



GLOBAL EDITION
April 2008
Number 22



Baltic Sea Wrecks
Soviet WWII Sub

Brazil
Laje de Santos

Spain
Calella

Ecology
Nudibranch Colors

Portfolio
Howard Schatz

Dr Shawna Meyer
Humboldt Squid

In The Shadow Of The Cold War

Wrecks

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COVER PHOTO
Treasures of a shipwreck by Kurt Amsler
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The nudibranch, *Glaucus atlanticus*, by Taro Taylor. This image was selected as Picture of the Day by Wikipedia on March 4, 2008

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Bloody *we call it* Murder

Text by Peter Symes
Photos by Wolfgang Leander

Would you eat your pets? In most cases, the answer would be a resounding no.

The meaningless murder of the Tiger sharks off Aliwal shoals—yes, I use the term murder because these were individuals that we knew and interacted with—fills me with anger, frustration and sadness. We knew these magnificent creatures—they had nicknames—and divers travelled from afar to interact with these magnificent creatures. But now, they are no more.

At least three sharks—probably the very same individuals that graced our covers a few issues back—have not only been illegally killed, but to add insult to injury, they were also captured within a protected marine park.

Here, they were the main attraction for thousands of tourists and divers, some of whom came from around the world to dive The Shoal and have an encounter with the sharks—just like X-RAY MAG contributor, Wolfgang Leander, did in a report we ran a few months back. How stupid and sad is this?

The meat value of these slaughtered animals is nothing in comparison to the revenues they bring in from tourism. One caught shark may fetch a one-time payment of about US\$100 at the auction house, whereas each live individual may generate US\$10,000 or more in tourism income annually. This is also the case with sea life elsewhere—for example, with the manta rays in the Pacific.

“Less than five people a year die from shark bites, yet every time a human dies because of a shark bite, the media goes on a hysterical binge of shark hatred. It’s completely irrational. Approximately 100 people a year die from ostrich attacks. Dogs bite over 50,000 people a year and kill over 100. This makes dogs and ostriches 20 times more dangerous than sharks, yet we don’t call for the eradication of big birds and puppies. On the other hand, humans slaughter tens of millions of sharks a year for soup. Which species is the monster?”

— Paul Watson
Sea Shepard

The Tiger sharks we featured in this cover story have now been poached—within a protected marine park!



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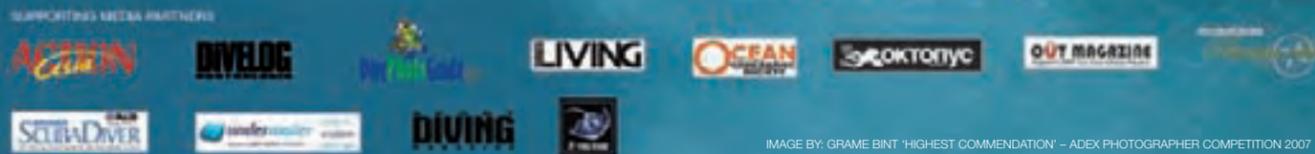


IMAGE BY: GRAME BINT 'HIGHEST COMMENDATION' – ADEX PHOTOGRAPHER COMPETITION 2007

TMX Show Productions Pte Ltd, 1 Raffles Boulevard, Suntec City, Singapore 039593 tmx.com.sg

I am acutely aware that we have managed all risk out of our lives and, to me, "the cage" promotes this soulless experience. The connectivity to nature in a "cage-less" environment is a freedom of individual choice, and in the case of many species of shark on our coast, the only way to experience them in their world and on their terms.

—Mark Addisson



WOLFGANG LEANDER

Not exactly pets, but these wild animals interacted with people

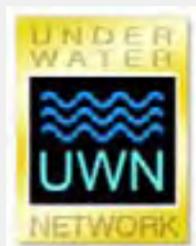
Where there is a demand, there will always be a supply. And the Asian appetite for shark fins—which is completely devoid of any nutritional value and sometimes even toxic with accumulated heavy metals—is the real culprit here. Not the sorry fisherman who lost his head in a moment's spur of greed and had the sharks lose their heads, too. Sure, he should be persecuted to fullest extent of the law, all right, and hopefully, he will be, to set an example and enforce deterrence.

Most of all, I accuse the Asian governments for permitting this

ongoing specicide, which is both barbaric and meaningless. They hold the legislative and executive powers to put a stop to the shark fin trade. Outlaw it, I say. Make it a criminal offence to procure, sell and consume shark fin products, put offenders in the slammer, and throw away the key. It is done with controlled substances, why not shark finning? That would put a lid on it, and hopefully, give the sharks a little respite. So, why don't they do it?

Whose sharks are they to kill anyway?

Do you have to kill them—or other animals—to claim "ownership"? What if I and others would like to preserve them alive? Do we have to catch each of them and put a name tag on them like cattle? Perhaps, that's not such an outlandish idea—you can invest in a rainforest, why not a shark? Imagine that: Boasting that while you do not own a sleek high-powered top-of-the-line sports car, you do have a live sleek high-powered multi-millennium model shark swimming free in the ocean. ■



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News edited
by Peter Symes
& Catherine GS IIm

NEWS

The shallow-water, benthic communities in Antarctica are unique. The waters surrounding Antarctica remain too cold for predators such as sharks and crabs capable of crushing shellfish similar to the mollusks living in the vast continent's seas.

As a result, the Antarctic seafloor has been dominated by relatively soft-bodied, slow-moving invertebrates, just as in ancient oceans prior to the evolution of shell-crushing predators. Nowhere else do giant

pycnogonids, nemerteans and isopods occur in shallow marine environments, cohabiting with fish that have anti-freeze glycoproteins in their blood.

All that might just be about to change in no minor way.



Army of crabs on the threshold of invading Antarctic waters

Climate change has sent a destructive army of predatory crabs marching towards Antarctica's ecologically sensitive coastline, it has been claimed. Scientists say

the crabs, kept out of the region for millions of years by the cold, are about to return. The crabs are prevented from venturing into waters that are much colder than 1°C,

because it causes levels of toxic magnesium to build up in their bodies. But, as temperatures rise, magnesium poisoning will become less of a barrier to them.

Dr Sven Thatje, of the National Oceanography Centre in Southampton, discovered that the crabs were poised to conquer the Antarctic shallows. "The crabs are on the doorstep," he told the annual meeting of the American Association for the Advancement of Science in Boston. "They are sitting in deep water, and only a couple of

hundred bathymetric metres now separate them from the slightly cooler shallow water in the Antarctic shelf environment."

If they break into the shallows, the consequences could be environmentally catastrophic. Over millennia, the indigenous animals living on the sea floor have adapted to a world without powerful predators

such as crabs, shell-cracking fish, sharks and rays. As a result, there is a unique abundance of brittle stars, giant sea spiders, sea snails, and other invertebrates. Some, like the snails, have lost their protective armour and spines. These creatures would be defenceless against the bone-crushing claws of the invading crustaceans. ■

Antarctic krill found at 3000 m



The discovery of krill living on the seabed around the Antarctic Peninsula has changed scientists' understanding of what is a major source of food for creatures such as fish, squid, penguins, seals and whales. Professor Andrew Clarke of the British Antarctic Survey said: "While most krill make their living in the ocean's surface waters, the new findings revise significantly our understanding of the depth distribution and ecology of Antarctic krill... It was a surprise to observe actively-feeding adult krill, including females that were apparently ready to spawn, close to the seabed in deep water." ■

Sharks soon heading to Antarctica too

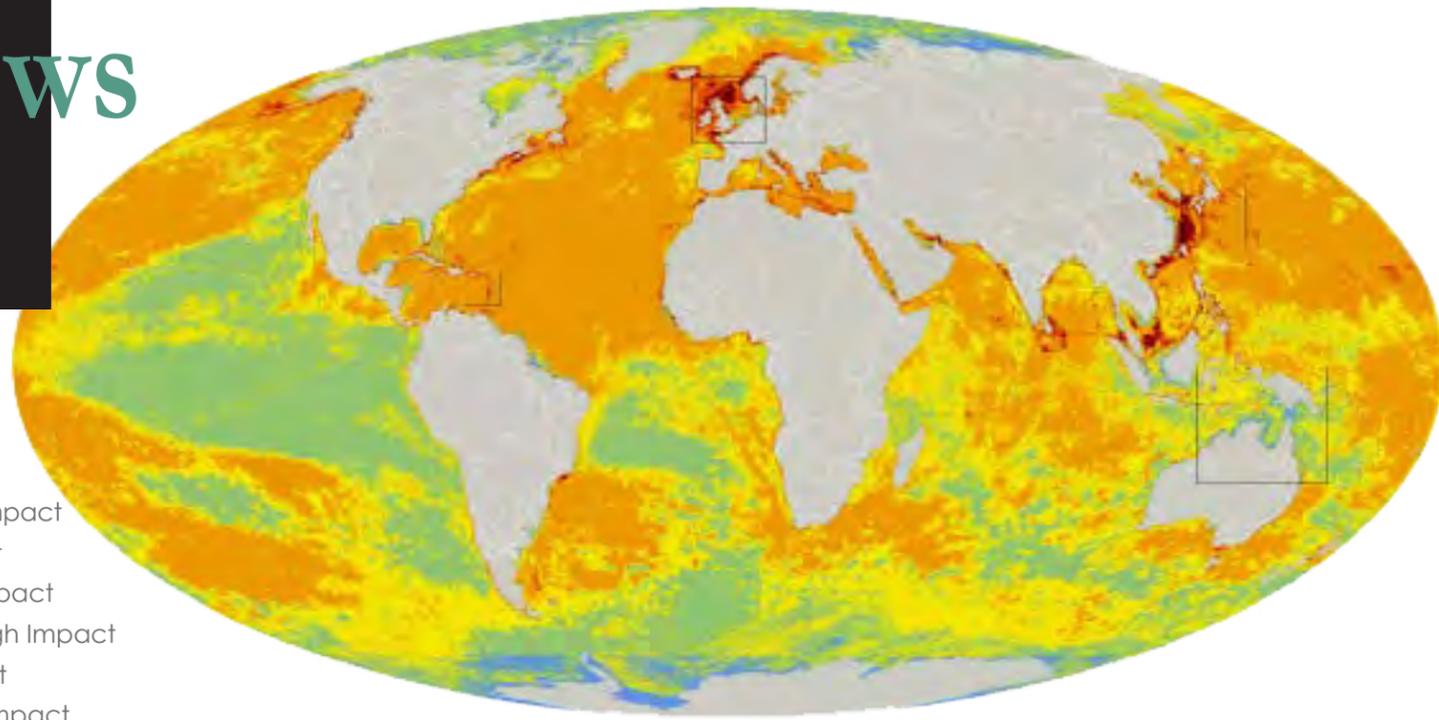
Global warming could bring sharks to Antarctic waters, threatening a unique marine life shielded from predators by frigid conditions for millions of years, biologists warn.

But global warming has already pushed temperatures up by one to

two degrees in the past 50 years, and the waters could become hospitable to sharks within the next 100 years. The water only needs to remain above freezing year round for it to become habitable to some sharks, and at the rate we're going, that could happen this century. Once they get there, it will completely change the ecology of the Antarctic benthic community. ■



Edited by Peter Symes



- Very Low Impact
- Low Impact
- Medium Impact
- Medium High Impact
- High Impact
- Very High Impact

No ocean left untainted by humans

It's probably worse than people realize. There's no space left on the planet that's untouched by human activities. And there's large areas, over 40 percent, that are being heavily impacted. Scientists mapped 17 different human activities in categories like fishing, pollution, and climate change.

