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THREATENED MAMMALS IN EUROPE

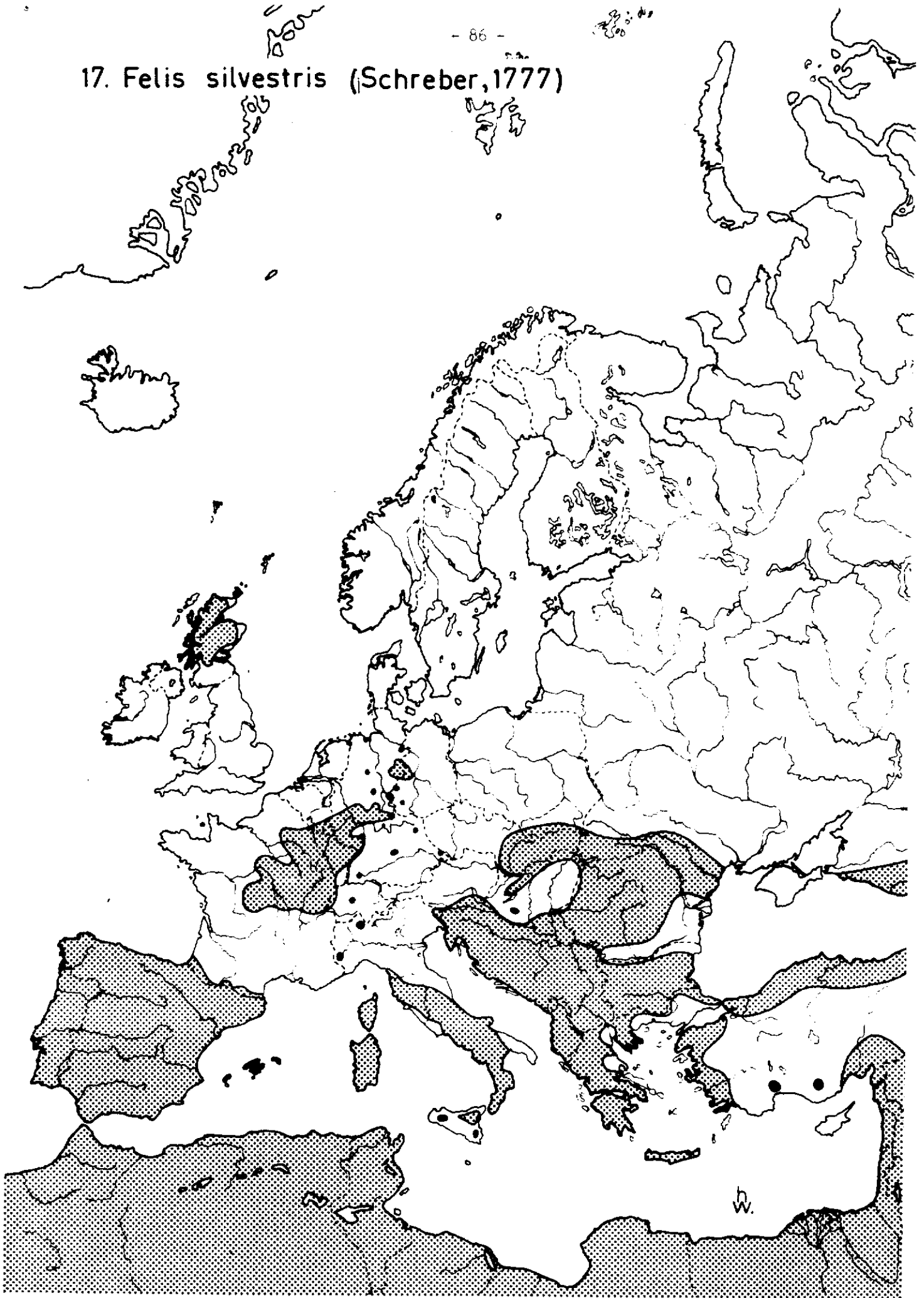
by

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17. *Felis silvestris* (Schreber, 1777)



