

Akvamarin

Annual newsletter of the Blue World Institute for Marine Research and Conservation

Dolphin rescue



Dolphin rescue is an unusually hard and extremely complex procedure. Unfortunately it is rarely successful. Any attempt to rescue a whale or dolphin should be only carried out by expert personnel specially trained in this procedure. At present there are very few countries in Europe that have biologists and veterinarians trained and experienced in this procedure. Unfortunately there are no such trained people in Croatia.

Dolphins do not stray into shallow places without some reason. However it is difficult to know what that reason is; in some cases it may be obvious that they are sick, wounded or distressed, in others the reason may be more complex. If the animal appears to be in good physical condition the best possible way of helping them is to let them find their way out alone. Direct help, even with the best intentions, usually has a negative effect on the animal. Chasing, netting or catching the animal causes great stress, which might facilitate a heart attack through shock, the development of a secondary disease through transference and/or end up with a final fatal stranding. In Croatia, animals that are sick or wounded cannot be properly rehabilitated; there is no facility to undertake long-term care. Proper rehabilitation requires considerable funds, expertise and great professional knowledge and specialisation; even then rehabilitation is rarely successful.

It should be said that in recent years there have been a number of occasions when solitary dolphins and even fin whales entered shallow bays of the Adriatic Sea (for example, Bakar, Karinsko More and Starigradski Bay) and stayed there for periods of time. Many of these animals left the bays alone, without human help. On each occasion Blue World was asked for advice, and that

advice remains the same in this instance: please leave the animals alone, not to catch them or try to get in contact with them, not to go into the sea and swim with them, the best human help to the animals is to leave them alone to find their own way out.

The animal should only be approached if it is actually stranded and has stopped swimming, even then it should only be handled by professionals that are qualified, experienced and authorised in whale and dolphin rescue. In this case the animal should be handled with care by people wearing gloves to reduce the chance of infection; the sensitive areas around the mouth, blowhole, eyes and genitals should be avoided. Extra caution should be applied if the animal needs to be lifted, transported and released, remembering that an adult

bottlenose dolphin can weigh up to 350kg which is normally supported by the water. The animal should be supported in a stretcher where possible and not left on any hard surfaces, this may damage the fragile bone structure of the ribs and the animal's internal organs. Untrained help therefore from concerned citizens, although understandable, should be avoided. Veterinary help should be applied only by those individuals that have been trained on an internationally recognised cetacean medical course. The serious issue related to the transmission of diseases in cetacean species and populations and to their handling has been discussed in detail at the 59th Annual Meeting of the Scientific Committee of the International Whaling Commission, which Croatia has recently joined.

Blue World is a professional scientific organisation regularly participating in workshops and meetings organised by European and world experts trained in cetacean veterinary medicine. The above recommendations follow the international standards of present knowledge on cetacean and dolphin rescue techniques. In the past, Blue World has proposed the creation of a national rescue centre for endangered and protected marine organisms, particularly marine turtles and cetaceans, and a national stranding network that would professionally monitor individual stranding events. However, the absence of institutional funding has prevented the state from developing either the rescue centre or the stranding network. The absence of secured funding also prevents Blue World from attending all the events that occur along the Croatian coast, from Savudrija to Cavtat as much as our crew feel the desire to become involved. We hope in the near future that, with support from our international colleagues and institutions, a series of specialised workshops for biologists and veterinarians in cetacean veterinary medicine can be held at a specially developed centre in Lošinj.



Dear friends,

I am happy to inform you that the UN declared 2007 the Year of the Dolphin, which means that more interest is dedicated to all institutes and organizations that are involved in researching and protecting dolphins. Blue world is Croatian organization participating in this 2007 UN action and we are especially happy to be involved in the project this year because we are also celebrating 20 years of Adriatic Dolphin Project. The Project started in 1987, and the first identified dolphin was, now well known, Faccia, who was first sighted on September 2nd 1987.