— Ben Halpern

Almost half of the oceans have been badly damaged by humanity, and no region has been left untouched, the first global map of human impact on marine ecosystems has revealed.

Ben Halpern, of the US National Centre for Ecological Analysis and Synthesis (NCEAS) who led the ambitious project to chart the changing ocean environment says the world map shows how human have exacted a much heavier toll on the seas through fishing, pollution and climate change than had been thought—with 41 percent of the oceans being strongly affected by 17 human activities.

The world map, which was created by dividing the oceans into kilometre squares, is the first to combine information on how different human influences are affecting the oceans. It examined indicators of environmental health, including coral reefs, fisheries, kelp forests and water quality.

Some of the worst-affected marine areas are found around the British Isles. Parts of the North Sea, the Channel and the North Atlantic off the Irish and Scottish coasts have

all been assessed as suffering very high ecological damage. But there is hope, too. Halpern's research also found large, pristine waters near Earth's poles, guarded today by nearly inaccessible ice.

"This project allows us to finally start to see the big picture of how humans are affecting the oceans. Our results show that when these and other individual impacts are summed up, the big picture looks much worse than I imagine most people expected. It was certainly a surprise to me," Halpern stated to The Times.

"Unfortunately, as polar ice sheets disappear with a warming global climate and human activities spread into these areas, there is a great risk of rapid degradation of these relatively pristine ecosystems," Carrie Kappel, of NCEAS, a principal investigator on the project, said.

Dr Halpern said that while the picture is grim, it could be reversed by urgent action. "There is definitely room for hope," he said. "With efforts to protect the chunks of the ocean that remain relatively pristine we have a good chance of preserving them." ■

Humans the cause behind profound degradation of Caribbean coral reefs

Coral reefs in the Caribbean have suffered significant changes due to the effects of a growing human population, a new region-wide study shows

The number of people living in close proximity to coral reefs is the main driver of the mortality of corals, loss of fish biomass, and increases in macroalgae abundance, a new study published in the *Proceedings of the Royal Society of London* showed. In the study, researcher simultaneously analyzed contrasting socioeconomic and environmental variables.

Coastal development, which increases the amount of sewage and fishing pressure by facilitating the storage and export of fishing products, was mainly responsible for the mortality of corals and loss of fish biomass. Runoff from cultivated land was the main driver of increases in macroalgae. Coral mortality was further accelerated by warmer temperatures.

"It is well acknowledged that coral reefs are declining worldwide, but the driving forces remain hotly debated," said author Camilo Mora at Dalhousie University, Halifax, Canada. "In the Caribbean alone, these losses are endangering a large number of species, from corals to sharks, and jeopardizing over four billion dollars in services worth from fisheries, tourism and coastal protection," he added. ■

The continuing degradation of coral reefs may be soon beyond repair, if threats are not identified and rapidly controlled

— Camilo Mora

Scientists fear 'tipping point' in Pacific Ocean

Seabed off US Pacific Coast suffers from catastrophically low oxygen levels off the US. Most fish have fled—or have died.

Where scientists previously found a sea bottom abounding with life two years ago, they discovered the rotting carcasses of crabs, starfish and sea worms, swooshing from side to side in the current. The low oxygen levels that killed the sea life in 2006 were the lowest in a half-century—and that for the first time, parts of the ocean off the Oregon coast were measured with zero oxygen in the water; 2007 looked only a bit better.

The way the strong spring and summer winds have conspired to reduce oxygen to these extraordinarily low levels is complex. When these winds blow from the north as the Earth is turning toward the east, the water in the shallows along

the coast is forced farther out to sea. This allows water from deeper in the ocean—colder water with little oxygen but lots of nutrients—to seep up near the coast. It is filled with nutrients, because it contains dead plankton, fish excrement and more.

Strong winds and low oxygen levels have persisted for eight summers now, leading scientists to conclude that the ocean is getting close to a "tipping point" where low-oxygen levels are becoming the rule. While scientists cannot prove it is caused by a changing climate, it is consistent with what is predicted by computer projections built to anticipate global warming. ■

Drifting garbage Oceans' Killing Fields

Sorting out what's crap

Continents of drifting garbage in the oceans are killing marine life and releasing poisons that enter the food chain heading for your dinner table. In the middle of the Pacific Ocean, a patch of floating garbage has reached twice the size of Britain. Here the water is filled with six times as much plastic as plankton.

By Mike Arvedlund & Peter Symes

For centuries, seafarers have known to avoid the swathe of ocean that lie about midway between California and Hawaii from Equator up to the 50° N latitude. Here, you find the North Pacific Subtropical Gyre, an oceanic desert that lacks the winds upon which vessels with sails depend as well as the nutrients that support large fish populations.

Nonetheless, about ten years ago, Captain Charles Moore decided to cut through these

windless doldrums in his catamaran, *Alguita*, and what he saw here changed his life. When he looked around at what should have been a clear blue ocean, Moore saw a sea of plastic. For days on end, and as far as he could see, there were bottles, wrappers and fragments of plastic in every colour everywhere.

It is nothing new that the ocean's circular currents accumulate drifting matter—*flotsam and jetsam*—in some subtropical areas. But where in past times this matter would be biodegradable and consequently broken down by marine micro-organisms, modern materials such as plastics are non-degradable and starting to fill up the gyre with matters it can't get rid of, creating a plastic soup. This accumulation of debris in huge floating 'clouds' of waste have taken on informal names, the *Great Pacific Garbage Patch*, the *Eastern Garbage Patch* or the *Pacific Trash Vortex*.

Plastics as old as 50 years have been recovered from the ocean. Approximately 20 percent of this trash stems from ships and oil platforms; the remainder comes from land.

It is estimated that plastic makes up 90 percent of all refuse floating in the ocean, and the UN Environment Programme estimated recently that each square mile of ocean water contains 46,000 pieces of floating garbage.

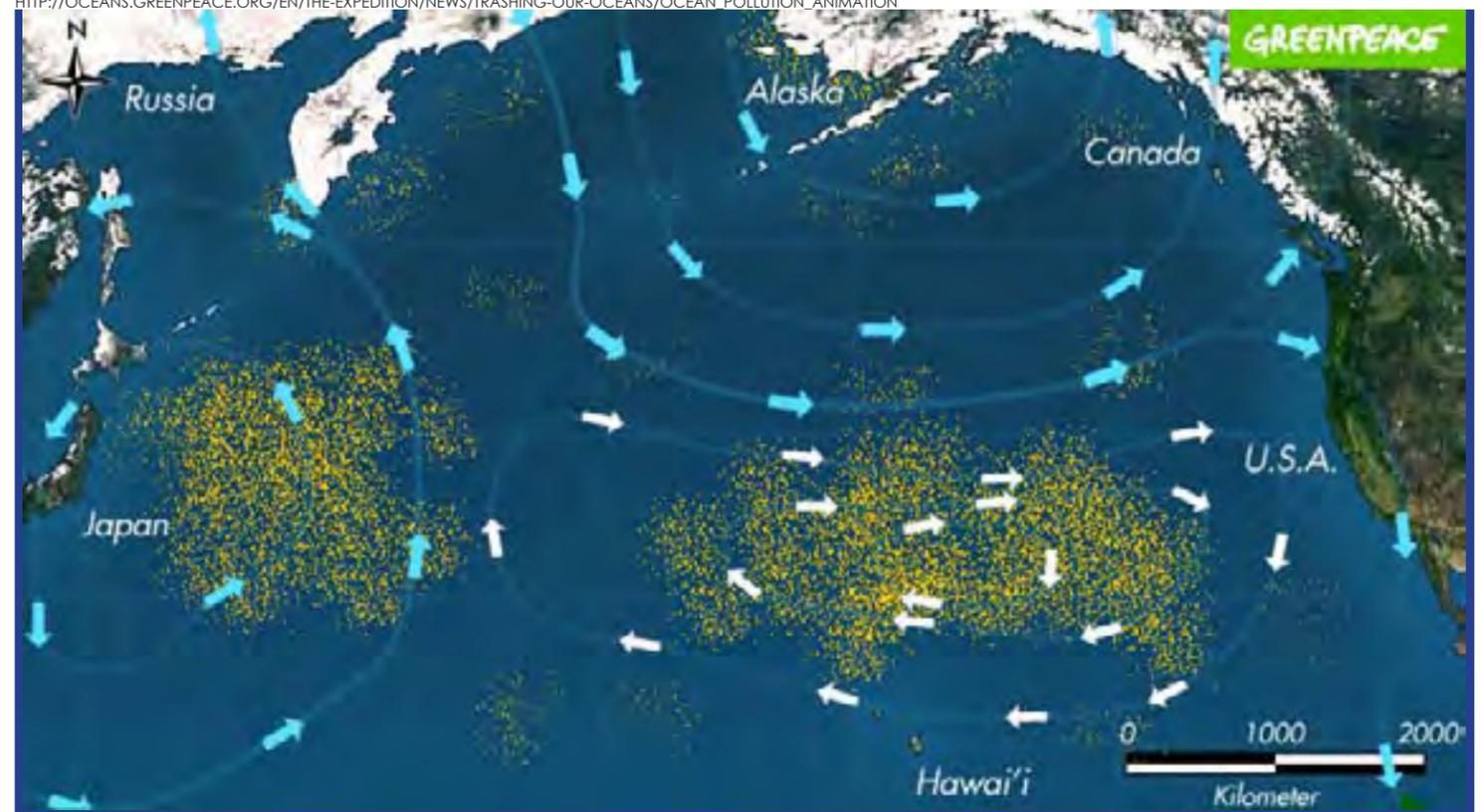
Not only does it pose various serious risks to the marine life, but it is ultimately a threat to human health as well. Huge amounts of the compounds used by the plastic industry are making their way into the seas and oceans. These materials act as chemical sponges that attract other synthetic chemicals such as hydrocarbons and the pesticide DDT. Once these substances make it into the ocean they inevitably enter the food chain, too—and the end of that chain is your dinner plate.

New habitat?

The discovery of The Great Pacific Garbage Patch led Mr. Moore to become an environmental activist. He has recently warned consumers that if we do not cut back on our use of disposable plastics, this plastic soup will likely double in size over the next ten years. He has now been joined by Professor David Karl, an oceanographer at the University of Hawaii, who

Drifting garbage accumulate in the ocean gyres

Click on the map to link to Greenpeace's animated map
[HTTP://OCEANS.GREENPEACE.ORG/EN/THE-EXPEDITION/NEWS/TRASHING-OUR-OCEANS/OCEAN_POLLUTION_ANIMATION](http://oceans.greenpeace.org/en/the-expedition/news/trashing-our-oceans/ocean-pollution-animation)



Discarded plastic bags are eyesores all right. We can all consent to that. But are they responsible for killing marine life too?

is co-coordinating an expedition to locate the garbage patch. He compares the plastic refuse to a new habitat of sorts. Translucent and drifting just below the surface, it remains undetectable from satellites. The only way to see it is to go there.

Into question

However, exactly how damaging plastics are for the wildlife are subject to an intense debate. Recently the British Prime Minister Gordon Brown, announced that he would force supermarkets to charge for plastic bags, saying that they were "one of the most visible symbols of environmental waste". Retailers and some advocacy groups, including the Campaign to Protect Rural England, threw their support behind him.



MICHAEL ARVEDLUND

However a range of scientists, politicians and marine experts criticised the government for joining a "bandwagon" based on poor science and attacked a

global campaign to ban plastic bags for being based on flawed science and exaggerated claims. Experts quoted by *The Times* says that the widely held belief that

“It doesn't do the Government's case any favours if you've got statements being made that aren't supported by the scientific literature that's out there. With larger mammals it's fishing gear that's the big problem. On a global basis plastic bags aren't an issue. It would be great if statements like these weren't made.”

