

# Present Status and Protection of the most endangered Birds of Prey in Poland

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## ABSTRACT

Birds of prey are the most endangered group of birds in Poland. Eleven out of 19 regularly breeding species are placed in the Polish Red Data Book as threatened with extinction (Glowacinski 1992). In the 1970s estimates of breeding pair numbers of the rarest birds of prey were made in Poland. More precise studies began after 1981 when an Eagle Conservation Committee was set up. Every year monitoring of nests (clutch size and breeding success) and territories of White-tailed Eagle, Osprey, Spotted Eagle, Lesser Spotted Eagle, Golden Eagle, Peregrine Falcon and some other species is undertaken. As a result of these surveys the present situation of the above-mentioned species is known. The most probable number of breeding pairs of White-tailed Eagle reaches 245, Spotted Eagle - 10-20, Lesser Spotted Eagle - 1300, Osprey - 40-50, Golden Eagle - 10-14 and Peregrine Falcon - not more than 5 pairs.

The birds of prey are protected in two ways. Since 1976 all species have been protected by law. In 1983 protection of nests and 500 m zones surrounding the nests of 9 most endangered species (chosen by ECC) was instituted.

## BIRDS OF PREY IN POLAND - THE LAST 25 YEARS

Poland (312.265 km<sup>2</sup>) is a middle-European country placed in the Northern European Plains with 28% of land covered by forests, 53% by arable ground, 9% by meadows and pastures, 2.6% by water bodies, 5.8% by urban areas, and 1,6% by wasteland (Kondracki 1988).

Thirty-nine species of birds of prey nest in Europe and 19 of them regularly breed in Poland (Tomialojc 1990, Tucker & Heath 1994).

The number of breeding pairs of almost all birds of prey in Poland had

been decreasing up to the late 1970s and early 1980s. The breeding pairs of Peregrine Falcon *Falco peregrinus*, Golden Eagle *Aquila chrysaetos*, Osprey *Pandion haliaetus*, White-tailed Eagle *Haliaeetus albicilla*, and Lesser Spotted Eagle *Aquila pomarina* had then reached lowest levels and those species became endangered or almost extinct (Tomialojc 1990).

In 1981 scientists studying birds of prey created an Eagle Conservation Committee in order to organize work focusing on protection of most endangered birds of prey in Poland. ECC has chosen nine most endangered species and begun to elaborate programmes for their protection, above all monitoring of breeding pair numbers and breeding success. In 1991 the ECC was registered as a non-governmental and non-profitmaking organization.

Since 1952 all birds of prey in Poland have been protected by law (Goshawk - *Accipiter gentilis*, Sparrowhawk - *Accipiter nisus*, and Marsh Harrier - *Circus aeruginosus* became fully protected in 1976).

Since the mid-1980s a slight increase in the breeding populations of most raptor species has been observed (Tomialojc 1990).

## PRESENT SITUATION OF THE MOST ENDANGERED BIRDS OF PREY IN POLAND

There are 21 species of birds of prey breeding in Poland and another 13 are wintering, vagrants or visitors (Tab. 1). From those 34 species 11 are listed in the Polish Red Book of Animals and 9 species were chosen by the ECC as most endangered.

The monitoring of breeding pair numbers has been conducted since 1981. In addition every year a census of breeding success of some species (White-tailed Eagle, Osprey, Lesser Spotted Eagle, Golden Eagle and Peregrine Falcon) is taken in order to collect the most accurate data about species regarded as the most endangered. Results of about 15 years of such monitoring show that the situation of most endangered birds of prey is improving; breeding success is increasing or is still on a good level (high enough to keep the population stabilized), and the number of breeding pairs is increasing (Tab. 2 & 3).

Most significant was the increase in breeding pairs of White-tailed Eagle - from about 40-50 pairs in the 1980s to about 240 pairs at present, and Lesser Spotted Eagle - from about 400 pairs in the 1980s to 1300 pairs now. After about 20 years of absence there are 5 to 10 pairs of Peregrine Falcon breeding in Poland.

**Table 1. Birds of prey in Poland - history and present situation (\* ECC data, \*\*Tomialojc 1990, \*\*\*Tucker & Heath 1994)**