17. Felis silvestris (Schreber, 1777)

E. European wild cat

Order : Carnivora

G. Wildkatze

Family : Felidae

F. Chat sauvage d'Europe

Classification : XXX

Distinguishing characteristics

The wild cat closely resembles a large tabby. It can be recognised not only by its superior size and strength but also by the broader head and the shorter, thicker tail which does not taper. The body is yellowish-grey, with a dark stripe along the middle of the back and almost vertical stripes of the same colour running down from it. These stripes become almost horizontal on the limbs and the tail, which has dark rings, terminates in a black tip. The average body length is 60 cm, the tail length 32 cm. Wild cats can reach a height of 40 cm and a weight of 10 kg. The females are smaller than the males. There are many subspecies and a gradual transition occurs from the greyish European form to the yellow African and Asiatic steppe forms.

Biology

Wild cats inhabit woodland having open areas and brushwood but also treeless mountain terrain. Except during the breeding season they live solitarily in a territory with a home range of 60-70 hectares. In most cases they are active during the night, but usually only late in the evening and early in the morning. Under special weather conditions they may also hunt during the day. In the winter they may wander over rather long distances. They feed mainly on small rodents and shrews, but also take hares, rabbits and ground-dwelling birds. They can kill an animal as large as the fawn of a roe deer. Mating takes place in February or March. In May, after a gestation period of 63 days, the kittens, usually 3, are born in a den made in a natural cavity between rocks, a badger set or a hollow tree. Generally there is only one litter every year. The young stay with the mother for about 5 months. They reach sexual maturity in the year after their birth.

World distribution

Occurs in Scotland, central, southern and south-eastern Europe, in large parts of Africa, in Israel, Arabia, Iraq, Iran and Afghanistan, in the central, western and north-western parts of India, in western and eastern Turkestan and in southern Mongolia (Haltenorth, 1957).

Former European distribution

Wild cats lived in Great Britain and in all wooded regions south of the Netherlands and the German, Polish and Russian lowlands.

Present distribution

Great Britain: Formerly, Wild cats were distributed throughout the British Isles, with the possible exception of Ireland. They disappeared from England, Wales and southern Scotland at the end of the nineteenth century. After World War I, the species recovered in the Scottish Highlands (Jenkins, 1962; Southern, 1964) and now occurs all over the Highlands (Corbet, 1971).

Belgium: Wild cats occur in the provinces of Luxembourg and Namur (Frechkop, 1958); however, according to a detailed map on the recent distribution in this country, published by Parent (1975), they occur in the wooded areas of Lorraine only.

Netherlands: van Bree (1963) reports the catching of one specimen in the southern part of the province of Limburg. This is the only known observation of the Wild cat in the Netherlands.

Luxembourg: No recent information is available. In the 1930s they still occurred in not very small numbers in the great forests of this country (Ferrant, 1931).

France: Condé et al (1972) examined the stomach contents of 139 specimens, originating from the following departments: Allier (1), Côte d'Or (10), Jura (5), Marne (2), Haute-Marne (1), Meurthe-et-Moselle (47), Meuse (22), Moselle (14), Nièvre (1), Basses-Pyrénées (3), Bas-Rhin (2), Haute Saône (1), Saône-et-Loire (4), Vosges (25) and Yonne (1). This species also occurs in the Pyrénées-Orientales and on Corsica (Didier and Rode, 1935).

Fed. Rep. of Germany: Heavy hunting from 1848 to 1934 drove the Wild cat into a few mountainous regions, e.g. the Eifel region, the western part of the Taunus, the Kaufunger Wald and probably also the Meissner regions. At one time the species probably also occurred in the Hunsrück and Pfälzer Wald. It has been protected throughout the year since 1934 and the numbers have been increasing, the total at present being put at at least 2,000. The highest population density is thought to occur in the Harz and the Eifel-Hunsrück region. A detailed analysis of the distribution is given in Röben (1974).

