



*Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area, concluded under the auspices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS)*

*Accord sur la Conservation des Cétacés de la Mer Noire, de la Méditerranée et de la zone Atlantique adjacente, conclu sous l'égide de la Convention sur la Conservation des Espèces Migratrices appartenant à la Faune Sauvage (CMS)*



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## **Seventh Meeting of the Parties to ACCOBAMS**

*Istanbul, Republic of Turkey, 5 - 8 November 2019*

01/08/2019

English

Original: English

ACCOBAMS-MOP7/2019/Inf 07

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# **FINAL REPORT OF THE PROJECT INCREASE THE REGIONAL CAPACITY FOR DEVELOPING CETACEAN DISTRIBUTION AND ABUNDANCE STUDIES**

*Participants are kindly invited to bring their own documents to the Meeting.  
This document will be available only in electronic format during the Meeting.*

# **FINAL REPORT OF THE PROJECT INCREASE THE REGIONAL CAPACITY FOR DEVELOPING CETACEAN DISTRIBUTION AND ABUNDANCE STUDIES**



**Romulus-Marian PAIU**

**26.07.2017**



## **Increase the regional capacity for developing cetacean distribution and abundance studies**

### **Study funded by:**

ACCOBAMS Secretariat  
Jardin de l'UNESCO  
Les Terrasses de Fontvieille  
MC 98000 Monaco

### **Responsible(s) of the study:**

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Romulus-Marian PAIU, expert in ecology and environmental protection Mare Nostrum NGO

### **In charge of the study:**

Romulus-Marian PAIU, expert in ecology and environmental protection Mare Nostrum NGO

### **Reference of the study:**

Memorandum of Understanding No. 10/2016/AC and  
Memorandum of Understanding No. 15/2016/LB 6900 et LB 1201

### **With the participation of :**

Philip S. Hammond, BA, DPhil, University of St Andrews, Sea Mammal Research Unit

### **Photography credit:**

Romulus-Marian PAIU, Mare Nostrum NGO

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This report should be quoted as:

R.M. PAIU et al, 2017. Final report of the project Increase the regional capacity for developing cetacean distribution and abundance studies, MoU ACCOBAMS N° 10/2016/AC, 73 pages



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## CONTEXT OF THE PROJECT

### Identity of the project responsible

Full legal name	MARE NOSTRUM Non-Governmental Organization
Acronym	Mare Nostrum NGO
Legal status	Non-Guvernamental Organization – Civil Sentence No 358/23.08.1995
Official address	1 Decembrie 1918 Blvd., No 3, 900711, Constanta, ROMANIA
Contact person	Mihaela Elena MIREA CANDEA – Executive Director Romulus-Marian PAIU – Expert in ecology and environmental protection
Telephone number	0040241-612422; 0040341-407432; 0040763-255731
Fax number	0040241-612422; 0040341-407432
E-mail address	office@marenosttrum.ro marian_paiu@marenosttrum.ro
Collaborators	Philip S. Hammond BA, DPhil (Professor of Marine Ecology) affiliated to the Sea Mammal Research Unit, University of St. Andrews Dr. Lindsay Porter, SMRU Consulting Asia Pacific

### Justification

In 2004, Romanian Ministry of Environment and Waters Management issued the Order No. 374 for approval of the National Action Plan for the Conservation of the Dolphins in the Black Sea Romanian Waters. It has in view the provisions outlined in the ACCOBAMS Conservation Plan and Strategic Objectives. Present project acts to contribute of fulfilling of the overall objectives of this plan: Improvement of the scientific knowledge by research (B.4; B.4.2; B.4.3), monitoring and dissemination of information (B.1.3.1); Awareness (B.3), training and public involving local communities and professional associations in dolphin protection and conservation programs; providing a timely response to emergency situations; building institutional capacities.

In order to fulfil this, Romania and at the regional level, the other countries, stress the need of qualified specialists who will support the ACCOBAMS Objectives in present and future.

There are still many unknowns about the abundance and distribution of dolphins, who visit the Romanian Black Sea waters, as was noted at the workshop „The state and distribution of Cetaceans from Black Sea and Mediterranean”. The only relevant study in this direction is Adverse Fisheries Impacts on Cetacean Population in the Black Sea of MEP (2014). It can represent a mile stone for Black Sea cetacean research for the future monitoring programs of Black Sea countries and ACCOBAMS Black Sea second survey initiative. Now we can agree on an accepted methodology which can be applied by all scientists in Black Sea, in order to have comparative results on cetacean distribution and abundance.

## Objectives

1. Increase the capacity of local and regional researchers to address the issues related to cetacean distribution and abundance (B.4) and aims to respond to ACCOBAMS strategic objective (R.5.1; B.1.1.3) on improving understanding of the conservation status of cetaceans in Black Sea.
2. Assure continuity, quality and quantity of data regarding Romanian Black Sea cetaceans.
3. Increase awareness and involvement of local population and tourists in cetacean conservation (stranding monitoring network, task force, emergency, appropriate behaviour etc.).

## Area of the project

The Romanian Black Sea coastline extends for over 240 km, which can be divided into two main geographical and geomorphologic sectors: **the northern sector** (about 158 km in length) lies between the secondary delta of the Chilia branch and Constanta, is constituted of alluvial sediments; the shallow waters up to 20m depth of this sector is included in the Biosphere Reserve of Danube Delta (declared through the Low no. 82/1993); and **the southern sector** (about 85 km in length) lies between Constanta and Vama-Veche characterized by promontories with active, high cliffs, separated by large zones with accumulative beaches often protecting littoral lakes. The distance from the sea shore to the shelf limits (200 m depth) varies from 100-200 km in the northern sector to 50 km in the southern one. The submarine slope of the shelf is very gentle in the north, with the 10 m depth in front of Danube mouths, while in the southern sector the 10 m depth is nearly 1,5 km offshore.

The project is implemented mainly in the southern part of the Romanian marine area (Fig. 1), between Constanta and Vama-Veche. The activities conducted in the Northern part cover land surveys, awareness, training of the monitoring network members and emergency interventions.

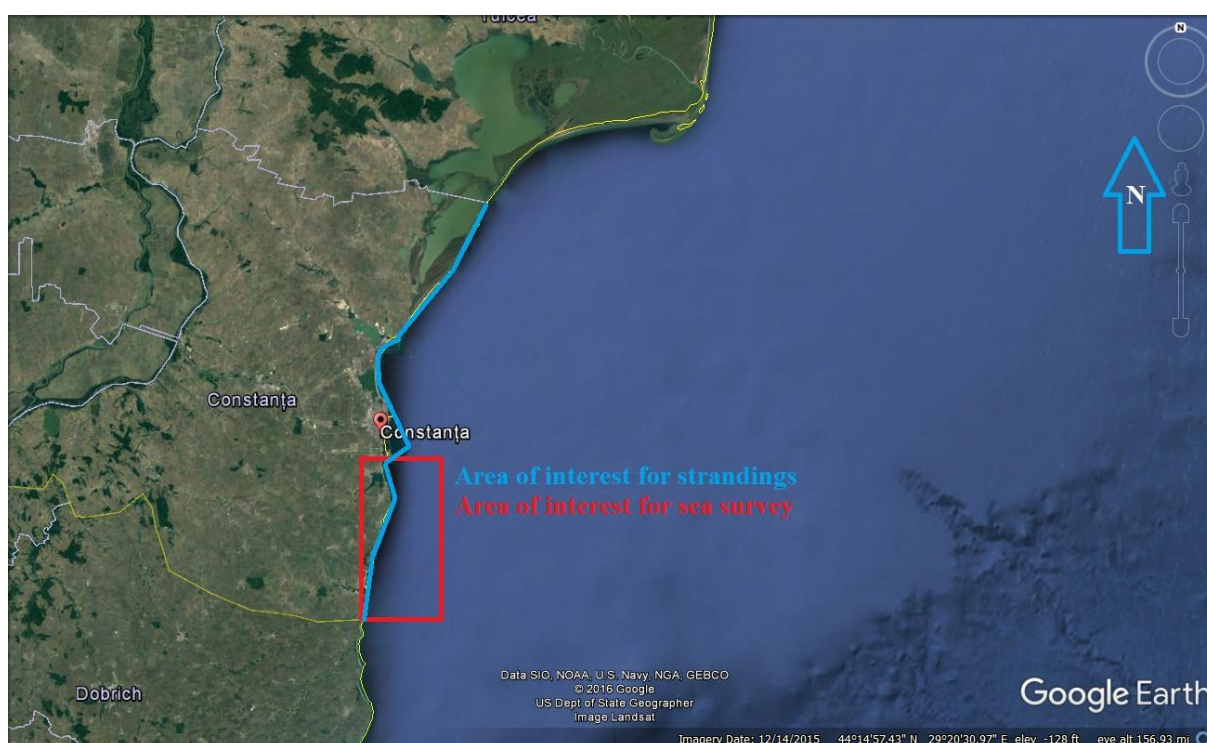


Fig. 1. Map of the area of the project



## ACTIVITIES CARRIED OUT DURING THE REPORTING PERIOD

For achieving the objectives of the project the activities were split in two categories. The first category includes the activities related to reinforcing local/regional capacities to conserve cetaceans by developing cetacean distribution and abundance studies (A1-A4) and the second category covers activities assuring continuity of Mare Nostrum Program for monitoring and conservation of Black Sea cetacean (A5-A8). The last activity (A9) covers the reporting segment of the project, with a progress report and a final report.

### **A1. International training workshop for researchers/students on marine mammal distribution and abundance**

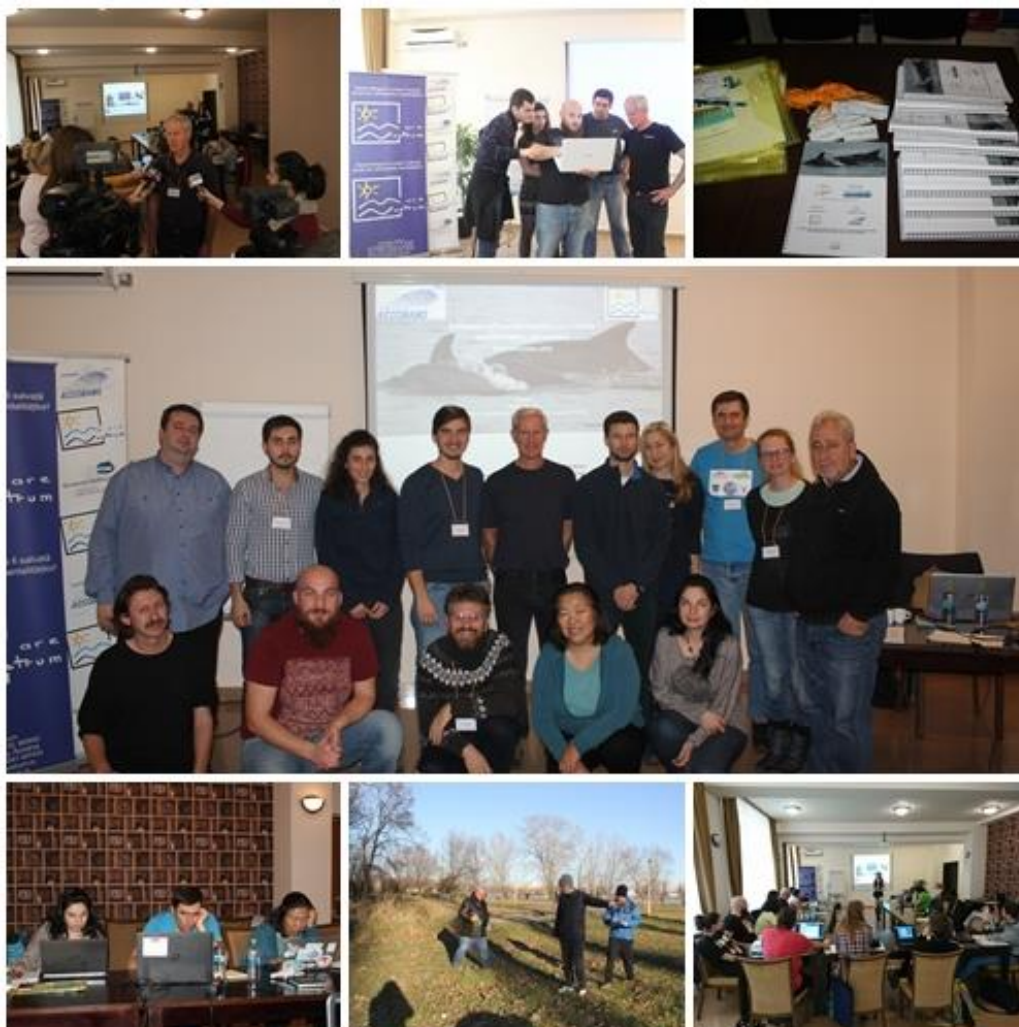
The training took place between 12-16 of December 2016, in Constanta, Romania and was held by Philip S. Hammond BA, DPhil (Professor of Marine Ecology) affiliated to the Sea Mammal Research Unit, University of St. Andrews with the support of Dr. Lindsay Porter, SMRU Consulting Asia Pacific. At the training participated a total of 15 trainees (Annex 1) from Romania, Bulgaria, Turkey, Georgia and Ukraine from which 7 persons were supported by the project and 6 thought the additional financial support MoU No 15/2016/LB 6900 et LB 1201. The additional 2 persons till 15 are within Mare Nostrum members.

The training workshop aimed at building capacities of scientist from the Black Sea on estimating cetacean abundance and population parameters, and on spatial modelling of habitat usage and abundance (Annex 2). The workshop covered mark-recapture methods, mark and distance software, line transect method, population status and trends including power analysis (Annex 3).

Selection of the participants was made in collaboration with the ACCOBAMS Secretariat from a list of 25 requests (one none completed) (Annex 4).

The final participants to the training were (Fig.2):

1. Ro - Paiu Marian (Romania) – Mare Nostrum NGO
2. Ro - Filimon Adrian (Romania) – National Institute of Marine Research and Development  
“Grigore Antipa”
3. Ro - Vasile Alexe – Danube Delta National Institute for Research and Development
4. Bg - Dimitar Popov (Bulgaria) – Green Balkans
5. Ge - Nana Devidze (Georgia) – Illia State University
6. Tk - Arda Tonay (Turkey) - Istanbul University/TUDAV
7. Uk - Pavel Cold`in (Ukraine) - Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine
8. Bg - Marina Panayotova – IOBAS, Institute of Oceanology Bulgarian Academy of Science
9. Ge - Davit Dekanoidze – Illia State University
10. Tk - Ertug Duzgunes - Karadeniz Technical University, Faculty of marine sciences
11. Uk - Oksana Savenko - Ukrainian Scientific Center of Ecology of the Sea (UkrSCES)
12. Tk – Ayaka Amaha Ozturk - Istanbul University/TUDAV
13. Bg - Konstantin Mihaylov – Institute of Fisheries Resources
14. Ro - Mihaela Mirea Căndea – Mare Nostrum NGO (additional)
15. Ro - Dan Kessler – Mare Nostrum NGO (additional)



**Fig. 2. Training workshop participants**

**A2. Establish a local survey plan for 12Nm area between Agigea (North 44.0823445N 28.6417866E) and Vama-Veche (South 43.7425146N 28.5793877E)**

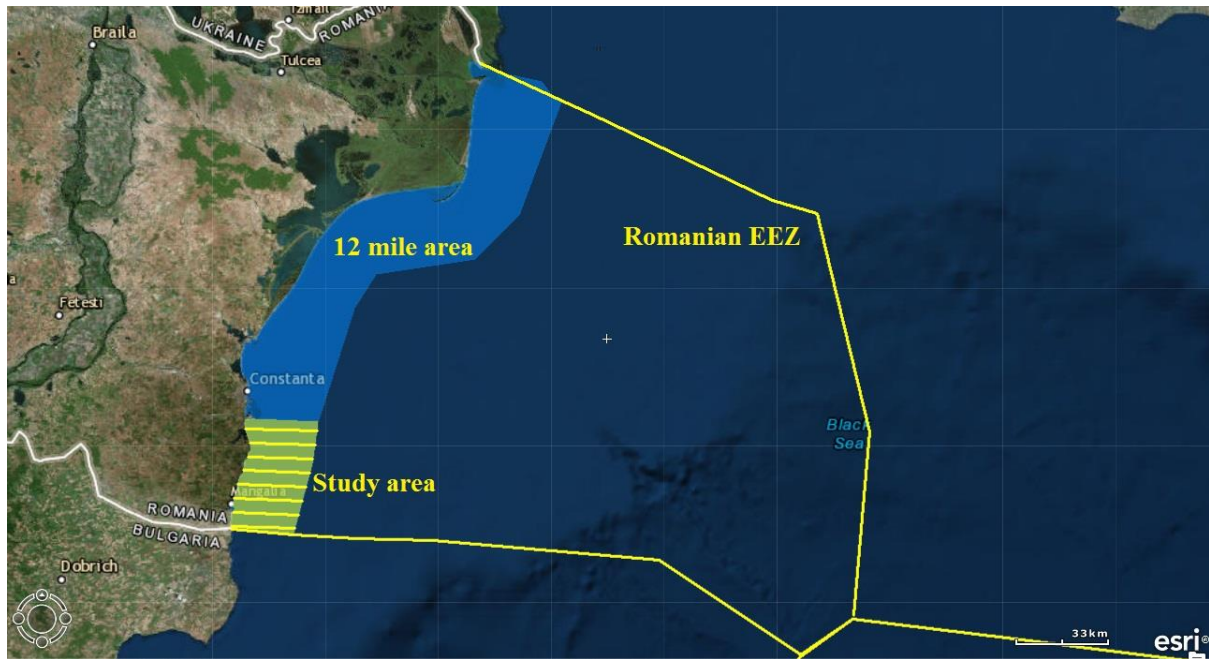
The area is overlapping several protected areas (Natura 2000): ROSCI 0269 Vama Veche-2Mai, ROSCI 0273 Marine area from Cape Tuzla, ROSCI0094 Submarine sulphurs springs from Mangalia, ROSPA0076 Black Sea and is around 1000 km<sup>2</sup>. One usable output of the activity are the cetacean sightings map showing the distribution and dissemination in the area of the pilot survey which will be a resource for future declaration of MPA or changing the management plans for the existing MPA.

