



GLOBAL EDITION
October - November
2005
Number #7

Italy

Polluce Wreck

History

The Frogmen

Ecology

Mangrove

Science

Salt

Profile

Miranda K

Portfolio

Michael Portelly

COVER PHOTO BY PETER SYMES



BALI
Tulamben

DIRECTORY

X-RAY MAG is published by AquaScope Underwater Photography
Copenhagen, Denmark - www.aquascope.biz
www.xray-mag.com

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Soft coral as elegant as a cherry branch
Photo by Peter Symes. Tulamben, Bali

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editorial

Some of our dive location advertisers are probably not going to be too happy with me for this editorial. It is about terrorism. "Why bring up such a depressing subject, which may even make our clients think twice about coming out to see us?" I hear them say. Because it is in the back of our minds anyway, that's why.

So, let's face it instead of sweeping it under the carpet. The good news is that a lot of travellers are staring the terrorists in the face and refusing to be subdued by their destructive activities. Divers want to go diving no matter what, and this might be the very best antidote to terrorism—showing that we are not shaken... perhaps stirred, but not shaken.

A couple years ago, the devastating events on 9/11 changed our traditional views overnight of the world and our safety. Trips were cancelled and the airlines, the tourist industry and a lot of local dependants all suffered great losses. It is just human nature to react, to retract and to be scared when our picture of the world and of our daily lives is shaken to the core—down to the bedrock—as was the case back then.

Then came SARS (remember that, anyone?) topped off with a tsunami in the Indian Ocean that devastated areas from Asia to Africa and sent a shock wave throughout the dive and travel industry world-wide.

Recently, we had bombs in London and in Sharm el Sheikh. The Londoners had seen it all a couple of times before, and amidst the apprehension, they stood up and once more refused to let their way of life be affected.

Following the bombs in Sharm el Sheikh, which, while they were obviously meant to hurt Egypt's all important tourism industry, paradoxically and sadly killed mostly a lot of Egyptian workers and damaged a lot of Egyptian property and businesses.

Even so, travellers didn't want to cancel their trips. When travel agencies cancelled their flights,

Brave New World Brave New Citizens

they had customers scolding them for giving in to terrorism. It seems that the general public has come to a new realisation that we can't withdraw ourselves from this problem. We need to face it out there. We can't hide at home anyway. And we shouldn't.

But it isn't what the George Bush'es, Tony Blairs and top brass military state on t.v. that will make the difference. We all know what they are going to say anyway, and we have heard all their standard phrases before. It is what you and I do that will make a difference. If we stand our ground, the terrorists will lose the war.

And we must not forget the other main part of the whole tragedy. It's always the locals who get hurt the most from terrorism, directly as well as economically. They are left with the pain and devastated businesses when we tourists check onto our flights home and don't come back.

Bali

In this issue, the travel story is about Bali. There are a thousand good reasons to go to Bali as there are to go to a lot of other fine dive locations in the world. Yet, given a range of choices, when we visited Asia earlier this year, we opted to go to Bali because we wanted to put the spotlight back on an island which was hit hard by a big terrorist attack a couple of years back.

This may not be the most professional of reasons, but it has a global objective. There surely are numerous other locations out there that are also worthy and deserving of a visit with all the promotional spin-offs a major magazine article affords them. But the positive changes in Bali since the terrorist attack speak volumes about the local people and their resilience to disaster. It is a story we are seeing a lot of around the world lately.

Fanatical religiously-based terrorism will hopefully be confined to a limited space in history, just as the political terrorism we had in Europe in the 1970's and 80's did. Those terrorist activities are now pretty much a thing of the past.

What can we do? Dive on!

We salute you fellow travellers. ■



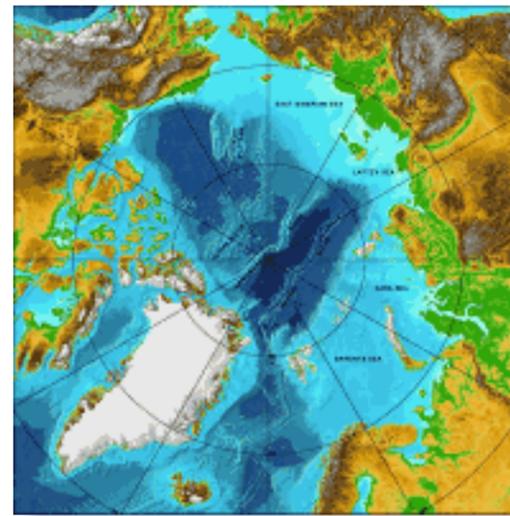
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News edited by Peter & Gunild Symes

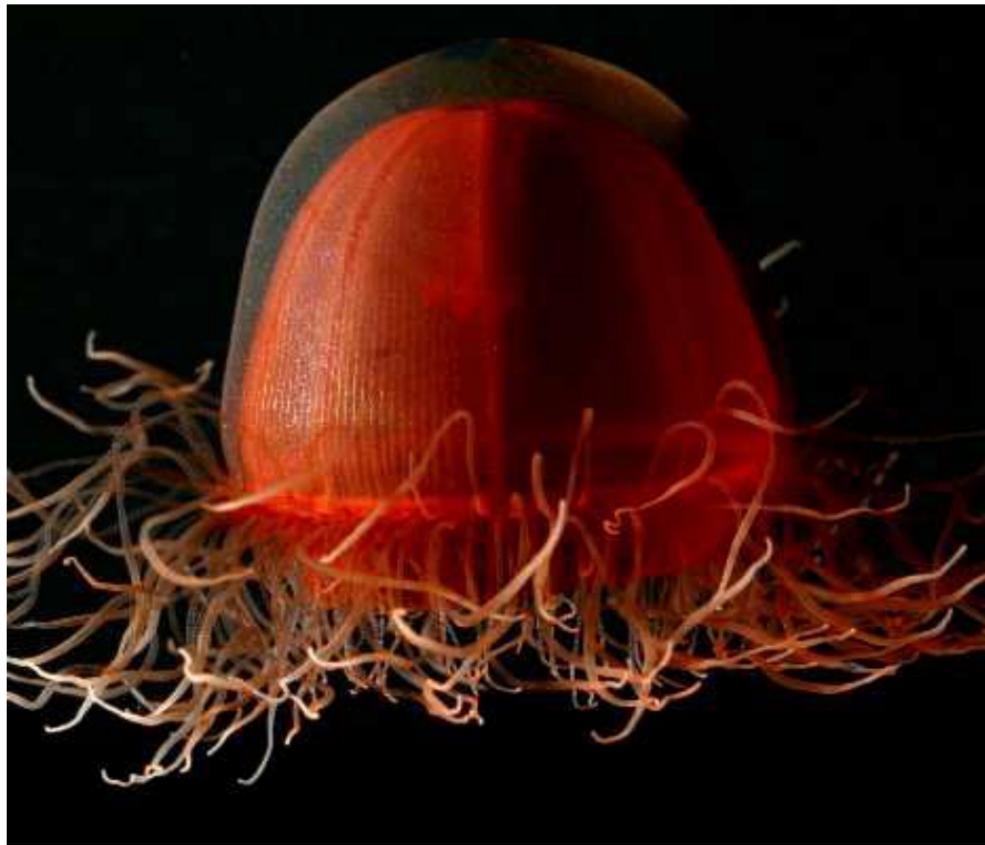
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NEWS

