

Eucc Coastal News

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January 2007**

Eucc Coastal News is the international newsletter of Eucc - The Coastal Union for its members and for the press. We have ca. 4000 readers.

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Contributions to the next issue: Eucc-members are invited to send their contributions until **mid February 2007** to: news at eucc.net (click, with apologies for anti-spam code).

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1. Year of the Dolphin 2007 opened by North Sea swimmers

The Year of the Dolphin campaign in the Netherlands has been opened by swimmers at the traditional New Year swim in Noordwijk, near Leiden. The opening event in Noordwijk was supervised by officials and by the local rescue and lifeboat team. Dolphin experts reported recent sightings of three different dolphin species at the Dutch swim event locations, which is exceptional. However, also less good news was reported; during the year 2006, more than 500 cetaceans have been found on the Dutch beaches, mostly porpoise. This is more than ever before. The opening event was organised by NatureNet Europe and EUCC – The Coastal Union who are preparing an intensive campaign targeting a broad public in several countries. In the Netherlands a National Committee for the Year of the Dolphin has been formed including officials representing 25 governmental and non-governmental organisations.

www.natureneteurope.org

www.jaarvandedolfijn.nl (Dutch)

2. Year of the Dolphin 2007: join and support the Dolphin Fund!

NGOs and charity fund raisers are invited to join a common NGO fund raising effort for dolphin conservation under the Year of the Dolphin 2007. NatureNet Europe, a Year of the Dolphin Associate, coordinates a joint fund raising campaign for dolphin conservation projects in Europe and the Mediterranean. Organisations are not allowed to use the Year of the Dolphin to raise funds for themselves. Whilst competition in fund raising and project implementation should be avoided, collaboration is key! Part of the funds raised will be used to support the Year of the Dolphin campaign by UNEP CMS. Funds can also be used to support national YoD2007 campaigns by NGOs affiliated to the Dolphin Fund. NGOs that have project ideas contributing to dolphin conservation can apply for funding to the board of NatureNet Europe (write to EUCC – The Coastal Union, the implementing organisation). However, priority shall be given to grants requested by organisations affiliated to the Dolphin Fund.

NGOs and charity fund raisers can apply for a Licence Agreement to represent the Dolphin Fund in their country. Please contact admin at eucc.net.

www.dolphinfund.eu

3. ENCORA project team develops Coastal Wiki

The ENCORA Theme Workshop from 29 November to 1 December 2006 brought together about 120 coastal professionals from across the European Union and kick-started the process of developing the European Wiki Coastal Directory or "Coastal Wiki". The ENCORA project is being funded under the 7th Framework Programme for Research and Development of the European Commission and EUCC – The Coastal Union is among its partners. The Coastal Wiki will provide a web-based survey of existing coastal knowledge and experience in Europe, with references to the most relevant sources published in the literature and on the Internet. It is intended to support professionals in coastal science, practice and policy in their daily work. The user-friendly WIKIMEDIA software allows expert users to update the directory at any time with new knowledge. The Coastal Wiki is expected to become a major tool for keeping coastal professionals informed on recent developments and new major knowledge sources in their field. Coastal experts or practitioners who are not yet an ENCORA member but would like to get involved in the Coastal Wiki production process should join one of the national networks and thematic networks of ENCORA. For further information, visit www.encora.eu and in particular

www.encora.eu/aboutwiki.php or contact the project manager Edwin Snippen:

E.Snippen@rikz.rws.minvenw.nl.

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– EU News and Initiatives –

4. INSPIRE Directive moves ahead

The European Parliament and Council have reached agreement on the text of the proposed INSPIRE (Infrastructure for Spatial Information in Europe) Directive, which aims to harmonise spatial information across Europe. The Directive is expected to be officially adopted on 17th February by the European Parliament. It will oblige EU member states to improve the administration of their map services and other spatial data services according to common principles. This will give Europe's citizens better opportunities to find useful information about the environment on the Internet. It will also enable the authorities to benefit more from information compiled by other official organisations. Data search services designed for the public will generally have to be free of charge, although the Directive allows fees to be charged for access to data that has to be updated frequently, such as weather reports.

The Directive has been designed to control various aspects of managing spatial data in the possession of authorities around Europe, such as the creation of metadata, technical developments promoting interoperability, the use of data services, the principles of access to data, and the establishment of national co-ordination mechanisms. The implementation of the -Directive will be a considerable challenge for authorities at national, regional and local levels, that maintain electronic maps and spatial data bases on the themes specified in the annexes to the Directive – many of them related to coastal and marine management.

