

the

# Mail Buoy

A publication of the Association for Professional Observers

VOLUME 13, ISSUE 1

DECEMBER 2013

## THE CATCH LOG

### OBSERVER NEWS

7th IFOMC Breaks Observer Attendance Record 1

Observer Presentation Highlights 2

Chilean Observer, Omar Yanez, Delivers Closing Speech on Behalf of Observers 38

7th IFOMC Thoughts & Reflections 40

### APO ACTIVITIES

New and Old Members Unite to Update the Bill of Rights 1

Strategic Plan and Recruitment 58

### OBSERVER PROGRAM NEWS

Thank you NOP & IFOMC Steering Committee 59

New Chilean Regulations 59

LABOR 60

NOTES & TIDBITS 60

## OBSERVER NEWS

### 7th IFOMC Breaks Observer Attendance Record

As a result of strong observer attendance and participation at the 7th International Fisheries Observer and Monitoring Conference, we thought it would be an opportune time to revive the Mail Buoy in order to highlight their achievements. Out of 225 delegates from 27 countries who attended the IFOMC7 in Vina del Mar, Chile from April 8-12, 2013, more than 40 were observers. Not only did observer attend in record numbers, they also presented an unprecedented number of posters and participated on several panel presentations.



Active observer representation was highest from Chile followed by the United States; however, active observers from more than 23

countries attended this conference. Observers' abstracts were presented in 10 of 13 sessions or workshops.

We hope you enjoy this issue!  
Kim Dietrich & Elizabeth Mitchell  
Mail Buoy (revival) Editor's



IFOMC7 participants

## APO ACTIVITIES

### New and Old Members Unite to Update the Bill of Rights

The original Observer Bill of Rights (OBR) was published in 2000 as the product of a workshop and panel session held at the Canada - US Fisheries Observer Programme Workshop, St. John's, Newfoundland, Canada (Anon. 2001), which was the second conference in the International Fisheries Observer and Monitoring Conference (IFOMC) series. The original drafters included active and former observers who felt that the managing agencies and employers were in need of best-practice guidelines in order to enhance and

maintain a professional corps of observers. The Observer Professionalism Working Group (OPWG) was initiated at the 5th IFOMC in 2007 (McVea and Kennelly 2007), using elements of the OBR for its workshops and resulting documents (Davis and Quelch 2008). The OBR was last modified in the 5th IFOMC proceedings (McVea and Kennelly 2007). The current version widens the scope of the document to the ever-increasing corps of observers worldwide. The International Observer Bill of Rights (IOBR) has been devel-

## Bill of Rights (con't)



Observers meeting to discuss IOBR.

Photo: E. Mitchell

oped to clearly delineate the employment and human rights of the observer. It is complemented by the provisions of the Code of Conduct for Responsible Observer Programmes - Observer Health and Safety (CCROP-HS) and Stakeholder Responsibilities (CCROP-SR). A standard list of definitions is used for referencing these documents (CCROP-SR, Glossary). The two supplemental CCROP documents detail what is required to implement the IOBR. These documents don't intend to supersede any existing international, regional, national, state/provincial or local law or observer programme requirements, which may be more extensive or restrictive. All observer rights are equal and shall not be construed to deny or disparage other rights retained by the observers.

This IOBR was modified in collaboration with

current and former members from the Association for Professional Observers (APO) and the OPWG, as well as input received in association with the 7th IFOMC, held in Viña del Mar, Chile, April 8-12, 2013. These documents were distributed for public comment to over 1200 stakeholders internationally from February 2013 until August 2013. Venues for outreach were the APO Mail List, APO Facebook Group, the 7th IFOMC Steering Committee, and targeted mail lists of additional public stakeholders.

The APO has agreed to be custodian of this and associated CCROP-HS and CCROP-SR documents. These documents will be modified biennially with stakeholder input. For enquiries, comments, contributions and updates, please contact the IOBR Team: E-mail: [iobr@apo-observers.org](mailto:iobr@apo-observers.org); Web: <http://www.apo-observers.org/billofrights>.