The activity provided the opportunity for the Romanian trainees to use the knowledge from the training as good practice example and a step forward in establishing a common methodology for cetacean monitoring in all the Black Sea. The training gave the necessary information and the trainers were able to give us advices and work with us at the development of the survey plans and also for the assessment of the data.

First survey plan was sent to the ACCOBAMS secretariat for consultation, and did not receive any comments for modification. The survey plan included 8 line transects, perpendicular on the shore line,



covering the 12 NM area of Romanian Black Sea (Fig.3.). The length of the transects vary between 25.395 km and 28.295 km (for the Spring survey) respective 25.415 km and 28.852 km for the (Summer survey), with a distance between transects of 5 km.



**Fig.3. Romanian EEZ and territorial waters where the surveys took place**

The method used was distance line transect, the vessel followed pre-determined track lines throughout the territorial sea/internal waters. Double platform line transect techniques were used to collect distance sampling data. Surveying was conducted when the wind was Beaufort force four or below and the visibility was good. The survey was carried out in “passing mode”: the vessel did not approach any cetaceans sighted. All sightings data were recorded on pre-prepared data sheets and entered into a database at the end of a survey day.

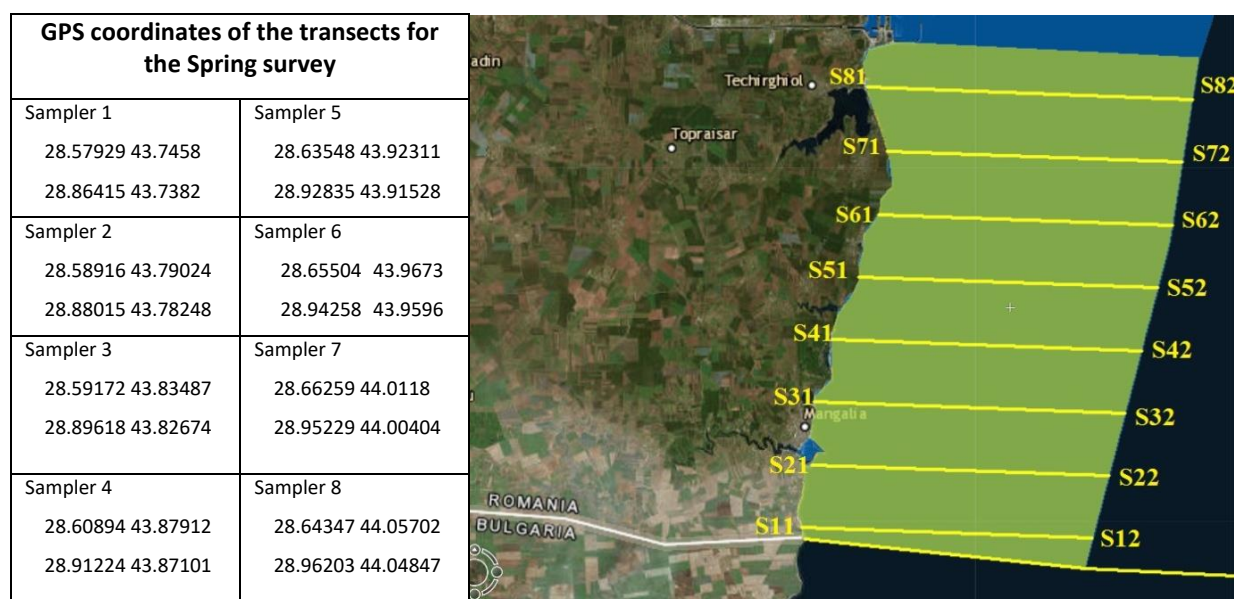
The data was treated as a single platform survey by combining the sightings from observation platform and photographer platform and removing duplicate sightings. The data was processed and analyzed by means of Distance 7.0 program package<sup>1</sup>. The surface of the survey was 1063 km<sup>2</sup>, with 211.95 km of track and coverage of 0.39%.

Comparing two models Systematic random sampling and Equal Spaced ZigZag for the same line length the coverage of first model was higher and more appropriate to the surveyed area.

Due to the restrictions imposed by the budget and existing facilities was chosen to develop a combine methodology, a mix between single platform survey and photo identification platform (which was acting as tracker and for increasing the confidence of data by checking the observations of the observer platform).

<sup>1</sup>Thomas, L., Laake, J.L., Rexstad, E., Strindberg, S., Marques, F.F.C., Buckland, S.T., Borchers, D.L., Anderson, D.R., Burnham, K.P., Burt, M.L., Hedley, S.L., Pollard, J.H., Bishop, J.R.B. and Marques, T.A. 2010. Distance 7.0. Release 1. Research Unit for Wildlife Population Assessment, University of St. Andrews, UK. <http://www.ruwpa.st-and.ac.uk/distance/>

Coordinates and map for the first survey plan (Spring survey):



### A3. Conduct the two sea surveys according to the agreed plan

The area is overlapping several protected areas (Natura 2000): ROSCI 0269 Vama Veche-2Mai, ROSCI 0273 Marine area from Cape Tuzla, ROSCI0094 Submarine sulphurs springs from Mangalia, ROSPA0076 Black Sea and it was 1063 km<sup>2</sup>.

For the good progress of the project, were bought several equipments that helped the data collection activities, for this mention: 2 Garmin Etrex GPS and 2 Fujinon binoculars, 4 angle boards and one Sony voice recorder.

There were conducted two vessel surveys: one in Spring and one in Summer, on the same area but on different survey plan (other transects, this was a suggestion of Dr. Phil Hammond). The second survey plan output the tracks beginning and finishing more North.

There were conducted two trainings, one before each survey, because the team members from the first survey changed. In the first training were trained 10 observers and for the second 13 observers, which were used in the survey in teams of 7 observers for first survey (Spring survey) and 6 observers for the second survey (Summer survey) (Fig.4.).

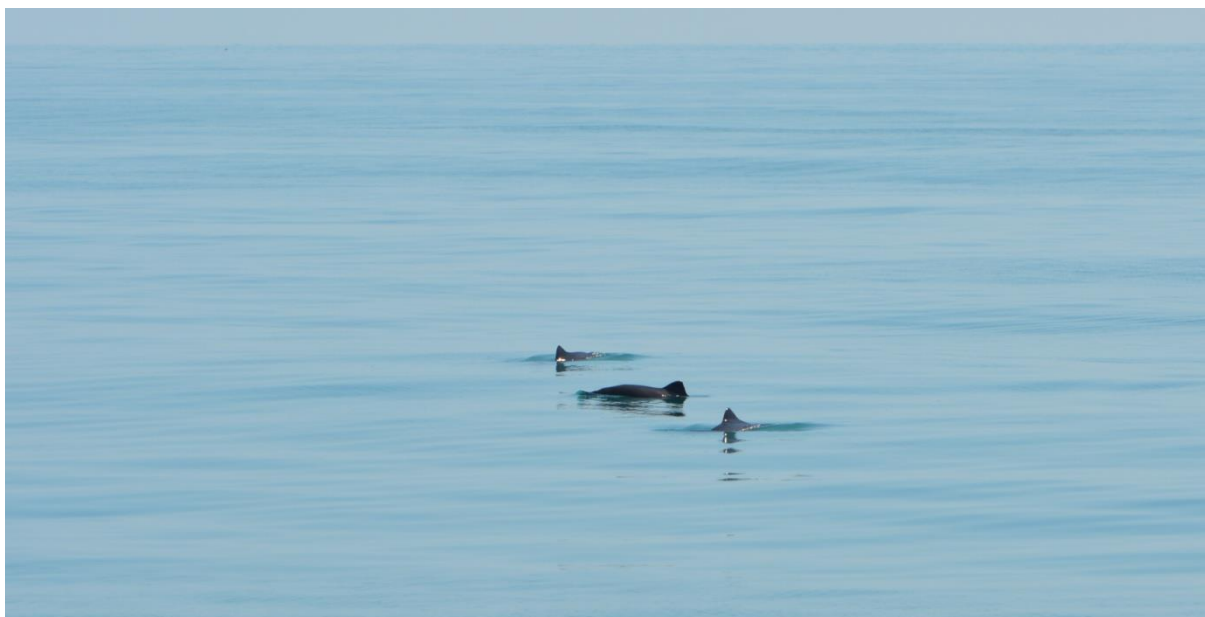


**Fig 4. Spring and Summer vessel survey**

First survey was done in April 2017, on 7, 28, 29, over three days, recording 59 sightings with a total of 137 individuals, but just from two species: *Tursiops truncatus ponticus* (Fig.5.) and *Phocoena phocoena* (Fig.6.). The data collected and analyzed revealed an estimation of: 359 harbour porpoise and 667 bottlenose dolphins (table 2).



**Fig.5. *Tursiops truncatus ponticus* sighted in April 2017 vessel survey**



**Fig. 6. *Phocoena phocoena relicta* sighted in April 2017 vessel survey**

The second survey was done in June 2017, between 26-28, recording 216 sightings with 340 individuals (Fig.7.), from all the three species inhabiting the Black Sea.



**Fig. 7. Cetacean sightings registered in the second survey (from left to right: Harbour porpoise; Common dolphins; Bottlenose dolphins)**

A total of 275 sightings of Black Sea cetaceans of all three species have been recorded and analysed as is presented in the table 1.

**Table 1. Observation effort and number of animals recorded during the two boat surveys in the 12-mile wide inshore zone of South Romanian Black Sea**

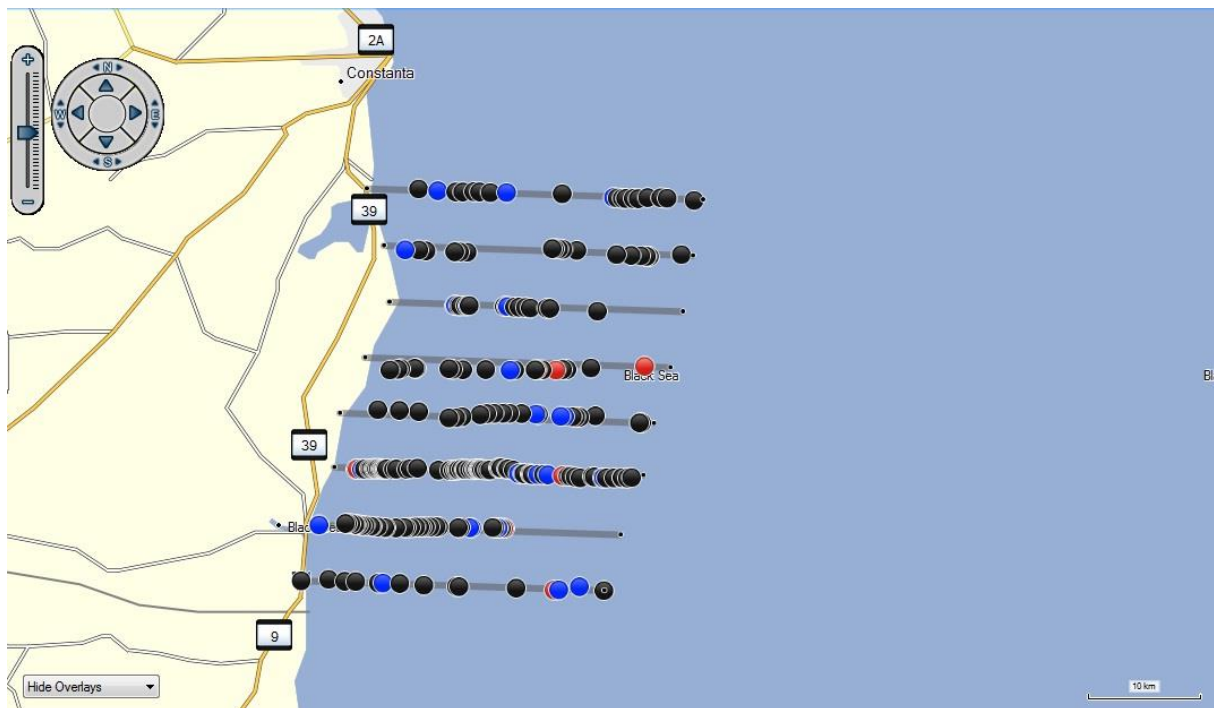
Season	Survey area, km <sup>2</sup>	Observation effort			Sighted animals					
		km	hours	min	<i>P. p. relicta</i>		<i>D. d. ponticus</i>		<i>T.t. ponticus</i>	
					sightings	animals	sightings	animals	sightings	animals
Spring	1063	211.95	18	13	36	73	0	0	23	64
Summer	1063	212.39	18	48	183	281	7	9	26	50



## Results of the two surveys:

### Spring survey:

Over the 8 transects surveyed in April were sighted two from the three species of cetacean inhabiting the Black Sea, *Tursiops truncatus ponticus* and *Phocoena phocoena relicta* with 23 sightings of bottlenose dolphin and 36 sightings of harbour porpoise (Table 2). There were four transects with no sighted cetaceans and on other three with just one sighting (one with single animal and two groups of three)(Fig. 8.).