During the 20 years the Project has quite expanded. We are continuously sighting residential community of dolphins in the archipelago of Cres and Lošinj during winter and summer. Besides the basic research method of photo identification, we are also researching acoustics i.e. the noise pollution in this natural and well known dolphin habitat, as well as the effect of the sea traffic on dolphin behavior and distribution. Therefore, Blue world has hired three more researchers who will contribute to the Adriatic Dolphin Project not only through continuous work on the present programs but also through the creation of new scientific programs and the coordination of the voluntary activities.

We are certain that the establishment of the Lošinj Dolphin Reserve (the first marine dolphin reserve in the Mediterranean Sea) will improve the status of the Lošinj residential community of dolphins and promote the island of Lošinj as a symbol of natural conservation and protection.

As far as the Lošinj Marine Education Centre is concerned, we are particularly glad that during this year almost 70 school or kindergarten groups participated in our educational programs, most of which were subfinanced by the Croatian Ministry of Science, Education and Sports. We hope that this successful cooperation will continue during the next school year, as well. Besides school and kindergarten groups, approximately 3.000 individual visitors visited Lošinj Education Center.

Finally, we would like to thank all our associates, adopters and volunteers and to all of you who helped us with your good will and good deeds.



Yours sincerely,
Nkolina Rako



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Debby



Throughout the 2007 Debby was a very frequent visitor to our core study area. During July we met her especially regularly in the area between Rovenska harbour, Punta Križa and the islands of Orjule and Oruda. Her newborn female calf from 2006 is now a healthy and curious one year old who we named "Minke". Although we saw Debby and Minke regularly, we had not met her former calf Višnja since September 2007. After worrying about this throughout the summer we were relieved to see Višnja together with her mother and sister on the 2nd of September near the islands of Orjule.

Sonja



The first time we met Sonja together with her best buddy Abe, and the females Badfin, Siva and Jeff with their offspring near Veli Brak, a small lighthouse close to the island of Silba. Sonja often surfaced close to the smallest calf and stayed with it, until its mother Badfin came back from her foraging trips. The second time we saw Sonja was in close association with Višnja, Debby and Minke when all four dolphins were alternating between diving and resting behaviour.

Meta



Meta was among the most regularly sighted dolphins this year. We had 11 sightings of him. Meta was seen often close to the coast in our central study area, between the islands of Lošinj, Cres, Oruda and Orjule. His closest associates were Mush, Elmar, Saturn, Marin, Lily and grown calves such as Šlijva, Triton and Šime. Several times we encountered Meta and his friends engaged in strong socialising and surface feeding, usually oblivious to our research boat. We have fantastic photos of him as he is not camera shy.

Mush



Mush holds the record as the most sighted dolphin this year. Altogether we met him 14 times. Like his buddy Meta, Mush is very photogenic. This is especially due to his curiosity towards the boat. During a sighting we would usually only see him after a little while but then he would move in closer to take a peak at who was on the boat. Being the most dominant dolphin of this group he was also frequently marked with new wounds on his dorsal fin.

Phil



Phil was found two times this year. The first time in early April in a large group between the islands of Oruda and Orjule socialising with around 10 other dolphins. On the other occasion we located him in mid-September in the central part of our study area with a very large group of dolphins including many females and calves. As Phil is not a shy dolphin it was quite easy to approach him to take good quality photographs, although he never let his companion get between him and the boat.

Monk



Monk crossed our path three times this year. Twice we met him together with his best friends Phil and Blow, but in late August we also encountered him loosely associated with his female friend Celina and her juvenile offspring. They were seen foraging around the island of Greben in the very south of our research area. Unusually for two encounters, he did not stay at the periphery of the group but was indeed the centre of attention socialising with the younger sub-adults.

Faccia



This year we saw Faccia twice. Once we found her early in the season on the 28th of April. She was accompanied by Maks, Anna, and Maude together with her recent offspring. The encounter took place in our central study area behind the island of Orjule. All five dolphins appeared to be fishing in a shallow area. The second time we found Faccia in early June, at first she was all on her own. We stayed with her for about thirty minutes before Nataša and her calf, as well as Lovro and her calf together with Abe joined her. Faccia seems to be healthy and in good shape.

