



At home with the dolphins

Giovanni Bearzi

Being adrift on an inflatable boat, not too far from the coast, and surrounded by dolphins, is one of the places I would call *home*. When the animals, the sea, the boat, and myself are framed in a single painting, then there seems to be nowhere else to go, and everything feels just fine. To me, this is one of the joys of being a cetacean researcher.

If I were an artist, I would maybe record dolphin sounds and, late at night, improvise on the whistle scales with my jazz guitar. I would portray them in the splashing water as they leap or write dolphin haikus on a waterproof paper. But I happened to become a marine biologist, and as a scientist, I choose to interact with these animals at a different level, through some sort of filter that prevents thoughts from ranging dangerously wide.

When I began, I knew little about dolphins. I started working with these animals because I thought that they were special and smart. And indeed they are. But I don't see them as big-brained geniuses or enlightened philosophers. I certainly don't see them as beings that stand apart from the rest of the living world. Instead I look at them as inseparable parts of a complex net of interrelated beings, and the more I know about them, the more I appreciate the marine environment as a whole. I count dolphins among the many, multifaceted life forms that have emerged from a multi-million-year evolutionary process. They are incredibly well adapted creatures, living expressions of whatever beautiful and precious lies in the oceans.

By working with the dolphins, I started to care about them. And when you start caring about animals and see how each one is important and fragile, when you realize how every living being is interconnected with all other living beings, then you start caring about *all* animals. Dolphins, but also fish, squid, bird, turtle, krill. And then slug, elephant,

mouse, miriapod, snake, frog, spider. Dolphins are very good at teaching this lesson of interconnectedness, because they are top predators that depend so much on all the other marine organisms. Take away the krill, contaminate the plankton, reduce fish stocks through intensive trawling, catch the sharks, and dolphins will be affected.

When I observe dolphins in the eastern Ionian Sea or in the northern Adriatic Sea, where we have been recording behavior for some 2,000 hours over the last decade, I can see the effects that human behavior has had on them. Bottlenose dolphins are spending too much of their time looking for food. My colleagues take photographs of all the dolphins encountered, and they find out that a great deal of them are underfed, while remotely-collected skin and blubber samples talk of heavy contaminant loads in their bodies. These are not the only discouraging findings. If one goes through the literature and checks the historical data for the central Mediterranean Sea, it is startling how many things have changed in just a half-century. Dolphins' food prey has been dramatically reduced and marine food webs are heavily contaminated by PCBs and other man-made xenobiotics. Bottlenose dolphins are declining, and the short-beaked common dolphin is no longer "common". It is a sad legacy.

In response to this, my colleagues at the Tethys Research Institute⁽ⁱ⁾ and I have provided scientific data to be used for proper resource management, and we have striven to improve public awareness of the problems faced by Mediterranean whales and dolphins, with the goal of preventing these animals from disappearing. When I myself started to work on dolphins, to tell the truth, I did not aim at "saving" them. What I really wanted to do was getting a little closer to them, being fascinated by their apparent beauty and perfection. But the more I have learned about dolphins, the more I have been impressed by the human-related problems they must face. Perhaps because of this conflict I didn't think that close interactions with humans could benefit wild dolphins.

But interactions do occur. We may be doing photo-identification⁽ⁱⁱ⁾ and the dolphins may feel like riding our bow wave. They position themselves in front of our boat and wait for it to speed up. But we don't want to affect their natural behavior, and of course having dolphins bowriding does not enable to take good photographs of their dorsal fins. So the dolphins wait impatiently, gazing at us with their soulful eyes. Eventually I switch from idle to forward at very low speed, and the dolphins look like they are enjoying themselves, even if the bow wave we create is very small. The dolphins take pleasure in it anyway; for them, even the simplest events may become a great attraction. A fisherman's boat passes near us, and the dolphins rush to surf "waves" that are only a few inches high.

