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# CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

#### **Standing Committee**

38<sup>th</sup> meeting Strasbourg, 27-30 November 2018

## Follow-up of Closed file No. 2011/4: Threat to the Mediterranean monk seal (Monachus monachus) in Turkey

### - REPORT BY THE GOVERNMENT -

Document prepared by the Ministry of Agriculture and Forestry, Turkey

# GOVERNMENT REPORT (2018) FOR THE FOLLOW-UP OF CLOSED FILE NO. 2011/4: THREAT TO THE MEDITERRANEAN MONK SEAL (MONACHUS MONACHUS) IN TURKEY

The Yeşilovacık Harbor Project, consisting of building a filling area and construction of a port, is pursued by Yeşilovacık Harbor Enterprises Inc. The Environmental Impact Assessment of this construction was completed in 2008 and the construction of the port was completed in 2015. Based on an "ecosystem evaluation report" prepared by three professors from Ankara University as a part of Environmental Impact Assessment, it had been committed by the company that the Mediterranean Monk Seal population would be monitored. According to this commitment, the construction company is obliged to finance the monitoring activities of the Monk Seal. Within this scope, academic staff from Ankara University is monitoring the area and they present reports to the Ministry of Agriculture and Forestry.

Besides, monitoring studies are held concurrently within the scope of monk seal action plan prepared by the former Ministry of Forestry and Water Affairs. These monitoring studies are carried out together with Middle East Technical University, Institute of Marine Sciences.

#### **Monitoring Studies Within the Scope of Harbor Construction:**

The harbor company was obliged to carry out monitoring work based on the Environmental Impact Assessment Report. According to the commitment, the Mediterranean Monk Seal population has to be monitored by expert people from universities and being financed by the company. Within this scope, academic staff from Ankara University is monitoring the area continuously.

"Balıklı Cave", which is a breeding site for *Monachus monachus*, is located about approximately 600 m away from the piled jetty system at the tip of the harbor. A full-time biologist and an aquaculture engineer is employed to monitor the effects of construction activities. They present their reports to the Mersin Branch of Ministry of Forestry and Water Affairs. Mersin Branch is evaluating the reports and make their inspection based on the information provided by those reports. These detailed reports are then presented to the General Directorate of Nature Conservation and National Parks based in Ankara.

After the last report which was presented to the committee in 2016, there are six other mid-term reports presented to the authorities. The monitoring of harbor activities is still continuing in the coordination of Mersin Branch of Ministry of Agriculture and Forestry. A short report about all the monk seal sightings could be found in Appendix 1.

#### **Implementations of Monk Seal Conservation Action Plan**

As it was presented in previous reports, one of the activities in the action plan is to determine the habitats of monk seal within the marine and coastal ecosystems of Mersin province and to put forward the population sizes and monitor them. A protocol with the concept "Monitoring of Monk Seal Populations and Habitats" had been signed between Middle East Technical University Institution of Marine Sciences and Mersin Branch of the Ministry in 2015. This protocos, which was renewed in 2018, targets protecting the monk seal habitats and carrying them to future generations. The methods of monitoring monk seals was taught to Mersin Branch personnel by the University staff. The report produced at the end of the studies within the scope of the protocol is presented in Appendix 2. Other activities of the action plan carried out in 2018 is presented in Appendix 3.

A comprehensive analysis report will be produced at the end of the 5 year implementation period of the action plan. For the current date, monitoring and conservation studies are still being carried out.

#### Appendices:

Appendix 1: Monk seal sigthings

Appendix 2: Update on monk seal cave survey results Appendix 3: Implementation of monk seal action plan

#### Appendix I

#### MONK SEAL SIGHTINGS AROUND THE HARBOUR

The transportation activities at the Harbor of Yesilovacik in Silifke, Mersin continued in 2017 and 2018. The monitoring of monk seals around the harbor is done by Prof. Dr. Nuri YİĞİT, Prof. Dr. Ercüment ÇOLAK of Ankara University and Biologist Hatice Yuksel who is employed in the responsible company, under the supervision of Mersin Branch of the Ministry of Agriculture and Forestry.

