

International Dolphin Watch (IDW)

Has an unblemished reputation as a non-profit organisation dedicated to helping dolphins since it was founded by Dr Horace Dobbs in 1978.



www.idw.org

The Magazine for whale and Dolphin Lovers

DOLPHIN

November 2011



RESEARCH - EDUCATION - HEALING

We Are Not Alone

Ground-breaking research

The Discovery of Dolphin Language

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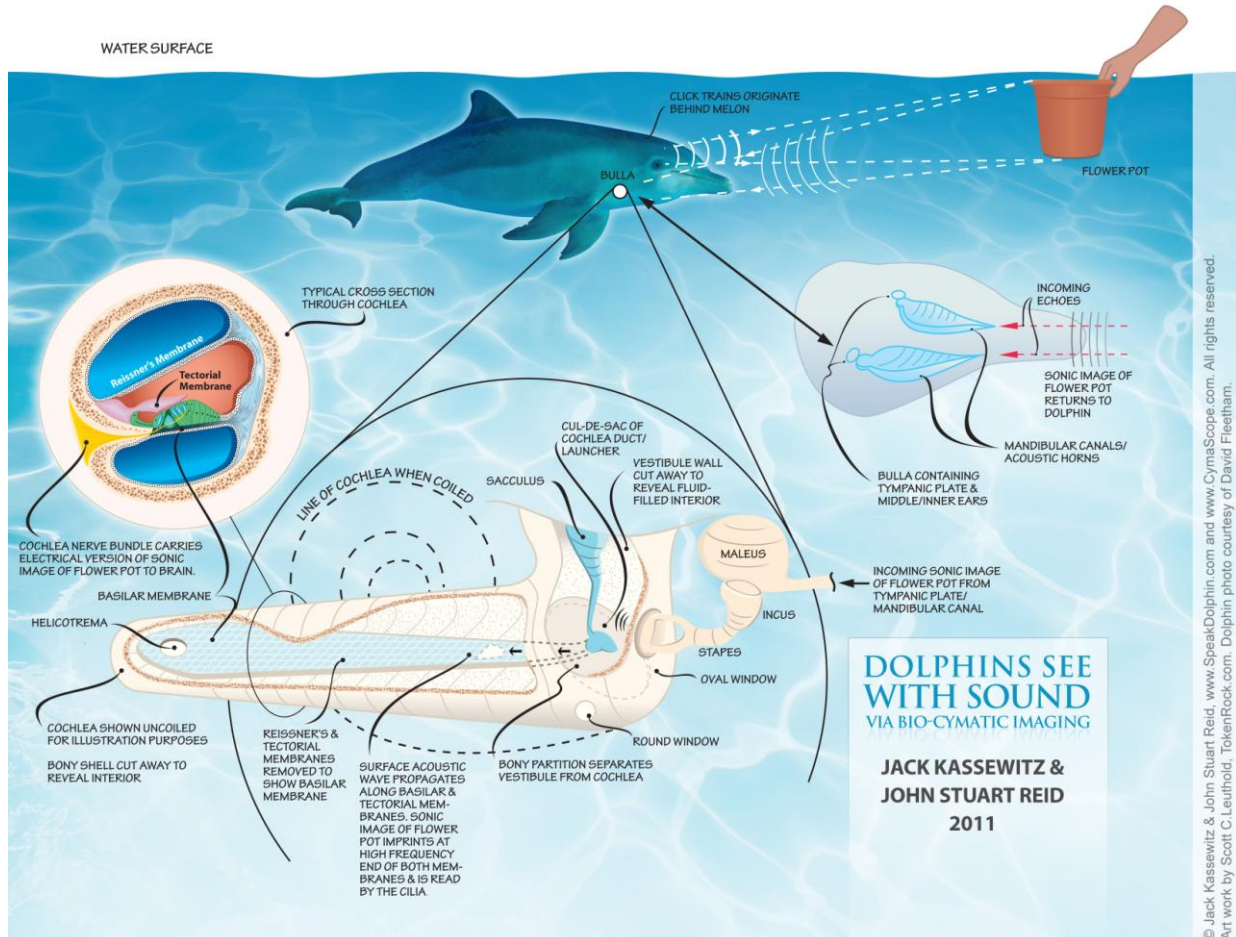
We Are Not Alone

The Discovery of Dolphin Language

Researchers in the United States and Great Britain have made a significant breakthrough in deciphering dolphin language in which a series of eight objects have been sonically identified by dolphins. Team leader, Jack Kassewitz of SpeakDolphin.com, ‘spoke’ to dolphins with the dolphin’s own sound picture words. Dolphins in two separate research centers understood the words, presenting convincing evidence that dolphins employ a universal “sono-pictorial” language of communication.

The team was able to teach the dolphins simple and complex sentences involving nouns and verbs, revealing that dolphins comprehend elements of human language, as well as having a complex visual language of their own. Kassewitz commented, “We are beginning to understand the visual aspects of their language, for example in the identification of eight dolphin visual sounds for nouns, recorded by hydrophone as the dolphins echolocated on a range of submersed plastic objects.”

The British member of the research team, John Stuart Reid, used a CymaScope instrument, a device that makes sound visible, to gain a better understanding of how dolphins see with sound. He imaged a series of the test objects as sono-pictorially created by one of the research dolphins.

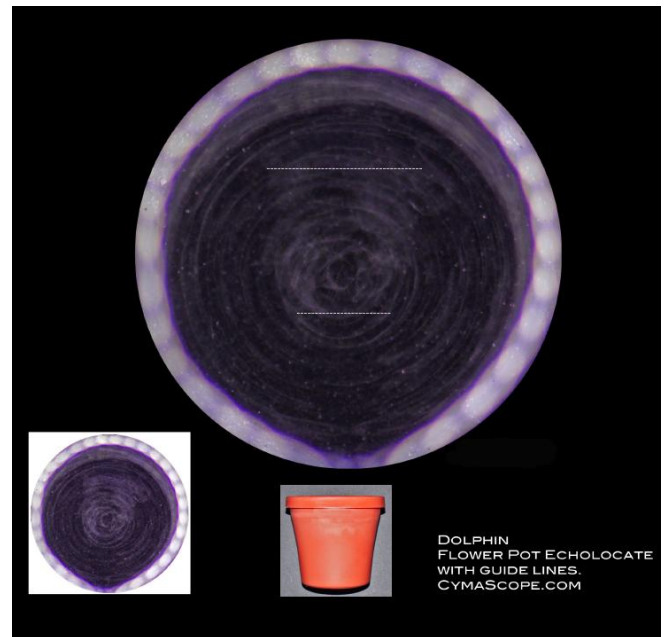


In his bid to “speak dolphin” Jack Kassewitz of SpeakDolphin.com, based in Miami, Florida, designed an experiment in which he recorded dolphin echolocation sounds as they reflected off a range of eight submersed objects, including a plastic cube, a toy duck and a flowerpot. He discovered that the reflected sounds actually contain sound pictures and when replayed to the dolphin in the form of a game, the dolphin was able to identify the objects with 86% accuracy, providing evidence that dolphins understand echolocation sounds as pictures. Kassewitz then drove to a different facility and replayed the sound pictures to a dolphin that had not previously experienced them. The second dolphin identified the objects with a similar high success rate, confirming that dolphins possess a sono-pictorial form of communication. It has been suspected by some researchers that dolphins employ a sono-visual sense to ‘photograph’ (in sound) a predator approaching their family pod, in order to beam the picture to other members of their pod, alerting them of danger. In this scenario it is assumed that the picture of the predator will be perceived in the mind’s eye of the other dolphins.

