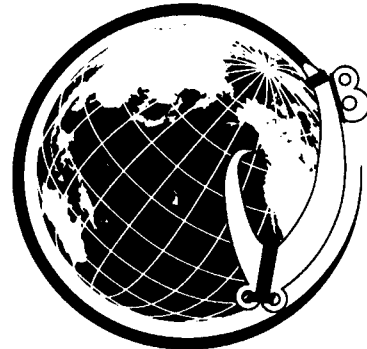


Pacific Islands Fishery News

Newsletter of the Western Pacific Regional Fishery Management Council



Winter 1999



Consumers are normally able to discern old tuna (left) from fresh tuna (back center) by the color of the flesh. However, tuna treated with CO gas (right) has the appearance of being fresh even when it is days old.

The Color of Sashimi—Fresh Red or False Red?

A new practice poses a significant threat to the \$60 million domestic tuna and swordfish industry in Hawaii, American Samoa, Guam and the Northern Mariana Islands. The process is designed to deceive consumers into purchasing inferior quality seafood that may be unsafe for consumption.

The practice exposes fish products to carbon monoxide (CO) gas prior to freezing. The process causes the prod-

ucts—generally steaks or blocks for sashimi or searing—to turn an unnaturally bright red color. Unsophisticated consumers could interpret the red color as an indicator of quality and be deceived into purchasing an inferior product at an artificially inflated price.

The substitution of the CO-treated tuna products for high quality fresh and frozen tuna impacts the Hawaii tuna fleet by reducing the market demand and value for the genuine product.

Direct health implications are most likely negligible due to the limited amount of CO contained in the treated products and volume of the product consumed. However, the potential for secondary public health problems is significant.

The health risk results from the lack of normal color and color changes in the tuna. Because the products no longer turn from red to

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Death by Debris

1998—the Year of the Ocean—ended on a somber note for the Western Pacific Regional Fishery Management Council. Reports presented at its October workshop on black-footed albatross and its 98th meeting in December highlighted the fatal impact of marine debris on protected marine species and coral reefs in the Northwestern Hawaiian Islands (NWHI).

“Adult seabirds ingest plastic items while foraging for food at sea and then inadvertently feed the plastic to their young,” explained Kathy Cousins, a marine biologist contracted by the Council. The products include cigarette lighters, light sticks, plastic pellets, styrofoam and smaller unidentifiable pieces.

Because the young chicks are unable to regurgitate the plastics, they eventually have little to no room left

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Asian lighters and other plastic pieces in the remains of this Laysan albatross reveals the source of the chick's death. According to recent samplings, nearly 98 percent of the Laysan albatrosses in the NWHI ingest an average of 23.8 grams of plastic. (I. Kinan photo)

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brown, consumers lose their ability to judge when the product is no longer safe to eat.

The point was demonstrated at the Western Pacific Regional Fishery Management Council meeting in Honolulu this past December. Council Chair Jim Cook placed three pieces of tuna—low-grade, regular-grade and gas-treated—on a platter and kept them exposed at room temperature throughout the meeting. While the low- and regular-grade cuts turned brown, the gas-treated piece remained bright red. The only telltale sign that the red piece was not fresh high-quality tuna was an opaqueness rather than a translucency (clarity) in its color.

Production of CO-treated tuna and swordfish occurs in Indonesia, Maldives, Philippine Islands, Pohnpei and Taiwan and was originally targeted for the Japanese market, according to a paper by John Kaneko of PACMAR Inc., a consulting firm to the local

tuna industry.

Because the Japanese government was concerned about public health and consumer fraud, it established an action limit of 200 ppm CO in seafood products, effectively restricting importation of CO-treated seafood products into Japan.

Producers have since turned to the U.S. market, where the Food and Drug Administration (FDA) has failed to act to protect consumers from this product. Although the FDA considers treatment with CO gas to be an illegal form of adulteration (CO is not an approved food additive) and a form of an economic fraud, its policy is to focus on direct—and not secondary—safety issues.

Some producers are clouding the current situation by claiming their products are “lightly smoked” or treated with “tasteless smoke.” The FDA is investigating the argument that CO should be generally regarded as safe as

natural wood smoking because CO is a natural component of wood smoke.

Meanwhile, U.S. importers, wholesalers, retailers and restaurateurs are taking advantage of the attractive price differential of CO-treated tuna to use this frozen fish in preparations that, until now, have been made using only fresh and occasionally high quality frozen tuna. In Hawaii, these include sashimi, sushi and poke. However, Kaneko warns, “marketers using these products are taking the short-term view without consideration for long-term impacts. ... The issue of consumer deception and loss of consumer confidence has the potential for great negative impacts not only on our seafood market but also on our domestic tuna fleets.”