**Fig. 8. Cetacean sightings during the vessel-based survey from Spring (April) in the surveyed area (Black dots – Harbour porpoise; Red dots – Common dolphins; Blue dots – Bottlenose dolphins)**

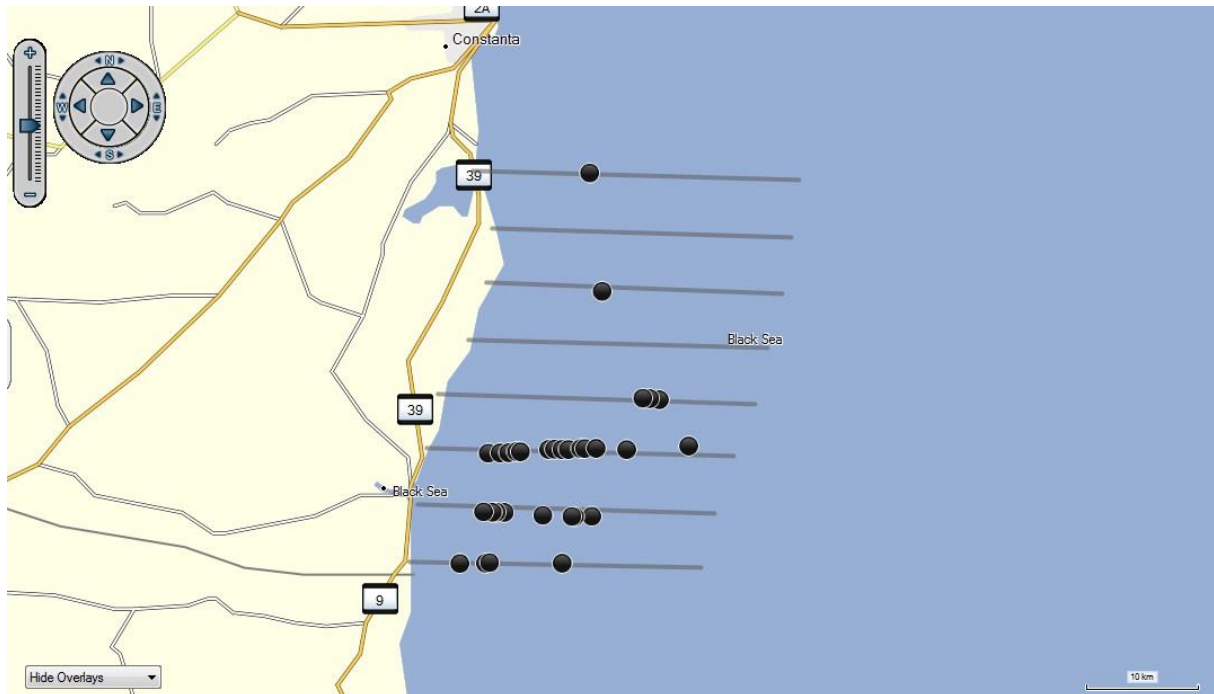
The uncorrected values of the two species sighted in the spring survey density and absolute numbers estimated are shown in table 2.

**Table 2. Density and abundance of Harbour porpoises and Bottlenose dolphins in Spring for the surveyed area**

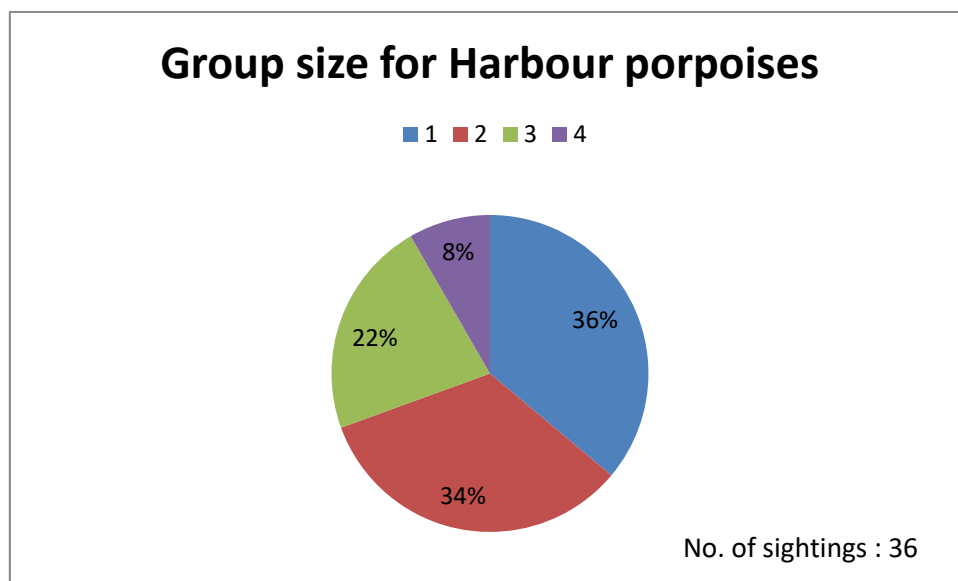
Specie	Density of gropus, groups/km		Density of animals, indiv./km <sup>2</sup>		Number of animals		CV%
	DS	95% CI	D	95% CI	N	95% CI	
<i>P.p. relicta</i>	0.166	0.592-0.467	0.337	0.119-0.955	359	127-1015	50.87
<i>T. t. ponticus</i>	0.216	0.708-0.659	0.627	0.201-1.957	667	214-2080	59.92



Harbour porpoises (36 sightings; 73 animals) have been observed on the study area (Fig. 9.). The distribution of sightings was more or less homogenous over the study area with higher density in the southern half. The data collected show that porpoises are solitary animal (13 sightings; 36% of the total) or live in pair (12 sightings; 34% of the total), the largest group in a single sighting was composed of 4 animals (3 sightings; 8 % of the total)(Fig.10).

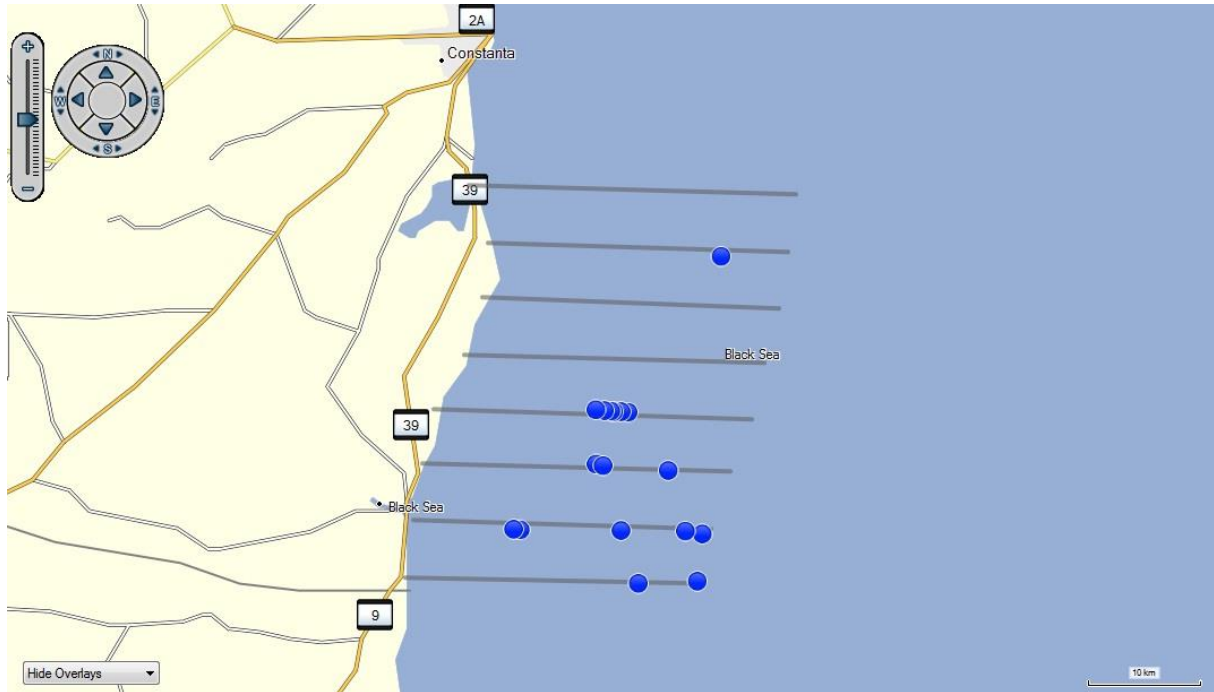


**Fig. 9. Sightings of Harbour porpoise (black spots) during the vessel-based survey in the internal waters of Romania, South part.**

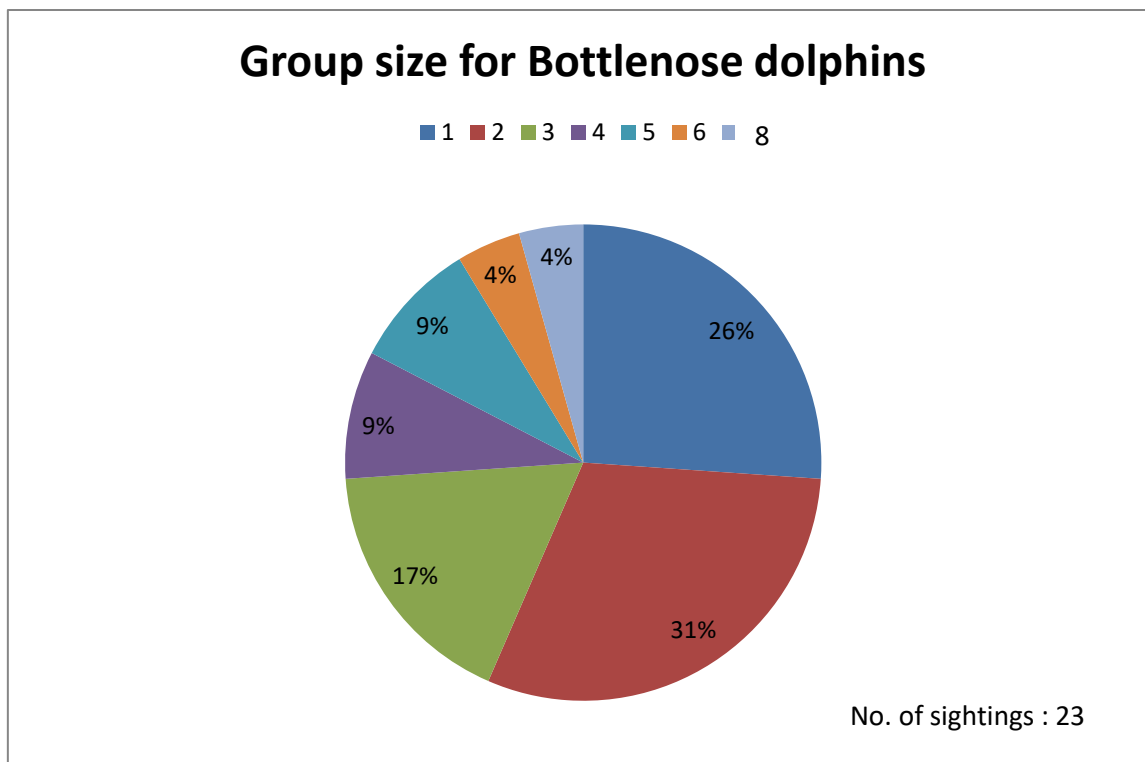


**Fig.10. Group size for *Phocoena phocoena relicta* (Harbour porpoise)**

Bottlenose dolphins (23 sightings; 64 animals) have been observed on the study area (Fig. 11.). The distribution of sightings was more or less homogenous over the study area with higher density in the southern half. The data collected show that bottlenose dolphins are like the porpoises solitary animal (6 sightings; 26% of the total) or live in pair (7 sightings; 31% of the total), the largest group in a single sighting was composed of 8 animals (3 sightings; 4 % of the total)(Fig.12.).



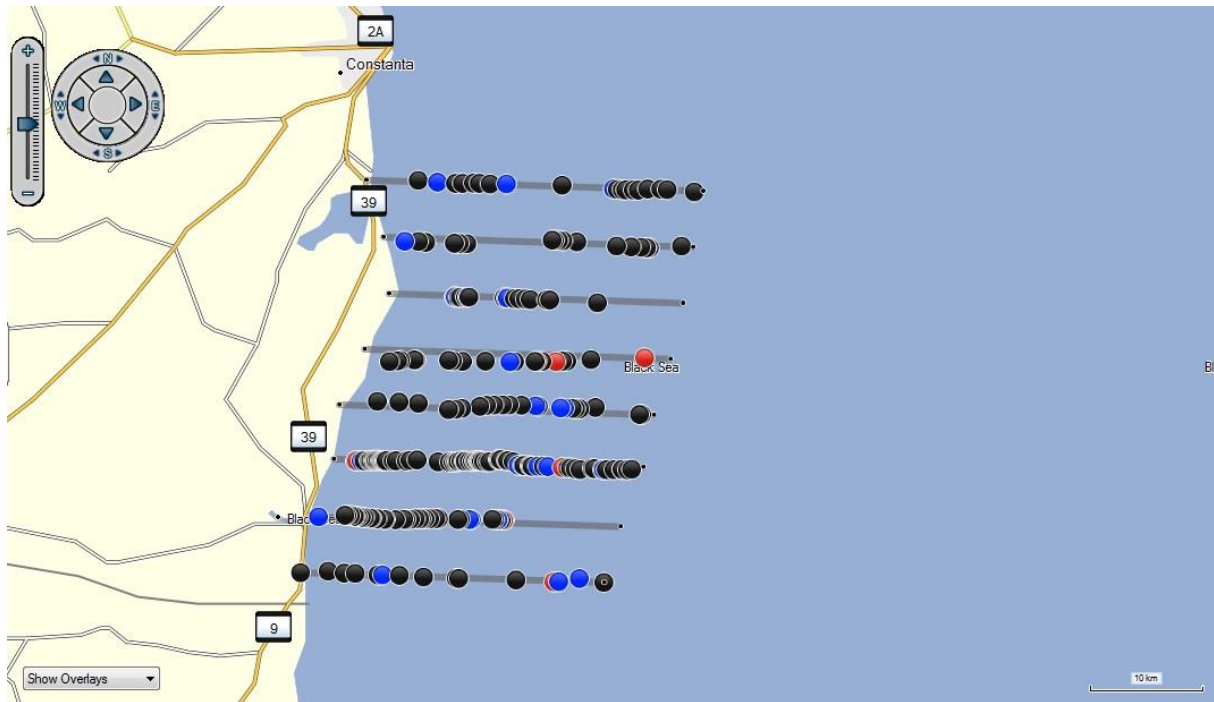
**Fig. 11. Sightings of Bottlenose dolphin (blue spots) during the vessel-based survey in the internal waters of Romania, South part.**



**Fig.12. Group size for *Tursiops truncatus ponticus* (Bottlenose dolphin)**

#### **Summer survey:**

Over the 8 transects surveyed in June were sighted all the three species of cetacean inhabiting the Black Sea, *Tursiops truncatus ponticus*, *Delphinus delphis ponticus* and *Phocoena phocoena relict*a with 26 sightings of bottlenose dolphin, 7 sightings of common dolphin and 183 sightings of harbour porpoise (Table 2)(Fig. 13).



**Fig. 13. Cetacean sightings during the vessel-based survey in Summer (June) in the surveyed area (Black dots – Harbour porpoise; Red dots – Common dolphins; Blue dots – Bottlenose dolphins)**

The uncorrected values of the three species sighted in the Summer survey density and absolute numbers estimated are shown in table 3.

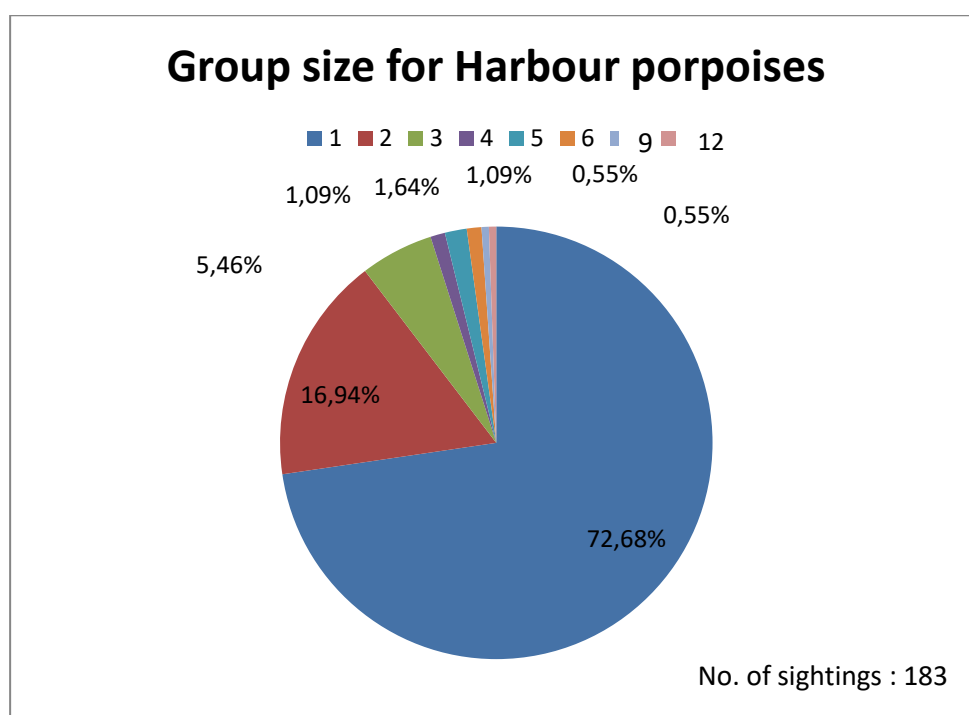
**Table 3. Density and abundance of Harbour porpoises and Bottlenose dolphins and Common dolphins in Summer for the surveyed area**

Specie	Density of groups, groups/km		Density of animals, indiv./km <sup>2</sup>		Number of animals		CV%
	DS	95% CI	D	95% CI	N	95% CI	
<i>P.p. relict</i>	3.47	1.834-6.563	5.359	2.821-10.183	5697	2999-10824	28.64
<i>T. t. ponticus</i>	0.22	0.105-0.461	0.424	0.194-0.927	451	207-986	38.75
<i>D. d. ponticus</i>	0.119	0.389-0.366	0.153	0.491-0.480	163	52-510	56.94

Harbour porpoises (183 sightings; 281 animals) have been observed on the study area (Fig. 14.). The data collected show that porpoises are solitary animal (133 sightings; 72.68% of the total) or live in pair (31 sightings; 16.94% of the total), the largest group in a single sighting was composed of 12 animals (1 sightings; 0.55% of the total)(Fig.15).



