



Pew Fellows Program in Marine Conservation News and Updates October 2010

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New Publications and Papers

Shark Aggregation in Coastal Waters of British Columbia: Thomas Okey ('07)

Thomas Okey, director of ecosystem sciences for the West Coast Vancouver Island Aquatic Management Board, has published a paper with colleagues in the 13 September 2010 issue of Marine Ecology Progress Series in which he discusses his observations of high densities of pelagic sharks in an area of western Queen Charlotte Sound, British Columbia. The team observed the sharks, which consisted mostly of salmon sharks (Lamna ditropis) and blue sharks (Prionace glauca), during systematic shipboard line-transect surveys for marine mammals conducted between 2004 and 2006. Both conventional and model-based distance sampling statistical methods produced large abundance estimates (roughly 20,000 sharks of all species combined) concentrated within a hotspot encompassing approximately 10 percent of the survey region. Neither statistical method accounted for submerged animals, thereby underestimating abundance. According to the authors, the previously undocumented high density of these pelagic sharks in this location has implications for understanding at-sea mortality of returning Pacific salmon Oncorhynchus spp. and for assessing the conservation status of sharks in Canada and beyond.

To read the paper, go to: <u>http://www.int-res.com/abstracts/meps/v414/</u> p249-256/

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Rashid Sumaila ('08) Publishes Four New Papers on the Social and Economic Value of Fish

In September 2010, four new studies on the social and economic value of fisheries appeared in the *Journal of Bioeconomics*. These four papers—supported by a grant from the Pew Charitable Trusts—were written by Rashid Sumaila, an associate professor and director of the Fisheries Economics Research Unit at the University of British Columbia, and several of his colleagues. Topics covered by the four papers include: (1) the first ever calculations of "economic multipliers" for global fisheries and the total financial contribution that fisheries provide to the global economy; (2) the cumulative global loss of both revenue and dependable protein sources from overfishing; (3) improved estimates of global fishing subsidies; and (4) analyses of global economic benefits of recreational uses of the oceans, including recreational fishing, whale watching and diving.

To read summaries of the papers, go to: <u>http://www.pewtrusts.org/our_work_detail.aspx?id=148</u>

To read news stories about the papers, go to:

http://www.prnewswire.com/news-releases/global-fisheries-research-finds-promise-and-peril-102865689.html

http://www.winnipegfreepress.com/greenpage/environment/worlds-fisheries-worth-us240-billion-whenindirect-industries-included-102866609.html

Navigating Transformations in Governance of Chilean Marine Coastal Resources: Carl Folke ('95), Omar Defeo ('10), Miriam Fernandez ('05), Robert Steneck ('98) and Juan Carlos Castilla ('96)

In a recent issue of the journal Proceedings of the National Academy of Sciences, Carl Folke, director of Stockholm University's Centre for Research on Natural Resources and the Environment, Omar Defeo, the Titular Professor at the Universidad de la República, Miriam Fernandez, an associate professor at Pontificia Universidad Catolica de Chile, Robert Steneck, a professor at the University of Maine, and Juan Carlos Castilla, a professor at Pontificia Universidad Catolica de Chile, explore social, political and ecological aspects of a transformation in governance of Chile's coastal marine resources, from 1980 to today. The team found that critical elements of the transformation included: (1) recognition of the depletion of resource stocks, (2) scientific knowledge on the ecology and resilience of targeted species and their role in ecosystem dynamics and (3) demonstration-scale experimental trials, building on smaller-scale scientific experiments, which identified new management pathways. "Political turbulence and resource stock collapse provided a window of opportunity that triggered the transformation, supported by new enabling legislation," the team wrote. "Essential elements to navigate this transformation were the ability to network knowledge from the local level to influence the decision-making processes at the national level, and a preexisting social network of fishers that provided political leverage through a national confederation of artisanal fishing collectives. The resultant governance scheme includes a revolutionary national system of marine allocates tenure that user rights and responsibilities to fisher collectives."

