

Status of the Saker in Russia and Eastern Europe

Vladimir M. Galushin

Russian Bird Conservation Union, Moscow

v-galushin@yandex.ru

This review is based on all available publications as well as internet and personal information provided by researchers of the Saker in Russia over the last 20 years, including the majority of authors from the list of references.

Shrinkage of the Saker range

Monitoring of the Saker in Northern Eurasia, including the most intensive surveys in 1997-2002 run by the Falcon Research Institute (IWC Ltd) and financed by NARC and ERWDA (Abu Dhabi, UAE) and other sources, has shown a clear shrinkage and fragmentation of its range (Figure. 1). Even in recent handbooks (Hoyo et al, 1994; Tucker and Heath, 1994; Snow and Perrins, 1998) the Saker range covers over 3,000,000 km² of almost the entire countries of Ukraine, Moldova and southern Russia. However in these countries it now occupies 2-3x less area of about 1-1.5 mln. km² mostly within Asiatic Russia.

In Europe there are 3-5 fragments of the former Saker range with a few solitary pairs between them. Almost 150 pairs nest in Hungary where the Saker population is growing (in 1980 only 8 pairs were known) thanks to effective conservation measures, including artificial nests (Bagyura et al., 1994, 2003; Dudas et al., 2003). In Slovakia, Bulgaria and some other Balkan countries probably over 100 pairs live with increasing populations (Baumgart, 1991, 2000; Tucker and Heath, 1994; Stoyanov and Kouzmanov, 1998; Fox et al., 2003). Therefore, despite the high degree of Saker range fragmentation in Southern, Central and Eastern Europe the population outside Russia and Ukraine consists of about 250-300 pairs. The population is relatively stable or even increasing.

In the first half of 20th century the Saker range covered almost the entire Ukraine, Moldova and Southern European Russia (Dementiev and Gladkov, 1951; Averin et al., 1971; Zubarovsky, 1977). However, it shrank rapidly and at the beginning of 21st century turned into two enclaves isolated by some 2000 km. One is southern Ukraine including Crimea (Piluga, 1999; Vetrov, 2001) and probably Moldova with about 10 pairs at the end of 1980s (Ganya and Zubkov, 1989; Red Book of Republic of Moldova, 2001). The other is a south-eastern part of European Russia close



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to the Southern Ural mountains (Galushin and Moseikin, 1998, 2000; Galushin et al., 2001; Galushin, 2003; Fox et al., 2003; Karyakin et al., 2004). The last nesting areas between the Don and Volga rivers were deserted by 1990s. For example the very last Saker brood was seen about 50 km south of Moscow in 1996 (N.Sanin, pers. comm.). In the middle of 1990s a nest on a pole of a high voltage powerline run through agricultural landscape west of the Don river valley in the Lipetsk region (Sarychev, 1993) was deserted. At the end of 1990s no sakers have been noted along the Upper Don river and other areas where falcons had been numerous in the middle of 20th century; like the small "Tul'skie Zaseki" forests about 200 km south-west of Moscow (Likhachev, 1957; Solovkov et al., 1999), northern parts of the Orel region (Kharuzin, 1926) and Voronezh region (Barabash-Nikiforov and Pavlovsky, 1948). One nesting area at the Volga river bank that had been occupied by sakers for almost 20 years (Chernobai and Nikitina, 1990) up to 1998 (Lukyanov, 1999) was also deserted in 1999.

The disappearance of the Saker nesting populations from European Russia is predictable: it had either already happened at the very beginning of 21st century (personal opinion of V. Moseikin) or would happen in the coming years.

The Saker breeding range in Asiatic Russia looks like a relatively large enclave south of the Ural mountains with a chain of small fragments or isolated nesting areas along the state border with Kazakhstan up to the most solid and vast part of the range embraced the Altay-Sayan mountains and surrounding lowlands near the Baikal lake, in Khakassia, Krasnoyarsk Krai and Tuva, as well as its continuation in Mongolia, eastern Kazakhstan and probably north-western China. Changes in the Siberian part of the Saker range analyzed recently (Karyakin et al., 2004) were not so drastic as in Europe.