**Fig. 14. Sightings of Harbour porpoise (black spots) during the vessel-based survey in the internal waters of Romania, South part.**

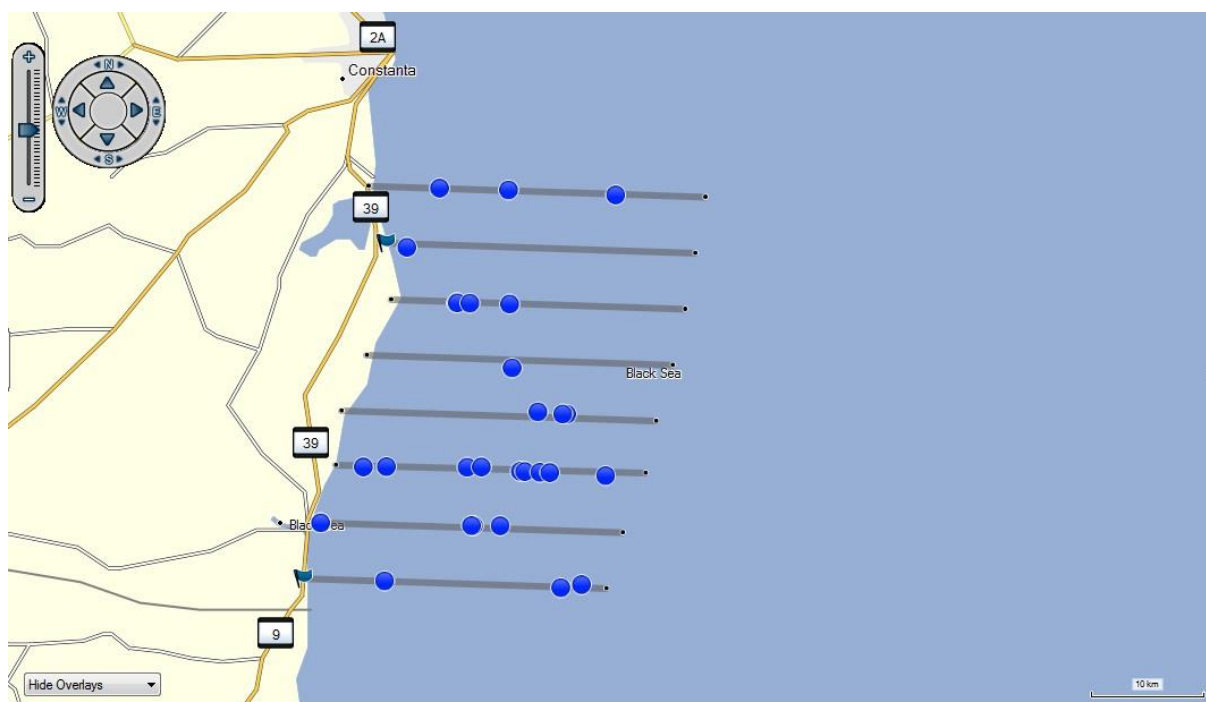


**Fig.15. Group size for *Phocoena phocoena relicta* (Harbour porpoise)**

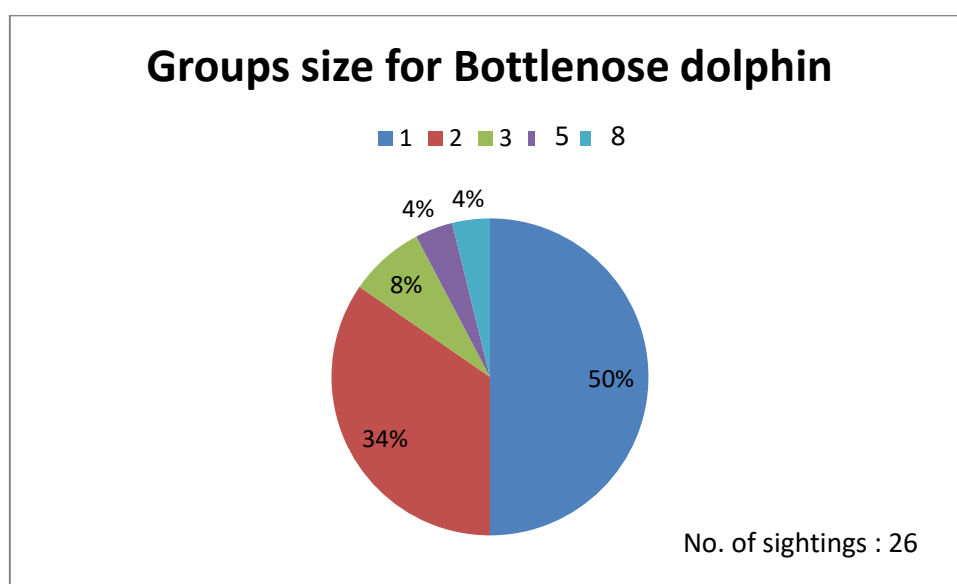
Bottlenose dolphins (26 sightings; 50 animals) have been observed on the study area (Fig. 16.). The data collected show that encountered bottlenose dolphins were solitary animal (13 sightings; 50% of



the total) followed by live in pair (9 sightings; 34% of the total), the largest group in a single sighting was composed of 8 animals (1 sightings; 4 % of the total)(Fig.17.).

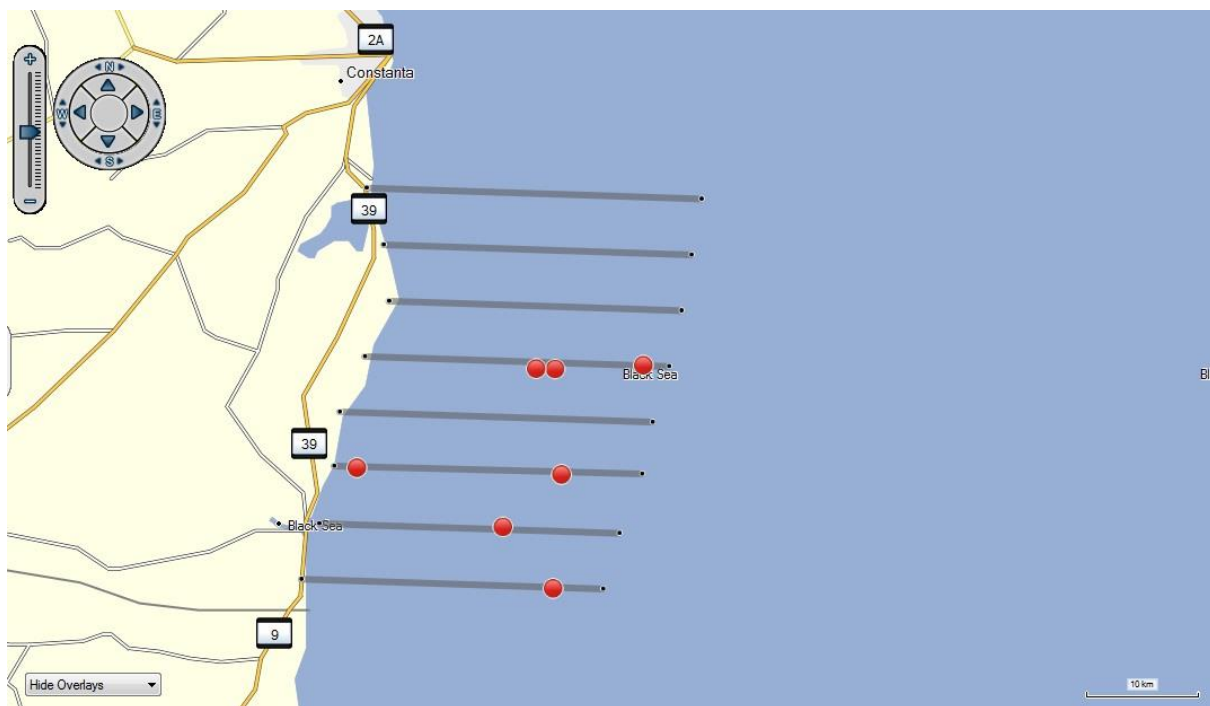


**Fig. 16. Sightings of Bottlenose dolphin (blue spots) during the vessel-based survey in the internal waters of Romania, South part.**

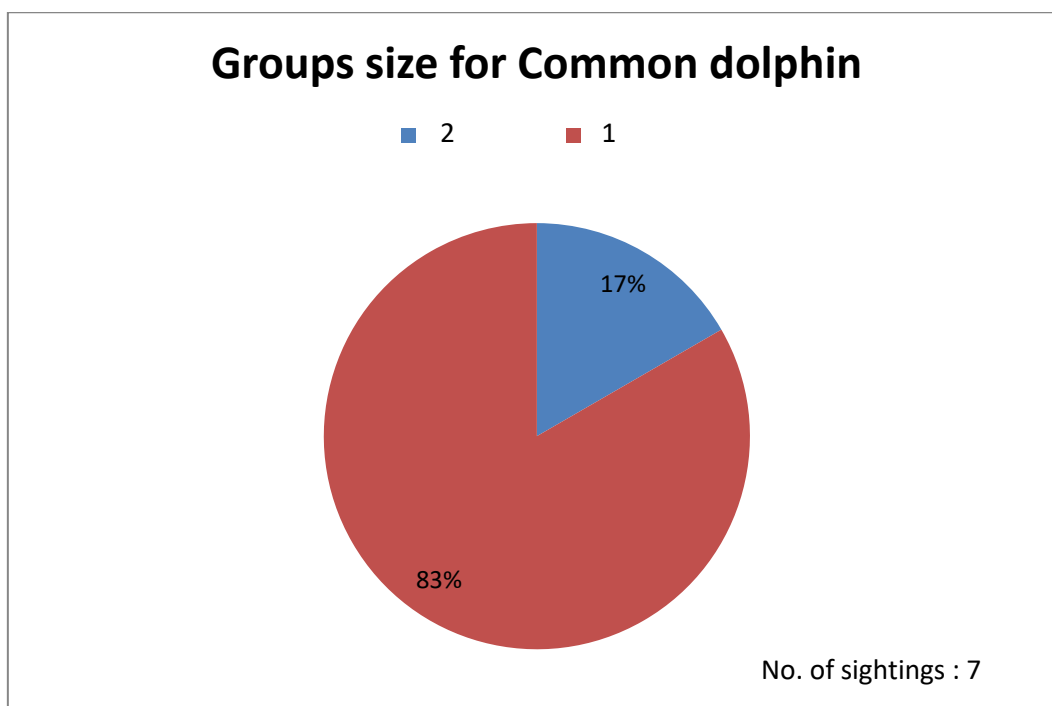


**Fig.17. Group size for *Tursiops truncatus ponticus* (Bottlenose dolphin)**

Common dolphins (7 sightings; 9 animals) have been observed on the study area (Fig. 18.). The data collected show that encountered common dolphins were solitary animal (5 sightings; 83% of the total) and two in pair (2 sightings; 17% of the total)( Fig.19.).



**Fig. 18. Sightings of Common dolphin (red spots) during the vessel-based survey in the internal waters of Romania, South part.**



**Fig.19. Group size for *Delphinus delphis ponticus* (Common dolphin)**

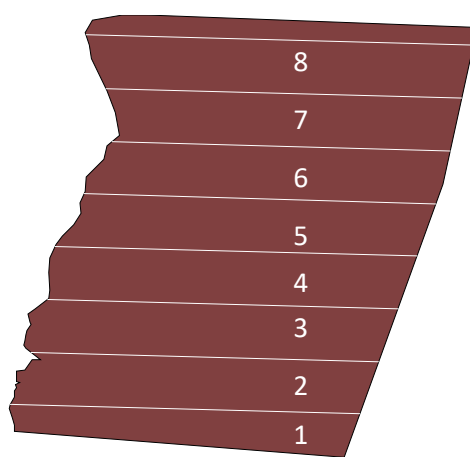
#### **A4. Revision of the survey plan according to in situ situations**

After the first survey, done in April, the survey plan was first changed in order to have different tracks and also the team's position was modified on the boat but furthered was kept the mix platform

method. The result was the second survey plan, for the Summer period which was covering the same 1063 km<sup>2</sup> area over 8 track lines perpendicular on shore (Fig. 20)(Table 4).

The passage period allowed the team members to rest and lower the number of observes on board. Still was chosen to have a spare observer in case of health problem of one of the team members or incapacity to work. Even though the daylight could provide plenty hours of work, the rough conditions of the sea and weather forced the team to work just from the sunrise till short after lunch.

Second survey plan, was also done using the Distance 7 software package using the knowledge and support from the training in December, lead by Dr. Phil Hammond, over the same parameters with a random start point which give a new survey plan which was starting 1.65 km north than the first survey plan.



**Fig.20 Map of the distribution of transects for the second survey plan**

Tabel 4. GPS coordinates of the transects for Summer survey

GPS coordinates of the transects	
<b>Sampler 1</b> 28.57929 43.7458 28.86415 43.7382	<b>Sampler 5</b> 28.63548 43.92311 28.92835 43.91528
<b>Sampler 2</b> 28.58916 43.79024 28.88015 43.78248	<b>Sampler 6</b> 28.65504 43.9673 28.94258 43.9596
<b>Sampler 3</b> 28.59172 43.83487 28.89618 43.82674	<b>Sampler 7</b> 28.66259 44.0118 28.95229 44.00404
<b>Sampler 4</b> 28.60894 43.87912 28.91224 43.87101	<b>Sampler 8</b> 28.64347 44.05702 28.96203 44.04847

Spacing between lines was 5 km, with a total length of the trackline of 257.946 km, with a coverage of 423,31 km<sup>2</sup> giving a 0.398% of the stratum sampled.

#### **A5. Develop the Cetacean Stranding Monitoring Network (called Ocrotește delfinii!/Preserve the dolphins!)**

From 2010, Mare Nostrum NGO is managing the cetacean stranding monitoring network for Romania. The members are split in two categories students + teachers and workers from companies, authorities, NGO's who are working or their work is related to the sea and coastal area. In September 2016, was launched the enrolling session of new members and received 23 requests from the educational institutions to be part of the network for 2016-2017. In October were finalized the training for 897 students and 106 teachers (Table 5) in order to share the knowledge need to assess properly the stranding events and also to collect data for stranding and in situ observation but also the first aid in case of live stranding (Fig. 21).



**Fig. 21. Training sessions for new members of the CSMN**

Every month the groups of volunteers were surveying the designated sector of coastal area and send information to Mare Nostrum (Fig. 22).



