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ADRIATIC DOLPHIN PROJECT – LOŠINJ

Researchers:

Tihana Vučur, Mateja Zekan, Nikolina Rako-Gospić,
Marko Radulović, Peter Mackelworth, Draško Holcer

Research summary

In the period from the 1st of January to December 2013, 94 trips were made from the Veli Lošinj field station of the Blue World Institute (2 in January, 1 in February, 5 in March, 4 in April, 11 in May, 13 in June, 15 in July, 13 in August, 17 in September, 4 in October, 2 in November and 6 in December). During these surveys in the Northern Adriatic Sea, bottlenose dolphins (Tursiops truncatus) were encountered 107 times throughout the study area (Fig. 1). Standard photo-identification methods were successfully applied during each encounter. Behavioural sampling of the dolphin groups and surfacing patterns were also conducted. According to the best field estimation of number of dolphins present during the sightings, the average group size was 5.8 individuals with a range of between 1 and 37 individuals in a group.
Analysis of navigation data

The analysis of navigation data shows that the research vessel covered an overall distance of 3044 NM. Distance covered in search was 2239 NM, while distance in search with positive sea conditions (sea state <2 according to the Douglas scale) was 2225 NM (Fig.2). Researchers spent 372 hours on the sea, 177 hours in search, with 175 hours in positive effort. Time spent with dolphins was 109 hours.
During 2013 the Blue World Institute researchers inspected one dead stranded dolphin.

On 25th of September 2013, BWI researchers received information about a dolphin carcass floating in the bay of Javorna near Veli Lošinj. After reaching the carcass the local veterinarian was informed. External examination of the body confirmed that the carcass was adult bottlenose dolphin, approximately 3 m long and highly decomposed. Cause of death
could not be determined, nor could identification based on its dorsal fin. The results of the necropsy, performed by the veterinarian Faculty in Zagreb, showed it was an adult female bottlenose dolphin that died from intestinal entanglement.

Sea Turtles

During 2013 the Blue World Institute researchers were informed of 7 sea turtles, 4 of them were alive and 3 were dead, all were reported via the approved stranding procedure according to the State Institute for Nature Protection.

Researchers from Blue Word Institute received information on 8th of April about a loggerhead sea turtle (*Caretta caretta*) 39 cm long, floating in the harbor of Mali Lošinj. After reaching the turtle, researchers did not notice any externals injuries, to be sure that nothing was seriously wrong with the animal it was transferred to Aquarium Pula. They later confirmed that animal was not injured but only underweight.

On 18th of July information about another loggerhead sea turtle (*Caretta caretta*) was reported. The animal had problems with diving. Blue World Institute researchers found it on the northwest side of the island of Susak, it was 31 cm long. Following examination by the local veterinarian, the turtle was kept for a 3 day observation period in the Sea Turtle Rescue Center, located in Mali Lošinj. After that period it was released back to the sea.

Local fisherman reported to the Blue World Institute accidental catch of two live loggerhead sea turtles (*Caretta Caretta*) on 15th of December, 6 NM from the western side of the island of Susak. One had a 38 cm carapace and the other 100 cm long carapace. After short recovery on the boat the turtles were released back into the sea.

During 2013, Blue World Institute researchers received 3 reports of dead loggerhead sea turtles (*Caretta caretta*). First one was found on 29th of December on cape Bocca Falsa in Mali Lošinj, it was 66 cm long. Other two were found on 30th of December. One was 82 cm long and was found in bay of Rovenska in Veli Lošinj, while the other was found on the beach Artatore in Mali Lošinj and it was 58 cm long. Blue World Institute reported all these information to local veterinarian.
Other activities

As a part of EU IPA Adriatic project “Network for the Conservation of Cetaceans and Sea Turtles in the Adriatic (NETCET)” Blue World institute organized in March a Workshop on Cetaceans and Sea Turtle monitoring survey methods in Mali Lošinj. The participants were partners from Italy, Slovenia, Montenegro, Albania and Croatia. The main objective of the NETCET project is to develop common strategies for the conservation of cetaceans and sea turtles in the Adriatic through regional cooperation.