Decrease of Saker populations in Ukraine and Russia

In the past the quantitative characteristics of the Saker population trends were uncertain because population assessment in large areas, including entire countries was seldom calculated before the 1990s. However, analysis of local population changes allows us to suppose that in general they were relatively stable or slightly increasing during the first half of the 20th century. They began to decrease in 1950s – 1960s due to wide-spread use of DDT and other toxic chemicals, eradication of their principle food namely sousliks (*Citellus spp.*) and mass persecution of raptors. Despite the fact that the anti-raptor campaign stopped at the end of 1960s (Galushin, 1980) the Saker population decline continued and even accelerated in 1970s – 1980s up to an almost total crash in the Ukraine and European Russia in 1990s.

In southern Ukraine one enclave with about 80 Saker pairs at the beginning of 1990s was known in the Odessa District (Piluga, 1999). They changed their breeding habits from raptor's nests in trees to raven's nests on powerline poles (Piluga and Tille, 1991; Kostyushin and Miroshnichenko, 1995). This population continues to decline (V.Vetrov, pers. comm.). Another group of Sakers

nest on cliffs along the Crimean mountains and the Black Sea coast. It is relatively stable on a level of 40-50 pairs (Prokopenko, 1986; Klestov and Tsvelykh, 1999; Vetrov, 2001). East of the Crimea along the Azov Sea northern coast about 10 isolated pairs still occur (Beskaravaynyi, 1996, 2001; Andryushchenko et al., 1998; Vetrov, 2001). Therefore, a total Ukrainian population of the Saker consisted of 120-140 pairs at the end of 20th century (Vetrov, 2001), but it is likely to decline to less than 100 pairs (V.Vetrov and Yu. Milobog, personal comm.).

The Saker population decline in European Russia was previously discussed and showed that soon there will be nothing to discuss, because the Saker has almost disappeared there. Between the Don and Volga rivers the last breeding areas were deserted in 1990s. Some sightings of sakers in summer time (but not active nests) have been recorded at the North Caucasus: above the Ergeny Hills along an administrative line between the Rostov region and Kalmykia (Belik, 1999) and in Dagestan, where 5-6 pairs are assumed to live (Vilkov, 2001). East of the Volga river the last nesting pairs continue to disappear. For example, in the well studied Saratov region some areas like the Dyakov forest in 1930s were densely inhabited by Sakers with only 1-2 km apart (Volchanetsky and Yaltsev 1934). However, at the end of 1990s the Saratov region (101,000 km²) had from 10-15 to 35-40 breeding pairs (Moseikin, 1991; Zavyalov et al., 1999), while at the very beginning of the 21st century only 5-10 pairs remained (Antonchikov and Piskunov 2003). The total number of nesting sakers in European Russia (mostly within the Volga-Ural enclave) at the end of the 1980s and early 1990s was 100-150 pairs (Galushin and Moseikin, 1998, 2000; Red Data Book of Russian Federation, 2001; Galushin et al., 2001), while at the beginning of the 21st century it was estimated to be 2x-4x less with the total number from 30-50 pairs (Galushin, 2003) or not more than 25 pairs (Karyakin, 2004a, Karyakin

et al., 2004) or, in opinion of V. Moseikin (personal comm., 2004) already extinct. Despite very fragmented old data on the Saker numbers, their changes during 20th century can be roughly reflected on the graph (Figure 2).

So in Russia, Sakers only continue to breed regularly in Asiatic Russia. The Saker has been studied intensively there and in neighbouring countries from the beginning of the 20th century. A review of available information was published recently (Karyakin et al., 2004). The most populated enclave, namely the Altay-Tuva-Sayan area (over 450,000 km²) is inhabited by 1600-2100 pairs. At the neighboring Baikal lake area (c. 400,000 km²) 300-500 pairs live. A northern part of the third enclave namely the Ural-south-western Siberia area (over 250,000 km²) supports another 200-300 pairs in Russia. The latter number is close to populations in west-northern Kazakhstan (Bragin, 2001; Karyakin, 2004b).

