The Bird Fauna of Gaziantep (Turkey)

Hasan Huseyin Cemali TOPRAK1

Ozdemir ADIZEL²

Ismail VAROL1*

- ¹ University of Gaziantep, Faculty of Science and Literature, Department of Biology, 27310 Gaziantep, TURKEY
- ² University of Yuzuncu Yıl, Faculty of Science and Literature, Department of Biology, Van, TURKEY

* Corresponding Author Received: September 25, 2007 e-mail: varol@gantep.edu.tr Accepted: December 18, 2007

Abstract

In this study, it was recognized 92 species and 1 subspecies of birds which belong to 14 orders and 38 families. This study was carried out in totally 66 fields in dates between 29.03.2003 and 06.05.2004 (almost 15 months). IUCN criteria of these species were categorized as CR 1, EN 3, VU 7, NT 10, LC 69, DD 1, and NE 2. According to all observations, it was determined 24 winter visitors (WV), 33 breeding species (Y-years birds-breeds regularly), 5 invasion species (T-occurs irregularly, but usually in great numbers) and 31 breeding species (G- only summer birds). In research area, *Fulica atra* was observed much more than the other species. It was determined average 8183 individuals in one day. *Tyto alba, Motacilla flava, Prunella modularis, Turdus merula, Sitta neumayer, Lanius excubitor, Emberiza cia* and *Emberiza striolata* were run across much more less than the others.

Key words: Ornithology, Bird systematic, Ornithofauna, Gaziantep, Turkey.

INTRODUCTION

There are approximately 9600 bird species belong to 23 ordo and 144 families in the world. Turkey is located on three geographical regions as a bridge and it has especially endemicsmany animal and plant species. So far, Turkey has 453 bird species [10, 14, 15, 18].

Turkey has different habitats because it has peninsula, different geographic and climatic factors. When it is considered geographical features Turkey, it has very different habitats for animal and plant species. In the geographic circumstance brings out existness of many ecological habitats which have a lot of different ecotons which differ from each other and every graded of the length comes into a very rich biodiversity [1]. It has been reported that a lot of migrant birds have to stop by in passing to Turkey, because of geographic locations of Turkey [3].

One of the major industrial and agricultural cities is Gaziantep in Turkey. The city is located east-southern of Turkey. It have been constructed several dams by government in the last 20 years in this area. Although it has been known well on bird species in the many other areas of Turkey, there is limited number of scientific study in revised literature of the birds of Gaziantep till now. A few of these were carried out on systematic aim. None of these had been reported waterfowl had been naturally lived in this city area [7, 8, 16, 21, 22]. However, It had been started to carry out ornithological researches in this area in the last years [11-13]. In the recent studies, it had been emphasized on importance of aquatic areas for waterfowl (especially Karkamış Dam) in Turkey [5, 8, 20, 23]. Aim of carried this study was to determine the bird fauna of Gaziantep.

MATERIAL AND METHODS

Gaziantep is between Mediterranean and south Anatolian region is located longitude with east 36° 28' and 38° 01', longitude with north 36° 38' and 37° 32'. The city has nearly 1 % part of total area of Turkey which is ground of 7642 km².

This study was carried out in total 10 stations. These observation points are Karkamış dam, Birecik dam, Hancağız dam, Doğanpınar dam, Kayacık dam, Burç pond, Balıkalan pond, Togaylar pond, Domuzderesi pond and Tahtakopru dam (Figure 1). It was selected to work on aquatic areas, forest, farmlands, mountain areas, lowlands, plateaus and canyons as investigation regions.

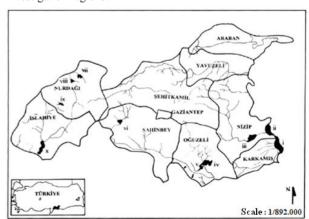


Figure 1. Maps of investigation area (i) Karkamış Dam, (ii) Birecik Dam, (iii) Hancağız Dam, (iv) Doğanpınar Dam, (v) Kayacık Dam, (vi) Burç Lake, (vii) Balıkalan Lake, (viii) Togaylar Lake, (ix) Domuzderesi Lake, (x) Tahtakopru Dam.

The bird species were recorded in these 10 stations on the ways. The study had been performed between 29.03.2003 and 06.05.2004. Totally, 66 observations were carried out in this period.