The full text of the Directive can be found at <http://inspire.jrc.it/proposal/EN.pdf>

EUCC-The Coastal Union is both a partner of the project MOTIIVE - one of the pilot projects of INSPIRE - and a Spatial Data Interest Community registered with INSPIRE. If you like to be updated on these issues, please join the moderated list of MOTIIVE by sending an e-mail to sympa@sympa.iode.org with the phrase "subscribe motiive" in the body of the message. More information on the e-mail list can be found in the PDF "MOTIIVE – Why participate?" available at <http://www.eucc.net/en/policy/>

5. European Commission welcomes NEAFC step against illegal fishing

The European Commission has welcomed the new port state control scheme that was adopted earlier today by the North-East Atlantic Fisheries Commission (NEAFC) to tackle illegal fishing. The measures, which will become applicable from 1 May 2007, will require the green light from the flag state to the port state before foreign fishing vessels will be authorised to land frozen fish products in the ports of the Contracting Parties to NEAFC. The agreed measures also include new obligations and benchmarks as regards inspections to be carried out by the port state. This is a very important development in combating illegal catches of fish that are more difficult to detect, particularly when the fish is landed frozen, as is often the case with cod from the Barents Sea. The contracting parties to NEAFC are: the European Union, Denmark (in respect of the Faeroe Islands and Greenland), Iceland, Norway and the Russian Federation.

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/1582&format=HTML&aged=0&language=EN&guiLanguage=en>

6. European Ministers agree Marine "Tragedy" Directive

On 18 December 2006, EU environment ministers attending the Environment Council meeting in Brussels have agreed a draft version of the EU's Marine Strategy Directive that spells tragedy for the marine environment. Ignoring demands from the European Parliament and other stakeholders for tough action to protect Europe's vulnerable marine environment, Ministers have chosen instead a heavily qualified approach that combines weak objectives with the absence of a legal requirement to achieve them. The agreement on the Marine Strategy Directive has shown that environment ministers lack the courage and commitment needed to tackle the impacts of human activities on the marine environment, in particular fishing. Ministers undermined the substance of the Directive by merely agreeing to "aim to achieve" good environmental status rather than actually achieve it. Moreover, the Council deal left fishing entirely out of the equation even though this represents the greatest threat to marine life. The environment ministers backed down in the face of the fisheries stronghold, just a day before their colleagues meet in Brussels for the annual haggle over fish quotas.

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– International News –

7. Netherlands falling behind in protection of the sea

The Netherlands are falling behind the other European countries when the protection of marine areas and fishspecies is concerned. That was concluded by scientists during a meeting on the condition of the seas in Wageningen on 4 September. Especially on the subject concerning possible protection measures of marine areas (MPA's) that could serve as breeding grounds for threatened fish species the Netherlands are failing. Despite the European directives already drafted the Netherlands are in no hurry to implement them, the researchers say. They point to the economic interest of the fisheries sector as the main cause. Until a few years ago the Netherlands were still considered to be a country where the protection of the sea was in secure hands. The findings of the researchers match with the reports given during the last OSPAR Conference in Stockholm (June 26-30, 2006). There the Netherlands were expected to be the last memberstate to deliver on the obligation to realise marine reserves.

http://vroegevogels.vara.nl/portal?scr=news_newsitem1&id=200479 (in Dutch)

<http://www.openingacademischjaar.wur.nl/NL/Symposium/> (in Dutch)

www.ospar.org/documents/05-06/OSPAR06/SR-E/ANNEX20_BDC%20Work%20Programme%2006-07.doc

www.ngo.grida.no/wwfneap/Publication/briefings/Malahide.pdf

www.ospar.org/eng/html/welcome.html

8. New international rules to allow storage of CO2 in seabed adopted

The first Meeting of the Parties to the London Protocol to the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter took place in London, UK, from 30 October to 3 November 2006. During the meeting, delegates adopted amendments to the Protocol allowing, as of February 2007, the sequestration of carbon dioxide in sub-seabed geological formations, to contribute to climate change mitigation and to tackle the challenge of ocean acidification. Delegates also agreed that guidance on carrying out carbon sub-seabed geological sequestration should be developed as soon as possible, and will be considered for adoption at the second meeting of contracting parties in November 2007

http://www.imo.org/Newsroom/mainframe.asp?topic_id=1320&doc_id=7301

<http://www.londonconvention.org/>

9. Air pollution standards for North Sea enter into force

New air pollution standards entered into force in the North Sea on 22 November 2006 and will come into effect in one year. The amendments to Annex VI Regulations for the Prevention of Air Pollution from Ships of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) regulate the sulphur content of oil used onboard ships, which must not exceed 1.50% m/m. Such a SOx Emission Control Area (SECA) already exists for the Baltic Sea.

(http://www.imo.org/Newsroom/mainframe.asp?topic_id=1320&doc_id=7346).

Source: MEA Bulletin – Issue N° 17

10. Jordan, Palestinians, Israel launch Dead Sea study

Jordan, the Palestinians and Israel agreed to proceed with a feasibility study of a US\$ 2-4 billion project to top up the Dead Sea with water from the Red Sea, officials said on 10 December. They said the tripartite meeting, attended by World Bank officials, agreed to tender out soon the World Bank-sponsored feasibility study of the project to reverse a 25 metre (82 feet) fall in the level of the Dead Sea in the past century. Officials said Israel, Jordan and the Palestinian Authority were committed to the 180 km (110 mile) "Two Seas Canal" plan despite stalled peace talks between Israelis and Palestinians. The Dead Sea, the lowest point on the earth's surface, has been shrinking because of increased use of water upstream from the Jordan River, the Dead Sea's main source. France, the United States, the Netherlands and Japan have so far signalled their willingness to contribute to the cost of the two-year study. The study would also examine environmental impacts. The Dead Sea was too salty for all but a few salt-loving micro-organisms. It is unclear whether the sea would be affected by less salty Red Sea water.