Grifo



We saw Grifo 5 times between April and September. Once we had an unusual encounter with only her and her three year old calf, behind Bik lighthouse. As is her habit she was shy around the boat, with her calf being a bit bolder and coming closer. The other times we met her with her usual friends Freccia Bianca, Taba, Draško, Kate, Brandy and Polly in bigger groups in the northern part of our study area around the island of Trstenik. In mid of September we encountered her and her offspring between Trstenik and Rab when Grifo was acrobatically socialising with other members of the group, resulting in high jumps of up to four animals simultaneously.

Baiji or Chinese River Dolphin



The Baiji, also called the Yangtze River Dolphin or Chinese River Dolphin (*Lipotes vexillifer*) is an unusual dolphin species that can be found only in the Yangtze River in China; which is why it has been given the nickname "the goddess of the Yangtze". Chinese authors wrote about the dolphins almost 2,000 years ago. Back then, the river was clean and a beautiful home to the dolphins which may have been numbered in the thousands. These dolphins are so well built for efficient living in fresh but murky river water that they have survived almost unchanged for 25 million years being considered as "living fossils". It has a rather long beak, or rostrum, with many sharp teeth. Their eyes are very small, and they have poor vision,

however this is no great handicap since their environment is a muddy river and visibility is generally poor. The dolphins rely on sending out echolocation clicks to navigate their surroundings and find their prey. They are usually uniformly grey in colour, with their underside slightly lighter. The dorsal fin is low and triangular, and their pectoral fins are very broad and rounded, similar to a boat paddle. Groups of up to 15 individuals could be seen years ago, but as they are hard to distinguish and follow, the actual behaviours of groups were very hard to determine and nothing is known about their social structures.

The Yangtze River area is one of the world's most populated places on the planet, with 12% of the world's population living along its banks. The river has become polluted, over-fished and overrun with boats, with many stretches of the river inaccessible to the dolphins due to damming of the waters. Economic boom and a burgeoning population have been putting increasing and unsustainable pressure on the baiji and on the Yangtze itself for a number of years.

The dolphins population had plummeted from about 400 in the late 1980s to less than 100 by the mid-1990s and the search in 1997, yielded only 13 sightings. In spite of efforts to save the baiji from becoming extinct and legal protection since 1949, it seems that human impacts have brought the baiji to the edge of extinction after 25 million years of successfully living in the region. The IUCN (The World Conservation Union) has placed the baiji on the Red List as Critically Endangered (Possibly Extinct). Last year,

an expedition to document the last remaining Chinese river dolphins returned after a six week survey which covered the entire known range of the baiji. A team of 30 international scientists using both visual and acoustic monitoring techniques made a full sweep of the area but failed to record even one sighting, leading the scientists to conclude that the baiji was extinct, even though more evidence is needed for an official declaration of this status.

Just when world was mourning the extinction of the first cetacean species caused by human activity, the great news spread. A local businessman in Tongling City in east China's Anhui Province filmed "a big white animal" with his digital camera. The footage was later confirmed to be a baiji dolphin - the first one sighted since a scientific expedition last year. The reported sighting of a Yangtze River dolphin means there is a chance for people to take further action and to protect this endemic cetacean of the Yangtze from extinction. Scientists claim that this may be the last hope for the baiji if it is not to disappear altogether and that the only possible method to bring this species back from the brink of extinction is a very intensive conservation effort.

It is very sad that the world could suffer the loss of an incredible species before we have even had a chance to get to know it. But it is good to know that we may have one more chance to protect the "goddess of Yangtze".

Seasonal report 2007

Another successful research season is now behind us. Our goal for the year was to achieve 100 trips out on the sea in search of dolphins. We are excited that already in mid of October we hit that magic number so we will end up this year with more than 100 trips altogether. And, we are more than happy to announce that we spotted dolphins almost every time we went out on the sea.