The total Saker numbers in Russia are estimated as 2000-3000 pairs (Galushin, 2003), which continue to decrease almost everywhere. In some areas less than the half pairs are successful in breeding (Karyakin et al, 2004) and only 1000-1500 Saker pairs successfully nest in Russia annually.

Major threats to the Saker in Russia

The most dangerous threats to and causes of Saker population decline are well known and have been discussed in publications, and at various meetings and Internet discussion lists by B. Abdunazarov, A. Abuladze, J. Bagiura, N. Barton, V. Belik, E. Bragin, A. Davygora, C. Eastham, I. Fefelov, V. Flint, N. Fox, V. Galushin, S. Gombobataar, I. Karyakin, A. Kovshar, E. Kreuzberg-Mukhina, A. Kuchin, A. Levin, Ma Ming, V. Moseikin, E. Potapov, V. Ryabtsev, O. Shagdarsuren, E. Shergalin, E. Shukurov, S. Sklyarenko, A. Sorokin, D. Sumiya, V. Vetrov and many other specialists.

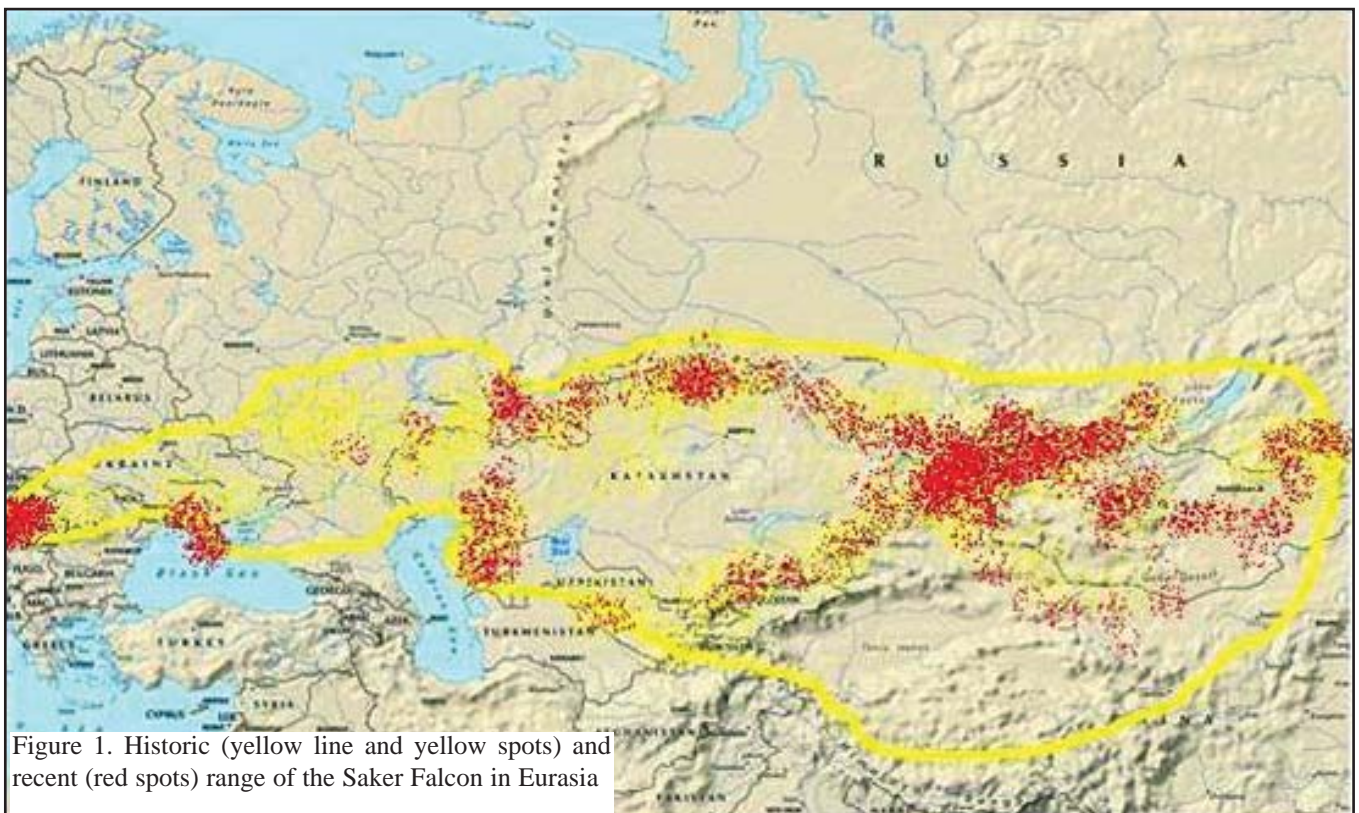


Figure 1. Historic (yellow line and yellow spots) and recent (red spots) range of the Saker Falcon in Eurasia

The major threats in European Russia are habitat changes, human disturbance and robbing of the last saker nests. The cause of the Saker decline in Eastern Europe was food shortage due to total disappearance of sousliks caused by attempts of their eradication in the middle of 20th century. Warmer climate and lack of grazing resulted in the grass growing denser and taller than 20-30 cm which is no longer acceptable both for the European (*Citellus citellus*) and most of all for the Little (*C. pygmaeus*) sousliks. At the end of 20th century a collapse in agriculture led to sharp decrease of live-stock and grazing pressure on pastures which, together with warmer climate triggered the pastures to be rapidly overgrown with tall dense grass and shrubs which accelerated further shrinkage of souslik habitat. This phenomenon deserves regular monitoring (Galushin and Zubakin, 1998; Moseikin and Belyanin, 2001; Galushin et al., 2001).

