



Research Article / Araştırma makalesi

The Avifauna value of Lake Erçek (Van, Turkey)

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ABSTRACT

Studies on the valuation of biodiversity are mainly prepared with market value, non-market value, and ecosystem value. Thus, the contingent valuation method (CVM) is mostly used. The direct valuation of biodiversity almost does not exist. In this study, bird counts of Lake Erçek have complied, and the highest counted number for the species was used. The valuation of the avifauna was made using the compensation fees within the scope of the Turkish Central Hunting Commission Decisions 2020-2021. In Lake Erçek a total of 183 bird species were recorded, and the avifauna value was calculated as 203.084.660,00 TL.

Keywords: Biodiversity value, The Central Hunting Commission, Compensation fees.

Erçek Gölü'nün (Van, Türkiye) Kuş Kıymeti

ÖZET

Biyçeşitliliğin kıymetlendirilmesi ile ilgili çalışmalar genel olarak piyasa kıymeti, piyasa dışı kıymet ve ekosistem kıymeti içermektedir. Bu nedenle, çoğunlukla koşullu kıymetlendirme yöntemi (CVM) kullanılır. Biyçeşitliliğin kıymetlendirilmesi neredeyse yoktur. Bu çalışmada, Erçek Gölü'nün kuş sayımları derlenerek türler için en fazla sayılan sayı kullanılmıştır. Avifauna'nın kıymetlendirilmesi, 2020-2021 Türkiye Merkez Av Komisyonu Kararları kapsamındaki tazminat bedelleri kullanılarak yapılmıştır. Erçek Gölü'nde 183 kuş türü kaydedilmiş ve avifauna kıymeti 26.041.070,00 TL olarak hesaplanmıştır.

Anahtar Kelimeler: Biyçeşitlilik kıymeti, Merkez Av Komisyon Kararları, Tazminat bedeli.

1. INTRODUCTION

Wetlands support goods and services to millions of people (Barbier et al., 1997; Ten Brink et al. 2012), and also the benefits it provides to the ecosystems is quite high (Joyce, 2012). The global value of wetlands, including goods and services, has been estimated at 14 trillion US \$ annually (Costanza et al., 1997).

Wetlands are highly sensitive ecosystems (Turner et al., 2000; Islam, 2010). Therefore, they are sensitive to degradation (Turner et al., 2000). Wetlands are endangered ecosystems, and increasing of the lost increase day by day (Barbier et al. 1997; Turner et al., 2000). Therefore, international and national legislations are existing to protect wetlands (Bergstrom and Stoll, 1993). Since 1900 more than half of the world's wetlands have been destroyed or lost (Barbier, 1993).

Economic valuation is used for correct decision making (Pearce et al., 1994). It demonstrates the benefits receiving from wetlands, the loss prices, and profits and incomes form land usage (Emerton, 1998). It eases decision making for better social well-being (Batie and Shabman, 1982), also promoting policies to protect the environment (Helm, 1991).

Although many studies have conducted on wetlands in Turkey, researches on their valuation almost do not exist (Biler and Altındağ, 2020). Wetland valuation is necessary to understand the importance of wetlands (Turpie et al., 2010).

The valuation of biodiversity consists mainly of market value, non-market value, and ecosystem value (Gowdy, 1997). Also, biodiversity value is prepared using the contingent valuation method (CVM) (Turpie et al., 2010). There are only a few studies directly valuing biodiversity itself. The valuation of the species consists of the penalties according to the law (Biler and Altındağ, 2020). This research aims to value the avifauna of lake Erçek, using The Central Hunting Commission penalties of Turkey (2020-2021).

2. MATERIAL AND METHOD

2.1 Study Area

Lake Erçek is located between the coordinates 38°, 35 ' North; 43°, 33 East, and 20 km east of Lake Van (Figure 1). The depth of the lake is ranged from 30 - 38 m. The lake is 1890 m in altitude and covers 9520 ha (Adızel and Durmuş, 2009). There are 10 km wide flat meadows and arable lands on the southern and eastern shores of Lake Erçek. In the northern and western parts, the lake's waterline line is surrounded by high hills. Since the lake water is

salty and soda, it cannot be used in irrigation or meeting domestic needs (Sarı et al., 2000). Also Lake Erçek was registered by the Ministry of Agriculture and Forestry as a wetland of national importance on 10.06.2016 covering 22.269 ha.

