1998 (skull in NMNH No 14 009)⁶, direct observations of animals and tracks after 1998, in 2012 two specimens were found as roadkills (samples in ZMOU, Odesa), February–March, 2013 observation of copulated animals and (later) tracks of female with kittens; general abundance in Delta was estimated as 5–7 specimens [10], during 2012–2013 noticeable increase of number take place (M. Rozhenko, pers. com.); publication: [10, 17];

Fig. 10. Fragment of map of wildcat distribution in the Northern Black Sea Region (Odesa, Mykolaiv and Kherson Regions). Closed area was area of species distribution according to last edition of RDBU [24], light-gray polygon mark new range, that was not known in RDBU

Рис. 10. Фрагмент мапи поширення kota лісового у Північному Причорномор'ї (Одеська, Миколаївська та Херсонська області). Темна заливка – ареал поширення виду згідно з останнім виданням Червоної книги України [24], світло-сірий полігон позначає новий ареал, що не був відомий у Червоній книзі України



⁶ The collection number was described in paper by L. Shevchenko & V. Peskov [21].

O4. Velyka Mykhailivka District, between village Chapayeve and Chervonoznamianka (Chervonoznamianka is situated in Ivanivka District); date: November 8, 2008; leg. anonymous hunters; material: 1 male (L = 78 cm, Ca = 29.5 cm, W = 6.25 kg) killed in small forest; publication: [2] (earlier: Arkhipov in [22], mentioned just name of District, without details, with reference to A. Arkhipov, pers. com.). Additional data: earlier this species was noted for neighbor parts of the Dnister marshes [18–19] and in the Reni District (village Novosil'ske; 1983) near the Danube Delta [21].

Mykolaiv Region (Fig. 10–11):

M1 & M2. Kryve Ozero District, village Sekretarka, 1 km NE and 2 km SW, date: since 2005 each year until 2013; leg.: A. Andrusenko & V. Khitushko (data came from hunters); material: skins in collection of residents from hunters (each year more than 2–3 cats for private collections, cats named by hunters as “jungle cat”); publication: this article;

M3. Pervomaisk District, village Grushivka, 3 km SSE; date: October, 2013, March, 2014; leg.: A. Andrusenko; material: figure in hunting shop (Fig. 5), skin with skull of 2nd specimen were in collection of authors (work collection of I. Zagorodniuk); publication: this article;

M4. Domanivka District, Marynivka, 3 km SW, floodplain forest; date: 2012; leg.: data from hunters; material: figure in Mykolaiv Nat.-Hist. Museum (some hybrid signs in coloration); publication: this article.

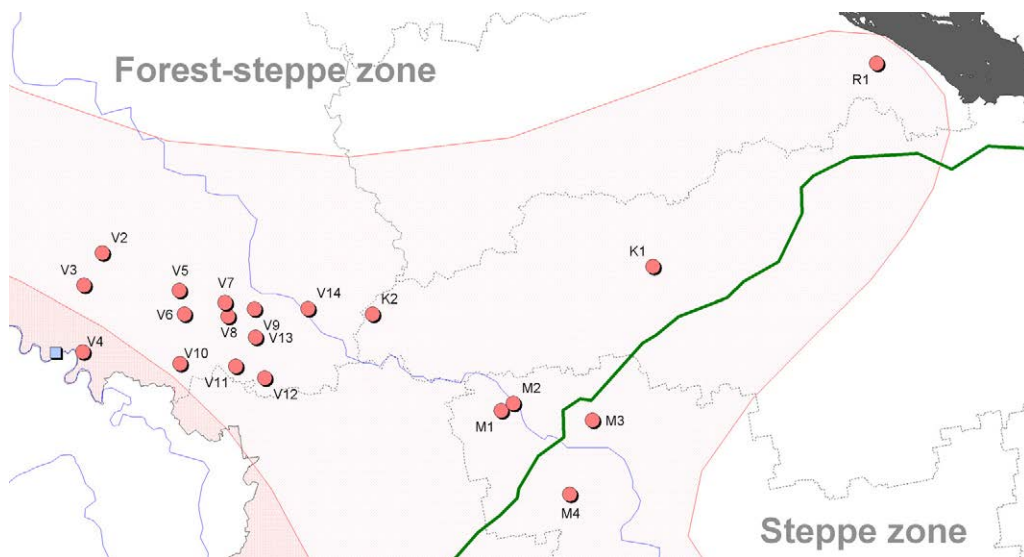


Fig. 11. Fragment of the map of the wildcat distribution in the East of Podillia and Dnipro Region (Mykolaiv, Kirovohrad and Cherkasy Regions). Closed area was area of species distribution according to last edition of RDBU [24], light-gray polygon mark new range that was not known in RDBU