Lots of new Marine Life



Map of the Arctic



be thriving in the extreme cold under a lid of ice currently 1-21 meters thick. These unexpected populations have been sheltered under the Arctic ice for millennia.

The US Coast Guard Cutter *Healy* sailed 24 scientists from the US, Canada, Russia and China on the 30-day Hidden Ocean expedition coordinated and funded by the US National Oceanic and Atmospheric Administration (NOAA). The independent Census of Marine Life involved eleven of these scientists in an unprecedented 10-year global scientific collaboration to inventory the biodiversity of the seas in order to create a comprehensive portrait of life in the oceans.

The scientists of the expedition returned with thousands of specimens from the isolated ocean, the Canada Basin, as well as the Chukchi and Beaufort Seas. Some of these specimens appear to be new to science. The expedition's scientists' early findings include the discovery

of the first squid and octopus ever found in the area as well as new species of comb jellyfish, sea anemones and benthic bristle worms. They also found two species of amphipods, or sand flea-like crustaceans, which were previously thought not to exist in

Arctic environments. In addition, scientists found a sponge with a calcium-based skeleton at a surprising depth of 4,500 meters.

The expedition employed a number of tools and high tech equipment to gather specimens at 14 locations and data from depths to 3,300 meters below the ice, which will prove important in



the study of the impact of climate change, energy exploitation, fishing and shipping. These

tools included a remotely operated underwater vehicle, under-ice cameras and SCUBA divers, pelagic nets, an ice corer, benthic camera platforms and box cores. Scientists said that modern technology has enabled them to obtain comprehensive high-resolution mid-water and seafloor images of the area and its creatures like never before.



THIS PAGE: photos of various marine animals discovered by the explorers of the Arctic. Courtesy of NOAA.

Arctic Marine Life Diversity & Density Higher than Expected

Explorers of the Arctic have found a surprising density and diversity of marine life – some creatures are new species yet to be identified.

High numbers of large Arctic squid, cod, jellies and other creatures have been found to



Members of the expedition to the Arctic

Edited by
Peter Symes &
Gunild Symes

Plans to study the Antarctic in a similar expedition are in the making. The Antarctic expedition will be funded by with a \$525,000 grant from the New York-based Alfred P. Sloan Foundation and led by Australian Antarctic Division in Hobart. It will involve up to 200 scientists from 30 different countries and cover 35 million square kilometres in the Southern Ocean. Scientists want to study the role of the recently identified Antarctic Circumpolar Current, a

powerful force flowing west to east at 145 million cubic meters of water per second, in genetic diversity of the seas.

With DNA research collected from the expedition, scientists hope to piece together the history of marine evolution. ■

LEFT: The US Coast Guard Cutter *Healy*

All photos this page courtesy of NOAA

Can Sea Ice on the Rise in the Antarctic be due to Global Warming?

In a recent study, researchers from NASA have found that the increase of precipitation due to warmer air temperatures from greenhouse gases might actually be helping to increase the volume of sea ice in the Southern Ocean of Antarctica. It is evidence that there is a potential asymmetry between the North and South Poles. It may

indicate that climate change may have different impacts on each end of the planet.

Counter to mainstream thinking that climate changes cause the melting of glaciers and sea ice in the Arctic, the study's simulation findings suggest that a counterintuitive phenomenon is in effect in the Antarctic.

Warming climate typically leads to increased melting rates of sea ice cover and increased precipitation rates. But in the Southern Ocean, the increased precip-

itation is loading sea ice with additional snow, which then becomes so heavy that it pushes the Antarctic sea ice

under the surface of the water. The snow then freezes and creates thicker sea ice. While the findings of the study were made through computer-generated simulations, plans to corroborate the findings through long-term ice thickness measurement on location is a goal for future research. ■



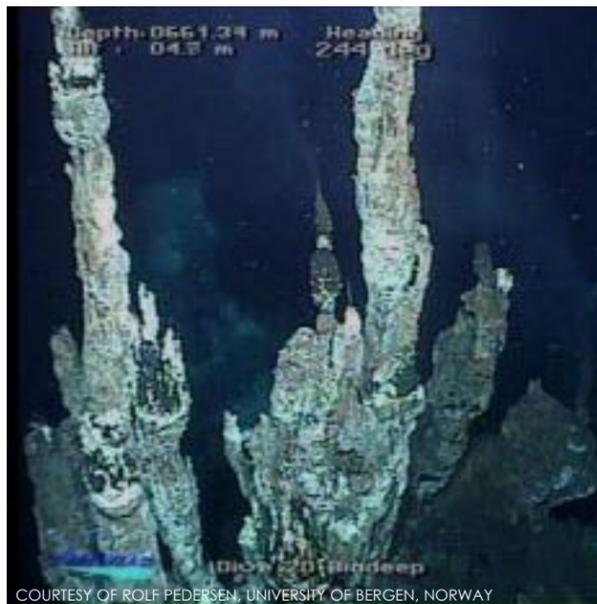
THIS PAGE: Marine animals discovered by explorers of the Arctic. Courtesy of NOAA.



TOP & ABOVE: Scientists of the expedition in action. Courtesy of NOAA.