A shortage of particular nesting habitats including suitable cliffs and ready-made nests of other raptors and ravens also limited the Saker breeding chances in forestless areas. However falcons have adapted to use man-made structures like powerline poles, bridges, ruins, etc. (Sarychev, 1993; Piluga and Tille 1991; Ellis et al., 1997; Potapov et al., 1999, 2003). In this respect a unique record of the Saker recent nesting on the ground amidst flat grasslands in Mongolia is quite indicative (Potapov et al., 2001). In Hungary the Sakers readily occupy artificial nest trays (Dudas et al., 2003).

A new danger for all rodent-eating raptors including the Saker has been reported in Mongolia where a highly toxic chemical bromdialon started to be used against the Brandt's vole (*Microtus brandtii*) in 2002 (Fox et al. 2003). It is important to mention that these abundant rodents together with the Pikas (*Ochotoma spp.*) are the principal food of the Saker there.

In Asiatic Russia and neighboring countries threats for the Saker are more direct and heavy: namely illegal taking for trade. Therefore, not without reasons the highest density of the Saker nesting was found in the most remote areas of the Altay mountains (Moseikin, 2000, 2001), Tuva semi-deserts (Karyakin, 2000, 2002, 2003) and Tibet Highlands (Potapov and Ma, 2004). Various assessments show that in 1990s 6,000-8,000 female Sakers have been taken annually in the Asiatic part of its range. This removal is comparable to the estimate of the total world Saker population of 5-8 thousand breeding pairs and could cause species extinction in the coming decades (Fox 2002; Fox et al., 2003; Potapov et al., 2003). This threat demands great attention and urgent radical measures are needed.

An indirect threat is presented by popular mass media that fiercely defends falcons. They often declare exaggerated cost of \$50-100 thousands or even an unbelievable \$ 1 mln for one Saker or Gyrfalcon. The actual prices for legal trade approved by state authorities in Mongolia (Badam, 2001) or Kazakhstan (Sklyarenko, 2001) were \$2-3 thousand, while illegal buyers pay much less for each falcon. Not to provoke mass removal of falcons and other raptors from their nests by local people journalists should be more careful with figures and facts concerning rare vulnerable bird species so as not to promote the temptation to get rich quickly at the expense of the wild birds.

