



SIERRA CLUB COMMENTS FOR THE U.S. CORAL REEF TASK FORCE – 8/22/07

Task Force Chairs, members, and fellow participants: My name is Dave Raney. I am a volunteer for Sierra Club and Reef Check, and serve as Chair of the Sierra Club's Coral Reef Working Group. I also participate in the Task Force's Education and Outreach Working Group. I have been a resident of Honolulu since 1968, and have had the privilege of snorkeling and diving many of the coral reefs throughout the Pacific.

WORKSHOPS AND OTHER FORUMS

We commend the Task Force and its partners for their selection of the workshops and special sessions relating to this meeting. The topics of climate change and regional approaches to coral reef ecosystems management are of vital interest to the Pacific region, as are the contributions which can be made from the rich heritage of traditional knowledge developed in Pacific island cultures over many hundreds of years.

We are also very pleased to see that representatives from Western Samoa, Fiji, and the South Pacific Regional Environment Program will be participating in the Task Force meetings and events. We have much to learn from how those with differing systems of government are addressing common problems of coral reef conservation. There are great opportunities for regional cooperation in the South Pacific.

GOVERNOR TULAFONO'S CALL FOR A PROACTIVE STANCE ON GLOBAL WARMING

From the inception of the Task Force, the Governors of American Samoa have demonstrated leadership and dedication in taking actions to address the threats and opportunities related to coral reefs. This includes actions taken by Governor Sunia to end the practice of night scuba spearfishing, and Governor Tulafono's proposals for a proactive stance by the Task Force to address the causes and consequences of global climate change.

Recognition of the need to address global warming on a national, and global, scale is mounting worldwide as images of melting glaciers, stranded polar bears, and penguins at risk, as well as bleached coral reefs, have awakened the public worldwide. In the absence of action at the U.S. federal level, states, territories, local governments, NGOs, and private citizens have seized the initiative for taking responsibility for reducing greenhouse gas emissions.

This includes the State of Hawai'i, which recently passed The Global Warming Solutions Act of 2007, establishing Hawai'i as the second state in the country (after California) to cap greenhouse gas emissions at the state level. Jeff Mikulina, Director of the Hawai'i Chapter of the Sierra Club was a major proponent of the legislation, which received broad bipartisan support and was signed into law by Governor Lingle, a Republican.

President Bush's recent statements before the G-8 indicate there may be a shift in U.S. policy regarding the need to reduce levels of greenhouse gas emissions, and this would be a welcome change. In a May 31, 2007 article in the New York Times, President Bush is quoted as follows: ***"The United States will work with other nations to establish a new framework on greenhouse gas emissions for when the Kyoto Protocol expires in 2012, my proposal is this: By the end of next year, America and other nations will set a long-term global goal for reducing greenhouse gases."*** This statement appears consistent with the initiatives Governor Tulafono, and the All Islands Committee have been urging the Task Force to adopt.

The Pacific region has borne the brunt of the impacts of global warming, and the rise in sea levels, from sources far distant from their shores and beyond their direct control. These impacts include bleaching of its coral reefs, and in some cases the need for Pacific islanders to evacuate their island homes altogether.

American Samoa is the right place, and this is the right time, for the Task Force to take the bold steps needed to address the causes as well as the impacts of global warming and ocean acidification on coral reefs. We understand that the All Islands Committee has drafted a resolution on this subject for adoption by the Task Force. We urge the Task Force to use the All Islands Committee resolution on climate change as a vehicle for putting the Task Force on record as supporting proactive actions for reducing greenhouse emissions, including actions at the federal level of government.

FLORIDA DEP PROVIDES A GOOD MODEL FOR RESPONSE TO PUBLIC COMMENTS

Sierra Club has long been urging the Task Force to improve its public comments process by providing responses to those comments. We commend Chantal Collier of the Florida Department of Environmental Protection, for doing so regarding the numerous public comments submitted by citizens and NGOs concerned over South East Florida waste water treatment plants with ocean outfalls alleged to be operating with “no permit.” Chantal’s letter in response to the public comments explained that in some cases the expired permits had been administratively extended while alternatives to the ocean outfalls were being pursued, and provided further information about the State’s goal of phasing out the use of the ocean outfalls. We suggest that her letter might serve as a model for how other Task Force agencies respond to public comments.