—David Santillo, a marine biologist at Greenpeace, cited in the Times

plastic bags kill 100,000 animals and a million seabirds every year remains unsubstantiated, and that bags only constitute a small threat to most marine species. These figures are based on a misinterpretation of a 1987 Canadian study in Newfoundland, which found that, between 1981 and 1984, more than 100,000 marine mammals, including birds, were killed by discarded nets. The Canadian study did not mention plastic bags, said David Laist, the author of a seminal 1997 study on the subject.

The real culprits

Most deaths were caused when creatures became caught up

in waste produce. “Plastic bags don't figure in entanglement,” he said. “The main culprits are fishing gear, ropes, lines and strapping bands. Most mammals are too big to get caught up in a plastic bag. The impact of bags on whales, dolphins, porpoises and seals ranges from nil for most species to very minor for perhaps a few species. For birds, plastic bags are not a problem either.”

Blame the nurdles

Professor Geoff Boxshall, a marine biologist at the Natural History Museum, said: “I've never seen a bird killed by a plastic bag. Other forms of plastic in the ocean are much more damaging.”

Plastic particles known as *nurdles*, dumped in the sea by industrial companies, form a much greater threat as they can be easily consumed by birds and animals.

Arriving at making the right priorities

Many British groups are now questioning whether a ban on bags would cost consumers more than the environmental benefits.

Charlie Mayfield, chairman of retailer John Lewis, said that tackling packaging waste and reducing carbon emissions were far more important goals. “We don't see reducing the use of plastic bags as our biggest priority,” he said. “Of all the waste that goes to landfill, 20 per cent is household waste and 0.3 per cent is plastic bags.” John Lewis added

A nurdle, also called a pre-production plastic pellet or plastic resin pellet, is a pellet typically under 5mm in diameter. Nurdles are a large contributor to marine debris and can cause starvation to marine wildlife, as well as other environmental hazards. A nurdle may be called a mermaid's tear, a term which may also refer to pollution in the form of degraded plastic.

that a scheme in Ireland had reduced plastic bag usage. Geoffrey Cox, a Tory member of the House of Commons Environment Select Committee, said: “I don't like plastic bags, and I certainly support restricting their use, but plainly, it's extremely important that before we take any steps, we should rely on accurate information. It is bizarre that any campaign should be endorsed on the basis of a mistranslation. Gordon Brown should get his facts right.”

Our opinion

It feels somewhat awkward to acquit the plastic bag, but problems cannot be effectively addressed without a proper and correct diagnosis. We should curb the excessive use of plastic bags for a lot of good reasons, but the true nature of this problem relates more to garbage and waste is general and should be addressed as such. Wishful thinking perhaps, but if only somebody could invent a giant scoop and get rid of this mess. ■

“The Government is irresponsible to jump on a bandwagon that has no base in scientific evidence. This is one of many examples where you get bad science leading to bad decisions, which are counter-productive. Attacking plastic bags makes people feel good, but it doesn't achieve anything.”

— Lord Taverne, Chairman of Sense about Science



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A Barrow's carp gudgeon, or *Hypseleotris barrowayi*, is seen in this undated handout photograph released February 26, 2008

New Fish Species Was Discovered in Disused Australian Uranium Mine

Australian scientists announced the discovery of a new species of freshwater fish, two decades after it was sighted in a disused uranium mine in the outback Northern Territory.

It is hoped captive breeding of the rare fish could help protect the species and provide income for traditional owners. Ornamental fish breeder, Dave Wilson, explains to ABC News that he's already received enquires from overseas collectors who are keen to acquire the small rare native fish. "It's reasonably attractive and could be used as an aquarium subject. So we are interested, in conjunction with the local people there, in breeding the fish and offering it to the aquarium trade to use it. From that, we will give some back to the local people to manage their land with a percentage of the sales."

Dr Helen Larson of Kakadu National Park where the fish was found said: "In order to protect things with a restricted distribution like this, it's very good to have captive populations so that if anything does happen in the future—an accident, climate change, development—and the habitat is damaged, we can put back specimens that have been captive bred."

But Mr Wilson warns that the fish might prove very difficult to successfully breed in captivity. "The eggs will hatch after a couple of days and they get these microscopic little larvae that haven't got very big mouths and need very small foods. Quite a lot of the larvae need a particular type of movement to excite them into actually eating. If that's missing, you are not successful, as they just don't eat." ■

Kiribati Creates World's Largest Marine Protected Area

The small Pacific Island nation of Kiribati has become a global conservation leader by establishing the world's largest marine protected area with pristine coral reefs and rich fish populations threatened by over-fishing and climate change.



Kiribati is an island nation, a string of coral atolls and 33 islands, draped across the equator in the Central Pacific, almost midway between Hawaii and Australia. It is remote, and the population is sparse and poor. Nonetheless, Kiribati just created the world's largest marine protected area.

The new Phoenix Island Protected Area (PIPA) covers 410,500 km² (158,453 square miles) of ocean that is home to one of the richest marine feeding and spawning areas in the world. It encompasses a coral archipelago, two submerged reef systems and deep sea habitat, including underwater mountains.

Kiribati first declared the creation of PIPA at the 2006 Conference of the Parties to the Convention on Biological

Diversity in Brazil. On Jan. 30, 2008, Kiribati adopted formal regulations for PIPA that more than doubled the original size to make it the largest marine protected area on Earth.

Three research expeditions led by New England Aquarium since 2000 found great marine biodiversity, including more than 120 species of coral and 520 species of fish, some new to science. Some

of the most important seabird nesting populations in the Pacific, as well as healthy fish populations and the presence of sea turtles and other species, demonstrated the pristine nature of the area and its importance as a migration route.

Protecting the Phoenix Islands means restricting commercial fishing in the area, resulting in a loss of revenue that the Kiribati government would normally receive from issuing foreign commercial fishing licenses. NEAQ and CI are helping Kiribati design an endowment system that will cover the core recurring management costs of PIPA and compensate the government for the foregone commercial fishing license revenues. The plan allows for subsistence fishing by resident communities and other sustainable economic development in designated zones of the protected area.

Keeping oceans and marine ecosystems intact and healthy allows them to better resist the impacts of climate change and continue their natural role of sequestering atmospheric carbon that causes global warming. ■



A Fish that Hibernates

The Antarctic cod puts itself into a state similar to hibernation for the winter, researchers have found, which is highly unusual for a fish.

Scientists with the British Antarctic Survey found *Notothenia coriiceps* lowers its metabolic rate during winter, saving energy. As with hibernating mammals, the fish rouse themselves now and again from their dormant state for short periods. Researchers suspect the "hibernation" is triggered by changes in sunlight. The sea temperature varies by only about 2°C between summer and winter, which is probably too small a difference to induce such a significant change in behaviour. ■





The Western Pacific Warm Pool, which lies northeast of Australia, contains some of the warmest ocean waters in the world. Water temperatures in the warm pool have risen less than elsewhere in the tropics, which may explain why reefs there have experienced less coral bleaching

Ocean Thermostat Might Save Coral

Reefs in a region of the western Pacific Ocean have only suffered relatively few episodes of bleaching because the naturally warm waters have remained stable, coral reef researchers noticed.

Some coral reefs could be protected from the impacts of climate change by an "ocean thermostat". A team of researchers, led by NCAR scientist Joan Kleypas, say that there is a region to the northeast of Australia, called the Western Pacific Warm Pool, where naturally warm sea-surface temperatures have risen only a little in recent decades, and corals have only experienced four episodes of bleaching since 1980.

As global warming is damaging many corals elsewhere, some natural processes appear to be regulating sea surface temperatures in that area. It is suggested that as surface waters warm, more water evaporates, and this can lead to an increase in cooling cloud cover and winds.

The study lends support to a much-debated theory that a natural ocean thermostat prevents sea-surface temperatures

from exceeding 31° Celsius (88 F) in open oceans. If so, this thermostat would protect reefs that have evolved in naturally warm waters that will not warm much further, as opposed to reefs that live in slightly cooler waters that face more significant warming.

"Global warming is damaging many corals, but it appears to be bypassing certain reefs that support some of the greatest diversity of life on the planet," Kleypas says. "In essence, reefs that are already in hot water may be more protected from warming than reefs that are not. This is some rare hopeful news for these important ecosystems."

But her colleague at Ncar, Gokham Danabasoglu, warns that projections do not paint

an optimistic picture. "Computer models of Earth's climate show that sea surface temperatures will rise substantially this century," he says. "Unfortunately, these future simulations show the Western Pacific Warm Pool warming at a similar rate as the surrounding areas, instead of being constrained by a thermostat. "We don't know if the models are simply not capturing the processes that cause the thermostat, or if global warming is happening so rapidly that it will overwhelm the thermostat." ■



Quick Time video: NCAR scientist. Joan Kleypas, on coral reefs and the ocean thermostat. (Requires live internet connection)

IYOR 2008

INTERNATIONAL YEAR OF THE REEF

What is the International Year of the Reef?

"Recognizing that ten years after the first International Year of the Reef (1997) there continues to be an urgent need to increase awareness and understanding of coral reefs, and to further conserve and manage valuable coral reef and associated ecosystems, the International Coral Reef Initiative designated 2008 as the International Year of the Reef (IYOR 2008)." — International Coral Reef Initiative (ICRI), October 2006. IYOR 2008 will consist of a year-long campaign of events and initiatives hosted by governments and non-governmental organizations around the world. For more on the goals of IYOR 2008, see www.iyor.org.

Why is the IYOR 2008 important?

Coral reefs are some of the oldest and most diverse ecosystems on the planet. They provide resources and services worth an estimated 375 billion dollars each year, a staggering amount for ecosystems that cover less than one percent of the earth's surface. Millions of people and thousands of communities all over the world depend on coral reefs for food, storm protection, jobs, medicines, and recreational opportunities.

Unfortunately, many of the world's coral reefs (including the associated seagrass beds and mangrove habitats) have been damaged or destroyed due to increasing human impacts, climate change, and other factors. According to the Status of Coral Reefs of the World: 2004, 70% of the world's coral reefs are threatened or destroyed, 20% of those are damaged beyond repair, and within the Caribbean alone, many coral reefs have lost 80% of coral species. The decline and loss of coral reef ecosystems has significant social, economic, and ecological impacts on people and communities in the U.S. and around the world.

When will IYOR 2008 take place?

The calendar year of 2008 — January 1 through December 31.

If I choose to do something to celebrate IYOR, is it important to network with others?

You're not required to work with others in order to participate in IYOR 2008. All U.S. based individuals, corporations, schools and organizations are welcome and actively encouraged to participate in the IYOR. That said, networking helps ensure that we get the maximum return for our collective IYOR 2008 investments. Follow the steps below to network at whatever level (or all levels) you are most interested: international, national, regional, or local.

How do I get involved with IYOR 2008?