Breeding [No. of pairs]	Irregular breeders**	Extinct**	Wintering [W], Vagrant [V], Rare visitor [No. of obs.]**
<i>Pernis apivorus</i> [1500-2000]*	<i>Falco naumani</i>	<i>Gyps fulvus</i>	<i>Elanus caeruleus</i> [1]
<i>Milvus migrans</i> [400-500]*	<i>Falco vespertinus</i>		<i>Haliaeetus leucoryphus</i> [2]
<i>Milvus milvus</i> [400-500]*			<i>Nephron percnopterus</i> [4]
<i>Haliaeetus albicilla</i> [245]*			<i>Aegypius monachus</i> [22]
<i>Circus gallicus</i> [20-30]*			<i>Circus macrourus</i> [5]
<i>Circus aeruginosus</i> [~2000]*			<i>Buteo rufinus</i> [11]
<i>Circus cyaneus</i> [50-70]*			<i>Buteo lagopus</i> [V,W]
<i>Circus pygargus</i> [350-400]*			<i>Aquila rapax</i> [5]
<i>Accipiter gentilis</i> [~4000]*			<i>Aquila heliaca</i> [13]
<i>Accipiter nisus</i> [1000-2000]*			<i>Falco columbarius</i> [V,W]
<i>Buteo buteo</i> [~20 000]*			<i>Falco eleonore</i> [2]
<i>Aquila pomarina</i> [1300]*			<i>Falco cherrug</i> [21]
<i>Aquila clanga</i> [10-20]*			<i>Falco rusticolus</i> [16]
<i>Aquila chrysaetos</i> [10-14]*			
<i>Hieraaetus pennatus</i> [1-5]*			
<i>Pandion haliaetus</i> [40-50]*			
<i>Falco tinnunculus</i> [1000-2000]***			
<i>Falco subbuteo</i> [1000-2000]*			
<i>Falco peregrinus</i> [1-5]*			

## PROTECTION OF THE MOST ENDANGERED BIRDS OF PREY IN POLAND

Nine species (two others are suggested for inclusion on the list: Red Kite - *Milvus milvus* and Black Kite - *Milvus migrans*) were chosen by the ECC as the most endangered and requiring special protection, called zonal protection for nests. The programme was elaborated in 1983 by the ECC (proposed since 1981) and was enacted by Parliament for nests of the 9 most endangered species. There are two zones distinguished:

- strict protection zone (200m around the nest - no forest works allowed),
- temporal protection zone (500m around the nest - forest works allowed after breeding season).

In 1993 the ECC began guarding the nests of Spotted Eagle and White-tailed Eagles. There are about 15 nests guarded every year.

In 1992 the ECC began building artificial nests for White-tailed Eagles and Ospreys (funded mostly by Eco Found and also by Ministry of Environmental Protection). 71 nests were built and 17 (24%) of them were used by the birds.

In 1994 the ECC began protection of Montagu's Harrier *Circus pygargus* in Silesia. Although this species is not treated as most endangered, the number

**Table 2. Most endangered birds of prey in Poland (\*ECC, \*\*Tucker & Heath 1994).**

Species	Poland 1980-*	Poland 1990-*	Europe 1990-**
<i>Milvus migrans</i>	ca. 400	400-500	75 000-100 000
<i>Haliaeetus albicilla</i>	40-50	245	3300-3800
<i>Circus gallicus</i>	ca. 30	20-30	5900-14 000
<i>Circus cyaneus</i>	ca. 25	50-70	22 000-32 000
<i>Circus pygargus</i>	ca. 250	350-400	26.000-42,000
<i>Aquila pomarina</i>	ca. 600	1300	6700-9500
<i>Aquila clanga</i>	20-30	10-20	860-1100
<i>Aquila chrysaetos</i>	8-10	10-14	5000-7200
<i>Hieraaetus pennatus</i>	1-5	1-5	2800-6100
<i>Pandion haliaetus</i>	30-40	40-50	7100-8900
<i>Falco peregrinus</i>	0	1-5	6200-10 000

**Table 3. Results of the Monitoring of the Numbers and Breeding Success of White-tailed Eagle, Osprey and Lesser Spotted Eagle (ECC data).**

	<i>Haliaeetus albicilla</i>		<i>Pandion haliaetus</i>		<i>Aquila pomarina</i>	
	1984	1994	1984	1994	1984	1994
Territories occupied	67	201	9	34	46	279
Broods/successful	41	107	6	18	32	189
Nesting success [%]	61	53.2	67	52.9	70	67.7
Young fledged	53	163	7	43	32	194
Young/successful brood	1.3	1.52	1.2	2.38	1.0	1.03
Young/pair with breeding success	0.79	0.81	0.78	1.26	0.70	0.69

of pairs is still decreasing because of disadvantageous changes in their biotopes (reclamation of meadows and chemicals). In recent years a colony of about 25 pairs nesting on arable ground in Lower Silesia was found. Since this is the first colony of this kind it needs protection. Nesting of this species on arable ground is the alternative future for its existence in Poland.

There are strong controversies concerning protection of the Osprey. The owners of fish ponds (all of them have been privatized since 1994) claim that Ospreys cause serious damages resulting in a decrease in the yearly profit. In 1993 the ECC began to pay a premium in order to compensate damages. Premium amount depends on the number of nestlings in Ospreys nests in the surrounding area.

Another way of protecting raptors used by the ECC in Poland is to show the role played by birds of prey in the environment. The ECC is also engaged in the printing and distributing to foresters of posters, folders and brochures (sponsored by Eco Found). They inform how to recognize different species and how to create zones protecting nests and their surroundings. The ECC also organizes lectures for customs officers on how to limit smuggling of eggs and nestlings of birds of prey across the Polish border.

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