Yesilovacik port and its fill site have been monitored by cameras at 6 different observation points 7/24 since 2014. An agriculture engineer is full-time employed and he is visiting observation points and shore habitats and taking records for all the observations he is making. The closest monk seal cave to the port is "Balıklı cave" which is approximately 600 metres from the port. A camera system was installed at the port, against the Balıklı Cave, to be able to monitor the cave live and online. Besides, an additional camera was installed to be able to check the sides and end of the port together, and these two cameras are taking records online. By these cameras, the monk seal activity is being monitored all the time. Monk seals are recorded rarely while foraging under or near the port. Besides, regular interviews with the fishermen around the port is made and the data obtained are added to the report. The reports are prepared by the scientists and evaluated by the ministrial staff. Inspections are made by the staff of Ministry of Agriculture and Forestry. During the inspections, no environmental pollution was recorded in and around harbour area. Besides, some species were recorded which settled on the pillars of the harbour. These species include but not limited to, Chthamalus stellatus, Patella caerulea, Phorcus turbinatus, Brachidontes pharaonis and Actinia equina, which resulted in the occurence of pelagic fish and sea turtles around the harbour area. Monk seal sigthings are recorded in a table, which is given below;

Observation ·	Location¤	Day¤	Hour	Sex¤	Record·Type¤	Ţ
Point∞						
OP-2¤	Yeşilovacık <sup>©</sup>	30.12.2012¤	16 <sup>49¤</sup>	Female□	Photograph:	1
OP-2¤	Yeşilovacık <sup>©</sup>	20.01.2013¤	11 <sup>28¤</sup>	Female:	Photograph:	1
OP-2¤	Yeşilovacık <sup>©</sup>	24.02.2013¤	12 <sup>12¤</sup>	?Young	Photograph and Video	1
OP-4¤	Yeşilovacık <sup>©</sup>	20.12.2013¤	16 <sup>00¤</sup>	?Young	Photograph:	1
OP-1¤	Yeşilovacık <sup>©</sup>	16.02.2014¤	09 <sup>34¤</sup>	?—Young	Photograph and Video	1
OP-1¤	Yeşilovacık <sup>©</sup>	17.02.2014¤	14 <sup>15¤</sup>	?Young	Photograph:	1
OP-5¤	Yeşilovacık <sup>©</sup>	01.05.2014¤	11 <sup>25</sup> ¤	Male□	Photograph:	Ţ
OP-1¤	Yeşilovacık <sup>©</sup>	03.02.2015¤	14 <sup>31</sup> ¤	Male□	Photograph:	1
OP-1¤	Yeşilovacık <sup>©</sup>	10.03.2015¤	17 <sup>30</sup> ¤	Male¤	Photograph-and-Video	ı
Fishing porta	Yeşilovacık <sup>©</sup>	13.03.2015¤	11 <sup>00</sup> ¤	Female□	Photograph and Video	1
Fishing porta	Yeşilovacık <sup>©</sup>	16.04.2015¤	20 <sup>15</sup> a	?Long-distance□	Photograph and Video	1
Dolphin (Companion)	Yeşiloyacık <sup>©</sup>	29.04.2015¤	10 <sup>03</sup> ¤	?Long-distance□	Video≎	1

OP-1¤	Yeşilovacık <sup>©</sup>	28.01.2016	16 <sup>05</sup> ¤	Female <sup>©</sup>	Report	ŗ
OP-1 · Harbor Fill · Site · □	Yeşilovacık <sup>©</sup>	12.02.20160	21 <sup>30</sup> ¤	Maleo	Video¤	t
OP-1 · Harbor· Fill · Site□	Yeşilovacık <sup>©</sup>	16.02.2016	17 <sup>34</sup> ¤	Male¤	Photograph and Video a	ţ
Fishing port	Yeşilovacık <sup>©</sup>	27.09.2016¤	17 <sup>05</sup> ¤	Male¤	Photograph:	ţ
Dolfen (Port end)□	Yeşilovacık <sup>©</sup>	22.01.2017¤	00 <sup>13</sup> ¤	Male¤	Video	ţ
OP-1-Sub-Port	Yeşilovacık <sup>©</sup>	28.02.2017¤	22 <sup>45</sup> ¤	Male≎	Ö	ţ
Port-North- Entrance	Yeşilovacık <sup>©</sup>	02.12.2017¤	10: <sup>50</sup> ¤	Male¤	Photographo	ţ
OP-2¤	····Yeşiloyacıko	11.12.2017¤	11: <sup>42</sup> ¤	Male¤	Video¤	ŗ
Fire Depot Gate□	Yeşilovacık <sup>©</sup>	19.12.2017¤	20: <sup>52</sup> ¤	Male¤	Video¤	ţ
Port · Entrance · North · 3 °	Yeşilovacık <sup>©</sup>	22.12.2017¤	21: <sup>12</sup> ¤	?a	Video□	ţ
Port · Dolfen	Yeşilovacık <sup>©</sup>	10.01.2018¤	00: <sup>25</sup> ¤	Male¤	Photographo	ţ
Port·No:10	Yeşiloyacık <sup>©</sup>	08.02.2018¤	01: <sup>55</sup> ¤	<b>?</b> a	Video¤	ţ
<u>Tisan</u> ∙¤	Yeşilovacık <sup>©</sup>	20.05.2018¤	18: <sup>30</sup> ¤	Male□	Photograph:	ţ
Fishing port	Yeşilovacık <sup>©</sup>	06.06.2018¤	20: <sup>20</sup> ¤	<b>?</b> a	Video¤	ţ

