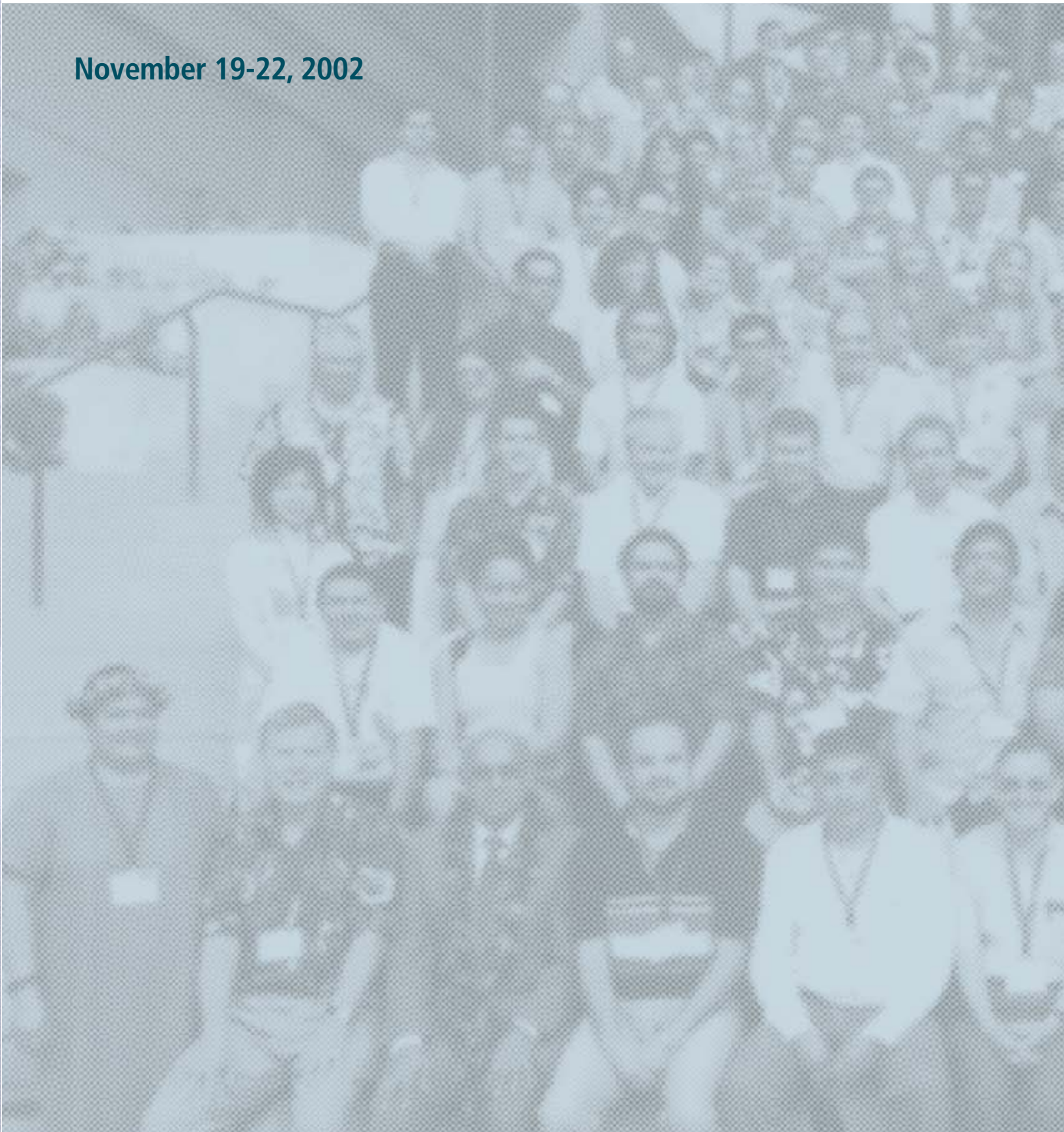




Second International Fishers Forum

Executive Summary

November 19-22, 2002





WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL

February 5, 2003

Aloha!

On behalf of the organizers of the Second International Fishers Forum (IFF2), I would like to thank all of the people involved in making IFF2 such a resounding success. A special mahalo goes to the Forum sponsors—in particular, the Hawaii Longline Association, the National Marine Fisheries Service, the North Pacific Fishery Management Council and the Western Pacific Regional Fishery Management Council.

IFF2 built on the successes and maintained the momentum established at the First International Fishers Forum (IFF1), held in New Zealand in 2000. This second Forum brought together a greater diversity of fishery participants from around the world and focused not only on seabird longline bycatch but also incidental catches of sea turtles in pelagic longline fisheries. Altogether, a total of 236 participants from 28 different countries discussed these issues and exchanged perspectives and solutions during the plenary and breakout sessions.

The state of fisheries around the world and their impacts on marine ecosystems are attracting greater scrutiny and attention from governments, conservation organizations and the public at large. Many seabird and sea turtle populations have been severely reduced by a variety of man-made or anthropogenic sources, fisheries among them. As with many problems, the solutions will be found within the matrix of the problem itself, and, in the case of fishery bycatch, it is fishermen who can lead the way in finding the answers. IFF2 was successful in increasing the awareness of longline fishermen about the seriousness of seabird and sea turtle bycatch and fostering a sense of urgency that fishermen must take a leadership role in tackling these problems.

The comprehensive proceedings of the forum are being compiled and edited for publication. In the interim, this synopsis of IFF2 provides a timely summary of the principal conclusions of the meeting sessions, which were integrated into the final resolution from IFF2. We hope that between now and the next forum that IFF2 participants will continue to work on the commitments they made at this meeting and, in particular, securing greater participation by the major longline fishing nations at the Third International Fishers Forum. We look forward to seeing you there.

Mahalo,

Kitty M. Simonds
Executive Director



Press conference: (l-r) Janice Molloy, John Cooper, Douglas Hykle, Colin Limpus, Kitty Simonds, Satya Nandan and Jim Cook.



Executive Summary

Longline fisheries accidentally hook and kill seabirds, such as albatross, by the tens of thousands each year. Finding the solution to this problem is a priority for regional, national and international governments and organizations.

Likewise, sea turtle populations throughout the world have declined greatly over the last century. Some populations have been driven to near extinction. The primary causes of this decline are the direct harvest of nesting females and their eggs; the destruction of nesting and foraging habitat; marine pollution; and the incidental capture of sea turtles in various types of fishing gear, including longline gear.

While work to develop solutions to reduce the bycatch of sea turtles and seabirds by longline gear has begun, fishermen, managers and scientists recognize that these efforts must be enhanced and collaboration must be pursued internationally as these species are highly migratory, inhabiting the waters of many nations during their life cycle.

To further this cause, the Western Pacific Fishery Regional Fishery Management Council hosted the Second International Fishers Forum (IFF2), Nov. 19–22, 2002, in Honolulu.

IFF2 built on the First International Fishers Forum (IFF1) held in Auckland, Nov. 6–1, 2000, organized by the New Zealand Government's Department of Conservation and Ministry of Fisheries, in association with the New Zealand Seafood Industry Council. Many of the world's leading longline fishing fleets were represented at IFF1 to exchange information and develop practical measures to minimize the incidental capture of seabirds in longline fishing operations. Participants agreed that the incidental capture of albatrosses and petrels in longline fisheries was a serious problem that has had significant impacts on the populations of some species over the past 20 years. They recognized the need for ongoing research and development and acknowledged that progress would be determined by their own contributions within their own fishing entities,

regions and organizations. In this way each entity, region and organization was to set its own objectives based on its particular expertise and economy.

IFF2 widened the focus of IFF1 to address the bycatch of sea turtles as well as seabirds by longline fishing gear. IFF2 had the following objectives:

- To increase the awareness of fishermen to the incidental longline catch of seabirds and sea turtles that may pose a serious problem to these populations and to the continued operations of longline fishing.
- To promote the development and use of practical and effective seabird and sea turtle management and mitigation measures by longline fishermen.
- To foster an exchange and dissemination of information among fishermen, scientists, resource managers and other interested parties on the use of mitigation measures and the development of coordinated approaches to testing new measures.
- To promote the development and implementation of collaborative mitigation research studies by scientists, fishermen, resource managers and other interested parties.
- To build on IFF1, encouraging continued progress and new participants.

More than two hundred representatives from fishing industries, government agencies, non-governmental organizations and other interested parties from 28 countries in the Atlantic, East and Central Pacific, North Pacific and South Pacific participated in IFF2.

Ambassador Satya N. Nandan, Secretary-General of the International Seabird Authority, delivered the opening remarks, setting ambitious goals for the Forum participants: "The longline fishing industry has been proactive in developing mitigation measures for seabird interactions, for example, tori poles, blue dyed bait, and setting chutes are all ideas that stem from longline fishermen, and were developed with the cooperation of the longline industry," he noted.



“The same inventiveness now needs to be applied to the problem of reducing longline-turtle interactions. ...By taking a proactive role in the development of turtle mitigation technology and strategies longline fishermen will provide an effective rebuttal to more draconian solutions which have been proposed such as outright longline bans or severe constraints on longline fisheries.”

Assisted by professional facilitators, the participants engaged in four days of plenary and breakout sessions focused on eight themes. Some of the sessions included “fishermen only” groups, while others were open to all.

The Seabird Mitigation and Research Session participants generally agreed that existing mitigation practices have positive impacts and the need is not for new technologies but for fine-tuning and broadening the use of existing technologies. They also agreed that improved mitigation results would likely come from better crew training, expanded testing in different regions, new vessel construction and the development of minimum standards. Participants strongly believed that no single mitigation technology was likely to serve as a “silver bullet.” Instead, the best results would likely come from developing a “toolbox” consisting of suites or combinations of measures. Ultimately, these solutions would need to be incorporated into the design of new vessels.

The Sea Turtle Mitigation and Research Session participants agreed that the major challenges standing in the way of finding a means to reduce sea turtle–longline bycatch include data needs on the biology of target species and bycatch, effective gear modifications and fishing tactics, research facilitation and dissemination, and industry/public awareness and incentives for action.

The Data Collection Session participants focused on the overarching issues of insufficient data and enduring mistrust between fishermen, on the one hand, and those who collect and use the data, on the other hand. Most participants generally felt

that there was ample room for improvement. Several cautioned that it might take some time to overcome the lack of trust that exists between the fishing industry and those responsible for monitoring and regulating it.

The Education/Communication Session participants said that fishermen need broad information on seabirds and marine turtles, such as vulnerability of populations, population trends, how to avoid catching them and how to release them. They said species profiles of marine turtles and seabirds would be useful to fishers, observers and schools and are worth reproducing. They suggested waterproof plastic books or folders, ring binders, or waterproof pocket flipbooks as the reproduction format and translations in Spanish, Portuguese, Mandarin, Japanese and English.

The Obstacles, Lessons Learnt and the Way Forward Session participants suggested improving international technical coordination among fishermen, gear manufacturers, biologists and others to produce new enhanced mitigation measures; closing the gap between fishermen and other concerned parties to enable them to work together more effectively and to build coalitions to realize commonly held goals; and better informing fishermen and consumers about the need for reducing incidental seabird and sea turtle bycatch in longline fisheries and of the progress that has been made by some fishermen and fisheries.

The International Agreements/National Approaches Session participants recommended the creation of an International Plan of Action (IPOA) on sea turtles, incorporating sea turtles into existing IPOAs and making international agreements less generalized and more specific. They noted that new ideas on mitigating turtle interactions have to be sold to the fishing industry, and good science is essential to accomplish this. They said fishing gear should include identification marks for the source fishery, as specified in the FAO Code of Conduct. The group agreed that the remote monitoring of fishing fleets by vessel monitoring systems is only really effective for time–area closures. They said feedback on



research should be a professional courtesy and agreed that a mechanism is needed to assess the socio-economic impacts of measures implemented under international agreements. The group also proposed a list of items to be added to international agreements to improve their efficacy.

The Modeling Session participants participated in hands-on exercises using deterministic (where there is no randomness) and stochastic (where chance plays an essential part in the calculations) models. The industry people found models to be more complex than they had anticipated, but they expressed interest in using them in economic or business type applications. Some managers said the session helped them communicate with modelers or people who used models. The researchers were pleasantly surprised to discover what could be done with simple models, e.g., to convey data needs to those who collect the data.

The Fishermen Incentives Session identified effective incentive instruments to minimize the bycatch of seabirds and sea turtles in each represented longline fishery. Participants most commonly expressed an interest in instituting bycatch fee and exemption structures, industry self-policing and eco-labeling.

