

CETACEAN STUDIES IN TURKEY BY TUDAV

Edited by

Ayaka AMAHA ÖZTÜRK and Arda M. TONAY



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PREFACE

As the Turkish Marine Research Foundation, we are proud of publishing this book on the cetacean studies in Turkey with the occasion of the 7th Meetings of Parties of ACCOBMAS in a lovely city of Istanbul, Turkey. TUDAV, as a partner organisation of the ACCOBAMS, has strong motivation for cetacean research and conservation both in the Black Sea and Mediterranean Seas. Recently in 2019, we completed the survey of the Mediterranean Sea, the Sea of Marmara and the Black Sea. Besides, we have also been collecting data for many years on stranding, bycatch and acoustics of cetaceans.

Our experts have published many papers in scientific journals all over the world. Our education and outreach programmes continue in various areas of the Turkish coasts as well.

Turkey has a long tradition of cetacean hunting until 1983, since when all cetacean species become under the legal protection. Their status, however, has not been improved much, rather worsening due to anthropogenic factors, such as overfishing, habitat loss, and pollution.

As Turkey finally became a party to ACCOBAMS in 2017, the legal and practical measures will be more stringent and visible in terms of cetacean protection in our seas.

I believe that this book can be presented as a symbol for our small but continuous effort. And I hope it may bring together more people for the national and regional cooperation to protect cetaceans. This book dealt with mostly the activities of TUDAV, but there are some other entities who are interested and starting their own studies on cetaceans. TUDAV is ready to support such studies and hopefully they will be able to contribute to the science and conservation of these magnificent animals.

I'm sincerely thankful to Dr. Ayaka Amaha ÖZTÜRK and Dr. Arda M. TONAY for editing this book and Ms. Zeynep GÜLENC for her technical assistance. In addition, I am also indebted to all persons who kindly shared their photos in this book.

30 October 2019
Istanbul, TURKEY

Prof. Dr. Bayram ÖZTÜRK
Head of Turkish Marine Research Foundation

1 Dolphins in Antiquity

Dolphins have been worshiped as lovely and clever animals in all antiquity. In Turkey, in Roman and Bizantium heritages, you can see many examples, such as Eros on a dolphin, a relief in Hagia Sophia Museum, and mosaics.



Ephesus Museum
Selçuk/İzmir



Hagia Sophia Museum
Istanbul



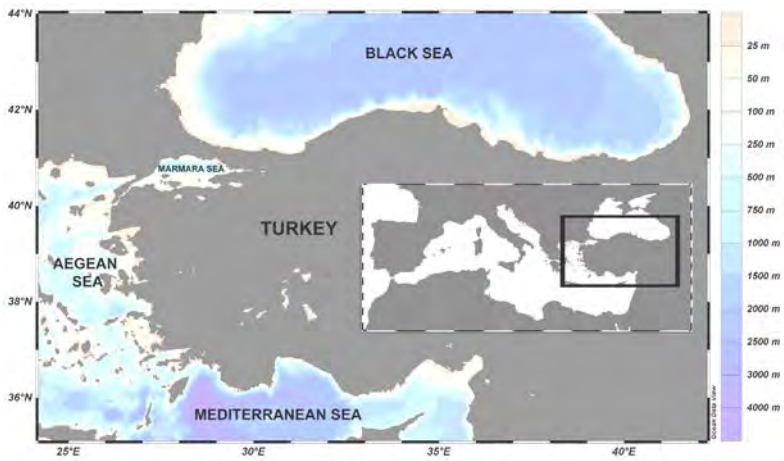
Garden of Alanya Museum, Antalya

2 Cetaceans in Turkey

There are 13 cetacean species found in Turkey, among which 8 species are considered regular. In the Black Sea, three cetacean species are recognized as Black Sea subspecies, namely, *P. phocoena relictæ*, *T. truncatus ponticus*, *D. delphis ponticus*. *Sousa plumbea* has recently been sighted in the Mediterranean coast of Turkey.

Table 1. List of cetacean species in Turkey
xx: common/regular, x: rare/vagrant

Species Name			Presence			
Latin	English	Turkish	Black Sea	Marmara Sea	Aegean Sea	Mediterranean Sea
Mysticeti Baleen whales						
<i>Balaenoptera physalus</i>	Fin whale	Uzun balina			xx	xx
<i>Balaenoptera acutorostrata</i>	Minke whale	Mink balinası				x
Odontoceti Toothed whales						
<i>Phocoena phocoena</i>	Harbour porpoise	Mutur	xx	xx	x	
<i>Tursiops truncatus</i>	Bottlenose dolphin	Afalina	xx	xx	xx	xx
<i>Delphinus delphis</i>	Common dolphin	Tırtak	xx	xx	xx	xx
<i>Stenella coeruleoalba</i>	Striped dolphin	Çizgili yunus		x	xx	xx
<i>Sousa plumbea</i>	Indian Ocean humpback dolphin	Kambur yunus				x
<i>Grampus griseus</i>	Risso's dolphin	Grampus		x	xx	xx
<i>Globicephala melas</i>	Long-finned pilot whale	Uzun yüzgeçli pilot balinası			x	x
<i>Pseudorca crassidens</i>	False killer whale	Yalancı katil balina			x	x
<i>Ziphius cavirostris</i>	Cuvier's beaked whale	Gagalı balina			xx	xx
<i>Mesoplodon sp.</i>	-	-			x	x
<i>Physeter macrocephalus</i>	Sperm whale	Kaşalot			xx	xx



Turkey surrounded by four seas



Sperm whale (*Pyseter macrocephalus*), Kemer, 1998



False killer whale, (*Pseudorca crassidens*) stranded in Izmir, 1994

3 Dolphin Fishery

Turkey has a long history of dolphin fishery both in the Black Sea and Sea of Marmara. Common dolphins and harbour porpoises were caught for the production of fish meal and oil. Until the 1940's, surrounding nets were used to capture schools of dolphins, but they were replaced by rifles later on. In the Black Sea, there had been intensive dolphin fisheries during the 20th century by all the riparian countries, until 1983 when it was finally banned in Turkey. Since then, cetaceans are protected by national law in Turkish waters. There is no accurate data on how many dolphins/porpoises were caught. However, the dolphin fishery was halted because it had become too difficult to find dolphins to make reasonable profit. This indicates the populations of common dolphins and harbour porpoises were heavily impacted by this fishery and they are still slowly recovering. Deveciyan's (1915) book is one of the important sources for the dolphin fishery, later Berkes (1977) also published a remarkable paper on historical dolphin fishery. Tonay and Öztürk (2012) reported additional information on the dolphin fishery in the Turkish Black Sea.



Figure 3. A) On 1 April 1953, approximately 500 individuals (ca. 50kg each) were caught by surrounding nets (alamana) which were 60 fathom high, 800 fathom long, in Samsun in 5 hours (Onat 1954). B) Dolphin fishermen from the Turkish Black Sea in 40's (Zengin, 2008). C) A boat was full of dolphins (Fish and Fisheries: 1975). D) Landing dolphins and dolphin fishing boats which were berthed to the port of EBK Factory in Trabzon (Fish and Fisheries: 1964). E) Landing operation (Fish and Fisheries: 1970). F) A harpooned common dolphin (Fish and Fisheries: 1961)

Some photos of dolphin hunting, extracted from Tonay and Öztürk (2012)

Berkes, F. (1977) Turkish dolphin fisheries. *Oryx* 14: 163-167.

Deveciyan, K. (1915) Fish and Fisheries in Turkey. (Re-published in 2006 by Aras Yayıncılık, İstanbul) (in Turkish).

5

E T V E B A L I K K U R U M U
TRABZON SOĞUK DEPO VE BALIKYAĞI-UNU FABRİKASI MÜDÜRLÜĞÜ

Y I L	Y U N U S		
	MÜBAYAA KG.	ÜRETİM KG. (ÜK)	ÜRETİM KG. (YAG)
1954	126405	1990	24520
1955	306493	40983	78390
1956	619453	90646	161397
1957	490932	60926	109472
1958	119289	18440	35829
1959	326826	46835	63273
1960	887321	147224	268795
1961	699634	122945	211924
1962	432892	73567	113012
1963	413601	73432	116330
1964	500255	85936	131481
1965	426833	73237	132148
1966	152847	29450	119752
1967	51459	9060	15600
1968	19088	4035	5539
1969	69338	11965	19921
1970	345494	60787	93598
1971	100761	16145	33921
1972	492081	76809	129025
1973	975031	161271	303912
1974	483087	102912	138868
1975	464083	80374	103939
1976	144364	25159	40045
1977	127355	20921	36177
1978	200448	35163	53872
1979	211798	37860	59098
1980	224119	25384	39056
1981	325898	60119	120686
1982	323371	50758	76137
1983	158829	26171	48357
1984	-	-	-

Directorate of Meat and Fish Office (E.B.K.) reported the dolphin catch amount, production of meal and oil in the Trabzon Fish Oil and Meal Factory between 1954 and 1984.

1230

T. C.
AŞVEKÂLET
Neşriyat Müdürlüğü

2310268135

T. C.
Maliye V.
Dairesi
Mühür

Yunus balıklarının ve bunlardan çıkarılan balık yağlarının Av Vergisinden İstisnasına dair kanun

Kanun Af: 2956

Kabul tarihi: 21/4/1936
Neşri tarihi: 29/4/1936

Madde 1 — Türkiye kara sularında avlanan yunus balıklarından ve bunlardan çıkarılan balık yağlarından Av Vergisi alınmaz.

Madde 2 — 18 sefer 1299 tarihli Zabıtı Saydiye Nizamnamesi ile bunu tadil eden kanunların, bu hükme muhalif olan hükümleri kaldırılmıştır.

Madde 3 — Bu kanun neşri tarihinden muteberdir.

Madde 4 — Bu kanunun hükmünü icraya Maliye Vekili nemurdur.