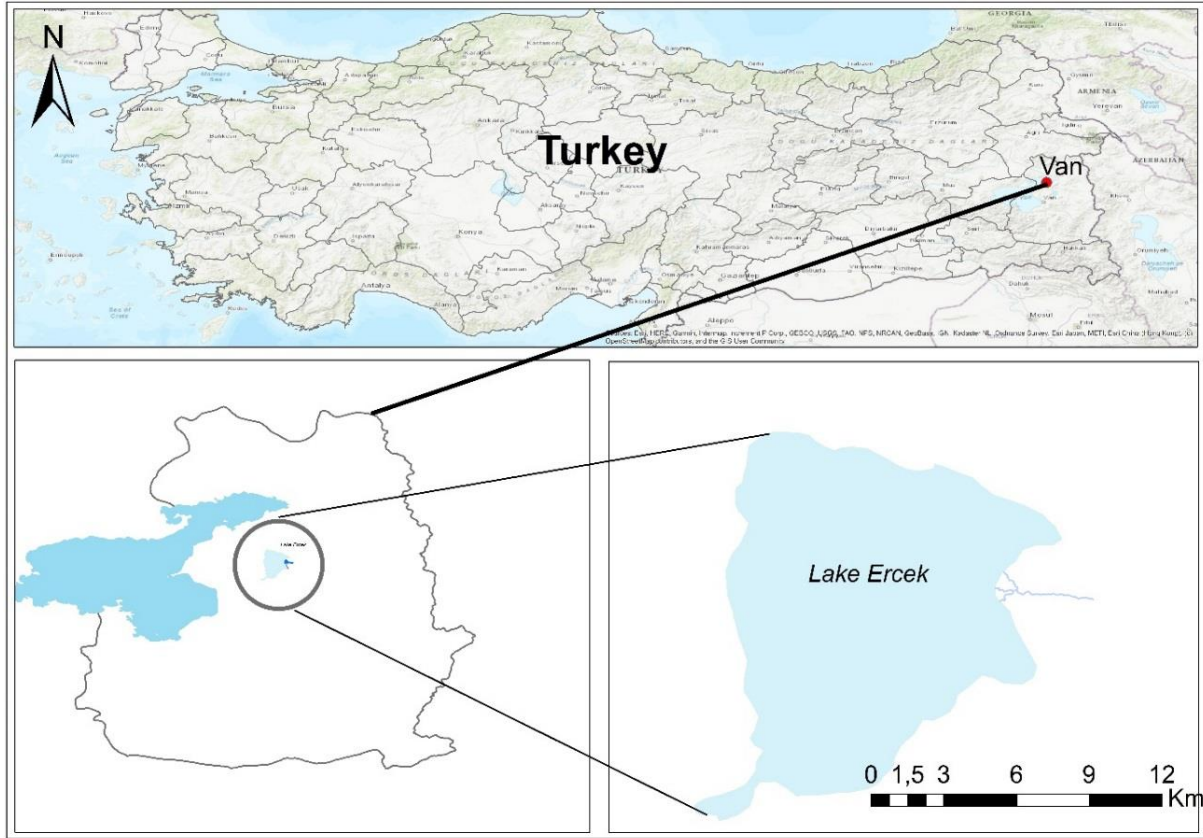


Figure 1. Geographic location of the study area

2.2 Bird Counts

Data on the bird counts of Lake Erçek is taken from Adızel and Durmuş (2009), Durmuş and Çelik (2017), Nergiz and Durmuş (2018), eBird counts and mid-winter waterfowl counts (MWWC) prepared by the Turkish Ministry of Agriculture and Forestry.

2.3 Value with the Turkish Central Hunting Commission compensation fees (2020-2021)

The valuation of the avifauna was made using the compensation fees within the scope of the Central Hunting Commission Decisions determined by the Turkish Republic Ministry of Agriculture and Forestry.