Edited by
Peter Symes &
Gunild Symes



Vent sites are discovered along the Arctic Ridge

Northern vents discovered

The most northerly and isolated undersea hydrothermal vents have been discovered by a Norwegian-led expedition in the Arctic. Two vent fields were found north of Mohs Ridge between the island of Spitsbergen and Iceland. The vents were located 500 to 700 metres below the surface, which is a shallow depth according to marine geologist, Rolf Pedersen, from the University of Bergen in Norway who was part of the team of experts exploring the area.

Scientists found 50 chimney vents using methane sensors and a robotic submarine. They recorded temperatures over 250 degrees C. What appear to be tube worms were found thriving near the hydrothermal vents. These worms were known only to exist in the Pacific prior to the discovery of the northern vents. ■

Deep-sea city of eels discovered

Large numbers of eels near a South Pacific deep-sea volcano surprise divers and researchers.

Hundreds of eels were discovered slithering around the seafloor of a volcano near American Samoa this spring. Nicknamed Eel City, marine scientists were astounded to find its huge eel population, which is a discovery that is said to be unprecedented in ocean research. The deep-sea community is the first known to be dominated by eels.

Researchers from the Scripps Institute of Oceanography and other institutions used submersibles to explore the volcano this spring on an expedition of the crater summit of Vaialulu'u. Indeed, the scientists also found a new volcano growing in its crater summit.

The emerging 1,000-foot (333 meter) volcano located 2,000 feet (666 meters) below the surface is named Nafanua after the Samoan goddess of war. According to geologists at Scripps, Nafanua is growing 8 inches (20 cm) per day. It is not known what the eels are feeding upon, but it is known that there are thick mats of bacteria around the volcano that are suspected to serve as a food source.

Marine biologist Dr Adele Pile from the University of Sydney said, "We were amazed to find not only a very rich hydrothermal system that had a very thick bacterial mat covering it, but living inside of these mats and all the craggles and all the little holes you could find in this brand new volcanic rock, were all these eels." ■



Eel City near Samoa

Bacteria discovered in the Antarctic

Bacteria are known to survive and indeed thrive in environments of extreme heat such as hot springs. Now they have been found to thrive in environments of extreme cold as well. Researchers accidentally discovered large numbers of bacteria and clams on the ocean floor in March while exploring the Antarctic waters that became accessible after the 2002 collapse of the Larsen B Ice Shelf.

Found at a depth of 2,800 feet (933 meters) in an area isolated under ice for over 10,000 years, the bacteria form a white sheet up to one centimeter thick upon which clusters of clams lie. The discovery leads scientists to theorize that the chance of life in even more extreme environments may be possible. In addition, the bacteria may hold secrets to life without photosynthesis or properties such as enzymes that could be used in industry for various needs. It is not known at this time how the bacteria survive or what their food source is. ■

Scientists discover new Antarctic ecosystem near underwater volcano

A vast ecosystem has been discovered on the sea floor under what was once the Larsen B Ice Shelf, which collapsed in 2002. Scientists, Amy Leventer and Jimmy Maritz of Colgate University, used an underwater camera attached to their boat in May 2004 to capture video images of what appeared to be large mats of bacteria supporting colonies of clams 20-30 centimeters in diameter.

The ecosystem, located at a depth of 850 meters under the ice, is known as a cold seep or cold vent community and is fed by chemical energy rather than photosynthesis. It is thought that methane from deep underwater vents provides the energy source of the ecosystem.

The research by Leventer's team was sponsored by grants from the National Science Foundation to Hamilton, Colgate, Southern Illinois University and Montclair State University. ■



Canada to patrol illegal fishing in Arctic waters for first time

In an attempt to clamp down on illegal fishing in the far northern regions of Canada, the federal government will send a frigate to patrol the waters of the Arctic for the first time.

Amid growing pressure to curb over fishing by foreign vessels in the region outside of the 200-mile exclusive economic zone off the East Coast of Canada, the Canadian government is sending the HMCS Fredericton from Halifax to the Davis Strait, Pond Inlet and Iqaluit to see who is fishing in the area and to make their presence and sovereignty in the area known. Authorities want better monitoring and control over vessels operating in international waters.

The trip is not related to an ongoing dispute that Canada has with Denmark on the claim over Hans Island located between Ellesmere Island and Greenland. ■

Edited by
Peter Symes &
Gunild Symes

PADI announces new Ecotourism Training Center in Tsunami hit area of Thailand

PADI Asia Pacific announced the opening of a new Ecotourism Training Center (ETC) on August 4th in Khao Lak, which was one of the hardest hit areas of the tsunami last year in Thailand. The centre, which was the brainchild of US expat Reid Ridgway and Swiss national Pascal Hernikot, a Khao Lak tsunami survivor, was built in response to the devastation of the area and local population by the tsunami.

The mission of the centre is to provide professional diving instruction to young men and women affected by the tsunami so they can develop careers in diving and tourism. It aims to help revive the once thriving international ecotourism destination for divers and naturalists. According to founders Ridgway and Hernik, many of their friends in the diving industry in Khao Lak lost everything – homes, jobs, possessions, businesses and many tragically lost their lives.

The centre will focus on three areas in its professional curriculum: computers, dive training and English language. The programme emphasizes environmental education and sustained tourism. Over nine months, students ages 16 to 41 can gain certification as a divemaster or can



be upgraded to open water instructor if they are already divemasters. Students will receive 6000 baht per month from the ETC for living expenses during the programme.

Ridgway and Hernik realized their dream of the eco-tourism centre with the help of PADI who was one of the first industry leaders to stand up and support

the programme.

The eco-tourism centre now houses a fully accredited English language component provided by the TEFL Teacher Training language institute in Phuket as well as a computer lab, video editing suite, projection screens, dive gear maintenance laboratory and two long tail boats equipped for diving and research.

The first year students, which number 12, will document their entire experience on video in order to produce a film to be released at the one-year anniversary of the tsunami disaster. Ridgway said the film would show the remarkable resilience of the local community and culture as they recover and rebuild. He said it would also highlight the natural beauty above and below the sea in Thailand to encourage



IPOD BY APPLE

travellers to return to vacation in the area.

