

Information Sheet on Ramsar Wetlands (RIS) – 2006-2008 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

07/01/2008

3. Country:

REPUBLIC OF TURKEY

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Akyatan Lagoon

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site ; or
b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

- a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

** **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List): x;
- ii) an electronic format (e.g. a JPEG or ArcView image) x;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

36° 37' N, 35° 16' E

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

It is located on the shore of Mediterranean within the border of the Karataş district of the Adana province. 18 km. from Adana.

10. Elevation: (in metres: average and/or maximum & minimum)

Sea level

11. Area: (in hectares)

14,700

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The swamp which emerged as a result of the overflowing of the Rivers Seyhan and Ceyhan became separated from the sea in the course of time by a thin strip formed by the waves. It later took its present form, that of a typical alluvial dammed lake.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1:

Criterion 1 has been applied for Akyatan Lagoon according to Annex I of the EU Habitats Directive (92/43/EEC). The Çukurova Deltas where Akyatan Lagoon is located is one of the most extensive coastal ecosystems in the eastern Mediterranean and includes three major ecosystems: freshwater (rivers, former river beds, small inland lakes, and oxbows), coastal and saltwater ecosystems (sandy beaches, mobile and fixed sand dunes, salt marshes, salt flats, and lagoons), and agro-ecosystems. These support four main vegetation types: sand dune vegetation, salt marsh vegetation, stream bank and fresh water vegetation, and ruderal vegetation of field margins and roadsides.

Criterion 2:

There are 1 species Salamanders (*Triturus sp.*), 4 species of frogs, 2 species of snakes, 4 species of lizard and 4 species of turtles. Among these Green Toad (*Bufo viridis*), Tree frog (*Hyla arborea*), eastern spadefoot toad (*Pelobates syriacus*), snake-eyed lizard (*Ophisops elegans*), Aegean Bogenfingergecko (*Cyrtodactylus kotschyi*), chameleon (*Chamaeleo chamaeleon*), black whip snake (*Coluber jugularis*), Spotted turtle (*Emys orbicularis*), Tortoise (*Testudo graeca*), loggerhead sea turtle (*Caretta caretta*), and green sea turtle (*Chelonia mydas*) are the species taken under protection by Bern Convention. and EU habitats Directive 92/43/EEC (Annexes II and VI). Hedgehog (*Erinaceus europaeus*), Egyptian mongoose (*Herpestes ichneumon*), House cat (*Felis catus*), Golden jackal (*Canis aureus*), Eurasian otter (*Lutra lutra*), Fox (*Vulpes vulpes*), Long eared bat (*Plecotus spec*) are the principle mammals living around the lake. Among them Eurasian otter (*Lutra lutra*) has been taken under protection by the Bern Convention. There are 20 fish species in this area. One fish species (*Silurus glanis*) has been taken under protection by Bern Convention.

This area is very important for two threatened species of sea turtle *Caretta caretta* and particularly *Chelonia mydas*. These two species are endangered. Particularly, *Caretta caretta* is globally critically endangered according to the IUCN criteria.

Criterion 3:

Akyatan Lagoon is one of the wetlands of international importance. Being on the migration route, and suitable climate conditions has made the area rich and important for birds.

In a study made on the March, April, and May months of the year 1990, 250 bird species were found in the area. During migration thousands of waders stay temporarily at the lake. Muddy plains around the lake are ideal places for waders.

The waders, which create crowded groups during the migration are; *Riccirostra avosetta*, *Charadrius alexandrinus*, *Calidris minuta*, *Calidris ferruginea*, *Calidris alpina*, *Philomachus pugnax*, and *Limosa limosa*. Reed bed

coasts, and sand-dunes covered with bushes which very rich in insects are ideal feeding and sheltering areas for the birds such as; *Upupa epos*, *Coracias garrulous*, and *Hirunda rustica*.

Akyatan Lagoon is very important as a place for wintering. Especially at the time periods when the severe cold dominates Anatolia, the bird existence reaches to huge numbers. Each year between 70,000 and 80,000 water birds winters in this area.

Along with *Oxyura leucocephala*, which is danger of extinction, *Aythya farina*, *Anas Penelope*, *Tadorna tadorna*, and *Fulca atra* form large groups. One of the important bird species wintering in the area is *Phenicopterus ruber*. Each year more than 10,000 flamingos, whose important part come from Urumiye Lake of Iran, winters at the lake.