- Check out www.iyor.org for more information on the IYOR 2008 effort. Here you can register your interest with the international IYOR coordinator, sign up for the international email list by emailing info@iyor.org, and download basic IYOR 2008 information and key documents.
- Get involved with the U.S. campaign by contacting the non-profit organization Reef Check — iyor2008@reefcheck.org — to find out who in the U.S. may be involved in your geographic area or field of interest. Reef Check is serving as a facilitator for the U.S. IYOR effort in the non-government community.
- Then, if you'd like to brainstorm and network at the national level, contact the National Oceanic and Atmospheric Administration — iyor@noaa.gov — to get added to the U.S. Coral Reef Task Force Education and Outreach Working Group, a network that encourages information-sharing, collaboration, and collective brainstorming for coral reef outreach and education across the government, non-government, research and private sectors. The USCRTF Education and Outreach Working Group is acting as a platform for anyone interested in sharing information about their U.S. IYOR plans with other organizations, and provides a forum for potential collaborative planning and action.
- Finally, with the aid of the information resources and coordinators above, determine how you or your organization can make a unique IYOR 2008 contribution, and get started!

www.iyor.org FOR MORE INFORMATION



NAUI First Aid Course Continues to Gain Recognition...

It has been a year since the NAUI First Aid Course was introduced and continues to receive positive recognition from experts in the field for quality and thoroughness. By consistently setting the highest standards, NAUI Worldwide is the proven leader in education, training and safety in the diving industry.

The First Aid Course has been reviewed by medical, physiological and emergency medical experts. It contains all the International Liaison Committee on Resuscitation (ILCOR) recommendations and is accepted by the United States Coast Guard Training and Assessment Division as a recognized certification for ship's captain and officer licensing.

The course also received a very favorable review by John Christopher Fin in the January issue of *9-1-1 Magazine*, which serves law enforcement, fire, emergency medical services, search rescue, and disaster management. ■

We made a splash at Our World Underwater 2008... NAUI and Team Scuba continue to generate excitement in the Industry!

NAUI introduced Team Scuba at Our World Underwater 2008. The new dive industry NASCAR was met with much enthusiasm. Thanks to all those that stopped by to ask questions, met Ray Black, Jr.—NAUI diver and Team Scuba driver, toured the race transporter, took photographs with the Team Scuba NASCAR race car and driver, got autographs and showed their support.



NAUI at the Beneath the Seas Show

—BTS Tech Night and Team Scuba!

NAUI Worldwide is on the road again! We are headed to the 32nd annual Beneath the Seas Consumer Scuba and Travel Show this March 28-30 at the Meadowlands Exposition Center in Secaucus, New Jersey, USA. This show is open to the public and is one of the largest of its kind in the country, with over 300 exhibitors and over 60 workshops and seminars presented by industry experts. We have always enjoyed our relationship with Beneath the Seas, as their primary focus is also education. Be sure to stop by the NAUI Booth #340 to get the latest news and product info.

BTS Tech Night was started to provide educational seminars to the ever-growing technical diving community. NAUI Tech has been a strong supporter and contributor of BTS Tech Night, and we are looking forward to another great year. Join us on Friday, March 28, from 6pm-9pm at the Meadowlands Expo Center for BTS Tech Night!

NAUI Tech Presentations:

Helium: The Most Noble of the Diving Gases. Session 2, MEC Ocean Pals Theater. Presented by Tim O'Leary, Director of NAUI Technical Training.

Rethinking O₂ Limits in Technical Diving Session 2, MEC Ocean Pals Theater. Presented by Chris Laughrey, NAUI Tech CD.

DPVs for Technical Diving Session 1, MEC Rooms 1 & 2. Presented by Heather Knowles, NAUI Tech Instructor and Scott Tomlinson.

Team Scuba will be there with Ray Black, Jr., NASCAR driver and NAUI diver. Meet the driver, get an autograph and see the Team Scuba race car in person. Be sure to stop by the Team Scuba display or NAUI Booth #340 for information on how you can get involved in this exciting marketing initiative to bring scuba diving to a new audience of potential divers. ■

Ocean waves travel at 1500m

British scientists have discovered waves that flow deep in the Pacific Ocean. Using ocean-going robots, they detected the waves flowing eastwards about 1500 meters down.

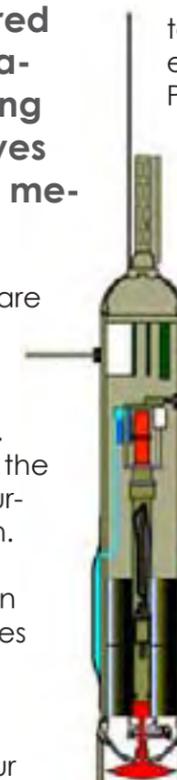
The waves—known as Kelvin waves—are much larger, longer and slower than waves seen at the beach and are triggered by changes in the weather patterns above the tropical ocean. They were known to occur on or near the ocean's surface, but scientists were surprised to find them in the deep ocean.

Dr Adrian Matthews, a meteorologist in UEA's School of Environmental Sciences and lead author of the new research, told the Daily Telegraph: "Everyone thought that there would be nothing to see below about 200m. Much to our delight, however, we found that even at 1,500 metres there was a regular wave in

temperature and salinity, moving east every couple of months across the tropical Pacific."

The finding may be important for predicting climate change and for weather forecasting in the tropics. The scientists believe the ocean waves are caused by the climatic variation known as the Madden Julian Oscillation (MJO), which may in turn be a trigger for an El Nino—the ocean-atmosphere system in the tropical Pacific that influences weather worldwide. The Madden Julian Oscillation is one of the main sources of changes in weather and climate in the tropics. ■

SOURCE: THE TELEGRAPH



The scientific team made the discovery using free-floating robots known as Argo floats. These operate at around 1km depth but surface every ten days, measuring temperature and salinity as they go



Wind Propulsion Is Back, Kite Pulls Ship Across Atlantic

The world's first commercial cargo ship partially powered by a giant kite sets out on its maiden voyage from Germany to Venezuela.

The designers of the *MS Beluga SkySails* expect the computer-controlled kite, measuring 160m², could cut fuel consumption by as much as 20 percent. They also hope the state-of-the-art kite will help reduce carbon dioxide emissions, as it tugs the ship.

Verena Frank, project manager at Beluga Shipping GmbH, told the BBC's World Today programme that the project's core concept was "using wind energy as auxiliary propulsion power and using wind as a free of charge energy. Nevertheless, it differs very

much from traditional sailing, as we do not have any bothersome mast on deck, which might be a hindrance to cargo-loading operations."

The efficiency of the kite depended on wind and weather conditions. But the advantage of the SkySails system "is that you do not need only backward winds—there can also be side winds, and you can still set sail," she said. The kite could also be used on medium-sized cargo ships, cruise liners and trawlers. ■ SOURCE: BBC'S WORLD TODAY



What are we having here?

(Filephoto, unrelated)

Many Restaurants Caught In Fish-Switch

Are you getting the fish you paid for and the fish you ordered, or are you eating something else entirely? Journalists from *The Charlotte Observer* in North Carolina went to investigate matters at local restaurants.

A hidden camera investigation took the reporters to nine different local restaurants, all selling grouper. They ordered the grouper, put the sample into a bag, on ice, and in the mail to be DNA tested at the Guy Harvey Research Institute at Nova Southeastern University in Fort Lauderdale. The mission was to find out whether, seven months after the team first busted local restaurants substituting grouper

with cheaper fish. One would have thought that the restaurants had learned their lesson. They found surprising results.

The verdict Out of the nine tested restaurants, a third were not serving the ordered grouper. "I'm a bit surprised, because I thought with all the publicity from the last time we found a lot of substitution, restaurants would sort of get the message that (there) are forensic methods that are able to identify whether they are substituting seafood or not," said Dr Mahmood Shivji, Nova Southeastern University.

Buying one thing and getting another? Is it fraud? A mistake? An oversight? Or a cheap way to increase profits margins? Whatever you call it, you can't call it grouper.

THE CHARLOTTE OBSERVER

Tests showed that grouper sandwich at one grill was really catfish, and in two other places—one of which one was a repeat offender—the grouper sandwich turned out to be a cheaper fish called hake, which is in the cod family, something that is completely different from a grouper. "It's quite disturbing

because that same restaurant was found substituting the first time. Clearly, they have not learned their lesson, and they've done it again," Dr Shivji added.

North Carolina's department of agriculture director, Joe Reardon, was also blown away by the finds. "We are disappointed. We know they made some initial steps to correct this back in 2007, and we would have expected to see total compliance," explained Reardon. Now, DNA tests show it's still happening.

"If we find that there are continuing issues, then we will be in contact with the Attorney General's Office, and we will be referring this to the Consumer Protection division. They stand ready to investigate this," said Reardon.

37 percent are mislabelled According to a report submitted to U.S. Congress, *Combating Fraud and Deception*, seafood is not what it's supposed to be 37 percent of the time. ■

SOURCE: THE CHARLOTTE OBSERVER



MIKE RAY HUNTZIKER JUNIOR III
ABDULLAH FITROY ENGELHARDT
HUMBERDINK JENSEN

Fishing ban saved wrasse

The Commonwealth of the Northern Mariana Islands is the only jurisdiction in the Pacific to ban scuba-spear fishing, which is seen as a primary factor why the islands still teem with Napoleon wrasses, a type of fish that is being fast depleted in other parts of the world.

According to the Division of Fish & Wildlife, scuba spear

fishing is a type of fishing that is potentially the cause of the rapid decline of Napoleon wrasses in other areas.

"The use of scuba-spear has probably been the single most important cause of the decline of the Napoleon wrasse worldwide," said DFW fisheries research section supervisor Michael Trianni.

The CNMI outlawed the use of the scuba-spear in 2002 and has also placed restrictions on the use of monofilament gill, surround, and drag nets.

These actions, Trianni said, have provided protection to juvenile wrasse that utilize lagoon and reef flats to grow. ■

WWF Launches Sustainable Seafood Website —“Stinky fish”

To encourage more shoppers to make the right choices when it comes to fish, WWF has launched a new website, Stinky Fish. It has information on which species to avoid and a simple guide to buying sustainable seafood.

"Overfishing is the single biggest threat to our oceans," said Giles Bartlett, Fisheries

Policy Officer at WWF-UK. "It is vital that consumers have much better information to help them choose which fish to buy.

"WWF's new Stinky Fish website will provide exactly that. We hope that consumer demand for sustainable seafood and better regulation will transform the most damaging fisheries into ones that we can all buy from with a clear conscience."

Buying seafood with the Marine Stewardship Council's

(MSC) blue eco-label is the simplest and most reliable way consumers can take action to be ocean friendly. Fisheries that want to be certified to the MSC standard must be managed in an environmentally responsible manner.

If more people buy their seafood from a sustainable source, it will inspire the rest of the fishing industry to follow suit, and improve their fishing methods. ■

www.panda.org/stinky

Barry University volunteers assist IAHD participant at annual "try dive" event in Key Largo, Florida, USA

A Perfect Vision

Text by Jennifer J. Hennessey. Photos by Ashley Leonard and Joshua Griffin

The bubbles whoosh past my ears, fast at first, and then less frequent. I run my fingers through the seagrass, over the rocks, dig them into the sand. I try to get my bearings... the rockwall is on my left, the open water to my right. Or is it the other way around?

Am I swimming in a straight line or am I moving in circles? I kick cautiously

for a few seconds, with one hand always out in front of me, feeling for danger. My buddy makes a circle in my palm, then squeezes my fingers five times. Five squeezes for ten meters. I am ten meters deep in the Mediterranean, and I'm blindfolded.

The journey that led me to this moment is an interesting one, to say the least. It's not something that happened all at once, like one of those major life changing events you see in the movies. It was instead a series of smaller happenings that gradually changed my view of the world... specifically the diving world. Let me start from the beginning.

My first encounter with the International Association for Handicapped Divers (IAHD) happened in the winter of 2004, my sophomore year of college. I was attending Barry University in Miami Shores, Florida, earning a bachelor's degree in scuba diving. That's right, scuba diving.