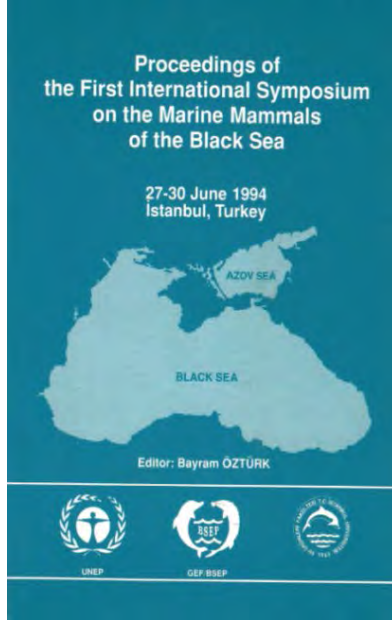
27/4/1936

Law on tax exemption for dolphin hunting, published in 1936.



4 Major Meetings Held in Turkey on Cetaceans

4.1 The First International Symposium on the Marine Mammals of the Black Sea



The First International Symposium on the Marine Mammals of the Black Sea was organized by Faculty of Fisheries, Istanbul University, on 27-30 June 1994 in Istanbul, Turkey, by the support of UNEP. In total, 62 people of the governments and NGOs from 9 countries participated this historical meeting, as well as the representatives from the Black Sea Environmental Programme, UNDP, UNEP/CMS, and World Bank. This was the first time all Black Sea riparian countries met each other to exchange and share information and experience (before the internet-era). The symposium proceedings was also published in 1996, which included “Declaration on the Conservation on the Black Sea Marine Mammals” and “the Turkish National Programme for the Conservation of the Black Sea Dolphins” (see below).

APPENDIX 2. DECLARATION ON THE CONSERVATION OF BLACK SEA MARINE MAMMALS.

The first International Symposium on the Marine Mammals of the Black Sea, was held in Istanbul on 27 - 30 June 1994, and was attended by 62 governmental and non-governmental participants from 9 countries, as well as representatives of the GEF Black Sea Environmental Programme (Programme Co-ordination Unit), the United Nations Environment Programme, the UNEP/CMS (Bonn Convention) Secretariat, and the World Bank. The list of participants appears at Annex 1. The symposium noted with regret that representatives from Romania were unable to be present.

The Symposium tabled and adopted the following declaration:

1. The present situation and the future of Black Sea marine mammal populations are of great concern. Black Sea has almost lost its population of Mediterranean monk seals (*Monachus monachus*). There are serious signs of cetacean populations collapse related to human activity, coastal degradation, overfishing and technogenic pollution in the Black Sea basin. Meanwhile, there are no reliable population estimates and solid methodologies for all three species of Black Sea cetaceans (*Tursiops truncatus*, *Dolphinus delphis*, *Phocaena phocaena*).

2. The survival of Black Sea marine mammals is not only a local problem of any single Black Sea country; it is a problem of all Black Sea countries. In fact, it is a problem concerning Europe, Asia and also, the world community interests. Moreover, the problem of the survival of Black Sea marine mammals is not only an environmental or purely scientific concern. It is the task and subject for international co-operation and integration in the Black Sea region. Marine mammals are a symbol of fruitful and peaceful collaboration between the people around the Black Sea coast.

3. In the light of actual situation, the Symposium calls on the governments of the Black Sea countries that have not already done so:

a) To participate in the United Nations Environment Programme's Global Action Plan for the Conservation, Management and Utilization of Marine Mammals;

b) To ratify and implement each of the relevant intergovernmental treaties concerned with the conservation of marine mammals of the Black Sea, namely the convention on the conservation of migratory species of wild animals (Bonn convention), the convention on the conservation of European Wildlife and Natural Habitats (Bern Convention), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);

c) To conclude an agreement under the Bonn Convention for the conservation of marine mammals of the Black Sea, to be prepared by the UNEP/CMS Secretariat based on a comprehensive synthesis of the deliberations of this symposium, the basic elements of which are attached as annex 2 to this declaration;

d) To prepare, as soon as practicable, national reports on the status of marine mammals, as well as national and local recommendations for marine mammal conservation.

e) To monitor and regulate during peak migration periods heavy sea traffic which is known to negatively affect the behaviour and migration of cetacean populations in the Bosphorus Strait, from the Black Sea to the Sea of Marmara (and vice-versa), and in the Kerch Strait;

f) To cease any present or future utilization of marine mammal species for military purposes; and

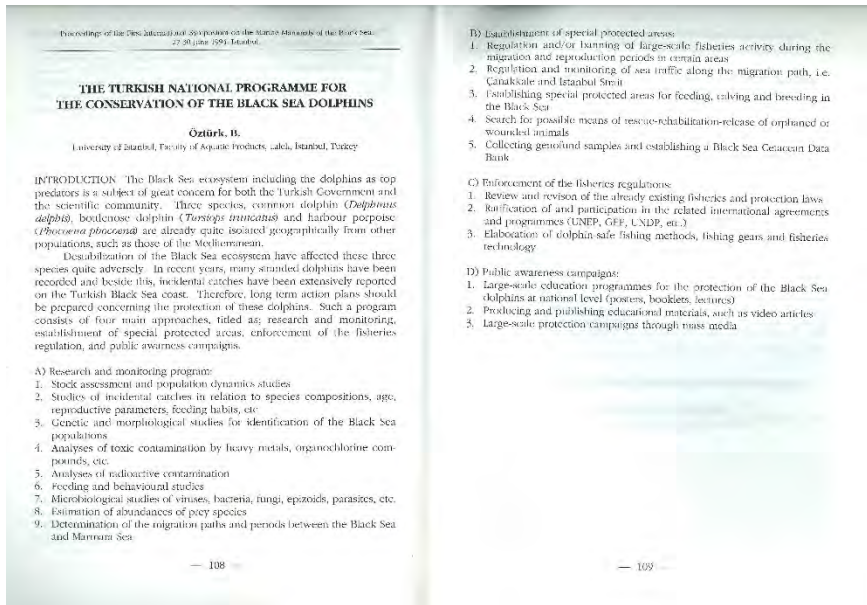
g) To desist from wild capture of marine mammals for commercial purposes.

4. The symposium calls upon international environmental and wildlife conservation organizations and funding agencies to provide technical and financial support for collaborative work in relation to marine mammal conservation in the Black Sea basin, with particular reference to the initiatives described under paragraphs 3a) and c) above.

5. The symposium calls on the GEF Black Sea Environmental Programme to incorporate specific actions, including pilot projects, for the conservation of Black Sea marine mammals through its existing framework.

6. The symposium recommends further that a network of governmental and non-governmental specialists in marine mammal conservation, from the Black Sea riparian States, be established to facilitate the timely exchange of information related to the conservation of marine mammals.

Turkish National Programme for the Conservation of the Black Sea Dolphins



Harbour porpoise (*Phocoena phocoena*)

4.2 Conference of the European Cetacean Society (ECS) in Istanbul, 2009

The 23rd Annual Conference of the European Cetacean Society was organised by TUDAV on 2-4 March 2009 at the Military Museum in Istanbul. About 400 scientists and students participated the conference. The theme of the conference was “Climate Change and Marine Mammals”.



Opening ceremony of the ECS Conference



Abstract book of 23th Annual Conference for the European Cetacean Society

5 ACCOBAMS and Turkey

5.1 A long period of negotiation

Turkey joined the preparation process of ACCOBAMS in 1995, but did not ratify the agreement until 2017. In 2018, Turkey officially became the party to the ACCOBAMS.

MINISTRY OF FOREIGN AFFAIRS

TELETYPE
EKGY- 6177

Ankara, 15 September 1995

Ms. Executive Director,

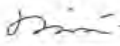
I have the honour to inform you that Dr. Muzafer Bumin, Head of Department, Ministry of Agriculture and Rural Affairs, in the capacity of Head of Delegation; Ms. Muzafer Özyıldız, Second Secretary, Maritime Affairs Department, Ministry of Foreign Affairs; Dr. Bayram Öztürk, University of Istanbul have been named to participate on behalf of the Government of the Republic of Turkey in the,

Meeting on the Agreement on the Conservation of Small Cetaceans of the Mediterranean and Black Seas, Monaco, 26-30 September 1995.

Ms. Muzafer Özyıldız will be the alternate Head of Delegation in the absence of Dr. Muzafer Bumin.

The Head of Delegation, Dr. Muzafer Bumin and the alternate Head of Delegation, Ms. Muzafer Özyıldız are fully authorized to transact all such matters as may appertain to the above mentioned Meeting on behalf of the Government of the Republic of Turkey.

Please accept Ms. Executive Director, the assurances of my consideration.



Erdal İNÖNÜ

Her Excellency
Ms. Elisabeth DOWDESWELL
Executive Director
United Nations
Environment Program

The official letter to notify the first meeting delegations by the Prime Minister,
Prof. Dr. Erdal İnönü

Protection des cétacés : débat décisifs au CRI

NICE MATIN 30/09/95-



L'ouverture des discussions à la tribune du CRI.

(Photo Eric Dullière)

60 participants représentant la plupart des pays méditerranéens réunis pour préparer un accord "juridiquement contraignant"

La réunion officielle de négociation d'un accord sur la conservation des cétacés de la Méditerranée et de la Mer noire s'achève aujourd'hui au CRI.

Ces débats ont regroupé 60 spécialistes représentant la plupart des États bordant ces deux mers, la commission des communautés européennes, des

organisations gouvernementales et non gouvernementales ainsi que du Portugal.

Cette réunion est organisée par le gouvernement monégasque en collaboration avec le ministère de l'environnement français sous l'égide de la convention des espèces migratrices appartenant à la faune

sauvage (la convention de Bonn).