EPA TENTATIVELY DENIES 301(h) WAIVER FOR HONOULIULI WASTE WATER TREATMENT PLANT

The Sierra Club commends, and supports, the EPA tentative decision to deny a request from the City and County of Honolulu to renew its 301(h) waiver for the Honouliuli waste water treatment plant. The Tentative Decision Document prepared by EPA concludes that granting the waiver would violate water quality standards allowing recreational activities; protecting fish, shellfish and wildlife; and protecting human health. Some of the water quality standards which would be violated were adopted after the initial 301(h) waiver had been granted in 1991.

THE FISHING EMPIRE STRIKES BACK – MURKY HAPPENINGS AT THE HAWAII STATE LEGISLATURE

Goal 5 of the National Coral Reef Action Strategy states: “The most powerful tool for conservation of coral reef and other marine ecosystems is the establishment and effective management of a representative network of Marine Protected Areas,” and Objective 4 sets a goal of 20% no-take ecological reserves by 2010. As Dr. Alan Friedlander recounts in the attached article, however, conservationist attempts to increase the number of marine reserves in the Main Hawaiian Islands have encountered stiff resistance from organized fishers. A “right to fish” bill, which would have made it difficult or impossible to create new marine reserves, passed the state House of Representatives. The bill died in conference committee, but is likely to reappear in the next legislative session. Charging that employees of the Western Pacific Regional Fishery Management Council performed lobbying in support of the “right to fish” bill, Keiko Bonk of the Northwest Hawaiian Islands Network has filed a complaint with the Inspector General of the Department of Commerce. This is a serious charge, warranting a full investigation.

During the same legislative session, the Senate declined to re-confirm Peter Young as Director of the Department of Land and Natural Resources. Peter was a strong advocate for coral reef conservation in Hawai‘i, and the Papahānaumokuākea Marine National Monument is a legacy for which he can be proud. Under his leadership, the State also adopted stronger gill net regulations, including a complete ban on Maui and selected areas elsewhere. We will miss Peter, but look forward to the confirmation of Laura Thielan as his replacement.

IYOR 2008 – A RENEWED CALL FOR ACTION

The first International Year of the Reef (IYOR) in 1997 was a wakeup call from coral reef scientists, recreational divers, and others who had noticed declines in coral reef ecosystem health globally, including bleaching of coral reefs far from any areas of coastal development. The first worldwide survey conducted by Reef Check volunteers produced data confirming that coral reef ecosystems were, indeed, in trouble. Since 1997, NOAA in particular has made great strides in mapping coral reef ecosystems and the related benthic habitats. State, federal, and territorial governments have established monitoring programs, and Reef Check volunteers are now active in 80 countries.

The monitoring data have been conclusive – coral reefs continue to decline from the impacts of global warming, overfishing, pollution, and other stressors related to human activities. The focus now must be on specific actions which can, and must, be taken to address these impacts. This must be a partnership effort ultimately involving governments, NGOs, the private sector, and individual citizens throughout the World. We are pleased that Reef Check has provided resources for encouraging NGO participation, and that the Task Force has developed an Action Plan for IYOR 2008. We also appreciate that the Task Force Education and Outreach Working Group has provided a forum for encouraging cooperation and coordination between the Task Force and the Reef Check/NGO outreach efforts.

Thank you for the opportunity to submit these comments.



FISHERIES MANAGEMENT

Conservationists and Fishers Face Off Over Hawaii's Marine Riches

HANAUMA BAY, HAWAII—The school of big-eye jacks was right where Alan Friedlander of the National Oceanic and Atmospheric Administration's biogeography branch said it would be, circling slowly at the mouth of Hanauma Bay, a protected area just 15 kilometers from the skyscrapers of downtown Honolulu. There must have been close to 200 fish, each about 50 centimeters long and utterly unafraid as Friedlander, a marine biologist, glided through them.