To read the paper, go to: <u>http://www.pnas.org/</u> content/early/2010/09/03/1012021107.abstract

Study Provides Data That Can Inform Atlantic Sturgeon Recovery Efforts: Ellen Pikitch ('oo, AC)

first-of-its-kind А study that tracked the oceanic migrations of adult Atlantic sturgeon that were caught and tagged in the Hudson River discovered that these fish move Photo/Dan vast distances in Erickson the Atlantic Ocean,



traveling as far south as Georgia and as far north as Nova Scotia, Canada. The findings that will be published in the December issue of the Journal of Applied Icthyology, indicate that recovery of Atlantic sturgeon fisheries will need to address long-range oceanic threats to the species in addition to local measures closer to spawning grounds. The researchers used popup satellite archival tags (PSAT), which were affixed to sturgeon in their freshwater spawning grounds in the Hudson River. This relatively new technology enabled researchers to track fish movements over a larger area and without the bias that can occur with other commonly used methods such as fixed acoustic arrays or fishery-dependent observations. "This study of Atlantic sturgeon provides us with new insight into the very critical oceanic phase of the lives of these fish," said Ellen Pikitch, executive director of the Institute for Ocean Conservation Science at Stony Brook University and a co-author of the study. "Effective restoration policies for sturgeon to the species must consider threats throughout their life cycle."

To read the paper, go to: <u>http://</u>

onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1439-0426/issues

To read a summary of the paper, go to: <u>http://</u> www.oceanconservationscience.org/press/ press-article.php?ID=125

Perception of a Cetacean Mass Stranding in Italy: The Emergence of Compassion: Giovanni Bearzi ('01) and Giuseppe Notarbartolo di Sciara (AC)

The view that whales are malicious monsters has been pervasive throughout history. Conversely, the idea that these animals experience suffering has emerged only recently. One way of investigating perceptual, as well as behavioral, shifts is assessing general public reactions to mortality events involving wild, rare and charismatic animals. In a paper published in a recent issue of the journal *Aquatic Conservation: Marine and Freshwater Ecosystems*, Giovanni Bearzi, president of the Tethys Research Institute, and Giuseppe Notarbartolo di Sciara, honorary president of the Tethys Research Institute, give the responses of 118 individuals to interview questions regarding the mass stranding of seven sperm whales along the Adriatic Sea coast of Italy in December 2009. When asked why the whales were stranded, 44.1% of the respondents suggested anthropogenic causes and 21.2% non-anthropogenic. When asked how they felt about the whales, 68.6% expressed feelings of compassion or care towards the animals. Clearly non-compassionate attitudes accounted for only 4.1% of the sample. The team concluded that attitudes towards whales—today strikingly revolving around sadness, compassion and a sense of loss—have changed dramatically over time, with a steep turnaround in the 1970/1980s. Full appreciation of the ongoing evolution in public perception can channel marine conservation efforts and assist in the design of response strategies to marine mammal strandings.

To read more, go to: <u>http://onlinelibrary.wiley.com/doi/10.1002/aqc.1135/abstract</u>

To view the updated Web site of the Tethys Research Institute, go to: http://www.tethys.org/

Also visit the following Web site to learn about the work done by the Tethys Research Institute on dolphins in Greece: <u>http://www.coastaldolphins.org/overview.htm</u>

Trophic Models in Sandy Beaches with Contrasting Morphodynamics: Comparing Ecosystem Structure and Biomass Flow: Omar Defeo ('10)

Omar Defeo, a professor at the Universidad de la República, has published a paper in the 15 September 2010 issue of the journal *Ecological Modelling* in which he models and compares for the first time the ecosystem structure and trophic networks of two sandy beaches with contrasting morphodynamics (i.e. dissipative and reflective). He and his colleagues implemented an Ecopath model to represent the macroscopic food web on each sandy beach ecosystem. The dissipative beach model comprised 20 compartments and the reflective 9, including detritus, phytoplankton, zooplankton, benthic invertebrates, fishes and seabirds. Input data mainly came from direct surveys, whereas additional information was gathered from published and unpublished sources. Results revealed a greater number of top predators and species in higher trophic levels in the dissipative beach (seabirds, fishes, gastropods and the polychaete *Hemipodus olivieri*) than in the reflective one (fishes and *Hemipodus olivieri*). Detritivorous and filter feeding benthic invertebrates constituted intermediate trophic levels on both beaches. The team concluded that the greater diversity and biomass in the dissipative beach are reflected in a higher dimension and ecosystem organization than in the reflective beach, thus providing new evidences at the ecosystem level about well-established differences in biological descriptors between beach types.

