Reef News

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Issue 2

Did you know…

- **Corals are tiny animals that belong to the same family as jellyfish and sea anemones.**
- **Corals secrete a hard calcium carbonate skeleton, which provides protection and which allows the coral to grow – at a rate of from 0.3 to 10 cm / year.**
- **Different species of coral build structures of various sizes and shapes, many of which look familiar – "brain corals" look like brains, "fan corals" look like fans!**
- **Plant-like algae live inside the hard coral skeleton: the algae produce food by photosynthesis that is shared with the coral and the hard coral provides protection to the algae – this is a symbiotic (mutually beneficial) relationship.**

2008 Coral Reef Scholarship Programme

During February and March more than 1400 pupils from 27 schools had presentations given to them by CCC's Education Officer, Pete Mandara, in connection with a coral reef scholarship programme. Co-funded by the Jack Petchey Foundation (www.jackpetcheyfoundation.or.uk) with collaborative support from Project AWARE Foundation and Blue Ventures, the presentations were part of a programme designed to inspire young people to get involved and take some action to prevent the loss of biodiversity to coral reefs worldwide. This was followed up by an intensive two-day 'Expedition Training Course' for 50 pupils, 20 of whom have now been selected join a 4-week CCC expedition this summer.

Environmental Youth Conference

Blue Ventures Research Development Coordinator, Sophie Benbow, has recently returned from Bermuda, where she was the keynote speaker at the 5th Biennial Environmental Youth Conference at the Bermuda Aquarium, Museum and Zoo (BAMZ). This environmental youth conference was aimed at getting more young people interested in marine conservation, and showing them how they could make a real difference. Sophie presented a history of Blue Ventures Conservation following the conference theme of 'The Power of One' and also gave a free public lecture to the community of Bermuda.

Coral Reefs at the Natural History Museum

Pete Raines, Founder of Coral Cay Conservation, spoke at the Natural History Museum's 'Nature Live' event on 29th March. His discussion included the importance of coral reefs in the global environment, the threats they face and how people can protect them. Materials were handed out and questions answered by Raines and Blue Ventures' scientists and there was inevitably discussion of upcoming IYOR events.

"Coral reefs are a vital life-support system for hundreds of millions of people. If they vanish at the rates predicted, the economic and social consequences will be catastrophic," Raines said. "But there is hope. If individuals and organizations work together, we can protect these vital resources for the betterment of both people and nature."

The talk proved hugely popular with a large on-line audience, so much so that we have been invited to give a further 'Nature Live' talk on the 29 July. This 'Nature Live' event, and others, can be watched at the NHM website www.nhm.ac.uk/nature-live.

Reef mapping project

In March 2008, Blue Ventures and the National Coral Reef Institute (NCRI) conducted mapping work in southwest Madagascar. The aim of the project is to create a marine map of the coral reef system, which will help local communities prioritise marine areas for conservation. The work is a precursor to the development of the Velondriake protected area – a network of marine and terrestrial areas, spanning 800 sq km, and aiming to benefit more than 10,000 people. The network aims to protect marine areas such as coral reef and seagrass, and terrestrial zones including mangroves and baobabs, as well as increasing the sustainability of fisheries catches for the local community, and stimulating economic development through alternative livelihoods.

Using high-resolution Quickbird satellite imagery, a bathymetric map has been built-up by taking thousands of depth measurements in the field, using an acoustic sounder and a highly accurate GPS. An underwater camera was also used to record details of the substrate [of the seabed] at 250 locations around Velondriake. This will be used to create a habitat map, which will be of paramount importance in creating a zoned map of the reserve.

A short blog and bathymetric image can be found at: blueventures.blogspot.com/2008/03/mapping-velondriake.html

International Dive Show

Coral Cay Conservation (CCC) and the Project AWARE Foundation were at the International Dive Show held at ExCel London on 8-9 March. Many people visited our booth to learn more about the threats to coral reefs and how we can help to protect them.

During the event, Blue Ventures and CCC announced a new partnership to reduce carbon emissions that lead to climate change. CCC has selected Blue Ventures' Carbon Offset (BVCO) as the programme its volunteers will use to offset the emissions produced when they fly to CCC conservation sites around the world. The offset funding from CCC volunteers will allow Blue Ventures to launch a new solar and fuel-efficient stove project in the village of Ampasilava, Madagascar. The project will protect forests and significantly reduce the carbon emissions currently produced by the village's dependence on wood fires for cooking.

The BVCO programme has been highly rated by companies watchdog Which? in its new report on the UK carbon offsetting industry. BVCO scored 5 out of 5 for the quality of project details and information provided, and 4 out of 5 for ease of use of its website.