The lagoon is one of the important breeding places for *Marmaronetta angustirostris*, whose species in danger of extinction, *Porphyrio porphyrio*, which is seen rarely in our country, and *Francolinus francolinus*, *Netta rufina*, *Anas platyrhynchos*, and *Aythya nyroca* are other duck species breed at the lake. Other important bird species breeding at the lake are; *Burhinus oedinenas*, *Charadrius alexandrinus*, *Hoplopterus spinosus*, and *Sterna albifrons*. A detailed study is needed for breeding birds.

Breeding birds Kentish Plover (*Charadrius alexandrinus*) and Little Tern (*Sterna albifrons*); Wigeon (*Anas penelope*), Little Stint (*Calidris minuta*), and King fisher (*Halycon smyrnensis*) are wintering in the area.

Criterion 4:

- It's observed that thousands of shore birds are staying during spring migration over the area. (2nd & 6th criterion) Particularly storks, pelicans and many raptors use this important area for resting and staging while migrating from the north regions where they breed to Africa where they winter. 170 of 272 bird species observed at Çukurova Delta is listed in Annex-II of Bern Convention.
- In addition to the breeding birds Black Francolin (*Francolinus francolinus*), Kentish Plover (*Charadrius alexandrinus*) and Little Tern (*Sterna albifrons*); Wigeon (*Anas penelope*), Pied Avocet (*Recurvirostra avosetta*) and Little Stint (*Calidris minuta*) are wintering in the area. (5th criteria).
- Çukurova Delta is one of the key points where migratory birds migrating on Palaearctic-Africa route meet. (see also criterion 3) This area is very important for the survival of two threatened species of sea turtle *Caretta caretta* and particularly *Chelonia mydas* i

Criterion 5:

Each year between 70,000 and 80,000 water birds winters in this area. Each year more than 10,000 flamingos, whose important part come from Urumiye Lake of Iran, winters at the lake. (see also criterion 3)

Criterion 6:

It's observed that thousands of shore birds are staying during spring migration over the area. according to "Waterbird Population Estimates", 4th edition, Wetlands international.

- *Fulca atra*, 28.100-46.000 Individuals (1% are 20,000)
- *Anas penelope*, 5.921 – 13.900 Individuals (1% are 3,000)
- *Recurvirostra avosetta*, 430-1.589 Individuals (1% are 470)
- *Charadrius alexandrinus*, 1.210-1690 Pairs (1% are 410 individuals)
- *Oxyura leucocephala*, 230-978 Individuals (1% are 75)

Criterion 8:

This area is very important for the reproduction of fish. According to the seasons, fishes migrate to the lagoon to spawn and breed and to finally migrate back to the sea. Amongst these are Mullet species (*Mugil spp.*) sea bream (*Sparus aurata*), sea bass (*Dicentrarchus labrax*), European eel (*Anguilla anguilla*) and blue crap (*Callinectes sapidus*).

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Mediterranean

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The formations of the lagoons and lakes at the Seyhan and Ceyhan deltas have been started after 4th stage (10,000 years ago) when the sea level of the Mediterranean Sea began changing. At the place where Akyatan Lagoon is located, a wide marsh was formed by flooding the rivers, which formed the delta, out of their beds. The marsh was separated later by a cord formed at the coast with sand carried by sea waves and has taken today's appearance.

Akyatan lagoon is the biggest lagoon lake of Turkey. The area of it at the average water level is 14,900 hectares.

The lagoon area has become smaller during summer because of decrease in the water feeding the lake and high evaporation. Wide muddy plains are formed at the areas where the water was drained and it has become totally dry through end of summer.

Muddy plains are formed especially at the west and east parts of the lake, and some islands near Kapıköy joins with the land.

In winter and spring, with the effects of the water carried by the drainage canals and the rainfalls lake water becomes fresh, but in summer the saltiness is increased because of the high evaporation and water entry from sea to lake. In addition, the saltiness is higher at the part where the connection takes place, and low at north where the leakage and drainage water are effective.

