

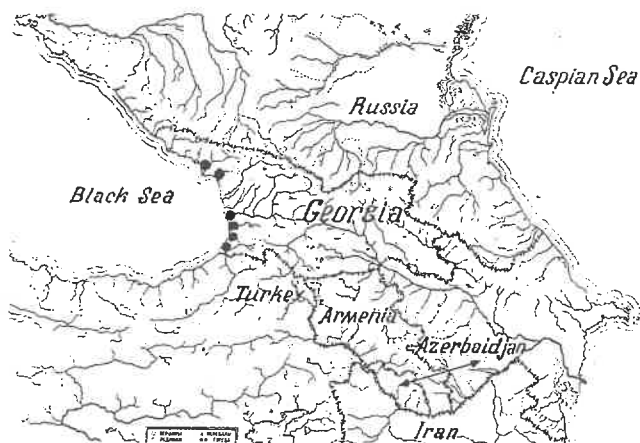
Birds of Prey in Georgia in the 20th Century

Alexander Abuladze

Georgia, like all the Caucasus, is one of the most important regions in South-East Europe for birds of prey because of its specific geographical position on the border between Europe and Asia (Fig. 1). In this report an attempt is made to analyse changes in status of birds of prey in Georgia during the last century.

The main method has been comparative analysis of the literature on the Georgian avifauna from the last decades of the previous century to the data collected by the author since 1973. The period of the late 19th to early 20th century has not been selected by chance. The level of ornithological studies was then high and the period could be called the golden age for Georgian birds of prey. Analysis of the ornithological works published during the above-mentioned period indicates a flourishing threat-free situation among practically all species of raptors. According to the literature their numbers were optimal everywhere in Georgia (Bogdanov 1879; Mikhailovski 1880; Radde 1884; Vilkonski 1897; Dinnik 1893; Tsvetkov 1901; Satunin 1907, 1911, 1913; Shavrov 1907; Kobylin 1908; Bankovski 1913; Dombrovski 1913). According to the data at that time, 33 species of birds of prey were recorded in Georgia (Table 1), 23 of them breeding. Some authors recorded four additional breeding species - *Milvus milvus*, *Aquila clanga*, *Aquila rapax*, *Falco cherrug* - but analysis of current data and comparison with data for the beginning of the century by other authors leads to the conclusion that these were errors.

Figure 1. Map of Georgia



● - most dangerous places for Raptors

Table 1. Comparison of Past and Present Status of Georgian Raptors.

SPECIES	Previous status /1900-20/				Present status /1975-1991/			
	R	B	M	W	R	B	M	W
<i>Pernis apivorus</i>		+	+			+	+	
<i>Milvus milvus</i>		m	+				(?)	
<i>M. migrans</i>		+	+			+	+	
<i>Haliaeetus albicilla</i>	+							r
<i>Gypaetus barbatus</i>	+				+			
<i>Neophron percnopterus</i>		+				+		
<i>Gyps fulvus</i>	+				+			
<i>Aegypius monachus</i>	+				+			
<i>Circus gallicus</i>		+				+	+	
<i>Circus aeruginosus</i>		+		+		+	+	+
<i>C. cyaneus</i>		?		+		?	+	+
<i>C. macrourus</i>		?	+	+			+	
<i>C. pygargus</i>			+				+	
<i>Accipiter gentilis</i>	+		+	+	+		+	+
<i>A. nisus</i>	+		+	+	+		+	+
<i>A. brevipes</i>		+	+				+	
<i>Buteo buteo</i>		+	+			+	+	
<i>B. rufinus</i>		+	+	+		+	+	+
<i>B. lagopus</i>				+				+
<i>Aquila pomarina</i>		+	+			+	+	
<i>A. clanga</i>		m	+				+	
<i>A. rapax</i>		m	+	+			+	+
<i>A. heliaca</i>	+				+			
<i>A. chrysaetos</i>	+				+			
<i>Hieraaetus pennatus</i>		+	+			+	+	
<i>Pandion haliaetus</i>	m	+	+			+	+	
<i>Falco naumanni</i>		+	+			+	+	
<i>F. tinnunculus</i>		+	+			+	+	+
<i>F. vespertinus</i>			+				+	
<i>F. columbarius</i>				+				+
<i>F. subbuteo</i>		+	+			+	+	
<i>F. biarmicus</i>					r			
<i>F. cherrug</i>	m			+				r
<i>F. peregrinus</i>	+				r			