www.planetark.com/dailynewsstory.cfm/newsid/39417/newsDate/11-Dec-2006/story.htm

11. Protected migrating birds are massively hunted down above Malta

Malta has the bleakest record of all Mediterranean EU countries in maintaining its hunting legislation, according to Birdlife Malta. Despite legal restrictions birds are being shot in Malta the year round, with a sad peak during the official autumn hunting season. Eighty species of Eu-wide protected birds, among them falcons (common kestrels), ospreys and purple herons are hunted down heavily. Under European

Commission pressure Malta has sharpened its hunting legislation this year, but this has only increased the number of violations. With a general election looming, the Maltese government is treating the hunters with velvet gloves, Birdlife Malta states. It calls upon the Maltese environment minister to take a firm stand towards the hunters and enforce the hunting restrictions.

www.birdlifemalta.org/

12. Madagascar study shows way to save octopus stocks

Protecting marine areas for even relatively brief periods can significantly restore depleted fish stocks, scientists said on Monday, citing a study of octopus catches in Madagascar. The researchers found that after an area off the coast of the Indian Ocean island nation was closed to fishermen for seven months, the number of octopus caught later rose 13 times while the total weight of the octopus catch jumped 25 times. That is far more than first expected. The Blue Venture institute studied an area off the southwestern Malagasy village of Andavadoaka, where community leaders imposed two seven-month bans on the main local economic activity - octopus fishing - after fishermen began reporting smaller catches. The locals had blamed the falls on international fishing companies who had arrived in the area to harvest octopus for the global market. But after the bans, the numbers leapt up again. The researchers now see renewed hope for stock recovery by closed marine areas.

www.planetark.com/dailynewsstory.cfm/newsid/39542/story.htm

13. Two big UK offshore wind farms get central government OK

The British government has approved two huge offshore windfarms planned near London as part of its drive to cut carbon emissions, but the bigger project still has to clear an onshore planning hurdle. The Department of Trade and Industry (DTI) and the UK's environment ministry on 18 December gave the go-ahead to the 1,000 megawatt London Array and 300-MW Thanet schemes to build two of the world's largest offshore windfarms.

www.planetark.com/dailynewsstory.cfm/newsid/39550/story.htm

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– Aquaculture and Fisheries –

14. Ocean fish and seafood could collapse by 2048

The world's fish and seafood populations will collapse by 2048 if current trends in habitat destruction and overfishing continue, resulting in less food for humans, researchers said on November 2. In an analysis of scientific data going back to the 1960s and historical records over a thousand years, the researchers found that marine biodiversity - the variety of ocean fish, shellfish, birds, plants and micro-organisms - has declined dramatically, with 29 percent of species already in collapse. Extending this pattern into the future, the scientists calculated that by 2048 all species would be in collapse, which the researchers defined as having catches decline 90 percent from the maximum catch. This applies to all species, from mussels and clams to tuna and swordfish, said Boris Worm, lead author of the study, which was published in the current edition of the journal Science. Ocean mammals, including seals, killer whales and dolphins, are also affected. The decline in marine biodiversity is largely due to over-fishing and destruction of habitat, Worm said. To help depleted areas rebuild, marine-life reserves and no-fishing zones need to be set up, Worm and other authors of the study said. This has proven effective in places including the Georges Bank off the US Atlantic coast, he said.

A solution could be a big increase in the number of marine reserves. With marine reserves in place, fishing near the reserves can improve as much as four-fold, Worm said.

www.planetark.com/dailynewsstory.cfm/newsid/38799/story.htm

<http://myweb.dal.ca/bworm/>

http://myweb.dal.ca/bworm/Worm_etal_2006Science.pdf

15. Ireland bans commercial salmon fishing to save stocks

Ireland has decided to implement a total ban on commercial salmon fishing in the country's seas, despite opposition from fishermen, after a report warned stocks had suffered a 'catastrophic decline'. Marine Minister Noel Dempsey said the wild salmon is one of Ireland's most prized fish that has been 'instilled in our traditional mythology as the Bradan feasa (the salmon of knowledge), and valued as a cultural and economic resource'. The key recommendations from a government-appointed Independent Salmon Group (ISG) last October were a ban on driftnet fishing at sea from Jan 1 and a 30 mln eur compensation and buy-out package for 877 drift net fishermen. The ISG also recommended an angling ban in some of the country's most renowned fishing rivers where stocks have dropped below critical conservation levels. 'Expert scientific advice available shows marine survival of salmon in the North Atlantic has decreased significantly in the past decade,' Dempsey said in a statement. 'Less than half to one third of the salmon returning to rivers in the 1970s and 1980s are currently returning to Irish rivers. Dempsey said the

government realised the ban would mean difficulties for commercial fishermen and vulnerable coastal communities. The hardship fund would give each fisherman a payment equal to six times their average annual catch over the period 2001-05, multiplied by the average price per salmon over the period. Although the buy-out scheme is compulsory for drift-netters, other commercial salmon fishermen using draft-nets, loop-nets, bag-nets and snap-nets in estuaries and rivers can also sign up on a voluntary basis. The ISG said that expert opinion in Britain also blamed Irish drift-netters for hitting stocks there.