Corals in the News

This month it was reported that coral reefs in Eritrea, the small African neighbour of Ethiopia, are exciting scientists with their ability to survive increased sea temperatures – a threat which faces all coral reefs due to global warming. Eritrea's large expanses of shallow - and therefore hotter - waters have created corals uniquely capable of coping with extremes of heat.

Many reefs die when sea temperatures rise, an effect known as coral bleaching. If greenhouse gas emissions are not cut then sea temperatures will continue to rise and this could mean enormous losses in coral reefs worldwide.

However, the corals found in Eritrea live in water temperatures of around 32.5°C, and can even survive temperatures of up to a sweltering 37°C, temperatures that would kill corals elsewhere in the world.

On a recent diving expedition along Eritrea's coastline, five species of coral were found. These findings offer hope for the future of reefs worldwide, with some believing that Eritrea's corals offer a potential nursery for future "re-planting" – it is possible that small coral buds could be taken (like taking cuttings from plants) and placed in areas where coral has died by sea temperature increases. It is hoped that such seeded coral could spread out and occupy areas left by dead coral.

Source: Weather Online

ALSO IN THE NEWS…

Dive For Earth Day 2008 - 22 April CCC's Philippines Project Scientist visited the Maasin Youth Organisation (Maayo) and did a presentation on the importance of coral reefs and the dangers they are facing today. As part of their celebrations for Earth Day in IYOR 2008, Maayo have scheduled a full week of events culminating in a beach and river clean-up ending the first week of May serving as testament that support for coral reef conservation is building and growing the IYOR 2008 progresses.

Numerous Dive for Earth Day events were planned and this day provided an extraordinary opportunity to take action and help address the underwater issues of most concern, including threat from pollution, climate change, overfishing, and coral bleaching. And many of these events will also have counted towards IYOR 2008.

Cousteau Society - All divers owe a debt of gratitude to Capt. Jacques-Yves Cousteau for his pioneering work in developing SCUBA and bringing to our televisions the wonders of our seas. Pete Raines of CCC recently had the honour of an introduction with Francine Cousteau, President of The Cousteau Society/Equipe Cousteau, and was recently interviewed about the important role of pioneering and credible volunteer organisations such as Blue Ventures and CCC in effective, results-driven coral reef conservation, for publication in 'Calypso Log', the newsletter of the Cousteau Society. www.cousteau.org

March To Protect Marine Reserves - British scuba divers and conservationists marched before on parliament on 3rd April to present a petition of 100,000 in support of the inclusion of a network of highly protected marine reserves within the newly drafted Marine Act. The marchers got fully kitted out in dive gear and paraded in the streets of London with banners chanting 'MARINE RESERVES NOW'.

Make Your Dives Count - Monitor Coral Reefs!

New Monitoring Programme

What began as a successful pilot programme in Project AWARE's Asia Pacific region in 2005 is now an ongoing research project. Project AWARE has teamed up with Australia's University of Queensland's CoralWatch group to implement a coral health-monitoring project globally. The aim? To involve thousands of divers and snorkelers from across the globe in a simple, non-invasive method of monitoring and assessing of coral reefs bleaching and health. Divers and snorkelers can now make a difference each time they dive. By regularly monitoring and collecting data on coral reefs health, divers can help scientists discover new ways to protect them from drastic decline.

How UK Divers and Snorkelers Can Help?

Whether you dive on local reefs or prefer far-flung dive trips, you can help scientists understand global coral bleaching and recovery issues by becoming a Project Aware CoralWatch Operator or by joining a CoralWatch programme in your local area. Sign up online at www.projectaware.org and you'll get a package of monitoring and support materials. Then just gather your dive buddies, dive club or student divers, establish a schedule and start monitoring. CoralWatch monitoring activities can also be incorporated into courses like the AWARE - Coral Reef Conservation Specialty course or be part of an Exploration Project if you take a PADI National Geographic course.

Project AWARE's CoralWatch Kits include do-it-yourself instructions, data sheets and CoralWatch monitoring charts that contain a series of colours representing different stages of coral bleaching and recovery. Divers can match the colour of the coral with the corresponding colour on the chart and record information on reefs over time. Kits are available from the Project AWARE Foundation. Dive operators play a key role in activating local dive volunteers, school groups and tourists to assess coral dive sites. Data collected is recorded online at www.coralwatch.org and is graphed and analyzed by university scientists. Volunteers can also track the health of their own dive sites over time and compare them to the condition of reefs in different regions of the world.