German Democratic Republic: This country has only wandering Wild cats, probably from the Harz mountains in the Federal Republic of Germany. Many of these Wild cats are shot under the misapprehension that they are domestic cats gone wild (Boback, 1971).

Switzerland: Along the Jura mountains on the French border, Wild cats are sometimes observed (Baumann, 1949; Herren, 1964). The species was introduced in the Bernische Bergland, but it is not known whether this was successful or not (Herren, 1964). In 1974/75 some 30 individuals were released at the foot of the Jura mountains in Vaud.

Austria: Wandering specimens from the Balkans are observed regularly in the provinces of the Steiermark and Kärnten (Haltcnorth, 1957). Following the western spread of the species in its Carpathian range in Slovakia, it is now starting to reappear as a straggler in Niederösterreich where it has been extinct since 1912 and in Oberösterreich, where it disappeared even earlier (Bauer 1976, written comm.).

Italy: Wild cats occur in the vicinity of Trieste, near Lago Maggiore and in the Alpi Maritime (Haltcnorth, 1957). On Sicily, Wild cats only occur in the mountains in the north and southeast. On Sardinia, the subspecies *Felis silvestris sarda* occurs (Kumerloeve, 1968). Further data on the distribution of the Wild cat in Italy are lacking. Information about the distribution on the peninsula is given by van den Brink (1968).

Spain/Portugal: Wild cats occur over the whole Iberian peninsula (Cabrera, 1914; Vericad, 1970).

Poland: Wild cats occur in the Carpathian (Sladek in Röben, 1974) but not in the Tatra mountains (anon., 1961).

Czechoslovakia: In Slovakia the Váh and Kysuca rivers form the western border of the Wild cat. In the mountains they are found up to 1,500 m. They have only been reported occasionally from Moravia. The total number of Wild cats in the country is estimated at 700 specimens (Hanák, 1967; Sladek, 1973).

Hungary/Romania: The species occurs mainly in the forested parts of the central mountains and rarely or never in the lowlands of these countries. In Hungary, Wild cats are scarce (Topal, in litt., 1975), in Romania they are rather common (Barbu and Homei, in litt., 1975).

Yugoslavia: According to Dulić and Milić (1967), Wild cats occur in all the republics of Yugoslavia.

U.S.S.R.: In the Caucasus Wild cats are found in the southern parts of the Krasnodar and Stavropol territories and the Groszny region. They also occur in small numbers in the Carpathians and in the forests of Moldavia (Novikov, 1962).

Bulgaria: Wild cats are rather numerous in the forests especially on the high plateau and in the mountainous parts of the country (Atanassov and Peshev, 1963).

Albania: According to van den Brink (1968), Wild cats occur throughout the country.

Greece: Wild cats live in the forested and mountainous areas in the northern, southern and central parts of the country (Ondrias, 1965). On Crete they only occur in the White Mountains and on some of the uninhabited peninsulas (Zimmermann, 1952 a).

Cyprus: Wild cats do not occur on Cyprus (Zimmermann, 1952 b).

Turkey: Wild cats occur in the mountain forests of northern Anatolia, along the west coast of Anatolia and on the plains around Adana. They also occur in Thrace, in the north-eastern part of the country along the Russian border, in the area southeast of Van Lake and in some places in the western and central Toros mountains (Kumerloeve, 1967).

North Africa: Wild cats are found in all steppe regions and rocky areas with bushes, from the coast of the Atlantic Ocean to the Sinai and the Red Sea, in the south to 10° latitude and in the highlands of Ethiopia except in Ahaggar and Azdjer (Haltenorth, 1957).

Middle East: Wild cats occur in Israel, western Arabia as far south as Aden, north-eastern Arabia and Iraq (Haltenorth, 1957).

Reasons for decline

Because Wild cats are considered to be harmful to game, they are persecuted by hunters and are therefore rare in large parts of their habitat.