Fig. 22. Members of the CSMN on the field

Tabel 5. New members of the Cetacean Stranding Monitoring Network

No crt.	Institution	Coordinati ng teacher	Teleph one no.	E-mail	No. of student s	No. of teacher s
1	Grădinița Frații Grim	Chesnoiu Floarea	749550 718	<a href="mailto:chesnoiuflori@yahoo.com">chesnoiuflori@yahoo.com</a>	31	3
2	Liceul Teoretic Callatis	Giurca Mioara Adina	740407 407	<a href="mailto:adinabejan@yahoo.com">adinabejan@yahoo.com</a>	60	22
3	Școala Gimnazială „Sfântul Andrei,,	Burnete Eleonora	766285 738	<a href="mailto:burnete_eleonora@yahoo.com">burnete_eleonora@yahoo.com</a>	12	10
4	Școala Gimnazială Nr 1 Mangalia	Zamfir Iuliana Elena	766697 721	<a href="mailto:zamfiriulianaelena@yahoo.com">zamfiriulianaelena@yahoo.com</a>	178	18



5	Liceul Tehnologic "C.A.Rosetti"	Rusu Cornelia	723271 662	<a href="mailto:coninic@yahoo.com">coninic@yahoo.com</a>	27	6
6	Liceul Tehnologic "Gheorghe Miron Costin"	Zamfira Florentina	721517 746	<a href="mailto:florizamfira@yahoo.com">florizamfira@yahoo.com</a>	24	1
7	Liceul Teoretic „G.E.Palade”	Dristaru Ruxandra	723167 834	<a href="mailto:rdristaru@yahoo.com">rdristaru@yahoo.com</a>	58	1
8	Școala Gimnazială Nr. 29 „Mihai Viteazul“	Popa Ionela-Mihaela	728273 739	<a href="mailto:ionela_2012@yahoo.com">ionela_2012@yahoo.com</a>	53	1
9	Colegiul Tehnic Tomis	Sandu Iulia	726105 159	<a href="mailto:sandu_iulia2003@yahoo.com">sandu_iulia2003@yahoo.com</a>	20	2
10	Grădinița P.P. „Lumea poveștilor”	Amza Anca	766623 669	<a href="mailto:amza.anca@yahoo.com">amza.anca@yahoo.com</a>	24	12
11	Liceul Teoretic “George Calinescu”	Manole Andreea	721320 004	<a href="mailto:deea_lory@yahoo.com">deea_lory@yahoo.com</a>	43	2
12	Colegiul Național "Mihai Eminescu"	Mihai Magda	721500 005	<a href="mailto:magdasorinamihaia@yahoo.com">magdasorinamihaia@yahoo.com</a>	25	1
13	Grădinița P.P. Nr. 42	Niță Frușina Dănuța	761872 152	<a href="mailto:dana.nita.60@gmail.com">dana.nita.60@gmail.com</a>	44	1
14	Grădinița P.P. Amicii	Ene Lucia	723779 766	<a href="mailto:raluca_ene60@yahoo.com">raluca_ene60@yahoo.com</a>	110	7
15	Seminarul Teologic "Dionisie Exiguul"	Brebeanu Ruxandra	733684 072	<a href="mailto:ruxyshor_brebeanu@yahoo.com">ruxyshor_brebeanu@yahoo.com</a>	36	3
16	Liceul Teoretic "Lucian Blaga"	Tudoras Corina	732431 873	<a href="mailto:cor_t22@yahoo.es">cor_t22@yahoo.es</a>	60	1
17	Liceul Tehnologic "Ion Banescu"	Livia Ocunsi	747338 576	<a href="mailto:livia.livia1977@gmail.com">livia.livia1977@gmail.com</a>	29	6
18	Școala gimnazială "Spectrum"	Ivan Anca	724091 980	<a href="mailto:ivanovanca@yahoo.com">ivanovanca@yahoo.com</a>	35	4
19	Clubul Sportiv Școlar Nr. 1	Onciul Elena Ștefania	745890 669	<a href="mailto:elenastef_o@yahoo.com">elenastef_o@yahoo.com</a>	28	2
<b>Total new trained volunteers for the Stranding Monitoring Network</b>					<b>897</b>	<b>103</b>

Each group was equipped with a field kit in order to conform to the data collection protocol, with basic materials (gloves, masks, ruler, pen, observation sheets and educational and informative materials) and was instructed for the data collection and picture collection.

The first aid drill comprises the knowledge over the ecology of cetaceans, and right procedures according to different situations (stranding on shore, stranding in shallow waters and by-catch). For their knowledge we presented also the recommendations for boat governance in presence of cetaceans (the information are found also in the Photo-ID catalog printed in 2014).

The 23 groups established in the CSMN for 2016-2017 were conducting monthly or bimonthly monitoring sessions over the given beach sector. In June, with the end of the school year we finalized this session and prepared and deliver the diplomas for the active members, over 800 (Fig.23).



**Fig.23. Diploma for active members of the Cetacean Stranding Monitoring Network**

For a better acknowledge and support of the network were made three training sessions for the employees of the Romanian Water Administration, a total of 22 persons trained, and established a more suitable way to collaborate and share information. Were updated the contacts and working flux with the Danube Delta Biosphere Reserve, Coastal Guard, Fisheries, Danube Delta Research Institute, National Research Institute for Marine Research and Development whit which we manage to establish an sampling laboratory for collecting samples from dead stranded cetaceans in respect with the MoU for cetacean disease research established in the past with Veterinary Universities from Romania and Czech Republic but also research and educational institutions from the area. The collaboration grows with the Parasitological Lab from University of Valencia from which we had also a student working with us from April to June, 2017 (Fig. 24).



**Fig. 24. Necropsy and sampling dead stranded porpoise from May 2017**

#### **A6. Emergency Task Force**

24/7 a team is ready to response at distress signal (received at the nonstop phone number 0040763255731) related to cetacean. In order to cover as much as possible the necessities of an emergency situation, we collaborate closely with the County Sanitary Veterinary Inspectorate, Coastal Guard, Port Administrations, National Institute of Marine Research and Development, National Institute Danube Delta, Danube Delta Biosphere Reserve Administration and Veterinary Universities from Bucharest, Cluj (Romania) and Brno (Czech Republic). Beside this core, we keep close collaboration with local universities and research institutes.

From June to December 2016, the team answered to 22 distress calls from the emergency line, identifying a total of 22 stranded cetacens: 17 harbour porpoises, 3 bottlenose dolphins and 2 common dolphins (Table 6). There were 10 more recordings of harbour porpoies (*Phocoena phocoena relicta*), 8 stranded in the North part of Romanian coast, between Sulina and Sfântul Gheorghe and 2 in Constanta and Mamaia which we did not identified at the site.

Tabel 6. Cetacean stranding registered over emergency interventions between July-December 2016

No. crt.	Date	Specie	No of indiv.	GPS Coordinates	Sex	Length	State of decomposition
1	05.07.2016	<i>Phocoena phocoena relicta</i>	1	44.2034833N 28.6509833E	M	68	3
2	15.07.2016	<i>Phocoena phocoena relicta</i>	1	43.9548268N 28.640542E	F	87	4
3	18.07.2016	<i>Phocoena phocoena relicta</i>	1	44.0542845N 28.6424303E	M	75	4
4	22.07.2016	<i>Phocoena phocoena relicta</i>	1	43.8980161N 28.6135644E	M	80	4
5	30.07.2016	<i>Phocoena phocoena relicta</i>	1	44.0306545N 28.6542535E	F	129	4
6	7.08.2016	<i>Delphinus delphis ponticus</i>	1	43.8147248N 28.5889632E	F	150	4
7	10.08.2016	<i>Phocoena phocoena relicta</i>	1	44.4519184N 28.7917328E	M	130	4
8	26.08.2016	<i>Phocoena phocoena relicta</i>	1	43.9425315N 28.6383104E	M	140	4
9	1.09.2016	<i>Delphinus delphis ponticus</i>	1	44.0366516N 28.6522646E	M	180	1
10	7.09.2016	<i>Phocoena phocoena relicta</i>	1	44.1794341N 28.6572361E	M	82	4
11	8.09.2016	<i>Phocoena phocoena relicta</i>	1	43.864584N 28.6058664E	M	80	4
12	9.09.2016	<i>Phocoena phocoena relicta</i>	1	44.2653475N 28.6215627E	M	85	5
13	11.09.2016	<i>Phocoena phocoena relicta</i>	1	44.2348993N 28.627646E	M	80	4
14	11.09.2016	<i>Phocoena phocoena relicta</i>	1	44.1811268N 28.6572361E	M	78	4
15	12.09.2016	<i>Phocoena phocoena relicta</i>	1	44.2186944N 28.63925e	F	77	3
16	13.09.2016	<i>Phocoena phocoena relicta</i>	1	43.943866N 28.6383533E	M	100	4

17	13.09.2016	<i>Phocoena phocoena relicta</i>	1	43.954N 28.6406944E	F	56	5
18	18.10.2016	<i>Phocoena phocoena relicta</i>	1	44.0573494N 28.6412072E	M	130	3
19	19.10.2016	<i>Tursiops truncatus ponticus</i>	1	44.1771642N 28.6598861E	F	~300	3
20	24.10.2016	<i>Tursiops truncatus ponticus</i>	1	44.0746602N 28.6385143E	M	180	4
21	30.10.2016	<i>Phocoena phocoena relicta</i>	1	44.1838812N 28.6556911E	M	136	5
22	18.11.2016	<i>Tursiops truncatus ponticus</i>	1	44.0572723N 28.6331928E	M	189	5

Over the second period of the project till 21 of July 2017, there were enrolled 110 interventions, after receiving distress call for strandings along the coast as presented in table 5 of the present report. From the 110 cetaceans assessed were identified: 101 harbour porpoises (*Phocoena phocoena relicta*), 6 bottlenose dolphins (*Tursiops truncatus ponticus*) and 3 common dolphins (*Delphinus delphis ponticus*) (Table 7). There were 20 more recordings of harbour porpoises (*Phocoena phocoena relicta*) and bottlenose dolphins (*Tursiops truncatus ponticus*) stranded in the North part of Romanian coast, between Sulina and Sfântul Gheorghe but with evidence just for 6 individuals, received till the preparation of the report.

**Tabel 7. Cetacean stranding registered over emergency interventions between July-December 2016**

No. crt.	Date	Specie	No of indiv.	GPS Coordinates	Sex	Length	State of decomposition
1	04.04.2017	<i>Tursiops truncatus ponticus</i>	1	43.8047N 28.58965E	F	130	3
2	22.04.2017	<i>Phocoena phocoena relicta</i>	1	44.2545595N 28.6221528E	F	58	3
3	22.04.2017	<i>Phocoena phocoena relicta</i>	1	44.3202252N 28.6363363E	M	50	4
4	29.04.2017	<i>Tursiops truncatus ponticus</i>	1	43.7710396N 28.5796559E	NI	140	5
5	02.05.2017	<i>Phocoena phocoena relicta</i>	1	44.2571491N 28.6220241E	F	125	2
6	05.05.2017	<i>Delphinus delphis ponticus</i>	1	43.9597967N 28.6447102E	M	183	2



7	05.05.2017	<i>Phocoena phocoena relicta</i>	1	43.9603701N 28.6456114E	M	64	4
8	07.05.2017	<i>Tursiops truncatus ponticus</i>	1	44.0336242N 28.6539853E	M	174	4
9	08.05.2017	<i>Phocoena phocoena relicta</i>	1	43.8197006N 28.5903472E	F	142	2
10	08.05.2017	<i>Phocoena phocoena relicta</i>	1	44.2151863N 28.6473441E	M	101	4
11	13.05.2017	<i>Phocoena phocoena relicta</i>	1	44.0683625N 28.641293E	M	100	2
12	13.05.2017	<i>Phocoena phocoena relicta</i>	1	44.0475N 28.6447833E	M	105	2
13	13.05.2017	<i>Tursiops truncatus ponticus</i>	1	44.219333333333N 28.645316666667E	M	143	4
14	15.05.2017	<i>Phocoena phocoena relicta</i>	1	44.21935N 28.645316666667E	F	73	4
15	18.05.2017	<i>Phocoena phocoena relicta</i>	1	44.040238333333N 28.6496E	F	59	3
16	19.05.2017	<i>Phocoena phocoena relicta</i>	1	44.243016666667N 28.62455E	M	89	4
17	22.05.2017	<i>Phocoena phocoena relicta</i>	1	44.1889167N 28.6565E	F	60	3
18	22.05.2017	<i>Phocoena phocoena relicta</i>	1	44.2737667N 28.6221167E	M	60	4
19	22.05.2017	<i>Tursiops truncatus ponticus</i>	1	44.2737667N 28.6221167E	F	222	3
20	22.05.2017	<i>Phocoena phocoena relicta</i>	1	44.0826833N 28.6423833E	F	105	3
21	23.05.2017	<i>Phocoena phocoena relicta</i>	1	44.0706442N 28.6388201E	F	60	4
22	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.3128667N 28.6326E	M	62	3
23	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44 18.799N 28 37.969E	F	59	3
24	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.3181333N 28.63535E	M	104	3

25	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.31875N 28.6357167E	M	123	4
26	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.3098167N 28.6310333E	F	90	4
27	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.3093704N 28.6305213E	F	62	4
28	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.3060691N 28.6291051 E	M	70	4
29	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.3060691N 28.6291051 E	F	70	4
30	25.05.2017	<i>Phocoena phocoena relicta</i>	1	44.2919096N 28.6243629E	F	70	4
31	27.05.2017	<i>Phocoena phocoena relicta</i>	1	43.8164608N 28.588078E	F	72	3
32	28.05.2017	<i>Phocoena phocoena relicta</i>	1	44.0547009N 28.642087E	M	75	4
33	28.05.2017	<i>Phocoena phocoena relicta</i>	1	44.0749167N 28.6400666666666 6E	F	84	3
34	28.05.2017	<i>Phocoena phocoena relicta</i>	1	43.7523964N 28.5758364E	F	108	3
35	31.05.2017	<i>Phocoena phocoena relicta</i>	1	44.3206N 28.6369333E	M	95	3
36	31.05.2017	<i>Phocoena phocoena relicta</i>	1	43.7608044N 28.5758686E	F	120	4
37	2.06.2017	<i>Tursiops truncatus ponticus</i>	1	43.923866666667 N 28.636033333333 E	F	150	3
38	3.06.2017	<i>Phocoena phocoena relicta</i>	1	44.08288147N 28.6425591E	F	130	4
39	4.06.2017	<i>Phocoena phocoena relicta</i>	1	44.32045N 28.636766666667E	F	116	2
40	4.06.2017	<i>Phocoena phocoena relicta</i>	1	43.74662254N 28.5787439E	F	116	2
41	4.06.2017	<i>Phocoena phocoena relicta</i>	1	43.860534N 28.6067462 E	F	60	3

42	4.06.2017	<i>Phocoena phocoena relicta</i>	1	43.3435995N 28.6382568E	M	112	4
43	5.06.2017	<i>Phocoena phocoena relicta</i>	1	44.0465117N 28.6452198E	M	120	4
44	5.06.2017	<i>Phocoena phocoena relicta</i>	1	44.0823445N 28.6409712E	M	70	4
45	5.06.2017	<i>Phocoena phocoena relicta</i>	1	44.374484N 28.7098932E	F	70	4
46	5.06.2017	<i>Phocoena phocoena relicta</i>	1	44.3706188N 28.7069321E	M	78	4
47	6.06.2017	<i>Phocoena phocoena relicta</i>	1	44.32045 N 28.6367666 E	F	146	3
48	7.06.2017	<i>Phocoena phocoena relicta</i>	1	44.2472895N 28.6234403E	M	117	2
49	11.06.2017	<i>Phocoena phocoena relicta</i>	1	44.27584171N 28.6221313E	F	127	3
50	11.06.2017	<i>Phocoena phocoena relicta</i>	1	43.8692037N 28.6057806E	F	120	4
51	12.06.2017	<i>Phocoena phocoena relicta</i>	1	44.2388042N 28.6256504E	M	87	3
52	12.06.2017	<i>Phocoena phocoena relicta</i>	1	44.0582168N 28.6411643E	M	101	3
53	13.06.2017	<i>Phocoena phocoena relicta</i>	1	44.2083268N 28.6513031E	F	60	4
54	14.06.2017	<i>Phocoena phocoena relicta</i>	1	44.2317936N 28.6286116E	F	140	2
55	16.06.2017	<i>Phocoena phocoena relicta</i>	1	43.8228201N 28.588652E	F	120	4
56	18.06.2017	<i>Phocoena phocoena relicta</i>	1	44.1540682N 28.6682224E	M	100	4
57	29.06.2017	<i>Delphinus delphis ponticus</i>	1	44.4735N 28.8178E	F	176	2
58	03.07.2017	<i>Phocoena phocoena relicta</i>	1	43.9921063N 28.6658353E	F	76	2
59	03.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0274687N 28.6572683E	F	100	3