On the final day, several speakers provided participants with thoughts of encouragement and insightfulness as they prepared to write the Forum's outcomes.

In recounting US efforts to reduce incidental bycatch of sea turtles and seabirds, William T. Hogarth, NOAA Assistant Administrator for Fisheries, said: "One pattern certainly has emerged in these efforts to promote the development and use of practical and effective seabird and sea turtle management measures by longline fishermen: collaboration and an international focus yields the best results."

In a video address, US Sen. Daniel K. Inouye urged participants to "work especially hard to develop the international cooperation necessary for effective management. ...One country alone cannot stem the jeopardy to the world's ocean resources; the effort must be international in scope." He proposed a multi-pronged approach

that included continuing the collaborative efforts amongst industry experts, scientists and managers started at IFF1 and encouraging governments to support cooperative rather than unilateral approaches, efforts to protect sea turtle nesting grounds and mitigation of the effects of marine debris.

With the thoughts of these and other speakers as background, the participants drafted a Forum Resolution, which contains four action items:

- To request that the Western Pacific Regional Fishery Management Council present the findings of the Forum at the next Session of the Committee of Fisheries of the Food and Agriculture Organization.
- To encourage the FAO to organize an expert consultation with relevant international organizations to develop Guidelines leading to an International Plan of Action for the Reduction of Sea Turtle Bycatch from Marine Fisheries throughout the world's oceans.
- To invite the Convention on Migratory Species to consider how best to reflect the findings of IFF2 in the further development of existing and planned instruments for the purpose of conserving marine turtles and seabirds on a global scale.
- To encourage the FAO, relevant regional fisheries management organizations and national agencies to collaborate in the implementation and monitoring of the International Plan of Action to reduce incidental catches of seabirds in longline fisheries.

Another concrete outcome of IFF2 was the 65 commitments made by individual participants to a variety of projects to protect sea turtles and seabirds. They included the following actions:

- Share mitigation technologies with different fisheries in different nations.
- Commit to use and test more mitigation strategies and to encourage the same within particular fleets, fisheries and nations.
- Form a multi-stakeholder advisory committee to address mitigation, data collection and research needs within particular fisheries.



- Increase the involvement of fishermen in the development of new mitigation technologies;
- Secure the participation of more longline fishing nations and fishermen in reducing incidental bycatch of seabirds and sea turtles.
- Create public awareness campaigns regarding the issues being faced and the progress made to date.
- Improve communications between the different stakeholder communities.
- Improve logbooks and other data collection techniques.
- Conduct new research studies (e.g., turtle survivability and mitigation, line weighting studies).
- Develop databases and websites to improve information organization and dissemination and to provide educational materials to all necessary audiences.
- Improve communication and collaboration among agencies around the world that have drafted FAO National Plans of Action for seabirds and mentor other countries that have not yet done so.
- Increase the presence of NGO members on fishing boats.
- Organize further conferences on the topic.

Upon conclusion of IFF2, participants were asked a series of four exit questions. These questions assessed the success of the forum and provided a means to voice concerns or provide recommendations for future meetings. Based on the results of this questionnaire as well as the questionnaire completed during the IFF2 registration period, the following participant observations and recommendations were gleaned:

IFF2 provided participants with education, collaboration and networking opportunities as well as a better understanding and appreciation of regional and international bycatch issues. Participants gained motivation to continue

working towards development of bycatch solutions and seemed eager to take home information or institute mitigation methods acquired at the Forum. Overall, this was seen as a positive and successful meeting on many levels, yet it was also widely recognized that work remains to address global awareness and implementation of mitigation measures.

The Forum concluded that there is a need to bring together all the nations that participate in longline fisheries to search for inclusive solutions that allows the fishers, seabirds and sea turtles to survive. The apparent lack of international participation from some major fishing countries, particularly those with distant-water fishing fleets, is a concern. Future organizers should focus on integrating these countries in the Forum process.

Participants also suggested that future Forum breakout sessions be restructured to promote and ensure integration of all stakeholders to facilitate the exchange of ideas, break down cultural barriers between scientists and fishers, and promote transparency. It would have been beneficial for participants to know each other's stakeholder status (fishermen, industry support, academia, research, government, NGO, etc.) and the region/area of the fishermen's operations.

Most important, perhaps, IFF2 concluded that the very active engagement of the fishers was a necessary component for a successful program. They recognized that most of the solutions to bycatch programs have originated with the fishers, so there is a need to develop mechanisms to encourage and channel the creativity of the fishermen.

With the progress and lessons learned from IFF1 and IFF2, the Third International Fishers Forum (IFF3) is bound to bring us closer toward finding and implementing solutions to reach our mutual goal of sustaining food fish harvests while protecting endangered and threatened species. We look forward to seeing you there!



Second International Fishers Forum Resolution

Whereas, representatives from fishing industries, government agencies, non-governmental organizations and other interested parties from over 28 countries participated in the Second International Fishers Forum held in Honolulu, Hawaii, for the purpose of addressing possible solutions to mitigate the incidental bycatch of sea turtles and seabirds by longline fishing gear;

Whereas, the participants deliberated on a wide range of issues, including: 1) Seabird and Sea Turtle Mitigation and Research; 2) Data Collection; 3) Education and Communication; 4) Obstacles, Lessons Learnt and the Way Forward; 5) International Agreements and National Approaches; 6) Fishermen Incentives and; 7) Seabird and Sea Turtle Population Modeling;

Noting with satisfaction, the proposed United Nations General Assembly resolution on large scale drift-net fishing, unauthorized fishing in zones of national jurisdiction and on the high seas/illegal, unreported and unregulated fishing, fisheries bycatch and discards and other developments;

Recognizing the need for population assessments, monitoring programs and increased awareness about all factors contributing to the mortality of sea turtle and seabird populations globally;

Aware of the relevance to sea turtle conservation of the Inter-American Convention for the Protection and Conservation of Sea Turtles, and of instruments developed under the Convention on Migratory Species (CMS) for sea turtles of the Atlantic Coast of Africa and of the Indian Ocean and South-East Asia;

Aware that International Plans of Action are currently in place to reduce incidental catches of seabirds in longline fisheries, and for the conservation and management of sharks;

Aware also of initiatives by various regional fisheries management organizations to collect data on the incidental catch of seabirds, and to institute appropriate data collection and mitigation procedures;

The participants of the IFF2 hereby resolve to:

Request that the Western Pacific Regional Fishery Management Council present the findings of this Forum at the next Session of the Committee of Fisheries of the Food and Agriculture Organization.

Encourage the Food and Agriculture Organization (FAO) to organize an expert consultation with relevant international organizations to develop Guidelines leading to an International Plan of Action for the Reduction of Sea Turtle Bycatch from Marine Fisheries throughout the world's oceans;

Invite the Convention on Migratory Species to consider how best to reflect the findings of this Forum in the further development of existing and planned instruments for the purpose of conserving marine turtles and seabirds on a global scale;

Further *Encourage* the FAO, relevant regional fisheries management organizations and national agencies to collaborate in the implementation and monitoring of the International Plan of Action to reduce incidental catches of seabirds in longline fisheries.



Program

DAY ONE	November 19, 2002
7:00 AM	Registration/Continental Breakfast Hosted by Rena International
8:00 AM	Welcoming Ceremony and Prayer: Kitty Simonds, Executive Director, Western Pacific Regional Fishery Management Council
8:30 AM	Opening Address: Ambassador Satya Nandan, Secretary-General, International Seabed Authority
9:00 AM	Overview of Forum Structure, Goals, Social Events and Breakout Session Objectives: Forum Convener
9:15 AM	Group Photo and Coffee/Tea Break
9:30 AM	IFF1 Commitment Update: Janice Molloy, NZ Department of Conservation
10:45 AM	Coffee/Tea Break
11:00 AM	Seabird and Sea Turtle Biology, Distribution and Population Status Overview: Rosemary Gales, Tasmanian Parks and Wildlife Service, and Colin Limpus, Queensland Parks and Wildlife Department
12:00 PM	Lunch Hosted by the Marine Conservation Action Fund
1:00 PM	Longline Fisheries and Data Collection Overview: Tim Park, Secretariat of the Pacific; Mike Bayle, Alaska Frontier Company; and Howard McElderry, Archipelago Marine Research Ltd.
2:30 PM	Coffee/Tea Break
2:40 PM	Mitigation Measures, Data Collection and Research Overview: Nigel Brothers, Tasmanian Parks and Wildlife Service, and Christofer Boggs, NMFS Honolulu Laboratory
3:40 PM	Coffee/Tea Break
3:50 PM	Modeling Overview: Anthony Starfield, University of Minnesota
4:20 PM	International Agreements/National Approaches Overview: John Cooper, University of Cape Town, and Douglas Hykle, Convention on the Conservation of Migratory Species
5:30 PM	E Komo Mai (Welcoming) Celebration



DAY TWO**November 20, 2002**

5:30 AM	Shuttle Service to the United Fishing Agency Auction	
7:00 AM	Continental Breakfast Hosted by Seafreeze, Ltd.	
8:00 AM	Breakout Sessions <ul style="list-style-type: none">• Seabird Mitigation and Research• Sea Turtle Mitigation and Research• Data Collection• Education/Communication	
9:30 AM	Coffee/Tea Break	
11:00 AM	Lunch	
12:00 PM	Breakout Sessions continued	
2:30 PM	Coffee/Tea	Break
3:00 PM	Breakout Sessions continued	
6:30 PM	Hawaii Longline Association Tour of Longline Vessels, Gordon Biersch Brewery & Restaurant, Aloha Tower	

DAY THREE**November 21, 2002**

5:30 AM	Shuttle Service to the United Fishing Agency Auction	
7:00 AM	Continental Breakfast Hosted by New Zealand Department of Conservation	
8:00 AM	Report on the Day 1 Breakout Sessions and Summary of Comment Box Responses from Day 1: Forum Convener	
8:30 AM	Coffee/Tea Break	
8:45 AM	Breakout Sessions <ul style="list-style-type: none">• Obstacles, Lessons Learnt and the Way Forward• International Agreements/National Approaches• Modeling• Fishermen Incentives	
10:00 AM	Coffee/Tea Break	
11:45 AM	Lunch	
1:00 PM	Breakout Sessions continued	
2:30 PM	Coffee/Tea Break	
6:00 PM	Luau at Waikiki Aquarium	



DAY FOUR

November 22, 2002

5:30 AM	Shuttle Service to the United Fishing Agency Auction
7:00 AM	Continental Breakfast Hosted by North Pacific Longline Association
8:30 AM	Report from Day 2 Breakout Sessions
9:00 AM	NOAA'S Current Initiatives to Reduce Seabird and Sea Turtle Bycatch: William T. Hogarth, Assistant Administrator for Fisheries, NOAA
9:30 AM	Strategy to Mitigate Tuna-Dolphin Bycatch: Martin Hall, Inter-American Tropical Tuna Commission
10:00 AM	Coffee/Tea Break
11:00 AM	Begin Developing Written Outcomes for IFF2
12:00 PM	Lunch Hosted by Hawaii Longline Association Remarks from US Senator Daniel K. Inouye via Videotape
2:00 PM	Finish Developing Written Outcomes of IFF2
3:00 PM	Coffee/Tea Break
4:30 PM	Closing Statement: Sean Martin, President, Pacific Ocean Producers Native Hawaiian Closing Ceremony



Breakout Session Summaries

Seabird Mitigation and Research

Main Objectives: Identify and discuss the best existing seabird mitigation practices and research needed to evaluate new and existing mitigation measures for pelagic, demersal and Spanish demersal longline systems.

Session Leader: Ed Melvin, Washington Sea Grant Program

Participants: Approx. 30-40 per session

Presentations:

- Line Weighting: Bruce King, Gourrock
- Underwater Chutes: Dave Kreutz, Australia fisherman
- Blue-Dyed Bait: Hiroshi Minami, National Research Institute of the Far Seas Fisheries, Japan
- Spanish System Best Practices: Ben Sullivan, Falklands Conservation
- Boom and Bridle Scaring Lines: John Bennett, Sanford Ltd.

Attention was focused on specific mitigation strategies for each gear type. As setting chutes and integrated line weighting are currently in the research and development phase, the focus on them was on their potential. All of the main mitigation strategies were considered to be effective in diminishing the bycatch of seabirds. Each strategy was also found to have its own strengths, weaknesses and need for further research.

Streamer Lines:

(Special attention was given to the jigler line developed by John Bennett.)

Strengths: Applicability to all gear types, low cost, low impact on target catch and safety.