Protective measures already taken

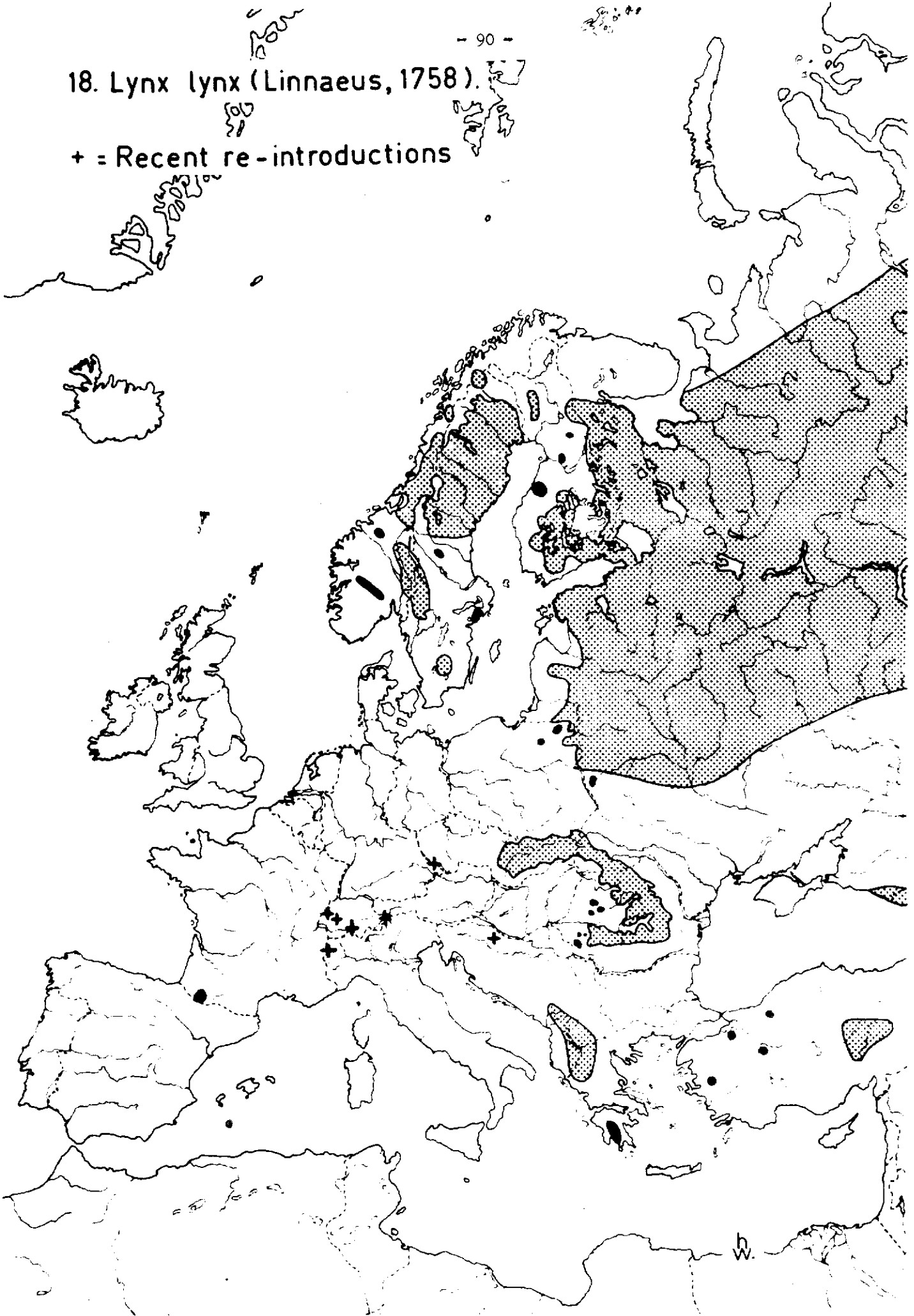
They are protected by law in some parts of Austria, in Switzerland, the Federal Republic of Germany, the German Democratic Republic, Spain, Poland, France and the western part of Czechoslovakia.