"You hardly ever see this anymore in Hawaii," Friedlander said after surfacing. Jacks are prized by anglers, and such large schools have become rare in inhabited parts of the archipelago, he says.

Friedlander knows the bay better than most. He published a study in the April issue of *Ecological Applications* showing that total fish biomass in Hanauma and 11 other protected areas was 2.7 times greater than the biomass in comparable unprotected areas. And in the uninhabited 2000-kilometer-long Northwestern Hawaiian Islands chain, a national monument since 2006, there is 6.7 times more fish biomass on average than in comparable habitats—an indication that humans have reduced fish stocks in the main Hawaiian islands to about 15% of what they once were.

To Friedlander, the message is simple: The main Hawaiian Islands' reserves, which protect only 0.3% of the coastline, are too

small. "If you want to rebuild fish stocks, you need to stop fishing in at least 20% of Hawaii's waters and regulate fishing in the rest," Friedlander says. Increasing the protected areas, therefore, would result in a larger fish catch.

The appeal for new conservation areas prompted a reaction. In March, the state's House of Representatives approved a "right-to-fish" bill that would require the state to provide unattainable data, such as stock assessments throughout species' entire ranges, before any new protected area is created. The bill "would tie up all fishing regulations, not just marine reserves, in endless studies and red tape, making it impossible for the state to properly manage the public's marine assets," says William Chandler, director of ocean policy at the Marine Conservation Biology Institute in Bellevue, Washington. To his relief, Hawaii's Senate significantly modified the bill. But scientists and state officials expect the fight to continue in the next legislative session, which starts in January.

Although similar right-to-fish bills have been approved in Rhode Island and Maryland, they have not impeded the creation of protected areas in those states, says Sarah Clark Stuart of the Coastal Ocean Coalition in Atlantic Highlands, New Jersey. Because the Hawaii legislation would effectively end all fishing restrictions, she says it "is far

Recipe for recovery. Rebuilding fish stocks will require putting at least a fifth of Hawaii's waters under protection like Hanauma Bay, says Alan Friedlander.

more anticonservation than any of the other bills that were introduced in the U.S."

Hawaii's right-to-fish bill got further than a conservation bill in the House. In 2003, Friedlander helped draft legislation that would have set aside 20% of state waters for conservation. Like other states, Hawaii controls the first 3 nautical miles (6 kilometers) off its coasts, and the federal government controls the rest, up to 200 miles (370 kilometers). The Marine Reserve Network Act would have made Hawaii the leader in marine conservation in the United States, where less than 1% of coastal waters are protected. But the bill drew the ire of Hawaii's fishing lobby and was scuttled.

The loss, conservationists say, is a cautionary tale of how science sometimes is no match for a powerful bureaucracy tied to fishing interests.

As Hawaii's tourism grew, and cost of living skyrocketed—the state has the nation's highest average rents—fishing became an important supplement for poorer residents. The use of gillnets, which snare turtles, seals, and nonfood fish in addition to target species, is widespread. Trolling, shore casting, and spearfishing are unregulated, and the state's estimated 260,000 anglers are not licensed. Only this year were restrictions put on gillnets, including a ban on their use on Maui Island and overnight elsewhere.

Opponents of the Marine Reserve Network Act gained momentum earlier this year in a series of meetings designed to increase input from native Hawaiian communities. The meetings were organized by the Western Pacific Regional Fishery Management Council (Wespac), one of eight such regional councils that advise the U.S. Commerce Department. Wespac's chair is Sean Martin, president of the Hawaii Longliners Association. State officials and environmentalists have long accused Wespac of defending narrow fishing industry interests.

Wespac's influence is supposed to be limited to federal waters, but activists and state officials contend that the organization lobbied illegally for the right-to-fish bill. "Numerous times during the process that produced the bill, I saw Wespac employees openly talking to legislators about it," asserts Keiko Bonk of the Northwest Hawaiian Islands Network, which campaigns for marine conservation. The bill

passed the House, but a Senate draft now awaiting action would encourage community-led protection efforts.