To read the paper, go to: http://www.sciencedirect.com/science? ob=ArticleURL&_udi=B6VBS-511C3VT-4& user=10& coverDate=11/24/2010& rdoc=1& fmt=high& orig=search& origin=search& sort=d& doca nchor=&view=c& acct=C000050221& version=1& urlVersion=0& userid=10&md5=07fec29539ad7c654077 6669fb68f140&searchtype=a

Profiles and Outreach

China, Japan, U.S. Top List of Seafood Consumers: Daniel Pauly (AC)

China is the world's top seafood consumer, followed by Japan and the United States, a trio leading an "unsustainable" assault on global fish stocks, according to a new study that measures the impact of fishing practices. The study, highlighted in October's National Geographic magazine, found that China's enormous population gives it the world's biggest "seafood print" --694 million metric tons of the sea's resources consumed each year. Japan has a seafood print of 582 million metric tons, while the United States consumes about 348.5 million metric tons of the sea's resources. The innovative SeafoodPrint study, sponsored by the magazine along with the Pew Charitable Trusts, allows researchers to take into account the smaller fish and other organisms at the bottom of the marine food web in assessing the environmental impact of seafood consumption. The United States ranks high on the list, for example, because Americans prefer top predators such as Atlantic salmon and bluefin tuna. "Every fish is different," said Daniel Pauly, a fisheries scientist at the University of British Columbia and one of the lead researchers on the study. "A pound of tuna represents roughly a hundred times the footprint of a pound of sardines."

To read more, go to: <u>http://news.yahoo.com/s/afp/20100922/sc_afp/</u> environmentfishingfooduschinajapan and

http://www.washingtonpost.com/wp-dyn/content/article/2010/09/21/ AR2010092105825.html

New Pew YouTube Site Video Highlights 2010 Pew Fellows Google Earth Tour

The Pew Fellows Program in Marine Conservation Google Earth Tour that highlights its 2010 Fellows is now featured on the new Pew YouTube site (http:// www.youtube.com/pew). Narrated Isabella by Rossellini, the Google Earth Tour presents the 2010 Fellows efforts to stop seabird by-catch, identify and protect resilient coral reefs, diminish dead zones in the Baltic Sea, enhance management of shellfish in Latin America and better understand the role of biological diversity in marine ecosystems.

Pacific Sockeye Salmon Return in Record Numbers: Rashid Sumaila ('08)

Rashid Sumaila, an associate professor and director of the Fisheries Economics Research Unit at the University of British Columbia, is highlighted in a recent article published by AFP. "After years of scarcity, the rivers of the U.S. and Canadian Pacific Northwest are running red, literally, with a vast swarm of a salmon species considered to be in crisis. Sockeye salmon, whose stocks ran perilously low last year, are gushing in record numbers from the Pacific Ocean toward their spawning grounds far inland. The bounty follows years of intense scarcity that closed or restricted many fishing areas, mostly in Canada where the 2009 near-demise of sockeye in the Fraser River prompted Canada to appoint a commission to investigate. But the biggest news is in Vancouver, where the largest sockeye return in nearly a century is entering the mouth of the Fraser River — arguably the world's single largest historic salmon migration route. The last major Fraser run was some 39 million fish in 1913—before disaster struck at the aptly-named Hell's Gate, 124 miles northeast of Vancouver. After a railroad construction crew sent a rockslide crashing into Hell's Gate, more than 38 million salmon battered themselves to death against the barrier; only about two percent of the run made it through, according to the fisheries department. The disaster was devastating in a region where salmon are iconic: local aboriginals are known as 'people of the salmon.' Explained Rashid Sumaila, director of the University of British Columbia Fisheries Centre, 'everybody (here) has some special attachment to salmon.'''