My classmates and I had just completed a lesson in working with disabled divers, and we were traveling to Key Largo for the weekend to put our new skills to use. There, we met Fraser Bathgate, vice president and

director of training for the organization.

The IAHD was holding their annual "Try Scuba" event at a local pool, and they asked the Barry dive students to come help out. These events provide opportunities for people with various disabilities to experience diving in a safe and controlled environment. It is also a good time for new IAHD divemasters and instructors to get some hands-on training experience. My classmates and I received IAHD Dive Partner certifications, which allow divers to assist people with various disabilities in training situations and on real dives.

Up until that weekend, I was like most other divers. I would pull up to a dive site or dive boat, park the car wherever there was a spot available, walk across the gravel parking lot, travel up or down stairs, through sand, over rocks, put on my standard issue dive gear that I bought off the rack at my local dive shop, complete my dive, and then go back the way I came—never giving a second thought to how easy this process was for me.

My attitude began shifting immediately when we arrived at the pool and met the divers we would be working with.

There were about six of them, most of them in wheelchairs, all of them excited to get in the water.

There were so many new things to consider: accessibility of the pool and the surrounding area, equipment alterations, getting the divers in and out of the water, sun exposure and temperature control, buoyancy issues, etc.

This type of diving was new to me, and while I was looking forward to being involved, I was also a little nervous. This feeling didn't last long; soon we were so busy, there was no time to be anything but focused.

Diving disabled

Everyone had a chance to get in the pool, and for most people it was their first time breathing underwater. Not one person left

that day without a smile, including myself. Seeing people leave their wheelchairs and enter an environment where their bodies were completely unrestricted gave me a feeling that is indescribable. I knew I was getting involved with something big—much bigger than myself and my selfish way of diving.

After the weekend was over, our class moved on to the next topic, but I was hooked. From then on, I was committed to learning everything I could about diving with disabilities. I learned that although it is a relatively new concept, research has been done that proves diving is benefi-

cial for people with both mental and physical disabilities.

Physically, it allows them to move in ways that may not be possible for them on land. A paraplegic has just as much potential to be a successful diver as an "able-bodied" person.

Emotionally, it gives people a sense of pride and independence that most other activities can't. Learning to dive takes a considerable amount of work and is a major accomplishment for anyone, especially someone who has had to overcome the additional obstacles caused by disability.

Socially, diving allows people to spend time in an environment





Jen Hennessey along for the ride as return IAHD participant Jay Shearer cruises through the pool. BELOW: IAHD volunteer crew and U.S. soldiers after the 1st annual Wounded Warriors try dive event in Key Largo

IAHD

How can I better my own dive experience? Where will I have the most fun? How can I get the best dive equipment? The best dive buddy? The best dive job? I had a vision of how diving should be—and it was mostly based on my own personal comfort and enjoyment of the activity. Looking back, I see how clouded my sight truly was.

Taking away the visual aspect of diving brought me back to the very basics of the sport. Feeling the weightlessness, hearing the silence, being perfectly calm and uncontrollably excited at the same time—it reminded me yet again of how much I love diving, and why I want to share that love with others.

Everyone in the world deserves the opportunity to feel these things, and the IAHD makes it possible. No other experience in my life has opened my eyes to the true needs of the dive industry like the time I have spent with the IAHD. I understand now more than ever why this organization was started, and why it must continue to thrive. The IAHD has its own vision of how diving should be, and I couldn't agree more. Sometimes, it takes a blacked-out mask to make you see things more clearly. ■

that encourages them to be adventurous and independent, surrounded by people with similar interests. For these reasons, diving is the perfect activity for someone with a disability, and after learning this, I knew I had to become more involved.

IAHD

I spent the next few years volunteering with the IAHD when they held their "try dive" events in Florida. Each time I attended one of these events, I had a little bit more responsibility and a better understanding of what I was participating in.

While the group of divers and volunteers changes every year, the overall outcome was always the same. Through the help of well-trained instructors and staff, participants were able to get a

taste of what it is like to be a scuba diver. These new divers almost always left with the intention of coming back again for more.

One of the greatest rewards of being a volunteer at these events is being able to share something I am passionate about with people who may not otherwise get to experience it. When a new diver surfaces in the pool for the first time with that inevitable ear-to-ear smile on their face, the feeling of sheer joy is contagious. And listening to them describe the experience afterward, I can hear the pride in their voices. I couldn't be more thankful to be part of an organization that makes such feelings possible.

Before graduating college this past summer, I was required to do an internship that would give me some real-life

experience in a dive-related field. With the assistance of Fraser Bathgate and other IAHD members, I was lucky enough to travel around Europe, and to the Netherlands where the organization's headquarters are located, and complete my internship hours learning about how the organization works, as well as

coming up with new ways to improve it in the future.

The trip lasted two months and included stops in England, Holland, Denmark, and Greece.

Along the way, I met with numerous IAHD representatives and saw first-hand how they contributed to the disabled diving population in their area. My responsibilities varied from working as a divemaster at local dive shops, touring rehabilitation centers, looking at marketing techniques of the organization, writing for the IAHD newsletter, and completing my IAHD pro-training course, allowing me to become a certified IAHD divemaster.

The experience made me more aware of the need for improvement in the U.S. based branch of the IAHD, a project I

plan to be a major part of. With such a large disabled population in the country, there is an obvious market for adapted scuba diving. Unfortunately, many people do not know that this type of activity is even available to them, which is why one of the biggest steps in the U.S. will involve increasing awareness.

The next level

By becoming an IAHD divemaster, I now have the training and experience I need to take my interest in the IAHD to the next level. This means organizing more "try dive" events, and working with other members to improve the overall quality of the organization, both locally and worldwide.

After participating in the pro-training course in Greece this summer, diving blindfolded for the first time, I couldn't help but think back to the beginning of my journey, when I based all of my diving decisions on how I would be affected.



SDI Supports New SUDS Initiative for Physically Challenged Divers

Soldiers Undertaking Disabled Scuba (SUDS) have just returned from Guantanamo Bay, Cuba, where they certified six Wounded Warriors as Scuba Diving International (SDI) Divers. SUDS works with severely injured soldiers who received their injuries while serving their country in world hot spots such as Iraq and Afghanistan. Two of these heroes went on to get their Scuba Diving International Advanced Diver certification as well.

"The conditions in Cuba were perfect," explained SUDS organizer, John Thompson. "We managed to get in a night dive, and the whole trip was really exciting." Thompson, who runs the SUDS program, added that the Naval Base in Cuba was a top choice of location for this SUDS expedition because it is an ideal place for training dives, has a healthy coral reef system, and the group was guaranteed plenty of support from the staff at the US military base. *More on SUDS in next issue.* ■

Diveheart

Important Diveheart Schedule Released

Keep up to date with all the critical programs being presented by Diveheart! One of Diveheart's visions is to make the dive industry, dive resorts and dive operators around the world, as accessible and accommodating to people with disabilities as the ski industry is today. [Link to schedule.](#) ■

PADI X Campaign

This year will see the first stage of an exciting new program that will eventually spread to many US universities. PADI's new PADI X campaign is aimed at providing scuba diving internships to college students across the country. The new program allows students to complete internships with local dive businesses learning not only to dive, but also the business of diving. Students gain valuable real world experience and become PADI X representatives, marketing diving to their classmates as part of their training. ■

New PADI Emergency Oxygen Provider Specialty

The new specialty course is an entry-level emergency oxygen course that also teaches the recognition of dive illnesses treatable by emergency oxygen. Though suited for divers, the new course has no prerequisites and doesn't include dives, which means it is equally applicable to those who are around divers—boat crew, nondiving buddies, lifeguards, and shore staff. No previous CPR or first aid training is required to take the course. The course is supported by an instructor guide and new student materials, including the Emergency Oxygen Provider Manual, a 52-page, richly illustrated self-study manual and skill development guide. ■



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Getting ready for the audience zipping along on a rolling support...ScubaBoard founder and X-RAY MAG partner, Pete Murray, does not let a leg injury ruin his fun one early morning at the Golden Dolphin

Golden Dolphin Moscow

Text by Andrey Bizyukin
Photos by Peter Symes

The Moscow International Dive Show “Golden Dolphin” took place February 14-17, 2008, in the “Gostiny Dvor” palace just 150 meters from Red Square, the historic center of the Russian capitol. The Golden Dolphin is a specialized trade show and exhibition devoted to scuba diving, spear fishing and water-based recreation. It is the biggest dive show in eastern Europe and hosts an underwater video and photo competition.

More than 230 exhibitors collected in Moscow this year. Visitors, guests, and participants of the show come from 33 countries around the world including the US, Australia, France, Canada, Germany, Hungary, Italy, Norway, Philippines, Malaysia, Lithuania, Indonesia, South Africa, Egypt, Turkey, Micronesia, Palau, Holland, Denmark, Israel, Papua New Guinea, Great Britain, Spain, Sweden, Russia, Latvia, Belarus, Ukraine and others.

International dive equipment manufacturers, distributors of diving and spearfishing gear, underwater photo and video

equipment diving schools, dive travel agencies, tourism authority representatives from different countries, photo and video studios, filmmakers, photographers from all around the world, and famous journalists of leading dive publications participated in this unique exhibition.

The exhibition of 2008 was interesting not only to professionals, who had an opportunity to get to know and purchase the newest dive equipment from the leading international manufacturers, but also to amateurs and beginners, who discovered the many different offers in

diving education programs through PADI, SSI, PDA, IANTD, NAUI, and CMAS. In addition, about 150 journalists from more than 90 international media agencies attended the show.

The event started with a morning press conference. Russian celebrities present

included famous Russian TV show personality, Yana Churikova; Stefan Michl, vice-president of Mares; Gennady Grutsya, president of the Golden Dolphin; Cynthia Norton, deputy of the minister of Philippines tourism; and other VIP guests who stood smiling in the glaring lights



Edited by
Peter Symes



CLOCKWISE FROM FAR LEFT:
The friendly folks at Sebal welcome visitors to their booth; ScubaBoard founder, Pete Murray, sporting his newly acquired authentic Russian fur cap, checks out the Kremlin on the Red Square; Pete and Stefan Michl from Mares, showing off their newest model of dive computers

and cameras of the media. They talked and joked cheerfully with the public and the journalists. It was an interesting show for everyone involved, contrary to the usual "genre laws" for this kind of event.

The official inauguration ceremony took place on the main stage of the palace. The stage was converted into a sea port with a white yacht heading into harbor. The chairman of the Russian Federation National Sea Politics department saluted all the guests, participants and exhibitors.

The Golden Dolphin show program in 2008 was very saturated, but the most exciting and successful of the key events was the round table discussion with the participants of the North Pole deep water expedition of the *Mir* apparatus. Arthur Chilingarov, Anatoly Sagalevich, Eugeny Chernyaev and Vladimir Grudzev—the world famous researchers who dove to the bottom of the ocean at the North Pole to reach a depth of 4000 meters—were at the table. They were proud legends of the Russian Federation, and the meeting with them was very popular with a lot of Russian divers.

This year was the 110th birthday celebration of the world famous Italian diver, Lodovico Mares—the founder of the Mares Company. The celebration was organized in Moscow with lots of noise and festivities in February 2008. There were daily presentations, a fashion show

for women's dive gear collections, a contest for the "Miss Mares" title, a quiz, competitions and a great number of prizes, which left no one indifferent, participants and visitors alike.

Aquanaut—one of the oldest Moscow dive clubs—together with the Germanika company, made all the show visitors happy by offering free try-dives, or introductory dives for beginners. There was a special equipped pool for this non-stop diving program. Each visitor could listen to a short lecture and then get their very first dive experience, together with a skilled, experienced dive instructor.