Between the lagoon and sea the biggest sand dunes are taken place which are few kilometres wide and 20 metres high. There are some pits below the sea level between the sand dunes. These are filled with water in rainy season. In addition, there are fresh water pools and marshes at the north of the sand dunes which never dry up and are very important for ecology.

Continental climate peculiar to the Mediterranean prevails in the site.

The annual average temperature is 18.3°C.

The annual average rainfall is 774.2 mm.

The average relative humidity is %60.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

The lagoon is connected with the sea through 2 km. narrow canal from its southeast. Water currents occur from lake to seas through the canal when the Lake water level is high and opposite direction when the water level is low. For this reason the saltiness in the lake water differs according to the seasons.

One major drain channel is called YD₃ channel was built in 1968.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

E, F, J

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

At the coasts of the lake there are marshes and reed beds whose widths depend on the fresh water leakage. The North of the lake is surrounded by wide agricultural fields.

In the area, the effect Irano – Turanian and Mediterranean plant geography is dominant. Diversity of habitats has provided possibility for plant species, needing different ecological requirements, to develop. Most interesting part of plants is the sand-dunes, between the sea and lagoon. When climbed from lagoon to sand-dunes. *Nerium oleander*, and *Echinops* sp. are seen as dominant species. More interior, *Orobranche* sp., *Angallis arvensis*, *Vicia* sp., and *Trifolium* sp. are common. The bushy areas consist of the *Myrtus communis*, *Rubus* sp., and similar species. Sand-dune valleys are covered with *Ophyrus sphagodes*, *Serapias* sp. and *Orchis* sp.

In 1995 afforestation work were started for the purpose of sand-dune stabilization and approximately 3687 hectares of sand-dune areas have been afforested up to now. At afforestation *Eucalyptus camaldulensis*, *Acacia cyanophylla*, *Robinia pseudoacacia*, *Pinus pinea*, *Pinus brutia*, and *Cupressus sempervirens* were used.

In areas where fresh water is effective, *Phragmites* sp., *Typha* sp., *Nymphaea alba*, and *Iris pseudocorus* are available. *Tamarix* sp., *Salicornia* sp., and *Sueda* sp. are common in fresh water marshes. The islands near the Kapıköyü village are covered with *Daffodilis narcissus*. In the grasslands, *Iris* sp., and *Ornithogalum* sp. are seen.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

See point 30

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Wide sand dunes and bushy areas between the lake and sea are very suitable places for many carnivores.

Most common species seen in the area is *Canis aureus*. Other species seen in the area are *Vulpes vulpes*, *Felis silvestris*, *Lepus capensis*, and *Erinaceus coccolor*.

At the lake coast and the small lakes formed by old river branches the *Herpetes ichneumon* is seen commonly. The area is the most range section of the species in Asia. In addition, there are some records that even *Lutra lutra* are seen in the area.

There are many *Hyla arborea*, *Rana ridibundus*, and *Bufo viridis* existing in the area.

Important species in the area, which is highly rich of reptiles, are *Chelonia mydas*, and *Caretta caretta*. The beaches in the area are one of the few breeding places of *Chelonia mydas* in Mediterranean.

In fresh water puddles and canals, *Mauremys caspia*, and *Emys orbicularis* are seen, and land turtles are seen commonly at the sand dunes. *Malpogen monspessulanus*, *Coluber jugularis*, *Ophiops elegans*, *Mabuya aurata*, *Chamaeleo chamaeleo*, *Cryptodactylus kotschyii*, and *Agama stellio* are the other reptile species seen at the sand dunes.

Akyatan Lagoon is one of the important fishgarths in Mediterranean. Many fishes enter from the canal connecting it to the sea for feeding, spawning and breeding

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

First occupations data to the end of the Neolithic Age (800-5500 B.C.). Near the Kabataş village, located at the east of the lake, there was antique Mallos City in First Age. At the southwest of the Mallos City, the Magarsos city, which was the first harbour city, was established. At the harbour side of the city, whose northern part rounded by walls, there are castle, theatre, Athena Altar, church, bath, walled tomb, and remaining of a cistern. The castle, which collapsed in Middle Age, was repaired by Abbasids. But, the Karataş Inn, built in Ottoman Period collapsed. The Asurians, Greeks, Romans, Byzantines, Seljuks, and Ottomans dominated the area, which was under Hittis sovereignty in 17th century B.C., until the proclamation of the Turkish Republic.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

a) within the Ramsar site:

The site is a public property.

b) in the surrounding area:

Surrounding area consists of lands owned by state, private landowners, village legal entities.