C'est donc à Monaco que le texte définissant la sauvegarde des cétacés est en train de voir le jour : tout un symbole lorsque l'on sait l'attachement séculaire de ce pays pour l'environnement marin et l'intérêt que le prince Albert Ier aura porté aux baleines.



Les participants : riverains de Méditerranée et de Mer noire.

(Photo Eric Dullière)

The negotiation meeting for ACCOBAMS reported in Nice Matin, a local newspaper, on 30 September 1995.



The first Turkish delegates to the ACCOBAMS negotiation:
(from left to right) Bayram ÖZTÜRK, Muzaffer BUMİN, Muzaffer ÖZYILDIZ

4 Nisan 2017 – Sayı: 30028 (Mükerrer)

RESMÎ GAZETE

Sayfa : 5

**MÜCAVİR ATLANTİK DENİZ BÖLGESİ, AKDENİZ VE KARADENİZDEKİ
DENİZ MEMELİLERİNİN KORUNMASINA DAİR ANLAŞMAYA
KATILMAMIZIN UYGUN BULUNDUĞUNA DAİR KANUN**

Kanun No. 6998

Kabul Tarihi: 9/3/2017

MADDE 1- (1) 24 Kasım 1996 tarihli “Mücavir Atlantik Deniz Bölgesi, Akdeniz ve Karadeniz’deki Deniz Memelilerinin Korunmasına Dair Anlaşma”ya çekince ve beyanla katılmamız uygun bulunmuştur.

MADDE 2- (1) Bu Kanun yayımı tarihinde yürürlüğe girer.

MADDE 3- (1) Bu Kanun hükümlerini Bakanlar Kurulu yürütür.

3/4/2017

Official gazette on 9 March 2017 informing the ratification of the ACCOBAMS

5.2 TUDAV's participation to ACCOBAMS

The 2nd Scientific Committee Meeting, 19-21 November 2003, Istanbul

TUDAV experts participated the second meeting of the Scientific Committee of ACCOBAMS. The meeting was successful in spite of the terrorist attacks, one of which targeted the British Consulate, very close to the venue, Pera Palace Hotel, on 20 November. Our experts actively participated the discussion on the scientific aspects of the agreement as observers. We also presented our short documentary films on the stranding survey on the eastern Black Sea coast and on the rescue operation of a sperm whale in the Mediterranean.



The Second Scientific Committee meeting in Istanbul

A partnership to ACCOBAMS

TUDAV became a partner to ACCOBAMS in 2008.



Partners of ACCOBAMS (May, 2019)(www.accobams.org)

TUDAV participation to the ACCOBAMS meetings

- The 3rd Meeting of Parties, 22-25 October 2007, Dubrovnik, Croatia
- The 6th Scientific Committee meeting, 11-13 January 2010, Casablanca, Morocco
- The 10th Scientific Committee Meeting, 20-22 October 2015, Nice, France
- The 12th Scientific Committee Meeting, 5-8 November 2018, Monaco (Dr. Ayaka Amaha Ozturk as a vice-chair of the Scientific Committee)
- Regional Workshop of ACCOBAMS, 7-12 May 2018, Tunis, Tunisia (Dr. Ayaka Amaha Ozturk as a vice-chair of the Scientific Committee)
- The 7th Meeting of Parties, 5-8 November, 2019, Istanbul, Turkey

5.3 ACCOBAMS module for graduate students

On 18-21 March 2019, TUDAV organized an ACCOBAMS course on cetacean conservation at Istanbul University, for both Turkish and Black Sea students.



More than 30 students from all over Turkey and overseas participated the cetacean course.

5.4 ACCOBAMS Survey Initiative (ASI) in Turkey

Part I: Mediterranean Sea Aerial Survey, 2018

A long-awaited basin-wide survey in the Mediterranean Sea was carried out in summer 2018. More than 100 observers from 20 Mediterranean countries joined the aerial survey over the entire basin. From TUDAV, Ayhan Dede, Arda M. Tonay, and Erdem Danyer participated this campaign in the Eastern Mediterranean Sea and Ayaka Amaha Öztürk worked as a national scientific coordinator.



At the training workshop



Observing from the airplane



Surveyed area and transect lines for aerial surveys in the Mediterranean Sea
©ACCOBAMS

Part II: Black Sea Aerial Survey, 2019 (CeNoBS Project)

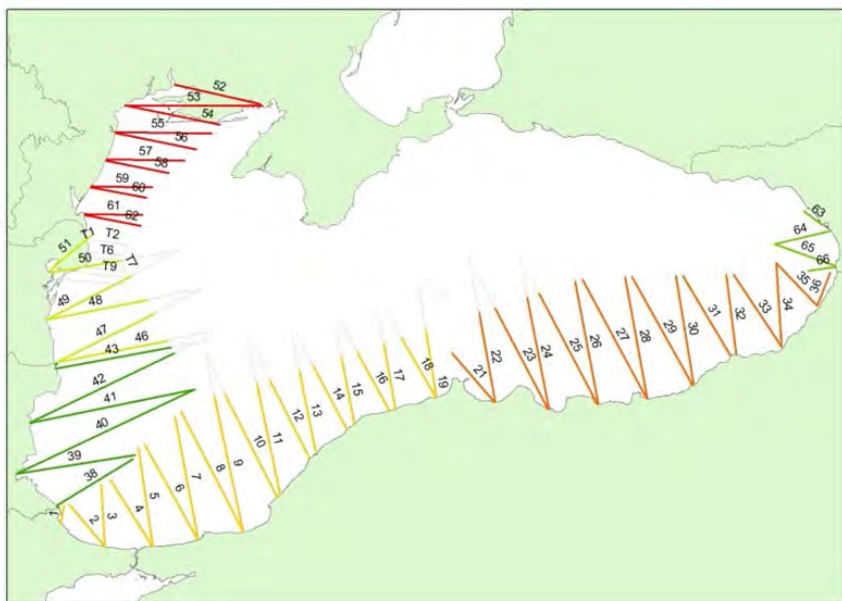
After the Mediterranean survey, the first basin-wide aerial survey of the Black Sea basin was carried out in summer 2019 under the EU project “CeNoBS”. TUDAV again participated the survey in the Turkish water in the Black Sea.



The Black Sea team



Arda M. Tonay and Ayhan Dede
from TUDAV



Tracklines of the CeNoBS Aerial Survey in the Black Sea © CeNoBS

6 Cetacean Studies

6.1 Abundance and distribution surveys

Several surveys have been conducted on cetacean fauna in the Turkish Aegean and Mediterranean coasts and also international waters of eastern Mediterranean and Black Sea.

Abundance estimates of the cetacean populations in the Turkish waters, however, have been scarce, except Dede (1999), reporting the estimates of cetaceans in the Marmara Sea based on the seasonal line transect surveys in 1997-1999.

Marmara Sea Survey (12-17 July 2019)

Following the ASI in the Black Sea, the TUDAV team carried out the ship survey with a 12m-yacht in the Marmara Sea, which is connecting the Mediterranean and Black Seas.



Transect lines of the Marmara Sea survey (Google Earth)



ANEMONE Project cetacean survey, the western Black Sea, 7-16 October 2019

The national water of Turkey in the western Black Sea was surveyed by ship in October 2019, to harmonize our effort with the Bulgarian and Romanian surveys which were carried out around the same period.



Survey trasects in the western Black Sea (Google Earth)



6.2 Stranding monitoring

Stranded cetaceans are important sources of information useful to understand the ecology and population status of animals in the region. It may also help to monitor anthropogenic impacts on cetaceans, such as bycatch. TUDAV has been monitoring cetacean strandings since its establishment in 1996. From 2003 to 2016, TUDAV was actively conducting stranding surveys in the Black Sea. In total, 1243 stranded cetaceans (harbour porpoises 77%, bottlenose dolphins 10% common dolphins 7% and unidentified 6%) were recorded on the Turkish western Black Sea coast during that period. In the summers of 2003, 2009 and 2016 unusual mass stranding events occurred. Besides, we also organize meetings with stakeholders in order to establish a stranding network to collect more information on strandings.



Stranding network meeting on cetacean species in 1998



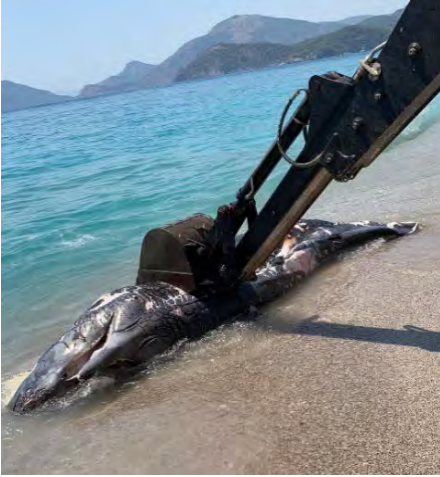
TUDAV stranding surveys on the Black Sea coast

We also try to collect historical records of strandings in local archives. For example, a stranding of Cuvier's beaked whale on the coast of Gokceada Island, North Aegean Sea was documented by old photos (below).



Cuvier's beaked whale, *Ziphius cavirostris*, in Gökçeada Island/
North Aegean Sea (1964)

Common dolphin,
Delphinus delphis, stranded
on the Black Sea coast



Recent stranding of a
sperm whale calf,
Physeter macrocephalus,
Ölüdeniz 2019

A story of a fin whale *Balaenoptera physalus*

A fin whale stranded to the Yumurtalık beach in Adana in March 2000. It was a female juvenile whale. Her length was 1025 cm and weight was 3260 kg. The body weight showed that she had died of starvation or malnutrition. Normally, juvenile fin whales in this length should weigh 4.5-5 ton.

After the initial examination, the whale was transferred to Istanbul by truck. It was brought to Beykoz-Riva coast in Istanbul. Morphological measurements were taken and autopsy was made by TUDAV experts. Numerous *Crassicauda* sp. parasites were found near her liver. Severe infection from these nematodes may also have been involved in animal death.