During the study time, all data collected in study areas from species had been examined. Point Count, Transect Count and Dobinson Square methods were benefited in the study [2, 4, 9]. During watch and count activity, 10 x 46 and 20 x 50 binoculars, Fuji Film 602S digital photograph machine and Nikon telescope were used.

RESULTS

As a result of this study, it was found the dams of Gaziantep (for example Karkamış, Hancağız, Belkıs and Tahtaköprü etc.) were important for bird species to breed, migrate and shelter.

In Gaziantep province, 92 bird species and subspecies were recorded between March 2003 and May 2004. The 93 taxon of bird species are new records for Turkish bird fauna in this region. They belong to 38 families (Table I).

According to Categories Red Lists and World Conservation Union, observed species were categorized as CR 1, EN 3, VU 7, NT 10, LC 69, DD 1, NE 2. According to this list, it

was determined 18 bird species which were vulnerable, near endangered, endangered, deficient data and came under risk in Gaziantep region. In these species are Actitis hypoleuco, Alcedo atthis, Anas crecca, Apus affinis, Ceryle rudis, Charadrius dubius, Chilidonias leucopterus, Circus aeruginosus, Delichon urbica, Egretta garzetta, Francolinus francolinus, Larus genei, Milvus migrans, Phalacrocorax pygmeus, Platelea leucorodia, Scolopax rusticola, Sterna albifrons and Tyto alba. Moreover in the total 10 stations which the birds were found the most of dens, inside of city borders.

In this study, the list here obtained of these birds in Gaziantep region can contribute as new records to ornitofauna of both Gaziantep and Turkey.

DISCUSSION

Tree cutting and burning of bush, prickle and grass on edge of arable fields, agricultural modernization works, uncontrolled hunting destroy the habitat of these birds and these factories have threatened existence of many bird species in this region.

In Gaziantep, 4 dam lakes (Karkamış, Hancağız, Belkıs and Tahtaköprü) have been declared important bird areas so far [19]. They were important for bird species to breed and shelter. The lakes are located on the migration ways of several birds.

Table 1. Recorded birds in Gaziantep province [Criteria (Breeding), IUCN; Migration statue (IUCN status: EX: Extinct, EW: Extinct in the world, CR: Critically Endangered, EN: Endangered, VU: Vulnerable, NT: Near Threaten, LC: Least Concern: DD: Data Deficient, NE: Not Evaluated, KZ: Wintor visitor, G: Breeding species-only summer birds; breeds regularly or irregularly, R: Resident, T: Transit)]

Bird Species Name Latin (English)	Criteria	Counted individuals	Observation place	Migration statue
	Fami	ly: Podicipedidae		
Podiceps cristatus (Great Crested Grebe)	LC	3	Karkamıs Dam	WV
Tachybaptus ruficollis (Little Grebe)	LC	14	Karkamıs Dam	WV
	Family	: Phalacrocoracidae		
Phalacrocorax pygmeus (Pygmy Cormorant)	VU	211	Karkamıs Dam	WV
	Fa	mily: Ardeidae		
Egretta garzetta (Little Egret)	NT	12	Hancagız Dam	R
Ardea cinerea (Grey Heron)	LC	2	Hancagız Dam	T
	Fan	nily : Ciconiidae		
Ciconia ciconia (White Stork)	LC	2	Burc Lake	SM
	Family	: Thereskionithidae		·
Platelea leucorodia (Spoonbill)	EN	4	Karkamıs Dam	Т
	Fa	mily: Anatidae		·
Anser albifrons (Whitefronted Goose)	NE	7	Karkamıs Dam	WV
Tadorna tadorna (Shelduck)	VU	9	Karkamıs Dam	WV
Anas penelope (Wigeon)	NE	6	Karkamıs Dam	WV
Anas strepera (Gadwall)	VU	400	Karkamıs Dam	WV
Anas platyrhynchos (Mallard)	LC	187	Karkamıs Dam	SM
Anthya ferina (Pochard)	LC	2045	Karkamıs Dam	WV
Anas crecca (Teal)	NT	240	Karkamıs Dam	WV
	Fam	nily: Accipitridae		
Milvus migrans (Black Kite)	EN	8	Oğuzeli district	SM
Circus aeruginosus (Marsh Harrier)	NT	5	Karkamıs Dam	T