www.forbes.com/feeds/afx/2006/11/01/afx3137110.html

www.ireland.com/newspaper/front/2006/11/02/1162365589970.html

<http://en.cappma.com/news/readnews.asp?newsid=25367>

<http://breakingnews.ie/2006/11/01/story283418.html>

16. Deep-sea trawling destroying underwater mounts

Deep-sea trawling is destroying underwater mountains teeming with marine life and causing irreparable damage to ecosystems, scientists warned on November 15. Most of the underwater volcanic mountains, or seamounts, which contain deep-sea corals and are home to thousands of marine species, are in unregulated areas. Over-exploitation of traditional fish such as cod and hake has prompted fleets to trawl the high seas for deep-dwelling species such as orange roughy, alfonsino and roundnose grenadier, but they are harming biodiversity in vulnerable regions of the Pacific, Atlantic and Indian Oceans. A report on this will be presented at the United Nations, which is debating a plan to ban deep sea bottom-trawling in unregulated areas.

A fisheries expert told that 11 countries are responsible for 95 percent of high seas bottom-trawling. Spain, which has the largest fleet, had about 40 percent of the bottom trawl catch in 2001, followed by Russia with 14 percent, Portugal, Estonia and Norway with 7 percent each.

www.planetark.com/dailynewsstory.cfm/newsid/39002/newsDate/16-Nov-2006/story.htm

17. UN drive for ban on ocean bottom trawling fails

UN negotiators failed to agree on a measure banning a fishing practice known as high-seas bottom trawling that environmentalists say chews up the ocean floor and depletes fish stocks. Days of negotiations in a General Assembly committee on the world body's annual resolution on ocean fisheries ended in the early morning hours of 23 November with no deal on a bottom trawling ban in the face of strong opposition from a handful of fishing nations led by Iceland, conservation groups said. The resolution is due to be taken up by the 192-nation General Assembly on Dec. 7, minus strong language regulating bottom trawling. But routine approval is expected as the membership of the assembly's legal committee, where the negotiations took place, is identical to the full assembly's.

A bottom trawl is a cone-shaped net that is towed by one or two boats across the sea floor, as much as 4,600 feet (1,400 meters) below the surface, its pointed end retaining all the fish that are scooped up.

It can cause damage to extremely slow growing ecosystems, particularly coral reefs, and also depletes other marine life that is captured by the nets.

Eleven nations have high-seas bottom trawling fleets - Denmark, Estonia, Iceland, Japan, Latvia, Lithuania, New Zealand, Norway, Portugal, Russia and Spain. Environmentalists have been lobbying for a UN moratorium on bottom trawling, arguing that the practice, while not in extensive use, is the most destructive of all fishing methods.

www.planetark.com/dailynewsstory.cfm/newsid/39125/story.htm

18. Environmentalists slam EU over tuna catch deal

Atlantic bluefin tuna, the fish prized by sushi lovers, are headed for extinction in the Mediterranean because governments failed to set rigorous conservation standards, environmentalists said on November 26. At the end of a 10-day meeting ICCAT, the global body which oversees the rules for tuna fishing, reduced the quota for the amount of tuna that can be landed, but to nowhere near the levels recommended by the body's own scientists. WWF said the European Union had blocked a tougher deal and was responsible for what it said was the inevitable collapse in the Mediterranean of a fish which grows up to two metres long and can fetch \$100,000 because of its value in Japan as a raw delicacy.

"The decision sounds the death knell for bluefin tuna in the Mediterranean," said Sergi Tudela of campaign group WWF (formerly the World Wildlife Fund) at the end of the meeting of ICCAT (International Commission for the Conservation of Atlantic Tunas) in Dubrovnik, Croatia. The ICCAT deal reduces the annual bluefin fishing quota gradually to 25,500 tonnes in 2010 from the current 32,000 tonnes, compared with a recommendation by ICCAT scientists to slash it to 15,000 tonnes. EU fisheries commissioner Joe Borg said the package of measures would be effective in protecting the bluefin tuna. "These measures are essential to the rebuilding of bluefin tuna on which the future ecological, economic and social sustainability of these fisheries depends," Borg said in a statement. But EU member France said the measures were not effective and would penalise legal fisheries in favour of poachers.

www.planetark.com/dailynewsstory.cfm/newsid/39168/story.htm

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/1632&format=HTML&aged=0&language=EN&guiLanguage=en>

19. Fisheries-induced evolution

IIASA's Evolution and Ecology Program is to head a €1.8 million research project, funded by the European Commission, to investigate fisheries-induced adaptive changes in exploited fish stocks. The project, "Fisheries-induced Evolution" (FinE), will focus on European and North American fish populations that are of particular relevance to fisheries management in the European Union (EU). It endeavors to unravel the underlying mechanisms of evolutionary change ranging from the phenotypic to the genetic level, to evaluate their consequences for population and fisheries dynamics, and to provide recommendations for evolutionarily enlightened management. Due to start next year, the FinE initiative is scheduled to operate until 2009.