3. RESULTS AND DISCUSSION

179 bird species were recorded according to Adızel & Durmuş (2009), 1 species by Nergiz & Durmuş (2018), 21 species by MWWC counts and 183 species by Ebird counts. The highest counted number for the species was used, and 1 for the species without observation counts was written. A total of 183 bird species in Lake Erçek were recorded and the value is calculated as 203.084.660,00 TL. Accordingly, species list, counts, and compensation fees are given in Table 1.

Table 1. Avifauna list, counts and compensation fees

Scientific Name	Common Name	Adızel & Durmuş (2009) counts	Nergiz & Durmuş (2018) counts	Max. MWWC counts	Max. Ebird counts	Max. Individuals counted	Compensation fee (in TL)
<i>Cettia cetti</i>	Cetti's Warbler	3			1	3	₺1.671.050,00
<i>Accipiter gentilis</i>	Northern Goshawk	6				6	₺26.250.000,00
<i>Accipiter nisus</i>	Eurasian Sparrowhawk	4				4	₺6.000.000,00
<i>Aquila chrysaetos</i>	Golden Eagle	8				8	₺10.500.000,00
<i>Aquila rapax</i>	Tawny Eagle	6				6	₺31.500.000,00
<i>Buteo buteo</i>	Eurasian Buzzard	6			2	6	₺1.110.000,00
<i>Buteo rufinus</i>	Long-Legged Buzzard	6			1	6	₺570.000,00
<i>Circaetus gallicus</i>	Short-Toed Snake-Eagle	1				1	₺51.750.000,00
<i>Circus aeruginosus</i>	Western Marsh-Harrier	4			1	4	₺5.400.000,00
<i>Circus cyaneus</i>	Hen Harrier	1				1	₺1.377.500,00
<i>Clanga clanga</i>	Greater Spotted Eagle	2				2	₺41.250.000,00
<i>Gyps fulvus</i>	Griffon Vulture	2				2	₺225.000,00
<i>Haliaeetus leucoryphus</i>	Pallas's Fish-Eagle	2				2	₺1.110.000,00
<i>Hieraaetus pennatus</i>	Booted Eagle	1				1	₺240.000,00
<i>Milvus migrans</i>	Black Kite	2			1	2	₺345.000,00
<i>Neophron percnopterus</i>	Egyptian Vulture	3			2	3	₺180.000,00
<i>Acrocephalus arundinaceus</i>	Great Reed-Warbler	5			1	5	₺2.850,00
<i>Acrocephalus melanopogon</i>	Moustached Warbler	1			1	1	₺1.900,00
<i>Acrocephalus palustris</i>	Marsh Warbler	2			2	2	₺1.301.500,00
<i>Acrocephalus schoenobaenus</i>	Sedge Warbler	1			6	6	₺950,00
<i>Acrocephalus scirpaceus</i>	Common Reed-Warbler	3			1	3	₺950,00
<i>Iduna pallida</i>	Olivaceous Warbler	21			1	21	₺3.515.000,00
<i>Alauda arvensis</i>	Eurasian Skylark	250			2	250	₺2.375.000,00
<i>Calandrella cinerea</i>	Red-capped Lark	7				7	₺1.900.000,00
<i>Calandrella rufescens</i>	Lesser Short-Toed Lark	75				75	₺1.425.000,00
<i>Eremophila alpestris</i>	Horned Lark	30				30	₺950.000,00
<i>Galerida cristata</i>	Crested Lark	250			1	250	₺950.000,00
<i>Lullula arborea</i>	Woodlark	50				50	₺71.250,00
<i>Melanocorypha bimaculata</i>	Bimaculated Lark	4				4	₺712.500,00
<i>Melanocorypha calandra</i>	Calandra Lark	3				3	₺703.000,00
<i>Alcedo atthis</i>	Common Kingfisher	1				1	₺598.500,00
<i>Ceryle rudis</i>	Pied Kingfisher	2				2	₺1.425.000,00
<i>Anas acuta</i>	Northern Pintail	16		5		16	₺389.500,00
<i>Anas crecca</i>	Common Teal	2750		15	3	2750	₺332.500,00
<i>Anas platyrhynchos</i>	Mallard	3450		25	6	3450	₺32.300,00
<i>Anser albifrons</i>	Greater White-Fronted Goose	23		3		23	₺260.300,00
<i>Anser anser</i>	Greylag Goose	19				19	₺237.500,00
<i>Aythya ferina</i>	Common Pochard	250			30	250	₺237.500,00
<i>Aythya fuligula</i>	Tufted Duck	74		56	2	74	₺237.500,00
<i>Aythya nyroca</i>	Ferruginous Duck	13				13	₺483.000,00
<i>Bucephala clangula</i>	Common Goldeneye			38		38	₺199.500,00
<i>Mareca strepera</i>	Gadwall	16			1	16	₺950.000,00
<i>Marmaronetta angustirostris</i>	Marbled Teal	9				9	₺483.000,00
<i>Netta rufina</i>	Red-Crested Pochard			1		1	₺190.000,00
<i>Oxyura leucocephala</i>	White-Headed Duck	13			3	13	₺322.000,00