R - resident; B - breeding summer visitor; M - passage migrant; W - winter visitor
 ? - no data; r - rare; m - mistakenly reported

Unfortunately, after the first decades of the 20th century all research work on raptors ceased for over 50 years. The history of Georgian raptors beginning with the 1920s is typical also for other South European populations, when the level of human activities sharply intensified. The most negative factors were;

- nesting habitat destruction and loss, mainly due to the reduction of mountain and lowland forests (since 1930s).
- direct extermination by man and disturbance (1930s-1970s).
- changes in agriculture and forestry (since 1930s);
- pesticides (since 1950s).

It is necessary to note that in Georgia, where the mountainous terrain limits some of the forms of human activity, the lowland landscapes were the most extensively transformed. Development, deforestation and increase in the population had the greatest impact on the raptors. The creation

Table 2. Present Status of Breeding Raptor Populations in Georgia (1975-1991).

SPECIES	NUMBERS /PAIRS/	POPULATION TRENDS	RED DATA BOOK	COMMENTS
<i>Pernis apivorus</i>	50-70 (?)	? (=)		Total number unknown. In E Georgia estimated 35-40.
<i>Milvus migrans</i>	900-1100	>		
<i>Gypaetus barbatus</i>	22-25	=	+	Great Caucasus 19-21 Minor Caucasus 3-4
<i>Neophron percnopterus</i>	about 150	< (=)	R	Some increase in W Georgia No change in E Georgia
<i>Gyps fulvus</i>	about 70	=	R	Now known for Great Caucasus
<i>Aegypius monachus</i>	17-19	= (<)	+	2 colonies in SE Georgia In 1 col. slow decline.
<i>Circus gallicus</i>	4-5	=	+	SE Georgia
<i>Circus aeruginosus</i>	25-35	<		Decrease since 1960s.
<i>Accipiter gentilis</i>	220-240	= (>)		Decrease in 1950s=1970s. Slow increase in 1980s.
<i>A. nisus</i>	420-440	=		Decrease in 1950-1970s. Slow increase in 1980s.
<i>Buteo buteo</i>	2100-2200	=		
<i>B. rufinus</i>	under 40	=		Only in E Georgia
<i>Aquila pomarina</i>	80-85	<	R	Decline since 1960s
<i>A. heliaca</i>	8-11	<	+	
<i>A. chrysaetos</i>	under 25	=	+	Data for 1985
<i>Hieraetus pennatus</i>	about 75	<	R	Decrease since 1960s
<i>Falco naumanni</i>	about 700	= (<)		
<i>F. tinnunculus</i>	over 2300	=		
<i>F. subbuteo</i>	220-225	=		After decrease in 1960s, stabil ising
<i>F. biarmicus</i>	1 (2)	?	R	Visual records in 1980s. July 1988 pair with young
<i>F. peregrinus</i>	3-4	? (>)	+	Extirpated in 1960-1970s. After 1985 3-4 pairs in NW
<i>Haliaeetus albicilla</i>			+	Extirpated in 1950s
<i>Accipiter brevipes</i>			R	No data since 1920s
<i>Pandion haliaetus</i>			+	Extirpated in 1930s

< - decrease; > - increase; = no detectable change;

(<), (=), (>) - probable increase, stable or decrease; local appearance

? - no data

+ - included in 1st edn. of Red Data Book

R - recommended for 2nd edn. of Red Data Book

of reservoirs, fen farming and intensive grazing added to the negative impact. At the same time organized campaigns were begun to persecute raptors.