World famous diving record holders also showed up at the Golden Dolphin, including Stefane Mifsun, five-time free diving world champion (his apnea record is 10 minutes and 4 seconds and has not yet been surpassed); Pascal Benabe, world record holder in scuba diving (his record is 330 meters); well known Florida cave diver, Jarod Jablonsky; and Russia's own pride and joy, Natalia Molchanova. These celebrities were found to be very accessible while meeting with guests, visitors and journalists attending the show.

The Golden Dolphin was also visited by Sylvain Redoutey, the phenomenally successful French cave diver who is very well known in the exploration diving community. Well-known also for his invention of a new concept in rebreathers, Redoutey



Edited by
Peter Symes



almost went unnoticed with all the noise and storms of applause. He had a meeting with just a few professionals and gave a short interview. Redouty demonstrated his rebreather in the show pool and congratulated the Russian divers for a great show.

This memorial leap year marked the 65th anniversary celebration of the invention of the Aqualung. Golden Dolphin also displayed the "Cousteau Odyssey" flag to honor the great contributions to the dive world by Jacques Yves Cousteau.

The theme of the underwater film exhibit area stitched all of the festival's creative content together with a golden thread. There was everything there. It looked like a real filmmaking studio. Famous Russian artists such as Andrey Makarevich, Yana Churikova, Valdis Pelsh, Alexey Kortnev and other international sport stars were part of the committee overseeing the new creative project called "Golden Dolphin Stars Avenue".

An important part of the exhibition was the VII Moscow International Golden Dolphin video-photo festival competition. The best underwater images from

around the world—including 100 movies and 480 photos from 17 countries—took part in the competition. Only 23 artists won prestigious Golden Dolphin awards after the competition's jury of experts made their final decision. Two new categories—"Best Underwater Photographer of the Year" and "Best Artist Photo Gallery"—were established this year.

Sony was the primary sponsor of the underwater video festival this year. It presented new high definition Sony camcorders adapted for underwater shooting. Visitors had a chance to test all these gadgets and check out the unbelievable quality of the images on the HD Sony screen. There were also seminars, presentations and many prizes from Sony.

Olympus was the primary sponsor of the underwater photo festival, and the company demonstrated their new 2008 underwater cameras at the show. There was a lot of interest in this equipment from Russian amateurs and professional underwater photographers.

The presentation by Nimar & BS Kinetics, the famous European housing manufacturer, did not

Fashion model shows off an item from the Mares wetsuit collection; Aggressor Fleet offers liveboard adventures

leave anyone who visited their booth indifferent either.

There was a special exhibition called "Underwater Rarity" that displayed the old style underwater housings from around 50-60 years ago.

The awards ceremony of the Russian national prize for underwater science and research featured many famous achievements by Russian scientists, underwater researchers, sportsmen, physicians and commercial divers, who were honored with this prestigious award. Segey Ivanov, the first vice-chairman of Russian Federation government, congratulated the laureates of this Russian award.

The primary automobile sponsor of the show, Germanica Company, presented the most convenient car for divers and an exhibit of Bruce Hlebnikov from the *Guinness Book of World Records*.

The official show ferryman, Qatar Airlines, presented a special bonus

The cheerful folks at the SITECH booth



Edited by Peter Symes



The entourage from Malaysia Tourism and Clement Lee of Borneo Divers and Sabah Tourism (2nd from left.)

leaving a lot of positive emotions for everyone. Over 23,000 visitors came to the show. It's clear that diving has very quickly become the new prestigious sport and leisure recreation in Russia. Scuba diving doesn't leave anybody indifferent after experiencing at least once the underwater

program for frequently traveling divers, and the Ministry of Tourism Philippines invited everyone to visit the unique biodiversity and attractive underwater world of their islands.

Spearfishing is incredibly popular in Russia, therefore, the presentation by the Norwegian tourism department was very popular with a lot of show visitors.

In the evening, participants of the show had a chance to enjoy the rockin' musical sounds and performance of the famous

Russian rock group, "An Incident", led by Alexey Kortnev.

The gala ceremony of the show ended with the presentation of the Golden Dolphin statue awards to all 23 winners of the video and photo competition—the creative divers elite. The champions came up onto the main stage and onto the red carpet, one by one, to loud ovations from the crowd.

The four days of the show flew by like a breath of fresh air. For the public, there were firework displays in bright celebration events,

realm and the unique beauty of the "blue world of silence".

The organisers welcome everyone to come to the next Golden Dolphin celebration February 12-15, 2009! Don't miss your chance to get in touch with the beauty of the sea and become a diver—an explorer of the underwater world!

Results

Winners of the VII Moscow International Golden Dolphin Underwater Photo Festival :

Category: Man and the underwater world

- 1st place: Andrey Bizyukin
- 2nd place: Olga Kamenskaya
- 3rd place: Natalya Chervyakova

Category: Underwater inhabitants

- 1st place: Olga Kamenskaya
- 2nd place: Denis Palbiani
- 3rd place: Mikhail Vedekhin

Category: Fresh water

- 1st place: Svetlana Nosova
- 2nd place: Torresan Patrick
- 3rd place: Jiri Reznicek

Delicious traditional Russian cuisine: fresh walnut pear salad with vinegrette, rolled stuffed eggplant, tomatoes stuffed with bulgar wheat, scrumptious carrot and cabbage soup... Yum!

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 Off Jalan Kuchai Lama, 58200 Kuala Lumpur, Malaysia
 Tel: +603 7980 9902 Fax: +603 7980 4902
 Email: asiaeven@streamyx.com

Picture courtesy by: RICHARD NG (MIDE AMBASSADOR)

Event Organizer: AEE (AsiaEvents Exsic Sdn Bhd)
 Official Venue: PWTC (Putra World Trade Centre)
 Official Hotel: Seri Pacific Hotel
 Official Media: VM (VirtualMalaysia.Com)
 Official Freight Forwarder: TRANS LINK (Allied Trans-link Express Sdn Bhd)

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 Official Association Partners:
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 Official Publication (International): SCUBADIVER
 Official Media Partner: ACTION
 under water
 DivePhotoGuide.com
 Dive Malaysia





Category: Wide Angle
 1st place: Denis Palbiani
 2nd place: Denis Palbiani
 3rd place: Nacho Gil

Category: Macro
 1st place: Boccato Silvia
 2nd place: Wahrmut Sobainsky
 3rd place: Volker Lonz

Category: Black and white photo
 1st place: Denis Palbiani
 2nd place: Denis Palbiani
 3rd place: Elena Azarova

Photographer of the Year:
 Sergey Ilin

Grand Prize: Olga Kamenskaya

Winners of the VII Moscow International Golden Dolphin Underwater Video Festival:

Category: Profi-film
 1st place: Guy & Anita Chaumette
Beyond the blue
 2nd place: Elena Konstantinova

The blue hole of Dahab
 3rd place: Tim Hochgrebe
 Marine Passon

Category: Best Technical Production
 1st place: Danny Van Belle
The windows of life
 2nd place: Eduard Poroshin
Gold triangle
 3rd place: Dean Burman
Lair of the Water Wolf

Category: The Big Journey
 1st place: Sergey Gluschenko
I want come to Mavrikiy
 2nd place: Dmitri Balakirev
Philippines
 3rd place: Oleg Yanovsky
From the North to the South

Category: Films About Animals
 1st place: Rafa Gonzales
The last journey
 2nd place: Leonardo Sergiani
Habitat
 3rd place: John Boyle
Klin Warra

Category: Diving in Russia
 1st place: Valery Skvortsov
Two steps in the ice abyss
 2nd place: Andrey Yakovlev
Forgotten world of Kaidy

Category: Wrecks
 1st place: Oleg Bozjok
Titanic of Red Sea
 2nd place: Andrey Lagutin
On the edge of desert
 3rd place: Somogyi Gyula
Closed spaces

Best Video Clip:
 1st place:
 Leandro Blanco
One for all
 2nd place:
 Natalia Molchanova
Illusions
 3rd place:
 Igor Efremov
And I love her

Grand Prize: Danny Van Belle
The windows of life



CLOCKWISE FROM FAR LEFT:

Category: Macro
 1st place: Boccato Silvia

Category: Underwater inhabitants
 3rd place: Mikhail Vedekhin

Category: Underwater inhabitants
 2nd place: Denis Palbiani

Category: Man and the underwater world
 3rd place
 Natalya Chervyakova



Special Jury Prize:
 Yakovlev Andrey
Forgotten world of Caidy

Special prize from radio station,
 Kino FM: Victor Lebedinsky
The call of the sea ■



wreck
rap



The Swedish archipelago where the wreck was discovered

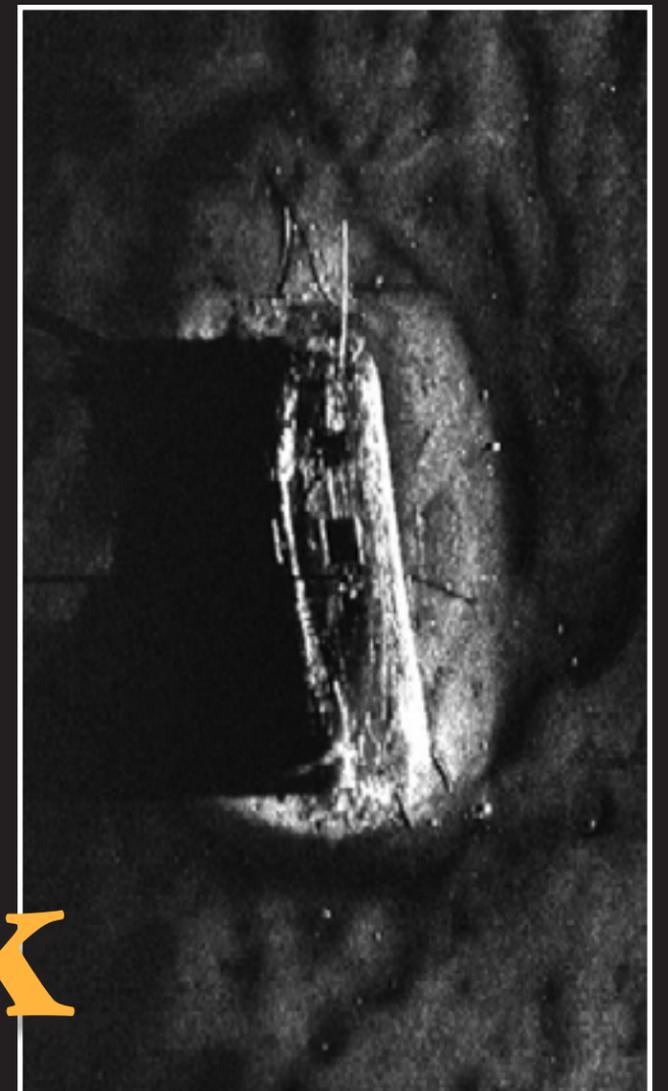


Everything seem to be in an excellent state of preservation, even the delicate wooden artwork seemed to be completely intact



Medieval Mystery Wreck

— Unique intact wreck from the Middle Ages located in the Baltic by the Swedish team, Deep Sea Productions



Side scan sonar image





Mystery Shipwreck in the Baltic Sea

The famous *Vasa* wreck on display in Stockholm is not a rare exception. Once again, the Baltic Sea has yielded a medieval shipwreck in extraordinary, some would say, pristine condition.