When Reid imaged the reflected echolocation sounds on the CymaScope it became possible for the first time to see the sono-pictorial images that the dolphin created. The resulting pictures resemble typical ultrasound images seen in hospitals. Reid explained: “When a dolphin scans an object with its high frequency sound beam, emitted in the form of short clicks, each click captures a still image, similar to a camera taking photographs. Each dolphin click is a pulse of pure sound that becomes modulated by the shape of the object. In other words, the pulse of reflected sound contains a semi-holographic representation of the object. A portion of the reflected sound is collected by the dolphin’s lower jaw, its mandible, where it travels through twin fat-filled ‘acoustic horns’ to the dolphin’s inner ears to create the sono-pictorial image.”

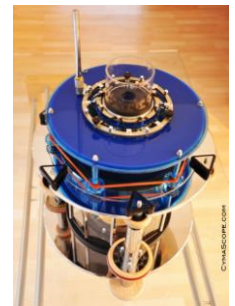
The precise mechanism concerning how the sonic image is ‘read’ by the cochleae is still unknown but the team’s present hypothesis is that each click-pulse causes the image to momentarily manifest on the basilar and tectorial membranes, thin sheets of tissue situated in the heart of each cochlea. Microscopic cilia connect with the tectorial membrane and ‘read’ the shape of the imprint, creating a composite electrical signal representing the object’s shape. This electrical signal travels to the brain via the cochlea nerve

and is interpreted as an image. (The example in the graphic shows a flowerpot.)



The team postulates that dolphins are able to perceive stereoscopically with their sound imaging sense. Since the dolphin emits long trains of click-pulses it is believed that it has persistence of sono-pictorial perception, analogous to video playback in which a series of still frames are viewed as moving images.

Reid said, “The CymaScope imaging technique substitutes a circular water membrane for the dolphin's tectorial, gel-like membrane and a camera for the dolphin's brain. We image the sono-picture as it imprints on the surface tension of water, a technique we call ‘bio-cymatic imaging,’ capturing the picture before it expands to the boundary. We think that something similar happens in the dolphin’s cochleae where the sonic image, contained in the reflected click-pulse, travels as a surface acoustic wave along the basilar and tectorial membranes and imprints in an area that relates to the carrier frequency of the click-pulse. With our bio-cymatic imaging technique we believe we see a similar image to that which the dolphin sees when it scans an object with sound. In the flowerpot image the hand of the person holding it can even be seen. The images are rather fuzzy at present but we hope to enhance the technique in future.”



Dr Horace Dobbs is Director of the International Dolphin Watch and a leading authority on dolphin-assisted therapy. “I find the dolphin

mechanism for sonic imaging proposed by Jack Kassewitz and John Stuart Reid plausible from a scientific standpoint. I have long maintained that dolphins have a sono-visual language so I am naturally gratified that this latest research has produced a rational explanation and experimental data to verify my conjectures. As early as 1994, in a book I wrote for children, *Dilo and the Call of the Deep*, I referred to Dilo's 'Magic Sound' as the method by which Dilo and his mother pass information between each other using sonic imaging, not just of external visual appearances, but also of internal structures and organs."

As a result of Reid's bio-cymatic imaging technique Kassewitz, in collaboration with research intern Christopher Brown, of the University of Central Florida, is beginning to develop a new model of dolphin language that they are calling Sono-Pictorial Exo-holographic Language, (SPEL). Kassewitz explained, "The 'exo-holographic' part of the acronym derives from the fact that the dolphin pictorial language is actually propagated all around the dolphin whenever one or more dolphins in the pod send or receive sono-pictures. John Stuart Reid has found that any small part of the dolphin's reflected echolocation beam contains all the data needed to recreate the image cymatically in the laboratory or, he postulates, in the dolphin's brain. Our new model of dolphin language is one in which dolphins can not only send and receive pictures of objects around them but can create entirely new sono-pictures simply by imagining what they want to communicate. It is perhaps challenging for us as humans to step outside our symbolic thought processes to truly appreciate the dolphin's world in which, we believe, pictorial rather than symbolic thoughts are king. Our personal biases, beliefs, ideologies, and memories penetrate and encompass all of our communication, including our description and understanding of something devoid of symbols, such as SPEL. Dolphins appear to have leap-frogged human symbolic language and instead have evolved a form of communication outside the human evolutionary path. In a sense we now have a "Rosetta Stone" that will allow us to tap into their world in a way we could not have even conceived just a year ago. The old adage, 'a picture speaks a thousand words' suddenly takes on a whole new meaning."

David M. Cole, founder of the The AquaThought Foundation, a research organization that studied human-dolphin interaction for more than a decade

said, "Kassewitz and Reid have contributed a novel model for dolphins' sonic perception, which almost certainly evolved out of the creature's need to perceive its underwater world when vision was inhibited. Several conventional linguistic approaches to understanding dolphin communication have dead-ended in the last 20 years so it is refreshing to see this new and highly-nuanced paradigm being explored."

The human capacity for language involves the acquisition and use of a complex system of vocal sounds to which we attribute specific meanings. Language, the relationship between sounds and meanings, evolved differently for each tribe of humans and for each nation. It is generally believed that the human language faculty is fundamentally different from that of other species and of a much higher complexity. The development of vocal language is believed to have coincided with an increase in brain volume. Many researchers have wondered why dolphins have brains comparable in size with those of humans, considering that Nature creates organs according to need. The Kassewitz team's findings suggest the large dolphin brain is necessary for the acquisition and utilization of a sono-pictorial language that requires significant brain mass.

Dolphins enjoy constant auditory and visual stimulation throughout their lives, a fact that may contribute to their hemispheric brain coordination. The dolphin's auditory neocortical fields extend far into the midbrain, influencing the motor areas in such a way as to allow the smooth regulation of sound-induced motor activity as well as sophisticated phonation needed for production of signature whistles and sono-pictures. These advantages are powered not only by a brain that is comparable in size to that of a human but also by a brain stem transmission time that is considerably faster than the human brain.