In May, Bonk filed a complaint with the Commerce Department's Inspector General, claiming that Wespac had violated statutes that prohibit federal employees from lobbying state legislatures. Bonk called for an investigation and congressional hearings. Wespac denies it engaged in lobbying. The right-to-fish bill "has nothing to do with us," says Paul Dalzell, Wespac's senior scientist, adding, "All I know is

that it was drafted by fishermen."

"The scary thing is that the bill could pass next year," says Peter Young, who recently completed a term as director of Hawaii's Department of Land and Natural Resources, which manages the state's waters.

"If it passes," adds William Aila, an active Hawaiian fisher and harbor master, "it's going to further deplete our marine resources. That's unacceptable for our future generations."

—CHRISTOPHER PALA

Christopher Pala is a writer based in Honolulu.

PALEOHYDROLOGY

Did a Megaflood Slice Off Britain?

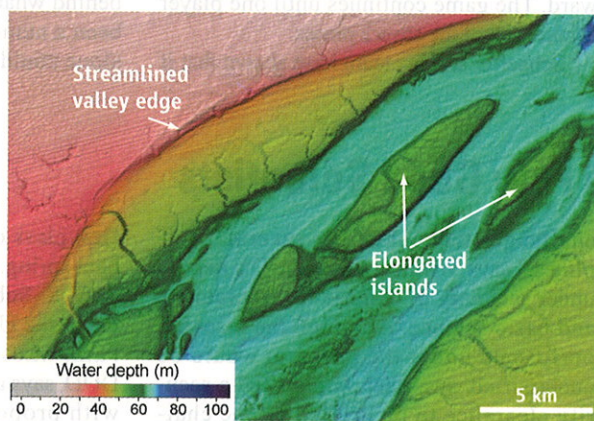
Britain as an ungainly peninsula of France? It might have been. At some time in the geologic past, it almost certainly was. But long ago, some force somehow lowered a high-standing ridge from Dover to France that would be dry land today. A group of geoscientists has new evidence of the culprit: A huge gushing of lake water, they suggest, cut down into solid rock to form the Dover Strait before rushing down the then-dry English Channel.

The strait-cutting megaflood, if it happened, would not have been the first or the last of its kind. The classic example broke out of ancient Lake Missoula about 15,000 years ago to ravage eastern Washington state and create the tortured terrain of the Channeled Scablands. That required a flow of 10 million to 20 million cubic meters of the lake's glacial meltwater each second, or 50 to 100 times the flow of the Amazon River.

Geologist Sanjeev Gupta of Imperial College London and his colleagues present evidence in this week's issue of *Nature* for scablandlike terrain downstream of the Dover Strait. Gupta and colleagues had to look for their evidence at the bottom of the English Channel, which melting ice sheets filled with water at the end of the last ice age. Using depth-finder data collected for navigational charting, they mapped the bottom in new detail. They found kilometer-scale, flat-topped islands in the same distinctive elongated shapes as the erosional remnants of the Channeled Scablands. They also saw broadly sweeping streamlined valley edges, "braided" channels, ridges and grooves

pointing downstream, and crescentlike scours. All these features speak of extreme flows, the group says.

Gupta and his colleagues envision a lake hemmed in by glacial ice where the southern North Sea is today. The lake's waters could have overtopped the Dover ridge a few hundred thousand years ago, lowering the ridge and increasing the flow until 200,000 to 1 million cubic meters per second were streaming over the ridge. The megaflood would have cut loose the peninsula during times of high sea level like the present, the group suggests. Island Britain would have been born.



A day's work? The elongated "islands" and streamlined edge of this submarine valley on the floor of the English Channel suggest that a huge but brief flood gushed between Britain and France.

"When you put the association of landforms together, it is very similar to what Victor Baker has described in the Scablands," says geologist Philip Gibbard of the University of Cambridge. "I'm persuaded by it." But Baker, of the University of Arizona in Tucson, says "it's not a smoking gun, but this is a very productive idea that deserves more attention."

—RICHARD A. KERR

Spaced Out

The United Kingdom risks lagging behind in space studies if the government does not increase space spending, the House of Commons science and technology committee warns in a report this week. The parliamentarians suggest setting up the National Space Technology Programme to provide seedcorn funding, although no total is suggested.