Рис. 11. Фрагмент мапи поширення kota лісового у Східному Поділлі та Придніпров'ї (Миколаївська, Кіровоградська і Черкаська області). Темна заливка – ареал поширення виду згідно з останнім виданням Червоної книги України [24], світло-сірий полігон позначає новий ареал, що не був відомий у Червоній книзі України

Kirovohrad Region (Fig. 11):

K1. District unknown, loc. unknown; date: January, 2012; leg. P. Foroschuk (sample from hunters); material: skin (see: Fig. 3) in private collection (studied), description of this finding is presented above; publication: this article;

K2. Gaivoron District, near village Vilkhovetske, Vilkhovetske Forestry; date: 2001 and January–February, 2009; leg. V. Trofimchuk (2001), S. Zhuk (2009); material: video and 2 killed cats (skins and skulls) deposited in NMNH (No 16339 ♂ and 16346 ♂⁷), one of cats (killed in 2001) prepared as figure

⁷ In different parts of this article, authors noted that the male of the animal was described by different numbers, No 16346 & 16343.

and passed to some school in Kirovohrad, in total 5 wildcats were registered in this forestry; publication: [21] (also: [22], without details, with reference to "L. Shevchenko & O. Dudkin, pers. com."). Residents (hunters and workers of forestry) consider cat as animals, which appeared in this forestry just recently [21].

Cherkasy Region (Fig. 11):

R1. Chyhyryn District, village Zamiatnytsia; date: September 18, 2013; leg.: O. Halushko and B. Lehoniak; material: large killed animal (9.8 kg; see: Fig. 2), skull in work collection of I. Zagorodniuk; publication: this article. **R1a:** one more (?) record came from resident from village Lubentsi in the same District: large wildcat was killed by hunter "recently" near the village (A. Sahaydak, pers. com.); this information can be the same as described in this point (**R1**).

OVERALL RANGE AND HABITATS

Range of the wildcat distribution covers large areas from Carpathian Mts. to Dniipro river in the East and Northern Black Sea Region in the South-East. Number and density of known records was decreasing in the mentioned directions (Fig. 12). In most of