Protective measures proposed

Protection should be extended to the other countries in which the Wild cat is still found, to ensure its survival in areas where it is now rare.

18. *Lynx lynx* (Linnaeus, 1758).

+ = Recent re-introductions



18. Lynx lynx (Linnaeus, 1758)

E. European lynx

Order : Carnivora

G. Nordluchs

Family : Felidae

F. Lynx d'Europe

Classification : XXXX

Distinguishing characteristics

The lynx, a large member of the cat family, is characterized by its beautiful fur, varying from sandy to rufous grey, the underparts being spotted with white. It has long tufts of hair on the top of the ears and "side whiskers" on the cheeks. The length is 80-130 cm, excluding the tail which is only 11-24 cm. The shoulder height is 60-75 cm. A weight of up to 30 kg can be reached. There are many local variations.

Biology

The lynx is usually active during the night. It is found in mountainous areas, in the taiga, but also in mixed and deciduous forests. In the mountains it lives at altitudes of 2,500 m and higher. Lynxes are expert climbers and are often seen in trees. They maintain a territory with an area of 1,000 - 2,500 hectares. They feed on hares and other rodents, birds, small ungulates like the roe deer, occasionally on fish, insects and carrion. In northern regions they may also take reindeer. They often hunt from an ambush. Food is not stored; when it is scarce, the animals may leave their territory and migrate over large distances. The kittens, mostly 2 or 3, are born in May, after a gestation period of 63-70 days, in a den usually made in a rocky crevice or under a fallen tree. They stay with their mother for 8-9 months. The male shares the training of the young with the female.

World distribution

The lynx occurs in Europe, Asia Minor, Iran, Kashmir, Asian U.S.S.R. as far east as eastern Siberia (but not on Kamchatka), Tibet, Sinkiang, Mongolia and north-eastern China, as well as in the forest zones of North Africa (Novikov, 1962).

Former European distribution

In the beginning of the historical period the lynx occurred everywhere in Europe except in Iceland, the British Isles, the northern part of Scandinavia, Denmark, the Netherlands, Belgium, the Mediterranean islands and southern Greece. Around 1800, they still occurred in large parts of Europe, i.e. in southern, central and south-eastern France, northern Italy, central and southern Germany, western Czechoslovakia, Switzerland, Austria, the eastern part of Hungary and the central and eastern parts of Poland. They were widespread throughout Scandinavia (Kratochvíl, 1968 a).

Present distribution

Norway: The lynx occurs in several areas in the northern, central and south-eastern part of the country. The number in Norway seems to be increasing, probably due to the decrease in the wolf population, the increase in the Roe deer population and the light hunting pressure after the Second World War. Immigration from Sweden probably takes place. The number of lynxes in Norway is estimated to be 150 specimens, but may be much larger. Between 1-7-1960 and 30-6-1968, 286 specimens were killed.

Sweden: The largest number of lynxes in Sweden is found in the provinces of Norrbotten and Västerbotten. Small migrating populations occur in Värmland and Kronoberg. During a census in 1950-1951, 162 specimens, belonging to resident populations, were counted. This relatively large number was due to the fact that the lynx was totally protected by law from 1928 to 1943. In 1928, the species was almost exterminated in Sweden due to the severe hunting pressure. In the spring of 1957, 127 specimens were counted, in the fall of 1959, 249. From 1965 to 1967, the annual kill was 45-55 specimens.

Finland: The lynx has been totally protected in Finland since 1968. The population reached its lowest point in the 1950s. In 1963, the number was estimated to be 30-40 specimens. Now they have increased to 100-200 (Pulliainen, 1972). The lynx occurs along the eastern border and the central part of southern Finland (Pulliainen, 1968).