See also the presentation made at the IFOMC (<http://www.ifomc.com/presentations/IOBROPWG.pdf>) as well as the Observer Rights Panel discussion starting on page 21)

*APO Activities continued on page 58*

## Observer Presentation Highlights from the 7th IFOMC

The APO would like to thank all of the observers who participated in the 7th IFOMC. You have represented your programs well with original and collaborative research. Below are the highlights of observer presentations (oral and poster) and are organized by the conference session [themes](#).

We apologize for any omissions but not all posters/presenters were included in the conference abstract book. The full set of presentations, posters and extended abstracts will be on the IFOMC website.

### Session 3: What are the future trends in fisheries monitoring programs?

#### Electronic Monitoring (poster)

Lucas Blass, Fisheries Observer  
Pelagic Observer Program, Southeast, USA

Electronic fisheries monitoring is quickly gaining popularity with management agencies due to ease of use and financial considerations. However, as electronic monitoring (EM) becomes more widespread, problems and limita-

## Observer Presentations (con't)

tions inherent to its use become more apparent. Electronic monitoring has several advantages when compared to traditional fisheries observing. One of the biggest advantages is cost, with EM generally being touted as substantially cheaper to implement. For instance, one study of the U.S. West Coast Groundfish program found EM to cost an average of \$200.00 per sea day, as opposed to a range of between \$365.00-425.00 for traditional fisheries observation (Environmental Defense Fund, 2012). Other advantages of electronic monitoring include suitability to a wider range of vessels, “24/7” uninterrupted data collection, and total objectivity of the data that is collected. Additionally, electronic monitoring eliminates the need for expensive training of observers, as well as reducing liabilities associated with fisheries monitoring programs. However, electronic monitoring is not without its own set of weaknesses and problematic considerations. One of the biggest shortcomings of EM is the utter lack of sampling capability. Also questionable is the capability to monitor areas outside of the immediate deck space on the vessel. Issues of tampering with electronic monitoring equipment have also been raised, although advances in tamper-evident gear have been made recently. Another important question raised with regard to EM is how well its data would stand up as evidence in a court of law. Chain of custody could be hard to effectively document in some cases. Ultimately, electronic monitoring can be a valuable component of management plans, but is best suited to certain subsections of fisheries observation. In scenarios such as vessels with extremely limited space, or fishing operations that provide good access for remote video viewing, EM is a great choice, and very cost effective. In some other fisheries where the management plan is very sample intensive, EM cannot really compete with a live observer. As technology marches on, and management practices change, EM could very well play a large part in fisheries data acquisition, but for now it serves well in a complementary role to traditional fisheries observation.



Christi proudly displays a striped bass. Photo: C. Campbell

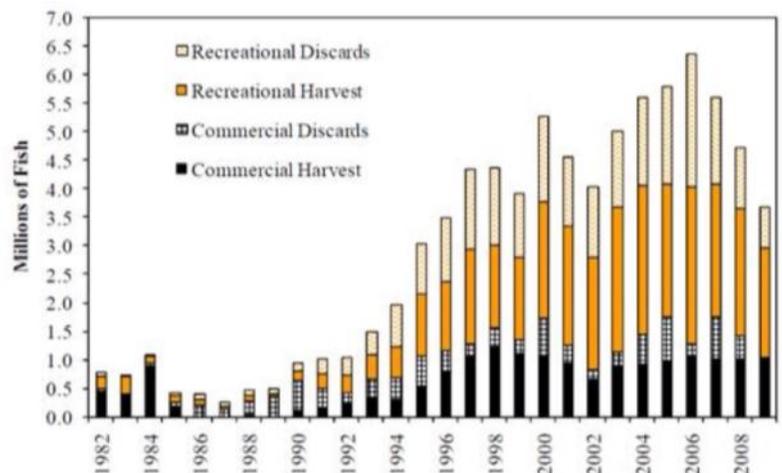
## Session 5: How best to monitor recreational and pay-for-hire (charter) fisheries

### Comparison of Pamlico Sound and Coastal Atlantic Ocean Striped Bass, *Morone saxatilis*, Recreational Angling Success (panel)