The Council, which concurs with Kaneko’s findings, has asked the FDA to consider prohibiting importation, distribution and sale of CO-treated seafood products.

Mariana Islanders Pursue ‘Traditional Take’ of Turtle

During the first week of November 1998, the Commonwealth of the Northern Mariana Islands—with assistance from Western Pacific Regional Fishery Management Council, National Marine Fisheries Service and U.S. Fish and Wildlife Service—assembled concerned citizens of the CNMI to discuss sea turtle biology, stock status, recovery efforts and cultural significance. The workshop also addressed a NMFS response to a request that a “traditional take” of sea turtles be allowed in conjunction with cultural events celebrated in CNMI by indigenous people.

Among the participants testifying on behalf of traditional use of sea turtles were CNMI legislators, former elected officials and heads of government agencies, including the executive director of the Carolinian Affairs Office and the director of the

Indigenous Affairs Office. Several participants from Tinian, Rota and Guam, who had paid their own way to Saipan, also testified. All expressed deep dissatisfaction with the current ban, saying it infringes upon their cultural rights. Extensive testimony was provided on the historical importance of harvesting green turtles, particularly during the Nuestra Senora delos Remedios Fiesta and San Isidro Fiesta.

Federal officials pointed out that existing basic biological information necessary to formulate meaningful regulations for sea turtles found in the Mariana archipelago—such as population densities, species distribution and locations of nesting beaches and foraging pastures—is inadequate.

In response, the CNMI participants argued that, if data is inadequate, sea turtles should not be list-



Council staff members assisting with the turtle workshop included Executive Director Kitty Simonds (far right), shown here (from right) with Pius “Mau” Piallug, Bill Puleloa and John Taltano.

ed as protected species under the U.S. Endangered Species Act. A consensus was reached that more biological baseline research on sea turtles is necessary in the Northern Mariana Islands. NMFS offered a tentative commitment to help achieve this goal.

Both NMFS and U.S. Fish and Wildlife Service also promised to relay the concerns of the CNMI participants to higher level federal resource managers.

Council to Close Data Reporting Loopholes

The Western Pacific Regional Fishery Management Council plans for 1999 include developing a measure that would close data reporting loopholes. The measure will address fisheries activities in the U.S. Pacific Remote Island Territories (RITs), coral reef fisheries, Hawaii-based longline fisheries and the emerging international fisheries management arrangement for the Pacific.

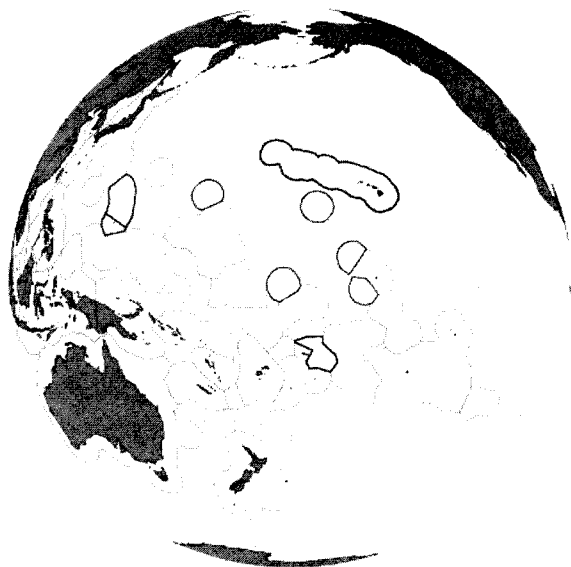
The need to collect data on all fishing activities in the exclusive economic zones (EEZs) of the U.S. Pacific RITs—Howland and Baker Islands, Jarvis Island, Johnston Atoll, Kingman Reef, Palmyra and Wake Island—was established at the 95th Council meeting in April 1998. The preferred alternative to achieve this goal is to prepare a comprehensive framework measure that will simultaneously amend all the Council's fishery management plans (FMPs). The proposed measure will implement a comprehensive federal permit and logbook program for all fishing activities in the RITs, including troll and handline fishing. Currently, only longline fishing vessels are covered.

Underscoring the need and timeliness of this action are increased longline, troll and handline fishing activities during 1998 in the RITs, particularly around Palmyra and Kingman Reef. In addition, since the bottomfish stocks in the RITs are virtually unexploited, they present a unique opportunity to obtain data necessary for management.