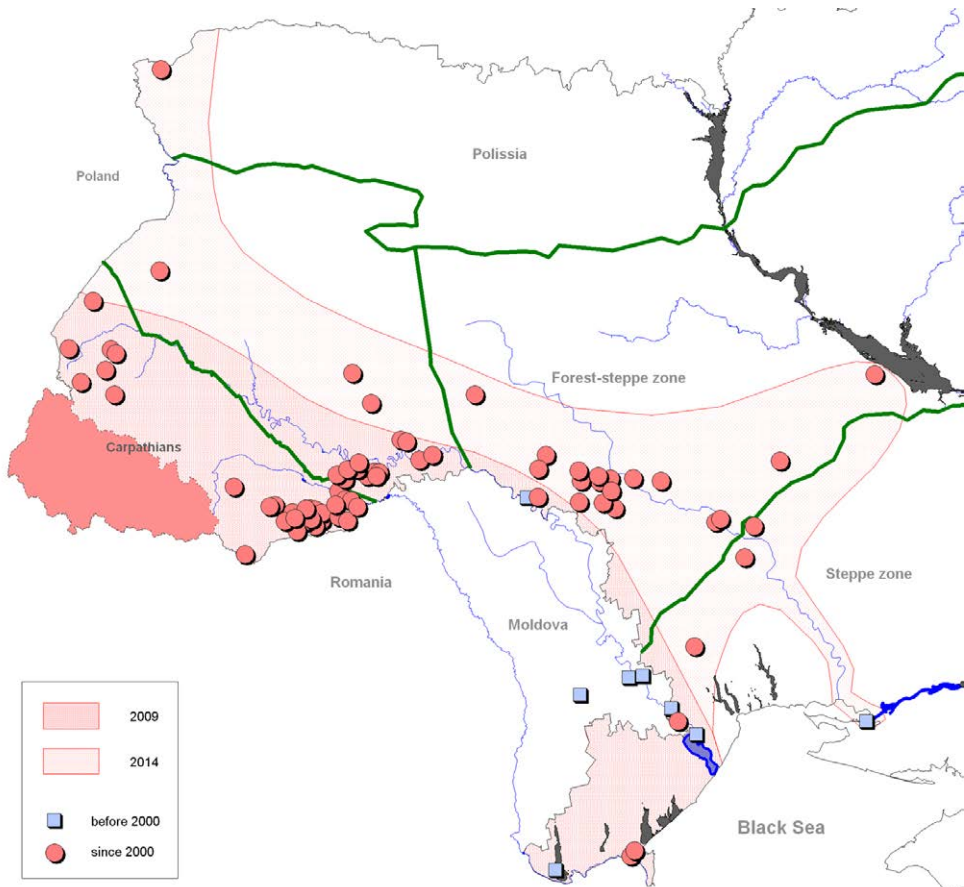


Fig. 12. Overall wildcat geographic distribution in Ukraine. Changes of range was analyzed using data of different age, before and after 2009 (last edition of the Red Data Book of Ukraine [24])

Рис. 12. Загальна схема географічного поширення kota лісового в Україні. Зміни ареалу можуть бути проаналізовані з огляду на дані різного часу, до і після 2009 р. (останнє видання Червоної книги України [24])

narrow places extension of known range was exceed 70 km, and in most wide places (it is more than 250 km). Probably, it happened in last 2 decades, and tempo of species expansion to East can be estimated as about 50–100 km/decade.

Previous authors considered that the geographical distribution of this species in Podillia is associated with valley of the Dniester river and its main habitat as fragments of forests with permanent watercourses [22]. Our data suggest some relations of the species range with river valleys. These finds were very often situated near small villages at distances 100–200 m to 3–5 km from them. In general, geographical range was not solid and had lace-type. Most of the species records demonstrated close relationship with sparse deciduous forests and floodplain forests that naturally were in river valleys, especially on the East and South-East of the region (it was the steppe zone).

According to data obtained by Yu. Tkachuk [34], in Bukovyna wildcat used the burrows of badgers and foxes for its breeding lairs, and it was very rarely used the holes in the trees. In Podillia, M. Shkvryya [22] indicated preference of tree-holes. New data was not sufficient to such analysis for new parts of geographical range.

CHANGES IN THE NUMBER AND DYNAMICS OF THE RANGE

Most researchers have noted that the number or the frequency of wildcat registrations in most regions was increased, except the Carpathians. The increase in the number of cats was reported in the Black Sea region [10] and in the Central Podillia [23, 28]. There were new discoveries in previously "silent" areas, including both the Central Podillia and Left-bank Dnipro region (this paper). There were new records of the wildcats in Danube Delta [35] and Lower Dniester [2], in Bukovyna [34; this article] and in Lviv Region (this article).

One of the most numbers of wildcat in a last time was demonstrated for Eastern Podillia [21–22]. In total, 20 specimens of this species were found there, it indicates expansion beyond the known area of dwelling [22]. In this regard, new species finds in Kirovohrad, Mykolaiv and Cherkasy regions were not seem random. Such registration can be viewed not as a result of new research in previously unstudied areas, but it can be considered as the appearance of the species due to natural settling of the more western areas. So, distance between Vinnytsia and Cherkasy was about 280–300 km, and expansion of the wildcat to the East seems a natural process.

There was a clear disparity in the distribution of the species (available data) in a space. This was evident both in areas with a high density of the population (including Bukovyna), and in areas of relatively low density of finds (Podillia). Based on these data, we can talk about some ecocorridors in the distribution of the species in the east of its modern range. One of the ways was described long time ago: it was the Dniester River floodplain, including the Dniester marshes and floodplain forests (for review see: [8]). Another way was associated with slope forests of Podillia Upland and extends along the Dniester, but it was not directly related with riverine ecosystems. The way (thickening of finds on the map) crosses the valley of the Prut and the Dniester and Bug (see: Fig. 12).

Main factor of the expansion of wildcat to East, on our mind, was the growth of its number in "old" parts of species range. So, the increasing of the wildcat number was described for population in Bukovyna, where general number before 2000 was about 60–90 specimens, and after 2005 was 120–160 specimens [11]. Strong tendency to the growth of the wildcat number in 2–3 times during last decade in Odesa Region was pointed by M. Rozhenko (see above). Appearance of new records after long time of the

species absence as well as the growth of the number of known records was in the Western Polissia (Volyn Region) [36], Western Podillia (Khmelnyskyi Region, in this article), and Eastern Podillia (Vinnytsia Region, in this article). Based on these results, the expansion of the wildcat's range in Ukraine can be explained as result of the growth of the general number of the wildcat population.