#### Appendix II

# UPDATE ON MONK SEAL CAVE SURVEY RESULTS Report of Monitoring Project Between METU-IMS and MOAFW Mersin Branch

#### **PROJECT PURPOSE:**

To determine the monk seal habitats in Mersin Province and to develop a better strategy to protect monk seals in Mersin.

The protocol which was signed between METU-IMS and MoAF Mersin Branch to monitor the monk seals was renewed in 2018.

# MIDDLE EAST TECHNICAL UNIVERSITY INSTITUTE OF MARINE SCIENCES PROJECT TEAM

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Veterinarian Dr. Ayşe DÜRGEN

Biologist Orhan KARAKAYA

#### INSTALLATION OF PHOTOTRAPS

Monk seals' biology, ecology and morphology was taken into account while installing the phototraps. The installation angle and distance is important in order to get clear photos of monk seals. The phototraps were mounted to the walls of caves by using special equipments in this study

As the monk seals are photographed inside the caves, the angle of sun was not important while installing the phototraps. The GPS coordinates of caves were taken after the installation.

All the caves were listed and grouped according to their characteristics, size, weather conditions, geography etc. Then a field study program was arranged and caves were prioritized.

	CAVE MONITORING STUDIES IN 2017 and 2018										
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Installation, card control and general site visits

#### METHOD USED TO MONITOR MONK SEALS

Monk seal is a very vulnerable species and it is very sensitive to noise. Thus female monk seals choose very secure and silent caves to give birth and to feed the young. These caves are located on the untouched coasts of the mainland and the islands.

To detect the caves where monk seal lives in, the coastal ecosystems were visited through the land and the sea. When a cave was spotted, the phototraps were installed into it. Then every 1,5 or 2 months, phototraps were checked both for battery charge and for memory cards. The data obtained was transferred to computers and all the caves were named to prevent disorder. All the data is stored in computers for further analysis which will be done at the end of the study. Besides, the sandy beaches were scanned during the field work to see any small pockets.

The following table was prepared after the field work, to show which cave is installed with phototraps.

#### CAVES MONITORED WITHIN THE SCOPE OF MONK SEAL (M. monachus) MONITORING PROJECT

	DISTRICT	LOCATION	CAVE NAME	MONITORING	COORDINATE (UT	ΓM 6 ° - ED50- 36 S)	NUMBER OF PHOTOTRAPS IN	NOTE
NO		20011101		PERIOD	X	Y	THE CAVE	110 12
1	Silifke	Akkum	Party	2016-2018	601	4034	2	F
2	Silifke	Kargıcak (Dana Adası Karşısı)	Fokini	2016-2018	568	4008	1	F+E
3	Silifke	Yeşilovacık	Balıklı	2016-2018	559	4003	3	Е
4	Gülnar	Beşparmak Adası	Beşparmak	2016-2018	547	3998	1	F
5	Aydıncık	Aydıncık	Soğuksu	2016-2018	533	3999	1	F
6	Bozyazı	Kızılliman	Böz	2016-2018	508	3994	2	D+J
7	Anamur	Anamur-Melleç Arası	Çöplük	2016-2018	478	3987	1	D
8	Anamur	Melleç	İkikapılı	2016-2018	474	3988	1	
9	Anamur	Melleç	Piramit	2016-2018	474	3988	1	J
10	Gazipasa	Kaledran-Antalya	Yarasalı	2016-2018	458	3994	2	Т
11	Aydıncık	Yeni Kaşl	Charlie	2016-2018	524	3996	2	D+F

D = Female Monk Seal

E = Male Monk Seal

J = Juvenile Monk Seal

F = Feces

T = Track

#### PHOTOS OBTAINED DURING THE MONITORING OF CAVES

#### **Monitoring of Party cave:**

Two phototraps were installed into this cave in 2016. Monitoring is still continuing.