Further, the development of a new coral reef ecosystem FMP will bring large numbers of shallow water coral

reef fish and invertebrates under the Council's jurisdiction. The National Marine Fisheries Service (NMFS) Pacific Islands administrative officer has already received inquiries about the possibilities of live rock harvest around Palmyra. Other possible developments include the expansion of coastal shark fishing in the western Pacific region.

The framework measure will also address Hawaii-based longline vessels that fish outside the U.S. EEZ and land their catch at outside ports, such as those in California. About 1 to 2 percent of the fleet currently engage in such activity; an increase to 10 percent or more would represent a significant loss of data. At present when these vessels land in California, they submit a federal logbook to California's Department of Fish & Game, which in turn sends it to the NMFS Honolulu Laboratory. If they continue to land fish in California, they are required to fill out a California Fish & Game logbook. The California Fish & Game logbook is based on the federal logbook and, therefore, collects the same type of information. However, should the vessels continue to land at other ports in the United States, or in a foreign country, then fishing data may be lost. The Council will, therefore, require that federal logbooks be



A federal permit and logbook program for longline, troll and handline fishing activities in the exclusive economic zones of the Remote Island Territories (white areas) and for Hawaii-based longline vessels fishing in the Western Pacific region outside the U.S. EEZ (areas outlined in bold) will ensure collection of comprehensive catch data deemed important as fishing activities increase and international resource allocations for the Pacific emerge.

completed by Hawaii-permitted vessels, regardless of where they land their fish, unless there is a data collection system in place comparable with the federal logbook program.

Another issue to be addressed by the framework measure is the management arrangement emerging from the Multilateral High Level Conference process, which will likely consider allocation of pelagic stocks. The collection of comprehensive catch data will be an important tool when determining any future allocation of tuna and other pelagic resources.

HLA Revived to Tackle Longline Issues

The Hawaii Longline Association re-formed this year to unify the Hawaii longline fleet and address pressing issues that threaten to change or possibly close the fishery. Heading the association will be longtime longliner Scott Barrows.

The association's revival comes in the wake of environmental organizations rallying around albatrosses and turtles to reduce their mortality from fishing gear. Reducing the number of protected species killed or injured on longline gear poses the biggest challenge for the fleet today and in the near future.

Education will also be a major component of the association's tasks. Misinformation about the Hawaii longline fishery and its impacts on marine species has added to the fleet's problem.



Council Meeting Addresses Marine Debris, Bottomfish Plan

The Western Pacific Regional Fishery Management Council at its 98th meeting at the Hawaii Prince Hotel, Dec. 1–3, 1998, issued a strongly worded statement about the need for immediate action to stop the dumping of marine debris in the North Pacific Ocean. Council Chair Jim Cook said marine debris is probably the root cause of many of the problems associated with threats to protected wildlife in the Hawaiian Islands. The threat will continue until action is taken at an international level, he noted.

The Council is bringing this problem to the attention of the State Department, asking that its counterparts in other Pacific nations be alerted to the threats posed to wildlife and coral reef habitat from marine debris. The Council will also work with the Pacific and the North Pacific Regional Fishery Management Councils to identify domestic sources of marine debris and consider possible regulatory measures. The Council has also requested that the National Marine Fisheries Service (NMFS) provide regular reports on the extent of this problem and its impacts.

In other action, the Council approved a resolution that recognizes the consistency between its Bottomfish Fishery Management Plan (FMP) and the State of Hawaii's management program, primarily involving areas closed to fishing for main Hawaiian Islands bottomfish. The Council acknowledges the state government's authority to enforce its regulations, with respect to state-registered vessels, within the exclusive economic zone.

In addition, the Council addressed these issues:

- **Fisheries development** The Council will request that the NMFS Fisheries Finance Program consider establishing a special loan program to help finance

fishing, aquaculture and fish processing operations in American Samoa, Guam and the Northern Mariana Islands.

- **Native and indigenous rights** The Council determined that a legal analysis should be conducted to clarify the scope of the Magnuson-Stevens Act provisions concerning native and indigenous fishing practices and access issues relating to the fisheries of the western Pacific region.
- **Hawaii fisheries** Ping-Sun Leung of the University of Hawaii presented preliminary results of a study that conservatively estimates that Hawaii's recreational and commercial fishing sector generates 2,350 jobs and has a value of \$151 million.
- **Precious corals** Taking into consideration new information on known and new precious coral beds in Hawaiian waters, the potential of their importance as foraging areas for Hawaiian monk seals and changes in harvesting technology, the Council is considering various adjustments to its precious corals FMP, such as harvest quotas, minimum size limits and gear restrictions.
- **Blue marlin** The Council heard an update on plans for stock assessments of blue marlin and other billfish.
- **Crustaceans** The Council will request that the NMFS regional administrator develop permanent rules for annual harvest guidelines for lobsters at Necker, Maro and Gardner banks in the Northwestern Hawaiian Islands and at all other remaining areas (combined), while maintaining flexibility to consider additional banks for specific annual take quotas, as sufficient information becomes available.