60	03.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2390809N 28.6256933E	M	70	3
61	04.07.2017	<i>Phocoena phocoena relicta</i>	1	44.043801N 28.6470008E	M	78	3
62	04.07.2017	<i>Phocoena phocoena relicta</i>	1	43.9416667N 28.6382167E	M	120	3
63	05.07.2017	<i>Phocoena phocoena relicta</i>	1	44.3134167N 28.6319833E	F	72	2
64	05.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2836333N 28.6231333E	M	130	3
65	05.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0447072N 28.6459279E	F	81	3
66	05.07.2017	<i>Phocoena phocoena relicta</i>	1	43.943136N 28.6383909E	F	80	4
67	05.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7561395N 28.5744524E	M	70	4
68	05.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7522802N 28.5758686E	M	114	3
69	05.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7516757N 28.5767055E	F	130	3
70	05.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7516757N 28.5767055E	F	81	3
71	05.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0573379N 28.6413574E	M	70	4
72	05.07.2017	<i>Phocoena phocoena relicta</i>	1	44.916012N 29.6255779E	F	112	2
73	05.07.2017	<i>Phocoena phocoena relicta</i>	1	44.9065295N 29.6242046E	M	112	2
74	6.07.2017	<i>Phocoena phocoena relicta</i>	1	44.28335N 28.6233167E	M	115	3
75	6.07.2017	<i>Phocoena phocoena relicta</i>	1	44.3790545N 28.7141204E	F	133	4
76	6.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2275769N 28.6305642E	F	60	3
77	8.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2832771N 28.6229682E	F	108	3

78	8.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2028509N 28.6544251E	F	69	3
79	8.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2938333N 28.6250818E	M	112	4
80	9.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2841104N 28.6232042E	M	120	3
81	9.07.2017	<i>Phocoena phocoena relicta</i>	1	43.8812667N 28.6079667E	M	119	3
82	9.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2418172N 28.6249638E	F	100	4
83	11.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0524957N 28.643294E	F	100	4
84	11.07.2017	<i>Phocoena phocoena relicta</i>	1	45.1433047N 29.6842003E	M	89	4
85	12.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7483974N 28.577832E	M	85	4
86	12.07.2017	<i>Phocoena phocoena relicta</i>	1	44.3774135N 28.7123179E	M	100	4
87	13.07.2017	<i>Phocoena phocoena relicta</i>	1	44.3747755N 28.7099576E	M	130	4
88	13.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7515052N 28.5767967E	F	106	4
89	15.07.2017	<i>Delphinus delphis ponticus ponticus</i>	1	44.375783N 28.711403E	F	165	4
90	16.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7491630N 28.5776350E	F	110	4
91	17.07.2017	<i>Phocoena phocoena relicta</i>	1	43.9920195N 28.6659157E	F	132	4
92	17.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0481813N 28.6446351E	F	90	4
93	17.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0531N 28.6426333E	F	73	3
94	17.07.2017	<i>Phocoena phocoena relicta</i>	1	43.8989824N 28.6138916E	F	70	4
95	18.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0291167N 28.6547667E	F	60	4

96	18.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0291167N 28.6547667E	F	136	4
97	18.07.2018	<i>Phocoena phocoena relicta</i>	1	44.26975N 28.6217333E	F	140	3
98	18.07.2017	<i>Phocoena phocoena relicta</i>	1	43.7451809N 28.5791516E	M	140	4
99	18.07.2017	<i>Phocoena phocoena relicta</i>	1	43.8662722N 28.6060166E	M	120	4
100	19.07.2016	<i>Phocoena phocoena relicta</i>	1	44.1942360N 28.6560240E	F	81	2
101	19.07.2016	<i>Phocoena phocoena relicta</i>	1	44.1838970N 28.6563790E	F	120	4
102	19.07.2016	<i>Phocoena phocoena relicta</i>	1	44.0543539N 28.6433208E	F	90	3
103	19.07.2017	<i>Phocoena phocoena relicta</i>	1	44.8884719N 29.6215439E	M	110	2
104	19.07.2017	<i>Phocoena phocoena relicta</i>	1	44.8884719N 29.6215439E	F	130	2
105	19.07.2017	<i>Phocoena phocoena relicta</i>	1	44.1788833N 28.6606167E	F	112	4
106	20.07.2017	<i>Phocoena phocoena relicta</i>	1	43.9995447N 28.6627293E	M	110	4
107	20.07.2017	<i>Phocoena phocoena relicta</i>	1	43.8458210N 28.6007550E	F	96	4
108	20.07.2017	<i>Phocoena phocoena relicta</i>	1	44.0540500N 28.6426200E	M	90	4
109	20.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2455800N 28.6237410E	F	120	4
110	21.07.2017	<i>Phocoena phocoena relicta</i>	1	44.2961650N 28.6257220E	F	100	4

2017 was placed in second with high number of dead cetacean strandings, exceeded just by 2012 year in which were recorded 177 strandings, all year and more than 130 for the same period.

Also this year brought the first mass stranding event on the Romanian sea shore in the last 7 years, with 8 harbour porpoises stranded on 800 m of beach in Navodari area, individuals of both sexes and ages but most of them in advance state of decomposition.



**A7. Collecting data concerning cetacean strandings, accidental catches and near coast appearance in the area between Vadu and Vama Veche (land survey)**

A total of 18 monitoring expeditions (from the first month of the project to the last) along the coast between Vadu and Vama-Veche are planned to be done during the implementation of the project. The frequency of the monitoring expeditions was 2/month (May-October) in the warm period and 1/month (November-April).

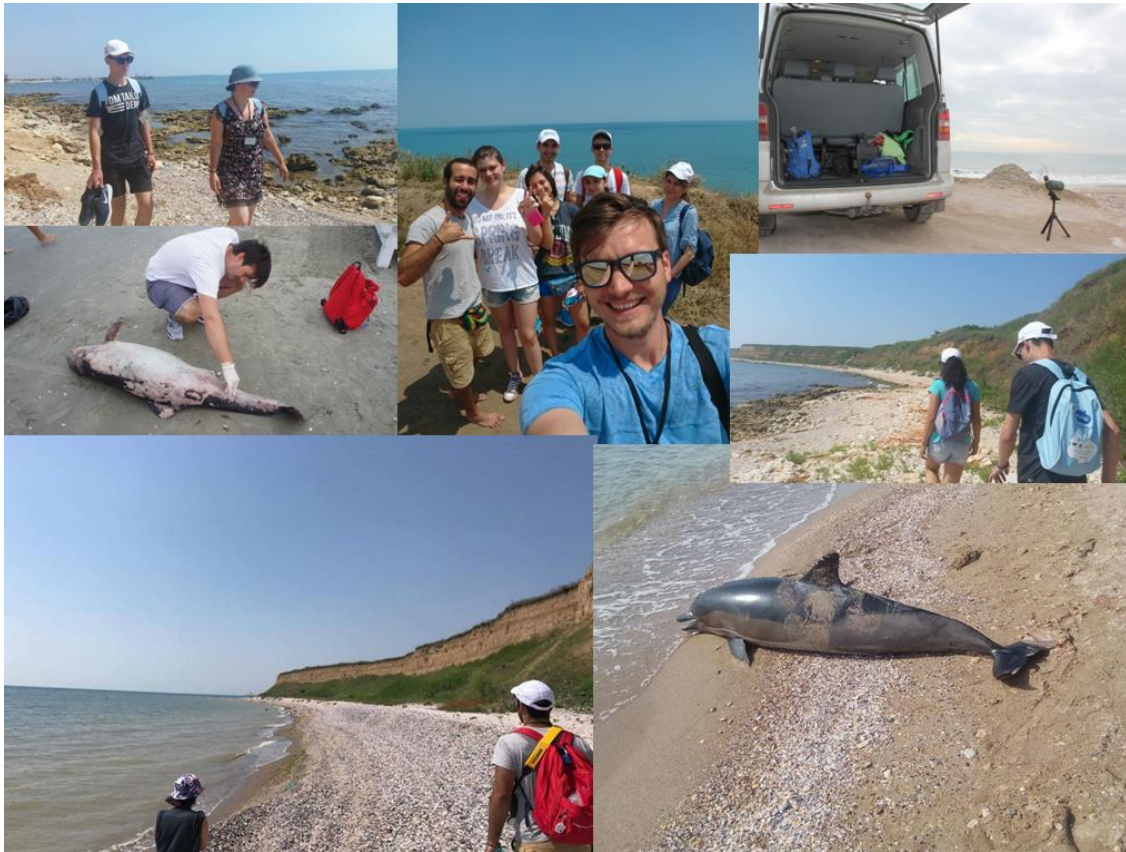
In the end there were done 22 monitoring surveys: 14 in the first period (July-December 2016) and 8 in the second period (January- July 2017) as follows:

- For the period July – December were planed 10 monitoring surveys but were made 4 additional (1 in July, 2 in August and 1 in November) because of the high emergency calls received ending with a total of 14 monitoring expeditions. The sessions involved more than 60 volunteers (Fig.25) and over the 14 sessions registered 3 harbour porpoise (*Phocoena phocoena relicta*)(Annex 5). A total of 35 cetacean stranding events were registered in the period reported, 22 emergency interventions, 3 land surveys and 10 by the monitoring network.



**Fig. 25. Land monitoring sessions in 2016**

- For the period January – July 2017 were done 8 land surveys involving 36 volunteers (Fig. 26).



**Fig. 26. Land survey with the volunteers in 2017**

In two of this surveys were identified stranded cetaceans, calfs/juvenils of *Phocoena phocoena relicta* and *Tursiops truncatus ponticus* (Annex 5). In addition the Cetacean Stranding Monitoring Network observers from the 23 schools were covering the sectors monthly (Fig. 27).



**Fig. 27. Land surveys done by the CSMN members**



The effort from the last years and also from the project reveal that in order to assess the strandings, a stranding network with an emergency line is highly recommended instead of regular monitoring, as the high number of interventions shows (result of the functional stranding monitoring network).

Still land surveys for identifying stranded cetaceans has two major objectives: one **educational** for the volunteers and people involved and second checking of the **remote areas**, where usually peoples are not going and the chances of having information in relation with possible strandings in the area are very low to none.

Concluding, just in 5 of the 22 monitoring expeditions were registered stranded cetaceans. One in Vama Veche and one in Mamaia Nord as showed in the tabel 8.

Tabel 8. Stranding events recorded over land suveys

No. crt.	Date	Specie	No of indiv.	GPS Coordinates	Sex	Length (cm)	State of decomposition
1	19.07.2016	<i>Phocoena phocoena relicta</i>	1	44.0155N 28.6613611E	M	122	4
2	19.07.2016	<i>Phocoena phocoena relicta</i>	1	43.7832715N 28.5804015E	M	73	4
3	12.10.2016	<i>Phocoena phocoena relicta</i>	1	44.2806944N 28.6223889E	M	81	3
4	31.01.2017	<i>Phocoena phocoena relicta</i>	1	43.74848N 28.578E	M	81	2
5	16.05.2017	<i>Tursiops truncatus ponticus</i>	1	44.282016666667 N 28.622933333333 E	F	109	3

#### **A8. Activities of awareness for fishermen and decision-makers regarding the need to mitigate the impact of the fisheries and tourism on cetacean populations**

One of the key activities of the project was related to the awareness, through awareness campaign and dissemination of the information on the different channels (facebook, newsletter, press release, website, TV interviews etc.) but also on events, meetings, workshop, trainings (scientific sessions, meetings of the Black Sea Advisory Council, MSFD meetings debates, trainings given to the collaborator in order to facilitate a common protocol of intervention in cases of stranded dolphins). For awareness sessions were used fridge magnets, monthly newspaper, [www.delfini.ro](http://www.delfini.ro) website and Mare Nostrum's education web portal, not least the facebook page "Delfinii din Marea Neagra/Black Sea dolphins".

On 5<sup>th</sup> of August was organized the event Dolphin Day, which included an international workshop (with the participation of experts, partners and decision makers), a photo gallery and a treasure hunt game for public (locals and tourists). The workshop gathered 41 persons who were presented projects and initiatives and also the ACCOBAMS Agreement was presented by the Romanian Focal Point through Ms. Camelia Dumitrache. The main objective was to raise the need of necessity of assessing the Black Sea cetaceans and to have a better understanding over them.

The events involved more than 300 persons (Fig. 28) in the games and presentations prepared by Mare Nostrum team. The entire event was hosted by the Natural Science Museum of Constanta and was attended by several media channels and newspapers, local and national.



**Fig. 28. Pictures from the Dolphin Day event**

The event included a Photo exhibition which remained permanent there in order to be visited by the peoples who visit the Museum, estimate that more than 50.000 visitors had the opportunity to enjoy and learn about Black Sea cetaceans and with the new summer season in 2017 was estimated more than 200.000 visitors had the opportunity to enjoy and learn about Black Sea cetaceans, visiting the exhibition at the Natural Science Museum Complex from Constanta. In this way also the partnership with the ACCOBAMS was promoted and people had the chance once again to get aware of ACCOBAMS and its efforts for improving the state of cetaceans from the seas under the agreement and not only (Fig. 29).



Fig. 29. Event poster

On 30 of October 2016, International Black Sea Day, was celebrated, on the Constanta coast with a cross - country called "Run for a clean Black Sea" and educational games for those who could not attend the cross. More than 500 peoples (Fig. 30) run for the Black Sea, and had the chance throught the leaflets to learn about cetaceans.





**Fig. 30. International Black Sea Day event**

The two events were covered also from another project on environmental education financed by OMV Petrom.

The media report for the press relies of the two public events counted 28 articles published with more than 5000 views.

The pressure over cetacean was represented also at the last meeting of the Black Sea Advisory Council for Fisheries in Varna, Bulgaria, where Mare Nostrum is one of the members. From this position the organization has the possibility of working towards diminishing the impact between fisheries and cetaceans. In the same time discussions are carried on with the fishermen from Romania and continue the effort of finding ways to raise their awareness about the important role of marine mammals in the ecosystem.

For general awareness campaigns were used leaflets and frig magnets with the emergency number in case of cetacean in distress. There were organized 2 awareness sessions on the coastal area in summer reaching to locals and tourists in 2016.

Another important meeting at which we had the chance of bringing on the line the needs of a monitoring program for cetaceans was the public hearing for the MSFD national measures plan where Romulus Marian Paiu and Mihaela Mirea Candea were attending.

At the beginning of the Summer season were rolled sessions for promoting the emergency line (0763255731), also spreading magnets with the line (Fig. 31.) to the safeguards and diver, sailors and fishermen, beach managers and authorities. For the Romanian Waters Authority – Dobrogea Litoral we made special trainings for the personal dealing with cleanup of the beach in order to understand

why is important to register the cases, to inform us as soon as possible and also how to manage the carcass and how to collect information (Fig.32.).



Fig. 31. Magnets used in awareness campaigns in order to promote the emergency line and Task Force



Fig. 32. Training for employees of ABADL

The high number of strandings encountered made the project and mostly the Emergency Team Force existence together with the emergency line more visible in media (audio and video, paper) and also over the social networks. We were receiving distress calls from citizens, tourists, authorities and National Emergency Line (112).

## **DIFFICULTIES ENCOUNTERED AND MEASURES TAKEN TO OVERCOME PROBLEMS**

The experience in coordinating project helped in managing this wonderful and necessary project and the continuous focus of Mare Nostrum team in continuing the program of monitoring and conservation of Black Sea cetacean brought the success for the project.

One of the main difficulties raised was because of the delayed date of the training, according to the trainers (Philip Hammond) agenda, which postpone the activities dedicated to the survey. But the delay was taken in consideration from the beginning being included in the timetable of the project proposal, was discussed with the ACCOBAMS Secretariat and we decided that it is better to include it from the beginning. In the end not being a difficulty entirely, the two surveys were made in April (for spring seasons) and in June (for Summer season). But the real difficulty came with the bad weather registered this year at the Romanian Black Sea Area (and not only), strong winds and high waves which made the survey to be postponed several times because of the bad weather, leaving the assessment of data and preparation of the project report outside the project period completed with the high number of strandings which blocked the team on the field for several hours almost every day. The measure taken was to ask for a postpone with one month of the project in order to finish all the activities but also to include as many information as possible related to the strandings.