Weaknesses: Deployment difficulties for smaller boats, high effort to retrieve the lines, entanglement problems, and poor compliance.

Research Needs: Test the effects of two lines versus one line in reducing seabird strikes and explore the

creation of standards for streamer line materials, operations and performance.

Integrated Line Weighting:

Strengths: Good applicability to both demersal and pelagic gear types, safety, ease of integration into crew activities and ease of use.

Weaknesses: High cost and limited availability.

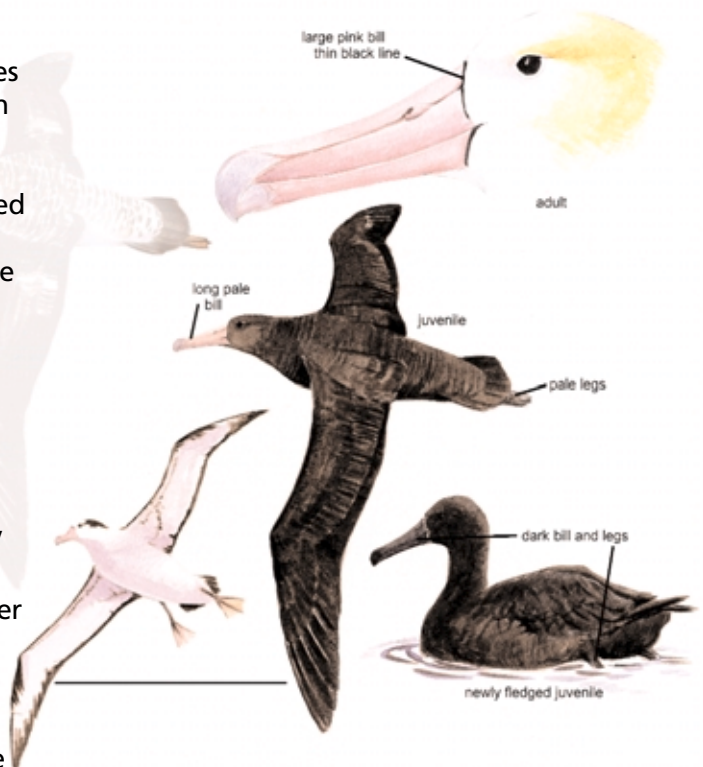
Research Needs: Durability and wear of weighted lines and the effects of integrated line weighting on target and bycatch rates.

Setting Chute:

Strengths: Ease of use, minimal adverse effect on target catch, ease of integration into fishing operations, and easy compliance.

Weaknesses: High cost, limited availability, questionable durability, limited application for smaller boats and maintenance concerns.

Research Needs: Test their reliability and their performance in other regions and explore potential design modifications (e.g., different chute gradients, use of gimbals and flexes, double chutes).





Stealth Gear/Bait:

(Focus was on blue-dyed bait.)

Strengths: Good applicability to all gear types, relatively low cost and ease of use.

Weaknesses: Poor availability, messiness on-board, lack of color standards and potential safety issues associated with dye toxicity.

Research Needs: Determine which bait colors and dyeing techniques has optimal impacts on target and bycatch rates.

Offal Management/Retention:

Strengths: Reduces the attractiveness of fishing vessels to seabirds.

Weaknesses: Additional space and labor required to store and manage offal.

Research Needs: New types of reducers or extractors for offal and additional products from offal.

Night Setting:

Strengths: Low cost, enforceability and effectiveness with regard to surface feeding birds.

Weaknesses: Potential negative impacts on target catch, exposing fish to sand fleas and increasing seabird bycatch for certain species (e.g., northern fulmar).

Research Needs: Effects of night setting on particular species and effects of reduced deck lighting.



Participants generally agreed that existing mitigation practices have positive impacts and the need is not for new technologies but for fine-tuning and broadening the use of existing technologies. They also agreed that improved mitigation results would likely come from better crew training, expanded testing in different regions, new vessel construction and the development of minimum standards. Participants strongly believed that no single mitigation technology was likely to serve as a “silver bullet.” Instead, the best results would likely come from developing a “toolbox” consisting of suites or combinations of measures. Ultimately, these solutions would need to be incorporated into the design of new vessels.

Sea Turtle Mitigation and Research

Main Objectives: Review progress in finding viable means of reducing sea turtle–longline bycatch, identify challenges and brainstorm solutions.

Session Leader: Christofer Boggs, NOAA Fisheries, Honolulu Laboratory

Participants: Approx. 30 participants per session

Presentations:

- Fishing Experiments in the Azores: Alan Bolten, Archie Carr Center for Sea Turtle Research, Department of Zoology, University of Florida
- Atlantic NED Fishing Experiments: John Watson, US NOAA Fisheries, Mississippi Laboratory
- Pacific Fishing Experiments: Christofer Boggs, NOAA Fisheries, Honolulu Laboratory

There was general agreement on the major challenges standing in the way of finding effective means of reducing sea turtle–longline bycatch. The following suggestions were offered for overcoming these challenges:

Baseline on the Biology of Target Species and Bycatch Data Needs:

- General information on species composition, size distribution and stock



composition as well as information on the distribution patterns of both bycatch and target species (including data on age, size, and seasonal, annual, vertical diurnal and climate-related variations).

- Studies on turtle diet and factors that attract turtles to gear.
- Larger sample sizes, greater employment of telemetry and increased use of control animals.
- Increased levels of research collaboration between scientists, the fishing industry and non-government organizations.

Effective Gear Modifications and Fishing Tactics:

- Increased financial support for additional mitigation research on bait types (e.g., mackerel), size and baiting techniques; hook type, size, and geometry; and float design to make longline gear more “stealthy.”

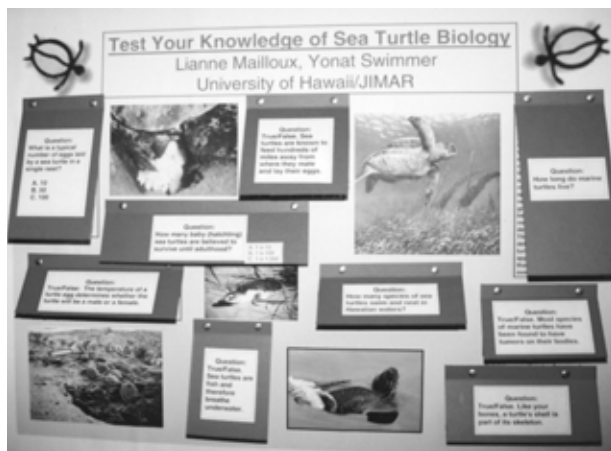
- More research using sensors and hook timers to determine when turtles and target species are encountered and increased study of tuna directed fishing.
- Provide fishers with real-time information and possibly real-time closures with vessel monitoring system communications to help avoid turtle interactions.
- Area closures and effort reduction when appropriate.

Research Facilitation and Dissemination:

- An international plan of action for sea turtles to encourage greater levels of international action and coordination.
- An international technical working group responsible for facilitating, coordinating and standardizing research and for disseminating results in a timely fashion.
- Legislation crafted and promoted by stakeholders that would help fast track and centralize future mitigation research.

Industry/Public Awareness and Incentives for Action:

- Increase international participation by developing consumer awareness and education programs as well as marketing tools (e.g., eco-labeling) to help use the market as a driving force.
- Limit penalties associated with sharing data and give countries with developing longline fisheries access to the “right” gear or “right” gear information.
- Translate hard data on the impacts of the longline fishery to help convince the industry of the fishery’s threat to turtle populations.



Participants also discussed the need to better contextualize the issue of sea turtle mortality (including an examination of post-hooking survival). They noted the need to compare sea turtle mortality associated with the longline fishery to those arising from other sources in order to develop an overall picture of the causes of sea turtle mortality. Fishermen, in



particular, were concerned that these other sources were being overlooked.

Data Collection

Main Objectives: Define current information needs for different fisheries to examine how well existing data collection programs have been meeting needs, investigate available technological opportunities and explore building stronger ties between fishery participants and users of the data.

Session Leader: Howard McElderry, Archipelago Marine Research Ltd.

Participants: Approx. 20 per session

Presentations:

- Status of Micronesian Data Collection Programs: Tim Park, Micronesian Fishing Authority
- US Hawaiian Data Collection Programs: Russell Ito, National Marine Fisheries Service, Hawaii; US Alaskan Data Collection Programs: Shannon Fitzgerald, National Marine Fisheries Service, Alaska
- Australian Data Collection Programs: Bruce Wallner, Australian Fisheries Management Authority
- Electronic Monitoring Systems: Howard McElderry, Archipelago Marine Research Ltd.

Discussions focused on identifying the problems impeding adequate data collection through logbooks, observer programs and electronic monitoring systems and exploring potential ways of overcoming these problems. The following key problem areas were identified:

Unclear Objectives:

Data collection programs suffer from either a lack of clear goals or overlapping or conflicting goals, which leads to resistance or lack of engagement in data collection activities.

Lack of Trust:

Designers of data collection programs and subsequent users of the resulting data, on one hand, and fishermen who assist in the

collection of data, on the other, do not trust one another. Fishers fear that the data produced might turn out to be self-incriminating. This makes them reluctant to assist in data collection efforts.

Insufficient Data on Bycatch:

Data collected via logbooks or observer programs is uneven, with data on bycatch often lacking when compared to data on target catch. Reliability of logbook data is a concern.

Poor Data Sharing:

Collected data is not often shared in an effective or equitable manner. Fishermen seldom see the results of research conducted on their boats or within their fisheries.

Data Use Issues:

Governmental agencies, the research community and environmental groups generally favored broader and more rapid dissemination of data. The fishing industry wants more involvement in decisions over how data is used.

Lack of Commitment:

Inadequate funding and a general lack of political will are major impediments to improving data collection programs.

Illegal, Unregulated and Unreported Fishing:

While significant efforts have been made to improve the quantity and quality of data being collected within particular fisheries, the completeness and overall reliability of this data will continue to be questioned so long as illegal, unregulated and unreported fishing remains a serious problem.

Participants came up with a wide variety of creative suggestions to overcome the identified hurdles. Many of these were directed to the overarching issues of insufficient data and enduring mistrust.

- Devise minimum standards for establishing data collection and sharing at the international level.
- Improve the training available for both skippers and on-board observers. Develop a certification system.



- Mix different data collection methods and technologies as appropriate to provide greater coverage and quality of data than any single method could achieve alone.
- Ensure that the data to be collected responds clearly to well-defined resource management needs. Build flexibility into data collection systems so that they do not become entrenched and unresponsive.
- Identify the possible factors affecting bycatch and include records for these factors in the data collection process.
- Identify the risks arising from making extrapolations based on a small amount of data and from only a section of the fishing area.
- Involve the fishing industry to a greater extent in the design of data collection programs, in decisions regarding how the data will be used and in generating funding to support the data collection programs.
- Ensure that the results of and benefits emerging from data collection programs are directed back toward the fishermen who helped to generate the data.
- Institute a greater degree of transparency with regard to the objectives of particular research programs and the intended uses of the data collected.
- Employ the assistance of neutral third parties to work with both governments and the fishing industry to collect data.

Most participants generally felt that there was ample room for improvement. Several cautioned that it might take some time to overcome the lack of trust that exists between the fishing industry and those responsible for monitoring and regulating it.

Education/Communication

Main Objective: View and discuss exhibits by different agencies and presenters.

Session Leader: Sandy Bartle, Te Papa Tongarewa

Participants: Walk-through session open throughout the day

Exhibits:

- Seabird Identification—Skins: Sandy Bartle, Te Papa Tongarewa
- Seabird Identification—Illustrations: Derek Onley, Blueskin Stone
- Seabird Species Profiles: Derek Onley, Blueskin Stone
- Video Viewing Area: Cindy Knapman, Western Pacific Regional Fishery Management Council
- Seabird Handling: Katie Swift, US Fish and Wildlife Service
- Sea Turtle Flipper Tagging: Shandell Eames, NOAA Fisheries Honolulu Laboratory
- Genetic Sampling: Peter Dutton, NOAA Fisheries
- Seabird Distribution: David Hyrenbach, Duke University Marine Lab
- Sea Turtle Distribution: Yonat Swimmer, NOAA Fisheries
- Sensory Physiology: Yonat Swimmer, NOAA Fisheries
- Modeling Display: Milani Chaloupka, Ecological Modelling Consultancy, and Jean-Claude Stahl, Museum of New Zealand Te Papa Tongarewa
- Sea Turtle Shells and Handling: Thierry Work and Randall Arauz, Sea Turtle Restoration Project
- Protected Species DVD/CD-Rom Interactive Project: Eric Sandberg, NOAA Fisheries
- Fishermen Workshops: Karla Gore, NOAA Fisheries

Participants said that fishermen need the following information on seabirds and marine turtles: broad information on species, such as vulnerability of populations, population trends, how to avoid catching them and how to release them. Other useful information would be species identification, information about threatened or endangered status, up-to-date population data, threats to the species, mitigation and handling techniques.