Longline Cruise Provides Seabird Mitigation Data

A November 1998 research cruise has provided Council consultant Garcia and Associates with a substantial volume of data—including many hours of video tape—on the response of seabirds to devices used to mitigate longline interactions.

Albatrosses were encountered on a daily basis during the 40-day cruise on a swordfish longliner.

Field investigator Brian MacNamara showed segments of the video during a presentation to the 98th Council meeting in early December 1998. In them, birds interact with longline gear in the presence and absence of mitigation devices as longlines are set and hauled back. Interviews of longline crew members also reveal their opinions on the effectiveness of the mitigation gear and on the difficulties of conducting normal fishing operations with the gear present.

During an earlier 19-day research cruise in August 1998, MacNamara was able to generate only a modest amount of data as the vessel, targeting principally tuna, fished in areas with low concentrations of albatrosses.

MacNamara departed for a third fishing trip in mid-December on a vessel targeting swordfish. A total of five cruises will be conducted during the project. Gail Kaaiialii of Chaminade University of Honolulu, principal investigator on the Garcia team, will analyze the data, and recommendations on the most effective methods for mitigation will then be made. The Council will use the recommendations should it decide to adopt mitigation measures for the Hawaii longline fishery.

Council and Advisory Panel Members Announced

At its 98th meeting in Honolulu, Dec. 1–3, the Western Pacific Regional Fishery Management Council reelected Jim Cook, Pacific Ocean Producers co-owner, as its chair. Vice chairs for each island area remained unchanged: Altotele Sunia, Legislative Counsel, American Samoa; Judith Guthertz, professor and vice president of academic affairs, University of Guam; Frank Farm, director, Hyperbaric Treatment Center, Hawaii; and Arnold Palacios, retired director, Division of Fish and Wildlife, Northern Mariana Islands. Chair and vice-chair terms are for one year.

The Council also appointed 78 new and returning members to its six advisory panels: pelagics, bottomfish, crustaceans, precious corals, native and indigenous rights, and ecosystems and habitat. Terms for advisory members run from Jan. 1, 1999, to Dec. 31, 2000.

Death by Debris *continued from page 1*

in their belly for nutritional items. The plastics can also stop appetite or block the entrance of food into the intestine. The result is death from dehydration and starvation.

Plastics also lead to death through perforation of the stomach wall or ulceration of the stomach membrane due to constant irritation. In addition, some plastics contain toxic hydrocarbons.

The amount of plastic ingested by NWHI seabirds has been increasing. Cousins noted that "74 percent of the Laysan albatrosses sampled in 1966 contained approximately 1.87 grams of plastic in the anterior part of their stomach. Thirty years later, 97.6 percent of the Laysan albatrosses sampled had ingested 23.8 grams of plastic."

These increases occur despite laws prohibiting dumping of plastic at sea. On the international level, Annex V of the MARPOL (acronym for Marine Pollution) convention regulates the prevention of pollution by garbage. Developed in 1973 and modified in 1978, Annex V has been adopted by 76 member countries.

The U.S. Congress enacted the Marine Plastic Pollution Research and Control Act to implement MARPOL 73/78 Annex V, making it illegal for any vessel of any size to discard plastic in any navigable waters or in the 200-mile exclusive economic zone of the United States. This law also applies to U.S. vessels outside the EEZ. Penalties for noncompliance include civil penalties of up to \$25,000 per day per violation; criminal penalties of up to \$50,000 and a five-year prison term; and denied access to port, terminal or marina.

However, regulations have been unenforceable because obtaining the evidence necessary to prosecute violators is difficult. From 1991 to 1998, less than half of the 561 violations issued worldwide resulted in charges and only 40 resulted in warnings. In Hawaii, only 19 violations have been issued and all but one, which is pending, have been closed without charges.

"It is difficult to determine the source of the plastic because plastics lack identifying labels," Cousins explained.

Various methods are being considered to address this issue. For light sticks—commonly used by longline fishermen to attract swordfish—these include color coding, Universal Product Code labeling, modifying log-book and observer record-keeping forms to include lost light sticks and mandatory weighing in of bagged used light sticks when vessels return to port.