Source: Options/winter 2006. www.iiasa.ac.at

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– Coastal & Climate Change –

20. No climate action may spark economic crisis - report

Ignoring climate change could lead to economic upheaval on the scale of the 1930s Depression, underlining the need for urgent action to combat global warming, a British report on the costs of climate change said. The report by chief British government economist Nicholas Stern says the benefits of determined worldwide steps to tackle climate change would greatly outweigh the costs. The 700-page report, published on October 30 said that no matter what we do now the chance "is already almost out of reach" to keep greenhouse gases at a level which scientists say should avoid the worst effects of climate change. It said the world does not have to choose between tackling climate change and economic growth, contradicting US President George W. Bush who pulled out of the Kyoto Protocol against global warming in part because he said it would cost jobs.

www.planetark.com/dailynewsstory.cfm/newsid/38713/newsDate/30-Oct-2006/story.htm

The report on

[www.hm-](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm)

[treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm)

21. The ocean's response to global warming

To determine ocean's response to global warming, ESA has backed two projects that provide systematic data on key oceanic variables – colour and temperature. Longer term, these will be supplemental and novel ways to monitor climate impacts on the earth's oceans, ecosystems and species. The data and services being provided by GlobCOLOUR and Medspiration projects developed under ESA's Data User Element programme, and re paving the way for ESA's Sentinel-3 satellite, which will be dedicated to providing operational oceanographic services. Sentinel-3's principal payload is an ocean-monitoring altimeter and an optical and infrared radiometer, and is scheduled for launch between 2011 and 2012 as part of the Global Monitoring for Environment and Security service (GMES).

While individually microscopic, phytoplankton chlorophyll collectively tints the surrounding ocean waters, providing a means of detecting these tiny organisms from space with dedicated ocean colour sensors. Because phytoplankton are a major influence on the amount of carbon in the atmosphere and are sensitive to environmental changes, it is important to monitor and model them into calculations of future climate change. The warming of the sea and the modification of the water circulation patterns may cut off or modify some of that primary production, so it is important to know both sea-surface temperature and ocean colour.

<http://www.medspiration.org/>

<http://www.globcolour.info/>

22. 2006 in Review: Consequences of climate feedbacks

2006 will be remembered by climatologists as the year in which the potential scale of global warming came into focus, particularly for earth's oceans. And at the heart of the issue is the idea of climate feedbacks - when the effects of global warming begin to feed into the causes of global warming.

A classic example of a positive feedback is the melting sea ice of the Arctic. As temperatures rise, the ice floating on the Arctic sea melts, exposing dark ocean where once there was white ice that reflected sunlight, and heat, back into space. The newly revealed dark ocean absorbs more sunlight and heats up, causing more ice to melt, and so reinforcing the positive-feedback cycle. But in fact, there is a negative feedback at work as well with Arctic sea ice, which insulates the underlying ocean and keeps it warmer during the cold, dark northern winters.

Another study in 2006 looked at the most important climate feedback, the absorption of man-made emissions of carbon dioxide through natural carbon "sinks", mostly in the ocean but also on land. A huge international team of climatologists asked these questions in a little-known study published in the July issue of the *Journal of Climate*, investigating what would happen if they tinkered with 11 of the world's biggest computer models of the complex climate-carbon cycle, to simulate what would happen to the carbon sinks on the land and the ocean for each model as the world gets warmer. All the models agreed that as the world heated up, the ability of the land and the oceans to keep on absorbing carbon as efficiently as they have in the past 200 years gets appreciably worse.

The ocean's carbon sinks of the ocean are also suffering from feedback. As more carbon dioxide dissolves in seawater to form carbonic acid, the acidity of the ocean increases - the rate is 100 times faster than at any time for millions of years. There is a physical feedback - it is just harder for more carbon dioxide to dissolve in acid water - as well as a biological feedback. Tiny organisms called coccolithophores use dissolved carbon to make their shells, but acidic seas make this more difficult. This blocks an important biological pump that pushes carbon to a long-term store on the seabed - which is what happens when billions of tiny shells sink to the depths as coccolithophores die.

Another ocean feedback was monitored in 2006, this time involving phytoplankton, the tiny microscopic plants of the sea that form the basis of the entire marine food chain. NASA satellites showed earlier this month that phytoplankton - which absorb carbon dioxide - are finding it harder to live in the more stratified layers of the warmer ocean, which restrict the mixing of vital nutrients. Since 2000, when the sea surface temperatures began to rise more noticeably, the photosynthetic productivity of phytoplankton have decreased in some ocean regions by 30 per cent. As climate warms, phytoplankton production goes down, but this also means that carbon dioxide uptake by ocean plants will decrease. This allows carbon dioxide to accumulate more rapidly in the atmosphere, making the problem worse.