## **CHANGES INTRODUCED IN THE IMPLEMENTATION**

There were two major modification, one discussed from the previous reporting period – the postpone of the vessel surveys and one related to the project period – extension with one month of the project.

## **ACHIEVEMENTS/RESULTS**

1. The main output of the project in the report period is represented by the marine mammal distribution and abundance estimation training; which added value to Mare Nostrum and riparian countries cetacean research programs/projects in the field of assessment of distribution and abundance of Black Sea cetaceans (common objective with the ACCOBAMS Strategy);
2. 15 specialists/researchers from 5 Black Sea countries (Romania, Bulgaria, Turkey, Georgia and Ukraine) were trained;
3. Establish of a link between the Black Sea cetacean researchers which will be the main source for developing projects. Already have in plan a proposal for Black Sea Cross Border Cooperation Programme;
4. 897 students and 103 teachers recruited, trained, equipped and active for the Cetacean Stranding Monitoring Network;



5. Using Distance 7 software for designing and assessing a survey and completing the methodology used for data collection;
6. 2 surveys in the south part of the Romanian Black Sea territorial waters, one in Spring and one in Summer, 2017;
7. Assessment of the two surveys and establishing the abundance and distribution in the study area and for the periods of the study. Including maps of the cetacean sighted;
8. Establish of a link between the Black Sea cetacean researchers which will be the main source for developing projects. Already had applied for Black Sea Cross Border Cooperation Programme with a project proposal in which was included an aerial survey as support for ASI;
9. 22 land monitoring expeditions for data collection on cetacean stranding, by-catches and near coast appearance (land monitoring reports);
10. 132 emergency interventions with the task force for strandings
11. 2 major public events with more than 1000 persons participating and at least 5000 viewers of the press releases;
12. 3 major events in which participants were informed about the project and the cetacean issues and needs;
13. 1 photo and poster exhibition about cetaceans and research in this field in Romania, with a daily visitor number between 100 (winter season) and 5000 people for June and July;
14. 3 awareness sessions on the beach with more than 2500 tourists and locals approached and informed;
15. Capacity building for Mare Nostrum and riparian organizations participating in the project.
16. All the data collected in the frame of the project will be forwarded to the international database Medaces and Obis Seemap, and also to the representative institutions from Romania and the ACCOBAMS focal point. The data collected in 2016 are already uploaded and those from the 2017 will be uploaded for large dissemination and use till the end of the year.

## RECOMMENDATION

It is highly recommended to continue the monitoring of cetaceans in the Black Sea area for more accurate data and estimations of the Black Sea cetacean population, migration pattern and habitats to reveal the real stats of the species and measures to be taken on short, medium and large period.

The human resource formed in the frame of the project should be further use by the agreement and for a basin assessment.

Strictly to Romania, but after discussing with the participants to the training, more of the riparian countries need trainings on necropsy exam and sampling which to be the mile stone for a coherent program of cetacean disease monitoring.

## SUMMARY (a short article with the most important outcomes to be published on the website)

The project “Increase the regional capacity for developing cetacean distribution and abundance studies” started in July 2016, under the implementation of Mare Nostrum NGO and financed by the ACCOBAMS Secretariat under Supplementary Conservation Funds.

Within this project, Mare Nostrum aimed to increase the capacity of local and regional researchers to address the issues related to cetacean distribution and abundance, responding in this way to

ACCOBAMS strategic objective on improving understanding of the conservation status of cetaceans in Black Sea. Also, is assured continuity, quality and quantity of data regarding Romanian Black Sea cetaceans and is increased awareness and involvement of local population and tourists in cetacean conservation (stranding monitoring network, task force, emergency, appropriate behaviour, etc.)

The first half of the project were crowned with several notable results that contribute to achieving the objectives mentioned above. The main output for the reporting period is represented by the marine mammal distribution and abundance estimation training, which added value to Mare Nostrum and riparian countries cetacean research programs/projects in the field of assessment of distribution and abundance of Black Sea cetaceans, this being a common objective with the ACCOBAMS Strategy. Thus, were trained 15 specialists/researchers from 5 Black Sea countries (Romania, Bulgaria, Turkey, Georgia and Ukraine). This training established a link between Black Sea cetacean researchers and were developed new partnerships for further projects, as a proposal for Black Sea Cross Border Cooperation Programme.

The second half of the project meant the period in which to apply all the knowledge gathered true designing and achieving 2 trial surveys for the South part of the territorial waters of Romania, one in Spring and one in Summer. Over the two surveys were recorded 275 sightings with 477 animals from all the three species in the Black Sea. There are rough estimations of the abundance and distribution maps for the surveyed area.

Cetacean Stranding Monitoring Network, which had enrolled for the project period 1000 students and teachers, together with the Emergency Task Force managed a very good coverage of the stranding recorded at the Romanian coast recording 132 stranding events. The 110 strandings recorded just in 2017, unfortunately it meant almost a negative “record” being close to the situation in 2012 when we were recording for the entire year 177 dead stranded cetaceans.

To support the effort for recording the stranding events, were conducted 22 land monitoring expeditions for data collection on cetacean stranding, by-catches and near coast appearance and had awareness sessions for making public the emergency number on which people can alarm a stranding (dead or alive).

The local community has supported us and answered in a positive way to the project and shared the information, media was making numerous articles to signal the danger over the cetaceans and sharing the emergency line. The 2 major public events (Dolphin Day and International Black Sea Day) to which participated more than 1000 persons, together with the press releases and articles published, the poster exhibition about cetacean and research in Romanian established in the Natural History Museum from Constanta and the awareness campaigns brought visibility over the emergency line and the activities under the project.

The project and Mare Nostrum activity attracted foreign students willing to come and work with us at the implementation of the activities, in this way both reporting periods we had the pleasure of working with students from Czech Republic and Spain, Barbora and Raul which we want to acknowledge for their effort and dedication.



And not least we like to thank Philip S. Hammond from University of St Andrews, Sea Mammal Research Unit, for the great help that he was giving to the project in all the activities related to cetacean assessment.

All the data collected under the project, related to sightings and strandings will be available on OBIS Seamap portal till the end of 2017.



**Option 1. Picture for the summary**



Option 2. Picture for the summary





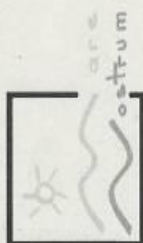
Option 3. Picture for the summary

## Annexes

### Annex 1. List of participants for training workshop

#### Organizația Neguvernamentală Ecologistă Mare Nostrum

Bd. 1 Decembrie 1918, nr. 3, bl. F17, sc. A, ap. 3  
Constanța 900711, România  
Tel/ fax: 0241- 612422, 0341- 407432, 0341- 407433  
E-mail: office@marenostrium.ro, Web page: www.marenostrium.ro



#### LIST OF PARTICIPANTS TO THE TRAINING WORKSHOP "ESTIMATION OF MARINE MAMMAL ABUNDANCE AND LIFE HISTORY PARAMETERS" ON PROJECT "Increase the regional capacity for developing cetacean distribution and abundance studies"

12-16 December 2016

No.	Name and surname	Institution	Position	Telephone/fax	E-mail	Signature
1	Vidiv Reșcuș	Institute of Oceanography	Dep. Director	+35952370485	vraykaldio@bcs.ro	
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3	Alexe Vasile	INSTITUTUL DE OCEANOLOGIE	Researcher	0747 334705	vasile.alex@ddn.ro	
4	Dimitrie Popov	GREEN BALKANS NPO	Project manager	+35982626977	dpopov@greenbalkans.org	
5	ADRIAN FICIMON	NIMROD "G. ANTONIU" RESEARCH CENTER	Researcher	0757522953	adrianf@bcs.ro	
6	Marina Parayotova	Institute of Oceanography - BCS	Assoc. Professor	+359380486	mparayotova@bcs.ro	
7	Nana Davidze	Iliia State University	Researcher	+995577-977-367	nana.davidze@iliumi.edu.ge	
8	Davit Denenoidze	Iliia State University	Researcher	+995577 176769	davit.denenoidze@iliumi.edu.ge	

20 YEARS  
ACCOBAMS





# Organizația Neguvernamentală Ecologistă Mare Nostrum

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14	PAIU MARIANA	MARE NOSTRUM NGO	Ecology	0040763258731	<a href="mailto:romulus.maria@marenostrum.ro">romulus.maria@marenostrum.ro</a>	
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18						
19						
20						

20 YEARS  
ACCOBAMS



Annex 2. Workbook of the training (cover) and [in PDF the document \(115 pages\)](#)



**Instructor:**  
Prof. Philip Hammond



Sea Mammal  
Research  
Unit

**Assistant Instructor:**  
Dr. Lindsay Porter



University of St Andrews, St Andrews, Scotland, UK

**Organized by:**

**Mare Nostrum NGO**



**Funded by:**

**ACCOBAMS Secretariat**



**Training workshop organized within the project „Increase the regional capacity for developing cetacean distribution and abundance studies” MoU Nr.10/2016/FAC**



Annex 3. Training workshop programme



## Training programme

### Estimating marine mammal abundance and life history parameters

12-16 December 2016, Constanta, Romania

11 December 2016 – 20:00 Diner at Restaurant Rustic, Constanta

#### Day 1. 12 December 2016

9:00-9:30	Registration
9:30	<b>1. Introduction to Workshop</b>
10:00	Coffee break
11:00	<b>2. Introduction to mark-recapture methods</b>
12:30	LUNCH
13:30	<b>3. Mark-recapture data collection:</b> Sampling design, photo-identification, turning photos into data
14:30	<b>4. Mark-recapture abundance estimation:</b> Two-sample model analysis in Excel ( <b>practical</b> )
15:30	Coffee break
15:45	<b>5. Mark-recapture data analysis:</b> Capture histories, survival rates, abundance, open and closed models, heterogeneity of capture probabilities
17:00	<b>6. Using MARK:</b> Multi-sample abundance estimation using closed models ( <b>practical</b> )
19:00	Dinner

#### Day 2. 13 December 2016

9:00	<b>6. Using MARK:</b> Continue data analysis using closed models ( <b>practical</b> )
------	--

10:30	<b>Coffee break</b>
10:45	<b>7. Using MARK:</b> Open model survival rate and abundance estimation ( <b>practical</b> )
12:30	<b>LUNCH</b>
13:30	<b>8. Using MARK:</b> Continue data analysis using closed/open models ( <b>practical</b> )
15:30	<b>Coffee break</b>
15:45	<b>9. Introduction to life table analysis</b>
16:30	<b>10. Life table analysis:</b> Estimating mortality and birth rates from strandings data ( <b>practical</b> )
19:00	<b>Dinner</b>

### **Day 3. 14 December 2016**

09:00	<b>11. Introduction to line transect (distance) sampling, including survey design</b>
09:45	<b>12. Using DISTANCE:</b> Survey design in DISTANCE ( <b>practical</b> )
10:30	<b>Coffee break</b>
11:15	<b>13. Line transect data collection</b> Including introduction to survey practical
12:30	<b>LUNCH</b>
13:30	<b>14. Line transect survey (practical)</b>
15:30	<b>Coffee break</b>
16:00	<b>15. Line transect: organization of data from survey (practical)</b>
19:00	<b>Dinner</b>

### **Day 4. 15 December 2016**

9:00	<b>16. Using DISTANCE:</b> Data entry ( <b>practical</b> )
10:30	<b>Coffee break</b>

10:45	<b>17. Line transect data analysis:</b> Detection functions, diagnostics, abundance estimation, variance estimation
12:30	LUNCH
13:30	<b>18. Using DISTANCE:</b> Survey data analysis ( <b>practical</b> )
15:30	Coffee break
16:00	<b>18. Using DISTANCE:</b> Survey data analysis continued ( <b>practical</b> )
19:00	Dinner

### **Day 5. 16 December 2016**

9:00	<b>19. Conclusions from analysis of survey data</b>
9:45	<b>20. Animals missed on the transect line:</b> Including responsive movement and double team line transect
10:30	Coffee break
10:45	<b>21. Population status and trends, including power analysis</b>
11:20	<b>22. Population Viability Analysis, including VORTEX</b>
12:30	LUNCH
13:30	<b>23. Additional data analysis; discussion of issues not yet covered</b>
15:00	Coffee break
15:30	<b>24. Conclusions and Close of Workshop</b>
20:00	Dinner at Restaurant Integra

#### **Annex 4. List of requests for training**

### **List of trainees for the international training workshop**

### **“Estimating marine mammal abundance and life history parameters”**

**Constanța, Romania, 12-16 December 2016**

1. Ro - Paiu Marian – Mare Nostrum NGO
2. Ro – Mihaela Candea Mirea – Mare Nostrum
3. Ro - Dan Kessler – Mare Nostrum
4. Ro – Dragos Sumila – Mare Nostrum NGO
5. Ro - Filimon Adrian – National Institute of Marine Research and Development  
“Grigore Antipa”
6. Ro- Vasile Alexe – Danube Delta National Institute for Research and Development
7. Ro - George Tiganov – Danube Delta National Institute for Research and  
Development
8. Bg - Dimitar Popov – Green Balkans NGO
9. Bg - Konstantin Mihaylov – Institute of Fishery Resources
10. Bg - Marina Panayotova – Institute of Oceanology Bulgarian Academy of Science
11. Bg – Violin Rykov – Institute of Oceanology Bulgarian Academy of Science
12. Ge - Nana Devidze – Illia State University
13. Ge - Davit Dekanoidze – Illia State University
14. Ge - Levan Ninua – Illia State University
15. Ge – Tatia Kuljanishvili – Illia State University
16. Tk - Arda Tonay - Istanbul University/TUDAV
17. Tk – Ayaka Amaha Ozturk - Istanbul University/TUDAV
18. Tk - Ertug Duzgunes - Karadeniz Technical University, Faculty of marine science
19. Tk – Akkaya Bas Aylin - Turkish Marine Research Foundation (TUDAV)
20. Tk - Hacer Saglam - Karadeniz Technical University, Faculty of marine sciences
21. Ukr - Pavel Gol`din - Schmalhausen Institute of Zoology, National Academy of  
Sciences of Ukraine
22. Ukr - Oksana Savenko - Ukrainian Scientific Center of Ecology of the Sea (UkrSCES)
23. Uk - Karina Vishnyakova - Ukrainian Scientific Center of Ecology of the Sea  
(UkrSCES)

24. Uk - Elena Gladilina - Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine

25. Uk - Serghey Krivokhizhin – Brema laboratory – not sent the request form.

## Annex 5. Land survey reports

**Tabel 1. Monitored sectors for cetacean strandings**

Sector no.	Name of the sector	South limit	North limit	Distance
1	Vama Veche	Camping Vama Veche	Unitate militara	1.5
2	2 Mai	Unitate militara	Santier naval DMHI	1.5
3	Mangalia	Hotel President	Plaja Diana	1.8
4	Saturn	Plaja Diana	Hotel Adriana(statiunea Venus)	2
5	Venus	Hotel Adriana	Hotel Diamant	1.5
6	Cap Aurora	Hotel Diamant	Hotel Meteor	1.2
7	Jupiter	Hotel Meteor	Plaja Steaguri (Neptun)	1
8	Neptun	Plaja Steaguri	Hotel Panoramic	1
9	Olimp	Hotel Panoramic	Popasul pescarilor	1.7
10	23 August	Popasul pescarilor	Manastirea Sf. Elena	2
11	23 August II	Manastirea Sf. Elena	Hotel Forum	2
12	Costinesti	Hotel Forum	Epava	2.2
13	Costinesti II	Epava	Tuzla	3.5
14	Tuzla	Plaja Tuzla	Far Tuzla	1.5
15	Eforie Sud	Izvoarele cu apa potabila	Tabara	2
16	Eforie Nord	Tabara	Port Belona	1.5
17	Eforie Nord II	Port Belona	Cherhana Agigea	1.5
18	Constanta	Port touristic	Universitate	1
19	Constanta II	Universitate	Cartierul de la malul marii	1
20	Constanta III	Plaja delfinariu	Pescarie	1.5

Sector no.	Name of the sector	South limit	North limit	Distance
21	Mamaia	Hotel Malibu	Hotel Melody	1.5
22	Mamaia II	Hotel Melody	Hotel Histria	1
23	Mamaia III	Hotel Histria	Hotel Modern	1
24	Mamaia IV	Hotel Modern	Hotel Comandor	1
25	Mamaia V	Hotel Comandor	Camping GPM	1.3
26	Navodari	Camping GPM	Cartier Green Wave Mamaia	1
27	Navodari II	Cartier Green Wave Mamaia	Camping S	1.2
28	Navodari III	Camping S	Sea breeze rezidential	1
29	Navodari IV	Sea breeze rezidential	Tabara Navodari	1.2
30	Navodari V	Tabara Navodari	Dig Midia	1
31	Corbu	Dig Midia	Unitate militara	2
32	Vadu	Pescarie Vadu	Pescarie Ion	5

### RAPORT DE EXPEDIȚIE 1

**1. Tipul expediției:** terestră

**2. Data:** 13.07.2016

**3. Componența grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Marian PAIU

- Dragoș Șumilă
- Barbora Bartova

**4. Locul desfășurării observației:**

- Codul sectorului: 18 - 35
- Repere sector: Constanța - Periboina

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X



b. Completare *Fișă de Observație*    DA ☐    NU X

**6.      Observații:**

Cer însoțit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu au fost observate cetacee eșuate.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum, ATV și pe jos.