To read more, go to: <u>http://www.google.com/hostednews/afp/article/ALeqM5hwk8c-ePB09j5SDRMkLCZUflCrvQ</u>

Will FDA Approve Genetically Modified Salmon?: Anne Kapuscinski ('01)

Anne Kapuscinski, the Sherman Fairchild Distinguished Professor of Sustainability Science at Dartmouth College, was interviewed by Melissa Block on the 7 September 2010 episode of National Public Radio's *All Things Considered*. According to Block, the Food and Drug Administration may soon approve the first genetically modified animal for human consumption. "The animal is a genetically engineered salmon that grows to market size twice as fast as conventional salmon," she said. "The company behind the salmon, AquaBounty Technologies, got a thumbs-up from a panel of FDA scientists who concluded there is a reasonable certainty of no harm from consumption of food from this animal." According to Kapuscinski, the FDA asked the company to present data on several issues. First of all, is the inserted gene safe for the health of the animal? Are the inserted gene and the growth hormone it's producing safe for humans to consume if they eat the fish? And third, will the farming of these fish have any effects on the environment? Kapuscinski said she thinks it's fine for the company to do the test, but she would like to see a more transparent system. "It would be much better if the data were all publicly available, and available for independent scientists to evaluate it," she said.

To read the transcript or listen to the interview, go to: <u>http://www.npr.org/templates/story/story.php?</u> <u>storyId=129706395</u>

Gulf of Mexico Oil Spill Threatens Seahorse Species with Extinction: Amanda Vincent ('oo)



A species of seahorse unique to the waters of the Gulf Coast could extinction face because of the Gulf of Mexico oil spill, warns marine conservation organization Project Seahorse. Without careful intervention, the dwarf seahorse

(*Hippocampus zosterae*) could virtually disappear within a few years, while many other fish populations, including several other species of seahorse, face a similarly bleak future as cleanup continues. "We're very worried," says Associate Professor Amanda Vincent, director of Project Seahorse at the University of British Columbia and a leading expert on seahorse conservation. "All of the seahorse populations in the area will be affected, but the dwarf seahorse is at greatest risk of extinction because much of its habitat has been devastated by the spill."

To read more, go to: <u>http://</u> www.publicaffairs.ubc.ca/2010/09/07/gulf-of-mexico-oilspill-threatens-seahorse-species-with-extinctionresearchers/

Vikki Spruill (AC) to Speak At Garden Club of Virginia Forum

Vikki Spruill, president and CEO of the Ocean Conservancy, will be the keynote speaker at the Garden Club of Virginia's annual Conservation Forum, which will be held on 5 November 2010 at the Sadler Center at the College of William & Mary in Williamsburg and at the Virginia Institute of Marine Science (VIMS) in Gloucester Point. The forum will address critical issues facing the Commonwealth concerning the Atlantic Ocean, related waterways and coastal areas. In her talk, Spruill will address the health of the ocean, its warming waters, acidification, ocean pollution, dead zones, sustainable fishing and the need for uniform laws pertaining to protected ocean areas.

To learn more, go to: <u>http://</u> gcvconservation.wordpress.com/2010/0 9/04/beneath-the-surface-gcvconservation-forum/

Code Blue: Sylvia Earle (AC), Joshua Reichert (PEG), Greg Stone ('97), Daniel Pauly (AC), Callum Roberts ('00, AC) Elliott Norse ('97), and Rashid Sumaila ('08)

Sylvia Earle is the focus of an article published in the 23 September 2010 issue of TIME.com. The article discusses the threats to our oceans and chronicles Earle's efforts to save them. Regarding Earle, Greg Stone, chief scientist for oceans at Conservation International said, "I can't think of many others who've been as persistent and vocal and forward-thinking on the oceans as Sylvia. The world is opening up to her message." The article mentions a number of threats to the world's oceans, including the loss of sea life. According to the article, "there is evidence, sketchy but still there, that sea life was once far more robust than it was even in our recent memory, that cod off New England were once so abundant that the fish jumped onto ships, and oysters so plentiful that 700 million were sold in New York City in 1880. The result is what the French marine scientist Daniel Pauly has called 'shifting baselines': we can't tell how bad it's gotten because we don't remember how good it was." To this, Callum Roberts, a marine-conservation biologist at England's University of York, said, "The seas today are at very low abundance for many of the things that we rely on for food. Many species have fallen a thousandfold from what they once were." The article also mentions the threat of ocean warming and acidification. Joshua Reichert, managing director of the Pew Environment Group, is quoted as saying, "The loss we could suffer goes beyond aesthetics. It's a loss to ourselves." Research from economist Rashid Sumaila found that overfishing leads to global catch losses costing the industry up to \$36 billion a year. When Earle talks about creating protected areas, she wants true marine sanctuaries, where fishing would be largely off limits, at least for a time, and especially in the high seas, the heart of the ocean. "The high seas are the least protected areas in the world," says Elliott Norse, head of the Marine Conservation Biology Institute.