As a result, some species have already been extirpated as regular breeders. Thus *Pandion haliaetus* became extinct in the 1930s, *Haliaeetus albicilla* in the 1950s. There have been no data

about the nesting of *Accipiter brevipes* in Georgia since the 1920s.

In the mid-20th century the status of raptors continued to worsen. However, in Georgia, due to its large areas of mountain and semidesert, where human activity was not promoted, the birds of prey found their refuge. For these reasons a fair amount of the species have survived there, whereas in other regions they have disappeared.

The aggregated data on the present status of raptors in Georgia is given in Table 2. The basis for this information has been the material collected by myself and my assistants since 1975. During this period 33 species of birds of prey have been recorded. In comparison with the past the number of species has not changed, only their composition. I have not recorded *Milvus milvus* during the whole observation period. One new species has been added to the records - *Falco biarmicus*, observed several times in East Georgia in the 1980s. Once, in July 1988, a pair with young was recorded in SE Georgia, near Vashlovani reserve (Abuladze, Eligulashvili & Rostiashvili 1991). As already mentioned, three species no longer breed in Georgia. Still, they have been observed during migration (*P. haliaetus* and *A. brevipes*) or wintering (*H. albicilla*). Seven of the species are resident, 13 are breeding summer visitors, three (*C. pygargus*, *A. clanga*, *F. vesperinus*) have been recorded only during migration. Georgia is a very important territory for migrating raptors from northern populations. Many thousands of birds of prey of 21 species have been observed on passage and at stopping-places in the Kolkhida Lowland bottleneck and coastal zone of Adjara. Four species (*H. albicilla*, *B. lagopus*, *F. columbarius*, *F. cherrug*) have been recorded only during the wintering period. The status of *Circus cyaneus* has not been determined; it is regularly met during the breeding season in S Georgia but I have not succeeded in finding any nest. The species may be just a non-breeding summer visitor.

During my research work, specific attention has been paid to the problems of protection. The factors limiting distribution and population size have been investigated. Data on the causes of death and its extent have been collected. Results are presented on Figures 2,3 & 4. The main cause of death of raptors has been shooting - approximately 73% of recorded cases. More than 80% of deaths occur during the autumn migration, which coincides with the hunting season in Georgia. Hunting is a traditional activity of Georgian men, particularly in the western regions, through which the main migration routes of raptors pass.

In the past, birds of prey had an important place in Georgian folklore. Organised campaigns of annihilation began in Georgia later than in Europe, starting only at the end of the 1930s and lasting up to the end of the 1960s. Since 1983 only three species - *A. gentilis*, *A. nisus*, and *C. aeruginosus* - could be legally shot during the autumn and winter seasons. As a result, thousands of birds of prey were killed every autumn at places of mass migration, especially in the Black Sea coastal zone, between Sukhumi, Abkhazia and Batumi, Adjara (border with Turkey). We had a great struggle against upholders of the legal shooting of raptors in Georgia for some years, but in the end our efforts were rewarded. By the nature conservation and hunting laws operating since 1983, all species of birds of prey are under legal protection. Fines have been instituted for the shooting of protected raptors.

In addition, 12 species were included in the 1st edition of the Red Data Book of Georgia, 1982: *H. albicilla*, *G. barbatus*, *G. fulvus*, *A. monachus*, *C. gallicus*, *A. rapax*, *A. heliaca*, *A. chrysaetos*, *P. haliaetus*, *F. cherrug* and *F. peregrinus*. I have recommended the inclusion of three more species - *N. percnopterus*, *A. brevipes* and *H. pennatus* - in the 2nd edition planned to be published in 1993. Attempts have also been made to include two more - *A. pomarina* and *F. biarmicus*.

Recently the public's attitude towards raptors has improved and their protection intensified. Research on the status of raptors has also improved. A programme of research and monitoring of birds of prey, mainly of rare species, was launched at the Institute of Zoology of the Georgian Academy of Sciences about 15 years ago.