This contribution has partly been derived from "Our worst fears are exceeded by reality" by Steve Connor, published 29 December 2006, in the Independent newspaper,

<http://news.independent.co.uk/environment/article2110651.ece>

23. North Sea hottest ever measured

Never before has North Sea water been as warm as it was last October. The average seawater temperature measured was 14.2°C, reported the Hamburger Bundesamt für Seeschifffahrt und Hydrographie in Germany. That means the previous record temperatures of 2005 are overtaken by one degree Celsius. The average seawater temperature between 1968 and 1993 was 11.8°C. Since 1993 the temperature has been rising. The BSH states there is no denying that the greenhouse effect is responsible for the increase. The warming up affects flora and fauna. Anshofish has embarked on a gigantic expansion in the North Sea. Cod however is finding it too hot. The species is withdrawing more and more toward the colder north. The warming up also increases the chances for extreme swell. Early in November waves *nineteen metres high* have been reported to the North of Schiermonnikoog (though there is much scepticism on this). The BSH has been measuring the temperature of seawater from the Belgian coast to Denmark.

www.bsh.de/de/Das%20BSH/Presse/Pressearchiv/Pressemitteilungen2006/39-2006.jsp (in German)

24. "England needs major flood defence works"

England must spend up to 9 billion pounds (US\$17 billion) bolstering flood defences against a predicted 40 centimetre rise in sea levels due to global warming, insurers said on November 7. Without work to defend London and the exposed east coast the cost of damage from a single major flood could be as high as 16 billion pounds, they said in a report "Coastal flood risk-Thinking for tomorrow, acting today".

"Climate change is happening now, and we need to act now to manage it," said Association of British Insurers' (ABI) head Stephen Haddrill. "Flooding is expensive, disruptive and distressing. This report shows that Britain needs a sustained and prolonged investment in coastal flood defences. This investment needs to start now," he told a ABI meeting in central London. Without this work, some 404,000 properties along the exposed east coast of England would be at risk from flooding, up from 270,000 now. Because of the increasing age of the population in coastal areas, more elderly people would also be threatened. The report echoes similar warnings from other research groups. British environment watchdog, the Environment Agency, says some 5 million people and 2 million properties are in flood risk areas of England and Wales.

www.planetark.com/dailynewsstory.cfm/newsid/38844/story.htm

The report on

www.abi.org.uk/DISPLAY/default.asp?Menu_ID=773&Menu_All=1,773,0&Child_ID=651

25. Curbing coastal pollution aids recovery of heat-stressed corals

The ability of coral reefs to survive in a globally-warming world may crucially depend on the levels of pollution to which they are exposed, new findings indicate. Scientists studying reefs that were bleached in the late 1990s by high surface sea temperatures have found a link between recovery rates and the levels

of contamination entering coastal waters from developments on the land. Coral reefs recovering faster are generally those living in Marine Protected Areas and coastal waters where the levels of pollution, dredging and other kinds of human-induced disturbance are considered low. The findings are given even more urgency as a result of new modeling. It indicates that up to 90 per cent of the tropical coasts of the world may have been developed by 2030.

www.unep.org/Documents.Multilingual/Default.asp?DocumentID=486&ArticleID=5392&l=en

26. Global warming will stifle oceans

Global warming will stifle life-giving microscopic plants that live in the surface layer of the oceans, cutting marine food production and accelerating climate change, according to a study published on Phytoplankton are not only the foundation of the marine food chain, but every day they take more than 100 million tonnes of carbon dioxide out of the atmosphere, scientists from Oregon State University, NASA and four other institutions said. But as global warming heats the surface layer of the ocean it becomes lighter and therefore separated from the cooler depths from which the phytoplankton get many of their nutrients. This cuts their numbers, not only reducing the food in the oceans but slashing the amount of carbon dioxide they take from the air and therefore accelerating the climate warming process. Despite their tiny size, phytoplankton account for about half of the photosynthesis on Earth - converting vast quantities of atmospheric carbon dioxide into organic carbon as food for the planet's marine ecosystem. The study, published in the science journal Nature, comes from a decade-long analysis of the oceans by NASA's SeaWiFS satellite which measured the changing colours of the waters caused by changing levels of phytoplankton. The higher the concentrations of these tiny plants, the greener the water.

www.planetark.com/dailynewsstory.cfm/newsid/39356/newsDate/7-Dec-2006/story.htm

www.nature.com/nature/journal/v444/n7120/index.html (article on page 695, not freely available)

27. Arctic may be ice-free by summer 2040

Global warming could leave the the Arctic without ice during the summer as early as 2040, a study by a team of US and Canadian scientists shows. The research, to be published by the scientific journal Geophysical Research Letters on 12 December found that the extent of sea ice each September could be reduced so abruptly that, within about 20 years, it may begin retreating four times faster than at any time in the observed record. The study indicated that if greenhouse gases continue to build up at the current rate, the Arctic's future ice cover will go through periods of relative stability, followed by abrupt retreat as the Arctic Ocean warms. The study was jointly conducted by NCAR, the University of Washington and Montreal's McGill University.