Participants felt the seabird and sea turtle identification guides were the most helpful educational products on exhibit. Others enjoyed the videos and seabird tracking information the most.



Participants said species profiles of marine turtles and seabirds would be useful to fishers, observers and schools and are worth reproducing. They suggested the reproduction format should be waterproof plastic books or folders, ring binders, or waterproof pocket flipbook. Translations should be made in Spanish, Portuguese, Mandarin, Japanese and English.

Obstacles, Lessons Learnt and Ways Forward

Main Objective: Build on the experiences gained from IFF1, as presented on Day 1, and on some of the obstacles and solutions identified in the breakout sessions on Day 2 for the purpose of moving toward a discussion of concrete actions on Day 4.

Session Leaders: Jim Cook, Pacific Ocean Producers ('fishermen only' sessions); Janice Molloy, New Zealand Department of Conservation; and Carlos Moreno, Instituto de Ecología y Evolución, Universidad Austral de Chile (open sessions)

Participants: Approx. 20–30 per session

Presentations: Three broad questions were used to guide the discussion:

- What obstacles are preventing us from solving seabird and sea turtle bycatch?
- What ways of overcoming these obstacles can we learn from each other?
- And how can each of us contribute to solving seabird and sea turtle bycatch?

Multiple sub-sessions ran concurrently. The agendas for all of the sub-sessions were identical. Two sessions were designated as "fishermen only" to encourage greater freedom of expression and joint brainstorming among members of the fishing community. Participants agreed to keep the sessions "confidential" in order to encourage creative, out-of-the-box thinking.

Participants formed into sub-groups focused on pelagic/seabirds, pelagic/sea turtles, demersal/seabirds and demersal/sea turtles. Each of the sub-groups presented summaries of their deliberations to the rest of the breakout session participants. This was followed by general group discussion and reflection. Common themes emerged in most of the sub-groups:

- Improved international technical coordination among fishermen, gear manufacturers, biologists and others to produce new enhanced mitigation measures. There was less reinventing of the wheel and more emphasis on finding ways of improving information sharing.



- Closing the gap between fishermen and other concerned parties to enable them to work together more effectively and to build coalitions to realize commonly held goals.
- Better inform not only fishermen but also the consuming public of the need for reducing incidental seabird and sea turtle bycatch in longline fisheries and of the progress that has been made by some fishermen and fisheries.

International Agreements and National Approaches

Main Objective: Address possible solutions to the global problem involving the incidental bycatch of seabirds and sea turtles by longline fishing.



Session Leader: John Cooper, University of Cape Town

Participants: Approx. 12 per session

Presentations:

- What Can Be Done to Make International Treaties and Agreements More Effective to Conserve Turtles: Douglas Hykle, Secretariat, Convention on Migratory Species
- Background Information on International Agreements and Treaties with Respect to Conservation: Denzil Miller, CCLMAR

Fishery Impact Assessments:

Participants suggested creating an International Plan of Action (IPOA) for sea turtles; incorporating sea turtles into existing IPOAs; and making international agreements less generalized and more specific. They agreed that funding is critical to implement international agreements, especially for developing countries. Signing international agreements is an indication of commitment, which might attract funding, depending on the scale of the international agreement, e.g., countries, measures, etc. Some participants suggested reducing fishing industry subsidies and developing substantial marine protected areas.

Bycatch Mitigation Measures:

Participants said that legal mechanisms exist globally to implement technical solutions, i.e., a “gear fix.” Regional agreements require consensus to implement, which is time consuming and may be difficult to achieve. Developing countries may lack the resources for implementing gear fixes. They said specificity is only likely under non-binding conservation plans and dispute resolutions may be slow and ineffective. The group concluded that new ideas on mitigating turtle interactions have to be sold to the fishing industry, and good science is essential to do this.

Gear Loss Reductions:

Participants concluded that documentation of lost gear and other marine debris is not standardized. They said fishing gear should include identification marks for the source fishery, as specified in the FAO Code of

Conduct. They noted that marine debris such as lost trawl nets not only directly threatens sea turtles but also impacts turtle habitats like reefs in the Northwestern Hawaiian Islands.

Vessel Monitoring Systems and Observer Programs:

Participants concluded that observers recording turtle takes where there is a regulatory take are de facto enforcement officers. They also said instances of coercion and tampering with observer reports could exist when the continuity of fishing is threatened under an international agreement. The group agreed that the remote monitoring of fishing fleets by vessel monitoring systems is only really effective for time–area closures.

Research:

A mechanism to provide fishers with research feedback should be a professional courtesy but not part of a legal instrument. Feedback is also essential for policy makers to evaluate the effectiveness of management measures. The fishermen said they should be involved in research planning and development from the beginning so they can understand why data is collected and what it is used for. A mechanism for the socio-economic impacts of measures implemented under international agreements is needed, the group concluded.

Participants proposed the following additions to international agreements to improve their efficacy:

- Ecosystem approaches to fishery management
- Reduction of subsidies, particularly for large fishing vessels or, transfer of existing subsidies from production to conservation
- Inclusion of Marine Protected Areas
- Inclusion of socio-economic impacts
- Development of a valuation system to compare biological value versus socio-economic values, e.g., risk of species extinction versus human impacts of management measures
- The awareness that management measures in one location may create fishing opportunities elsewhere, i.e., transferred effects



- Exploration of ways to subsidize compliance and conservation in countries that otherwise would not comply
- Implementation of a “tax” on the fishing industry to subsidize compliance and conservation in countries with limited resources
- Incentives or rewards for minimizing turtle catches or for participating in research and monitoring programs
- Eliciting consumer interest, e.g., eco-labeling
- Training and sharing of how-to models
- Reduction of fishing effort and increase in value of fisheries

Modeling

Main Objective: Give participants an appreciation of what modeling is and how it is used. Use the idea of modeling to look at current and projected populations of seabirds and sea turtles.

Session Leaders: Anthony Starfield, University of Minnesota, and Milani Chaloupka, Coastal, Estuary and Waterway Indooroopilly Sciences Center

Participants: 23

Hands-On Modeling Exercises:

- Building a model
- Using an albatross model to explore the effects of bycatch
- The interaction between bycatch and climatic events
- How many turtles will you catch? A stochastic model

In the first three exercises, participants explored a deterministic model, which means there is no randomness in the models. These types of models can give a different answer only if at least one of the inputs is changed. In the fourth exercise, participants used a stochastic model which has randomness built into it. Stochastic models are used when chance plays an essential part in the

calculations. Participants saw that stochastic models required more interpretation than deterministic models.

The industry people found models to be more complex than they had anticipated, but they expressed interest in using them in economic or business type applications. Some managers said the session helped them communicate with modelers or people who used models. The researchers were pleasantly surprised to discover what could be done with simple models, and at least two attendees saw ways in which they might use one of the simple spreadsheet demonstration models. For example, a simple model could be used to convey data needs to those who actually collect the data.

Fishermen Incentives

Main Objectives: Identify effective incentive instruments to minimize bycatch of seabirds and sea turtles in each represented longline fishery, and commit to take specific actions to institute identified promising incentive schemes for their fisheries.

Session Leader: Eric Gilman, National Audubon Society

Participants: 70 total



Fishing industry representatives (l-r) Dale Alvarez, Manuel Duenas and Paul Bartram.

Presentations:

- Increased fishing efficiency provides an economic incentive for use of an effective seabird deterrent: performance



assessment of an underwater setting chute in the Hawaii pelagic longline tuna fishery: Eric Gilman, National Audubon Society

- Providing incentives through outreach and awareness-raising for the use of mitigation measures for the incidental capture of seabirds and sea turtles in Brazil's longline fishery: Tatiana Neves, Project Albatroz, Conservacao de Aves Marinhas com Pesca Produtiva
- Streamer Line give-away program and regulations in Alaskan Groundfish Fisheries: Greg Balogh, US Fish and Wildlife Service
- Creating Consumer Support for Well Managed and Sustainable Longlining: How a Marine Stewardship Council Ecolabel Could Help: Duncan Leadbitter, Marine Stewardship Council
- BirdLife's Competition of Ideas: Involving Fishermen to Develop More Seabird-Friendly Fishing Methods: Carles Carboneras, SEO/Birdlife

Session participants were asked to consider the suitability of alternative incentive instruments for specific fisheries based on two central criteria: (a) will implementation of the incentive instruments result in targeted outcomes, outcomes that will significantly contribute towards abating bycatch problems; and (b) is it likely that the incentive instrument can be successfully implemented given the local context. For the second criteria, participants were asked to consider issues such as the expected reaction of stakeholders (industry, seafood consumers and managers).

Participants were asked to identify and commit to take actions to institute incentive

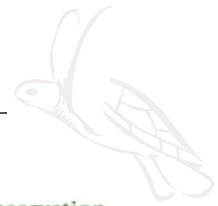
methods that they determined are appropriate for their fishery and will achieve desirable outcomes towards resolving bycatch problems. Recognizing that participants may lack authority to make commitments on behalf of their longline company and the entire fishery, their commitments were to take specific actions to attempt to catalyze support to institute a prioritized incentive instrument.

Participants most commonly expressed an interest in instituting bycatch fee and exemption structures, industry self-policing and eco-labeling.

Participants recognized that instituting incentive instruments is especially important in fisheries where available resources and political will for effective management and enforcement are scarce.

Incentive instruments can motivate longline fishers and industry to implement effective actions to avoid and minimize the incidental mortality of sensitive species by tapping their desire to continue their way of life, maximize profit, be perceived by the public as good players, and fulfill their conservation ethic. Of these motives, session participants perceived that the longline industry responds most strongly to economic incentives and disincentives. For instance, mitigation methods that can be demonstrated to significantly increase fishing efficiency have the highest chance of being accepted by industry. And conversely, if regulatory consequences from not adequately addressing seabird and marine turtle mortality have significant enough economic effects and enforcement resources are strong, this will likely result in broad industry compliance with seabird and sea turtle management measures.





Participants

Steering Committee

Scott Barrows, Hawaii Longline Assn. (USA)

Mike Bayle, Alaska Frontier Company (USA)

Katherine Cousins Hopper, Western Pacific Regional Fishery Mgmt. Council (USA)

Richard Gilmore, Hawaii Longline Assn. (USA)

Eric Gilman, National Audubon Society's Living Oceans Program (USA)

Colleen Henson, U.S. Fish and Wildlife Service, Pacific Islands Ecoregion (USA)

David Hogan, Office of Marine Conservation, Dept. of State (USA)

Walter Ikehara, Hawaii Division of Aquatic Resources (USA)

Alvin Katekaru, NOAA Fisheries, Pacific Islands Area Office (USA)

Mike Laurs, NOAA Fisheries, Honolulu Laboratory (USA)

Rebecca Lent, NOAA Fisheries, Headquarters (USA)

Brent Marshall, Moana Pacific Ltd. (NZ)

Janice Molloy, Dept. of Conservation (NZ)

Jongil Paik, Hawaii Longline Assn. (USA)

Kim Rivera, NOAA Fisheries, Protected Resources Division-Alaska (USA)

Barbara Shroeder, NOAA Fisheries, Office of Protected Resources (USA)

Kitty Simonds, Western Pacific Regional Fishery Mgmt. Council (USA)

Dean Swanson, NOAA Fisheries, Office of Sustainable Fisheries (USA)

Sean Timoney, Hawaii Longline Assn. (USA)

Secretariat

Pacific Rim Concepts LLC
45-520 Kamooalii St.
Kaneohe, HI, USA 96744
Tel: 808-864-9812
Fax: 808-236-3621
prc@hawaii.rr.com

Western Pacific Regional Fishery Mgmt. Council Staff

1164 Bishop St., Suite 1400
Honolulu, HI, USA 96813
Tel: 808-522-8220
Fax: 808-522-8226
info.wpcouncil@noaa.gov

Facilitators

CONCUR Inc.
1832 Second Street
Berkeley, CA, USA 94710
Tel: 510-649-8008
Tel: 510-649-1980
concur@concurinc.net

Sponsors

Dept. of Conservation, Te Papa Atawhai
Dept. of Conservation
PO Box 10420
Wellington, New Zealand
Tel: 0064-4-4713-081
Fax: 0064-4-4713-279

Hawaii Longline Assn.
45-519 Mokulele Dr.
Kaneohe, HI, USA 96744
Tel: 808-235-7507
Fax: 808-234-0177

Marine Conservation Action Fund
New England Aquarium
Central Wharf
Boston, MA, USA 02110
Tel: 978-546-9112
Fax: 617-973-0242

National Oceanic and Atmospheric Administration
1315 East West Hwy.
Silver Spring, MD, USA 20910
Tel: 301-713-2239
Fax: 301-713-1940

North Pacific Fishery Management Council
605 West 4th, Suite 306
Anchorage, AK, USA 99501-2252
Tel: 907-271-2809
Fax: 907-271-2817



Seafreeze Ltd.