A long-term programme of measures on raptor conservation was developed and transmitted to the authorities. Some years ago attempts were made to organise feeding places for large raptors (Abuladze 1990) and to attract some species to artificial nest sites (Abuladze 1990). Due to our campaign and to the publicity given to conservation activities in the mass media, the number of raptors illegally shot in recent years has been substantially reduced (Figs. 4 & 5.). Unfortunately, at the same time this does not mean that the situation is good. For instance, for some West Georgian, Adjarian and Abkhasian districts illegal shooting of migrating raptors is still known. Sometimes wintering raptors are shot.

Figure 2. Causes of death of raptors in Georgia, 1973 - 1991.

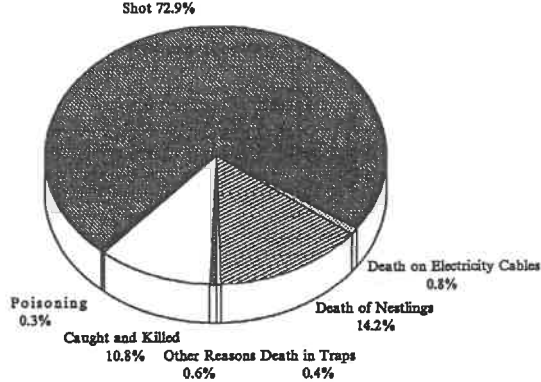


Figure 3. Distribution of registered cases of death of adult raptors in Georgia by seasons, 1973 - 1991 (n = 7692)

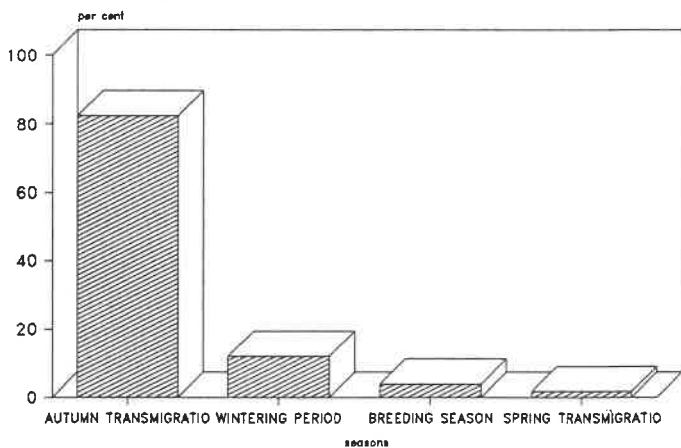
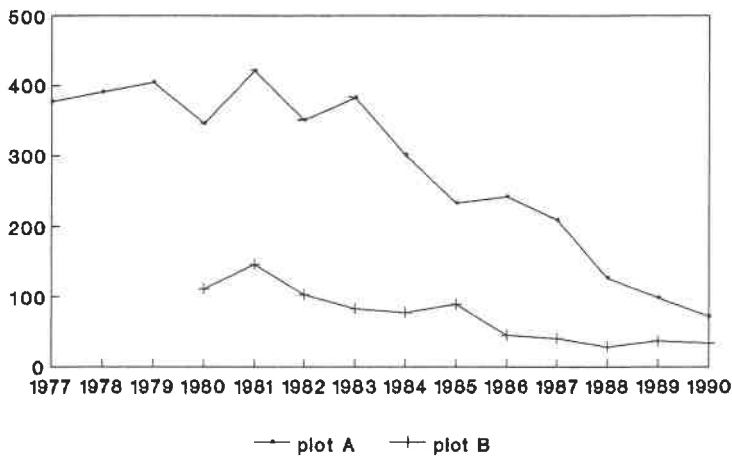
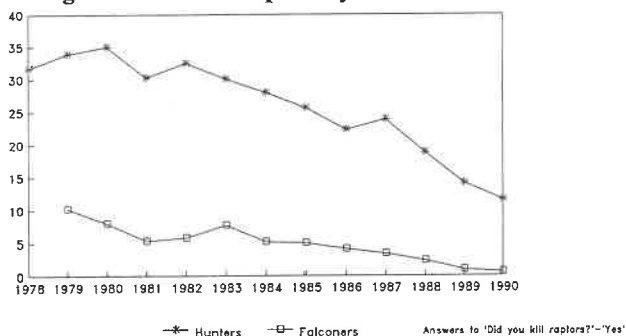