Another option is affixing large labels to the product spelling out environmental concerns, dumping restrictions and applicable penalties and fines. In fact, Lindgren-Pitman Inc., manufacturer of Duralume Light Sticks, notified Cousins in late November 1998 that the major U.S. fish light stick suppliers are agreeable to such labels.

"Certainly, commercial fishermen are not the only sources of marine pollution," Cousins added. Other possible sources include the merchant shipping industry, the U.S. Navy, passenger ships and recreational vessels. In addition, the Center for Marine Conservation states that 60 to 80 percent of the total marine debris is generated from land.

The other major source of marine debris that is a serious hazard to wildlife is discarded bundles of fishing nets. "The bundles become snagged on coral destroying them and may even continue to catch fish," explained Council Chair Jim Cook. "The nets are also a serious hazard for monk



A light stick blocking the entrance of food into the intestine is evident in the remains of this young albatross chick. There is currently no way to identify and thus prosecute users of improperly disposed light sticks.

seals. These extremely curious animals get entangled in the nets and drown." He added, "Given that there are only 1,000 or so monk seals left in the Hawaiian archipelago, we cannot afford to lose individuals needlessly."

The scale of the problem was recently revealed when researchers returned with 6 tons of debris collected over six days from the French Frigate Shoals alone. The National Marine Fisheries Service estimates that there are more than 70,000 discarded net segments in waters surrounding Pearl and Hermes Atoll and the French Frigate Shoals.

The Council is promoting several regional and international initiatives to address the marine debris problem and is considering organizing an international workshop in Hawaii to address the issue.

A Western Pacific Regional Recipe

Opah Pupu

- 2 lbs opah belly, cut 1" by ½"**
- ½ lb bacon strips, cut in thirds**
- ½ lb butter**
- 2 tsp chopped garlic**
- 2 tbs lemon juice**
- 2 tbs chopped green onion**

Wrap opah with bacon and secure with toothpick. Place wrapped fish in heated skillet. Turn when brown. In a separate skillet, heat butter until it starts to turn brown. Quickly add garlic, lemon juice and green onion. Remove from stove. Place fish on platter and pour sauce over. Serves 6-8.

COUNCIL CALENDAR

FEBRUARY

- 10-19** Multilateral High Level Conference IV
Hawaii Convention Center
Honolulu, Hawaii
- 15-19** Food & Agriculture Organization COFI Meeting
[for information, e-mail
David.Doulman@fao.org]
- 24-27** Seabird Bycatch: Trends, Roadblocks and Solutions
Blaine, Washington
- 22-23** Ecosystem and Habitat Advisory Panel Meeting
Council Conference Room
Honolulu, Hawaii
- 24-26** Coral Reef Ecosystem Plan Team
Council Conference Room
Honolulu, Hawaii

MARCH

- 4-7** U.S. Coral Reef Task Force 2nd Meeting
[for information, call (808) 522-8223]

- 15-19** 99th Council Meeting
Guam/Northern Mariana Islands

APRIL

- 14-15** Pelagic Advisory Panel Meeting
[for information, call (808) 522-8220]
- 19-20** Native Rights Advisory Panel Meeting
Council Conference Room
Honolulu, Hawaii
- 21-22** Bottomfish Advisory Panel Meeting
Council Conference Room
Honolulu, Hawaii
- 28-29** Bottomfish Plan Team
Council Conference Room
Honolulu, Hawaii

MAY

- 3-7** Forum Fisheries Committee
[for information, e-mail
barbara.hanchard@ffa.int]
- 5-6** Crustacean Plan Team/Advisory Panel Meeting
Council Conference Room
Honolulu, Hawaii

- 11-13** Pelagic Plan Team Meeting
Council Conference Room
Honolulu, Hawaii

- 18-20** 71st Scientific and Statistical Committee Meeting
Council Conference Room
Honolulu, Hawaii
- 24-27** 50th Tuna Conference
University of California's
Conference Center
Lake Arrowhead, California

JUNE

- 7-11** SPC Standing Committee Meeting
Tahiti
- TBA** IATTC Meeting
Ecuador
- 15-18** 100th Council Meeting
Ala Moana Hotel
Honolulu, Hawaii
- 15-19** PACON Conference '99 Regional Symposium
Moscow, Russia
- 28-30** Regional Fishery Management Council Meeting
Newport, Rhode Island

Pacific Islands Fishery News

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Telephone: (808) 522-8220
Fax: (808) 522-8226

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Western Pacific Regional
Fishery Management Council
1164 Bishop Street, Suite 1400
Honolulu, HI 96813