www.planetark.com/dailynewsstory.cfm/newsid/39423/newsDate/12-Dec-2006/story.htm

www.agu.org/pubs/crossref/2006/2006GL028024.shtml

www.agu.org/pubs/current/gl/

28. Oceans may rise up to 1.4 m by 2100 due to warming

The world's oceans may rise up to 140 cms (4 ft 7 in) by 2100 due to global warming, a faster than expected increase that could threaten low-lying coasts from Florida to Bangladesh, a researcher said on 14 December. "The possibility of a faster sea level rise needs to be considered when planning adaptation measures such as coastal defences," Stefan Rahmstorf of the Potsdam Institute for Climate Impact Research wrote in the journal Science. His study, based on air temperatures and past sea level changes rather than computer models, suggested seas could rise by 50-140 cms by 2100, well above the 9-88 cms projected by the scientific panel that advises the United Nations. A rise of one metre might swamp low-lying Pacific islands such as Tuvalu, flood large areas of Bangladesh or Florida and threaten cities from New York to Buenos Aires. "The computer models underestimate the sea level rise that has already occurred," Rahmstorf told Reuters of a rise of about 20 cms since 1900. "There are aspects of the physics we don't understand very well." Sea level changes hinge on poorly understood factors such as the pace of the melt of glaciers and of ice sheets in Greenland and Antarctica. Water also expands as it gets warmer but the rate of penetration of heat to the depths is uncertain.

"My main conclusion is not that my forecast is better but that the uncertainty is much larger because of the different results you get with reasonable methods," Rahmsdorf said.

<http://www.planetark.com/dailynewsstory.cfm/newsid/39504/story.htm>

www.sciencemag.org/cgi/content/abstract/1135456v1?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=rahmstorf&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

29. Penguins offer evidence of global warming

The first Adelie penguin chicks of the season - black fluffballs small enough to hold in the hand - started hatching this month, and the simple fact that there are more of them in the south and fewer of them further north is a sign of global warming, scientists say. Smaller than the more majestic Emperor penguins, the Adelies have some 193 colonies that have a total population of 2.5 million breeding pairs, said researcher David Ainley how is doing fieldwork in Antartica right now. "We're looking for dramatic

right-hand turns (in the penguin population), which are happening now," Ainley said. "The rate of Adelie penguin colony disappearance is accelerating as the sea ice disappears." As the northern sea ice vanishes and penguin populations decrease, southern penguin colonies flourish as the sea ice loosens, making it easier for them to dive and fish, he said.

Adelies and Emperors are the two species of penguin that live on sea ice; all other penguins dwell in open water. Adelie penguins have moved around depending on the temperature at least since the so-called Little Ice Age that occurred around the year 1200, Ainley said. "As the Earth cooled slightly, Adelie colonies began to appear further north during the Little Ice Age," he said. "But since then, Adelies have been retreating, and in the past 30 years this process has been accelerating." When asked whether there is any doubt that this is a consequence of human-fueled global warming, Ainley offered a flat "No" in reply.

www.planetark.com/dailynewsstory.cfm/newsid/39519/newsDate/18-Dec-2006/story.htm

30. 2006 unusually warm year

The average temperature in 2006 is likely to be amongst the hottest since records began nearly 150 years ago, giving what seems another example of global warming, experts said on 4 December. Autumn and early winter temperature records have been set from the Alps to Moscow this year, hurting ski resorts but extending growing seasons. Arctic sea ice shrank to near record lows in the summer. This year is likely to be in the top five, probably about the fifth warmest worldwide. But some earlier parts of the year were cooler and experts say that 2006 will not beat all-time global records - 1998 or 2005 - since reliable records began in the 1860s.

www.planetark.com/dailynewsstory.cfm/newsid/39331/newsDate/5-Dec-2006/story.htm

The Netherlands are in any case due for a record hot year, see

www.planetark.com/dailynewsstory.cfm/newsid/39453/newsDate/13-Dec-2006/story.htm

For the record, key facts about global warming:

www.planetark.com/dailynewsstory.cfm/newsid/39494/story.htm

Climate change is also increasingly on the political agenda and attracting voter attention, see

www.planetark.com/dailynewsstory.cfm/newsid/39475/newsDate/14-Dec-2006/story.htm

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– Nature and Conservation News –

31. Humpback whales and dolphins have 'human' brain cells – study

Humpback whales have a type of brain cell seen only in humans, the great apes, and other cetaceans such as dolphins, US researchers reported on 27 November 2006. This might mean such whales are more intelligent than they have been given credit for, and suggests the basis for complex brains either evolved more than once, or has gone unused by most species of animals, the researchers said. The finding may help explain some of the behaviors seen in whales, such as intricate communication skills, the formation of alliances, cooperation, cultural transmission and tool usage, the researchers report in *The Anatomical Record*. Patrick Hof and Estel Van der Gucht of the Department of Neuroscience at Mount Sinai School of Medicine in New York studied the brains of humpback whales and discovered a type of cell called a spindle neuron in the cortex, in areas comparable to where they are seen in humans and great apes.

Although the function of spindle neurons is not well understood, they may be involved in cognition - learning, remembering and recognizing the world around oneself.

www.planetark.com/dailynewsstory.cfm/newsid/39170/story.htm

www3.interscience.wiley.com/cgi-bin/abstract/113473213/ABSTRACT

32. Climate change enhances grey seals' sex lives

Climate change could be disastrous for some animals, but male grey seals are probably not complaining - it has improved their sex lives. Weaker males would not normally have a chance with the females, who usually go for the more dominant types. But lower rainfall levels have forced female seals on the remote Scottish island of North Rona to travel further from their partners to find fresh water, giving the weaker males more opportunity to mate with them.