To read more, go to: <u>http://www.time.com/time/specials/packages/</u> article/0,28804,2020806_2020805,00.html#ixzz10TGed0E4

A Penguin Species Faces Extinction: Pablo Garcia Borboroglu ('09) and Wayne Trivelpiece ('96)

Pablo Garcia Borboroglu, founder and president of the Global Penguin Society and a researcher at the National Research Council Argentina (CONICET), and Wayne Trivelpiece, leader of seabird research at the NMFS-Antarctic Ecosystem Research Division, are highlighted in an article published in the 7 September 2010 issue of *The Boston Globe*. The article focuses on the decline of African penguins. "People think because penguins live in protected areas, they think that they are all protected," said Borboroglu. "They don't know about the other world and the threats that are out there." Wayne Trivelpiece reported on how

even chinstrap and Adelie penguins—which are still relatively numerous—are experiencing considerable declines as climate change melts southern ice. Those penguins depend on krill, and krill feed on ice algae. As ice melts away, krill disappear. Trivelpiece said that krill density in some study areas has declined 80 percent since the 1970s. During that same period, the rate of survival to breeding age fell from around half to no more than 15 percent.

"Think of it like your freezer," Trivelpiece said. "If your freezer is at 30 degrees, you have ice cubes. If your freezer is at 33, you have water in your trays. What's happening to the penguins is one of the great examples of how a little bit of warmth is so dramatic."

To read more, go to: http://www.commondreams.org/view/2010/09/07-2



Photo/Dee Boersma

Peter Mumby ('10) Speaks at Australian Coral Reef Society Conference

Coral bleaching, the impact of warming waters on coral reefs, marine debris and the management of marine parks were just some of the topics discussed in September at the 85th Annual Australian Coral Reef Society Conference (ACRS) hosted by the National Marine Science Centre in Coffs Harbour. The conference brought together more than 130 leading national and international coral-reef researchers, including keynote speaker Peter Mumby, an ARC Laureate Fellow at the University of Queensland. The goal of the annual conference is to bring together Australia's coral reef community to exchange ideas and the latest research findings, and to encourage and reward postgraduate students in their endeavors.

For more information, go to: <u>http://</u> www.northernstar.com.au/story/2010/09/10/ conference-spawns-gathering-of-minds/

Survival of the Fishes: Beth Fulton ('10)

According to an article published online in ABC Science, in the second half of last century, the world's booming combined with industrialized population fishing techniques and a growing appetite for fish dramatically depleted many fish stocks around the world. Poor management and illegal fishing, combined with pollution and other environmental problems, pushed some marine ecosystems to the edge. "About 63 per cent of all known fish stocks are overfished around the world," says Beth Fulton, a CSIRO scientist whose work focuses on modeling the sustainability of fishing. And Australia has been particularly hard hit. But Fulton says that overfishing in Australia, particularly in the Commonwealth fisheries has "largely stopped". "The government said: 'Right we are going to reduce the pressure on the fish to let them recover to sustainable levels for the future," she explains. "So we have a bad report card right now with regard to the health of the stock, but it is actually improving."