Kassewitz said, "Our research has provided an answer to an age-old question highlighted by Dr Jill Tarter of the SETI Institute, 'Are we alone?' We can now unequivocally answer, 'no.' SETI's search for non-human intelligence in outer space has been found right here on earth in the graceful form of dolphins."

Full results of this research are available on request from Jack Kassewitz.

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305-807-5812 - Miami, Florida

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DOLPHIN SONAR

An evolutionary step ahead of Human Speech?

Research scientist **Dr Horace Dobbs** suggests it is.

We have long known that dolphins generate ultrasonic signals to investigate their physical surroundings and the creatures they encounter under the sea. I have often seen Spotted Dolphins (*Stenella attenuata*) in the Bahamas searching for small flatfish under the sand. When they find what they are looking for they drill into the seabed with their beaks and grab their prey when it breaks cover. You can immediately tell where dolphins have been fishing for buried flatfish because when they leave the seabed is covered with depressions in the sand that look like mini volcanoes.

I was once in the company of a school of playful dolphins. Swimming with me was a woman in an advanced state of pregnancy. A female dolphin swam up, quickly scanned her and swam away. A few moments later she returned with her baby. I could clearly hear the mother dolphin emitting high pitched sounds as she examined the woman's bulging belly, much to the delight of her youngster who wagged its tail in apparent appreciation. The sea was full of squeaks. Hanging back and watching I got the distinct impression that the mother dolphin was showing her offspring how to use its sonar.

Dolphins have been using their large brains to process sound, their primary sense, for millions of years. It is therefore quite justifiable to propose that the images the mother dolphin got of the human foetus contained more information than the mother-to-be gained from her pre-natal ultrasounds.

I was therefore excited to read Jack Kassewitz and John Stuart's paper on the use of bio-cymatic imaging which provides plausible scientific evidence that "dolphins can see with sound".

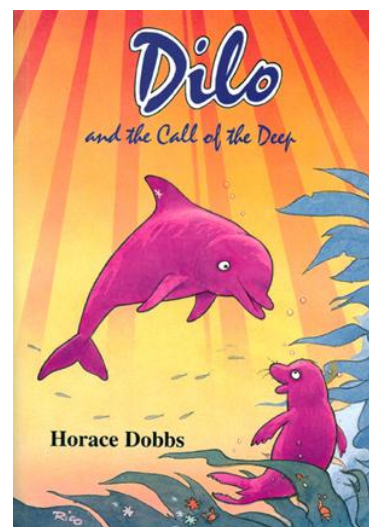
"There is no logical reason why dolphins cannot imitate sonar sound images."

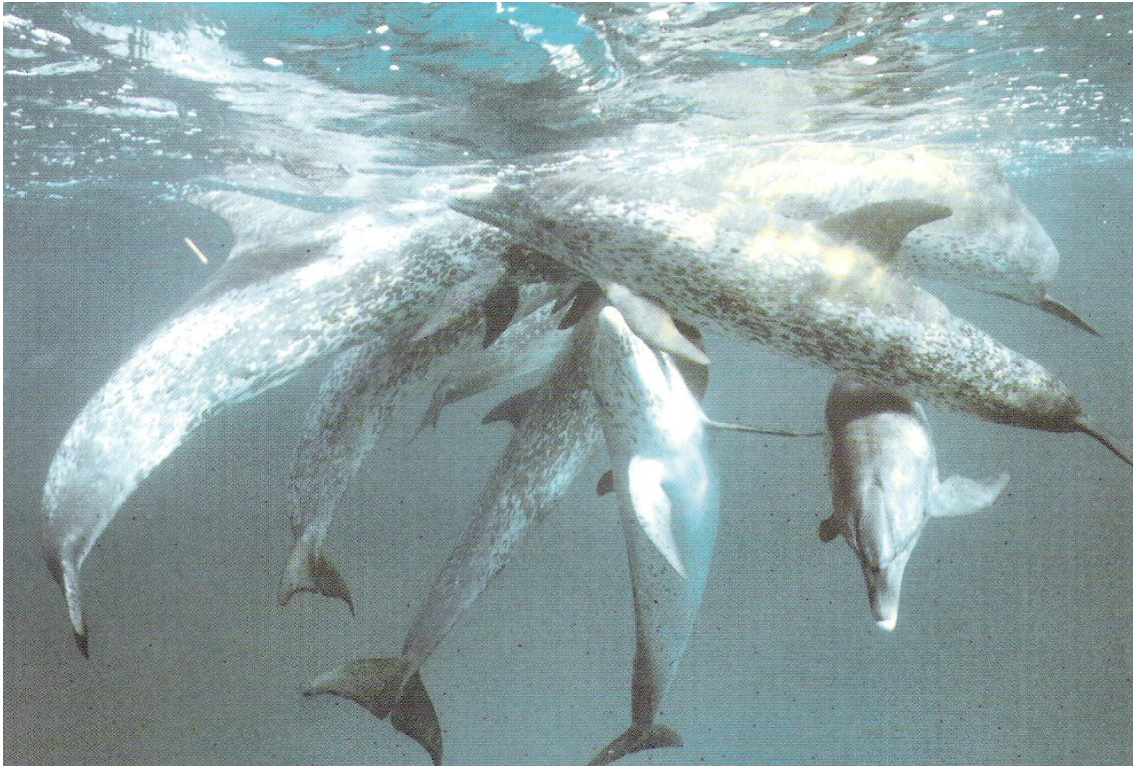
Furthermore, David Cole's addendum adds a logical explanation – in part at least – for the evolution of the dolphin's large brain size. Restricted underwater visibility would obviously have limited the dolphin's ability to hunt for fast moving prey using only its eyesight. This drove the evolutionary need for the dolphin to "see with sound" i.e. the creation of a form of Sonar (Sound Navigation And Ranging). As this evolved, it generated a huge auditory output that in turn required the concomitant evolution of a larger brain to process the additional sensory input.

However, I go one step further than seeing with sound. I propose that there is no logical reason why dolphins cannot imitate sonar sound images. By doing this, they leapfrog spoken language as we know it. This takes dolphins an evolutionary step ahead of us in terms of communication. Imagine trying to describe a mammoth to someone who does not understand your language. Compare this with simply showing them a photograph or a drawing. Prehistoric rock carvings demonstrate how art can transcend language.

I have long maintained that dolphins have evolved a **sono-pictorial language**. Indeed, in *Dilo and the Call of the Deep*, a book I wrote for children in 1994, I referred to Dilo's Magic Sound as the method by which the young dolphin and his mother pass information from one to another.

A long time ago I discussed dolphins with my friend the late pioneer scuba diver and science fiction writer Arthur C. Clarke. He predicted the positioning of satellites in stationary orbit - without which we could not have satellite navigation. If we could pick up our conversation where we left off I wonder what he would now have to say about communicating with dolphins.