The years record trip occurred at the end of August when we saw 5 different dolphin groups just in the front of island Orjule, counting 32 animals in total. That was an amazing day for all of us especially because that meant the dolphins were coming back close to the shores of Lošinj. Dolphins move away from the busy coastal areas during the tourist season because of the noise and presence of boats and tend to come back when the number of boats drops down at the end of summer season.

The most regular dolphins seen this year were Mush, Marin, Triton, Duje, and Meta, they almost always stick together within the same group, and our famous "Grandad" Belugo who prefers to spend his time alone. Also, we saw females Natasa, Maude and Debby with their calves many times. But without any concurrency our favourite dolphin of the year is Minki, Debby's little female calf. She is famed for being the most playful and curious calf we have ever seen. Often, she would approach our research boat, swimming very closely to the sides of it, while looking at us and whistling like she was talking to us. Her play could continue for up to 30 minutes while her mother would dive to catch the fish. We have come to believe that her mother is happy to leave her baby



with us during her deep dives while we play the role of Minki's babysitters. Unfortunately, not all of our work was to be happy. On 8th of July, near Veli Brak light house, we found a floating, dead bottlenose dolphin calf. The calf was a male approximately 10 months old. Even after a detailed inspection we could not find the cause of death. The only thing we can do now is to wait to see what the lab analysis of tissue samples will say and hope that such cases will not occur again.

The other sad news was that our most famous sea turtle Calypso was found dead in Venice harbour, Italy on 20th of May. It is suspected that he entangled himself in a fishing net. Calypso, the loggerhead turtle (*Carretta carretta*) was equipped with a satellite transmitter for live tracking and was released from Mali Lošinj beach in September last year. Swimming with the attached transmitter we always knew where he was and followed his route over the internet. Since many sea turtles have their lives ended by fishing nets, educating people on their conservation is crucial and is very much a part of why Blue World exists.

During the summer we were informed of sightings of marine mammal species not usually seen in the Adriatic. On 8th of June a single striped dolphin

(*Stenella coeruleoalba*) was spotted by a local spear fisherman near point Ustrine, Cres Island. The species does not naturally inhabit the Adriatic, but over the last few years there have been several sightings of single or pairs of animals in the Kvarneric. Additionally, two sightings of monk seal (*Monachus monachus*) have been reported to us. One occurred on 2nd of August in the channel between Bol (Island of Brač) and Vrboska (Island of Hvar) and the other near Lubenice Beach, Island of Cres, on 15th of August.

Throughout the summer we were accompanied by 21 volunteers from all over Europe. They received a valuable insight into the research of dolphins and had an excellent opportunity to learn more about their ecology, behaviour, status and their threats.

The busiest month for us was October, when we hosted the "ACCOBAMS training course on Cetacean Research and Conservation" aimed at Non-Governmental Organisations (NGOs) from the eastern Adriatic region. Biologists keen to begin dolphin research in their own countries (Croatia, Slovenia, Bosnia and Herzegovina, Montenegro and Albania) participated in 7 days of training on all aspects of cetacean research. The aim of this training was to create a network of NGOs that will collect data on the diverse cetacean populations that occur in the Adriatic Sea.

And finally, what is new for the Lošinj Dolphin Reserve? Since this is the first year after the designation of the reserve, preventive protection is still in force. It is now time for the negotiations to take place between all of the stakeholders and time to start making regulations that will regulate the reserve. Right now, we are waiting for relevant authorities to initiate workshops and meetings in order to draw closer to optimal solutions for all the interested parties.

15th Dolphin Day

The 15th Dolphin Day, traditionally organised by the Blue World Institute of Marine Research and Conservation was held on August 4th 2007. Dolphin Day originally started to make the results of the Adriatic Dolphin Project research publicly known and is now an extremely popular event which takes place every first Saturday of August in Veli Lošinj.

The whole town was overcome with joy and the crowd in the Lošinj Marine Education Centre was constant from the opening hours until late into the evening. Most of the activities were aimed at the children so they were able to especially enjoy themselves.