Bird Species Name Latin (English)	Criteria	Counted individuals	Observation place	Migration statue
Buteo rufinus (Long – legged Buzzard)	NT	2	Karkamıs Dam	R
Buteo buteo (Buzzard)	LC	5	Gaziantep University	R
	Fan	nily : Falconidae		
Falco tinnunculus (Kestrel)	LC	2	Gaziantep University	R
	Fam	nily: Phasianidae		
Francolinus francolinus (Black Francolin)	NT	2	Karkamıs Dam	R
Alectoris chukar (Chukar)	VU	2	Nizip district /Samandoken village	R
	Fa	mily: Rallidae		
Gallinula chloropus (Moorhen)	LC	251	Karkamıs Dam	R
Fulica atra (Coot)	LC	8183	Karkamıs Dam	R
	Fam	ily: Charadriidae	1	1
Charadrius dubius(Little Ringed Plower)	NT	12	Hancagız Dam	SM
	Fam	ily: Scolopacidae		•
Actitis hypoleuco (Common Sandpiper)	VU	2	Karkamıs Dam	T
Scolopax rusticola (Woodcock)	DD	5	Tahtakopru Dam	WV
	Fa	amily : Laridae		1
Larus armenicus (Armenian Gull,)	LC	42	Karkamıs Dam	WV
Larus genei (Slender-billed Gull)	VU	32	Hancagız Dam	WV
	Fa	mily : Sternidae		
Sterna albifrons (Little Tern)	NT	27	Karkamıs Dam	G
Chilidonias leucopterus (White – winged Black Tern)	NT	12	Hancagız Dam	Т
	Fam	nily : Columbidae		
Columba livia (Rock Dove)	LC	134	Oguzeli district	R
Streptopelia decaocta (Collared Dove)	LC	104	Oguzeli district	R
Streptopelia senegalensis (Palm Dove)	LC	21	Balıklı Park	R
Streptopelia turtur (Turtle Dove)	LC	2	Gaziantep University	SM
	Fa	mily : Strigidae		
Athene noctua (Little Owl)	LC	4	Karkamıs district / center	R
	Fai	mily: Tytonidae		
Tyto alba (Barn Owl)	NT	1	Karkamıs Dam	R
	Fai	mily : Apodidae		
Apus apus (Swift)	LC	112	Nizip district	SM
Apus melba (Alpine Swift)	LC	27	Huzurlu Plateau	SM
Apus affinis (Little Swift)	EN	30	Araban district / Kokluce village	SM
	Fam	nily: Alcedinidae		
Alcedo atthis (Kingfisher)	NT	5	Karkamıs Dam	WV
Ceryle rudis (Lesser Pied Kingfisher	CR	3	Karkamıs Dam	R
	Fan	nily: Meropidae		
Merops apiaster (Bee – eater)	LC	30	Nizip district/ Karacurun village	SM
	Fan	nily: Coraciidae		
Coracias garrulus (Roller)	LC	2	Nizip district/ Samandoken village	SM