Monk seal activity pattern for this cave will be obtained at the end of the project.

#### **Monitoring of Fokini cave:**

This cave was intalled with 1 photo in 2016. The monitoring is still continuing.





Monk seal activity pattern for this cave will be obtained at the end of the project

#### Monitoring of Balikli cave

This cave was installed with 3 phototraps. 2 of them became disfunctional due to salty water. Monitoring study is carried out by 1 phototrap.

Monk seal activity pattern for this cave will be obtained at the end of the project





#### Monitoring of Beşparmak cave

Monitoring studies are continuing with 1 phototrap.





Monk seal activity pattern for this cave will be obtained at the end of the project.

#### Monitoring of Soğuksu cave

Monitoring study is still carried out with 1 phototrap. Additionally, 1 female with a young monk seal was observed outside this cave. Monitorin studies are continuing.





Monk seal activity pattern for this cave will be obtained at the end of the project.

#### Monitoring of Böz cave:

Monitoring studies are continuing with 2 phototraps.





Monk seal activity pattern for this cave will be obtained at the end of the project.

#### Monitoring of Çöplük cave:

This cave is monitored with 1 phototrap.





Monk seal activity pattern for this cave will be obtained at the end of the project.

#### Monitoring İkikapili cave:

This cave was being monitored by 1 phototrap, however the phototrap was found to be disfunctional at the end of 2016. Monitoring studies cannot continue at this cave. İzleme çalışmaları devam etmektedir.





Monk seal activity pattern for this cave will be obtained at the end of the project

#### **Monitoring Piramit cave:**

There is one phototrap installed in Piramit cave and monitoring is continuing.





Monk seal activity pattern for this cave will be obtained at the end of the project

#### Monitoring Kaledran-Yarasali cave:

2 phototraps have been used in Yarasalı cave, in which monitoring still continues. However, phototraps were broken by the salty water.



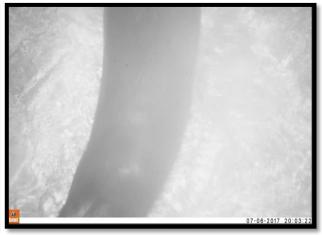


Monk seal activity pattern for this cave will be obtained at the end of the project

#### **Monitoring Charlie cave:**

This cave was installed with 1 phototrap in 2017. The monitoring studies are continuing.





#### Out of cave sightings during monitoring

During the monitoring study, monk seals were observed usually in the sea around the seal caves or in some small pockets while nursing their youngs. Especially two females nursing two youngs in the same pocket is a remarkable behaviour. One of these females is detected outside Böz cave. Besides, an encounter with a monk seal outside Fokini cave was recorded by video shot.







Monitoring of monk seals within the scope of the protocol and Monk Seal Action Plan has been continuing in 11 monk seal caves. Additional 6 caves are planned to be monitored but the project experts decided not to install phototraps into these caves due to the inappropriate nature of caves.

#### General evaluation on monitoring

In 2016 - 2017 season, two monk seals were born. In addition, two were born in 2017-2018 season. In total, 19 monk seals were detected in Mersin province during 2017 -2018. One of the newborns in 2017 was found dead. Number of newborns is low when compared with the previous year. The reason for low number could be because of increasing human activities around the region.

As the project goes on for one more year, general evaluation will be made after the project is completed.

Some of the phototraps were broken because of penetration of salty water inside them. Therefore there is a need to support the caves with extra phototraps for the forthcoming year.