Following the thorough examination, the whale was buried on the sandy beach. After 14 months, the skeleton of whale was taken out on 19 March 2001.

The skeleton and skull were cleaned and they were put together to reconstruct the whole skeleton of the whale. It took more than 6 months to complete all the work.

The skeleton has been displayed at various shows and museums for an educational purpose.



The stranded fin whale in Adana, Yumurtalık beach, 2000



Lifted for the transportation to Istanbul



Burying the whale near the beach



A special wine was made to raise fund for this operation.



Fin whale stranding in some local newspapers



The whale's reassembled skeleton



Fin whales are sometimes found stranded on the Aegean or Mediterranean coasts of Turkey, such as this case in Kuşadası in 1998.

A stranded minke whale on the Mediterranean coast of Turkey, 2015

A minke whale, *Balaenoptera acutorostrata*, is a vagrant species in the Mediterranean Sea. A female minke whale (BL 355 cm) stranded on the coast of Yumurtalik, Adana on 10 April 1995. The Turkish Coast Guard helped to transport the specimen to the port. The whale was then brought to Istanbul for necropsy.



Coast Guard helped the operation.



Necropsy in Beykoz

6.3 Bycatch

Bycatch is one of the most important threats for cetaceans worldwide. TUDAV has been working on the monitoring of bycatch in Turkish waters to understand its scale and to mitigate such incidents.

The Black Sea harbour porpoise, *Phocoena phocoena relicta*, is one of the endangered species. Every year thousands of porpoises are bycaught in the turbot bottom nets, most of which are unreported. Some of them are washed ashore as strandings. We continue to monitor such strandings but it is strongly needed to implement more strict conservation measures, such as mitigating IUU (illegal, unregulated and unreported) fishing.



Bycatch of the Black Sea harbour porpoise

In 2002, an adult sperm whale was found with nets around her lower jaw and tail, off Fethiye, the Mediterranean coast of Turkey. Fortunately, this whale was rescued by the joint effort of TUDAV and the Turkish navy.



Rescued sperm whale
“Ege”



TUDAV experts and Turkish navy

6.4 Monitoring of cetaceans in the Istanbul Strait

Visual monitoring

The Istanbul Strait (Bosphorus) is a part of the Turkish Straits System, which is an important biological corridor for marine organisms, including cetaceans. We have been monitoring the cetaceans in the Strait since the mid-1990's. Photos of bottlenose dolphins are taken to establish a photo ID catalogue.



Bottlenose dolphins (*Tursiops truncatus*), Istanbul Strait, 2018



Common dolphins (*Delphinus delphis*), Istanbul Strait, 2018



Harbour porpoise (*Phocoena phocoena*), Istanbul Strait, 2005

Acoustic monitoring

Since 2009, TUDAV has been acoustically monitoring cetaceans in the Strait with A-tag (an acoustic event recorder) in collaboration with a Japanese acoustic expert Tomonari Akamatsu. We monitor cetaceans with an A-tag at Baltalimani in the middle part of the Strait all year round and another one attached to the setnet (dalyan) in the northern end of the Strait in summer. The study revealed

some interesting aspects of the cetaceans in our region, such as their continuous presense in the narrow strait, diurnal pattern, intraspecific relations, and so on.



A-tag deployed for passive acoustic monitoring

6.5 Skull and skeleton collection

TUDAV has been collecting skulls and skeletons of cetaceans for mophological studies. It has the largest collection in Turkey with more than 100 specimens.



Common dolphin, *Delphinus delphis*



Bottlenose dolphin, *Tursiops truncatus*



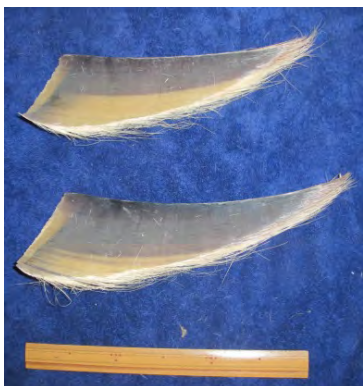
Risso's dolphin, *Grampus griseus*



Harbour porpoise, *Phocoena phocoena*



Collection storage



Baleen plates of fin whale,
Balaenoptera physalus



Baleen plates of Minke whale,
Balaenoptera acutorostrata

6.6 Stomach contents analyses

TUDAV has been carrying out stomach content analyses on harbour porpoise, bottlenose dolphin, common dolphin, striped dolphin and Risso's dolphin. We are planning to collect more samples from stranded or bycaught animals, with particular interest in microplastics.

6.7 Genetic studies

TUDAV supported many projects by providing tissue samples for genetic studies. After 2015, especially with the project CetaGen, we have been carrying out our own genetic analyses in Turkey.

6.8 Diseases and parasites

The veterinary experts of TUDAV have been studying cetacean diseases and parasites. One of the examples shown below is the heavy parasite infestation on the harbour porpoise specimen, stranded in the Aegean coast in 2013.



Embedded *Pennella balaenopterae* on the right side of the peduncle of the harbour porpoise stranded in the Aegean Sea (Danyer *et al.* 2014)

6.9 Antarctica

Cetacean surveys were carried out during the first Turkish–Ukrainian Antarctic Research Expedition in 2016. Five humpback whales were photo-identified individually by natural features on their flukes; one of them had a match in the Antarctic Humpback Whale Catalogue.



The First Turkish Antarctic Expedition in 2016



Back of flukes of humpback whales used for individual identification
(Öztürk *et al.* 2017)

7 Conservation and Public Awareness Campaigns

7.1 No slave trade

TUDAV organized the 1st dolphinarium meeting on 1 December 2008 at Faculty of Fisheries, Istanbul University and the 2nd meeting on 18 February 2010 in Belek, Antalya. TUDAV works against dolphinarium and dolphin trade. We are advocating free swimming dolphins all over the world oceans, so no slave trade should be permitted.



Second dolphinarium meeting



No dolphinarium, No slave trade!

7.2 Dolphin watch tours in the Istanbul Strait

Every spring and summer, cetaceans are observed in the Istanbul Strait frequently. They enter the Strait mainly for catching migratory fish. To raise public awareness on such free-ranging dolphins, TUDAV cooperates with various organizations, particularly schools, to carry out dolphin watching in the Istanbul Strait.



The first dolphin watch tour in the Istanbul Strait



Dolphin watch tour for school children

7.3 Marine Wildlife Roadshow

To raise public awareness on marine biodiversity, TUDAV has organized several events including exhibitions (roadshow) with life-size inflated models of various marine species, such as sperm whale and bottlenose dolphins. Special seminars are given to children who are the hope for our future.



A roadshow at one of the shopping centers

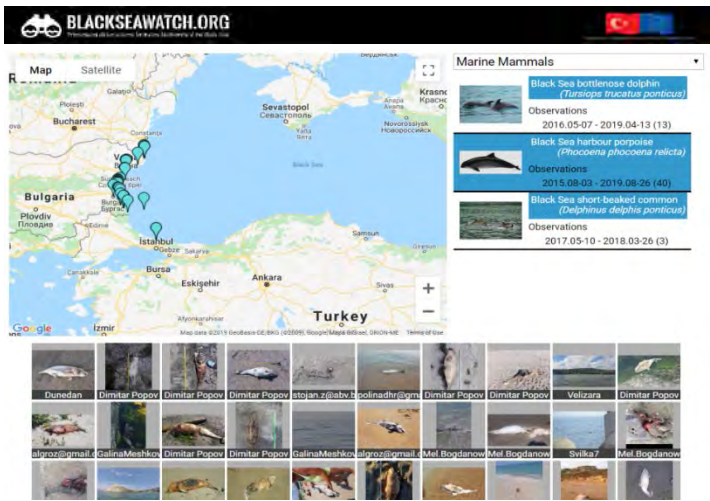


A volunteer explaining how to treat a stranded dolphin

7.4 Citizen science

Several projects have been carried out to involve general public into data collection on cetaceans.

The first observation and reporting form for marine mammals TUDAV's cetacean observation studies involving citizens go back to 1994.



Black Sea Watch Project was carried out in 2017 jointly with Green Balkans NGO in Bulgaria. An app was developed to encourage public participation to data collection of marine life in the Black Sea.

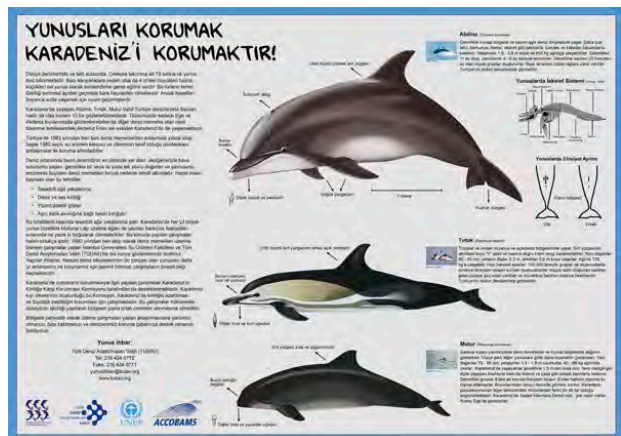
7.5 Posters of cetaceans

TUDAV printed two posters to raise public awareness for cetacean conservation. The first one was made for strandings in 1998 and the second one was for educational purpose in 2010 with the help of Black Sea Commissions and ACCOBAMS.