To read more, go to: <u>http://www.abc.net.au/science/</u> articles/2010/09/09/3003951.htm

New Catch-Share Management Program for Pacific Coast Groundfish Trawl Fishery Approved: Rod Fujita ('00)

On 10 August 2010 the National Marine Fisheries Service (NMFS) approved a catch-share management program for the Pacific coast's groundfish trawl fishery. The program is due to be implemented starting 1 January 2011. NMFS officials and others anticipate a large reduction in bycatch and a reduced risk of overfishing. Rod Fujita, director of Ocean Innovations at the Environmental Defense Fund (EDF), first proposed catch shares in 1990 to prevent overfishing of the region's highly vulnerable rockfish populations, and to reduce the massive amounts of bycatch and habitat impacts that are characteristic of the trawl fishery. Fujita also developed several innovations that he hopes will improve the ecological performance of the new catch share program, including a provision to allow fishermen to switch from trawls to more selective and less damaging gear types; an adaptive management allocation designed to help fishermen and communities that suffer adverse impacts from the catch share program; and the California Fisheries Fund, which makes low-interest loans to fishermen interested in switching to more sustainable practices. The EDF team, led by Johanna Thomas, successfully advocated for these and many other measures. Another EDF team, led by Mike DeLapa, successfully established the California Fisheries Fund.

To learn more, go to: <u>http://swr.nmfs.noaa.gov/groundfish/fact%20sheet%20catch-shares-</u> <u>components.pdf</u>

Environmental Organizations Call for Coral Reef Conservation: Andrew Baker ('08)

Thirty-five non-governmental organizations and environmental stakeholders issued a letter on 6 September 2010 calling for the U.S. Senate to pass strong conservation-minded coral-reef legislation. The coalition expressed alarm about the declining health of coral-reef ecosystems and the threats coral reefs face. Major threats noted include coastal runoff; over-fishing and over-harvesting; vessel impacts; invasive species; and coral bleaching, disease, and ocean acidification caused bv unregulated greenhouse gas pollution. Measures before Congress, supported by the coalition, include provisions to increase the status of protection for corals in all U.S. waters, increase funding for coral reef conservation efforts, provide support to better understand and manage the trade in coral reef wildlife, and support community-based approaches to coral reef stewardship, among others. "Coral reef ecosystems face growing threats from over-fishing, habitat destruction, poor water quality and disease," said Andrew Baker, an assistant professor at the University of Miami. "When you add the devastating impacts of our carbon dioxide emissions, which lead to warmer and more acidic oceans, coral reefs worldwide are left reeling from the impacts. The decline of coral reef ecosystems worldwide underscores the need for Congress to pass coral reef legislation, while also renewing its commitment to reducing greenhouse gas pollution."

Japan's Appetite for Fish is Depleting Stocks, Threatening Restaurants: Hiroyuki Matsuda ('07)

Japan's voracious appetite for eel and other fish has depleted the ocean's supplies and raised international outcries to halt Japan's overfishing, according to an article published in the 4 September 2010 issue of the Los Angeles Times. Dramatically lower eel catches from local river habitats have led to an overwhelming dependency on expensive fish farms and imports. Last year, for instance, eelers caught 267 tons from natural habitats, a drop of two -thirds from the amount caught a decade earlier, according to the Nihon Yoshoku Shinbun, a publication that tracks marine resources. Last year's catch was less than 1 percent of the nearly 35,000 tons consumed; farming provided nearly 11,000 tons, and imports from China and Taiwan accounted for the remainder, the publication said. Industry experts have criticized the quality of imports as uneven and have noted that cultivating eels on about 300 fish farms nationwide is a high-risk, laborintensive venture. "The sad story of Japanese unagi is just one of the many examples of how Japan's voracious appetite for fish has created problems for itself," said Hiroyuki Matsuda, a professor at Yokohama National University.

To read more, go to: <u>http://www.latimes.com/</u> <u>business/fi-japan-fish-20100904,0,1561138.story?</u> <u>page=1</u>

Commentaries and Editorials

Helping Coral Reefs, Oceans and Ourselves: Robert Richmond ('06)

Robert Richmond, a research professor at the University of Hawaii at Manoa, has published a commentary in which he discusses the many threats that our oceans face. With placement and distribution support from the Pew Environment Group Editorial staff, the piece was featured in 32 newspapers across the United States and Canada, as well as in 10 blogs. In the commentary, Richmond writes, "Fortunately, President Obama recently signed an executive order establishing a new unified national ocean policy. This new national policy has the potential to dramatically improve the state of our oceans...Existing federal legislation, though, is largely outdated." Richmond continues by pointing out flaws in the Rivers and Harbors Act and federal pollution limits. "Although an integrated national ocean policy will not clean up our oceans or restore depleted resource stocks overnight, this achievement is a key step forward."