North Pacific Fishery Management Council



North Pacific Longline Assn.

4209 21st Avenue West Suite 310
Seattle, WA, USA 98199
Tel: 202-283-3218
Fax: 206-282-4684

RENA International

4241 23rd Ave. West
Seattle, WA, USA 98199
Tel: 206-284-7871
Fax: 206-284-9810

Seafreeze Ltd.

100 Davisville Pier,
North Kingstown, RI, USA 02852
Tel: 206-767-7350
Fax: 206-763-8514

SEAMAR

2121 W. Commodore Way
Seattle, WA, USA 98199
Tel: 800-426-2783
Fax: 206-285-7925

US Fish and Wildlife Service

300 Ala Moana Blvd., Rm. 3-122
Honolulu, HI, USA 96813
Tel: 808-541-3441
Fax: 808-541-3470

Western Pacific Regional Fishery Management Council

1164 Bishop St., Suite 1400
Honolulu, HI, USA 96813
Tel: 808-522-8220
Fax: 808-522-8226



Exhibitors

Aquatic Release Conservation

PO Box 730248
Ormono Beach,
FL, USA 32173-0248
Tel: 877-411-4272
Fax: 386-672-7265

Archipelago Marine Research Ltd.

525 Head St., 2nd Fl.
Victoria, BC, Canada V9A551
Tel: 250-383-4535
Fax: 250-383-0103

Lindgren-Pitman, Inc.

2615 NE 5th Ave.
Pompano Beach, FL, USA 33064
Tel: 954-943-4243
Fax: 954-943-7877

NOAA Fisheries

1601 Kapiolani Blvd., Suite 1110
Honolulu, HI, USA 96816
Tel: 808-973-2937
Fax: 808-973-2941

Pacific Ocean Producers

965 B N. Nimitz Hwy.
Honolulu, HI, USA 96817
Tel: 808-537-2905
Fax: 808-536-3225

Pelagic-Fisheries Research Program

University of Hawaii, JIMAR
1000 Pope Rd., MSB 312
Honolulu, HI, USA 96822
Tel: 808-956-7895
Fax: 808-956-4104

Individuals

Adomako, Linda
Ministry of Food & Agriculture
Fisheries Division
PO Box M37
Accra, Ghana
Tel: 00233-21-687211
Fax: 00233-21-773611

Akamine, Terri Ann
41-038 Hilu St.
Waimanalo, HI, USA 96795

Aykroyd, Toby
37 Pembridge Villas
London, England W11 3 EP
Tel: 020-7229-7719
Fax: 020-7792-9163
toby.aykroyd@binternet.com

Alvarez, Dale
Guam Fishermen's Cooperative
PO Box 13054
Santa Rita, Guam 96915
Tel: 671-565-2814
gfca@ite.net

Anderson, Kavik
Alaska Longline
12218 Gara Dr.
Kodiak, AK, USA 99615
Tel: 907-487-2989

Anderson, Stosh
Alaska Longline
Box 310
Kodiak, AK, USA 99615
Tel: 907-486-3673
Fax: 907-486-4938

Appleyard, Eric
Commission for the Conservation
of Antarctic Marine Living Resources
137 Harrington St.
Tasmania, Australia 7000
Tel: 61-363210198
Fax: 6.14E+10
eric@ccamlr.org

Araki, Ed
Honolulu Agency Inc.
Pier 32, PO Box 4165
Honolulu, HI, USA 96812-4165
Tel: 808-538-6155
Fax: 808-538-1783

Arauz, Randall
Sea Turtle Restoration Project
Adpo 1203-1100
Costa Rica
Tel: 506-241-5227
Fax: 506-236-6017
rarauez@tortugamarina.org

Araya, Cecilia
Trinquete S/N
La Paloma/Rocha, Uruguay 27001
Tel: 59-84799713
gtomas@adinet.com.uy

Arceneaux, Joe
NOAA Fisheries
1601 Kapiolani Blvd. #1110
Honolulu, HI, USA 96814
Tel: 973-2935 x216
Fax: 973-2941
stuart.arceneaux@noaa.gov

Archambault, Clay
PO Box 1027
Newport, OR, USA 96735
Tel: 541-574-0256
Fax: 541-574-0380

Bache, Sali
Centre for Maritime Policy
University of Wollongong
Wollongong, NSW, Australia 2252
Tel: 61-2-4221-4803
Fax: 61-2-4221-5544
Sali@uow.edu.au

Balazs, George H.
NOAA Fisheries
2570 Dole St.
Honolulu, HI, USA 96822-2396
Tel: 808-983-5733
Fax: 983-2902
gbalazs@honlab.nmfs.hawaii.edu

Balogh, Greg
US Fish and Wildlife Service
605 W. 4th Ave., Rm. G61
Anchorage, AK, USA 99501
Tel: 907-271-2778
Fax: 907-271-2786
greg_balogh@fws.gov

Barrows, Scott
Hawaii Longline Assn.
45-519 Mokulele Dr.
Kaneohe, HI, USA 96744
Tel: 808-235-7507
Fax: 808-234-0177
fishrite@aol.com

Bartle, Sandy
Te Papa Tongarewa
PO Box 467
Wellington, New Zealand
sandyb@tepapa.govt.nz

Bartram, Paul
HI Seafood Distributors
PO Box 31264
Honolulu, HI, USA 96820
Tel: 808-310-2984
Fax: 834-0578
hapahaole@tripler.com



Bayle, Mike
Alaska Frontier Co.
133 4th Ave. N
Edmonds, WA, USA 98020
Tel: 425-775-2322
Fax: 425-778-2322
mike@alaskafrontier.com

Beideman, Nelson
Blue Water Fishermen's Assn.
PO Box 398
910 Bayview Ave.
Barnegat Light, NJ, USA 08006-0398
Tel: 609-361-9229
Fax: 609-494-7210
nelson@bwfa.org

Bennett, John
Sanford Ltd.
Private Bag 905
Timaru, New Zealand
Tel: 64-3-686-9768
Fax: 64-3-688-5400
dshaw@sanford.co.nz

Bennet, Sue
Sanford Ltd.
Private Bag 905
Timaru, New Zealand
Tel: 64-3-686-9768
Fax: 64-3-688-5400
dshaw@sanford.co.nz

Bergman, Charles
US Dept. of Commerce
3209 Frederic St.
Pascagola, MS, USA 39567
Tel: 228-762-4951
Fax: 228-769-8699
charles.bergman@noaa.gov

Bergman, Kay Williams
3209 Frederic St.
Pascagola, MS, USA 39567
Tel: 228-762-4951
Fax: 228-769-8699
charles.bergman@noaa.gov

Bergquist, Ben
Cape Cod Commercial Hook
Fishermen Assn.
1640 Orleans Rd.
E. Harwich, MA, USA 02645
Tel: 508-432-0863
Fax: 508-432-0863
benbergquist@yahoo.com

Blake, Tony
Eurofishing Ltd.
PO Box 156
Stanley, Falkland Islands
Tel: 500-42206 or 500-22275
Fax: 500-42207
tblake@horizon.co.fi

Blanc, Michel
Secretariat of the
Pacific Community
PO Box D5
Noumea, New Caledonia 98848
Tel: 687-262000
Fax: 687-263818
michelbl@spc.int

Boggs, Christofer
NOAA Fisheries
2570 Dole St.
Honolulu, HI, USA 96822
Tel: 808-983-5370
Fax: 808-983-2902
christofer.boggs@noaa.gov

Bolten, Alan
ACCSTR/University of Florida
PO Box 118525
Gainesville, FL, USA
Tel: 352-392-5194
Fax: 352-392-9166
ABB@zoology.ufl.edu

Borboroglu, Pablo Garcia
Centro Nacional Patagonico,
National Research Council Argentina
Mitre 1035
Puerto Madryn, Chubut,
Argentina 9120
Tel: 54-2965-456350
Fax: 54-2965-451543
pgborbor@cenpat.edu.ar

Bradford, William
Guam Fishermen's Cooperative
P.O. Box 13502
Santa Rita, Guam 96915
Tel: 671-565-1172
fishlips@ite.net

Bradshaw, Valerie
Triton Consultants, Ltd.
221 Chrichton Ave.
Dartmouth, Nova Scotia,
Canada B3A3R8
Tel: 902-469-6670 or 902-426-7198
Fax: 902-426-2706

Bravo, Americo Fernandez
Empesa Pesquera Galicia
Melgarejo N 505
Coquimbo, Chile
mdonos@ifop.cl

Brill, Richard
Virginia Institute of Marine Science
PO Box 350
Wachapreague, VA, USA 23480
Tel: 757-787-0958
Fax: 757-787-5831

Brothers, Nigel
Yacht Sea Scout c/o Coffs Marina
c/o P.O. Box 81
Kettering 7155
Tasmania, Australia 7155
Tel: 04182-86650 or 0429-674142
Fax: 011-612-615-16618

Budi, Jim
Blue Water Fishermen's Assn.
P.O. Box 398
910 Bayview Ave
Barnegat Light, NJ, USA 08006-0398
Tel: 609-361-9929
Fax: 609-494-7210
nelson@bwfa.org

Cabanlet, Todd
United Fisheries
1450 Aala St. #505
Honolulu, HI, USA 96817
Tel: 808-536-2148

Campbell, Cathy
NOAA Fisheries
501 W. Ocean Blvd., Ste. 4200
Long Beach, CA, USA 90802
Tel: 564-980-4060
Fax: 562-980-4027
cathy.c.campbell@noaa.gov

Carboneras, Carles
SEO/BirdLife
Av. Mistral 61, 6-1
08015-Barcelona, Spain
Tel: 34-93-289-2284
Fax: 34-93-289-2284
ccarboneras@seo.org

Chace, William
Alaska Frontier Co.
133 4th Ave. N
Edmonds, WA, USA 98020
Tel: 425-775-3424 x205
Fax: 425-778-2322



Chaloupka, Milani
Ecologica
P.O. Box 16150
University of Queensland
St. Lucia, Queensland, Australia 4067
Tel: 61-73878-3229
Fax: 61-73365-7229
m.chaloupka@mailbox.uq.edu.au

Chapman, Lindsay
Secretariat of the
Pacific Community
PO Box D5
98848 Noumea, New Caledonia
Tel: 687-26-0168
Fax: 687-26-3818
lindsayc@spc.int

Chen, Tzu Jung
Yuh Yow Fishery Co., Ltd.
8 Yu-Kang North 1st Rd.
Chien Cheng Dist.
Kaohsiung, Taiwan ROC
Tel: 886-7-8220899
Fax: 886-7-811-5143
cindy0131@hotmail.com

Cianflone, Daniel
Hawaii Longline Assn.
117 Ahui St.
Honolulu, HI, USA 96813
Tel: 808-256-1227

Collman, Robin
FV Hauana
9650 N. Nimitz Hwy.
Honolulu, HI, USA 96817
Tel: 808-754-8283

Conway, Jerry
Dept. of Fisheries & Oceans
PO Box 1006
1 Challenger Dr.
Dartmouth, Nova Scotia,
Canada B244A2
Tel: 902-426-6947
Fax: 902-426-1843

Conway, Elizabeth
PO Box 1006
1 Challenger Dr.
Dartmouth, Nova Scotia,
Canada B244A2
Tel: 902-426-6947
Fax: 902-426-1843

Cook, Jim
Pacific Ocean Producers
965-B N. Nimitz Hwy.
Honolulu, HI, USA 96817
Tel: 808-537-2905
Fax: 808-536-3225
jim@pop-hawaii.com

Cooper, Jim
Avian Demography Unit
University of Capetown
7701 Rodenbosch, South Africa
Tel: 27-21-650-3426
Fax: 27-21-650-3434
jcooper@adu.uct.ac.za