Christi Campbell, Fisheries Observer and At-Sea Monitor  
Northeast Groundfish Observer Program, USA

Striped bass, *Morone saxatilis*, is a very important fish species both ecologically, recreationally and commercially. This species has a large geographic range, a unique lifestyle and an interesting method of reproduction. The area of interest in this study is the Pamlico Sound of North Carolina, the second largest estuary in the United States, and a valuable striped bass habitat (Bain 1982). Due to the Tragedy of the Commons, a theory that people will extract more than their fair share of natural resources when given the chance because of the attitude, ‘if I don’t someone else will’ there is a need for fisheries management (Hardin 1968). The study was designed to evaluate the success of different populations of recreational striped bass anglers in two independently managed areas, the Pamlico Sound and the Atlantic Ocean coastal striped bass populations. My survey was conducted to gather catch per unit effort (CPUE) data and determine the overall landing success of recreational anglers intercepted during a week-long study.

My data showed a statistically significant difference in the success of coastal Atlantic Ocean anglers and their more



## Observer Presentations (con't)

successful Pamlico Sound counterpart. I observed ten landed striped bass, all of which came from the Pamlico Sound. CPUE for the Pamlico Sound was 0.1 in comparison to 0.0 at the Ocean study sites. I completed a biological assessment of the species as well as a study of the current fisheries management regulations to best evaluate the data collected.

### Session 6: Reducing risk in a high risk job

#### How to Stay Healthy on Long Trips: Maintaining Observer Physical and Mental Fitness (Poster)

Derek B. Kuda, Fisheries Observer  
Southeast Shrimp and Reef Fisheries Observer Program, USA

I have been working on ways to stay fit while at sea on long trips since 2009. While observing on small commercial fishing boats on the Gulf of Mexico, I used exercise ideas from a personal trainer and adapted available equipment to improve my cardiovascular fitness on long trips. I lost 30 pounds in one year using circuit exercise routines including jumping rope, steps, calisthenics, and strength exercises with elastics.

While trying to find ways to stay physically fit, I discovered more ways to stay mentally fit as well. In 2010, I started bringing and playing my ukuleles on trips and found that they promoted an enjoyable trip. Other ways that I found helpful to mentally unwind were writing haiku (3 line poetry), composing seascape photos, and making gyotaku (fish printing). In my observer experiences, I have found doing things that make yourself happy and hopefully others promote good attitudes and calmer minds.

Using elastic bands on deck.

Photo: Derek Kuda



### Observer Safety Training across USA Observer Programs (poster & panel)

Susan Boehm, Fisheries Observer  
Northeast Groundfish Observer Program, USA

Safety is an essential component to all national observer training programs (Northeast, Southeast, Alaska, Northwest, Southwest, and Pacific Islands). Each observer training needs to be tailored specifically to the fisheries they represent as every region presents its own unique safety challenges such as cold water, extended off shore trips or dangerous gear types. While the minimum safety training standards include 19 hours of safety training some programs dedicate more time, require higher first aid certifications and/or require observers to take additional gear (i.e. first aid kits) on trips. Breaking down training agendas and schedules from the different programs shows how much time each program dedicates to safety versus other training protocols (such as species identification, gear characteristics, etc). The variations in amount of time allocated to safety training, as well as the requirement of additional certifications or special gear can be viewed alongside the annual number of safety incidents that occur in each region.

**Foul weather gear provided to AIS observers. The best PFD is the one you wear!**

Photo: S. Boehm



### The Observer Safety Incident Reporting System: A Tool to Learn From, and Reduce Observer Safety Incidents (poster)

Ebol Rojas, Fisheries, Marine Mammal and Scientific Observer, Global Marine Monitoring, ICCCAT, IOTC, CCSBT and CCAMLR, Mexico

The Observer Safety Incident Reporting System (OSIRS) is global initiative that records and ex-