The 15th Dolphin day started as usual, early in the morning, by putting up an exhibition of children's drawings in the harbour of Veli Lošinj. Drawings of the sea and dolphins had been sent to the Blue World Institute throughout the entire year by children from all around Europe. Competition was strong and a skilled jury faced a hard decision when they had to choose the best of this year's 497 drawings. The winner was twelve year old Agata Lučić from Delnice, Croatia.

But the children's artistic expressions didn't end there. During the afternoon a group of children spent hours painting a road circuit placed at the entrance of the town under the guidance of Lošinj's professional artists. After viewing the children's hard work one could say that a once



dull-looking parking lot now resembles a real marine reef.

At the same time the street in front of the Educational Centre became an artistic studio where children and their parents, were exploring their imagination and putting it on paper by aquarelle, or giving it shape in clay, balloons, patchwork or chalk drawings on the street.

To celebrate the 15th Dolphin Day an exhibition of underwater photos of the Croatian sea, taken by Hrvoje Čizmek, was put up in the Lošinj Marine Education Centre and were on display until the end of August.

The most exciting part of the day was "The Treasure hunt". Seven eight-member groups searched eight posts, all marked on a map of Veli Lošinj. Each post was a new educational and fun challenge which, if performed right, earned a certain number of points for each group. The first three crews were given nice prizes.

During the evening we were amazed by the Brazilian martial dance capoeira. The act "Capoeira Amazonas and Wind Circus", performed by Capoeira Amazonas and Wind Circus, performed by Capoeira Regional, a group of dancers from Zagreb, was accompanied by sounds of Aboriginal didgeridoo played by Dubravko Lapain.

Using planetary gongs, crystal Tibetan bowls and her voice, sound therapist from Slovenia, Mojca Morya Malek made a special atmosphere and took as all on a voyage of sounds.

At the end, it is important to point out that after this year's Dolphin day the happiest people were its organisers because there is no greater award than the blissful faces of our visitors.

We invite you all to join us next year.

Sponsors

We would once again like to thank our sponsors and donators for their support through 2007. Our sponsors and donators in 2007. were: P.Z. Auto, City of Mali Lošinj, State Institute for Nature Protection, Mali Lošinj Tourist Office, Jadranka Hotels, WDCCS, ACCOBAMS. We would also like to thank all our volunteers and dolphin adopters and our partners from Croatian Natural History Museum.

Impressum

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Blue World Institute of Marine Research and Conservation 2007.

New Project

In 2007 Blue World started a new project for the conservation of biodiversity in cooperation with "Sunce" an environmental organisation from Split. The name of this project is "Strengthening the civil society sector for marine protection in Croatia". The main goal is to motivate and involve as many people as possible in the active protection of the sea and the underwater environment through lectures, field work, workshops, exhibitions and other activities. Another impor-

tant goal is the creation of a catalogue of marine species and their habitations in the Adriatic Sea. The catalogue will enable extremely valuable or endangered areas to be recognised, forming a baseline for quality management of these types of areas. The project is financed by the EU through the CARDS programme.



Strengthening the civil society sector
for marine protection in Croatia



Christmas special - give the gift of adopting a dolphin!

Holidays are coming. Shops are getting full of gifts; people start to think of the time they will spend with their friends and families. Christmas is a giving time but it is not always easy to find a suitable gift. We advise you to make this Christmas special by doing something original!

Give the gift of adopting a dolphin or of something new that you can find in our Internet shop. Check on www.blue-world.org/shop. Your donation and / or purchasing worth double -v your gift will be original and at the same time you will do something good for the environment and endangered bottlenose dolphins.

Your adoption or chosen gift will be sent to the address you provide.

But hurry up and do it on time!

After 20 years... new field base

This year was extraordinary for the Blue World. Three new researchers, 15th Dolphin Day, 20th anniversary of Adriatic Dolphin Project. Fantastic numbers for us! But there's more to be excited and satisfied about. In 2007, a new research field base was established on the island of Vis.