Scientific Name	Common Name	Adizel & Durmuş (2009) counts	Nergiz & Durmuş (2018) counts	Max. MWWC counts	Max. Ebird counts	Max. Individuals counted	Compensation fee (in TL)
<i>Spatula clypeata</i>	Northern Shoveler	360		25	4	360	₺114.000,00
<i>Spatula querquedula</i>	Garganey	27			1	27	₺74.100,00
<i>Tadorna ferruginea</i>	Ruddy Shelduck	2100		110	1	2100	₺72.200,00
<i>Tadorna tadorna</i>	Common Shelduck	700		150	1	700	₺71.250,00
<i>Apus apus</i>	Common Swift	120				120	₺71.250,00
<i>Tachybaptus ruficollis</i>	Little Grebe	1450		20		1450	₺69.350,00
<i>Tachymarptis melba</i>	Alpine Swift	58				58	₺55.100,00
<i>Ardea alba</i>	Great White Egret	6			2	6	₺47.500,00
<i>Ardea cinerea</i>	Grey Heron	23			1	23	₺47.500,00
<i>Ardea purpurea</i>	Purple Heron	3		2	1	3	₺47.500,00
<i>Ardeola ralloides</i>	Squacco Heron	4			3	4	₺45.600,00
<i>Botaurus stellaris</i>	Eurasian Bittern	6			1	6	₺45.600,00
<i>Egretta garzetta</i>	Little Egret	48			4	48	₺40.850,00
<i>Nycticorax nycticorax</i>	Black-Crowned Night-Heron	12			1	12	₺40.850,00
<i>Burhinus oedicephalus</i>	Eurasian Thick-Knee	8				8	₺38.000,00
<i>Caprimulgus europaeus</i>	European Nightjar	1				1	₺36.100,00
<i>Charadrius dubius</i>	Little Ringed Plover	32			1	32	₺34.200,00
<i>Charadrius leschenaultii</i>	Greater Sandplover	6				6	₺33.250,00
<i>Vanellus vanellus</i>	Northern Lapwing	630			15	630	₺33.250,00
<i>Ciconia ciconia</i>	White Stork	15			15	15	₺150.400,00
<i>Columba livia</i>	Rock Dove	210			1	210	₺30.400,00
<i>Columba oenas</i>	Stock Dove	6				6	₺28.500,00
<i>Columba palumbus</i>	Common Woodpigeon	14				14	₺25.650,00
<i>Streptopelia decaocto</i>	Eurasian Collared-Dove	4			1	4	₺25.650,00
<i>Streptopelia turtur</i>	European Turtle-Dove	2				2	₺23.750,00
<i>Coracias garrulus</i>	European Roller	19			1	19	₺23.750,00
<i>Corvus corax</i>	Common Raven	7				7	₺4.140,00
<i>Corvus cornix</i>	Hooded Crow	78			11	78	₺4.140,00
<i>Corvus frugilegus</i>	Rook	2500			60	2500	₺4.140,00
<i>Corvus monedula</i>	Eurasian Jackdaw	75			34	75	₺3.960,00
<i>Pica pica</i>	Eurasian Magpie	50			4	50	₺3.780,00
<i>Cuculus canorus</i>	Common Cuckoo	10			1	10	₺19.000,00
<i>Emberiza buchanani</i>	Grey-Necked Bunting	5			1	5	₺19.000,00
<i>Emberiza calandra</i>	Corn Bunting	25			1	25	₺19.000,00
<i>Emberiza cineracea</i>	Cinereous Bunting	7				7	₺19.000,00
<i>Emberiza hortulana</i>	Ortolan Bunting	20				20	₺18.050,00
<i>Emberiza melanocephala</i>	Black-Headed Bunting	50			1	50	₺18.050,00
<i>Emberiza schoeniclus</i>	Reed Bunting	5			1	5	₺15.200,00
<i>Falco biarmicus</i>	Lanner Falcon	4				4	₺240.000,00
<i>Falco cherrug</i>	Saker Falcon	3				3	₺240.000,00
<i>Falco naumanni</i>	Lesser Kestrel	13			1	13	₺240.000,00
<i>Falco subbuteo</i>	Eurasian Hobby	3			1	3	₺240.000,00
<i>Falco tinnunculus</i>	Common Kestrel	7			1	7	₺240.000,00
<i>Carduelis carduelis</i>	European Goldfinch	40			1	40	₺14.250,00
<i>Carpodacus erythrinus</i>	Common Rosefinch	2				2	₺14.250,00
<i>Linaria cannabina</i>	Common Linnet	20			1	20	₺14.250,00
<i>Rhodopechys sanguineus</i>	Eurasian Crimson-Winged Finch	5				5	₺14.250,00
<i>Haematopus ostralegus</i>	Eurasian Oystercatcher	16			1	16	₺14.250,00
<i>Delichon urbicum</i>	Northern House Martin	350				350	₺13.300,00
<i>Hirundo rustica</i>	Barn Swallow	1000			15	1000	₺12.350,00
<i>Riparia riparia</i>	Collared Sand Martin	500			1500	1500	₺12.350,00
<i>Lanius collurio</i>	Red-Backed Shrike	25				25	₺12.350,00
<i>Lanius minor</i>	Lesser Grey Shrike	15			2	15	₺12.350,00
<i>Chlidonias leucopterus</i>	White-Winged Tern	740			45	740	₺12.350,00
<i>Chlidonias niger</i>	Black Tern	13			10	13	₺12.350,00
<i>Gelochelidon nilotica</i>	Common Gull-Billed Tern	13			1	13	₺11.400,00
<i>Hydroprogne caspia</i>	Caspian Tern	5			2	5	₺11.400,00
<i>Larus armenicus</i>	Armenian Gull	630		1759	7	1759	₺11.400,00
<i>Larus cachinnans</i>	Caspian Gull			400		400	₺11.400,00
<i>Larus canus</i>	Mew Gull	48				48	₺11.400,00
<i>Larus fuscus</i>	Lesser Black-Backed Gull	210			2	210	₺10.450,00
<i>Larus genei</i>	Slender-Billed Gull	16				16	₺10.450,00
<i>Larus ridibundus</i>	Black-Headed Gull	340				34	₺10.450,00