## Observer Presentations (con't)

amines all types of Fisheries and Marine Observer safety incidents on board fishing, seismic and dredge vessels, covering also drilling operations, pile driving, marine blasting and fish farming monitoring, including port and shoreside facilities, the OSIRS collects voluntarily submitted Fisheries and Marine Observer safety incident/situation reports from observers, observer providers, fisheries agencies, debriefers and others stakeholders; analyzes them, and responds in order to lessen the likelihood of Fisheries and Marine Observer safety incidents. All personal and organizational names are removed, dates, times, and related information, which could be used to infer an identity, are either generalized or eliminated, the OSIRS acts on the information these reports contain, it identifies system deficiencies, trends on observer safety and issues, alerting messages to persons in a position to correct them, it educates through its reports, and through its research studies. The database is a public repository which serves the observer stakeholders needs and those of other organizations world-wide which are engaged in research and the promotion of safe at sea observation.

*“OSIRS data will be used to identify deficiencies and discrepancies in the Observer Safety Protocols so that these can be remedied by appropriate authorities...”*

Safety Protocols so that these can be remedied by appropriate authorities, and to support policy formulation and planning. Year reports, and a collection of short, anonymous reports on the lessons learned from examinations and investigations will be available for the stakeholders, these publications hope to provide details of the outcomes of recommendations based on its findings, it endeavours to identify and analyse the relevant safety issues pertaining to the specific accident, and to make recommendations aimed at preventing similar accidents in the future.

For further information about the OSIRS or for information about specific accidents:

Association for Professional Observers

Observer Safety Incident Reporting System (OSIRS)

e-mail: [apo@apo-observers.org](mailto:apo@apo-observers.org) or [aposafety@gmail.com](mailto:aposafety@gmail.com)

OSIRS  
FORM  
SCAN



### The Three P's of Risk Reduction (poster)

Tom Maher, Fisheries Observer  
Southwest, USA

#### Preparation

- Prepare Yourself: Maintain physical and mental fitness through proper exercise and nutrition. Get plenty of rest prior to departure and eat a good meal.
- Prepare Your Gear: Familiarize yourself with your gear prior to your first deployment. Confirm the functionality of your gear prior to each deployment and repair or replace non-functioning gear before boarding a vessel.
- Prepare Your Work Area: Speak with the Captain before the trip and ask where your work area is going to be. Familiarize yourself with both the work area and the deck layout prior to departing the docks. Identify any hazardous conditions and work with the crew to mitigate the hazards before fishing starts. Organize your gear within your work area so that it is tidy and out of the way.



The Project has an electronic reporting form which automatically uploads the incident data into a database, available for further analysis, OSIRS will maintain a computerized database of reportable observer accidents which have occurred since the start of the program, be-



sides providing an accessible source of information, the database can be analysed to identify accident trends. OSIRS data will be used to identify deficiencies and discrepancies in the Observer

## Observer Presentations (con't)

### Prevention

- Perform Vessel Safety Inspection: Prior to departing the dock perform a vessel safety inspection to ensure the boat has the proper safety gear onboard. Additionally, make sure the gear is not expired. If any gear is missing or out of date inform the Captain and do not leave until the problem has been rectified. Never depart on a vessel you feel is unsafe.
- Maintain Situational Awareness: During the trip identify and mitigate any potential hazards you come across that are within your power to rectify. Monitor the fishing activities as they occur in order to identify potentially dangerous areas and stay out of those areas. Monitor the prevailing weather conditions and recognize when they change, know when your weather limits are reached and act accordingly.
- Perform Post Trip Review: After the trip is over mentally review it, identify any mistakes that were made and recognize the solutions to those mistakes.

### Practice

- Practice Vessel Safety Drills: Prior to your first deployment practice, with your fellow

observers, on what to do in case of a fire, flood, man overboard, or abandon ship emergency.

- Practice Employing Gear: In short, use your safety gear. Wear the PFD, wear the proper clothing dictated by the situation you are in. Keep a whistle on you at all times. Your gear will not help you if it's stuffed in a bag while you are on deck.
- Practice Communication Skills: An open means of communication with the Captain and crew will benefit you immensely as an observer. For many people this is a skill often left unattended to. If it is practiced on every trip you go on you will find that expressing your safety concerns will get easier and easier.