Although the non-profit organization is privately funded, the ETC continues to seek funding from individuals and businesses to fund student scholarships and help make the program a permanent yearly course for the young people of the region. For more information, visit: www.etcth.org. ■

PADI Introduces Diving Podcast

The Professional Association of Diving Instructors (PADI) announced that it plans to produce a new podcast programme devoted to scuba diving. The world-wide scuba diving organization is seeking contributors for possible broadcast.

According to a PADI spokesperson, PADI wants to involve divers from all over the globe. Content of the future shows cover beginning dive training, dive travel insights from divers and dive operators, environmental issues, the latest dive conditions from specific dive locations, dive celebrity interviews, first aid and safety information, continuing education and entertaining news from divers all over the world.

While other podcasts cover overland issues, PADI's Scuba Chat plans to cover the underwater world including stories from returning divers, unique diver behaviour, effects of hurricanes on shipwrecks and other serious and fun issues. ■

Speed limits for dolphins

In Ireland, the Department of the Marine has established new speed limits for boats and other sea vessels in order to protect the growing number of dolphins and whales present in Irish waters.

Whale-watching boats must not exceed seven knots and must stay 100 metres away from the animals. The department also requires these boats to be licensed passenger vehicles. They must not attempt to corral the whales or dolphins between boats, nor are they allowed to swim with the animals.

The dolphin and whale watching industry brought in 12.3 million euros in tourism revenue in 2003. According to marine biologists it is becoming more and more important to protect dolphins and whales from harassment. The new regulations should provide the mammals with more protection. ■



NURC PHOTO BY DOUG KESLING

A diver swims with wild dolphins

Don't swim with the dolphins

In Costa Rica, officials have banned the activity of swimming with dolphins or whales effectively closing down a highly criticized growing tourism industry according to an environmental group. With the new regulations effective in July, even researchers are not allowed to swim with the marine animals, nor are they allowed to hold the mammals in captivity.

Tourists pay top dollar in Mexico and the Caribbean to swim with dolphins held in captivity. Environmentalists who feared that the 45 sea tourism companies in the Costa Rica would also start advertising swimming with the animals, proposed the rules to avoid this development. ■

DEMA Show will alternate between Las Vegas & Orlando

The American trade show for the diving industry, Diving Equipment and Marketing Association (DEMA), has announced that for the next six years it will be alternating its venue between Las Vegas and Orlando, Florida. A spokesman said it will be dropping Houston in Texas – the venue of last year's show. The organisers also said that after this year the four-day show will be at the end of October or the beginning of November. This year's show will be held in Las Vegas from 4-7 October. ■

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Odyssey's Shipwreck & Treasure Attraction Opens In New Orleans

Odyssey Marine Exploration, Inc. a leader in the field of deep-ocean shipwreck exploration has opened an interactive shipwreck and treasure attraction in New Orleans' French Quarter. Located in the Jax Brewery, Odyssey's Shipwreck & Treasure Adventure will reveal the compelling stories behind some of the world's most famous shipwrecks, their treasure and historical artifacts, and will allow visitors to experience the adventure and excitement of deep-ocean shipwreck exploration through multiple hands-on exhibits.

The attraction will feature the SS Republic, a Civil War-era ship with an intriguing connection to New

Orleans. The ship sank in a hurricane off the coast of Georgia while sailing from New York to New Orleans in 1865. Odyssey discovered the Republic nearly 1,700 feet below the surface of the Atlantic Ocean in the summer of 2003 – nearly 138 years after the ship went down. More than 51,000 gold and silver coins, and approximately 13,000 additional artifacts, were recovered in the world's most extensive deep-ocean archaeological excavation.

The aftermath of Hurricane Katrina has fortunately left Odyssey in relatively good shape. According to officials, the company's building in which the attractions are housed experienced no flooding, fires or looting. In addition, Odyssey was able to remove all irreplaceable artefacts and valuables such as coins safely from New Orleans to Florida. Tampa-based employees have offered their homes and resources to help the staff and families in the New Orleans location. ■



COURTESY OF ODYSSEY'S SHIPWRECK & TREASURE ADVENTURE

Priceless artefacts salvaged from ancient shipwrecks auctioned

An exhibition, "Treasures of the Nanhai", in Malaysia featured artefacts from nine 9th and 10th century shipwrecks. In September, collectors had, for the first time, the opportunity to buy

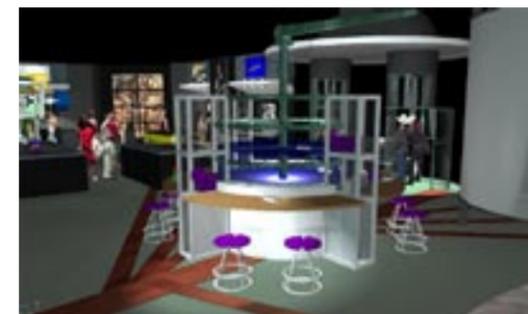
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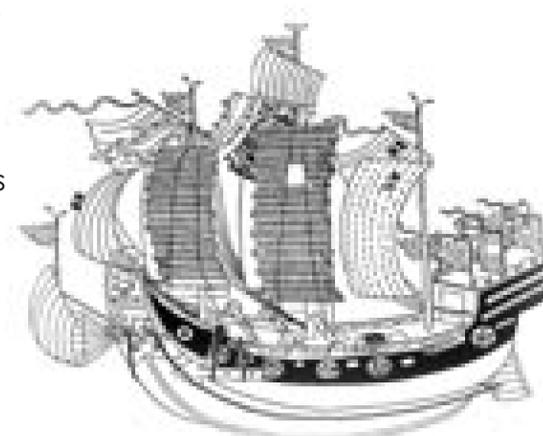
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tory including thousands of Ming blue and white, celadon and underglaze black ware. Many of the artefacts date from the Song, Yuan, Ming and Qing dynasties. The Chinese, Thai and Portuguese shipwrecks were discovered off the coast of Malaysia by Nanhai Marine Archaeology, a company led by Swedish naval architect Sten Sjostrand. The Nanhai, which means Southern Seas in Chinese, was part of the Asian Maritime Silk Route that connected China with Southeast Asia, India and the Middle East. Silk, porcelain, pottery and other