U.S.S.R.: The lynx does not occur on the Kola peninsula, is numerous in the Novgorod, Pskov and Estonian regions and in the surroundings of Leningrad. In the Lettish S.S.R. it occurs only along the eastern border, in the Lithuanian S.S.R. only along the north-eastern and eastern borders. It occurs irregularly in the surroundings of Kaliningrad and only in small numbers in the Belorussian and Ukrainian S.S.R. The lynx is not found in the Moldavian S.S.R. (Novikov, 1968). A detailed map on the occurrence of the lynx in the Ukrainian Carpathians was published by Tuzanin and Kolušev (1968). The southern boundary of the lynx in the U.S.S.R. is formed by the Chernigov, Penza and Tatr regions. In the Caucasus it is found from the coast of the Black Sea to the subalpine zone. The northern boundary of the range corresponds with the northern boundary of the taiga (Novikov, 1962). In general, the number of lynxes in the northern part of the country and the number in the south is decreasing (Novikov, 1968).

Poland: The lynx occurs in a few areas in the north-eastern part of the country, as well as in the Carpathians in the south. In 1963, the number was estimated to be 330 specimens (Haber and Matuzewski, 1968).

Czechoslovakia: The number of lynxes in the country seems to be increasing and was estimated to be 400-500 specimens in 1965. They occur in the Carpathians and adjacent mountain groups in the eastern part of the country. In 1963, a total of 80 specimens were killed. These were shot, poisoned or caught with traps (Hell, 1968).

Romania: The lynx occurs throughout the Carpathian mountain chain. Between 1956 and 1962, the total number was estimated at 1,000-1,200 specimens. Every year about 100-150 specimens are shot. The largest numbers occur in the eastern part of the Carpathians and in the Bazan, Baraolt and Cluj mountains (Kratochvíl, 1968 b).

Yugoslavia/Albania/Greece: The lynx only occurs in western Macedonia and south-western Serbia and probably also in the adjacent mountain areas of Albania and north-western Greece. The number of lynxes in Yugoslavia is estimated to be 50-70 specimens (Kratochvíl, 1968 c). Recently, 3 pairs have been introduced into Slovenia (anon, 1974). In Greece they also occur in the Taygetus mountains in the south of the Peloponnesus (Vasiliu and Decei, 1964).

Turkey: The lynx is rare in the north-eastern part of the country. It occurs in northern Anatolia, along the coast of the Sea of Marmara and is observed rather often in the surroundings of Albistan, Andirin, Göksun, Maras and the mountain forests of the Toros Daglari. In western Anatolia they are seen near Izmir and Afyon Karahisan. They also occur near Lake Van and in the extreme east and southeast of the country (Kumerlovee, 1967).

Switzerland: The lynx has been reintroduced into the Alps, the Jura region (Baud, in litt., 1975) and into the National Park. There are between 15 and 20 animals present at the moment.

Italy: Extinct since 1910 (Vasiliu and Decei, 1964). Introduced into the Gran Paradiso National Park in 1975.

Austria: Extinct since 1872 (Vasiliu and Decei, 1964).

Germany: Extinct since 1846 (Vasiliu and Decei, 1964). In 1970 a pair was introduced into the Bayrischer Wald National Park in the Federal Republic of Germany (Hell, 1971). There seem to be 15 individuals now and further reintroductions in other places are planned.

France: A few individuals belonging to the north European species still occur in the western Pyrenees ; this has been established by the discovery of bone remains, some very recent. The animal or its tracks are occasionally seen (F. de Beaufort, 1965).

Bulgaria: Extinct since 1935 (Atanasov, 1968).

Hungary: Extinct since 1915 (Kratochvíl, 1968 d).

Reasons for decline

The disappearance in Central Europe and the shrinking distribution in northern and eastern Europe are due to continuous persecution by hunters. The species is seen as a pest to game animals and the fur is valuable.

Protective measures already taken

The lynx is totally protected in Finland, France, the Federal Republic of Germany, Switzerland and Liechtenstein. There are hunting laws in Sweden, where there is an open season in December and January, in Poland, Romania, Yugoslavia and Greece.