Bird Species Name Latin (English)	Criteria	Counted individuals	Observation place	Migration statue
	Fa	mily: Upupidae		
Upupa epops (Hoopoe)	LC	4	University of Gaziantep	SM
	F	amily: Picidae		
Dendrocopus syriacus (Syrian Woodpecker)	LC	6	University of Gaziantep	R
	Fa	mily: Alaudidae		
Galerida cristata (Crested Lark)	LC	35	Oguzeli district	R
	Fan	nily: Hirundinidae		
Hirundo rustica (Swallow)	LC	86	Araban district	SM
Delichon urbica (House Martin)	VU	14	University of Gaziantep	SM
	Fan	nily: Motacillidae		
Anthus campestris (Tawny Pipit)	LC	2	Karkamıs Dam	SM
Motacilla flava (Yellow Wagtail)	LC	1	Oguzeli district	SM
Motacilla alba (Pied Wagtail)	LC	8	Karkamıs Dam	R
Motacilla cinerea(Grey Wagtail)	LC	2	Huzurlu Plateau	SM
	Fai	mily : Prunellidae	,	
Prunella modularis (Dunnock)	LC	1	University of Gaziantep	WV
	Fa	amily: Turdidae	,	
Phoenicurus ochrurus (Black Redstart)	LC	3	Karkamıs Dam	SM
Oenanthe isabellina (Isabelline Wheatear)	LC	12	Nizip district	SM
Turdus iliacus (Redwing)	LC	1	Guneykısla village	WV
Turdus merula (Black Bird)	LC	2	University of Gaziantep	R
Cercotrichas galactotes (Rufous Bush – Chat)	LC	8	University of Gaziantep	SM
Erithacus rubecula (Robin)	LC	2	University of Gaziantep	WV
Luscinia megarhynchos (Nightingale)	LC	2	University of Gaziantep	SM
Oenanthe oenanthe (Wheatear)	LC	8	Huzurlu Plateau	SM
Oenanthe hispanica (Black – eared Wheatear)	LC	2	Burc forest	SM
Oenanthe finschii (Finsch's Wheatear)	LC	2	Huzurlu Plateau	R
Phoenicurus phoenicurus (Red Start)	LC	6	University of Gaziantep	SM
,	Fa	amily: Sylvidae		
Hippolais pallida (Olivaceous Warbler)	LC	6	University of Gaziantep	SM
Regulus regulus (Goldcrest)	LC	13	University of Gaziantep	R
Sylvia melenocephala(Sardinian Warbler)	LC	3	Burc district / Sarısalkım village	WV
	Fam	ily: Muscicapidae		
Ficedula hypoleuca (Pied Flycatcher)	LC	2	University of Gaziantep	SM
Muscicapa striata (Spotted Flycatcher)	LC	2	University of Gaziantep	SM
	F	amily: Paridae		
Parus major (Great Tit)	LC	12	University of Gaziantep	R
Parus ater (Coal Tit)	LC	12	University of Gaziantep	R
Parus lugubris (Sombre Tit)	LC	2	Huzurlu Plateau	R
	F	amily: Sittidae		
Sitta neumayer (Rock Nuthatch)	LC	1	Araban district/ Kokluce village	R
	Fa	amily : Laniidae		
Lanius collurio (Red – backed Shrike)	LC	35	Araban district/ Kokluce village	SM
Lanius excubitor (Great Grey Shrike)	LC	1	Huzurlu Plateau	WV

Bird Species Name Latin (English)	Criteria	Counted individuals	Observation place	Migration statue
Lanius minor (Lesser Grey Shrike)	LC	16	Araban district/ Kokluce village	SM
Lanius senator (Woodchat Shrike)	LC	8	Araban district/ Kokluce village	SM
	Fa	mily: Corvidae		
Corvus frugilegus (Rook)	LC	14	Karkamıs Dam	WV
Corvus corone cornix (Carrion/Hooded Crow)	LC	53	Oguzeli district	R
Corvus monedula (Jackdaw)	LC	8	Huzurlu Plateau	R
Garrulus glandarius (Jay)	LC	2	Huzurlu Plateau	R
	Fa	mily : Sturnidae		•
Sturnus vulgaris (Starling)	LC	52	Balıklı Park	R
	Fai	mily: Passeridae		·
Passer domesticus (House Sparrow)	LC	261	Karkamıs Dam	R
	Fan	nily: Fringillidae		
Fringilla coelebs (Chaffinch)	LC	30	University of Gaziantep	WV
Carduelis carduelis (Goldfinch)	LC	32	Sarısalkım village/center	R
Carduelis chloris (Greenfinch)	LC	14	University of Gaziantep	WV
Serinus serinus (Serin)	LC	55	University of Gaziantep	R
Carduelis cannabina (Linnet)	LC	21	Karkamıs Dam	R
	Fam	nily : Emberizidae		
Emberiza melanocephala (Black –headed Bunting)	LC	33	Gaziantep University	SM
Milliaria calandra (Corn Bunting)	LC	35	Karkamıs Dam	R
Emberiza citronella (Yellow hammer)	LC	2	Burc district / Sarısalkım village	WV
Emberiza cia (Rock Bunting)	LC	1	University of Gaziantep	WV
Emberiza striolata (House Bunting)	LC	1	University of Gaziantep	WV

Turkey has 2 important migration routes and 3 migration Gates, namely the Bosphorus in the North-west, Artwin–Boçka pass in the North-east and Hatay-Belen pass in teh South [17]. Gaziantep is located on Hatay-Belen Gates. So, this region is very much important gates for the birds.