Costa, Tony
Pacific Ocean Producers
3475 Paty Dr.
Honolulu, HI, USA 96822
Tel: 808-537-2905
Fax: 808-536-3225
tony@pop-hawaii.com

Coster, Tania
PO Box 11
Nelson, New Zealand
Tel: 03-548-3069
Fax: 03-546-7458
mam@sealord.co.nz

Cousins, Katherine Hopper
5490 N. Turret Way
Boise, ID, USA 83703

Crivello, Frank
Crivello Fishing LLC
42915 Via Alhama
Temecula, CA, USA 92592
Tel: 619-200-7294
crivello3@aol.com

Croxall, John
British Antarctic Survey
High Cross, Madingley Rd.
Cambridge, CB3 0ET, UK
Tel: 44-1223-221608
Fax: 44-1223-221259
jcroxall@bas.ac.uk

Dang, Minh
Hawaii Longline Assn.
PO Box 27378
Honolulu, HI, USA 96827
Tel: 808-533-1195
Fax: 808-533-2141

Davies, Clarence
Hawaii Longline Assn.
HCR 2 Box 6621
Keeau, HI, USA 96749-9304
Tel: 808-982-6383
cjdavies@hawaii.rr.com

Davis, Takeo
Pacific Fin
1923 Fern St. #C
Honolulu, HI, USA 96826

Delailagi, Sunia
Fiji Fisheries Dept.
PO Box 3165
Lami Suva, Fiji
Tel: 679-336-2448
Fax: 679-336-1184
abatibasaga@fisheries.gov.fj

Denton, Dianne
Tigerzeye Tuna
209 Diamond Beach Rd.
Diamond Beacy, NSW, Australia 2430
Tel: 02-6559-2322
tigerzeye@tsn.cc

Denton, Chris
Tigerzeye Tuna
209 Diamond Beach Rd.
Diamond Beacy, NSW, Australia 2430
Tel: 02-6559-2322
tigerzeye@tsn.cc

Dick, Shawn
Aquatic Release Conservation
P.O. Box 730248
Ormono Beach, FL, USA 32173-0248
Tel: 877-411-4272
Fax: 386-672-7265
dehooker@dehooker4arc.com

Diehl, William
US Coast Guard
300 D Ala Moana Blvd.
Honolulu, HI, USA 96850

Doherty, Paul
USGS Patuxent Wildlife
Research Center
Bird Banding Laboratory
12100 Beech Forest Rd.
Laurel, MD 207-4037
Tel: 301-497-5790
Fax: 370-497-5717



Dutton, Peter
NOAA Fisheries
8604 La Jolla Shores Dr.
La Jolla, CA, USA 92038
Tel: 858-546-5636
Fax: 858-546-7003
peter.dutton@noaa.gov

Duenas, Manuel II
Guam Fishermen's
Cooperative Assn.
PO Box 24023
GMF, Guam 96921
Tel: 671-472-6323
Fax: 671-477-2986
gfca@ite.net

Eames, Shandell
NOAA Fisheries
2570 Dole St.
Honolulu, HI, USA 96822-2396
Tel: 808-983-5747
Fax: 808-983-2902
shandell.eames@noaa.gov

Eros, Carole
Fisheries & Ocean Canada
460-555 West Hastings St.
Vancouver, BC, Canada V6B563
Tel: 1-604-666-3279
Fax: 1-604-666-8525
erosc@pac.dfo-mpo.gc.ca

Essuman, David
Ministry of Food & Agriculture
Fisheries Division
PO Box M37
Accra, Ghana
Tel: 00233-21-687211
Fax: 00233-21-773611

Evans, Nathan
The University of the South Pacific
Marine Studies Program
PO Box 1168
Suva, Fiji
Tel: 679-321-2403
Fax: 349-330-1490
evans-n@usp.ac.fi

Farias, J. Fernando
Instituto Nacional De La Pesca
Calle 20 sur no. 605
Col. Cantera
Guaymas, Sonora, Mexico
Tel: 622-22-2-59-25
Fax: 622-22-2-10-21
fmarquez@gys.megared.net.mx

Fisher, Keri
PO Box 1027
Newport, OR, USA 96735
Tel: 541-574-0256
Fax: 541-574-0380

Fisk, Greg
Seafisk Consulting
PO Box 202628
Juneau, AK, USA 99802
Tel: 907-586-4090
Fax: 907-586-4091
prawns@ptialaska.net

Fitzgerald, Shannon
NOAA Fisheries
Alaska Fisheries Science Center
7600 Sand Point Way, NE
Seattle, WA, USA 98115
Tel: 206-526-4553
Fax: 206-526-4066
shannon.fitzgerald@noaa.gov

Flint, Elizabeth
US Fish and Wildlife Service
PO Box 50167
Honolulu, HI, USA 96850
Tel: 808-541-1201
Fax: 808-541-1216
beth_flint@fws.gov

Forster, Tony
RAST COHST
PO Box 189
Avoca Beach, NSW, Australia 2251
forste.kay@bigpond.com

Forster, Kay
RAST COHST
PO Box 189
Avoca Beach, NSW, Australia 2251
forste.kay@bigpond.com

Foss, Jan
Rena International
4241 23rd Ave. West
Seattle, WA, USA 98199
Tel: 206-284-7871
Fax: 206-284-9810
foss@rena-international.com

Fougner, Svein
NOAA Fisheries
501 West Ocean Blvd, Suite 4200
Long Beach, CA, USA 90802
Tel: 562-980-4001
Fax: 562-980-4018
svein.fougner@noaa.gov

Foy, Michael
FV Allison/ Export Inc.
PO Box 817
Barnegat LT, NJ, USA 08006
Tel: 609-361-0402
export@aol.com

Fraser, Jake
RR#1 Site 11B, Comp 11
Madeira Park, BC, Canada V0N2H0
Tel: 604-737-1126
fraserjake@uniserv.com

Fraser, Alison
RR#1 Site 11B, Comp 11
Madeira Park, BC, Canada V0N2H0
Tel: 604-737-1126
fraserjake@uniserv.com

Freifeld, Holly
US Fish and Wildlife Service
PO Box 50088
Honolulu, HI, USA 96850
Tel: 808-541-3441
Fax: 808-541-2756
holly_freifeld@fws.gov

Gales, Rosemary
Tasmanian Parks & Wildlife Service
Nature Conservaion Branch
3rd Fl. Lands Building
134 Macquarie St.
Hobart, Tasmania, Australia 7001
Tel: 61-03-62333-865
Fax: 61-03-62333-477
rgales@delm.tas.gov.au

Gallimore, Richard
Hawaii Longline Assn.
45-007A Kahanahou Pl.
Kaneohe, HI, USA 96744
Tel: 808-234-6618
Fax: 808-237-7401

Gandini, Patricia
Austral Patagonia Natl University
and Natl Argentine Research Council
Avda. Perfectura Naval s/n
Puerto Deseado, Santa Cruz,
Argentina
Tel: 54-297-4871237
Fax: 54-297-4870511
pagandini@yahoo.com.ar



Garcia, Marcelo
Undersecretary of Fisheries
Bellavista 168 Piso 17
Valparaiso, Chile A01-V
Tel: 56-32-502776
Fax: 56-32-502740
mgarcia@subpesca.cl

Gates, Steve
Hawaii Longline Assn.
4038 W. Madison Pl.
Springfield, MO, USA 65802
Tel: 808-387-5155
Fax: 417-864-4963
tradewindfish@hotmail.com

Giannini, Fernando
Mix Industria De Produtos
Alimenticios Ltda
RUA China, 259 Bairro do
Taobao Sao, Brazil 09672-100
Tel: 55-11-4173-2027
Fax: 55-11-4173-2027
mix@mix.ind.br

Gilman, Eric
National Audubon Society
2718 Napua Pl.
Honolulu, HI, USA 96822
Tel: 808-988-1976
Fax: 808-988-1440
ericgilman@earthlink.net

Glese, William
40 Goon Wilson Rd.
RD5 Waskworth, New Zealand
Tel: 6.49+E09
Fax: 649-422-7963
bushy25@xtra.co.nz

Goldblatt, Christopher
Fisher Seafood Company
3844 West Channel Isl. Blvd. #132
Oxnard, CA, USA 93035
Tel: 310-488-6100
Fax: 310-455-1243
chris@fisherseafood.com

Goo, Wende
NOAA Fisheries
2570 Dole St.
Honolulu, HI, USA 96822
Tel: 808-983-5303
Fax: 808-973-2902
wende.goo@noaa.gov

Gore, Karla
NOAA Fisheries
1601 Kapiolani Blvd., Suite 1110
Honolulu, HI, USA 96816
Tel: 808-973-2937
Fax: 808-973-2941
karla.gore@noaa.gov

Gorrell, Robert
NOAA Fisheries
Office of Sustainable Fisheries
1315 East West Hwy., Rm. 13463
Silver Springs, MD, USA 20910
Tel: 301-713-2341
Fax: 301-713-1193
robert.gorrell@noaa.gov

Hall, Martin
Inter-American Tropical
Tuna Commission
8604 La Jolla Shores Dr.
La Jolla, CA, USA 92037
mhall@iattc.org

Hall, John
Zephyr Fisheries LLC
P.O. Box 31554
Walnut Creek, CA, USA 94598
Tel: 925-937-1556
Fax: 925-937-9251
jd.hall@worldnet.att.net

Hals, Jakob
AS Fiskevegn
6717 Flatraket
Norway
Tel: 47-578-58446/47-913-88861
Fax: 47-578-58425
hals@fiskevegn.no

Hemmingson, Ronald
Hawaii Longline Assn.
41-038 Hilu St.
Waimanalo, HI, USA 96795

Henson, Colleen
US Fish & Wildlife Service
300 Ala Moana Blvd., Rm. 3-122
Honolulu, HI, USA 96813
Tel: 808-541-3441 ext. 105
Fax: 808-541-3470

Hind, Earl
Hawaii Longline Assn.
77-6491B Ono Rd.
Kailua-Kona, HI, USA 96740
Tel: 808-936-0750
manuwai2002@yahoo.com

Hind, Michael
Hawaii Longline Assn.
77-6491B Ono Rd.
Kailua-Kona, HI, USA 96740
Tel: 808-329-6125
manuwai2002@yahoo.com

Hogan, David
US Dept. of State
2201 C St. NW, Rm. 5806
Washington, DC, USA 20520
Tel: 202-647-2335
Fax: 202-736-7350
hogandf@state.gov

Hogarth, William
NOAA Fisheries
1315 East West Hwy., Suite 14555
Silver Spring, MD, USA 20910
Tel: 301-713-2239
Fax: 301-713-1940
bill.hogarth@noaa.gov

Holman, Sunny
US Coast Guard
300 D Ala Moana Blvd.
Honolulu, HI, USA 96850

Hsia, Tsui Feng
Overseas Fisheries Development
Council of the Republic of China
19, Lane 113, Roosevelt Rd., Sec. 4
Taipei, Taiwan, Republic of China
Tel: 886-2-27381522
Fax: 886-2-27384329
tracy@ofdc.org.tw

Hykle, Douglas
Secretariat, Convention on
Migratory Species
Martin Luther King Str 8
D53175 Bonn, Germany
Tel: 49-228-815-2401
Fax: 49-228-815-2449
dhykle@cms.unep.de

Hyrenbach, David
Duke University Marine Lab
135 Duke Marine Lab Rd.
Beaufort, NC, USA 28516
Tel: 252-504-7576
Fax: 252-506-7648
khyrenba@earthlink.net

Iman, Donald
Hawaii Longline Assn.
117 Ahui St.
Honolulu, HI, USA 96813



Israel, Doug
Sea Turtle Restoration Project
PO Box 400
Forest Knolls, CA, USA 94933
Tel: 415-488-0370
Fax: 415-488-0372
doug@seaturtles.org

Ito, Russell
NOAA Fisheries
2570 Dole St.
Honolulu, HI, USA 96822-2396
Tel: 808-983-5324
Fax: 808-983-2902
russell.ito@noaa.gov

Jabour-Green, Julia
Institute Antarctic & Southern
Ocean Studies
University of Tasmania
GPO PO Box 252-77
Hobart, Tasmania, Australia
Tel: 61-3-6226-2978
Fax: 61-3-6226-2973
julia.green@utas.edu.au

Jacobs, Judy
US Fish & Wildlife Service
605 W 4th Ave.
Anchorage, AK, USA
Tel: 907-271-2780
Fax: 907-271-2786
judy_jacobs@fws.gov

Johnson, Dane
Hawaii Longline Assn.
92-6980 Puliko St.
Kapolei, HI, USA 96707
Tel: 808-672-4094