exports were traded on this route. Thirty percent of the recovered items have been donated to the Department of Museums and Antiquities according to Sjostrand, and money earned from the sale of the relics will be used to fund more research and excavations. Divers involved in the recovery of the artefacts said that while the work was exciting, the process of excavation was not easy and required knowledge of the depth of the sites and focus on the use of nitrogen gas, which if inhaled too much could cause intoxication. ■



www.shipwreckandtreasure.com



Edited by
Peter Symes &
Gunild Symes

British team rescues Russian submariners

Rescue of trapped submariners prompts Russia to buy Scorpio underwater robots

After a British rescue team operated by James Fisher Rumic Ltd used a Scorpio underwater robot to free a Russian mini-submarine with seven submariners trapped underwater for three days in the Pacific Ocean, the Russian navy planned to purchase two unmanned devices as well as technical support. According to officials, the sophisticated Scorpio-45 underwater robot managed to free the Russian Priz AS-28 vessel snagged in nets and equipment at 190 meters with just a few hours of oxygen supply left for its sailors. The devices are not compatible with Russian technology according to authorities, but the two robots will be handled by Russian experts. ■



This image taken by the Scorpio 45 during the rescue shows the Russian Priz submersible and the mesh of underwater nets and steel cables that trapped it 190 meters below the surface with 7 sailors inside



Spanish Galleon

Underwater archaeologists search for 16th century Spanish wreck

In the early 1500s, a Spanish lawyer and explorer named Lucas Vazquez de Ayllon, sailed down the southeastern coast of North America on a ship called The Capitana. De Ayllon led the expedition to the Georgetown area in an attempt to settle a colony there. It is thought that aboard his vessel were men, women and children as well as a large cargo of supplies. The galleon met its demise at the mouth of Winyah Bay according to archaeologists who are part of a long-term project to map around 11,000 miles (22,000 km) of inland water and over 187 miles (360 km) of South Carolina coastline in search of several historic wrecks.

The project received US\$6,000 in private donations to conduct the initial search for The Capitana. The archaeologists from the Maritime Research Division of the South Carolina Institute

of Archaeology and Anthropology worked from a 25-foot research vessel in Winyah Bay for three weeks in September. Experts say that the Capitana was most likely beaten apart, but more sturdy objects such as anchors, ceramics and a load of olive oil would remain.

According to experts, passengers of the Capitana escaped before the ship went down with its cargo of tools and food. De Ayllon led his expedition south in 1526 to establish a colony in what is now called Sapelo Island, Georgia, but the effort failed after de Ayllon and the colonists died of fever.

The project covers a very large area and could take months or years to search, so long-term funding is being sought from the National Oceanic and Atmospheric Administration to continue the research. ■

Excavations of the ancient underwater city of Limantepe resume

Ottoman relics believed to be hidden here

Renewed efforts to excavate the ancient sunken city of Limantepe have begun according to the Dean of Ankara University Professor Nusret Aras. The underwater site is located near the coastal town of Urla in the province of Izmir. Authorities say the excavation will take a lot of hard work and painstaking conservation by the Underwater Research Center. The president of the Limantepe Archeological Excavation, Professor Hayat Erkanal, said that plans now are to launch the excavation with the support of the Urla municipality. Erkanal said that there is a need for a museum in Urla to preserve and display the artefacts recovered from the site. Although the Ministry of Culture has halted the opening of new museums in the country and plans to close some of the smaller ones, the Mayor of Urla Selçuk Karaosmanoğlu supports the initiative. ■



Divers excavate an ancient underwater city at Limantepe

Diving in a Quarry?

New technical dive training site at inland location in Wales

The newly named National Diving and Activity Centre has been purchased by Exhibitor Limited who plan to develop the site, which is located in a quarry, into one of the UK's best diving centres. The new centre offers divers some of the best inland diving in the country.

Depths range from 6 to 80 metres according to the diving manager of the centre who added that safety was a primary concern at the centre. To this end, the centre has allied itself with the Royal Society for the Prevention of Accidents during the course of development. Permanent signage above and below the surface marks deep water as well as the deep end of the quarry.

Future plans of the new owners of the 55 acre site include new hotel accommodations, road and access entrance, log cabins and additional outdoor recreation activities. Some of the activities to be introduced include zip sliding, abseiling and 4x4 off road weekends.

The centre has extensive training and rescue facilities including qualified first aid personnel, new classrooms, educational equipment and technology, a 3 metre training tank, shop, café, restrooms and changing rooms. The centre also has full gas blending facilities for nitrox and trimix. Located 2.15 hours drive from the Hammersmith Fly Over in London, the centre is a member of the Inland Dive Site Forum, which includes other members such as Capernwray, Horsea Island Dive Centre, Stoney Cove, Vobster Quarry and Wraysbury. For more information, visit: www.ndac.co.uk ■

PHOTO
COURTESY
OF NATIONAL
DIVING AND
ACTIVITY CENTRE



Edited by
Peter Symes &
Gunild Symes



Tracked turtles face different fates

Two Atlantic leatherback turtles fitted with satellite tracking devices in South America in June this year as part of a monitoring program have met very different ends. One of the turtles swam over 3000 kilometers around the Atlantic Ocean while the other turtle died in a fishing net before ever reaching the open sea. The second turtle's demise draws attention to the dangers sea turtles face with fishing gear and raises concerns as to how the fishing industry can reduce turtle bycatch. One solution according to officials is the use of circular fish hooks that prevent turtles from being caught as well as fishing nets that use Turtle Excluding Devices. While the second turtle's life ended tragically, the first turtle's long journey around the Atlantic Ocean provided vital evidence of the routes used by the leatherbacks useful in the better understanding and protection of the species. The monitoring program was managed by WWF. ■



MEDIA LINK FEATURES

Sea turtles dying by the thousands in Nicaragua

Green sea turtles protected by Costa Rica and other neighboring countries are being killed by the thousands by the unregulated and unsustainable commercial fishing industry in Nicaragua. A study by the Wildlife Conservation Society of the Bronx Zoo found that tagged turtles in Nicaragua have little more than a 50 percent chance of surviving to the next year. Researchers say that if turtle fishing is not drastically reduced soon, the sea turtles will vanish in a few years.

It is estimated by CITES, the

Convention on International Trade in Endangered Species, that 11,000 green sea turtles are harvested annually by Nicaragua for local consumption. Experts say that a quota between 1,000-3,000 turtles needs to be put into place to save the species.