"A picture speaks a thousand words."

When a dolphin beams a picture to other members of the pod it renders obsolete the need for many words of description.

Photo Horace Dobbs

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Could divers soon be able to speak with dolphins?

Divers could this year be delivered the technology that allows them to talk with the intellects of the deep - dolphins.

A dolphinologist and an artificial intelligence expert are working together in the Bahamas to develop a hi-tech gadget that will allow humans to speak with dolphins in real time, according to the Independent.

Entitled the Cetacean Haring and Telemetry (CHAT) interface is about the size of an iPhone, has two hydrophones and a one-handed keyboard called a twiddler.

Inside the box is a processor that contains a complex algorithm or pattern detector. It is hoped this will learn to identify the fundamental units of dolphin acoustic communication

"CHAT is more a potential interface than a translator as it is supplying us humans with an acoustic bridge to allow exchanges between two acoustic species," said Dr Denise Herzing, of the Department of Biological and Psychological Sciences at Florida Atlantic University and founder of the Wild Dolphin Project.

"As dolphins are likely to be the second smartest creature on the planet, with similar cognitive abilities and complex social structures to humans, this device will hopefully open the window for a great understanding and connection with other sentient beings. Similar interfaces created for chimps and parrots have already increased our understanding of the abilities of these species."

Read the full article from THE INDEPENDENT [here](#).

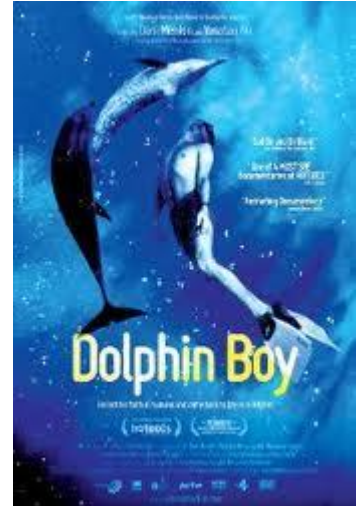
DOLPHIN HEALING

Dolphin Boy – a true story about the healing power of nature and love

A Film by Dani Menkin and Yonatan Nir

Dolphin Boy tells the intriguing story of Morad, a teenage boy who was left in an almost vegetative state after being abducted and beaten. Two weeks before being committed to a mental institution Morad's doctor recommends a radical treatment: Dolphin Therapy. Morad's father sells everything and takes his son to the coast, remaining by his side during his miraculous three year recovery.

Dolphin Boy wrenches the emotions, both negative and positive. Depression, anger, relief, and joy are just a few of the responses to Morad's tragic life and inspiring recuperation. The tale of his beating, over a harmless, misinterpreted text message breeds anger and sorrow. Morad's father, who refuses to stoop to violence to avenge his son is inspiring and his dedication to his son's rehabilitation is touching. Only a fully healed Morad can testify against his attackers so justice can be done. The road to recovery is long and uncertain for the boy locked within his own mind to escape his trauma. Morad's gentle nature makes his assault even more tragic. The emptiness in his gaze is haunting making his interactions with the dolphins even more poignant. There is a great swell of relief as Morad becomes increasingly more himself.



The film is so intimate, and Morad and his father are so endearing, that they win you over quickly. After that point you are totally committed to the emotionally satisfying ride. His emotional growth and mental healing are nothing short of amazing. The film examines the meaning of love, family questioning personality and who we truly are. What is at the essence of our being and how strong or fragile is that fundamental quality?

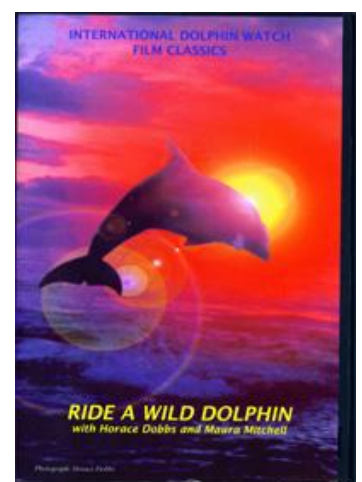
This documentary hits all the right cords. It is not as delightful as one might expect from a story about healing dolphins, but the humanity it displays is so genuine that anything less would fail to do it justice. The underwater cinematography compliments Morad's private world below the waves, visually accentuating his undersea sanctuary.

To watch the film online go to: <http://www.channel4.com/programmes/dolphin-boy/4od#3205026> .

Ride a Wild Dolphin

By Horace Dobbs

Ever since he had made the TV film *Ride a Wild Dolphin* about Donald off the coast of Cornwall in 1976, Dr. Horace Dobbs says he was aware that dolphins could bring joy into human lives. But could their effect on the human psyche really be strong enough to help clinical depressives?



Dolphin Healing

By Dr. Horace Dobbs

Published by Piatkus Books in April 2000

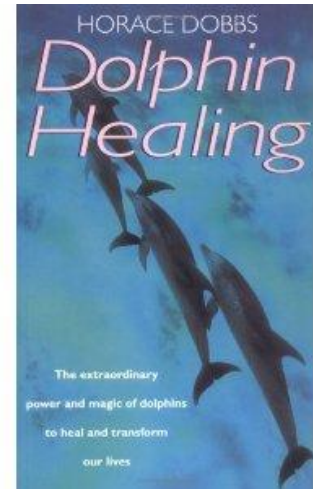
In this book, Horace Dobbs looks back at the surprising advances made in [Operation Sunflower](#) a long-term IDW research project into the therapeutic powers of dolphins which he started in 1986.

In 1986 Bill Howell, dressed in yellow oilskin, stood on the jetty at Solva in South Wales. Twelve years earlier, after a heart attack, he had been jailed for a crime which he had not committed. Although he was later completely exonerated, the sound of the doors of his prison cell would not go away. None of the many medical treatments he received could relieve the darkness of the emotionless world in which he now locked himself. He rarely communicated with his wife and their five children; he could not work, and he was diagnosed as a chronic depressive.

Going on holiday for the first time in 17 years had not changed the situation. Not, that is, until the day he went out on a boat trip to see Simo. Simo was a friendly wild dolphin who frequented the waters in a picturesque corner of Pembrokeshire.

Purchase the book online through

<http://www.amazon.com/Dolphin-Healing-Horace-Dobbs/dp/0749920793>



Dolphins – Books – Music

[A Musical Journey with Horace Dobbs.](#)

When Horace Dobbs had the magical experience of seeing a friendly wild dolphin give his son a ride in the open sea it changed his life. He gave up orthodox medical research and set out to uncover why dolphins hold such a special place in our affections.