A new wreck was discovered in 2007 at a depth of 125m. The vessel is approximately 25 meters long, has a round bow and round stern and two masts, but there might have been three. The ship appears to be

almost complete—except for a mast and missing upper parts of the existing masts—and it sits upright on a predominantly hard bottom with little sedimentation. From what Dutch marine archaeologist, Martijn Manders, could ascertain from early video footage obtained from a remotely operated



vehicle (ROV), the ship is completely wooden with no sheeting of any kind, and it doesn't

appear to have a keel. It might be flat-bottomed. No leeboard is visible, but against the bulwarks on both sides there are two kevels (kruisklampen). They were probably placed on the level of the masts. The deck is partly damaged and some ornaments have fallen off. On the deck, there are many blocks lying without any rope. Although the conditions are very favourable for the wood, it is striking that there is no evidence whatsoever of rope, Dr Manders reported. The reason for that might be



The intricate carvings are still intact and will aid date and identify the wreck

bacterial decay. Hemp and flax are deteriorate much more easily than wood.

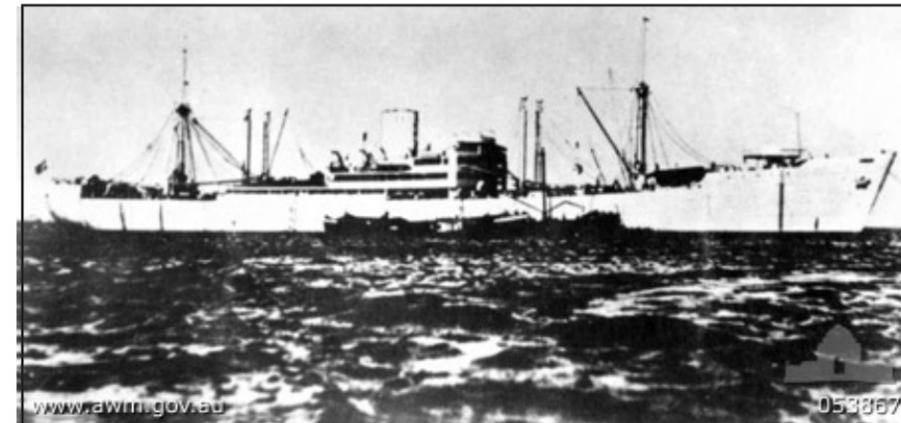
Dating

Based on build and shape, the artwork and materials, Dr Manders tentatively dates the vessel to the 17th century, perhaps the early 18th century. Ships are mainly identified from specific characteristic parts of a ship found during research, which are then compared with the evidence from contemporary paintings, models and sketches. In this regard, the vessel has a lot of similarities with Dutch shipbuilding techniques but is difficult to classify.

At that time, ships were handmade without drawing up construction plans. This means that vessels even of the same type could differ significantly. One ship type could have elements that

are called specific for this type at one time, and at another moment, they are not even mentioned. Shipbuilders used each other's techniques, and vessels were often reclassified.

There are many indicators that the vessel was indeed Dutch. Aside from the clues from the construction techniques, the Baltic Sea was also an important trading area for the Dutch in the 17th century. The trade was mostly for bulk goods—foremost grain, wood and iron. Regardless of whether it was actually sailing under the Dutch flag or not, the wreck provides a lot of historic information of significance for the Netherlands. ■



On March 16, 2008, Australian Prime Minister Kevin Rudd announced that *Kormoran* had been found

WWII German attack ship finally located off Australia

An Australian team searching for the lost World War II cruiser *HMAS Sydney* have located the wreck of the German merchant raider *DKM Kormoran* that sank it. The *Sydney* went down off the west coast of Australia after a fierce battle with the *Kormoran* on November 19, 1941.

The discovery of the wreck lying on the seabed at a depth of 2560 metres about 240 kilometres west of Shark Bay underwater, is a breakthrough in the long running efforts to find the last resting place of the *Sydney* and its crew of 645 sailors who all perished when she was lost. The *Sydney* was the largest vessel from any country to have been lost with no survivors during the war.

The location of the light cruiser and the circumstances of its sinking have been among the biggest mysteries in Australian military history. The breakthrough came after the Finding Sydney Foundation, backed by \$4.2 million in federal government funding, began a search earlier this

month, towing sonar equipment through 1800 square nautical miles. By finding the *Kormoran*, the team is "half-way to solving where the *Sydney* is," project leader Ted Graham said.

The search team had also found debris on the sea floor about six kilometres from the *Kormoran*, which they believed marked the site of the main battle between the two ships. The team found the wreck of the *Kormoran* amid a large field of debris, some of which could be pieces of the *Sydney* itself. They will now use a remote-controlled vehicle to search the wreck and look for clues as to the *Sydney*'s whereabouts. ■



The last of Hitler's U-boats has been located in the Black Sea

For years, German submarines *U-19*, *U-20*, and *U-23* were a terrifying presence beneath the waves, preying on British and Russian shipping. Then, 60 years ago, they were suddenly sent to the bottom of the Black Sea. They have finally been found off the Turkish coast—in excellent condition.

The three submarines were originally part of the six-boat 30th flotilla harassing Allied shipping in the North Sea. But the Type II-B, were small by Second World War standards—only 140 feet long—and were replaced in the Atlantic and North Sea by larger boats. After the invasion of the Soviet Union in June 1941, the German high command decided that it needed the flotilla to attack Soviet ships in the Black Sea.

To send the subs by sea past Great Britain and Gibraltar would have been hazardous, and going through Turkish waters would have violated that country's neutrality. So, it was decided to take them by canal to the Elbe, then upstream to Dresden where they were dismantled and taken 85 miles by truck to Ingolstadt on the Danube. They were then ferried hundreds

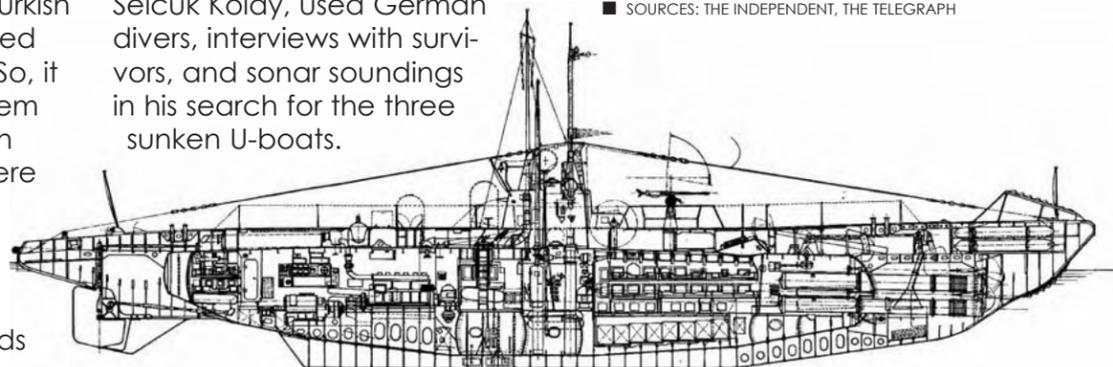
of miles through Germany, Austria, Hungary and Romania, to the Black Sea port of Constanta. Over the next three years, the flotilla sank 45,000 tons of Soviet shipping, while losing three boats.

In September 1944, the Red Army entered Romania and its government switched sides stranding the remaining three subs. Their crews were ordered to scuttle their boats and try to make it home by land. They rowed to Turkey, but were interned for the rest of the war. Turkish marine engineer, Selcuk Kolay, used German divers, interviews with survivors, and sonar soundings in his search for the three sunken U-boats.

His divers located *U-20* two miles off shore in only 24m of water. "It's in wonderful condition, still fully intact," he said. *U-23* lies in 49m of water three miles off the coast, while the *U-19* is further out and at a depth of more than 500m.

Only 20 Type II-B submarines were ever built, and just one survives, making the prospect of retrieving three of them in good condition an enticing one for naval historians. And as the 25-man crew of each ship got out alive, they are not considered to be war graves.

■ SOURCES: THE INDEPENDENT, THE TELEGRAPH



On 10 April 1940, *HMS Hunter* was badly damaged by gunfire from German destroyer *Georg Thiele* and collision with *HMS Hotspur* did the rest. The ship sank in the centre of the Ofot fjord with heavy loss of life



British WWII Destroyer Found in Norwegian Fjord

68 years after she sank during Battle of Narvik, the wreck of the Royal Navy destroyer *HMS Hunter* has been found

HMS Hunter has been found resting on the seabed 305m below the surface, where she has been undisturbed since April 1940 when she sank with the loss of 110 seamen. She was one of two Allied destroyers lost during the first Battle of Narvik—the Germans lost four destroyers.

British ships had been sent to the remote port of Narvik during the German World War II invasion of Norway with orders to prevent enemy forces from landing. The British entered the harbour early on the morning of 10 April 1940 and sank two German destroyers and six merchant ships.

However, another five German destroyers were at anchor in other fjords and attacked the British flotilla, killing Captain Bernard Warburton-Lee, destroying his flagship, sinking *HMS Hunter* and damaging two other ships. There have been several attempts

to find her over the years, but she was finally discovered by the Norwegian mine hunter, *Hnoms Tyr*, while on an exercise with the Royal Navy, Royal Norwegian Navy and Royal Netherlands Navy.

Ceremony

In a statement, the British Ministry of Defence said, "It became clear that this was the long-lost *HMS Hunter*, lying as she was when she had finally succumbed to the unforgiving waters after bravely fighting during the Battle of Narvik," it said.

A procession of ships, led by Flag Ship *HMS Albion* and including *HMS Bulwark* and *HMS Cornwall*, held a formal wreath-laying and memorial service, conducting synchronised ceremonies on deck.

They then turned in formation and steamed over the wreck. The crew who died were also toasted

in the traditional Navy way, with a tot of rum poured over the side. Wreaths were laid at the site, which will be marked as a war grave.

Major General Robison, the commander of the UK's amphibious force, said: "Finding *HMS Hunter* was a poignant moment, and being able to pay our respects along with our Norwegian and Dutch allies is particularly fitting to those who lost their lives."

Closure

One of *HMS Hunter*'s survivors, Fred Ward, has spoken of his "great sense of relief" that the wreck has been found. John Hague, 87, who also survived the sinking, said: "I am so pleased and overwhelmed to know that after so many years *HMS Hunter* has been found, and my fellow ship-mates have a resting place." ■

SOURCE: BBC

Edited by
Peter Symes



Going through Singapore?

Singapore's Changi Airport has now opened the doors to its ultra-modern Terminal 3. The largest of the airport's terminals, the S\$1.75 billion facility adds a capacity of 22 million passengers a year, raising the airport's total yearly capacity to about 70 million passengers. The new terminal covers a massive 380,000 square metres, with more 100 retail, food and beverage outlets, and service concessions. An automated people mover enables quick and efficient transfers between all the terminals, while a high-speed inter-terminal baggage transfer system will greatly assist passengers with connecting flights. While currently being used exclusively by Singapore Airlines, four additional carriers including China Eastern Airlines, Jet Airways, Qatar Airways and United Airlines will use the new terminal as of March 26th. ■

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Odyssea Divers Opens New Resort in North Sulawesi

Only a short 25-minute drive from Manado's Sam Ratulangi International Airport, Cocotino's resort is ideally situated to explore North Sulawesi's wealth of underwater attractions. Sitting astride scenic Wori Bay in the village of Kima Bajo, the resort offers expansive views overlooking the dormant Manado Tua volcano and the islands of the Bunaken National Marine Park. Wholly owned and managed by Odyssea, guests can expect the same level of service that is provided aboard their *MV Odyssea 1* liveaboard trips. Guests can choose from a Villa Room or one of the beautifully appointed Posi-Posi or Kano-Kano Suites. All group sizes are well catered to, with single, twin-sharing or triple-sharing options avail-



able. Each room comes complete with air conditioning and fan, ensuite bathroom with hot water, safety deposit boxes and complimentary bottled drinking water. Wireless internet access is available throughout the resort. Photographers will appreciate the digital room. Don't worry if you leave the laptop at home as computers are available along with charging facilities complete with 110V and 220V surge protected outlets. DVDs and CD are available for purchase.