Dominant males typically mate with 10-15 females, which they guard on their territory, according to a study published in the Royal Society's journal *Biology Letters*. These males' ability to dominate is easy when rainwater pools are abundant and females cluster in a small geographical area, but during the dry season the area in which the females are located becomes too big and they can no longer successfully keep an eye on them all," Twiss said in a statement. During a 9-year study of the seals on North Rona, Twiss and scientists from the University of St Andrews in Scotland recorded a 61 percent increase in the number of males contributing to the genetic pool. "These findings show that climate change, whilst endangering many species, could also help to increase the genetic diversity of some species," Twiss said.

www.planetark.com/dailynewsstory.cfm/newsid/39493/story.htm
[www.journals.royalsoc.ac.uk/\(bitlf1bne3qix145tnv00045\)/app/home/contribution.asp?referrer=parent&backto=issue.3,26:journal.1,9:linkingpublicationresults.1:110824,1](http://www.journals.royalsoc.ac.uk/(bitlf1bne3qix145tnv00045)/app/home/contribution.asp?referrer=parent&backto=issue.3,26:journal.1,9:linkingpublicationresults.1:110824,1)

33. Unique historical 'Visboek' put online by Dutch national library

In 1577, aged 63, the Dutchmen Adriaen Coenensz, from the fishing village of Scheveningen near The Hague, starts works on his manuscript for the 'Fishbook' (Visboek). In three years time he collects to it all kind of information on the sea, coasts and coastal waters, fishinggrounds and sea creatures. With great mastery of the subject he writes and draws fully 800 pages. The book, which exists only in manuscript, is unique. The drawings are beautiful and paint all kinds of fishes, whales, dolphins, seals, lobsters, jellyfishes, but also land animals, some mythical, and even peoples, like Inuit. There are also maps of the North Sea region, scenes of coastal life and accounts of the fisheries business. The manuscript is property of the national Koninklijke Bibliotheek (Royal Library) in the Hague and has recently been restored. The Library has put the content of the book integral, for the full 800 pages free for all online. Though the site exists only in Dutch, the effort to view it will be very well rewarded. A *must* for all Friends of the Coasts, see www.kb.nl/webexpo/visboek.html

– Publications and Websites –

Küsten Newsletter 6/2006

The sixth newsletter for 2006 of EUCC Germany has been issued in German. If you wish to subscribe to this newsletter please send an email to: newsletter@eucc-d.de. The newsletter can be found at: http://www.eucc-d.de/plugins/kuestennewsletter/pdf/Kuesten_Newsletter_6_2006.pdf

MPA NEWS Vol. 8, No. 4 October 2006

In this issue of *International News and Analysis of Marine Protected Areas* five examples of ecosystem-based management are featured: Bird's Head Seascape, Indonesia; PANGAS Project, Mexico; Great Barrier Reef Marine Park, Australia; the Wadden Sea Plan, the Netherlands, Denmark, and Germany; and the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

<http://depts.washington.edu/mpanews/MPA79.htm>

To subscribe or view previous issues visit <http://depts.washington.edu/mpanews/>

Carbon, Land and Water: A Global Analysis of the Hydrologic Dimensions of Climate Change Mitigation through Afforestation/Reforestation

<http://www.iwmi.cgiar.org/pubs/pub101/RR101.pdf>

RAMSAR report on the International Coral Reef Initiative (ICRI)

This report provides an update on Ramsar's work with coral reefs, as well as with mangroves and seagrass beds, and includes tables and charts showing the distribution of coral reefs and Ramsar sites with coral reefs throughout the world. http://www.ramsar.org/mtg/mtg_icri2006_report.pdf

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– Events and training, 1st Announcements –

This list only includes the 1st Announcements of conferences and training courses.

For a complete overview of conferences please visit: <http://www.coastalguide.org/meetings>
 EUCC related conferences are added in boxes.

April 16-20, 2007 - Gold Coast, Queensland, Australia

International Coastal Symposium

<http://www.griffith.edu.au/conference/ics2007/>

May 13-17 – New Orleans, Louisiana, USA

Coastal Sediments 07

<http://www.asce.org/conferences/cs07/index.cfm>

May 21-24, 2007 – Ventnor, Isle of Wight, United Kingdom

RESPONSE Project Conference: International Conference on "Landslides & Climate Change – Challenges and Solutions"

www.coastalwight.gov.uk/conference.htm

June 10-14, 2007, Arendal, Norway

The International Symposium on Integrated Coastal Zone Management

<http://www.imr.no/iczm/>

June 18-21, 2007 – Aberdeen, Scotland

IEES/OES Oceans 2007

<http://www.oceans07ieeesaberdeen.org/>

July 17-20, 2007 – Melbourne, Australia

Australasian Coasts and Ports 2007 Conference

<http://www.coastsandports2007.com.au/>

July 22-26, 2007 – Portland, Oregon, USA

Coastal Zone 07: Brewing Local Solutions to Your Coastal Issues

<http://www.csc.noaa.gov/cz/>

October 3-5, 2007 – Santander, Spain

ICCD07 – International Conference on Management and Restoration of Coastal Dunes

<http://www.iccd07.com>

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– Colophon –

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Special Editor: Magdalena Ariadne Kim Muir (EUCC Advisory Board Member): Climate Change.

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