### Session 7: How to determine and reduce bias in monitoring programs?

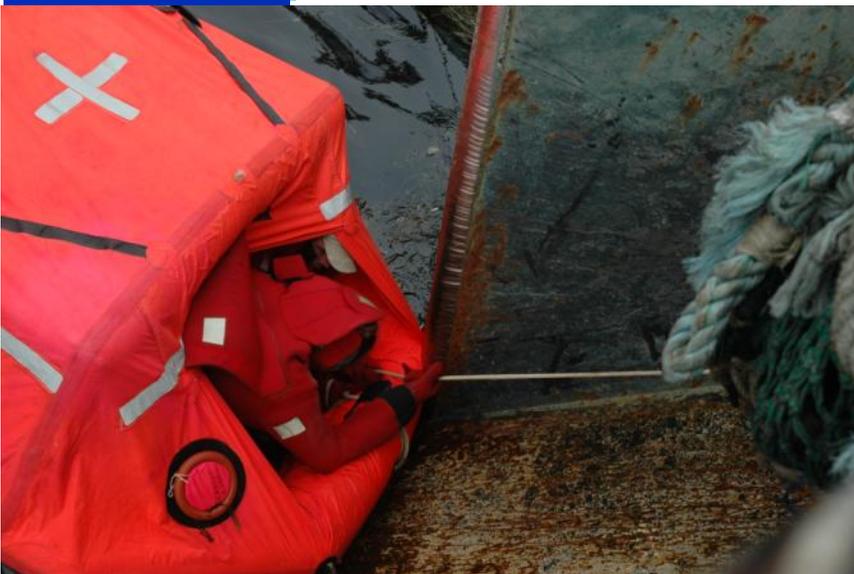
#### Types of Biases that Affect Marine Monitoring Programs and Practical Solutions to Control Bias (Panel)

Toby Shewan, Fisheries Observer  
Westcoast Groundfish Observer Program, USA

Bias is an inclination to present or hold a partial perspective at the expense of (possibly equally valid) alternatives. Unfortunately, bias can play a major role in marine monitoring programs and can drastically skew the reliability of scientific data. There are many types of inherent biases pertaining to marine fisheries data collection and analysis. For example observers and other catch monitors may be biased in vessel selection due to such factors as vessel size, attitude of the captain and crew, as well as potential language barriers between monitors and crew. Once these sources of bias have been identified, we can implement procedures to reduce the effects of bias on data collection. Bias occurs because of thought processes that are often difficult to identify in marine fisheries monitoring programs. Mental and emotional factors that determine

West Coast  
Groundfish Observer  
Program safety re-  
fresher training, 2009.

Photo: K. Dietrich



## Observer Presentations (con't)

bias include information-processing shortcuts, motivational factors, and social influence. Information-processing shortcuts are experienced based techniques for problem solving which are used to speed up the process of finding a satisfactory solution. An educated guess, rule of thumb, and intuitive judgments are all examples of information processing shortcuts. Information-processing shortcuts can lead to inaccuracy in monitoring programs because decisions are based on past experiences. Motivational bias arises when an individual's needs interfere with their ability to collect accurate data. For example, motivational bias can cause a catch monitor to be more or less inclined to observe a particular vessel due to the duration of the trip. Social bias is the tendency of individuals to behave in a manner that will be viewed favorably by others. An example of social bias is a fisherman altering his fishing methods in an attempt to accommodate the catch monitor on board. Social bias in monitoring programs results in overemphasizing behaviors that are viewed as desirable while underemphasizing behaviors that are viewed as undesirable. All three of these types of biases occur in marine monitoring programs and can reduce objectivity throughout the chain of collection-debriefing analysis; e.g., during vessel selection, catch sampling and subsampling, species identification, and emergency situations. I will discuss practical solutions the West Coast Groundfish Observer Program has implemented to reduce these forms of bias. Solutions include random sampling to reduce bias in catch sampling/subsampling, random vessel selection to reduce bias in vessel selection, the use of logbooks to reduce bias in debriefing, and annual safety drills to reduce bias in emergency situations. Bias occurs because of an individual's inability to be objective. With the implementation of protocols to counter these types of biases a marine monitoring program can operate at a level of optimal objectivity.