25. Current land (including water) use:

a) within the Ramsar site:

Akyatan Lagoon is one of the riches fishing areas of the East Mediterranean. Through the canal connected to the sea plentiful of fish enter to the lagoon for feeding and procreation. At the section opening to the sea a traditional fishing net fixed on ples called "Dalyan" was build. The Dalyan is operated by the fishers from the Karataş village. The fish species caught at the lagoon are; *Mugil* sp., *Chrysopteryx aurata*, *Clarias lazera*, *Barbus* sp., *Morone labrax*, *Anguilla anguilla*, *Silurus glanis*, *Cyprinus carpio*, *Salmo turutta gaidneri*, and *Varicorhinus* sp. At east of the lagoon *Callinectes sapidus* is hunted.

b) in the surroundings/catchment:

Çukurova, with its quality soils and suitable climate, is the most productive, and biggest delta plain in our country Very big part of the Delta has been used for agricultural purposes. Main product of the plain is

cotton. Other important products are rice, watermelon, muskmelon, strawberry, grain, and fruits such as orange, tangerine, mandarin and lemon.

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) within the Ramsar site:

Opening the fields of the high areas to industry and settling, high increase in population, dense migration caused pressure on the natural areas to increase; and by draining them almost all of the temporary wetlands around the lake were opened to agriculture. Again, the sand dunes around the lagoon have been transferred to water melon, melon, and strawberry fields by levelling them.

Illegal, and irregular hunting, collecting the very small fish, and the water pollution from the agricultural areas has harmed the fish population of the lagoon.

b) in the surrounding area:

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

11,244 hectares of land covering the whole lake, and afforestation area have been declared as Wildlife Protection Area by Ministry of Forestry in 1987.

In Environment Regulation Plan, prepared in 1996 with the co-operation of the Ministry of Public Work and Housing, and Ministry of Environment, which covers whole natural areas at the delta, the absolute protection, ecological influence, and the buffer zone were determined by taking consideration the wetland ecosystem and the habitats related to the system; special plan decisions, which regulates the rules of protection and usage for each area has been developed.

The whole lagoon and surrounding areas were declared Primary Natural Site by Ministry of Culture and Tourism.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

A booklet for giving general information about Akyatan Lagoon, and surrounding areas published by the Ministry of Environment and Forestry is being distributed to local schools and related institutions.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Tourism activities are very few at Akyatan Lagoon. Only some recreational buildings have been built east of the canal connecting lake to sea.

Summer recreational buildings are available near Lake Tuzla and demands for tourism aimed establishment are high.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

Provincial Organization of Ministry of Environment and Forestry.

Address: Adana İl Çevre ve Orman Müdürlüğü
Adana/TURKEY
Phone: +90.322.3250707
Fax: +90.322.3220602
Email: tulaybacik@hotmail.com

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Ministry of Environment and Forestry.
Address: Çevre ve Orman Bakanlığı
Doğa Koruma ve Milli Parklar Genel Müdürlüğü
Söğütözü Caddesi No: 14/E
Beştepe-ANKARA/TURKEY
E-mail: mgolge@cevreorman.gov.tr

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Erdem, O., (1995), Bird Paradises of Turkey, Ministry of Environment, General Directorate of Environmental Protection, Green Serial 5, p.76.

Grado Strategy, DHKD, Med-Wet, 1994.

Seçmen, Ö., Leblebici, E., (1987), Flora and Vegetation Present in the Lakes and Marshy lands of the Thrace, Marmara, West and Middle Black Sea, Interior Anatolia, and East Mediterranean.

Seyhan Reservoir Administration Plan Project, Environment Ministry, General Directorate of Environmental Protection.

Bibliography of Flora and Vegetation of Turkey.

Wetlands Mid-Winter water birds counting of Turkey, Association of Protecting the Nature Life, İstanbul.

Yarar, M., Magnin, G., (1997), Important Bird Areas of Turkey, Association of Protecting the Nature Life, İstanbul.

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
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