Dolphins are naturally playful creatures, but mostly they are too busy to have fun. Often we observe them searching for prey and performing long dives and ventilation cycles. In these situations, they do not feel like interacting at all, and it is clear that they don't even want us to approach too closely. This makes photo-identification difficult, but we respect the dolphin's behavior. We try to take photographs from a distance and follow them until a change of "mood" occurs. Occasionally we may stay with them for several hours, until the sun goes down. By spending so much time with the dolphins, we have a chance to register their many activities, from serious food-gathering to enthusiastic play.

We can learn more about dolphin psychology by watching "lone sociables," individuals that choose to live in close proximity to humans. One such dolphin is Filippo, an adult male bottlenose dolphin that in 1998 settled in the port of Manfredonia, in southern Italy. My student Giovanna Barbieri, who moved to Manfredonia to study Filippo for her biology thesis, reported: "He spends most of his time floating besides the same moored boat, at times for up to six consecutive hours, then he 'wakes up' and goes playing with boats that are leaving the port. He follows them and, no matter how fast the boat goes, he swims with his rostrum a few inches far from the propeller. Sometimes he masturbates with the rubber parts of an inflatable (he is a very libidinous dolphin), or allows the people on board to

pet him. After making a few longer dives to catch food, he returns to the port to rest besides his favorite moored boat.”

When people come to visit Filippo, they don't believe that what they are seeing is really a dolphin. Giovanna points her finger at some brownish buoy – the dolphin's melon and foresection - that floats kind of motionless near the Harbor Master's boat, in a polluted port where no sentient being would even dare to swim. “That's Filippo!” she declares.

Filippo begun to interact with humans, and particularly with professional diver Pasquale Sdanga, in 1997. At that time he was kind of shy and wary of humans. But since the first physical contact was made - a gentle touch by the divers' hand - his behavior toward humans has changed dramatically. Although he maintained a special relationship with Mr. Sdanga, he became increasingly rough and even aggressive with bathers. Filippo clearly likes to interact with people but always claims a dominant role in the interaction. He enjoys games that can upset even the most skilled and patient swimmer; Filippo is a powerful animal that can easily overwhelm his human playmates. If a swimmer doesn't cooperate satisfactorily, Filippo may get nervous and become even more demanding, at times kicking with his rostrum or even biting. Although his behavior may be fair whenever he is in a “good” mood, he is rather unpredictable and our suggestion to managers and authorities has always been to prevent people from swimming with him. A number of minor incidents have occurred, wounding both swimmers and dolphin: Filippo is still a wild animal, not a pet.

People have so many expectations and beliefs about dolphins, that it may be hard to see them as wild animals and treat them accordingly. Popular television and oceanarium shows have taught us that these are ever-playful animals, always happy to interact with humans. This has affected our capacity to relate with them, sometimes with dramatic results. On August 28, 2000, the local press reported news of a dolphin group enjoying a “summer party” in the coastal waters off the island of Ischia - a beautiful and famed tourist destination west of the Italian peninsula. My friends and colleagues Barbara Mussi and Angelo Miragliuolo, however, recall a less than idyllic scenario.

Barbara and Angelo, who started a long-term study on the rich cetacean fauna of the archipelago in 1991, had a chance to participate in this dolphin “party.” “Everything started when a group of approximately twenty Risso's dolphins⁽ⁱⁱⁱ⁾ was sighted by pleasure fishermen one mile offshore” Barbara recalled. “Some of the many pleasure boats that crowd the area in the summer months started to approach the dolphins. The number of boats kept increasing, and by midday the Harbor Master's officers called Angelo and me to get expert advice on how to prevent harm to the animals.”