Available online: http://www.idw.org/html/dolphin_shop.html



Charity

CHANGING LIVES THROUGH
THE **P**OWER **O**F **D**OLPHINS

Operation Sunshine Family Therapy Programmes is a UK based International Charity which aims to bring joy and healing into the lives of those with additional needs through dolphin inspired education and art, community projects and family retreats.

www.operationsunshine.org

DOLPHINS IN CAPTIVITY

Take the Pledge Not to Buy a Ticket to a Dolphin Show

Dolphins have evolved over millions of years, adapting perfectly to life in the ocean. They are intelligent, social and self-aware, exhibiting evidence of a highly developed emotional sense. Here are just a few of the issues with captivity:

Captures of dolphins are traumatic and stressful and can result in injury and death of dolphins. The number of dolphins that die during capture operations or shortly thereafter are never revealed in dolphinariums or swim-with-dolphins programs. Some facilities even claim their dolphins were "rescued" from the ocean and cannot be released. This claim is almost invariably false.

Training of dolphins is often deliberately misrepresented by the captive dolphin industry to make it look as if dolphins perform because they like it. This isn't the case. They are performing because they have been deprived of food.

Most captive dolphins are confined in minuscule tanks containing chemically treated artificial seawater. Dolphins in a tank are severely restricted in using their highly developed sonar, which is one of the most damaging aspects of captivity. It is much like forcing a person to live in a hall of mirrors for the rest of their life - their image always bouncing back with no clear direction in sight.

Join us and pledge that you won't go to a dolphin show or swim-with-dolphins programs. [Click Here to join the petition.](#)

For further information on how you can help dolphins go to:

<http://savejapandolphins.org/take-action/dolphins-in-captivity>

Captivity Revisited

Review by Horace Dobbs

In the October 2011 issue of *Whales Alive*, the journal of the Cetacean Society International (Web: www.csiwhalesalive.org) there is a superb piece of investigative journalism by William Rossiter. His 7 page article **Captivity Revisited** is an outspoken and comprehensive analysis of the cetacean display industry, led by Sea World, that exploits the mistaken belief that all life on the plane is here to serve human needs. And that it is justifiable for the public to pay to see an orca (Killer whale), confined in a tiny aquatic prison, perform for a human with a whistle.

The motive is, as you might expect, money. According to Rossiter it is estimated that Morgan, the young wild orca currently held in captivity in the Netherlands (see following article) is worth ten million dollars to the display industry. With that kind of money at stake, giant corporations deliberately deceive the public and ignore the new and ever expanding understanding of our unique relationship with the largest members of the dolphin family – the orcas.

Free Morgan

<http://www.freemorgan.com/>

Morgan, a young wild orca, is currently being held in captivity in the Netherlands. She does not belong in a tank. She belongs in the ocean.

In late June, 2010, a young orca was seen in the Wadden Sea, off the coast of the Netherlands. The little orca appeared to be ill, so she was captured and brought to the Harderwijk Dolfinarium, a captive facility about an hour from Amsterdam. She was named Morgan. For more than a year, she has been living in a small tank at the dolphinarium. She is currently on display, where visitors can see her every afternoon – an interesting experience for visitors, but for Morgan, it's like living in a prison.

The Dutch government permitted her capture on the basis that she would be rehabilitated and then released back to the wild.

On December 10, 2010, the dolphinarium announced that she would not be returned to the wild.

Morgan doesn't belong in captivity. She doesn't belong to a private company which sells tickets to see her. She belongs in the ocean. Anyone who cares about orcas should insist that Morgan be returned to the wild.

In July, 2011, it was announced that Morgan would be moved to an amusement park called Loro Parque, in the Canary Islands, and the Dutch government issued a permit for her to be exported.

On August 3, 2011, a group of activists supporting Morgan scored a victory in an Amsterdam court. The group, called Orca Coalition, went to court to prevent Morgan from being sent to Loro Parque. They won their case against the Dutch government ministry responsible for Morgan, and therefore Morgan won't be sent off to the Canary Islands. However, she will still remain in a tank in Harderwijk, and her long-term fate is still unknown. It will depend on the activists and the dolphinarium working together to find a solution. For further information visit: <http://www.freemorgan.com/>



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Thanks to all the donations we have received in the last few months we were able to prevent Morgan's transport to Tenerife in the court case of August 3rd. Your support also enabled us to get the Dolfinarium to finally release the sound recordings of Morgan, which resulted in finding her family in less than two weeks!!! Now we need to go to court again. The State Secretary is following the Dolfinarium blindly again, even though we have presented undisputable proof that shows not only that Loro Parque is the worst option for Morgan, but also that that Morgan's release will be a success! Only an independent judge will look at this evidence...

We achieved our former financial goal, now we have set a new one: this goal will enable us to start a new appeal to the State Secretary's decision. Due to donations we are already on the half of our goal.

Can we count on you again, so we can have a judge look at the facts again? Thank you, without you, we would never have been able to accomplish all this: <https://www.4just1.com/project/59> .

Bioluminescence in Krill and Other Deep Sea Creatures for Kids!

We can derive a basic understanding of the word “bioluminescence” by breaking it down into two parts. “Bio” refers to a living thing while “luminescence” is an emission of light. Put together, we get living creatures that create and emit light! It sounds astonishing but perhaps you might have seen an example of this in your own life. For example, fireflies and glowworms are among two of the best known bioluminescent creatures. While we don’t often see bioluminescence on land, it exists in large numbers within the depths of the ocean. For example, many scuba divers know that waving their limbs about in the water during a dark night dive will cause scores of tiny plankton to light up all around them, as if by magic! However, there is a very valid scientific explanation behind these pretty sights. All of these creatures biologically produce an enzyme called luciferase as well as a



pigment called luciferin. When the pigment combines with oxygen, it produces light, while the enzyme accelerates this chemical reaction.

To discover more about the fascinating world of underwater bioluminescence visit

<http://www.krilloil.com/bioluminescence-in-krill-and-other-deep-sea-creatures-for-kids.html>

FREQUENTLY ASKED QUESTIONS

How do dolphins sleep?

Dolphins have to be conscious to breath (Williams et al, 1990). This means that they cannot go into a full deep sleep, because then they would suffocate. Dolphins have "solved" that by letting one half of their brain sleep at a time. This has been determined by doing EEG studies on dolphins. Dolphins sleep about 8 hours a day in this fashion. REM (Rapid Eye Movement) sleep, usually associated with dreaming has been recorded only very rarely. Some scientists claim dolphins do not have REM sleep at all. A dolphin's behaviour when sleeping/resting depends on the circumstances and possibly on individual preferences. They can either: - swim slowly and surface every now and then for a breath - rest at the surface with their blowhole exposed - rest on the bottom (in shallow water) and rise to the surface every now and then to

breath. sources: S.H Ridgway (1990) The Central Nervous System of the Bottlenose Dolphin, in S.