But it has been observed that Hancağız dams especially rigorously has been polluted with waste materials by industrial activities. We think that it must be protected this area and like this ones against to environmental pollution.

REFERENCES

- Adizel, O., 1998. Studies on Ornitofauna in Van Lake basin. University of Yüzüncü Yıl. Graduate School of Natural and Applied Sciences (PhD thesis). Van, 244 p.
- [2] Colin, J, B., and Burgess, D, N. 1992. Bird Census Techniques. Bird Trust for Ornithology and RSPB Publication, 257 p.
- [3] Demirsoy, A., 2002. General Zoogeography and Zoogeography on Turkei, Aniamal Geography. Meteksan, 1007 p.
- [4] Dobinson, H. M. 1976. Bird Count, Keztrel Books, Published by Penguin Books Ltd. Hormondsworth, Middlesex, England. 192 p.
- [5] Doga Dernegi. 2004. Impotantan Birds Area on Turkey, Update in 2007. Nation Association periodical, 232 p.

- [6] Dugan, P.J. 1990. Wetland protect, Protect Association of Nation Life. İstanbul. 93 p.
- [7] Ergene, S. 1945. Birds of Turkey. University of İstanbul, Monographys, (4) 460 p.
- [8] Ertan, M., Kılıç, A., Kaspare, M., 1992. Impotantan Birds Area on Turkey. Protect Association of Nation Life-International Council for Bird Preservation, İstanbul, 125p.
- [9] Gilbert, G., Gibbons, W, D., and Evans, J. 1998. Bird Monitoring Methods. The Royal Society for the Protection of Birds. 464 p.
- [10] Heinzel, H., Fitter, R., and Parslow, J. 1995. Birds of Turkey and Europe. World wildlife fund publication, 384 p.
- [11] Karakas, R., Kılıc, A. 2001. National congress on IV Ecology and Environment of Project of Southeast Anatolia. 5-8 October 2001, Bodrum, Turkey.
- [12] Karakas, R., Kılıc, A. 2002. Birds of Goksu Dam (Diyarbakır) and new records in south-east Turkey. Sandgrouse 24 (1); 38-43.
- [13] Kılıc, A., Karakas, R. and Biricik, M. 2002. A General Calculation on Birds of Diyarbakır. National congress on XVI. Biology. 4-7 September, Malatya.
- [14] Kirwan, M, G., Martins, P, R., Eken, G., and Davidson, P. 1978. A checklist of the birds of Turkey. Ornithological Society of the Middle East Publication, 32 s.

- [15] Kiziroglu, İ. 1989. Birds of Turkey. Publication of Forest Management. 316 p.
- [16] Kummerloeve, H. 1961. Zur Kenntnis der Avifauna Kleinasiens, Bonner Zoologische Beiträge. Sonderheft. Jahrgang, 312s.
- [17] Perktaş, U., Ayaş, Z. 2005. Birds of Nallıhan bird paradise (Central Anatolia, Turkey). Turkish Journal Zoology. 29 (1): 45-49.
- [18] Roselaar, C, S. 1995. Songbirds of Turkey. Pica Pres, 240 s.
- [19] Toprak, H. H. C. Systematics and Ecology of Birds Species of Gaziantep Province (Classis: Aves). University of Gaziantep, Graduate School of Natural and Applied Sciences (MSc.thesis). 2004, 99 p.

- [20] Faundation of Turkish Environment. 1993. Turkeys' Wetland Area, Publication of Faundation of Turkish Environment, Ankara, 64 p.
- [21] Vielliard, J. 1968. Resultats Ornithologiques d' une Mission a Travers la Turque. University of Istanbul, Publication of Faculty of Sciences. 33 (B): 3-4
- [22] Voous, K, H., 1962. Die Vogelwelt Europas und ihre Verbreitung, Verlag Paul Parey, Hamburg und Berlin.
- [23] Yarar, M., Magnin. G. 1997. Impotantan Birds Area on Turkey. Protection of Wildlife Association. İstanbul, 313 p. http://www.gaziantep.gov.tr/GAZIANTEP.php?page_ id=73