After a memorable day of diving, be pampered with a traditional Indonesian massage in the resort's exclusive spa or relax by the swimming pool with an exotic cocktail to watch a spectacular sunset over the Sulawesi Sea. Dine under the stars on delectable local cuisine, all prepared with freshest of local ingredients. www.odysseadivers.com ■

Travelling with batteries

As of January 1, 2008, the US Department of Transportation will no longer permit loose lithium batteries to be packed in checked baggage. To avoid potential problems, keep all batteries in your carry-on baggage, as there is generally no restriction on the number of batteries allowed. Lithium-ion batteries, often found in laptop computers, differ from primary lithium batteries, which are often used

in cameras. If you must carry a battery-powered device in any baggage, package it to prevent inadvertent activation. Only use a charger compatible with your rechargeable battery – don't mix and match! If possible, place each battery in its own protective case, plastic bag, or package. Place tape across the battery's contacts to isolate terminals, as this prevents short-circuiting.

While there is no explosion hazard associated with either kind

of battery, the Federal Aviation Administration has studied fire hazards associated with both primary and lithium-ion cells. While research has shown that an explosion will not result from shorting or damaging either lithium-ion or primary lithium batteries, both are extremely flammable. Primary lithium batteries cannot be extinguished with fire fighting agents normally carried aboard aircrafts. Whereas, most common extinguishing agents easily extinguish lithium-ion batteries. ■

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Curacao Dive Festival

From May 24 – 31, the 2008 Curaçao Dive Festival kicks off a week long celebration of all things aquatic

The week long celebration attracts divers from around the world to experience this Caribbean island's plethora of attractions, both above and underwater. Famed for waters as blue as its namesake liqueur, the island and it's environs has been

proclaimed "Healthiest Marine Environment in the Caribbean/ Atlantic."

With more than 60 sites to choose from, divers of all skill levels will enjoy a wide range of underwater attractions from wrecks to wall dives. Notable dive sites include The Tugboat at Baya—a wreck easily accessible as a shore dive; The Crash Site—the remains of a small airplane that fell off the *USS Eerie* after being struck with a German torpedo; The Mushroom Forest, named

after the large numbers of star corals whose bases have been eroded by clams and sponges; and Playa Kalki—nicknamed "Alice in Wonderland" for the colourful profusion of corals and reef fish. When you dive on Curaçao you have excellent shore access to the coral walls. Topside, a wide range of activities has been organized throughout the week.

A series of workshops will be held, ranging from

Environmental and Marine Art Painting with renowned painter Ron G. Steven, to dive safety, ecology and underwater photography. In addition, a number of social events are planned including cultural events, beach barbecues, nightly meet and greet events and a farewell cocktail party on the final evening.

For more information, see the official website for the Curaçao Dive Festival at www.curacaodive.com ■

The World is a book, and those who do not travel, read only a page. —St. Augustine

First Annual Fish ID Challenge

Sand Dollar Condominium Resort and Bonaire Dive & Adventure will be hosting the First Annual Fish ID Challenge from August 9 - 16 or August 16 - August 23, 2008, in conjunction with Fish ID experts Patti and Scott Chandler of ReefNet, Inc. Well known for their work in marine life identification and documentation, the Chandlers have spent the last 17 years documenting fish species, behaviors and creatures for future study and identification.

www.sanddollarbonaire.com/FishID ■



Inflight Concierge

Air New Zealand is launching an in-flight International Airline Concierge service, which is believed to be an aviation industry first.

Commencing in April, the service will be provided on all international flights between Auckland and Los Angeles, San Francisco, Vancouver and Hong Kong. "Air New Zealand will employ up to 90 concierge staff, who will be dedicated to making every customer journey before, during and after an Air New Zealand service a special event," said Ed Sims, the airline's international manager. "Every one travelling with us—no matter how full the aircraft—receives the personal attention they deserve and the advice they need."

In a move aiming to revolutionize the long-haul travel experience, each flight will be staffed with a team of travel advisers, disrupt managers, loyalty and destination experts. Duties will range from escorting passengers to and from the aircraft and assisting with travel arrangements to helping making a selection from the in-flight wine list.

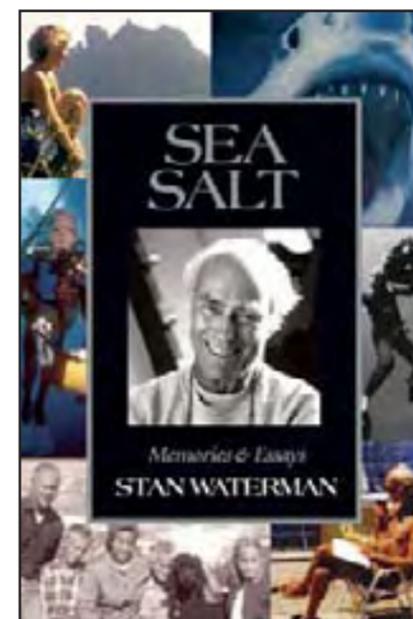
"With this new move, Air New Zealand leads the world in in-flight service," said Damien O'Connor, New Zealand Minister for Tourism. The airline has recently been judged as having the world's best passenger service in the prestigious Air Transport World magazine awards. ■

Stan Waterman liveboards

Spend a week aboard a liveboard with one of diving's true pioneers

Aggressor Fleet, the world's largest liveboard fleet, has announced dates for dive charters with diving legend Stan Waterman. Four charters will be available during 2008: Belize *Aggressor III*, May 10-17; Palau *Aggressor II*, July 13-20; Cayman *Aggressor IV*, July 26-Aug. 2; and Turks & Caicos *Aggressor II*, Oct. 11-18. One of diving's true pioneers, he is best known for his TV documentaries and film work. Among his many achievements, he was associate producer and underwater cameraman for the classic film, *Blue Water, White Death*. Spend a memorable week of diving as Stan shares entertaining stories of his remarkable career with his trademark wit and charm. ■

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Cardinalfish and other reef fish eavesdrop to find a new home

Fish Listen To Where They Want To Live

Just like prospective human home buyers, reef fish scout new neighbourhoods before moving. According to Edinburgh University researchers, fish use their acute sense of hearing to eavesdrop on locations before deciding where to live. After studying shoals of fish near Australia's Great Barrier Reef,

they discovered damselfish, cardinalfish, emperors and blennies chose communities by the "reef noise" they give off.

Very young fish choose locations with invertebrates such as shrimp, which give off a high frequency sound, and hide in holes snatching passing food. As they

mature, the fish become "more aware" of the social groups and communities they would like to live in. One is then chosen based on their needs—just like a human would choose a new neighbourhood based on local schools or employment possibilities. ■

Fish Can Count

While it was known that fish could distinguish big schools from small ones, researchers from the University

of Padua in Italy have discovered that they possess a limited ability to count how many other fish are

nearby. A series of experiments were conducted on a lone mosquito fish to see whether it would prefer to join a school of two or four others. Significantly more often, females preferred to join schools of four fish rather than three and consistently preferred schools of three fish over two. In a second series of experiments, fish were revealed to have the ability to process even larger numbers. Although unable to directly count over four, they were able to distinguish between larger numbers if they differed by a ratio of 2:1. This demonstrates that fish are able to visually estimate larger numbers, just not very accurately. ■



One, two, many



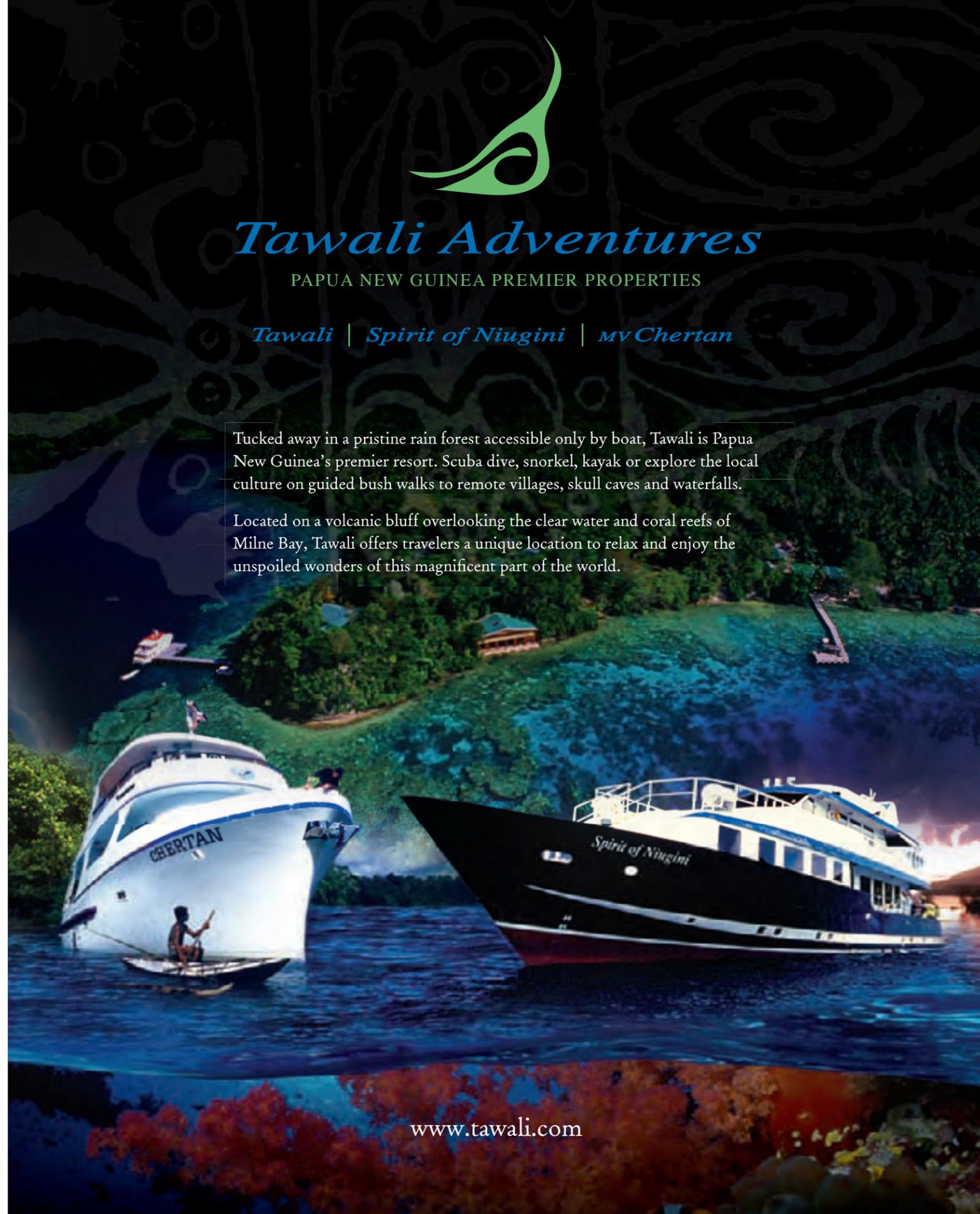
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