MORPHOLOGICAL PECULIARITIES

The typical to Ukrainian populations among important morphological features were following:

- 1) the fur coloration in general was yellowish gray, presence of several dark bands on back of head and along the vertebra from ears to the root of tail;
- 2) two parallel rows of 4–5 darkish spots was on the belly (see: Fig. 3 and Fig. 9); tail was typical dark bands with long dark segment on the end;
- 3) body size was large, body length (L) was 60 to 75 cm, weight (W) was about 5.5 to 10 kg;
- 4) tail was relatively short (40–50 % of body length), 3 dark rings were in on distal part and dark end of the tail (about 3 to 5 cm in long);
- 5) hindfoot was large (about 14.5–17.0 cm), soles of paws were dark (black), the paws were large, the hind paws made the tracks about 40 × 45 mm;
- 6) the skull length (CRA) was 90 to 110 mm (condylobasal 80–100 mm), upper toothrow was 30–40 mm; the mandible length was 60–66 mm⁸;
- 7) the skull usually without or with small depression of the nasal area; the feature was very variable but this depression was absent for typical wildcats [21]⁹.

The skull of the wildcat from easternmost record of this species was presented in Fig. 13.



Fig. 13. Skull of the wildcat from Chyhyryn District, Cherkasy Region (location R1; collection of authors). General length CRA = 110.3 mm

Рис. 13. Череп kota лісового з Чигиринського району, Черкаська обл. (місцезнаходження R1; колекція авторів). Загальна довжина черепа CRA = 110,3 мм

⁸ Some authors use the volume of the brain box for the diagnostics and description of the samples [25].

⁹ This authors noted that this facture as "sign of Soungoni", that was erroneou spelling of the name of Dr. I. Szunyoghy [29], that should be spelled from Hungarian as "Sunyogi" or "Soonyugi".

A lot of authors have noted that most of the features have very small diagnostic values, mainly due to small differences between the wildcat and the domestic cat as well as wide hybridizations between them (see: [21]). It was very interesting that most of the peculiarities of *Felis sylvestris* were most expressed especially in the eastern-most populations. So, the relatively small body sizes with body length about 61 (51–78) cm and body size about 5.2 (1.0–8.0) kg (see: [25], n = 31 males) for Central Europe and Western Carpathians were described. The cats from Podillia and Dniested region have bigger measurements of the skull compared to the above average value (Table 2).

Table 2. External and cranial features of the wildcats from different regions*

Table 2. Екстер'єрні та краніальні ознаки kota лісового з різних регіонів*

Character	MOLD: Tiraspol & Bendery	ODES: Dnister Delta	LVIV: Mokrotyn	CHRN: Hlyboke	VINN: Trostjanets	KIRO: Vilkhovetske Forestry		KIRO: Kirovo- hrad	CHRK: Chyhyryn	Limits
	2♂ + 1♀ NMNH*	♂ No 14009 NMNH	♂ No 985 ZMD	♂ No 13292 NMNH	♂ No 16285 NMNH	♂ No 16343 NMNH	♂ No 16339 NMNH	♂ without No, PR-col.	♂ No M0090 col. of authors	n = 10
<i>Body</i>										
W (kg)	–	–	–	–	–	5.5	8.5	–	9.8	5.5–9.8
L	–	56.0	–	63.0	–	60	68	74,8	~65*	56–75
Ca	–	29.0	–	25.8	–	32	35	25,4	~33	25–35
Au	–	6.0	–	6.0	–	5.0	6.0	~5	~5*	5–6
PI	–	–	–	14.5	–	16.5	17.0	–	~16	15–17
<i>Skull</i>										
CRA	87.8–91.8	94	92.8	103	100	98	102	–	110.3	88–110
CBL	81.8–85.0	87	84.5	93	–	–	93.5	–	100.0	82–100
Zyg	62.0–67.0	61	66.0	71	–	–	70.5	–	75.8	61–76
IOR	17.2–18.1	16	17.6	20.5	–	–	19.0	–	21.4	16–21
HCR	–	43.5	44.0	46.5	–	–	46	–	44.6	44–46
BCR	42.2–46.3	43	42.0	47	–	–	46.5	–	46.1	42–47
BCRm**	–	43	39.8	46	–	–	45.5	–	47.4	40–47
UTRow	30.2–31.0	37.5	37.4	39.5	–	–	40.5	–	39.6	30–40
Mand-L	–	61	59.0	66.5	–	–	68.5	–	66.3	59–66
Mand-H	–	26	27.6	30.5	–	–	30.5	–	30.7	31
Reference	[8]	[17]	this article	[34]	[21]	[21]	[21]	this article	this article	this article