The U.K. spent just \$425 million on space during 2005–06, substantially less than its European counterparts. The report recommends bolstering British strengths such as planetary exploration and earth observation while considering new efforts in human space flight and launchers. The committee also calls on the European Space Agency to locate one of its facilities in the U.K., a topic of ongoing negotiations with ESA, says Richard Holdaway of the Rutherford Appleton Laboratory in Chilton.

—DANIEL CLERY

Biologists Going Down Under ...

Last week, the European Molecular Biology Laboratory (EMBL) spread to the antipodes when delegates from the group's 19 member nations voted to extend an associate membership to Australia. The 7-year initial term starts next year, when Australia will begin sending faculty members and research fellows to EMBL's five European basic research laboratories while receiving EMBL research support. Sponsors include several Australian universities and the government, which will spend a combined \$7.2 million to fund the initial term. "With [Australia's] special expertise, for example, in the fields of medical epidemiology and stem cell research, it will be an excellent complement to EMBL's focus on basic research in molecular biology," says Iain Mattaj, EMBL's director general.

—BENJAMIN LESTER

... Heat Rising

The world can't afford to stall on confronting climate change, says a resolution passed last week by the International Union of Geodesy and Geophysics, and scientists shouldn't let it. The 58-nation scientific umbrella organization, which includes seven international bodies, passed the nine-point resolution focusing on the inevitable consequences of warming and urging nations to "promote adaptation." In addition to pushing for more climate-monitoring research funds, the union's members promise more "outreach," which its outgoing president Michael MacCracken says includes getting the word out about impending warming-related floods or droughts.

—MARISSA CEVALLOS

Dear Mr. Fields,

Ms. Beth Dieveney, Secretariat for the U.S. Coral Reef Task Force (Task Force), forwarded your recent emails to me. I thank you for sharing your concerns with the Task Force, and hope the information below addresses your concerns.

The Florida Department of Environmental Protection (DEP) continues to work closely with the South Central Regional (SCR) Wastewater Treatment Facility to identify and implement viable alternatives to the ocean outfall. The DEP is requiring all wastewater treatment facilities with operational outfalls to develop water quality plans to analyze and monitor the effects outfall effluent has on the marine environment. The DEP is also strongly encouraging wastewater treatment facilities with ocean outfalls to seek alternate disposal methods.

Over the past several years, SCR has decreased its outfall discharge from 25 million gallons per day to 13 million gallons per day – thanks, in part, to an expanded reuse program. SCR currently reuses more than 4 million gallons of treated wastewater per day to irrigate city-owned land and golf courses, with future plans to double the size of their reuse treatment system. These changes will reduce the amount of wastewater discharged and will provide a valuable alternative water supply.

SCR submitted an application to renew their National Pollutant Discharge Elimination System (NPDES) permit in a timely manner (June 13, 2005) and is currently operating with an administratively extended permit. The SCR Board of Directors voted in December 2006 to construct a deep well as an alternate disposal method to the ocean outfall. This new deep well will virtually eliminate the use of the ocean outfall, except during periods of heavy rain or peak flows – when the outfall will be used as a backup to the deep well. New federal regulations require high level disinfection treatments before discharging wastewater effluent into a deep well, insuring the wastewater is compatible with public access reuse requirements.

The DEP is currently processing SCR's deep well application and is modifying a draft NPDES permit to reflect commitments by SCR to construct a deep well. The DEP will stay very engaged with SCR as they develop long-term plans to accomplish these alternative disposal objectives.

Thank you very much for your inquiry. We appreciate your interest and concern for the reefs and our environment. The DEP will continue to work to ensure the protection and preservation of Florida's environmental resources. If you have any additional questions or concerns, please contact Mr. Stephen Webster, Public Relations Manager at 561-681-6714 or Stephen.S.Webster@dep.state.fl.us .

Sincerely,

Chantal Collier

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Chantal Collier
Coral Reef Program Manager
Florida Department of Environmental Protection
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