Figure 4. Results of annual counts of shooting on 2 sample plots in SW Georgia.



plot A-Adjarla,Kobuleti district,16sq km
plot B-environs of poti town, 6 sq km

Figure 5. Changes in attitude to raptors by hunters and falconers.



There are some peculiarities regarding the protection of raptors, specific to Georgia. Falconry is very popular. About 3,000 Georgian falconers - Bazieri - often play a very negative role. They trap a great number of hawks and sometimes falcons. Control of their activities is difficult. The small number of professional ornithologists and birdwatchers in Georgia cannot meet the needs of birds of prey protection.

The main threats to Georgian birds of prey to-day are 1. destruction of natural biotopes by industrialisation, mechanization of agriculture and urbanisation; 2) reduction of flood-land, semi-desert and mountain forests; 3) human persecution, 4) lack of food for species with a restricted diet, reducing the numbers of the main prey; 5) recreational pressure, disturbance, caused by tourists and alpinists.

Unfortunately, I cannot look with assurance into the future. The present situation in Georgia, with its political, economic and social cataclysms, is more than unstable. As always during such periods, problems of nature conservation are of no account. All activities related to research and protection of raptors have been stopped. The small group of ornithologists and volunteers has broken up. I still hope that the crisis is not going to be prolonged and that the work started could be soon continued with fruitful results.

REFERENCES

- ABULADZE, A. 1990.** Organization of feeding-places for large raptors; Attraction of raptors to artificial nest sites. *Study and protection of Birds of Prey* 62-65; 296-229. (in Russian)
- ABULADZE, A., V. ELIGULASHVILI & A. ROSTIASHVILI 1991.** On the Status of the Lanner in USSR. Proc. of 10th All-Union Ornithological Conf. Vitebsk, Sept. 1991. Part I: 26-28. (in Russian).
- BANKOVSKI, V.B. 1913.** K ornitofaune Zakavkazia. (in Russian).
- BOGDANOV, M. 1879.** Trudy obchestva estestvoispytatelei pri Kazanskom Universitete. (in Russian).
- DINNIK, N. 1893.** Zapiski Kavkazskogo otdelenia RGO, kn. 15. (in Russian).
- DOMBROVSKI, B.A. 1913.** Materialy dlya izucheniya ptic Kolkhidy, Adjarya i sopredelnykh mest.
- KOBYLIN, A.M. 1908.** Beiträge zur Ornithofauna Kaukasiens. Gouv. Kutais.
- MIKHAILOVSKI, I. 1880.** Trudy Sankt-Peterburgskogo obshchestva estestvoispytatelei, t. 11, 1. (in Russian)
- RADDE, G. 1884.** Ornitologicheskaya fauna Kavkaza (Ornis Caucasica). (in Russian).
- RED DATA BOOK OF GEORGIAN SSR, 1982.**
- SATUNIN, K.A. 1907.** Zapiski Kavkazskogo otdelenia RGO, t. 26, 3. (in Russian).
- SATUNIN, K.A. 1911.** Zur Ornithologie des Gebietes von Batumi.
- SATUNIN, K.A. 1913.** Fauna Littoris Orientalis Ponti Euxini. Vertebrata. (in Russian).
- SHAVROV, N.N. 1907.** Izvestiya Kavkazskogo otdeleniya RGO; 19.
- TSVETKOV, E.W. 1901.** Materialy k poznaniyu flory i fauny Rossiiko Imperii. Bp. 5. (in Russian).

Alexander Abuladze
Institute of Zoology
31 Chavcharadse pr.
Tbilisi, Georgia 380030