**Baskets of sorted fish.**

Photo: J. LeBeau

## Methods for Eliminating Catch Sampling and Vessel Fishing Behavior Bias in the Gulf of Mexico and Southeastern Atlantic Fisheries

(panel)

Jacob V. LeBeau, Fisheries Observer

Southeast Shrimp and Reef Fisheries Observer Program, USA

### *Introduction*

The U.S. Southeast Observer Program is responsible for placing fisheries observers on shrimp vessels and reef fish vessels operating in the U.S. Gulf of Mexico and southeastern Atlantic. The primary objectives of this program are to quantify species-specific fishery catch rates, including sea turtles, by area and season in these commercial fisheries and to evaluate the effectiveness of bycatch reduction devices and turtle excluder devices in the shrimp trawl fisheries<sup>1</sup>.

Outlined here are illustrations of catch sampling, vessel fishing behavior, and vessel selection bias, as they apply specifically to the U.S. Southeast Observer Program. Recognizing and reducing bias in all observer programs is a fundamental necessity, if observer data is to be trusted by fisheries managers as representative of the fisheries from which that data is collected.

### *Methods*

The method for collecting a species composition subsample for each tow in the Gulf of Mexico and southeastern Atlantic shrimp fleet in particular, is an example of a catch sampling technique that may benefit from a review of similar observer program catch sampling techniques. Presently, the standard practice for collecting a species composition subsample on Gulf of Mexico and southeastern Atlantic shrimp vessels is to mix the catch from the net or nets that have been selected to collect a subsample, using a shovel to ensure that it is evenly mixed. The target shrimp and bycatch species are often stratified in the net, so after the catch has been dumped on deck, mixing the catch is used as a means of reducing potential bias due to unrepresentative sampling<sup>1</sup>. This method can be haphazard because there is little assurance that every observer onboard these vessels will mix the catch evenly and sufficiently enough to eliminate any bias from each sample.

## Observer Presentations (con't)



Sorted catch from the Gulf of Mexico.

Photo: NOAA

Two substantially sized fisheries in the Gulf of Mexico have until recently never been required to carry observers: the skimmer trawl fishery (comprising more than 2,000 permitted vessels<sup>2</sup>) and the Menhaden purse seine fishery (the largest fishery by volume of landings in the Gulf). In 2004 and 2005 observers were placed onboard three skimmer vessels on a voluntary basis. Then, in 2010 a sea turtle mass-stranding event raised concerns about potential sea turtle captures in the skimmer trawl fishery<sup>2</sup>. Subsequently, from May to August 2012, mandatory observer coverage was required for skimmer vessels fishing in the Gulf of Mexico. Observers onboard these vessels were responsible for collecting data related to interactions with threatened or endangered sea turtles as well as data quantifying target and non-target species per haul<sup>2</sup>. In the summer of 2011 observers were assigned to Menhaden vessels for 5-6 days at a time. On these vessels observers primarily collected estimates on bycatch species numbers per set and noted protected species interactions with fishing gear. These mostly unobserved fisheries are broad examples of: 1) Vessel fishing behavior bias: In a completely unobserved fishery there is no reliable way to account for at-sea discards of bycatch species or incidental takes of protected species; 2) Vessel selection bias: In a fishery with infrequent or irregular observer coverage, observer data is more likely to be non-representative of the fishery on the whole.

### *Results/Discussion*

#### **Catch Sampling Bias**

Individual observer program catch sampling techniques can and should be adjusted to reduce bias by adopting sampling techniques from other observer programs and tailoring them so that they

are well-suited for the individual program, when it is deemed prudent to do so.

The Northeast Observer Program uses a technique for sampling a similarly stratified catch that is intended to ensure a random and representative composition sample<sup>3</sup>. This technique asks the observer to divide the catch into a mental grid and take fish equally from the top, middle, and bottom of the pile for the sample.