Comments: * Codes of the regions: CHRK is Cherkasy Region, CHRN is Chernivtsi Region, KIRO is Kirovohrad Region, MOLD is Moldova, ODES is Odesa Region, LVIV is Lviv Region, VINN is Vinnytsia Region; ** dimension BCR is width of braincase, BCRm is maximal width between mastoid process. Skull measurements for samples No 13292, 14009 and 16339 were reported by V. Peskov (pers. com.).

Примітки: * Коди регіонів: CHRK – Черкаська обл., CHRN – Чернівецька обл., KIRO – Кіровоградська обл., MOLD – Молдова, ODES – Одеська обл., LVIV – Львівська обл., VINN – Вінницька обл.; ** виміри BCR – ширина мозкової капсули, BCRm – максимальна ширина між мастоїдними виростками. Черепні виміри для № 13292, 14009 та 16339 наведено за В. Песковим (особ. повід.).

It is interesting to note that the wildcats from Ukraine are characterized by relatively large body and skull size in comparison with cats from the west- and central-European populations. Thus, the smallest cat of Ukraine reaches larger body and skull size than the average values of these parameters for the cats from westernmost populations. The biggest cats had body weight about 9–12 kg (see text) and general length of skull 102–110 mm (see: Table 2). Perhaps, the large values of the wildcat's dimensions from Ukraine were associated with more stringent selection of the data by criteria "feral or wild cat".

Next important note was reported about the hybrids, which were regularly registered for this species [21, 40]. However, we have not studied this question in details but we paid our attention to the cases of the detection of the deviations from the typical morphotype ("wild-type"). Such finds were only in two localities: L1 (Lviv Region) and M4 (Mykolaiv Region). Both these localities were peripheral and corresponded to new parts of the species area after its expansion. So, most of new parts of the species range, specimens with some hybrid signs were registered in Lviv, Mykolaiv and Cherkasy Regions. Some of them had dark spots of the face and relatively long tail etc.

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КИТ ЛІСОВИЙ (*FELIS SILVESTRIS* SCHREBER, 1777) В УКРАЇНІ: СУЧАСНИЙ СТАН ПОПУЛЯЦІЙ ТА ЕКСПАНСІЯ ВИДУ НА СХІД

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Розглянуто сучасний стан популяцій kota лісового в Україні на підставі докладного огляду й аналізу всіх його знахідок до 2000 р. (анотації) і після 2000 р. (з детальним кадастром). Узагальнено дані про 71 сучасну знахідку в 10 адміністративних областях

України, в тому числі Львівській (8), Волинській (1), Івано-Франківській (2), Чернівецькій (31), Хмельницькій (4), Вінницькій (14), Одеській (4), Миколаївській (4), Кіровоградській (2) і Черкаській (1). Представлено деталізовані карти поширення виду в окремих регіонах та в Україні загалом і аналіз темпів експансії та напрямів змін меж поширення. Охарактеризовано морфологічні особливості зразків з території України.

Ключові слова: кіт лісовий, стан популяцій, географічне поширення, експансія, Україна.

КОТ ЛЕСНОЙ (*FELIS SILVESTRIS* SCHREBER, 1777) В УКРАИНЕ: СОВРЕМЕННОЕ СОСТОЯНИЕ ПОПУЛЯЦИЙ И ЭКСПАНСИЯ ВИДА НА ВОСТОК

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Рассмотрено современное состояние популяций кота лесного в Украине на основании детального обзора и анализа всех его находок до 2000 г. (аннотации) и после 2000 г. (с детальным кадастром). Обобщены данные о 71 современной находке в 10 административных областях Украины, в том числе Львовской (8), Волынской (1), Ивано-Франковской (2), Черновицкой (31), Хмельницкой (4), Винницкой (14), Одесской (4), Николаевской (4), Кіровоградской (2) и Черкасской (1). Представлены детализованные карты распространения вида в отдельных регионах и в Украине в целом, а также анализ темпов экспансии и направлений изменения границ распространения. Охарактеризованы морфологические особенности образцов с территории Украины.

Ключевые слова: кот лесной, состояние популяций, географическое распространение, экспансия, Украина.

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