To read more, go to: <u>http://www.pewtrusts.org/news_room_detail.aspx?id=60538</u>

Seafood Stewardship in Crisis: Daniel Pauly (AC) and Paul Dayton ('95, AC)

Daniel Pauly, director of the University of British Columbia's Fisheries Centre, and colleagues, including Jennifer Jacquet and Jeremy Jackson, have published an editorial in the 1 September 2010 issue of the journal Nature. "A growing number of consumers want to eat seafood without feeling guilty," the team writes. "Enter the Marine Stewardship Council (MSC), which purports to certify sustainable fisheries and provides a label for sustainable products to promote the best environmental choice in seafood'. The MSC is growing rapidly; the organization is also rapidly failing on its promise." The team says that the MSC must create more stringent standards, crack down on arguably loose interpretation of its rules, and alter its process to avoid a potential financial incentive to certify large fisheries.

To read more, go to: <u>http://www.nature.com/</u> nature/journal/v467/n7311/full/467028a.html

Daniel Pauly (AC) Interviewed for La Contra Section of *La Vanguardia*

Daniel Pauly spoke at the University of Barcelona as a preevent to the 2010 Pew Fellows Annual Meeting in Sant Feliu de Guixols, Spain. Becky Goldburg (PEG) and Alex Aguilar ('01) participated in a roundtable follow-up discussion. As part of the event, Pauly was featured in a full-page interview in the newspaper La Vanguardia published on 4 October 2010. When asked about the consequences of trawling in the North Sea, he said, "The North Sea was rocky, and today it is muddy. Trawling destroys the seabed and prevents fish recruitment." Pauly added, "The fishing of cod should not be called so, because only 40% of fish in the nets is hake or cod. Sixty percent are different species whose bodies are then thrown into the sea! Per year, almost 20 million tons of fish are wasted." When asked what three steps should be taken to benefit fisheries, he said, "One, the removal of subsidies. Two, the creation of protected areas (to varying degrees). And three, the implementation of individual fishing quotas (per fisher or per vessel)."

To read more, go to: http:// ecologiafacil.blogspot.com/2010/10/entrevista-danielpauly-en-la-contra-de.html



Juan Carlos Castilla ('96, AC) Wins National Award for Applied Science and Technology

In a unanimous vote, Juan Carlos Castilla, a professor of marine ecology at Pontificia Universidad Catolica de Chile, was honored with the 2010 National (Chile) Award for Applied Science and Technology. The prize consists of 16 million pesos and a monthly annuity of approximately 700,000 pesos. Castilla was awarded the prize for his work on Chile's benthic resources, in particular, and for generating scientific knowledge that underpins all Chilean national legislation on coastal marine resource management, in general. Castilla said he was grateful for the recognition and insisted that society should make efforts to be responsible to sustainable development. "I like that applied science is considered and consulted when it comes to designing public policy," he said.

News Coverage

Photo/UC

- <u>http://noticias.123.cl/</u> <u>noti-</u> <u>cias/20100903_643b1dc01218b7ce452e1b07afae7</u> <u>149.htm</u>
- <u>http://www.latercera.com/noticia/tendencias/</u> <u>ciencia-tecnologia/2010/09/739-289103-9-biologo-</u> <u>marino-recibe-el-premio-nacional-de-ciencias-</u> <u>aplicadas-y-tecnologicas.shtml</u>
- <u>http://www.emol.com/noticias/tecnologia/detalle/</u> detallenoticias.asp?idnoticia=434208

Robert Richmond ('o6) Appointed President of International Society for Reef Studies

Robert Richmond, a research professor at the University of Hawaii at Manoa, has been elected as the president of the International Society for Reef Studies, the goal of which is to promote the production and dissemination of scientific knowledge and understanding of coral reefs, both living and fossil. Richmond's term begins 1 January 2011 and lasts for four years.