In 2013 Blue World Institute continued with its internship program. Five students from Austria, Netherlands, Canada, SAD and Germany joined Blue World Institute team. They were involved in field work and data analysis and by that gain experience in training basics and advanced research procedures used in Adriatic Dolphin Project.

Marko Radulović, a student from Heinrich Heine University in Düsseldorf in cooperation with Blue Word Institute made his bachelor thesis ‘Parasitic fauna of fish species belonging to the food spectrum of bottlenose dolphins (Tursiops truncatus) in the northern Adriatic’.

Analysing data collected from previous years within Adriatic Dolphin Project, Stefanie Wolf, a student from Western Illinois University, made her master thesis „Home range use and distribution of resident bottlenose dolphins (Tursiops truncatus) in the Cres-Lošinj Archipelago (Northeastern Adriatic Sea, Croatia)” under mentorship of dr.sc. Nikolina Rako Gospić and dr.sc. Peter Mackelworth.

Eco-volunteers

This year volunteering season started 30th of April and lasted until 13th of September. In total 17 eco-volunteers join the project. They were mostly from Europe (United Kingdom, Hungary, Austria, Germany, Belgium, Finland and Croatia) but few of them came from Canada, Singapore and even Australia. They were introduced to the Blue World Institute research and activities and trained to provide a help during sampling procedures on the boat and data analysis. Their presence was of great significance for research during the season.

International presentations

Advancing Conservation Planning in the Mediterranean Sea, 2nd international workshop, Nahsholim, Israel, 8-11 April 2013.


Oral presentation and workshop participation
International Workshop on Conservation Biology, Kopar, Slovenia, 14th of May 2013.


Oral presentation and workshop participation

3rd International Marine Protected Areas Congress (IMPAC3), Marseille, France, 21-27 October 2013.

Peter Mackelworth, Draško Holcer, 2013. A change in conservation perspective: surveying the Adriatic by air.

Oral presentation

Published papers

During 2013, 5 scientific papers were published in reputable scientific journals:


Media

Blue world Institute researchers hosted this year 5 TV crews: France–German = ARTE TV, Russian = MIR TV, Austrian = Peter Stromberger TV Produktion, German = Deutsche Welle and Croatian = HRT.
ADRIATIC DOLPHIN PROJECT – NORTH DALMATIA

Researchers:

Grgur Pleslić & Annika Batel

Research summary

In June 2013 Blue World Institute of Marine Research and Conservation started a new research project on bottlenose dolphins in the waters of Šibensko-kninska and Zadarska counties, north Dalmatia, Croatia. The overall objective of the new research project is to collect, analyse, interpret and present data on biology and ecology of the bottlenose dolphins in the previously unsurveyed area.

Due to the size of the study area and to increase mobility of the research team, a 13m wooden boat was used for accommodation and support, while area survey were conducted from a 5.2 m rigid-hull inflatable boat powered with a 55HP 4-stroke engine. Area surveys in search for dolphins were conducted using opportunistic tracks. Additionally, fish farms (6) in the area were inspected for presence of dolphins. During dolphin encounters, standard photo-ID procedure was applied together with collecting environmental and navigation data and data on inter-breathing intervals.

From 6th June to 29th September total of 64 area survey were made. The researchers spent total of 230 hours at sea, 147 hours searching for dolphins and 42 hours with dolphins. Total distance travelled was 2513 NM, while distance in search was 1947 NM (Figure 1).

A total of 73 sightings of bottlenose dolphins were recorded. Of these, 65 sightings were result of research effort. The average group size (based on the best field estimate) was 5.35 with group size ranging between 1 and 16. The detailed analysis of the collected data is currently in progress.

Other

The project includes educational component. One public lecture was held in Sali (Dugi otok), with around 30 attendees. Several more will be held in Zadar and Šibenik and a specialized workshop for NP Kornati employees is scheduled in October.

During the 2013 season 9 volunteers took part in the ADP ND.
Figure 1 – Research effort

Figure 2 – Sighting locations
This project is financed by the National Foundation for Civil Society Development