The idea of expanding the research in southern Adriatic has been around for a long time. But there was always something missing - first of all, we lacked on funds for acquiring new equipment but also on researchers who would start the fieldwork. Still, the idea and desire did not faint and somehow this year it all came together. Firstly, an extraordinary donation. Without much persuasion, PZ Auto, a car dealer company from Velika Gorica (www.pzauto.hr) decided to support our idea through donating funds for new research boat and equipment. To seal the good deal PZ Auto also equipped our team with two brand new cars - VW Sharan and VW Touran. After driving our 15 years old "dolphinvehicle", we were thrilled with these new vehicles. Therefore, allow us to thank you once more for your support. This donation allowed for putting in motion the whole new project of establishing new research field base. Besides PZ Auto, a great help was offered by company Fred Bobek d.o.o. which is main dealer for Honda Marine in Croatia and which assisted us in acquiring new research boat Lomac Club 580, equipped with the latest Honda 90 VTEC engine. Every experienced mariner knows that reliable engine and maintenance are the essence of safety on the sea which, for the southern Adriatic, our little "ocean", is what we need.

So, after acquiring new boat and dealing with all the documents required, the day has come. The decision was made - in June 2007. We are heading for Vis. First staying will last 10 days. The crew was small but decisive. Annika Wiemann, head researcher of the project on Lošinj, Peter Mackelworth, conservation director and me, Draško Holcer, president of the Blue World and a person in love with the Vis island. Time is not what we have plenty of, we need to get on the island and start the preparations for the research. Driving around the island, checking places suitable for putting the boat in the sea, looking for the safe harbor, meeting people, registering at harbor authorities... Finally, situated in Rukavac Bay with a beautiful view on Pelješac peninsula and Korčula, Lastovo and Sušac islands. It's good as it can be. Finally, on 16th of June 2007. All is set for our first field survey in Vis archipelago. We are heading for Biševo Island. Acquainting with our new boat and engine. So different than our old research boat, engine much quieter, boat much lighter, almost flying - so much better. But, the most important for us - for gliding at our pre-set cruising speed required in dolphin research it only takes half the throttle meaning much less gas consumption. Circling the island, discovering the surroundings, rocks, shallows, bays, it's been several hours already. No dolphins in sight. Turning to Komiža and northern side of the island. Suddenly, I find myself excited, yelling: "Dolphins! Over there!" Finally, smiles on our faces. Yes! There are dolphins in Vis archipelago. Pete is taking the position, changing the course and the speed. Annika, with a move of a real professional, is reaching for, these days almost forgotten old slide camera. She's the only one who remembers how that camera works. Since we could not buy new digital camera before coming to island we

had to use slide camera, but we didn't care - there's a special kind of joy in it. Several female dolphins with their calves and the sun is setting. The perfect end of the first day. After returning to harbor we concluded we had a good reason for surprising ourselves with a good dinner. So, we are going to town of Vis. It's fantastic. The harbor is crowded with sailing boats and the town offers lots of small picturesque taverns and bars. Sitting, relaxing, talking, feeling the joy. Something in the air tells us that our new project will be a success.

During the next two days we are going out on the sea, regularly seeing dolphins. But on 20th of June Pete decides to return back to Lošinj and Vis crew remains only with two members, me and Annika. Although Pete wasn't very eager to leave, his commitments made him take the ferry that left Vis at 7 am. We drop Pete at the ferry and go out on the sea. In the vicinity of Biševo Island we encounter a group of dolphins. Sea, as flat as it can be. We take pictures and move on towards Vis. Suddenly, Annika yells: „Dolphins! There!“ and points with her finger in the direction of St. Andrija island. I turn our boat and speed up towards the imaginary spot. Nothing! Annika, a little bit insecure in her observation says „It was quite far away...I thought I saw a jump. But it could have been tuna“. I drive on eager to see dolphins. Annika starts looking in the other direction. At that precise moment I notice something really big sliding the sea surface. I can't believe my eyes so I am not making any loud statements but modestly comment "Annika, I think it is something much bigger than a dolphin" and laugh. Annika turns around and screams „Oh my God! It's a fin whale!“