Juseit, Hans
East Coast Tuna Boat
Owners Assn.
PO Box 1080
Mooloolaba, Queensland,
Australia 4557
Tel: 61-416-020-326
Fax: 61-416-020-334
hjtuna@bigpono.com

Kade, Tyson
NOAA Fisheries
1315 East West Hwy., Rm. 13501
Silver Springs, MD, USA 20910
Tel: 301-713-2347
Fax: 301-713-1917
tyson.kade@noaa.gov

Kaneko, John
PacMar Inc.
3615 Harding Ave., Suite 409
Honolulu, HI, USA 96816
Tel: 808-735-2602
Fax: 808-734-2315
johnkaneko@pacmarinc.com

Katekaru, Alvin
NOAA Fisheries
1601 Kapiolani Blvd., Suite 1110
Honolulu, HI, USA 96816
Tel: 808-973-2937
Fax: 808-973-2941
alvin.katekaru@noaa.gov

Kellian, Dave
Tuna NZ
40 Goon Wilson Rd.
RD5 Waskworth, New Zealand
Tel: 6.49E + 09
Fax: 649-4227963
bushy25@xtra.co.nz

King, Bruce
Gourock New Zealand
P.O. Box 19624
Christchurch, New Zealand
Tel: 0064-3-3844069
Fax: 0064-3-3842642
bking@gourock.co.nz

King, Maureen
Gourock New Zealand
P.O. Box 19624
Christchurch, New Zealand
Tel: 0064-3-3844069
Fax: 0064-3-3842642
bking@gourock.co.nz

Kingett, Billy
Blue Water Fishermen's Assn.
5775 Trout Rd.
Boreelia, FL, USA 33922
Tel: 941-282-0594
kingett6876@aol.com

Kokata, David
US Coast Guard
300 D Ala Moana Blvd.
Honolulu, HI, USA 96850
Tel: 808-541-2288
Fax: 808-541-2036

Kreutz, David
Eastern Tuna Billfish Australia
11 Marcina Close
Tuncurry, NSW, Australia 2428
Fax: 265-556808

Kruse, Albin
Hawaii Longline Assn.
46-381 Holololo St.
Kaneohe, HI, USA 96744
Tel: 808-235-3128
kruse002@hawaii.rr.com

Kuletz, Kathy
US Fish and Wildlife Service
1011 E. Tudor Rd.
Anchorage, AK, USA 99503
Tel: 907-786-3453
Fax: 907-786-3641
kathy_kuletz@fws.gov

Lane, Donald
Halibut/Sablefish
PO Box 2921
Homer, AK, USA 99603
Tel: 907-235-7898
Fax: 907-235-7898
drl@xyz.net

Leadbitter, Duncan
Marine Stewardship Council
PO Box 3051
Stonewell Park, NSW, Australia 2508
Tel: 612-42-943-728
duncan.leadbitter@msc.org

LeRoux, Robin
NOAA Fisheries
8604 La Jolla Shores Dr.
La Jolla, CA, USA 92037
Tel: 858-546-5659
Fax: 858-546-7003
robin.leroux@noaa.gov

Limpus, Colin
Queensland Turtle Research
PO Box 541
Capalaba, Queensland,
Australia 4157
Tel: 61-07-32277718
Fax: 61-07-32276386
col.limpus@env.qld.gov.au

Lindgren, Peter
Lindgren-Pitman, Inc.
2615 NE 5th Ave.
Pompano Beach, FL, USA 33064
Tel: 954-943-4243
Fax: 954-943-7877
longline@gate.net



Long, Kristen
NOAA Fisheries
1315 East West Hwy.
Silver Springs, MD, USA 20910
Tel: 307-713-1401
Fax: 307-713-0376
kristen.long@noaa.gov

Longrich, Peter
F/V Shuyak
1620 Mission Rd.
Kodiak, AK, USA 99615
Tel: 907-486-6594
Fax: 907-486-8782

Ludden, Mary
133 4th Ave N.
Edmonds, WA, USA 98020
Tel: 425-775-3424 ext 205
Fax: 425-778-2322

Lugten, Gail
Institute Antarctic & Southern
Ocean Studies (IASOS)
P.O. Box 252-89
Hobart, Tasmania, Australia 7001
Tel: 61-3-6226-2978
Fax: 61-3-6226-2973
gail.lugten@utas.edu.au

Lundsten, Mark
Queen Anne Fisheries, Inc.
1939 8th Ave W.
Seattle, WA, USA 98119
Tel: 206-284-9158
Fax: 206-284-9158
mslundsten@attbi.com

Lutu, Christinna
Longline Services Inc.
PO Box 997423
Pago Pago, American Samoa 96799
Tel: 684-633-7675
Fax: 684-633-7673
csanchez@samoatelco.com

Lydon, Greg
The New Zealand Seafood Industry
Council, Ltd. (SEAFIC)
PO Box 24-901
Wellington, New Zealand
Tel: 04-385-4005
Fax: 04-385-4595
greg@seafood.co.nz

Manini, Jack
Bottom Fish
911 Wiliwili #1
Honolulu, HI, USA 96826

Marcovaldi, Maria Angelo
Fundacao Pro-Tamar
Caixa Postal 2219
Salvador Bahia, Brazil
CEP 40223-970
Tel: 55-71-676-1180
Fax: 55-71-676-1067
neca@tamar.org.br

Marques, Caio Azevedo
Rua Paricular
Guaruja, SP 11432-030
Tel: 5513-3355-8787
Fax: 5513-3355-9595
luiz@itafish.com.br

Marshall, Brent
Moana Pacific Fisheries Ltd.
PO Box 445
Auckland, New Zealand
Tel: 00-64-9-3021520
Fax: 00-64-9-3020872
brentm@iconz.co.nz

Martin, Sean
Hawaii Longline Assn.
720 Nunu St.
Kailua, HI, USA 96734
Tel: 808-537-2905
Fax: 808-536-3225
sean@pop-hawaii.com

Martin, Kurt
Nantucket Sound Fish Wiers Inc.
PO Box 65
Orleans, MA, USA 02653
Tel: 508-240-1755
kurt134@earthlink.net

Marquez, Fernando
National Fisheries Inst.
Calle 20 sur 605
Guaymas, Sonora, Mexico
Tel: 622-22-25925
Fax: 622-22-21021

McCoy, Mike
Gillett Preston & Associates
73-1091 Ahikawa St.
Kailua-Kona, HI, USA 91470
Tel: 808-325-6936
Fax: 808-325-0720
mmc@aloha.net

McCullough, Dale
Archipelago Marine Research Ltd.
525 Head St #200
Victoria, BC, Canada V9A5S1
Tel: 250-383-4535
Fax: 250-383-0103
dalem@archipelago.ca

McElderry, Howard
Archipelago Marine Research Ltd.
525 Head St #200
Victoria, BC, Canada V9A5S1
Tel: 250-383-4535
Fax: 250-383-0103
howardm@archipelago.ca

McNeill, Malcolm
Sealord Group
PO Box 11
Nelson, New Zealand
Tel: 03-548-3069
Fax: 03-546-7458
mam@sealord.co.nz

Melvin, Ed
Washington Sea Grant Program
University of Washington
PO Box 355020
Seattle, WA, USA 98195
Tel: 206-543-9968
Fax: 206-221-6937
emelvin@u.washington.edu

Miller, Denzil
CCAMLR
PO Box 213 North Hobart
Hobart, Tasmania, Australia 7002
Tel: 61-3-62310366
Fax: 61-3-62349965
denzil@ccamlr.org

Minami, Hiroshi
National Research Institute of
For Seas Fisheries
5-7-1 Orido Shimuzu
Shizuoka, Japan 424 8633
Tel: 81-543-36-6046
Fax: 81-543-45-9642

Mizutani, Koichi
Fisheries Agency
1-2-1 Kaumigaseki Chiyoda-ku
Tokyo, Japan 100-8907
Tel: 80-3-3591-0929
Fax: 81-3-3502-0571



Molloy, Janice
Dept. of Conservation
PO Box 10420
Wellington, New Zealand
Tel: 0064-4-4713-081
Fax: 0064-4-4713-279
jmolloy@doc.govt.nz

Moran, Guillermo
Asociacion de Exportadores
de Pesca Blanca
PO Box 287
Manta Manabi, Ecuador
Tel: 593-5-629728
Fax: 593-5-627663
gmoran@aiisat.net

Moreno, Carlos
Instituto de Ecologia y Evolucion
Universidad Austral de Chile
Casilla 567
Valdivia, Chile
Tel: 56-63-221486
Fax: 56-63-221344
cmoreno@uach.cl

Morgan, Ken
Canadian Wildlife Service
Institute of Ocean Sciences
PO Box 6000
Sidney, BC, Canada V8L4B2
Tel: 250-363-6537
Fax: 250-363-6390
morgank@pac.dfo-mpo.gc.ca

Morioka, Roy
Western Pacific Regional Fishery
Mgmt. Council
1164 Bishop St., Suite 1400
Honolulu, HI, USA 96813
Tel: 808-623-8319
Fax: 808-623-8319
moriokar001@hawaii.rr.com

Mummaw, Micah
Aquatic Release Conservation
1527 State Ave.
Daytona Beach, FL, USA 32117
Tel: 386-677-9533
Fax: 386-677-9617
mgm6724@aol.com

Mungaraury, Rebeca
Pesquera Integral Isla Bonita
Aztlan # 150 Km.
103.5 Carr
Tecate-Ensenada CP 22760
Tel: 52-646-1777163
Fax: 51-646-1740937
rebecam@telnor.net

Munro, Grant
Consolidated Fisheries Ltd.
PO Box 383
Stanley, Falkland Islands, 2211FA
Tel: 500-22277
Fax: 500-22211
cfi@horizon.co.fk

Murakawa, Shawn
NOAA Fisheries
2570 Dole St.
Honolulu, HI, USA 96822-2396
Tel: 808-983-5731
Fax: 808-983-2902
shawn.murakawa@noaa.gov

Mure, William
Mures Fishing
Victoria Dock
Hobart, Tasmania, Australia 7000
Tel: 03-623-12121
Fax: 03-623-44464
fishing@mures.com.au

Mure, Judy
Mures Fishing
Victoria Dock
Hobart, Tasmania, Australia 7000
Tel: 03-623-12121
Fax: 03-623-44464
fishing@mures.com.au

Myking, John
309 Ilihu St.
Kailua, HI, USA 96734
Tel: 808-254-6228
Fax: 808-254-1195

Nakano, Hideki
National Research Institute of For
Seas Fisheries
5-7-1 Orido Shimuzu
Shizuoka 424-8633, Japan
Tel: 81-543-36-6046
Fax: 81-543-35-9642
shnakano@fra.affrc.go.jp

Namur, Daniel
NOAA Fisheries
1601 Kapiolani Blvd., Suite 1110
Honolulu, HI, USA 96814
Tel: 808-973-2937
Fax: 808-973-2941
dan.namur@noaa.gov

Nandan, Satya
International Seabed Authority
14-20 Port Royal St.
Kingston, Jamaica
Tel: 876-922-9105 ext 250
Fax: 876-967-3011
snandan@isa.org.mu

Naughton, Maura
US Fish & Wildlife Service
911 NE 11th Ave.
Portland, OR, USA 97232
Tel: 503-231-6164
Fax: 503-231-2019
maura_naughton@fws.gov

Neves, Tatiana
Project Albatroz, Conservacao de
Aves Marinhas com Pesca Produtiva
R. Pasteur, 89/25
Santos/S.P., Brazil 11-060440
Tel: 00-51-13-3261-7154
Fax: 00-51-13-3261-3445
projetoalbatroz@projetoalbatroz.com.br

Oldenburg, Leland
F/V Cumberland Trail
PO Box 1802
Newport, OR, USA 97365
Tel: 541-265-2207
Fax: 541-265-2204
loldenburg@actionnet.net

Onley, Derek
Blueskin Stone
Waitati 9060
Otago, New Zealand
Tel: 03-482-2303
lawli394@student.otago.ac.nz

Paik, Jong Il
Hawaii Longline Assn.
45-519 Mokulele Dr.
Kaneohe, HI, USA 96744
Tel: 808-782-3665
Fax: 808-396-0396



Pangelinan, Thomas
Dept. of Natural Resources
Lower Base Capitol Hill
Saipan, MP 96950
Tel: 670-322-9830
Fax: 670-322-2633
inden@hotmail.com