All divers and snorkelers can help Project AWARE answer critical questions about coral bleaching and recovery patterns as well as the duration of bleaching events in order to discover and implement ways to protect coral reefs from drastic decline. So make your dives count. Monitor coral reefs and be part of the solutions.

How can you help?

- **Promote IYOR 2008: tell all your friends its International Year of the Reef.**
- **Link your website to www.iyor.org and put up IYOR 2008 posters.**
- **Raise awareness about the importance of coral reef ecosystems.**
- **Increase understanding about threats faced by coral reefs and possible solutions.**
- **Motivate people to take action to protect coral reefs.**
- **Tell us about your IYOR events by contributing articles/pictures to our newsletter – e-mail us at iyor2008@coralcayconservation.com**

Upcoming Events

Kingston Green Fair - Bank Holiday Monday 26th May
11am – 8pm, Canbury Gardens, Kingston Upon Thames, Surrey. Adults £8, Students £6, Child £2, Family Ticket £16.
Coral Cay Conservation will be raising awareness about IYOR to families and young people at this green conscious fair, activities will include face-painting and badge-making. See www.kingstongreenfair.org.uk for more info about the event.

Sunday 1st June – IYOR Stall at the Camden Green Fair
12noon – 7pm at Regents Park. FREE
Coral Cay Conservation will be doing face-painting & badge-making on the stall for both kids and adults in aid of IYOR 2008!
See www.camdengreenfair.org.uk for more info and directions to the fair.

29th July - Nature Live
Coral Reefs: The Rainforests of the Ocean
Natural History Museum
Coral reefs are home to over 25 per cent of all marine life, but they are also one of the most fragile and endangered ecosystems in the world. Peter Raines MBE, founder of Coral Cay Conservation, will be speaking about the importance of coral reefs, why they are under threat and how, by getting hands-on, we can protect these delicate habitats.

Global International Year of the Reef Art Contest
Entries due: 2nd October 2008
As part of this year's IYOR 2008 activities, Project AWARE Foundation is calling all children around the globe to grab their paintbrushes and crayons to celebrate our amazing coral reef ecosystems by participating in the AWARE Kids International Year of the Reef art contest under the theme "Celebrate the Reef – Every Act Counts". The contest is open to all children ages 3 to 12 years old and all entries must be posted 30th September and reach Project AWARE by 2nd October 2008.

Coral reefs are under threat. For the first time in history, the IUCN (World Conservation Union) Red List of Threatened Species includes corals in its annual report of wildlife going extinct. More than half the world's coral reefs could die in less than 25 years. And healthy reefs are tremendously valuable to thriving ecosystems, human health and global economies.

"Today's children and young adults are environmentally conscious and eager to get involved in protecting the aquatic ecosystems" said Suzanne Pleydell, Project AWARE Foundation (International) Director. " One way to make sure that what we do today will be beneficial for our children tomorrow is to get them involved in environmental activities and educate them to protect our environment. The AWARE Kids Programme and the AWARE Kids International Year of the Reef Art Contest offer a unique opportunity for children and their parents to get involved in fun and educational activities which can make a difference".

HOW TO ENTER:
1. Use a regular notebook-sized, blank piece of paper (8 1/2 x 11" or A4 maximum size) to draw an underwater scene. Use as much of the paper as possible and remember to tell Project AWARE what we can do to protect coral reefs.
2. Add children's name, age and address on the reverse of the artwork. Mail just one entry per AWARE Kid to the Project AWARE office nearest you, using the contact information found here: http://www.projectaware.org/kids/html/contact.asp
3. Send your entry before 2nd October 2008 to your local Project AWARE office.
One first prize winner and two runners up will be chosen from each global region and age group – 3 to 5 yrs, 6 to 8yrs and 9 to 12yrs.

Selected winners will receive a special Coral Reef Ambassador Plaque along with a certificate and other prizes and recognition globally. Winning prizes include a Sealife Reefmaster Camera courtesy of Cameras Underwater Ltd, a 5 day dive pack for 2 (qualified divers) and 2 Bubblemaker /Discover Scuba Diver (non-divers over 8) (Terms and Conditions apply) courtesy of Red Sea Diving College.

Lesson plans; games and activities on coral reefs and their importance to our ecosystem can be found in the AWARE Kids Teachers Guide, DVD and AWARE Kids activity book. For more information contact your local Project AWARE office or visit www.projectaware.org/kids

This newsletter is brought to you on behalf of:

- **Blue Ventures (www.blueventures.org)**
- **Coral Cay Conservation (www.coralcay.org)**
- **Project AWARE (www.projectaware.org)**