By means of the Harbor Master's inflatable the group was located around 1 PM. By the time the authorities arrived, the dolphins had been surrounded by some 100 speedboats, all with their engines turned on. Nearby, another 400 boats were anchored. To the observer's astonishment, dozens of boats were “playing” with the animals by heading toward them at high speed every time they surfaced, changing route suddenly in order to take pictures and attempting to get closer and closer to the terrified dolphins. The animals were herded ever closer to the resort harbor, ending up in water that was only ten feet deep. Barbara reported that all the dolphins were showing clear signs of distress and seemed unable to orient themselves. They swam erratically at high speed, at times colliding with one another. Of at least three calves observed in the group, one was seen spinning and swimming in circles apart from the others. Angelo tried to prevent a mass stranding by placing the boat between the animals and the beach, but the dolphins responded by splitting into two tight subgroups, one of which included the calves.

In the meantime, none of the pleasure boaters appeared to realize what was going on: they were simply excited to see the animals at close quarters. Through a two-hour effort, the researchers and officers finally managed to create

an area clear of pleasure boats. As soon as the "opening" was wide enough, the animals formed a single tight group and slowly started heading offshore. The Risso's dolphins' "summer party" eventually came to an end as the animals moved into safer waters, "escorted" at distance by their exhausted rescuers.

Occurrences of this kind of human-dolphin interaction are becoming routine worldwide. Many seafarers still have to learn how to relate to cetaceans. Not far from Ischia, for instance, the waters of the International Ligurian Sea Cetacean Sanctuary^(iv) are being increasingly impacted by heavy boat traffic that can negatively affect cetacean populations by posing threats including ship collisions, high ambient noise and disturbance from unregulated whale watching activities.

Quietly watching cetaceans in the wild while they busy themselves with their daily activities offers an unforgettable experience, as well as a chance to learn. The basic lesson that I think I have learned by spending time with dolphins in their natural environment is that they are an integral part of it. I don't like watching dolphins in a tiled pool. Dolphins in captivity are often supposed to have an educational function. But seeing a dolphin in a pool gives little idea of the connection between the animal - or any organism - and its natural habitat, not to mention the right of an animal to live in its own natural setting. The bond that ties an animal to its environment is not something that should be overlooked, and a dolphin out of the sea and out of its complex, fluid society can hardly represent its species. The key to environmental education lies in teaching people how to understand and protect ecosystems, rather than single animals. What kind of dolphin is a dolphin set apart from the sea?

By working at sea, one learns that the animals there are part of a beautiful, complex system. They do not always perform the "tricks" we like to watch. They may not even feel like being approached. A different way of relating to wildlife arises from days spent just waiting for the wind to stop, from hours of floating adrift, and from scanning countless miles of sea surface for dorsal fins. In the end, it doesn't matter if the dolphins leap or dive, if they come close or shy away. Because you know that they are there - that they are part of this sea - and you can see signs of their presence in schools of jumping fish, in the shearwater passing by, in the dancing jellyfish. It is still a place worth living in - the sea still feels like home.

ⁱ The Tethys Research Institute (www.tethys.org), founded in 1986, is a non-profit NGO dedicated to the preservation of the marine environment. It focuses on marine animals and particularly on cetaceans inhabiting the Mediterranean Sea and aims at protecting its biodiversity by promoting the adoption of a precautionary approach for the management of natural resources. It is based in Milan and Venice, Italy.

ⁱⁱ A technique that consists of photographing body portions carrying long-term natural marks suitable for individual identification. With dolphins, dorsal fin shape and marks on its trailing edge, such as nicks and notches, are often used to recognize individuals through the matching of photographs taken in the field.

ⁱⁱⁱ This dolphin species is relatively common in the Mediterranean Sea, particularly on steep continental slopes. It is seasonally present off Ischia, possibly attracted by increased prey availability around productive submarine canyons.

^{iv} Following a proposal made by the Tethys Research Institute in 1990, and a decade of intense lobbying coupled with public awareness and education, on November 25, 1999, Italy, France, and the Monaco Principality signed the final agreement for the creation. Aimed at preserving cetacean populations and promoting a sustainable use of marine resources, the approximately 260,000 squared miles Sanctuary is the largest protected area in the Mediterranean Sea.