Scientific Name	Common Name	Adizel & Durmuş (2009) counts	Nergiz & Durmuş (2018) counts	Max. MWWC counts	Max. Ebird counts	Max. Individuals counted	Compensation fee (in TL)
<i>Sterna hirundo</i>	Common Tern	8			2	8	₺9.500,00
<i>Sternula albifrons</i>	Little Tern	16			3	16	₺9.500,00
<i>Locustella luscinioides</i>	Savi's Warbler	11				11	₺9.500,00
<i>Merops apiaster</i>	European Bee-Eater	38			7	38	₺8.550,00
<i>Anthus campestris</i>	Tawny Pipit	10			6	10	₺7.600,00
<i>Motacilla alba</i>	White Wagtail	750			4	75	₺7.600,00
<i>Motacilla cinerea</i>	Grey Wagtail	35			2	35	₺7.600,00
<i>Motacilla flava</i>	Western Yellow Wagtail	1500			1	1500	₺6.650,00
<i>Motacilla flava feldegg</i>	Western Yellow Wagtail	200			1	200	₺6.650,00
<i>Cyanecula svecica</i>	Bluethroat	11				11	₺6.650,00
<i>Erithacus rubecula</i>	European Robin	12			1	12	₺6.650,00
<i>Ficedula parva</i>	Red-Breasted Flycatcher	5				5	₺6.650,00
<i>Irania gutturalis</i>	White-Throated Robin	5				5	₺6.650,00
<i>Monticola saxatilis</i>	Rufous-Tailed Rock-Thrush	7				7	₺6.650,00
<i>Muscicapa striata</i>	Spotted Flycatcher	3			2	3	₺6.650,00
<i>Oenanthe deserti</i>	Desert Wheatear	7				7	₺6.650,00
<i>Oenanthe finschii</i>	Finsch's Wheatear	7				7	₺9.500,00
<i>Oenanthe hispanica</i>	Black-Eared Wheatear	15				15	₺5.700,00
<i>Oenanthe isabellina</i>	Isabelline Wheatear	35			2	35	₺5.700,00
<i>Oenanthe oenanthe</i>	Northern Wheatear	27			6	27	₺5.700,00
<i>Oenanthe pleschanka</i>	Pied Wheatear	12				12	₺5.700,00
<i>Phoenicurus ochruros</i>	Black Redstart	11				11	₺5.700,00
<i>Phoenicurus phoenicurus</i>	Common Redstart	5			2	5	₺5.700,00
<i>Saxicola rubetra</i>	Whinchat	7			2	7	₺5.700,00
<i>Saxicola torquatus</i>	Common Stonechat	10				10	₺5.700,00
<i>Otis tarda</i>	Great Bustard	1				1	₺47.500,00
<i>Parus major</i>	Great Tit	12				12	₺4.750,00
<i>Passer domesticus</i>	House Sparrow	1000			25	1000	₺4.750,00
<i>Microcarbo pygmeus</i>	Pygmy Cormorant	3				3	₺8.500,00
<i>Alectoris chukar</i>	Chukar	32				32	₺4.750,00
<i>Coturnix coturnix</i>	Common Quail	76			10	76	₺4.750,00
<i>Phoenicopterus roseus</i>	Greater Flamingo	1370	1200	1	37	1370	₺23.500,00
<i>Phylloscopus collybita</i>	Common Chiffchaff	22				22	₺4.750,00
<i>Phylloscopus nitidus</i>	Green Warbler	5				5	₺4.750,00
<i>Phylloscopus sibilatrix</i>	Wood Warbler	2				2	₺4.750,00
<i>Phylloscopus trochilus</i>	Willow Warbler	15			8	15	₺3.800,00
<i>Podiceps auritus</i>	Horned Grebe	4				4	₺3.800,00
<i>Podiceps cristatus</i>	Great Crested Grebe	12			6	12	₺3.800,00
<i>Podiceps griseus</i>	Red-Necked Grebe	73				73	₺3.800,00
<i>Podiceps nigricollis</i>	Black-Necked Grebe	3700			306	3700	₺3.800,00
<i>Pterocles orientalis</i>	Black-Bellied Sandgrouse	2				2	₺3.800,00
<i>Fulica atra</i>	Common Coot	1750		800	12	1750	₺3.800,00
<i>Gallinula chloropus</i>	Common Moorhen	3		15	3	15	₺3.800,00
<i>Rallus aquaticus</i>	Western Water Rail	2		2	2	2	₺3.800,00
<i>Himantopus himantopus</i>	Black-Winged Stilt	43			3	43	₺2.850,00
<i>Recurvirostra avosetta</i>	Pied Avocet	274			2	274	₺2.850,00
<i>Regulus ignicapilla</i>	Common Firecrest	5				5	₺2.850,00
<i>Regulus regulus</i>	Goldcrest	4				4	₺2.850,00
<i>Remiz pendulinus</i>	Eurasian Penduline-Tit	2			10	2	₺2.850,00
<i>Actitis hypoleucos</i>	Common Sandpiper	43			1	43	₺2.850,00
<i>Arenaria interpres</i>	Ruddy Turnstone	4			2	4	₺2.850,00
<i>Calidris alpina</i>	Dunlin	23			3	23	₺2.850,00
<i>Calidris minuta</i>	Little Stint	210			1000	1000	₺2.850,00
<i>Calidris pugnax</i>	Ruff	410			8	410	₺1.900,00
<i>Calidris temminckii</i>	Temminck's Stint	13			5	13	₺1.900,00
<i>Gallinago gallinago</i>	Common Snipe	74		5	1	74	₺1.900,00
<i>Limosa limosa</i>	Black-Tailed Godwit	210			1	210	₺1.900,00
<i>Scolopax rusticola</i>	Eurasian Woodcock			1		1	₺1.900,00
<i>Tringa erythropus</i>	Spotted Redshank	7			2	7	₺1.900,00
<i>Tringa glareola</i>	Wood Sandpiper	36			12	36	₺1.900,00
<i>Tringa nebularia</i>	Common Greenshank	23			1	23	₺1.900,00
<i>Tringa ochropus</i>	Green Sandpiper	12		2	1	12	₺1.900,00
<i>Tringa stagnatilis</i>	Marsh Sandpiper	7			10	10	₺1.900,00