Leatherwood and R.R. Reeves: The Bottlenose Dolphin, pp. 69-97, Academic Press Th.D. Williams, A.L. Williams and M. Stoskopf (1990) Marine Mammal Anesthesia. In: L.A. Dierauf (ed.): Handbook of Marine Mammal Medicine: Health, Disease and Rehabilitation, pp. 175-191 CRC Press, Boca Raton

What and how much do dolphins eat?

Bottlenose dolphins eat several kinds of fish (including mullet, mackerel, herring, cod) and squid. The composition of the diet depends very much on what is available in the area they live in and also on the season. The amount of fish they eat depends on the fish species they are feeding on: mackerel and herring have a very high fat content and consequently have a high caloric value, whereas squid has a very low caloric value, so to get the same energy intake (calories) they will need to eat much more if they feed on squid than if they feed on mackerel or herring. On average an adult dolphin will eat 4-9% of its body

weight in fish, so a 250 kg (550 lb) dolphin will eat 10-22.5 kg (22-50 lb) fish per day.

How old can they get?

The maximum age for bottlenose dolphins is between 40 and 50 years. The average age a dolphin can get (the life expectancy) can be calculated from the Annual Survival Rate (the percentage of animals alive at a certain point, that is still alive one year later). For the dolphin population in Sarasota Bay, the ASR has been measured to be about 0.961. This yields a life expectancy of about 25 years. For the population in the Indian/Banana River area, the ASR is between 0.908 and 0.931. This yields a life expectancy between 10.3 and 14 years. So the actual life expectancy differs per region. sources: R.S. Wells and M.D. Scott (1990) Estimating bottlenose dolphin population parameters from individual identification and capture-release techniques. Report International Whaling Commission (Special Issue 12): 407-415 S.L.Hersch, D.K.Odell, E.D.Asper (1990) Bottlenose dolphin mortality patterns in the Indian/Banana River System of Florida, in S. Leatherwood and R.R. Reeves: The Bottlenose Dolphin, pp. 155-164, Academic Press. There is, however, anecdotal evidence which indicates that dolphins can live longer than estimated if death by human interference is eliminated from calculations.

Learning at The Deep

School teachers alert!

We have launched a range of exciting new workshops for 2011/12, which are designed to teach pupils about the oceans, animals and the environment we live in.

With over 30,000 primary and secondary pupils each year visiting the aquarium and purpose built learning centre, the education programme is going from strength to strength. Workshops are available from Foundation level right up to Post 16 and are all closely referenced to the National Curriculum. The Deep's qualified teachers have created the new workshops, which are already a big hit with the pupils!

To find out more, please **click here**:

<http://www.thedeep.co.uk/school.php>.

The earliest recognisable cetaceans lived about 50 million years ago. These evolved from the Mesonychids: large land mammals, some of which were carnivorous, some herbivorous. The earliest cetaceans were members of the now extinct family Archaeoceti (the best known of which are Zeuglodon and Basilosaurus). 38-25 million years ago the Archaeoceti disappeared and were replaced by the early Odontocetes (toothed whales) and Mysticetes (baleen whales). The earliest dolphins appeared in the late Miocene period, some 11 million years ago. The land animals that are closest to whales and dolphins are the Ungulates (hoofed animals). This was determined among others by comparing the structure of body proteins. source: P.G.H.Evans (1987) The Natural History of Whales and Dolphins. Christopher Helm Publishers, London.

How deep can dolphins dive?

The deepest dive ever recorded for a bottlenose dolphin was a 300 meters (990 feet). This was accomplished by Tuffy, a dolphin trained by the US Navy. Most likely dolphins do not dive very deep though. Many bottlenose dolphins live in fairly shallow water. In the Sarasota Bay area, the dolphins spend a considerable time in waters that are less than 2 meters (7 feet) deep. Other whale and dolphin species are able to dive to much greater depths even. The pilot whale (*Globicephala melaena*) can dive to at least 600 meters (2000 feet) and a sperm whale (*Physeter macrocephalus*) has been found entangled in a cable at more than 900 meters (500 fathoms) depth. Recent studies on the behaviour of belugas (*Delphinapterus leucas*) has revealed that they regularly dive to depths of 800 meters. The deepest dive recorded of a beluga was to 1250 meters. sources: F.G. Wood (1993) Marine mammals and man.



Jim Nollman, Director of Interspecies

<http://interspecies.com/>

I am so happy to announce my new CD, THE NEW OLD TIME, has just been released on Red Newt Records. It's basically traditional dance tunes played on mandolin, guitar, piano, bass, and drums, then deconstructed using loops, layers, unanticipated syncopation, and ambient sounds from the likes of lemur, beluga whale, cowbirds, vacuum cleaners, and one French maiden. You can hear a few tunes, here:

<http://interspecies.com/songs/aaSwinging%20on%20a%20Gate.mp3>

<http://interspecies.com/songs/aaWinderslide.mp3>

For further information and to purchase:

http://www.amazon.com/New-Old-Time-Jim-Nollman/dp/B005OH6WM4/ref=sr_1_1?ie=UTF8&qid=1318976296&sr=8-1

Best regards,
Jim Nollman

<http://interspecies.com/>

Mountainside Films - The Whale is now in Theatres

Dear Friends of Luna,

14th October 2011 - This weekend, *The Whale* was screening coast to coast, from Washington, DC to Los Angeles. The film has just been given another Critic's Pick designation - this time, from the Washington Post.

We're also happy to announce that *The Whale* was the Closing Night film at Toronto's Planet in Focus Festival.

And we've got more screenings in the works. For information visit our Facebook page: <http://www.facebook.com/thewhalemovie>

You can always get in touch by e-mailing us: suzanne@thewhalemovie.com

Thanks for your interest and see you at the movies.

Suzanne Chisholm



Humpback whale trip

in Tonga in the South Seas

1-9th October 2012

Intense encounter and swim with humpback whales, shamanic journey, experience the Island.

There are few places on earth where it is possible to encounter humpback whales directly in the water. Tonga in the South Pacific is one of them. There to watch them swim, to look into their eyes to feel her energy field and to hear their songs, is deeply touching, heart-opening and beneficial. With the peaceful humpback whales, *you* can experience their profound wisdom and truth of your soul.

We live in an idyllic beach resort, quiet, small and secluded. There is unlimited drinking water and the standard is excellent and well maintained. From here we take trips in the area and on the island, nature and city. We also snorkel right from our private beach resort on the house reef, where there are turtles and many colorful fish and corals. We will support our processes through shamanic ceremonies and relaxation exercises - to laugh, relax and enjoy the lush beauty of Tonga, beach and sun!