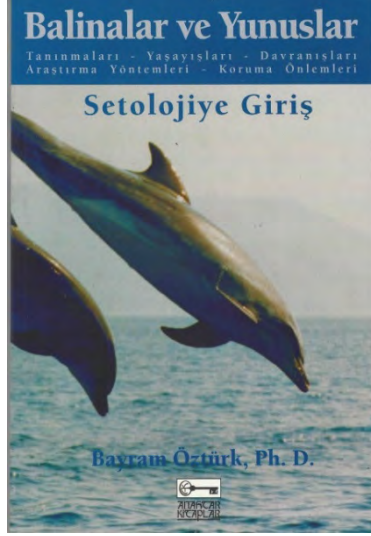
Poster made for strandings in 1998

Educational poster for Black Sea cetaceans, 2010



7.6 Book

In 1996, “Introduction to Cetology” was published by Dr. Bayram ÖZTÜRK (one of the founders of TUDAV) to promote cetology and conservation of cetaceans in Turkey. It has been widely used as a text book for students who are eager to learn about cetaceans. It is the first book specifically on cetaceans in Turkish.



7.7 Campaigns

TUDAV organized some petition campaigns to stop using military navy sonars in the Mediterranean and prohibiting firearms, such as guns, on fishing boats.



Campaign for prohibiting firearms on fishing boats

7.8 Short films

To illustrate our research activities on cetaceans, TUDAV prepared several short films listed below. Most of them were shown at the video night of the annual conference of European Cetacean Society.

- "Ege" in Open Sea - <https://youtu.be/AvjS8sttWI4>
- Cetacean Stranding Research Survey 2003 - <https://youtu.be/eQULYm97UF0>
- An Unusual Duo - <https://youtu.be/AHzV-4dxN2M>
- On the Beach - <https://youtu.be/mBhu3WjAtXQ>
- A Whale of a Road (Minke's Way) - https://youtu.be/bhwG_BPjVU

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9 Publications

Akkaya Bas, A., Christiansen, F., Amaha Öztürk, A., Öztürk, B., McIntosh, C. (2017) The effects of marine traffic on the behaviour of Black Sea harbour porpoises (*Phocoena phocoena relicta*) within the Istanbul Strait, Turkey. *PlosOne* doi: 10.1371/journal.pone.0172970.

Akkaya Baş, A., Christiansen, F., Öztürk, B., Amaha Ozturk, A., Erdogan, M.A., Watson, L.J. (2017) Marine vessels alter the behaviour of bottlenose dolphins *Tursiops truncatus* in the Istanbul Strait, Turkey. *Endangered Species Research* 34: 1-14

Akkaya Bas, A., Öztürk, A.A., Öztürk, B. (2014) Selection of critical habitats for bottlenose dolphins (*Tursiops truncatus*) based on behavioural data, in relation to marine traffic in the Istanbul Strait, Turkey. *Marine Mammal Science* doi: 10.1111/mms.12202.

Amaha, A., Yel, M., Özdamar, E., Miyazaki, N. (1996) On the cranial morphology of *Delphinus* in the Black Sea. In: Proceedings of the First International Symposium on the Marine Mammals of the Black Sea. (ed. Öztürk, B.) UNEP GEF/BSEP Istanbul Üniversitesi Su Ürünleri Fakültesi pp.73-74.

Aytemiz, I., Dede, A., Danyer, E., Tonay, M.A. (2012) Morphological identification of parasites found in the stomach contents of bycaught striped dolphins (*Stenella coeruleoalba*) from Turkish eastern Mediterranean Sea coast. *J Black Sea/Medit Environ* 18(2): 238-245.

Aytemiz, I., Danyer, E., Özgür Özbek, E., Tonay, A.M., Öztürk Amaha, A. (2014) Preliminary report of a conjoined bottlenose dolphin (*Tursiops truncatus*) calf stranded on the Aegean Sea coast of Turkey. *J Black Sea/Medit Environ* 20 (3): 274-279.

Cucknell A., Frantzis A., Boisseau O., Romagosa M., Ryan C., Tonay M.A., Alexiadou, P., Öztürk, A.A., Moscrop, A. (2016) Harbour porpoises in the Aegean Sea, Eastern Mediterranean: the species' presence is confirmed. *Marine Biodiversity Records* 9(72):1-13.

Danyer, E., Tonay, M.A., Aytemiz, I., Dede, A., Yildirim, F., Gürel, A. (2014) First report of infestation by a parasitic copepod (*Pennella balaenopterae*) in a harbour porpoise (*Phocoena phocoena*) from the Aegean Sea: A case report. *Veterinarni Medicina* 59: 403-407.

Dede, A. (2010) Marine mammals living in the Marmara Sea. Marmara Denizi 2010 Sempozyumu, Istanbul, Turkey, 25-26 September 2010 32: 272-28 (in Turkish).

Dede, A., Amaha Öztürk, A., Akamatsu, T., Tonay, M.A., Öztürk, B. (2013) Long-term passive acoustic monitoring revealed seasonal and diel patterns of cetacean presence in the Istanbul Strait. *Journal of the Marine Biological Assoc the UK* 94(6): 1195-1202.

Dede, A., Öztürk, B. (2007) Cetacean observations in the Marmara and Aegean Seas in spring Season 2005. *Rapp Comm int Mer Médit* 38: 455.

Dede, A., Saad, A., Fakhri, M., Öztürk, B. (2012) Cetacean sightings in the eastern Mediterranean Sea during the cruise in summer 2008. *J Black Sea/Medit Environ* 18(1): 49-57.

Dede, A., Salman, A., Tonay, A.M. (2016) Stomach contents of by-caught striped dolphins (*Stenella coeruleoalba*) in the eastern Mediterranean Sea. *Journal of the Marine Biological Assoc the UK* 96(4): 869-875.

Dede, A., Tonay, M.A. (2010) Cetacean sightings in the western Black Sea in autumn 2007. *Journal of Environmental Protection and Ecology* 4: 1491-1494.

Dede, A., Tonay, A.M., Amaha Ozturk A., Öztürk B. (2016) Status of the marine mammals population of the Sea of Marmara. In: The Sea of Marmara Marine Biodiversity, Fisheries, Conservation and Governance, (eds., Özsoy, E., Çağatay, M.N., Balkis, Ne., Balkis, Nu., Öztürk, B.) TÜDAV, Istanbul, pp. 863-879.

Dede, A., Tonay, M.A., Bayar, H. (2013) First stranding record of a Risso's dolphin (*Grampus Griseus*) in the Marmara Sea, Turkey. *J. Black Sea/Medit Environ* 1: 121-126.

Fontaine, M. C., Baird, S.J.E., Piry, S., Ray, N., Tolley, K.A., Duke, S., Birkun, J.R.A., Ferreira, M., Jauniaux, T., Llavona, A., Ozturk, B., Ozturk, A.A., Ridoux, V., Rogan, E., Sequeira, M., Siebert, U., Vikingsson, G., Bouquegneau, J.M., Michaux, J. (2007) Rise of oceanographic barriers in continuous populations of a cetacean: The genetic structure of harbour porpoises in Old World waters. *BMC Biology* 5(30): 16.

Fontaine, M.C., Roland, K., Calves, I., Austerlitz, F., Palstra, F.P., Tolley, K.A., Ryan, S., Ferreira, M., Jauniaux, T., Llavona, A., Öztürk, B., Ozturk, A.A., Ridoux, V., Rogan, E., Sequeira, M., Siebert, U., Vikingsson, G.A., Borrell, A., Michaux, J.R., Aguilar, A. (2014) Postglacial climate changes and rise of three ecotypes of harbour porpoises, *Phocoena phocoena*, in western Palearctic waters. *Molecular Ecology* 23: 3306-3321.

Fontaine, M.C., Snirc, A., Frantzis, A., Koutrakis, E., Öztürk, B., Öztürk, A.A., Austerlitz, F. (2012) History of expansion and anthropogenic collapse in a top marine predator of the Black Sea estimated from genetic data. *PNAS* 109(38): E2569-E2576.

Fontaine, M.C., Tolley, K.A., Michaux, J.R., Birkun, Jr A., Ferreira, M., Jauniaux, T., Öztürk, B., Öztürk, A.A., Ridoux, V., Rogan, E., Sequeira, M., Bouquegneau, J. , Baird, S.J. (2010) Genetic and historic evidence for climate-driven population fragmentation in a top cetacean predator: the harbour porpoises in European water. *Proceedings of The Royal Society B-Biological Sciences* 277: 2829-2837.

Güçlüsoy, H., Dede, A., Tonay, M.A. (2017) Guidelines for Marine Mammals Monitoring. TÜBİTAK Marmara Araştırma Merkezi Deniz İzlemelerinde Standardizasyonun Sağlanması Projesi Deniz İzleme Kılavuzu, (ed., TÜBİTAK) Ankara, pp.140-161.

Kameyama, S., Akamatsu, T., Dede, A., Ozturk, A.A., Arai, N. (2014) Acoustic discrimination between harbor porpoises and delphinids by using a simple two-band comparison. *J Acoust Soc Am* 136(2) doi: 10.1121/1.4884763.

Lah, L., Trense, D., Benke, H., Berggren, P., Gunnlaugsson, Þ., Lockyer, C., Öztürk, A., Öztürk, B., Pawliczka, I., Roos, A., Siebert, U., Skóra, K., Víkingsson, G., Tiedemann, R. (2016) Spatially explicit analysis of genome-wide SNPs detects subtle population structure in a mobile marine mammal, the harbor porpoise. *PLoS One* 11(10): e0162792.

Madhusree, B., Tanabe, S., Öztürk, A.A., Tatsukawa, R., Miyazaki, N., Özdamar, E., Aral, O., Samsun, O., Öztürk, B. (1997) Contamination by butyltin compounds in harbour porpoise (*Phocoena phocoena*) from the Black Sea. *Fresenius Anal Chem* 359: 244-248.

Öztürk, A.A. (2014) A brief review of chemical pollution in Black Sea cetaceans. In: Proceedings of the ACS/ASCOBANS/ACCOBAMS Joint Workshop on Chemical Pollution and Marine Mammals, ASCOBANS (ed. Evans, P.G.H.) pp. 85-89.