Scientific Name	Common Name	Adızel & Durmuş (2009) counts	Nergiz & Durmuş (2018) counts	Max. MWWC counts	Max. Ebird counts	Max. Individuals counted	Compensation fee (in TL)
<i>Tringa totanus</i>	Common Redshank	750			15	750	₺1.900,00
<i>Sitta neumayer</i>	Western Rock Nuthatch	3				3	₺1.900,00
<i>Athene noctua</i>	Little Owl	16			1	16	₺6.600,00
<i>Bubo bubo</i>	Eurasian Eagle-Owl	2				2	₺6.600,00
<i>Otus scops</i>	Eurasian Scops-Owl	2				2	₺3.300,00
<i>Pastor roseus</i>	Rosy Starling	140			50	140	₺950,00
<i>Sturnus vulgaris</i>	Common Starling	2000			150	2000	₺950,00
<i>Sylvia atricapilla</i>	Eurasian Blackcap	2				2	₺950,00
<i>Sylvia borin</i>	Garden Warbler	15				15	₺5.700,00
<i>Sylvia communis</i>	Common Whitethroat	20			2	20	₺950,00
<i>Troglodytes troglodytes</i>	Northern Wren	20				20	₺950,00
<i>Upupa epops</i>	Common Hoopoe	16			1	16	₺950,00
						Total	₺203.084.660,00