Information about this passage:

<http://lisarainbow.com/wale-tonga-2012.html>

Video: Swimming with humpback whales in Tonga:

<http://lisarainbow.com/video-tonga.html>

Embassy of the whales:

<http://lisarainbow.com/walbotschaft.html>

Dilo and the Isle of the Gods Serialisation

Chapter 22 (Continued from the October 2011 Magazine)

22. Tina's babies

DURING THE NIGHT, LONG AFTER SHE HAD LEFT THE ISLE OF THE GODS, TINA'S EGGS STARTED TO HATCH.

One by one the baby turtles pushed their heads up through the sand. As soon as they had pulled themselves free they scrambled down to the sea in the dark.

As the sun climbed into the heavens the last of Tina's babies emerged. Flipping frantically down the beach they rushed into the surf and paddled furiously into deeper water. Then they dived down.

Dilo floated on the surface a little way offshore. The manta rays had gone. He was gazing at the Isle of the Gods. A few wisps of smoke drifted lazily out of the crater on top of the mountain.

Looking down Dilo watched the baby turtles swimming

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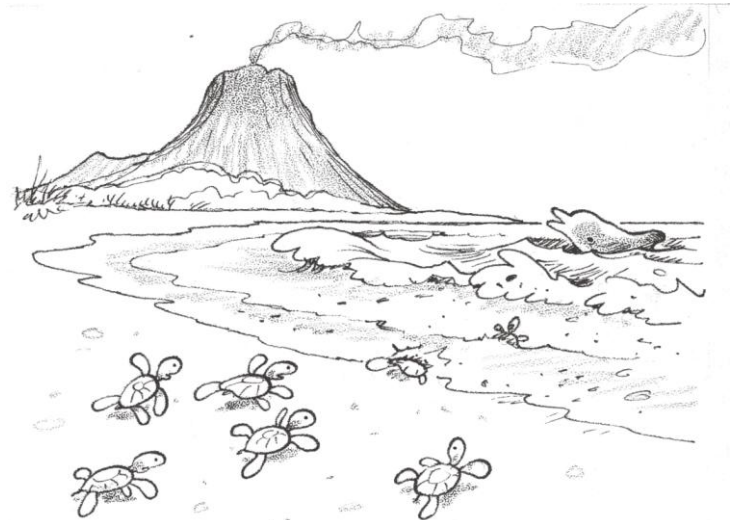
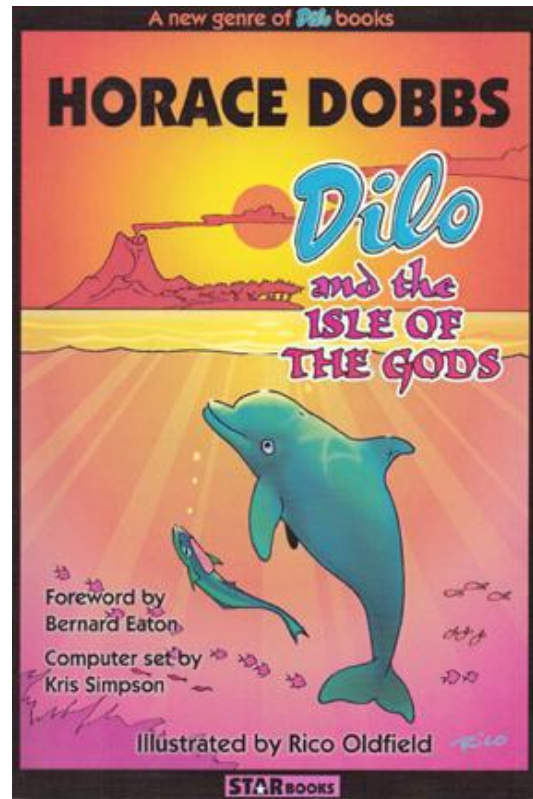
away into the unknown.

"You won't have any shortage of rides in the future if they all survive," Dilo said to Rema.

Seeing the baby turtles heading for the open sea reminded Dilo that he too was a nomad. It was time for him to leave.

Dilo took one last look at the Isle of the Gods. Beneath him the sea was empty. The baby turtles had swum away into deeper water. All was quiet except for the sound of the sea gently lapping the shore.

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Then Dilo noticed a movement on the sand. Not all of Tina's had hatched. The final hatchling was struggling valiantly upwards from its underground nest. As soon as it was out it rushed down the beach towards the safety of the sea.

Suddenly the silence was broken by a squawking seabird circling overhead. Just as the lonely turtle reached a wave creeping up the beach the gull dropped out of the sky. It snatched the turtle from the froth and soared upwards. Dilo saw the turtle's flippers waving frantically as the gull tried to gobble it down.

Then out of the sky dropped another predator called a frigate bird. It dived down onto the gull. The gull zigzagged to avoid the snapping hooked beak. But no matter which way it flew the frigate bird followed. The frigate bird – the pirate of the sky – was determined to get its prize. Again it attacked the gull forcing it down towards the sea. The battle was over for the gull. It dropped the tiny turtle and soared upwards as fast as it could to escape the ferocious attack. This was just what the frigate bird wanted.

From below Dilo watched the tiny turtle, with its flippers still waving, falling down towards him. The frigate bird was

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following close behind. It was expecting to catch the luckless turtle in mid air before it reached the sea and could dive to safety. But the frigate bird was not prepared for what Dilo did next.

Dilo felt protective towards Tina's last baby to leave the nest. Without hesitation the dolphin thrust as hard as he could with his tail. Dilo soared out of the sea. The startled frigate bird swooped away as Dilo hurtled towards it. When Dilo crashed back into the sea he slapped the surface with his tail sending spray flying into the air. The huge splash frightened the frigate bird who immediately abandoned his plan to catch the tiny turtle. Instead it soared up into the sky.

The crack also terrified the baby turtle who swam into the depths as fast as its little flippers would carry it. Dilo stayed quietly on the surface looking down. The dolphin remembered how his mother had cared for him after he was born. The baby turtle was on its own with no mother to look after it. Dilo thought the lonely turtle was safe to continue its journey. But he was wrong.

“That baby turtle is in a state of shock. I'm going to stay

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with it for a while just to make sure it's O.K.” he said to Rema who was still recovering from Dilo's unexpected launch into the sky. “With no mother to look after it that youngster is going to have to fend for itself.”

“If we are going to keep it company can we give the baby turtle a name?” suggested Rema.

“A good idea,” replied Dilo.

“I think it is female, like me. How about Lonely?”

“That's an excellent name,” replied Dilo. “Lonely will swim away from the island. I've done what I came here for. We've had lots of adventures haven't we? We've watched the dance of the manta rays. I've seen Tina's eggs hatch and her baby turtles swim away. It's time we went also. We'll follow Lonely for a while.”

Lonely soon recovered and was steadily swimming into deeper water. Just as Dilo was thinking it was time to say “Goodbye” a new threat loomed into view.

A shark was circling beneath them. The shark posed no threat to the dolphin. But Dilo knew that circling was a sign that the shark was about to attack. Once again Lonely was in mortal danger.