Protective measures proposed

Abolition of bounty systems like the one still in effect in Norway and banning of the use of poisoned bait and traps. Hunting restrictions should be provided by law in all countries on the basis of good management of the lynx population, not for extermination. Reintroduction in regions where the species formerly occurred should be considered.

19. *Lynx pardina* (Temminck, 1824).



the lynx and therefore a research programme was started in 1975. The lynx is protected by a hunting law and there are several reserves where lynxes occur (I.U.C.N., 1972; Baeta Neves and Flores Bugalho, 1973 and anon., 1974).

Protective measures proposed

Because information on the status of the Spanish lynx in both Spain and Portugal is scarce, scientific research on the numbers and status of the species should be started. Dependable enforcement of protective laws is imperative. The possibilities for the selection of suitable areas for reserves should be investigated.

20. *Panthera pardus* (Linnaeus, 1758).



20. Panthera pardus (Linnaeus, 1758)

E. Panther

Order : Carnivora

G. Panter

Family : Felidae

F. Panthère

Classification : XXXXX

Distinguishing characteristics

Panthers are large, slender cats. The colour of the fur is usually yellow, sometimes lighter and sometimes yellowish-red or yellowish-grey, with black spots profusely distributed over the entire trunk, tail and limbs. Males can reach a body length of 150 cm and a shoulder height of 75 cm. They weigh up to 40 kg. The tail is very long, up to 110 cm, usually more than half of the body length and is relatively thin. The body is in general more elongated, thin and slender than that of the tiger. Panthers are characterized by great strength and agility.

Biology

Panthers inhabit inaccessible mountain forests up to 3,500 m and usually avoid open plains. They have no difficulty in climbing rocks and trees. They usually hunt by night, preying on wild goats, roe deer, sheep and other ungulates, stealing up on them or ambushing them. When there is a scarcity of food they may take birds and rodents too. Occasionally, they attack domestic animals, particularly dogs. They lead a solitary life, migrating within the limits of extremely large regions. They build a den in rock crevices, caves or thickets. Two to five young are born in the den, which is lined with dry grass, in April or May, after a gestation period of approximately three months (Novikov, 1962).

World distribution

Panthers are widely distributed in Africa and Asia except in the boreal regions and the Tibetan plateau. *Panthera pardus tulliana* (Valenciennes, 1856) occurs from Asia Minor to Transcaucasia, in the south as far as Syria, Jordan, the Lebanon and Israel. *Panthera pardus panthera* (Schreber, 1777) occurs in Morocco, Algeria and Tunisia.

Former distribution

Panthers are not known to have been in Europe in historical times, except for the south-eastern part of the U.S.S.R. Formerly, *P.p.tulliana* was widespread over the whole Anatolian peninsula, *P.p.panthera* in many parts of Morocco, Algeria and Tunisia.

Present distribution

Turkey: The large population in Asia Minor has been reduced to a few relics. Most of the available information comes from two papers by Kumerloeve (197 and 1971), mainly based on occasional sightings and registered places where panthers have been shot. Some of Kumerloeve's information is rather old and a sighting does not mean that panthers still occur in a given area. His sightings include an area in the south-western part of Anatolia, the mountains of Madra Dagi, Kaz Dagi and Armutçuk Dagi, and from the surroundings of Bolu. Another area where panthers occur is the mountain chain of the Toros Dagları. The species is also found in the vicinity of the Van Gölü in the eastern part of the country ; it has also been seen south of this lake and in some places in the mountains northeast of Van Gölü. There are probably not more than 10 (anon., 1974) to 12 (I.U.C.N., 1972) breeding pairs in the whole country.

Middle East: There is very little information about the occurrence of the panther in this area. The only relatively recent records from Syria date from 1959 and 1961. Panthers sometimes enter the mountain area between the Lebanon and Israel. These are probably wandering specimens from Jordan, where they still occur in small numbers (Harrison, 1968; I.U.C.N., 1972).