**RAPORT DE EXPEDITIE 2**

**1. Tipul expediției:**                    terestră

**2. Data:** 19.07.2016

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Marian PAIU

- Dragoș Șumilă
- Camelia Cufioti
- Gheorghe Anca
- Craciun Mariela
- Aldea Andreea
- Abalaru Adela
- George Rachieru

**4.      Locul desfășurării observației:**

- Codul sectorului: 18 - 31
- Repere sector: Vama Veche - Constanța

**5.      Descrierea activității în sine:**

a. Prezență delfin eșuat    DA X    NU

☐

b. Completare *Fișă de Observație* DA X NU ☐

**6. Observații:**

Cer însoțit, parțial acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției au fost observate două cetacee eșuate, aparținând speciei *Phocoena phocoena relictă*. Acesta a fost preluat pentru incinerare.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

**RAPORT DE EXPEDIȚIE 3**

**1. Tipul expediției:** terestră

**2. Data:** 28.07.2016

**3. Componenta grupei de observatori voluntari**  
(a se specifica CL – Coordonator Local): Marian PAIU

- Sumila Dragos
- Vlad Radu-Stefan
- Milcu Ana-Maria
- Ionica Mihai
- Talpau Theodora Daria
- Iordache Ruxandra
- Mihai Andrei-Alexandru

**4. Locul desfășurării observației:**

- Codul sectorului: 18 - 35
- Repere sector: Constanța - Periboina

**5. Descrierea activității în sine:**

a. Prezență delfin eșuat DA ☐ NU X



b. Completare *Fișă de Observație*    DA    NU X

**6. Observații:**

Cer însoțit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu au fost observate cetacee.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

**RAPORT DE EXPEDIȚIE 4**

**1. Tipul expediției:**            terestră

**2. Data:** 03.08.2016

**3. Componența grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Sumila Dragos

- Aldea Andreea
- Stanila Andrei Nicolae
- Rachieru George
- Minescu Andrei

**4. Locul desfășurării observației:**

- Codul sectorului: 1 - 18
- Repere sector: Vama Veche - Constanța

**5. Descrierea activității în sine:**

a. Prezență delfin eșuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Cer însoțit, parțial acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu a fost observat un cetaceu eșuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

## RAPORT DE EXPEDIȚIE 5

**1. Tipul expediției:** terestră

**2. Data:** 18.08.2016

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Sumila Dragos

- Aldea Andreea
- Craciun Mariela
- Vizireanu Ioan-Iulian
- Vizireanu Andrei-Cristian
- Samargiu Vlad-Costin
- Pocriste Catalina

**4. Locul desfășurării observației:**

- Codul sectorului: 18-32
- Repere sector: Constanta-Vadu

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Cer însořit, parțial acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

## RAPORT DE EXPEDIȚIE 6

**1. Tipul expediției:** terestră

**2. Data:** 25.08.2016

**3. Componența grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Sumila Dragos

- Filip Smaranda
- Rachieru George
- Mociu Cosmina
- Cufioti Camelia-Alexandra
- Branescu Bianca
- Milcu Ana-Maria
- Ialangi Bianca-Elena
- Cucinschi Evelina
- Rata Stefan
- Stanga stefania

**4. Locul desfășurării observației:**

- Codul sectorului: 1 - 16
- Repere sector: Vama Veche - Eforie Nord

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Cer însorit, parțial acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu doua autoturisme personale și pe jos.

### **RAPORT DE EXPEDIȚIE 7**

**1. Tipul expediției:** terestră

**2. Data:** 31.08.2016

**3. Componenta grupei de observatori voluntari**  
(a se specifica CL – Coordonator Local): Sumila Dragos

- Aldea Andreea
- Samargiu Vlad-Costin
- Vicol Mihai
- Radoi Victor Andrei
- Efrem Cristian-Pavel
- Iliescu Teodora
- Calatoiu Ioan

**4. Locul desfășurării observației:**

- Codul sectorului: 18-32
- Repere sector: Constanta-Vadu

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Cer însořit, parțial acoperit, vânt puternic, valuri mari.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.



## RAPORT DE EXPEDIȚIE 8

1. Tipul expediției: terestră

2. Data: 16.09.2016

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Paiu Marian

- Sumila Dragos
- Camelia Cufioti

**4. Locul desfășurării observației:**

- Codul sectorului: 18-32
- Repere sector: Constanta-Vadu

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐ NU X

b. Completare *Fișă de Observație*    DA ☐ NU X

**6. Observații:**

Cer însořit, vânt puternic, valuri mari.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și cu ATV-ul.

## RAPORT DE EXPEDIȚIE 9

1. Tipul expediției: terestră

2. Data: 17.09.2016

### 3. Componenta grupei de observatori voluntari

(a se specifica CL – Coordonator Local): Sumila Dragos

- Mociu Cosmina
- Ialangi Bianca
- Calistru Diana
- Florescu Lorela
- Milcu Ana-Maria
- Gheorghe Anca
- Cufioti Camelia

### 4. Locul desfășurării observației:

- Codul sectorului: 18-1
- Repere sector: Constanta-Vama Veche

### 5. Descrierea activității în sine:

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

### 6. Observații:

Cer însořit, vânt slab, valuri mici.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

## RAPORT DE EXPEDIȚIE 10

1. Tipul expediției:            terestră

2. Data: 1.10.2016

### 3. Componenta grupei de observatori voluntari

(a se specifica CL – Coordonator Local): Sumila Dragos

- Samargiu Vlad-Costin

- Rachieru George
- Mociu Cosmina
- Kessler Dan Valeriu
- Mustafa Sezen
- Craciun Mariela Madalina
- Ialangi Bianca-Elena

**4. Locul desfășurării observației:**

- Codul sectorului: 18-1
- Repere sector: Constanta-Vama Veche

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Cer însořit, vânt slab, valuri mici.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

**RAPORT DE EXPEDIȚIE 11**

**1. Tipul expediției:**            terestră

**2. Data:** 12.10.2016

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Paiu Marian

- Angelica Paiu
- Anca Gheorghe
- Patricia Tomasian

- Cufioti Camelia
- Candea Mirea Mihaela

**4. Locul desfășurării observației:**

- Codul sectorului: 18
- Repere sector: Constanta

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA   X   NU    ☐

b. Completare *Fișă de Observație*    DA   X   NU    ☐

**6. Observații:**

Cer aproape total acoperit, vânt moderat, valuri mari.

Pe parcursul expediției a fost observat un cetaceu eşuat aparținând speciei *Phocoena phocoena relictă*.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos

**RAPORT DE EXPEDIȚIE 12**

**1. Tipul expediției:**            terestră

**2. Data:** 19.11.2016

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Sumila Dragos

- Sabau Raul
- Rachieru George
- Ibraim Yasin
- Cufioti Camelia
- Anca Gheorghe
- Craciun Mariela Madalina

**4. Locul desfășurării observației:**

- Codul sectorului: 18-1
- Repere sector: Constanta-Vama Veche

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Cer înșorit, vânt slab, valuri mici.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

**RAPORT DE EXPEDIȚIE 13**

**1. Tipul expediției:**                    terestră

**2. Data:** 28.11.2016

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Paiu Marian

- Sumila Dragos
- Rachieru George

**4. Locul desfășurării observației:**

- Codul sectorului: 18-35
- Repere sector: Constanta-Periboina

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6.      Observații:**

Cer acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu a fost observat un cetaceu eşuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și cu ATV-ul.

**RAPORT DE EXPEDIȚIE 14**

**1. Tipul expediției:**                    terestră

**2. Data:** 28.12.2016

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Paiu Marian

- Gheorghe Anca
- Rachieru George
- Paiu Angelica

**4.      Locul desfășurării observației:**

- Codul sectorului: 1- 18
- Repere sector: Vama Veche- Constanta

**5.      Descrierea activității în sine:**

c. Prezență delfin eşuat    DA ☐    NU X



d. Completare *Fișă de Observație* DA ☐ NU X

**6. Observații:**

Cer acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu a fost observat un cetaceu eșuat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și cu ATV-ul.

**RAPORT DE EXPEDIȚIE 15**

**1. Tipul expediției:** terestră

**2. Data:** 31.01.2017

**3. Componența grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Marian PAIU

- Paiu Angelica
- Paiu Alexandru
- Robert Mirea
- Dan Kessler

**4. Locul desfășurării observației:**

- Codul sectorului: 1 - 31
- Repere sector: Vama Veche - Corbu

**5. Descrierea activității în sine:**

c. Prezență delfin eșuat DA X NU ☐

d. Completare *Fișă de Observație* DA X NU ☐

**6. Observații:**

Cer acoperit în totalitate, vânt moderat spre tare, valuri mijlocii.

Pe parcursul expediției a fost observat un cetaceu eșuat, mort, aparținând speciei *Phocoena phocena relictă* cu urme de plasă și plăgi, datorate cel mai probabil pescărușilor, în zona ochilor. Exemplarul a fost preluat pentru investigații și depozitat în cadrul INCDM Grigore Antipa, Constanța. Urmând a fi incinerat.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum, ATV și pe jos.

#### RAPORT DE EXPEDITIE 16

**1. Tipul expediției:** terestră

**2. Data:** 26.02.2017

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Marian PAIU

- Dragos Viceaga
- Anca Gheorghe
- Maria Viceaga
- Patru Dan

**4. Locul desfășurării observației:**

- Codul sectorului: 1 - 32
- Repere sector: Vama Veche - Vadu

**5. Descrierea activității în sine:**

c. Prezență delfin eșuat    DA ☐ NU X

d. Completare *Fișă de Observație*    DA ☐ NU X

**6. Observații:**

Cer acoperit, ceață groasă dar care în orele următoare s-a risipit ieșind soarele, vânt moderat spre tare până la finalul expediției, valuri mici la primele ore ale dimineții ce s-au mărit pe parcursul zilei.

Pe parcursul expediției nu au fost observate cetacee eşuate.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

#### **RAPORT DE EXPEDITIE 17**

**1. Tipul expediției:**               terestră

**2. Data:** 30.03.2017 – 4.04.2017

**3. Componenta grupei de observatori voluntari**  
(a se specifica CL – Coordonator Local): Marian PAIU

- Angelica Paiu
- Mihaela Candea Mirea
- Ionica Mihai
- Diana Manzala
- Patricia Tomasian
- Anca Gheorghe
- Andra Fratila

**4. Locul desfășurării observației:**

- Codul sectorului: 1 - 32
  - Repere sector: Vama Veche – Vadu

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat   DA ☐ NU X

b. Completare *Fișă de Observație*   DA ☐ NU X

**6. Observații:**

Observatiile au fost efectuate pe parcursul mai multor zile datorita conditiilor meteorologice precare, ploaie și vânt puternic.

Pe parcursul expediției nu au fost observate cetacee eşuate.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

### **RAPORT DE EXPEDITIE 18**

**1. Tipul expediției:** terestră

**2. Data:** 08.04.2017

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Marian PAIU

- Raul Zabala Belenguer
- Popescu George
- Olariu Bogdan
- Mara Osneanu
- Mara Preda
- Balcescu Stefan
- Parita Andrei
- Ionescu Victor
- Maria Barba

**4. Locul desfășurării observației:**

- Codul sectorului: 1-30
  - Repere sector: Vama Veche - Navodari

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Observatiile au fost efectuate cu ajutorul unui grup de voluntari, veniti din Bucuresti, pentru a afla mai multe despre cetaceele din Marea Neagră. Neidentificând nici un

delfin eşuat am derulat un scenariu cu ajutorul unui manechin în formă de delfin pentru a-i instrui cu privire la ce au de făcut atunci când întâlnesc cazuri de esuare.

Pe parcursul expediției nu au fost observate cetacee eşuate.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

Expediția a fost realizată cu autoturismul Mare Nostrum și pe jos.

### **RAPORT DE EXPEDITIE 19**

**1. Tipul expediției:** terestră

**2. Data:** 27.04.2017

**3. Componența grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Marian PAIU

- Raul Zabala Belenguer
- Robert Mirea

**4. Locul desfășurării observației:**

- Codul sectorului: 1-20
  - Repere sector: Vama Veche - Constanta

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Observatiile au fost efectuate de echipa Mare Nostrum, utilizând atât atv-ul cât și microbuzul organizației. Condițiile meteo în prima parte a zilei au fost mai puțin prielnice prin ceața groasă ce acoperea orizontul însă aceasta s-a disipat în cea de-a doua parte a zilei, vânt moderat și valurii mijlocii.

Pe parcursul expediției nu au fost observate cetacee eșuate.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

## RAPORT DE EXPEDIȚIE 20

**1. Tipul expediției:** terestră

**2. Data:** 16.05.2017

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Paiu Marian

- Raul Zabala
- Stanila Andrei Nicolae
- Anca Gheorghe
- Ionica Mihai
- Vlad Samargiu
- Andrei Radoi

**4. Locul desfășurării observației:**

- Codul sectorului: 1 - 32
- Repere sector: Vama Veche - Vadu

**5. Descrierea activității în sine:**

c. Prezență delfin eșuat    DA   X    NU   ☐

d. Completare Fișă de Observație    DA   X    NU   ☐

**6. Observații:**

Cer însoțit, parțial acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției a fost observat un pui de afalin (*Tursiops truncatus ponticus*).



Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.

## **RAPORT DE EXPEDIȚIE 21**

**1. Tipul expediției:** terestră

**2. Data:** 31.05.2017

**3. Componenta grupei de observatori voluntari**

(a se specifica CL – Coordonator Local): Paiu Marian

- Raul Zabala
- Lazar Raul
- Anca Gheorghe
- Matei Anastasia
- Mociu Cosmina
- Sabau Raul
- Vizireanu Andrei

**4. Locul desfășurării observației:**

- Codul sectorului: 1 - 32
- Repere sector: Vama Veche - Vadu

**5. Descrierea activității în sine:**

a. Prezență delfin eşuat    DA ☐    NU X

b. Completare *Fișă de Observație*    DA ☐    NU X

**6. Observații:**

Cer însoțit, parțial acoperit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu au fost observate cetacee eşuate.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă

## RAPORT DE EXPEDIȚIE 22

1. Tipul expediției: terestră

2. Data: 23.06.2017

3. Componenta grupei de observatori voluntari

(a se specifica CL – Coordonator Local): Marian PAIU

- Voinea Georgiana
- Andreea Bratu
- Raul Zabala
- Dan Kessler
- Ciopa Cristian
- Duta Teodora
- Ghitescu Iulia
- Lazar Daniel
- Lazar Raul

4. Locul desfășurării observației:

- Codul sectorului: 1 - 32
- Repere sector: Vama Veche - Vadu

5. Descrierea activității în sine:

c. Prezență delfin eşuat    DA ☐ NU X

d. Completare *Fișă de Observație*    DA ☐ NU X

6. Observații:

Cer însoțit, vânt moderat, valuri mijlocii.

Pe parcursul expediției nu au fost observate cetacee.

Pentru o buna desfășurare a expediției pe lângă obiectele necesare (aparat foto, hartă, fișă de observație + pix, GPS, binoclu și trusă pentru analizele de apă) s-au mai utilizat următoarele materiale: o pungă ermetică și o ruletă.