Pappalardo, John
Cape Cod Commercial Hook
Fishermen's Assn.
210 Orleans Rd.
North Chatham, MA, USA 02650
Tel: 508-945-2432
Fax: 508-945-0981
johnp@ccchfa.org

Park, Tim
Micronesian Fishing Authority
PO Box ps 122
Palakir, Pohnpei, FSM 96941
Tel: 691-320-2700
Fax: 691-320-2383
tim@mail.fm

Parkinson, Robert
Popt Holdings Ltd.
PO Box 72-533
Papakura, Auckland, New Zealand
Tel: 9-2997-222
Fax: 9-2997-212
bigituna@xtra.co.nz

Parkinson, Mary
Popt Holdings Ltd.
PO Box 72-533
Papakura, Auckland, New Zealand
Tel: 9-2997-222
Fax: 9-2997-212
bigituna@xtra.co.nz

Pastor, Miguel Donoso
IFOP
Blanco 839
Valaparaíso, Chile
mdonosos@ifop.cl

Peppes, Fabiano
IMAIPECA Comercio e industria
de Pescado Ltda.
AV. Otavio Correa, 115
Santos-Sao Paulo Brazil 11.205-230
Tel: 55-13-3272-1431
Fax: 55-13-3261-1345
fabianopeppes@hotmail.com

Pinochet, Ruben
Fisheries Fishery Research Fund
Valapariso, Chile 101V
Tel: 56-32-502841
Fax: 56-32-502840
rpinochet@subpesca.cl

Poisson, Francois
NOAA Fisheries
2570 Dole St.
Honolulu, HI, USA 96822-2396
Tel: 808-938-5327
francois.poisson@noaa.gov

Pradhan, Naresh
Economics Dept.
University of Hawaii at Manoa
115 Gilmore
3050 Maile Way
Honolulu, HI, USA 96822
Tel: 808-956-8877
pradhan@hawaii.edu

Pukahf, Scotty
Pacific Fin
117 Ahui St
Honolulu, HI, USA 96813

Raabe, Kristin
Aquatic Release Conservation
P.O. Box 730248
Ormond Beach, FL, USA 32173-0248
Tel: 877-411-4272
Fax: 386-672-7265
dehooker@dehooker4arc.com

Reed, John
Piky Inc.
3771 Anuhea St.
Honolulu, HI, USA 96812

Rivera, Kim
NOAA Fisheries
Protected Resources Division
PO Box 21668
Juneau, AK, USA 99802
Tel: 907-586-7424
Fax: 907-586-7012
kim.rivera@noaa.gov

Robertson, Christopher
Wild Press
25 Weld St., PO Box 12397
Wellington, New Zealand
Tel: 64-4-4728173
Fax: 64-4-3889051
100244.1012@compuserve.com

Robinson, Elton
SeaNet Australia
PO Box 1080
Mooloolaba, Queensland,
Australia 4557
Tel: 07-5478-4611
Fax: 07-5444-2877
eltonectboa@bigpond.com

Rojek, Nora
California Dept. of Fish & Game
Marine Region
CDFG, 20 Lower Ragsdale Dr.
Monterey, CA, USA 93940
Tel: 831-649-2872
Fax: 831-649-2917
nrojek@dfg.ca.gov

Romano, Jorge
Pesquera Integral Isla Bornta
Aztlan#150 Carreta-Tecate
Ensenada Km 103.5
Ensenada, BC, Mexico 22760
Tel: 52-646-1740937
Fax: 52-646-1746590
isla@telnor.net

Rutter, Janice
Aquatic Release Conservation
1527 State Ave.
Daytona Beach, FL, USA 32117
Tel: 386-677-9533
Fax: 386-677-9617
mgm6724@aol.com

Sablan, Benigno
P.O. Box 5211 CHR
Saipan, MP 96950
Tel: 670-322-0604
Fax: 670-664-6060
benmira68@hotmail.com

Sales, Gilberto
Sea Turtles Project
Caixa postal 2219
Salvador Bahia, Brazil 40-210-970
Tel: 55-71-624-2391
Fax: 55-71-624-1049
gilsales@tamar.org.br

Sanchez, Carlos
Longline Services, Inc.
P.O. Box 997423
Pago Pago, American Samoa 96799
Tel: 684-633-7675
Fax: 684-633-7673
csanchez@samoatelco.com



Sanberg, Eric
NOAA Fisheries
1801 Kapiolani Blvd., Suite 1110
Honolulu, HI, USA 96814
Tel: 808-973-2935 ext 209
Fax: 808-973-2941
eric.sandberg@noaa.gov

Seman, Richard
Dept. of Lands & Natural Resources
Division of Fish & Wildlife
PO Box 10007
Saipan, MP 96950
Tel: 670-664-6000
Fax: 670-664-6060
rbsdfw@itecnmi.com

Shiroma, Richard
Bingo Too Fishing
45-642 Halekou Rd.
Kaneohe, HI, USA 96744
Tel: 808-247-4028
Fax: 808-235-0047
richardshiroma@aol.com

Sievert, Paul
USGS University of Massachusetts
Amherst, MA, USA
Tel: 413-545-4888
Fax: 413-545-4358
psievert@forwild.umass.edu

Simonds, Kitty
Western Pacific Regional Fishery
Mgmt. Council
1164 Bishop St., Suite 1400
Honolulu, HI, USA 96813
Tel: 808-522-8220
Fax: 808-522-8226
kitty.simonds@noaa.gov

Smoker, Janet
Fisheries Information Services
20007 Cohen Dr.
Juneau, AK, USA 99801
Tel: 907-586-1416
Fax: 907-586-1416
fis@gci.net

Stagi, Adrian
Aves Uruguay-GUPECA
J.J. Artega 1467
Montevideo CP, 11700 Uruguay
Tel: 598-2-336-7099
Fax: 598-2-525-8617
diomedea@movinet.com.uy

Stahl, Jean Claude
Museum of New Zealand
Te Papa Tongarewa
PO Box 467
Wellington, New Zealand
Tel: 64-4-381-7313
Fax: 64-4-381-7310
jeans@tepapa.govt.nz

Starfield, Anthony
Dept. of Ecology, Evolution,
& Behavior-University of Minnesota
1614 Rosehill Circle
St. Paul, MN, USA 55108
Tel: 651-644-7287
Fax: 612-624-6777
starf001@tc.umn.edu

Steiner, Todd
Sea Turtle Restoration Project
PO Box 400
Forest Knolls, CA, USA 94933
Tel: 415-488-0370
Fax: 415-488-0372
doug@seaturtles.org

Stevens, James
Castel Cape Fisheries
P.O. Box 8593
Kodiak, AK, USA 99615
Tel: 907-486-1792
Fax: 907-486-1780
jstevens@ak.net

Sullivan, Ben
Falklands Conservation
PO Box 705
SY, Falkland Islands
Tel: 500-22247
Fax: 500-22288
seabirds@horizon.co.fk

Sunney, Jamieson
Ministry of Food & Agriculture
Fisheries Division
PO Box M37
Accra, Ghana
Tel: 00233-21-687211
Fax: 00233-21-773611

Suryam, Rob
2030 SE Marine Science Drive
Oregon, USA
Tel: 541-867-0223
Fax: 541-867-0168
rob.suryam@orst.edu

Swenson, Eric
Pacific Fishing and FIS.com
2339 Fairview Ave. E
Seattle, WA, USA 98102
Tel: 206-334-7333
Fax: 206-216-0222
ericdoit@aol.com

Swift, Catherine
U.S. Fish & Wildlife Service
PO Box 50088
Honolulu, HI, USA 96850
Tel: 808-541-1699 ext 171
Fax: 808-541-3470
katie_swift@fws.gov

Swimmer, Yonat
University of Hawaii-JIMAR
2570 Dole St.
Honolulu, HI, USA 96822
Tel: 808-592-2813
Fax: 808-592-8300
yswimmer@honlab.nmfs.hawaii.edu

Takeshita, Taro
Federation of Japan Tuna Fisheries
3-22 Kudankita Chiyoda-Ku
Tokyo 100-8907, Japan
Tel: 81-3-3264-6167
Fax: 81-3-3234-7455
section2@intldiv.japantuna.orip

Tasker, Mark
Joint Nature Conservation
Committee
Dunnet House, 7 Thistle Pl.
Aberdeen, Scotland AB101UZ
Tel: 44-1224-655701
Fax: 44-1224-621488
mark.tasker@jncc.gov.uk

Thompson, Laura
National Fish & Wildlife Foundation
440 A Puamamane St.
Honolulu, HI, USA 96821
Tel: 808-373-9387
Fax: 808-373-4485
pinky@lava.net

Tillman, Michael
NOAA Fisheries
SW Fisheries Science Center
8604 La Jolla Shores Dr.
La Jolla, CA, USA 92037
Tel: 858-546-7067
Fax: 858-546-5655
michael.tillman@noaa.gov



Tomas, Gabriel
Tuna Fishing
Trinquete S/N
La Paloma/Rocha, Uruguay 27001
Tel: 59-84799713
gtomas@adinet.com.uy

Trust, Kim
US Fish & Wildlife Service
605 W 4th Ave., Rm. 661
Anchorage, AK, USA 99501
Tel: 907-271-2783
Fax: 907-271-2786
kim_trust@fws.gov

Tulafono, Ray
Dept. of Marine
& Wildlife Resources
PO Box 3730
Pago Pago, American Samoa 96799
Tel: 684-633-4456
Fax: 684-633-5944
dmwr@samoatelco.com

Varas, Luis Uribe
San Ambrosio
Roman Diax 205, Ofc. 202
Santiago, Chile
mdonosof@ifop.cl

Villet, William
PO Box 6030
Roggebaai, South Africa 8012
Tel: 021-4194140
Fax: 021-4196731
william@vikingfishing.co.39

Vincent, Josee
Hawaii Longline Assn.
46-381 Hololio St.
Kaneohe, HI, USA 96744
Tel: 808-235-3128
kruse002@hawaii.rr.com

Wallner, Bruce
Australian Fisheries Mgmt. Authority
Box 7051 Canberra Business Center
Canberra, ACT, Australia
Tel: 61-2-62725029
Fax: 61-2-62725036
bruce.wallner@afma.gov.au

Wang, Hsui Yuan
Yuh Yow Fishery
8 Yu-Kang North 1st Rd.
Chien Cheng Dist.
Kaohsiung, Taiwan ROC
Tel: 886-7-8220899
Fax: 886-7-8115143
sophia@mail.yuhow.com.tw

Watson, John
NOAA Fisheries
3209 Frederic St.
Pascagola, MS, USA 39567
Tel: 228-762-4591 ext 292
Fax: 228-769-8699
john.watson@noaa.gov

Waugh, Susan
Ministry of Fisheries New Zealand
PO Box 1020
Wellington, New Zealand
Tel: 64-4-470-2600
Fax: 64-4-470-2686
susan.waugh@fish.govt.nz

Webster, Tom
Hawaii Longline Assn.
PO Box 4957
Kaneohe, HI, USA 96744
Tel: 808-247-0696
tomfromhi@webtv.net

Welch, Laine
Alaska Public Radio Network
620 Egan Way
Kodiak, AK, USA 99615
Tel: 907-486-6397
Fax: 907-486-2733
mfish@ptialaska.net

Whadjah, Mosuma
Ministry of Food & Agriculture
Fisheries Division
PO Box M37
Accra, Ghana
Tel: 00233-21-687211
Fax: 00233-21-773611

Williams, Robert
Piky Inc.
4410 Leif Ericson
Astoria, OR, USA 97103
Fax: 503-338-5501

Wilson, Bob
US Coast Guard
30 D Ala Moana Blvd.
Honolulu, HI, USA 96850
Tel: 808-541-2288
Fax: 808-541-2036
rcwilson@d14.uscg.mil

Winegrad, Gerald
American Bird Conservancy
1834 Jefferson Place, NW
Washington DC, USA 20036
Tel: 410-280-8956 or 202-52-1535
Fax: 202-452-1534
gww@abcbirds.org

Wohl, Kenton
US Fish & Wildlife Service
1011 East Tudor Rd. (MS 201)
Anchorage, AK, USA 99503-6199
Tel: 907-786-3653
Fax: 907-786-3641
kent_wohl@fws.gov

Work, Thierry
USGS-National Wildlife
Health Center
Hawaii Field Station
PO Box 50167
Honolulu, HI, USA 96850
thierry_work@usgs.gov



*Western Pacific Regional
Fishery Management Council*
www.wpcouncil.org

1164 Bishop Street, Suite 1400 • Honolulu, Hawaii 96813 USA • Tel (808) 522-8220