Yes my dear friends, we saw a real fin whale! Not to make any confusion, its Latin name is *Balaenoptera physalus* and in Croatian it is called "Veliki kit". This calf was 10 - 12 meters long. We call Pete and excitedly say: "Pete, you should have stayed! A whale!". Pete, full of doubt, frustratingly accuses us "You layers". We laugh. Pete is about to hung up on us, mad that he had to leave and that we are teasing him about it. Still doesn't believe us. „No, really Pete, we are not

teasing you, we really saw a whale. It was swimming and feeding next to our boat". A whale was obviously in the middle of a feast. Passing below our boat, next to our boat, opens his massive mouth and leaps...It's hilarious! And we only have a slide camera with us! But who cares, we have a fin whale here!

It's noon. It feels like 1000 in the sun. After two hours we decide to leave the whale and move on towards Vis. Excited and satisfied! Now, we are even more convinced how southern Adriatic has a lot more to reveal to us.

According to the information that we got from our conversations with fisherman and our friends from Vis, we can surely look forward to encounter also some other species of dolphins. Pictures of striped dolphins with newborns have been shown to us which is not very surprising as it is not as rare to encounter this species in the Adriatic as it was in the previous years. Moreover, despite the fact that common dolphins are considered regionally extinct, we still believe that it is possible to encounter them in deep, off shore waters of the southern Adriatic together with fin whales. After our whale sighting few other encounters of fin whale have been reported to us. All these species as some other autochthon species of Mediterranean can be seen in the southern Adriatic.

We continued our research in July and August and results were more than satisfying. In total we made 14 trips out on the sea and had 19 sighting of the bottlenose dolphins and one sighting of a fin whale. The average number of dolphins within the groups was between 2 and 20 individuals. Thus, our catalogue counts more than 100 dolphins. In all those trips we covered more than 950 km while our longest trip was to Jabuka island, a small island in the middle of the Adriatic. We have already started planning next season and visits to the island of Palagruža and Lastovo. We are waiting next season with excitement and we believe that our work will contribute in making a complete picture on status and distribution of dolphins in Adriatic.

Sincerely your, Drasko Holcer.



We need your help!

Blue World partially finances its work from public donations. We thank you for your support in these past 20 years of our existence as you are the most secure source for needed funds. You can help financially support our project through our web shop www.blue-world.org/shop or you can make a direct donation into our account: Zagrebačka banka, Zagreb Swift: ZABA HR 2X, acc. number 2500-1492322, IBAN HR 0923600001101307847

Your donations provide everything needed for our work towards protection of dolphins and the sea, education programs for children and tourists, and continuation of our research.

We thank you sincerely and wish you a Merry Christmas and Happy New Year 2008.

Scientific progress

This year Blue World has a new Doctor of Philosophy and one Master of Science. After successful defense of Ph.D. thesis of Caterina Maria Fortuna, Blue World scientific director, thesis titled "Ecology and conservation of bottlenose dolphins (*Tursiops truncatus*) in the north-eastern Adriatic sea" at the end of the last year at University of St. Andrews in Scotland, our colleague, Peter Mackelworth defended his Ph.D. thesis this year at University College of London. The title of was "Convergence of Marine Protected Area Policy with Common Pool Research Theory, a case study: The Lošinj Dolphin Reserve, Croatia". The thesis analyses the development of negotiations for the management of the Lošinj Dolphin Reserve in Croatia. An actor orientated approach was taken to provide empirical material that could contribute to the convergence of two academic debates, common pool resource management and marine protected area policy.

In addition, our colleague Maja Nimak success-

fully finished her research on boat traffic influence upon bottlenose dolphin behaviour. She graduated with distinction from University of Wales in the UK with the title of her master thesis "Behavioural responses of bottlenose dolphins *Tursiops truncatus* to boat traffic in the Kvarnerić, north-eastern Adriatic Sea".

We congratulate them on their success!



Kids corner

Fill in the gaps with the names of the marine organisms on the pictures to find out the final solution - a marine animal.

														
														
														
														
														
														
														
														