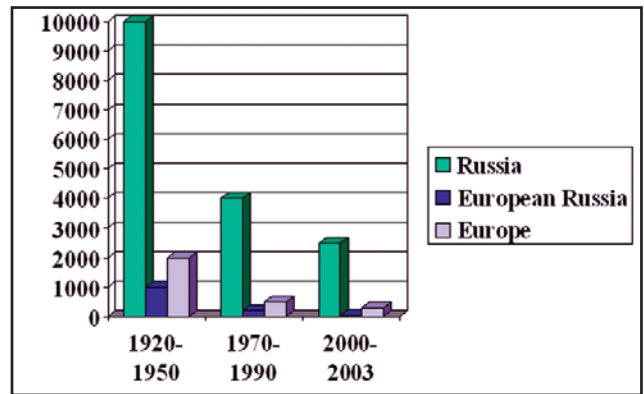


Figure 2. Numbers of Sakers in Northern Eurasia, breeding pairs.

Necessary actions

The popular slogan "Save the Saker!" has to be urgently interpreted into effective and realistic conservation actions.

First of all there is national and international legislation. The Saker has been upgraded from the previous third to the second category of threatened species (Red Data Book of Russian Federation, 2001). The 4th Conference on Eurasian Raptors (Penza, Russia, 2003) and Russian Bird Conservation Union proposed to incorporate the Saker into the list of Globally Threatened Species to IUCN and BirdLife International as a first step for changing its current CITES listing.

Regular monitoring of Saker populations with attention to specific groups like large "Altay falcons", which are attractive for smugglers, and some local populations which either demonstrate relative stability like in the Crimea (Ukraine), southern Ural mountains (Russia), Naurzum Forest and Ust-Urt Plato (Kazakhstan) or disappearing ones like in European Russia. Restoration of East European and West Siberian populations aimed at returning wintering falcons to the Gulf region is a possible project that can be implemented with the substantial support from Arab countries. Regular exchange of information and opinions at the Saker Conferences and Symposia have proved to be useful.

During Internet discussions concerns have been raised regarding the release to the wild of captive bred Sakers and their hybrids. Information on the ability of hybrids to breed successfully with wild falcons is required in order to assess their potential threats to the genetic sustainability of wild Saker. At the same time a ban on the release of hybrids into the wild (International Hybrid Committee, 1999) has to be observed.

Securing strict control over the national and international trade of falcons through quotas, the use of microchips, closed rings, DNA fingerprinting, and falcon registration schemes with individual passports for every bird used in falconry, such as the one being introduced in UAE, have important value in reducing threats to the Sakers. Though illegal trade still continues, its volume is likely to be decreased in recent years thanks to more effective efforts of customs, local inspections and conservation NGOs. However, national and international inspection of the breeding centers has to be introduced on a regular basis preventing their role as illegal "roofs" for the trade of wild Sakers. More field guides have to be



developed and produced including special ones for customs identification of the Saker and other rare birds.

The working Group on North-Eurasian Raptors and Russian Bird Conservation Union strongly supports the principle policy and practical measures proposed at various national and international meetings like the 4th Conference on Eurasian Raptors (Penza, Russia, February 2003) and Symposium "Saker Falcon status in the range countries" (Abu Dhabi, UAE, September 2003) and CITES meeting on Saker (Abu-Dhabi, UAE, May 2004) directed at saving the wild Sakers including measures to reduce the pressure caused by illegal trade. It also focuses on recent trends in the UAE and other Arab countries to import birds from well known legal breeding centers with a good reputation which provide healthy captive bred Sakers and hybrids of high hunting quality for sustainable falconry.

Only united and well coordinated efforts of all the parties concerned will offer a reliable basis for effective action to save Sakers in the wild and support sustainable falconry.

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