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Dilo also knew that sharks are cowards. He decided to take action. He swam at full speed towards the shark. Dilo rammed the middle of the shark with his powerful beak. Not hard enough to kill it. But with enough force to scare it. The shark sped away, as straight as an arrow, and disappeared into the blue. The danger was over for Lonely. For the time being anyway.

Shortly after the shark had vanished Dilo saw two more baby turtles. Lonely had caught up with some of her brothers and sisters. Now Lonely had some companions Dilo decided it really was time for him to leave the turtles to fend for themselves. He knew many of Tina's babies would not survive. But he hoped that Lonely would be one of those who did. And that one day she would return to lay her own eggs on the Isle of the Gods.

Only then did Dilo pose Rema the question he had wanted to ask her since the manta rays had left.

"Why did you stay with me instead of joining the mantas?" he asked.

Rema did not respond instantly. Dilo could feel her

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wriggling her tail, almost as if she was snuggling up to him.

"Because," she replied after a long pause, "Together we make magic."

Dilo had not expected to have a suckerfish for company

when he set off for the Isle of the Gods. But Rema's presence had certainly made his visit much more enjoyable.

"Unplanned events can be quite magical," commented Dilo.

"Now that you've been to the Isle of the Gods I do hope you've had enough adventures," commented Rema hoping for a quieter life.

"I can't promise that," responded Dilo. "Remember I've got a star on my dorsal fin. And that means I've got a mission."

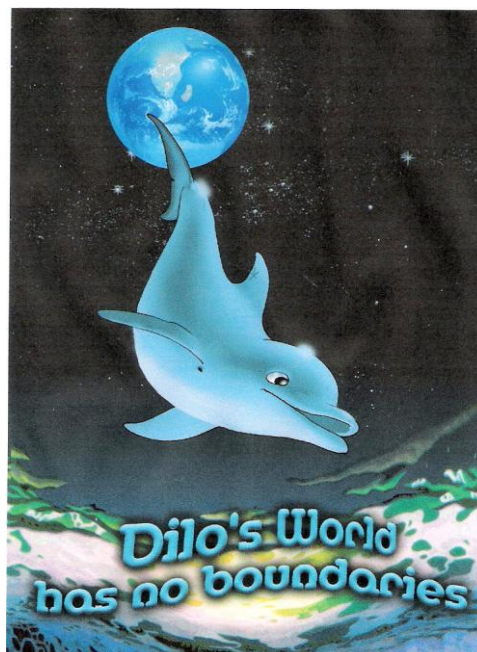
"Have you discovered what your mission is yet?"

"No," replied Dilo as he and his suckerfish companion headed into the deep blue yonder.

THE END

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The full version of Dilo and the Isle of the Gods, ISBN: 0-9541721-3-2, can be purchased through the IDW Shop:
http://www.idw.org/html/dolphin_shop.html



PRESS RELEASE

November 2011

A Dolphin has a new home at North Lincolnshire lakeside

A striking dolphin sculpture titled DOLPHINA - Spirit of Dilo - has recently been gifted to the Odyssey Centre and installed beside a lake in North Lincolnshire.

The artist Ginger Gilmour, former wife of Pink Floyd guitarist David Gilmour, officially unveiled her creation at Westfield Lakes, Barton Upon Humber, bringing the joy of the dolphins to many that day who shared in the glorious sunshine and sparkling water on 2nd October 2011.

Westfield Lakes is home to a unique social enterprise comprising three elements; a charity the Odyssey Cancer Care Centre, which provides free complementary therapies for cancer patients and their carers; Reeds Country Hotel, and the Lakeside Education Centre, adjacent to the hotel, where co-founder Daisa Morgan teaches Reiki and a wide range of workshops.

The dolphin sculpture will eventually be a landmark of a planned £3 million purpose-built centre for those affected by cancer due to open in 2013, which will replace the current Odyssey Centre.

Ginger studied art with artist Cecil Collins and has exhibited sculptures and paintings in a number of venues in the UK and overseas. Most recently she has exhibited 'Flame of the Spirit' at Heathrow Airport Terminal 5 as part of BAA's Olympic Initiative to raise funds for the Paralympic Association and has other artwork there in the EXPO Gallery.

Originally, Ginger donated Dolphina to her friend Dr Horace Dobbs, a dolphin expert who lives at North Ferriby to raise awareness about the protection and care of Dolphins. Horace, in turn, gifted the sculpture to the Odyssey Cancer Care Centre in Barton where he received post-operative treatment for a potentially terminal bowel cancer in 2005. He has since made a full recovery.

Dr Dobbs said: "The sculpture looks absolutely sensational beside the lake in one of the most magical places I know. The soft back light from the west is perfect to illuminate its enchanting shape and sea blue colour. It's in a position where it can be thoroughly enjoyed by guests visiting Reeds Hotel and the Lakeside Education Centre and touch their hearts with its Dolphin Magic of Joy and Love.

Dolphina was first exhibited in 2003 at the Open University at an International Conference bringing together science, nature and the arts. The sculpture dominated the stage and radiated joy and optimism to everyone in the auditorium enhancing the intention of the conference.

Eventually Dolphina will move about half a mile away to the new Odyssey Centre on a field next to its existing base at Nightingale House which it has outgrown.



NOTE FROM THE EDITOR

WE NEED YOUR HELP

Most of IDW's activities are conducted by dedicated volunteers. Nonetheless money is still needed to cover administration, running expenses and educational projects. Please help IDW continue by making a donation. You can do this by logging in to the Donation section of the DOLPHIN SHOP:

http://www.idw.org/html/dolphin_shop.html

or by sending your donation, payable to IDW, by post to: International Dolphin Watch, 10 Melton Road, N.Ferriby, HU14 3ET, UK.

IDW was founded in 1978 as a non profit organisation for the observation, conservation and study of dolphins - especially their relationship with humans.

Our aims and values have always been to make sure the seas and rivers are clean, healthy and productive for the benefit of both humans and dolphins; To respect the rights of dolphins to a free life in their natural environment; To recognise that since earliest times, dolphins have had an affinity with humans and allow this to evolve.

IDW has contributed to saving lives of countless dolphins and enabled thousands to achieve their dreams of meeting dolphins, free in the open sea.

WE ARE CREATING A GLOBAL NETWORK OF DOLPHIN LOVERS THAT CARE ABOUT OTHERS AND THE EARTH WE SHARE.



Friends of International Dolphin Watch receive news and exchange information on a host of topics via this monthly online magazine. If you would like to be added to the International Dolphin Watch database and receive notification when the online Magazine goes live, please Email idw@talk21.com

Email your news and comments to me at jackieconnell@btinternet.com

Please spread the word and share this Magazine with friends and colleagues.

Jackie and Terry Connell

EDITOR and WEB MASTER