According to scientists, green turtles are slow-growing and slow to mature. They are the only herbivorous species of sea turtle and travel throughout the Caribbean to Nicaragua to graze the

rich sea grass beds there. Scientists warn that removing so many adults and large juveniles from the population spells disaster for the species. This includes the adult turtles from Tortuguero in Costa Rica, well known for the turtle nesting beaches located on its coast.

Scientists believe that the largest remaining greenturtle population in the Atlantic lives in this region. ■

TURTLE NEWS

Saving Endangered Sea Turtles

Sea turtles in Mexico are making a comeback

The beaches of northeastern Mexico are the only nesting ground for the world's most endangered sea turtle, the Kemp's Ridley. For millions of years, these turtles have returned to the beaches now known as La Pesca, Tepehuajes and Rancho Nuevo. The female Kemp's Ridelies lay their eggs here each year, but only one out of a thousand hatchlings make it to adulthood. However, with the success of a joint project by the U.S., Mexico, biologists and the shrimping industry, these turtles are no longer harvested as food by Mexican communities.

More than 10,000 nests with an average of 100 eggs per nest have been successfully transported to

nearby corrals and protected until they hatched. Workers from the Kemp's Ridley Recovery Project have patrolled the beaches and collected the eggs.

In support of the project, the American shrimping industry helped build a community center and ceramics workshop in the center of Tepehuajes where locals can create hand-crafted turtle related pottery to sell instead of catching sea turtles. The money they make on these products offsets the income lost from the prohibition of turtle harvesting. Authorities from the shrimping industry said that industry leaders realized the importance of helping the sea turtle make a come back since their disappearance would negatively affect shrimp stocks in the area. ■

Turtles on jellyfish trail set a course for Scotland



PETER SYMES

Large numbers of leatherback turtles are headed toward Scottish waters following a surge of jellyfish, their main food source, which is traveling north-

ward in the next few months. The moon jellyfish have experienced a huge bloom in the region where tens of thousands of jellyfish are washing up on the shores. It is not known for certain why the jellyfish bloom is occurring, but scientists fear it is just another sign of global warming since increasing temperatures produce more plankton, the food source of the jellyfish.

The news of the coming of the leatherbacks has prompted calls for sightings. Marine biologists say that the turtles should reach Scotland by way of the Gulf Stream. The

leatherback turtles, which can measure up to eight feet long (2.5 meters), nest in Trinidad and Florida, but can also tolerate the cooler temperatures of the waters around Scotland. Leatherback turtles have a slightly flexible "rubbery" shell and are the largest living turtle. At adulthood, the turtles' core body temperature in cold water is several degrees centigrade above the temperature of the water surrounding them. This allows leatherbacks to thrive in ocean regions where other marine reptiles cannot survive. ■



Edited by
Peter Symes &
Gunild Symes

Stopping illegal fishing the scientific way

New initiatives give illegal fishermen an alternative way to make a living

Australian scientists are funding a new project to curb illegal fishing in Australian waters. It is estimated that 20,000 sharks are taken each year by impoverished fishermen from Indonesia who sell the creatures on the Asian market where they are bought by an increasingly affluent Chinese population. The program gives these fishermen an alternative source of income through the harvest of seaweed and sponges.

According to Australian experts, seaweed, when dried, is a valuable commodity. It is used in industrial products and toothpaste. Already the program funded by Arafura Timor Research

Facility in Darwin has helped up to 60 families in Roti Island near Timor to make a new living harvesting seaweed and cultivating sponges. Although it will be difficult to compete with the shark fin market in which fishermen receive up to \$200 per kilo, tougher protection laws may drive fishermen to alternative industries such as the harvesting of seaweed and sponges.

Australian Navy ships have taken a hard line in the fight against illegal poachers encroaching on Australia's northern fish stocks and threatening to cause irreversible damage to the marine ecosystem. Operation Clearwater has apprehended up to 90 illegal fishing vessels. According to the federal government, it is the largest ever sea and air operation against foreign poachers. ■

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HMAS Brisbane

ROYAL AUSTRALIAN NAVY PHOTO

HMAS Brisbane

The *HMAS Brisbane* has been scuttled as part of an artificial reef project in Australia. Nicknamed 'The Steel Cat', the *HMAS Brisbane* was a Charles F. Adams class guided missile destroyer constructed by the Defoe Shipbuilding Company in the USA. The third ship of this class to be purchased by the Royal Australian Navy, the 133 metre former warship is now part of a reef park off the Sunshine Coast. Divers can explore the wreck and its passageways through access holes that lead to the forward engine room, boiler room and the ship's interior including the living and sleeping quarters used by the crew during the ship's service from 1967 to 2001. Launched in 1966 and commissioned in 1967, the *HMAS Brisbane* completed two tours of duty in Vietnam, the first in 1969, and the second in 1971. It was one of four Australian warships to serve in the first Gulf War in 1990 and 1991. ■

Sharm el Sheikh blast has modest impact on dive tourism

Officials report that the affect of the bombing attack of a resort in Sharm el Sheikh, Egypt, has not had the powerful effect on dive tourism as feared. Dive centres in Sharm report that diving, while slightly lighter than normal at this time of year, is continuing. Travel agents in Europe say that there have been relatively few cancellations and that most European travellers are not changing their travel plans to the area.

Egyptian authorities say that travellers are not as easily scared away as they were after the 1997 bombing that killed 58 tourists at a pharaonic temple in the city of Luxor. This tragedy badly affected Egypt's economy.

The death toll of the recent attacks in Sharm reached 64. However, government officials say that the tourism flow is far more resilient to these events than in previous years. It is thought that foreigners are now more used to attacks in other parts of the world and are now harder to scare. In addition, economists say that Egypt's economy this year is stronger and more resilient due to government reform programs, tax cuts, rising business confidence, high oil prices and healthy world growth. The rest of the country is so far unaffected. ■



STOCK PHOTO BY PETER SYMES

Researchers Find Recovering Coral Reef

A team of researchers has made a rare, valuable and positive find off the coast of Antigua: The reef is recovering fast from an epidemic of "white-band" disease that attacked the region's unique, tree-like elkhorn coral and most of the coral reefs in the Caribbean are in pretty bad shape,

But Antigua's North Sound, currently under study by Dr. McManus, director of the University of Miami's National Centre for Caribbean Coral Reef Research (NCORE) and his team, boasts an "immense" surface area with good signs of recovery. Massive thickets of elkhorn

coral are growing up to 14 feet long, with lots of holes and therefore the ability to support very large volumes of fish. "Most of the predatory fish are there, along with herbivorous fish that eat algae, and we're finding a good mix of juvenile fish, which is a sign that this population will recover" says Dr. McManus.