For more information about the society, go to: <u>http://www.coralreefs.org</u>

Pew Environment Group Updates

Regional Fisheries Management Organization (RFMO) Meeting Updates

PEG's work on RFMOs spans the full breadth of its campaigning agenda, from tuna to sharks to IUU, where significant time and attention is directed at securing management improvement in relation to these issues. However, there remain significant over-arching challenges related to the uptake of scientific advice in decision making, as well as overall ocean governance and accountability. Starting in 2010, PEG's International Policy Program is working both with campaigns, and with an overarching agenda of accountability, to address needed conservation actions across a subset of RFMOs. To begin, this work is focusing on IATTC, ICCAT and WCPFC, with more to be added as strategy and capacity allows.

Inter-American Tropical Tuna Commission (IATTC)

The 81st Meeting of the IATTC took place in La Antigua, Guatemala from September 27-October 1, 2010. This was the first meeting of the Commission since the Antigua Convention entered into force. The Convention effectively constitutes a major revision of the original IATTC convention, making it current with respect to internationally accepted laws on the conservation and management of oceanic resources, including a mandate to take a more ecosystem-based approach to management.

The Pew Environment Group's policy recommendations emphasized shark conservation and implementation of the Port-State Measures Agreement, with more limited engagement on tuna conservation and other forms of member state accountability. China actively blocked every decision/ resolution proposed at the meeting - effectively preventing any formal action in this consensus decision-making forum. All other parties agreed to voluntary implementation of conservation measures for bigeye tuna. Additionally, there was informal agreement on basic conservation measures for seabirds. Procedural difficulties resulting from China's blocking action left little time to discuss the agenda items related to sharks. However, PEG was able to informally build support for shark conservation measures in the future, as well as assess challenges and opportunities for working on port State measures across the convention area and with individual countries. In addition, Costa Rica offered to host a meeting of IATTC's Capacity Committee in the next year, at which a study (requested by the U.S.) on the implications and opportunities for implementing total allowable catch limits (TACs) in the convention area will be considered.

This section of the newsletter will provide information about onqoinq Pew Environment Group (PEG) initiatives and campaigns, as well as PEG Ocean Science Division activities. If you have questions on campaign-related issues, please contact Faith Kearns, Science Ocean Campaign Officer at

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International Commission for the Conservation of Atlantic Tunas (ICCAT)

The 17th special meeting of ICCAT will take place November 17-20, 2010 in Paris, and PEG will focus on the conservation of Atlantic tunas and sharks, as well as measures to end illegal fishing and strengthen port State controls.

At the 15th Conference of the Parties (CoP) to the Convention on International Trade in Endangered Species of Fauna and Flora (CITES) in March 2010, the proposal to list Atlantic bluefin tuna under Appendix I did not attract sufficient votes. At the CoP, many Contracting Parties made a commitment to instead take strong action on Atlantic bluefin tuna and sharks at the upcoming ICCAT meeting, arguing that ICCAT was the best venue for managing Atlantic bluefin. At this meeting, PEG will be focusing on an immediate suspension of the fishery and no take of bluefin tuna on their spawning grounds to alleviate fishing pressure until stocks recover.

Although ICCAT has shown leadership (among RFMOs) on shark conservation, implementation of additional concrete management and conservation measures is recommended. While the United Nations called on RMFOs to prepare Regional Plans of Action for Sharks over ten years ago, there are still no catch limits set for sharks. PEG is urging specific actions to stop overfishing of North Atlantic shortfin mako and oceanic whitetip sharks. Finally, PEG will continue to highlight the need for implementation of strong port State measures as an effective and cost efficient tool to combat IUU fishing in line with the recently adopted FAO Port State Measures Agreement.

For further information, or for PEG's policy briefs on these meetings, please contact Sue Lieberman, <u>slieberman@pewtrusts.org</u> or Amanda Nickson, <u>anickson@pewtrusts.org</u>

Please email <u>marinefellows@pewtrusts.org</u> with news items for inclusion by the 15th of each month. Copy Editor: Sara LaJeunesse, Science Writer and Editor Proofreader: Kristen Erickson, Administrative Assistant, Ocean Science Division, Pew Environment Group Design, layout and editing by Lindsay Cooper, Associate, Ocean Science Division, Pew Environment Group