Öztürk, A.A., Dede, A., Tonay, A.M. (2016) Cetaceans in the Turkish Waters of the Mediterranean Sea. In: The Turkish Part of the Mediterranean Sea; Marine Biodiversity, Fisheries, Conservation and Governance (eds. Turan, C., Salihoğlu, B., Özgür Özbek, E., Öztürk, B.) Turkish Marine Research Foundation (TUDAV), Publication No: 43, Istanbul, pp. 566-571.

Öztürk, A. A., Dede, A., Tonay, M.A., Danyer, E., Aytemiz, I. (2015) Stranding of a minke whale on the eastern Mediterranean coast of Turkey, April 2015. *J Black Sea/Medit Environ* 21(2): 232-237.

Öztürk, A.A., Dede, A., Tonay, A.M., Danyer, E., Danyer Aytemiz, I., Özgür Özbek, E., Öztürk, B., Ercan, D.M. (2016b) The first record of True's beaked whale, *Mesoplodon mirus*, from the Mediterranean coast of Turkey during multiple strandings in June 2016. *J Black Sea/Medit Environ* 22(2): 194-199. Corrigendum 22(3): 300.

Öztürk, A.A., Tonay, A.M., Dede, A. (2011) Stranding of the beaked whales, Risso's dolphins, and a minke whale on the Turkish coast of the eastern Mediterranean Sea. *J. Black Sea/Medit Environ* 17: 269-274.

Öztürk, A.A. Tonay, A.M., Dede, A. (2013) Sperm whale (*Physeter macrocephalus*) sightings in the Aegean and Mediterranean part of Turkish waters. *J Black Sea/Medit Environ* 19(2): 168-176.

Öztürk, B. (1994) The Turkish national programme for the conservation of the Black Sea dolphins. In: Proceedings of the First International Symposium on the Marine Mammals of the Black Sea (ed. Öztürk, B.) Istanbul, Turkey pp.108-109.

Öztürk, B., Öztürk, A.A. (1996) On the biology of the Turkish Straits System. *Bulletin de l'Institut océanographique Monaco* no special 17: 205-221.

Öztürk, B., Öztürk, A.A. (1997) Preliminary study on dolphin occurrence in the Turkish Straits System. *European Research on Cetaceans* 11: 79-82.

Öztürk, B., Öztürk, A.A. (1998) Cetacean strandings in the Aegean and Mediterranean coasts of Turkey. *Rapp Comm int Mer Medit* 35: 476-477.

Öztürk, B., Öztürk, A.A. (2002) Marine mammals in Turkey. *Fisheries Science* 68: 282-285.

Öztürk, B., Öztürk, A.A. (2005) Biodiversity in the Black Sea: threats and the future. In: Mankind and the Oceans (eds. Miyazaki, N., Adeel, Z., Ohwada, K.), United Nations University Press, Tokyo, pp. 155-171.

Öztürk, B., Öztürk, A.A., Dede, A. (2001) Dolphin bycatch in the swordfish driftnet fishery in the Aegean Sea. *Rapp Comm int Mer Médit* 36: 308.

Öztürk, B., Salman, A., Amaha Öztürk, A., Tonay, M.A. (2007) Cephalopod remains in the diet of striped dolphins (*Stenella coeruleoalba*) and Risso's dolphins (*Grampus griseus*) in the eastern Mediterranean Sea. *Vie et Milieu-Life and Environment* 57: 57-63.

Öztürk, B., Tonay, M.A., Öz, M.İ., Yilmaz, İ.N., Ergsul, H.A., Amaha Öztürk, A. (2017) Sightings of cetaceans in the western Antarctic Peninsula during the first joint Turkish-Ukrainian Antarctic Research Expedition, 2016. *Turkish Journal of Zoology* 41: 955-961.

Öztürk, B., Tonay, M.A., Öztürk, A.A. (2013) Marine mammals. In: Red Data Book, Black Sea, Turkey, TUDAV, Istanbul, Publication No.38, pp.283-298.

Tanabe, S., Madhusree, B., Öztürk, A.A., Tatsukawa, R., Miyazaki, N., Özdamar, E., Aral, O., Samsun, O., Öztürk, B. (1997) Persistent organochlorine residues in harbour porpoise (*Phocoena phocoena*) from the Black Sea. *Marine Pollution Bulletin* 34(5): 338-347.

Tanabe, S., Madhusree, B., Öztürk, A.A., Tatsukawa, R., Miyazaki, N., Özdamar, E., Aral, O., Samsun, O., Öztürk, B. (1997) Isomer-specific analysis of polychlorinated biphenyls in harbour porpoise (*Phocoena phocoena*) from the Black Sea. *Marine Pollution Bulletin* 34(9): 712-720.

Tonay, M.A. (2001) Cetacean species stranded in the Black Sea and their conservation. Sualtı Bilim ve Teknolojisi Toplantısı'2001, Kocaeli, Turkey, 9-11 November 2001, no.2001 (in Turkish).

Tonay, M.A. (2016) Estimates of cetacean by-catch in the turbot fishery on the Turkish western Black Sea Coast in 2007 and 2008. *Journal of the Marine Biological Assoc the UK* 96: 993-998.

Tonay, M.A. (2016) Stranded marine mammal records in the western Black Sea coasts of Turkey between October 2012-September 2013. *Su Ürünleri Dergisi* 33: 343-345 (in Turkish).

Tonay, M.A., Amaha Öztürk, A. (2012) Historical records of cetacean fishery in the Turkish seas. *J Black Sea/Medit Environ* 18: 388-399.

Tonay, M.A., Amaha Öztürk, A. (2014) Cetaceans in the Turkish coast of the Black Sea. In: Turkish Fisheries in the Black Sea (eds., Düzgüneş E., Öztürk B., Zengin M.) Turkish Marine Research Foundation, Istanbul, pp.493-505.

Tonay, M.A., Bilgin, S., Dede, A., Akkaya, A., Yeşilçiçek, T., Köse, Ö., Ceylan, Y. (2012) First records of anomalously white harbour porpoises (*Phocoena phocoena*) in the Turkish seas with a global review. *Hystrix the Italian Journal of Mammalogy* 23: 76-87.

Tonay, M.A., Dede, A. (2013) First stranding record of a harbour porpoise (*Phocoena phocoena*) in the southern Aegean Sea. *J Black Sea/Medit Environ* 19: 132-137.

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2007) Stomach contents of bycaught harbour porpoises (*Phocoena phocoena*) from the Marmara Sea. *Rapp Comm int Mer Médit* 38: 617

Tonay, A.M., Dede, A., Amaha Öztürk, A. (2015) Cetacean in the Aegean Sea. In: The Aegean Sea Marine Biodiversity, Fisheries, Conservation and Governance (eds., Katağan, T., Tokaç, A., Beşiktepe, Ş., Öztürk, B.) Turkish Marine Research Foundation, Publication No: 41, Istanbul, pp. 599-611.

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2017) An unusual interaction between bottlenose dolphins (*Tursiops truncatus*) and a harbour porpoise (*Phocoena phocoena*). *J Black Sea/Medit Environ* 23: 222-228.

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2017) Marine mammals in the Turkish coast of the Black Sea. In: Black Sea Marine Environment: The Turkish Shelf (eds., Sezgin, M., Bat, L., Ürkmez, D., Arıcı, E., Öztürk, B.), Turkish Marine Research Foundation, Istanbul, pp. 269-288.

Tonay, M.A., Dede, A., Amaha Öztürk, A., Ercan, D., Fernández, A. (2012) Unusual mass mortality of cetaceans on the coast of the Turkish western Black Sea in summer 2009. *J Black Sea/Medit Environ* 18: 67-75.

Tonay, M.A., Dede, A., Amaha Öztürk, A., Öztürk, B. (2007) Stomach content of harbour porpoises (*Phocoena phocoena*) from the Turkish western Black Sea in spring and early summer. *Rapp Comm int Mer Médit* 38: 616.

Tonay, M.A., Dede, A., Amaha Öztürk, A., Öztürk, B. (2012) Cetacean strandings in the Turkish western Black Sea coast during 2007-2009. *J Black Sea/Medit Environ* 18: 246-250.

Tonay, M.A., Dede, A., Maracı, Ö., Bilgin, R. (2012) A preliminary genetic study on the harbour porpoise (*Phocoena phocoena*) in the Turkish seas. *J Black Sea/Medit Environ* 18: 83-89.

Tonay, M.A., Öz, İ. (1999) Stomach content of bycaught harbour porpoises (*Phocoena phocoena*) in the western Black Sea region. Sualtı Bilim ve Teknolojisi Toplantısı'99, Istanbul, Turkey, 11-12 December 1999, 1999: 92-98 (in Turkish).

Tonay, M.A., Öztürk, B. (2003) Cetacean bycatch-turbot fisheries interaction in the western Black Sea. Workshop on demersal resources in the Black Sea & Azov Sea, Istanbul, Turkey, 15-17 April 2003 14: 1-8.

Tonay, M.A., Öztürk, B. (2003) Cetacean bycatches in turbot fishery on the western coast of the Turkish Black Sea. In: International Symposium of Fisheries and Zoology (In memory of Ord. Prof. Dr. Curt KOSSWIG in His 100th Birth Anniversary), Istanbul, Turkey, 23-26 October 2003 1: 131-138.

Tonay, M.A., Yazıcı, Ö., Dede, A., Bilgin, S., Danyer, E., Aytemiz I., Maracı, Ö., Öztürk, A.A., Öztürk, B., Bilgin, R. (2017) Is there a distinct harbor porpoise subpopulation in the Marmara Sea? *Mitochondrial DNA Part A* 28: 558-564.

Topaloğlu, B., Öztürk, B., Çolak, A. (1990) Species of dolphins that occurs in the western Black Sea, the Sea of Marmara and the Aegean Sea. *Rapp Comm int Mer Médit* 32: 238.