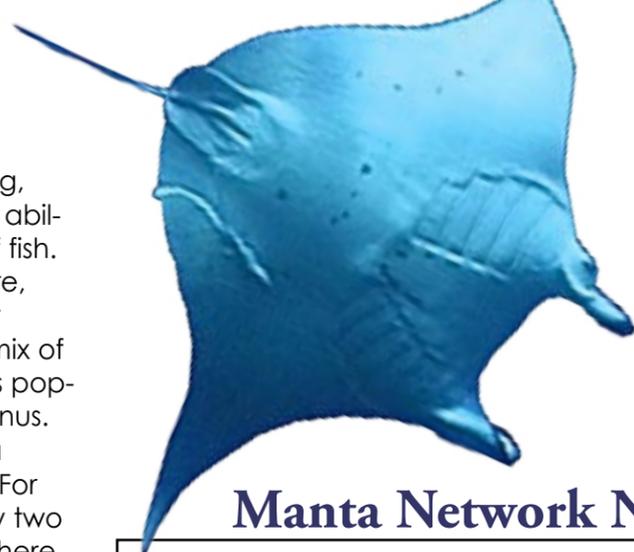
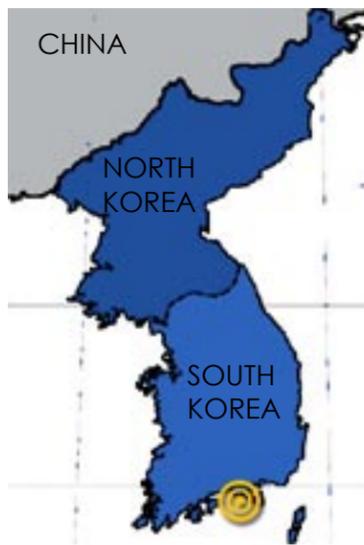
However, the North Sound has a way to go, Dr. McManus cautions. For example, researchers counted only two groupers in a five-kilometre area where there should have been thousands. Rebuilding the fish community is a vital but complex task, that needs a plan. ■



COURTESY OF THE KOREA NATIONAL PARK AUTHORITY

New Coral Reefs Found off Korea

The Korea National Park Authority has announced the discovery of a coral colony off the coast of Namhae County, South Gyeongsang province. It is the first time a coral colony of this size has been found in Korea. Lying four meters below the sea's surface, the colony is about five meters long and four meters wide. Among its exotic coral species is the *Corynactis*, which had never before been found in Korea. ■



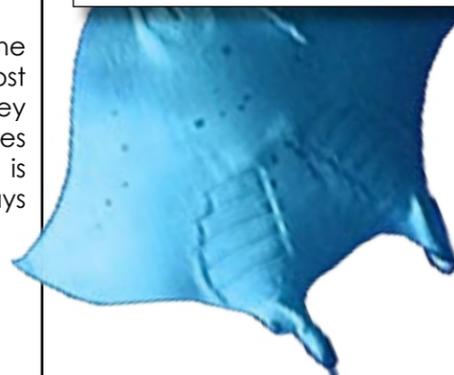
Manta Network News

Saving Ticao's Mantas

The body of water within the area of Burias island in Sorsogon, and Ticao island in Masbate is known as Ticao pass. Like Donsol's waters, it has a dense concentration of plankton, krill, and small fish, making it ideal as a feeding ground for mantas. Ticao, one of the three major islands of Masbate, has received scant attention from tourists. Then news of manta sightings in the area that would later on be called the Manta Bowl reached local and foreign divers - mostly Japanese - who started visiting the area to get a glimpse of the friendly creatures close to their hearts.

Unlike sightings in dive sites elsewhere, the mantas of Ticao are big. They are also almost a guarantee, aside from the fact that they are known to linger for a while and sometimes even get near adventure-seeking divers. It is estimated that an average of three manta rays are being killed in Ticao every week. This is equivalent to 144 mantas killed each year but the number could even be higher. ■

Read more on how you can help to save the giant rays on [this link](#)



Coral Reefs Relocated in India

Marine biologists claim success in coral relocation

300 corals are thriving in the Gulf of Kutch. These specimens were relocated by a group of marine biologists from the National Institute of Oceanography over the past three years. The work was done to minimize the damage caused to the marine ecology of the area by undersea petroleum pipelines and sedimentation. The corals were moved one kilometre away from their original home.

Scientists monitoring the project reported in January 2005 that the corals are now healthy and growing. Funded by Essar Oil Ltd, the relocation project is said to have saved the species. Essar Oil will be building a new refinery in Vadinar in Jamnagar and pipelines would have damaged the coral living at the location.

Experiments in relocating corals have not been successful in the past. With the success of the Gulf of Kutch relocation, biologists are encouraged to take more initiatives in the Indian Ocean. ■

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Scuba thief dies after chase

Maritime officials in the Philippines reported that a patrol vessel discovered four divers looting a shipwreck in Subic Bay. One diver jumped into the water from the small boat at the site where the *USS New York* sank in 1941. The diver was critically injured in his attempt to escape. He died on the way to the hospital.

A second diver was arrested by officials at the scene and three others are missing. Officials continue to search for the missing divers.