There are two studies in Turkey related to the biodiversity valuation by the compensation fees of the National Hunting Law. The first was prepared by the Ministry of Agriculture and Forestry in the Sultan Sazligi National Park in 2012. According to this research, the birds' value of Sultan Sazligi National Park was calculated as 71.120.300 TL (Anonymous, 2012). Biler and Altındağ (2020) calculated in his article the value of Balıkdanı Wetland's birds as 4.095.550 TL. We calculated the birds' value of Lake Erçek as 203.084.660,00 TL. The value depends mostly on the bird migration routes and the size of the area. Sultan Sazligi National Park is the largest area, whereas Balıkdanı Wetland is the smallest. Therefore, it is an expected result that the area that the birds visit more intensely will be valued high. The calculation for lake Erçek differs from the other studies, due to the change in the compensation fees. The bird value of lake Erçek was expected to be between Sultan Sazligi National Park and Balıkdanı Wetland.

4. CONCLUSION

Wetland ecosystems have not been considered historically for conservation and have been regarded as waste areas. Its ecological functions and the values to society are not fully understood. On the other hand, Turkey has many important stopover sites on migration (Karaardıç et al. 2006a; Erdoğan et al. 2008) and many populations breeding in the western Palearctic region prefer to migrate to the sub-Saharan areas in eastern Africa for wintering via Turkey (Karaardıç et al. 2006b; Meier et al. 2020). Wetlands offer important hiding, resting and

feeding opportunities for both wintering and long-distance migratory birds (Erciyas et al. 2010; Karaardıç & Özkan, 2017; Karaardıç & Erdoğan, 2019). Economic valuation may be easier to understand the recent and the future situation according to these relations in ecosystems, especially in wetland ecosystems, considering that more than half of the wetlands have disappeared or changed in the last century (Barbier, 1993). Moreover, concrete data will help to make true conservation strategies. It is essential to introduce these useful ecosystems to the local people, as well as raise awareness about their importance and conservation. In addition, it is important to reveal wetland value for the development of wetland policies. The importance of bird value is due to the responsibilities of the countries included in the Ramsar Convention. For this reason, in this study, the birds' value of Lake Erçek was revealed, and it is emphasized that it should be taken into consideration in the planning of the area.

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