Viaud-Martinez, K.A., Martinez Vergara, M., Gol'din, P., Ridoux, V., Öztürk, A.A., Öztürk, B., Rosel, P.E., Frantzis, A., Komnenou, A., Bohonak, A.J. (2007) Morphological and genetic differentiation of the Black Sea harbour porpoise *Phocoena phocoena*. *Marine Ecology Progress Series* 338: 281-294.

10 Presentations

Akamatsu, T., Dede, A., Kameyama, S., Tonay, M.A., Amaha Öztürk, A., (2013) Passive acoustic monitoring of multiple cetacean species in the Istanbul Strait. Seventh Annual Meeting of Fisheries Acoustics Society, AFAS2013, Tokyo, Japan, 5-6 November 2013 pp.32.

Akkaya Baş A., Öztürk, A. (2015) Behavioural reaction of three species of cetaceans to the dense marine traffic in the Istanbul Strait, Turkey. 29th ECS.

Aytemiz, I., Danyer, E., Akkaya, A., Tonay, A.M., Peters, A. (2014) Marine wildlife workshops in Turkey. 2nd workshop on Communicating marine mammal science to the general public. 28th Annual Conference European Cetacean Society, Liege, Belgium.

Aytemiz Danyer, I., Danyer, E., Tonay, M.A., Dede, A. (2017) Severe injuries on dolphins observed in two cases from the Turkish coasts. 31st Annual Conference of the European Cetacean Society, Middelfart, Denmark, 29 April - 3 May 2017 pp.255.

Aytemiz, I., Danyer, E., Tonay, A.M., Öztürk, A.A. (2015) A conjoined bottlenose dolphin (*Tursiops truncatus*) calf stranded on the Aegean Sea coast of Turkey. Abstract book of 29th Annual Conf. European Cetacean Society, Malta 99pp.

Aytemiz, I., Dede, A., Danyer, E., Tonay, M.A. (2011) Morphological identification of parasites found in the stomach contents of bycaught striped dolphins (*Stenella coeruleoalba*) from Turkish eastern Mediterranean Sea coast. 25th Annual Conference European Cetacean Society, Cadiz, Spain, 21-23 March 2011 25: 278.

Cucknell, A., Frantzis, A., Boisseau, O., Romagosa, M., Ryan, C., Alexiandou, P., Öztürk, A., Tonay, A., Moscrop, A. (2014) Harbour porpoises in the Mediterranean Sea; survey confirms their presence in the northern Aegean. 28th Annual Conf. European Cetacean Society, Liege, Belgium 30pp.

Danyer, E., Aytemiz, I., Dede, A., Tonay, M.A. (2012) Rescue and rapid release operation of a bottlenose dolphin (*Tursiops truncatus*) bycaught in a longline fishery. 26th Annual Conf. European Cetacean Society, Galway, Ireland, 1-4 March 2012 26: 287.

Danyer, E., Aytemiz, I., Tonay, M.A., Dede, A., Akkaya, H. (2010) Preliminary study of identification of macroscopic parasites in the stomach content of the harbour porpoises (*Phocoena phocoena*) bycaught and stranded in the Turkish western Black Sea. 12th International Veterinary Medicine Students Research Congress, Istanbul, Turkey, 6-8 May 2010.

Danyer, E., Tonay, M.A., Aytemiz, I., Dede, A. (2014) First report of infestation by a parasitic (*Pennella balaenoptera*) in a harbour porpoise (*Phocoena phocoena*) on the southern Aegean Sea coast of Turkey. 28th Annual Conference of the European Cetacean Society, Liege, Belgium, 5-9 April 2014 28: 120.

Dede, A., Akamatsu, T., Amaha Öztürk, A., Kameyama, S., Tonay, M.A., Öztürk, B. (2018) A-tag usage in passive acoustic monitoring of cetaceans in Istanbul Strait. 1. Uluslararası Denizel Biyoakustik Çalıştayı, İstanbul, Turkey, 11-11 June 2018 1: 4-5 (in Turkish).

Dede, A., Akamatsu, T., Amaha Öztürk, A., Tonay, M.A., Kameyama, S., Öztürk, B. (2016) Passive acoustic monitoring of the cetaceans in the Istanbul Strait (2009-2016). 1. Ulusal Denizlerde İzleme ve Değerlendirme Sempozyumu, Ankara, Turkey, 21-23 December 2016 (in Turkish).

Dede, A., Akamatsu, T., Amaha Öztürk, A., Tonay, M.A., Kameyama, S. (2017) Seasonal and yearly fluctuation of cetacean presence in the Istanbul Strait based on passive acoustic monitoring between 2009-2016. 31st Annual Conference of the European Cetacean Society, Middelfart, Denmark, 29 April-3 May 2017 pp. 249.

Dede, A., Amaha Öztürk, A., Akamatsu, T., Tonay, M.A., Öztürk, B. (2011) Long-term passive acoustic monitoring of the moving patterns of cetaceans in the Istanbul Strait. 25th Annual Conference of the European Cetacean Society, Cadiz, Spain, 21-23 March 2011.

Dede, A., Amaha Öztürk, A., Kameyama, S., Tonay, M.A., Akamatsu, T. (2014) Occurrence and behavior of Delphinids and harbor porpoises at the northern end of the Istanbul Strait, Turkey. 28th Annual Conference of the European Cetacean Society, Liege, Belgium, 5-9 April 2014 28: 52.

Dede, A., Amaha Öztürk, A., Tonay, M.A. (2008) Cetacean surveys in the Istanbul (Bosphorus) Strait in 2006. 22nd Annual Conference of European Cetacean Society, Egmond aan Zee, The Netherlands, 10-12 Mart 2008 22: 22.

Dede, A., Saad, A., Fakhri, M., Öztürk, B. (2009) Cetacean sightings in the eastern Mediterranean Sea during the cruise made in summer 2008. 23rd Annual Conference European Cetacean Society, İstanbul, Turkey, 2-4 March 2009 23: 111-112.

Dede, A., Öztürk, B. (2003) Diving in marine mammals. III. Ulusal Sualtı ve Hiperbarik Tıp Toplantısı, İstanbul, Türkiye, 9-10 Ekim 2003 pp.70-74 (in Turkish).

Dede, A., Tonay, M.A. (2008) Cetacean sightings in the western Black Sea in autumn 2007. 2nd Biannual and Black Sea Scene EC Project Joint Conference. Climate change in the Black Sea-hypothesis, observations, trends scenarios and mitigation strategy for the ecosystem, Sofia, Bulgaria, 6-9 October 2008 2: 32-33.

Kameyama, S., Akamatsu, T., Amaha Öztürk, A., Dede, A., Arai, N. (2013) Quantitative species identification between harbor porpoise and Delphinid by biosonar signals. 1st Design Symposium on Conservation of Ecosystem (SEASTAR2000), Kyoto, Japan, 18-19 March 2013 pp.10.

Kameyama, S., Akamatsu, T., Dede, A., Amaha Öztürk, A., Arai, N. (2013) Difference of biosonar sound characteristics between cetacean species in the Istanbul Strait. 13th International Symposium on SEASTAR2000 and Asian Bio-logging Science, Kyoto, Japan, 18-19 March 2013 pp.10.

Kameyama, S., Amaha Öztürk, A., Akamatsu, T., Dede, A., Arai, N. (2015) Fine scale habitat sharing between harbor porpoises and Delphinids in the Istanbul Strait. 29th Annual Conference European Cetacean Society, St Julian's Bay, Malta, 23-25 March 2015 29: 110.

Kameyama, S., Dede, A., Akamatsu, T., Amaha Öztürk, A., Tonay, M.A. (2013) Difference in micro habitat use between harbor porpoise and Delphinids in the Istanbul Strait. 20th Biennial Conference on the Biology of Marine Mammals, Dunedin, New Zealand, 9-12 December 2013 pp.109.

Kameyama, S., Dede, A., Amaha Öztürk, A., Akamatsu, T., Tonay, M.A., Öztürk, B., Arai, N. (2012) Study of cetaceans in Istanbul Strait using passive acoustic method. 8th International Symposium on SEASTAR2000 and Asian Biologging Science (The 12th SEASTAR2000 workshop), Bangkok, Thailand, 20-21 February 2012 pp.27.

Llavona, A.V., Ferreira, M., López, A., Vingada, J.V. , Pierce, G.J. , Dabin, W., Deaville, R., Jauniaux, T., Rogan, E., Tonay, M.A., Dede, A., Brownlow, A., Laria, L., Fernández, C., Cermeño, P., Piertney, S.B. (2014) Population genetic structure of harbour porpoise *Phocoena phocoena* across Europe: Implications for management. 28th Annual Conference of the European Cetacean Society, Liege, Belgium, 5-9 April 2014 28: 60.

Olaya Meza, C., Akkaya Baş, A., Affinito, F., Öztürk, B., Öztürk, A. (2018) Fishing practices cause a concerning alteration on the behavior of three odontocetes species in the Istanbul Strait. 32nd Conference of European Cetacean Society, La Spezia, Italy, 6-10 April 2018.

Öztürk, A.A., Dede, A., Tonay, M.A., Öztürk, B. (2009) Cetacean surveys in the Istanbul (Bosphorus) Strait in 2007-2008. 23rd Annual Conference European Cetacean Society, Istanbul, Turkey, 2-4 March 2009 23: 29-30.

Öztürk, A.A., Dede, A., Tonay, M.A., Öztürk, B. (2010) Sperm whale sightings in the Turkish part of the Aegean and Mediterranean Sea. 24th Annual Conference European Cetacean Society, Stralsund, Germany, 22-24 March 2010 24: 319.

Öztürk, A.A., Öztürk, B., Dede, A. (2001) A fin whale stranding on the Mediterranean coast of Turkey. In: Abstracts, European Cetacean Society, 15th Annual Conference, Rome, Italy pp.58.

Öztürk, A.A., Öztürk, B., Tonay, M.A., Dede, A. (2004) Cetacean stranding on the Turkish coast of the western Black Sea in 2003. Marine Mammals of the Holarctic, Koktebel, Ukraine, 11-17 October 2004 3: 439-440.