The *USS New York* was scuttled in 1941 by American forces in an attempt to prevent the invading Japanese from capturing it. ■



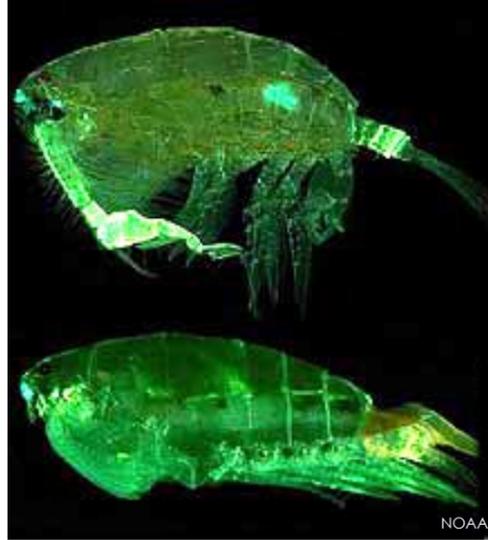
Edited by
Peter Symes &
Gunild Symes

New underwater eyes spy unknown sea creatures

With the aid of a new camera which operates on dim red light, ocean researchers are gaining a new revealing look at the deep sea in the Gulf of Mexico. After Hurricane Katrina passed over the area, oceanographers from Harbor Branch Oceanographic Institution in the U.S. aboard the National Oceanic and Atmospheric Administration Research Vessel Seward Johnson are studying the area with new eyes and finding a variety of deep-dwelling shellfish that produce their own light as well as other creatures with surprising abilities to see ultraviolet light. In addition, a previously unknown type of squid

that is six feet long showed aggression towards the camera.

The 200-pound camera was left at the bottom of the sea before Hurricane Katrina hit the area. When scientists returned, they found the camera upended not by the storm, but by some large predator upset by the camera. No recording of the animal was made as the battery had run out. But sharks have been filmed attacking the camera before. Studies in the past used cameras with bright white light or caught animals in nets. The drawback to this technique is that the white light blinds these creatures. The new camera's red light does not as it seems that they are unable



NOAA

to see it.

But the most exciting aspect of the new discoveries for scientists is the investigation of why some creatures see ultraviolet light as it is thought that there is no ultraviolet light at such deep depths. Researchers wonder what the animals might be doing with this ability. One theory suggests that they might be able to detect other luminescent creatures with this sensitivity. ■

Flourescent sharks found in Gulf of Mexico

Scientists of the Deep Scope 2005 expedition run by the National Oceanic and Atmospheric Administration discovered a new

species of glowing shark. A photo of the three-foot long (one-meter-long) creature was captured on August 22 and provided visual evidence of a

fluorescent chain catshark on the sea floor of the Gulf of Mexico. The footage was taken shortly after Hurricane Katrina passed over the area. ■



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A fluorescent chain cat shark is found by the Deep Scope expedition at about 1820' feet (603 meters) deep

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Edited by
Peter Symes &
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U.S. to ban Caspian beluga caviar

It is expected that the U.S. government will ban the import of beluga caviar from the Caspian Sea due to the creatures dangerously low numbers and decreasing size. According to authorities from the Division of Scientific Authority of the U.S. Fish and Wildlife Service, states surrounding the Caspian Sea have failed to file a joint management plan for the endangered beluga sturgeon. These states include Azerbaijan, Kazakhstan, Russia, Turkmenistan and Iran.

The beluga sturgeon is the largest of its kind and the most prized. Due to over

fishing, it is now one of the rarest. At \$3000 a pound in the U.S., the caviar of the beluga is the world's most expensive wildlife food product.

Beluga population in the Caspian Sea dropped 50 percent in the last five years. The Black Sea beluga population dropped by 20 percent according to the Convention on the International Trade of Endangered Species of Fauna and Flora, an organization of in the United Nations based in Geneva.

The two main producers of beluga caviar are

Iran and Kazakhstan. Beluga is harvested at sea in Iran and fished in its last natural spawning ground in the Ural River in Kazakhstan. Two hatcheries in the main town on the Ural failed for the first time to catch a single female in their regular activities to restock the species, according to officials.

In addition,



the beluga sturgeon is shrinking. Once found at nearly 20 feet long or 6 meters and weighing 1.8 tons, the few belugas caught now weigh about 150 kilograms. Authorities claim that over fishing in the 1980s and poaching since the Soviet Union unravelled contributed to the change in the creatures size.

Efforts have been taken by the endangered species organization to place quotas on how much beluga caviar can be exported from Kazakhstan and Iran. In

Clare recieved treatment at The Alfred hospital and Portland's Professional Diver Services and has recovered completely.

The diver's rare reaction has reminded other scuba divers to be more attentive to their health while diving even while all appropriate precautions are taken and guidelines followed. Scuba divers are encouraged to be aware of the risks involved in diving and seek immediate medical attention when they feel sick. ■

addition, recent proposals to ban beluga at a meeting of the sturgeon fishing regulatory commission in Kazakhstan were put forth by the Russian delegation as well as a ban on Russian sturgeon whose numbers are also in steep decline.

The United States was the largest importer of the world's beluga caviar in 2003 at 60 percent according to the endangered species organization. In second place is France at 11 percent and Germany follows third at 8 percent. ■



Caviar connoisseurs are heralding the growing selection of American caviars. Innovative varieties produced from farmed white sturgeon, farmed paddlefish, wild Alaska salmon and whitefish offer excellent taste and are environmentally sustainable. Photo by Bill Reese. Courtesy of Caviar Emptor

In the past decade, fishermen have rarely seen mid-size beluga sturgeon like the one pictured here, captured from the Volga River in Russia. Photo by Hans-Jurgen Burkard/Bilderberg. Courtesy of Caviar Emptor

Simulated dive leads to the bends

A mother of four, Rachael Clare, suffered delayed decompression illness after participating in a simulated dive in a hyperbaric chamber in Portland in Australia. The simulation took Clare and two other divers as well as a dive instructor to 39 metres where a written test was completed at the bottom and then a return to normal pressure was achieved within 35 minutes. Clare said she felt fine after the simulation but began experiencing increasing pain in her left leg and knee within an hour.

Clare recieved treatment at The Alfred hospital and Portland's Professional Diver Services and has recovered completely.

The diver's rare reaction has reminded other scuba divers to be more attentive to their health while diving even while all appropriate precautions are taken and guidelines followed. Scuba divers are encouraged to be aware of the risks involved in diving and seek immediate medical attention when they feel sick. ■

New deep sea creatures discovered near Australia

Unidentified deep sea creatures and underwater canyons off the Western Australian coast have been uncovered by new marin research at depth of up to 1.5 kilometers. A research vessel mapping the ocean floor on the continental shelf found the new fish and coral species. Scientists hope the discoveries will lead to a better understanding of the evolution of marine

animals. According to government officials, the research will be used in determining which marine areas need protection. ■