## Appendix 3 –

#### IMPLEMENTATION OF ACTION PLAN

Numl	oer and Name of the Activity In the Plan	Curre	Current situation of implementation					
1.1 Ca	ive Inventory Studies							
1.1.1	The caves which are used by monk seals will be determined and labeled on a digital map.	1.	Caves were determined and mapped.					
1.1.2	The threats on monk seal caves will be determined.	2.	This activity is still ongoing.					
	pulation Inventory Studies		This doubtly is suit suggesting.					
1.2.1	By using phototraps, the number of monk seals and sex and age ratios of the population will be determined.	1.	This activity is still on going and will be finalized in 2019.					
1.2.2	A web site and a call center will be created for monk seal observations and the notifications recevied will be recorded in the website. This call center will also serve for urgent situations of monk seals.	2.	A web site was built and became operational. The existing report line (0 324 481 22 84) for sea turtle rehabilitation center has been arranged to serve for monk seals also. This new report line has been announced in hand brochures and Gendarmery and local governments have been informed about this new line. Monk seal sightings are reported to this line.					
2.1 Pr	otection of Habitats							
2.1.1	Informing stakeholders about the habitats that monk seals use.	1.	The stakeholders will be informed after the phototrap study is completed.					
2.1.2	Hanging out warning and/or information signs around the important terrestrial sites close to monk seal habitats.	2.	15 warning signs were manufactured with the help of Erdemli Industrial High School and hanged in order to inform people in terrestrial habitats.					
2.1.3	Evaluating the existing legislation about monk seals and improving them to serve for mitigating threats to monk seal habitats.	3.	The Ministrial Manifest is still under preparation about protection of monk seal and its habitats throughout Turkish coasts of Meditarrenean, Egean and Marmara Seas.					
2.1.4	Increasing the precautions to protect the monk seal cave in Akkum locality of Silifke District.	4.	Related institutions were informed about the protection of monk seal and monk seal caves.					
2.1.5	Cooperation, in general, with the stakeholders to better implement protection precautions.	5.	Exchange of views, with all the stakeholders and particularly with Mersin University and METU Marine Sciences Institution is made throughout the year to better implement the action plan.					
2.1.6	Making fisheries install outer protective nets for their breeding cages.	6.	This issue is followed by local branch of ministry of food, agriculture and livestocks. The related ministry is pushing all the fisheries to complete the installment of outer protective nets.					
2.1.7	To determine the acceptable distance for noise creating activities depending on the decibel level, using this guide to evaluate the planned activities that may have negative effects on monk seal habitats. Besides, for activities which do not have noise impact, evaluating the threat level of the activity through a scientific research. Allowing the activities only if the scientific reports approves them.	7.	Not much progress has been made. Investing activities are still evaluated based on the map for monk seal habitats, which is an appendix of the action plan.					

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2.1.8	To determine, in order to protect the monk seals, the route that yachts will use when the Aydıncık Marina is completed, as it is as close as 2 km to the monk seal cave in the region.	8.	The yacht route is determined. The route that was produced was sent to the Anamur Harbor Depertment of Ministry of Transportation, Maritime and Communication with an official letter.
2.2 Pr	otection of the Species		
2.2.1	Creating a communication tool for both notification of	1.	The reporting line is still active on the issue.
	dead or injured monk seals and also for increasing		
	communication between the institutions.		
	ucation and Awareness Raising Studies;		
3.1.1	Meetings for the education and awareness raising for local	1.	Educational meetings were held around the primary and secondary schools close to the monk
	people and students will be held. Brochures, posters and		seal habitatas in 2017 and 2018. Close cooperation with the Ministry of Education was made
	handouts will be prepared and distributed in the meetings.		and list of primary and secondary schools were taken from them.
3.1.2	Education of fishermen and fisheries personnel.	_	
3.1.3		2.	The education program that was held with the participation of heads of fishermen cooperatives
3.1.4	Informative meetings about the biology and ecology of		was repeated in 2017 and 2018.
	monk seals and research going on about monk seals.	_	
		3.	This activity will be repeated after the completion of monitoring study.
	onitoring Program		
4.1.1	To monitor the change in birth and death rates of monk	1.	Monitoring with phototraps is still continuing. The results will be published later.
	seals.		
4.1.2	To monitor the threats on monk seal habitats.	2.	By using the report line, the website and the phototraps together, the data gathered will be evaluated in the analysis of threats.
4.1.3	To monitor the newborns and determining the rate of	3.	This activity is still in progress.
	survival.		

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