Öztürk, A.A., Tonay, M.A., Dede, A., Danyer, E., Aytemiz Danyer, I., Aydineli, A., *et al.* (2018) Stranding records of Cuvier's beaked whale, *Ziphius cavirostris* on the coast of Turkey and northern Cyprus, 2016-2017. 32nd Conference of European Cetacean Society, La Spezia, Italy, 6-10 April 2018 32: 122.

Öztürk, A.A., Tonay, M.A., Dede, A., Danyer, E., Aytemiz Danyer, I., Popov, D. (2017) Unusual mass mortality of harbour porpoises on the coast of the western Black Sea (Bulgaria and Turkey) in summer 2016. 31st Annual Conference of the European Cetacean Society, Middelfart, Denmark, 29 April-3 May 2017 pp.297.

Öztürk, A.A., Tonay, A.M., Öztürk, B. (2014) Review on small cetaceans of the Turkish part of the eastern Mediterranean Sea. IWC Scientific Committee Annual Meeting, SC/65b/SM15Rev.

Öztürk, A.A., Tonay, M.A., Raykov, V., Dede, A. (2012) High mortality of harbour porpoise neonates in the southwestern Black Sea in 2010 and 2011. 26th Annual Conference European Cetacean Society, Galway, Ireland, 26-28 March 2012 pp.90.

Öztürk, B., Amaha Öztürk, A., Dede, A. (1999) Cetacean by-catch in the western coast of the Turkish Black Sea in 1993-1997. XIII. Annual Conference of the European Cetacean Society, Valencia, Spain, 5-8 April 1999.

Öztürk, B., Amaha Öztürk, A., Tonay, A., Keçeci, M. (2004) History of dolphin fishery in the Turkish Black Sea during 1970-1983. In: Marine Mammals of the Holarctic (ed. Belkovich, V.M.), KMK, Moscow, pp. 438-439.

Öztürk, B., Dede, A., Komut, O. (1999) Cetacean strandings in the Marmara Sea. XIII. Annual Conference of the European Cetacean Society, Valencia, Spain, 5-8 April 1999.

Öztürk, B., Dede, A., Tonay, M.A., Amaha Öztürk, A. (2009) Cetacean sightings in the Aegean Sea in summer 2007 and 2008. 23rd Annual Conference European Cetacean Society, Istanbul, Turkey, 2-4 March 2009 23: 114.

Tonay, M.A. (2011) Monitoring of cetacean mortality in the Turkish western Black Sea coast during 1999-2009. Bilateral Joint Program People-to-people exchange between Japan and Turkey tied with ocean, Japan, 2-11 November 2011.

Tonay, M.A. (2011) Estimates of cetacean bycatch in the turbot fishery on the Turkish western Black Sea coast in 2007 and 2008. General Fisheries Commission for the Mediterranean, Scientific Advisory Committee, 2nd Transversal Working Group on By-Catch (in collaboration ACCOBAMS), Turkey, 7-9 December 2011.

Tonay, A.M. (2013) Genetic status of the harbor porpoise in the Black Sea and adjacent waters. Joint ACCOBAMS-ASCOBANS Workshop on cetacean population structure. 27th Annual Conf. European Cetacean Society, Setubal, Portugal.

Tonay, M.A., Dede, A. (2012) Cetacean Stranding Monitoring on the Turkish Western Black Sea Coast of Turkey. YTÜ II. ARGE Proje Pazarı, Istanbul, Turkey, 29-30 May 2012 (in Turkish).

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2007) Relation between cetacean and turbot fishery in the western Black Sea-bycatch problem. International Symposium of Protection and Sustainable Management of the Black Sea Ecosystem, Third Millennium Imperative, Constanta, Romania, 29-31 September 2007 pp.10.

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2008) Cetacean strandings in the Turkish Western Black Sea coast during spring months in 2003-2005. 22th Annual Conference European Cetacean Society, The Netherlands, 10-12 March 2008.

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2012) Cetacean stranding records on the Turkish western Black Sea coast during September 2009-August 2010 on a monthly basis. 26th Annual Conference European Cetacean Society, Ireland, 26-28 March 2012.

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2013) Cetacean stranding records on the Turkish western Black Sea coast during September 2010-September 2012. 27th Annual Conference European Cetacean Society, Portugal, 8-10 April 2013.

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2013) Cetacean stranding monitoring on the Turkish western Black Sea coast during 2003-2012. 17. Ulusal Su Ürünleri Sempozyumu, Istanbul, Turkey, 3-6 September 2013 (in Turkish).

Tonay, M.A., Dede, A., Amaha Öztürk, A. (2018) Cases of stranded beaked whale under the affect of the anthropogenic underwater noise in the eastern Mediterranean. 1st National Marine Bioacoustic Workshop, Çanakkale, Turkey, 11-11 June 2018 1: 10-11 (in Turkish).

Tonay, M.A., Dede, A., Amaha Öztürk, A., Öztürk, B. (2009) Cetacean strandings in the Turkish Straits System (TSS) and the northern Aegean Sea coast of Turkey during 1999-2008. 23rd Annual Conference European Cetacean Society, Istanbul, Turkey, 2-4 March 2009 23: 123.

Tonay, M.A., Dede, A., Amaha Ozturk, A., Danyer, E., Aytemiz, I., Uzun, B., *et al.* (2016) Cetacean stranding monitoring on the Turkish western Black Sea coast during 2003-2016. 1. Ulusal Denizlerde İzleme ve Değerlendirme Sempozyumu, Ankara, Turkey, 21-23 December 2016 pp.156-159 (in Turkish).

Tonay, M.A., Dede, A., Amaha Öztürk, A., Ercan, D., Fernández, A., Öztürk, B. (2010) Unusual mass mortality of cetaceans on the coast of the Turkish western Black Sea in summer 2009. 24th Annual Conference European Cetacean Society, Germany, 22-24 Mart 2010.

Tonay, M.A., Uzun, B., Amaha Ozturk, A., Dede, A., Danyer, E., Aytemiz, I., *et al.* (2016) Preliminary study on population structure of the short-beaked common dolphin (*Delphinus delphis*) in the Turkish Seas based on mtDNA sequences. 1st International Workshop Conservation and research networking on short-beaked common dolphin (*Delphinus delphis*) in the Mediterranean Sea, Ischia, Italy, 13-15 April 2016 pp.38-40.

Tonay, M.A., Uzun, B., Dede, A., Danyer, E., Aytemiz Danyer, I., Amaha Ozturk, A., *et al.* (2017) Genetic investigation on the short-beaked common dolphin (*Delphinus delphis*) and bottlenose dolphin (*Tursiops truncatus*) in the Turkish Seas based on mtDNA sequences. 31st Annual Conference of the European Cetacean Society, Middelfart, Denmark, 29 April-3 May 2017 pp.181.

Tonay, M.A., Uzun, B., Dede, A., Danyer, E., Aytemiz Danyer, I., Amaha Öztürk, A., *et al.* (2018) Genetic structure of the bottlenose dolphin (*Tursiops truncatus*) in the Turkish Waters based on mtDNA sequences. 5th Ecology and Evolutionary Biology Symposium, İzmir, Turkey, 18-20 July 2018 pp.20-21.

Tonay, M.A., Uzun, B., Dede, A., Danyer, E., Aytemiz, I., Bilgin, S., *et al.* (2016) A preliminary genetic investigation on the short-beaked common dolphin (*Delphinus delphis*) in the Turkish Seas based on mtDNA sequences. 30th Annual Conference of the European Cetacean Society, Funchal, Madeira, Portugal, 14-16 March 2016 pp.121.

Tonay, M.A., Yazıcı, Ö., Dede, A., Bilgin, S., Maracı, Ö., Amaha Öztürk, A., Bilgin, R. (2014) Variability of the mitochondrial control region in the populations of the Black Sea harbour porpoise (*Phocoena phocoena relicta*) in the Turkish Seas. 28th Annual Conference European Cetacean Society, Liege, Belgium, 5-9 April 2014 pp.131.

Uzun, B., Tonay, M.A., Dede, A., Amaha Ozturk, A., Öztürk, B., Bilgin, R. (2017) Population genetic structure of harbour porpoises (*Phocoena phocoena*) in the Turkish Waters. Ecology and Evolutionary Biology Symposium, Istanbul, Turkey, 11-13 July 2017 pp.1.

Uzun, B., Tonay, M.A., Dede, A., Danyer, E., Aytemiz, I., Bilgin, S., *et al.* (2016) Population genetic structure of harbour porpoise *Phocoena phocoena* in Turkish Waters – what does mtDNA control region say?. 30th Annual Conference of the European Cetacean Society, Funchal, Madeira, Portugal, 14-16 March 2016 pp.236.

Uzun, B., Tonay, M.A., Dede, A., Danyer, E., Aytemiz, I., Bilgin, S., *et al.* (2017) Do we need to conserve the harbour porpoise (*Phocoena phocoena*) population in the Marmara Sea separately?. 31st Annual Conference of the European Cetacean Society, Middelfart, Denmark, 29 April - 3 May 2017 pp.154.

Uzun, B., Tonay, M.A., Dede, A., Danyer, E., Aytemiz Danyer, I., Amaha Öztürk, A., *et al.* (2018) Genetic investigation on the population structure of the harbour porpoises living in Turkish Waters by double digest restriction associated DNA (ddRAD) sequencing. 32. Conference of European Cetacean Society, La Spezia, Italy, 6-10 April 2018 32: 79.

Uzun, B., Tonay, A.M., Öztürk, A.A., Bilgin, R. (2015) Genetic structure of harbour porpoises in the Black Sea and adjacent waters: Where do we stand now? Abstract book of 29th Annual Conf. European Cetacean Society, St Julian's Bay, Malta. 151pp.

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