U.S.S.R: P.p. tulliana is found in the Transcaucasus, Central Asia and India (Novikov, 1962). Numbers are not known, but the species is probably close to extinction in Turkmenia (I.U.C.N., 1972).

Morocco: P.p. panthera still occurs in the Haut-Atlas and Moyen-Atlas near Oulmès. In 1957, their number was estimated to be less than 50 (Panouse, 1957). Around 1964 they increased and the population was put at 50-100 specimens. At the beginning of the 1970s the numbers had decreased again (I.U.C.N., 1972).

Algeria/Tunisia: Panthers are found in the mountains in the north-eastern part of Algeria and the northern part of Tunisia, in the Kabylia massifs (Dupuy, 1967). They also occur in the Aurès Range in Algeria and in the forests between Bizerta and Tabarka and in the mountain scrub of Tamerza in Tunisia. No estimates on numbers are available for either of these countries (I.U.C.N., 1972).

Reasons for decline

They are overhunted for the skin, which is highly valued as a trophy. In addition they are considered to be a pest to domestic livestock and are persecuted on every possible occasion.

Protective measures already taken

Panthers are totally protected by law in Turkey, Israel and Morocco, and may only be hunted by special licence in Turkmenia, Algeria and Tunisia. There are reserves in Turkey, the U.S.S.R. and Algeria (I.U.C.N., 1972).

Protective measures proposed

Before locations are chosen for reserves, research should be done to determine which areas are of importance for panthers, i.e. in countries where there are no reserves for this species (Morocco, Tunisia and Jordan). Research on distribution and status would also be desirable in Algeria and Turkey. The establishment or enlargement of reserves in Morocco, Algeria, Tunisia, Jordan and Turkey could contribute to the preservation of the panther in the fauna of the Middle East and North Africa. Protective measures of this kind are a matter of the utmost urgency in various parts of the distribution area.

21. Panthera tigris (Linnaeus, 1758)

E. Tiger

Order : Carnivora

G. Tiger

Family : Felidae

F. Tigre

Classification : XXXXX

Distinguishing characteristics

Tigers are the largest of all cats. The Siberian subspecies can reach a body length of 280 cm and a shoulder height of 95 cm. The animals are mostly whitish-yellow to brownish-yellow with a pattern of vertical black stripes. They possess enormous claws.

Biology

Tigers are found in a broad range of habitats, from taiga to reed marshes, where they inhabit well-distinguished territories. The area chosen depends on local conditions and the abundance of their prey, which include many deer species and wild boars but also reptiles, crustaceans, rodents and other small animals. Large prey animals are caught only by a sudden attack. The gestation period is 95-100 days; a litter of 2-4 is born once a year and the young stay with their mother for up to 11 months.

World distribution

Many subspecies of tigers occurred from Turkey in the west over the whole of Asia south of the Caspian Sea, the Aral and Baikal lake regions and the Amur-Urssuri area, as far as the island of Bali.

Present distribution

The tiger still occurs in large parts of its former area, but the numbers have decreased drastically. In India, the country with the highest density, the number has fallen below 2,000.

To the surprise of even the present authors, tigers can still be found within the area covered by this report, i.e. that of the member states of the Council of Europe. In the Hakkiri-Siirt-Sirvan region forming the eastern tip of Turkey, some are shot each year.

The total number here is estimated at 4-6 by the National Parks Department. Whether the species still occurs in the north-eastern tip of Turkey is unknown (Kumerloeve, 1974), but a small population still exists in the southern tip of the Transcaucasus and perhaps even along the Caspian coast of Iran (Vuosalo-Tavakoli, 1975).

Reasons for decline

Because tigers sometimes attack cattle, when their normal prey animals are lacking, they are persecuted relentlessly in a large part of their area.

Protective measures already taken

Tigers are protected by law in Turkey.

Protective measures proposed

The very small population in Turkey can only be saved if close co-operation with the Iranian government can be maintained. In addition to the existing law, a suitable reserve could perhaps be established.