Simply put, every observer program could benefit from a thorough review of sampling techniques used by other programs where there are marked similarities in potential catch sampling biases. It should be noted that in order for the Northeast program technique to work if employed by the Southeast program, the size of the catch would have to be substantial enough to roughly designate a top, middle, and bottom (which would not always be the case). This technique may not be best-fit model for the Southeast Observer Program, but careful examination of other observer program sampling methods is a prospect worth considering.

#### **Vessel Fishing Behavior Bias/Vessel Selection Bias**

Plans should be developed to deploy observers into previously unobserved or lightly observed fisheries such that observer data from those fisheries is less likely to be biased by modified vessel fishing behavior or non-representative deployment of observers.

The North Pacific Groundfish Observer Program published an Annual Deployment Plan in January 2013 stipulating that vessels fishing with hook-and-line or pot gear that are greater than or equal to 40 ft, but less than 57.5 ft in length overall would be subject to partial mandatory observer coverage<sup>4</sup>. These vessels will be picked at random for observer coverage, and notified approximately 60 days prior to a 2-month selection period. They would then be required to carry an observer for all trips made during that 2-month selection period<sup>4</sup>.

## Observer Presentations (con't)

Until recently the vessels now subject to partial mandatory observer coverage by the 2013 Annual Deployment Plan had never before been required to carry observers. This plan would seem to obviate the potential for vessel fishing behavior bias, because there would be economic disincentive to adjust fishing practices dramatically when carrying an observer, if that observer is onboard for all trips made during a two month period. Furthermore, the randomized deployment strategy negates the possibility for observer data bias due to non-representative deployment. Applying a deployment plan such as this one to observer coverage in a previously unobserved or seldom observed fishery should help facilitate the collection of quality observer data, and reduce the likelihood of vessel fishing behavior and vessel selection biases.

<sup>1</sup>Unpublished manuscript. Southeast Observer Program Manual 2011. On file at NMFS Southeast Fisheries Science Center, Galveston Laboratory, 4700 Avenue U, Galveston, TX 77551.

<sup>2</sup>Pulver, J., E. Scott-Denton and J. Williams. 2012. Characterization of the U.S. Gulf of Mexico skimmer trawl fishery based on observer coverage. NOAA Technical Memorandum NMFS-SEFSC-636, 27 p.

<sup>3</sup>Unpublished manuscript. Northeast Observer Program Manual 2010. On file at NMFS Northeast Fisheries Science Center, Fisheries Sampling Branch, 166 Water Street, Woods Hole, MA 02543.

<sup>4</sup>NOAA. 2013. 2013 Annual Deployment Plan for Observers in the Groundfish and Halibut Fisheries off Alaska. Fisheries Monitoring and Analysis Division, 7600 Sand Point Way NE, Seattle, WA 98115.

### Reducing Bias on the Vessel, Protocol in the Gulf of Mexico Reef Fishery (panel)

Sara R. Hutton, Fisheries Observer  
Southeast Shrimp and Reef Fisheries Observer Program, USA

#### Introduction

Fisheries information collected by observers guides responsible management and conservation of living marine resources. Data of such importance needs to be of the highest quality possible. The Southeastern Fisheries Observer Program currently has methods of preventing bias, from vessel selection to sampling on board, and there are ways observers can further mitigate bias while on the vessel.

Mandatory observer coverage by NMFS began in July 2006 to characterize the commercial reef fishery operating in the U.S. Gulf of Mexico, per the Gulf of Mexico Fishery Management



Baskets of sorted fish. Photo: Sara Hutton

Council's (GMFMC) Reef Fish Fishery Management Plan. This fishery consists of approximately 890 federally permitted vessels, with a few primary gear types and target species. Bottom longline and vertical line (bandit and handline) keep many reef species but generally target groupers, *Epinephelus* spp., and snappers, *Lutjanus* spp., depending on gear configuration and depth of fishing. Longliners fishing shallow waters generally target red grouper, *Epinephelus morio*, while those in deeper water target yellowedge grouper, *E. flavolimbatus*, and tilefish (Malacanthidae). Vertical line vessels also target shallow-water grouper and red snapper, *Lutjanus campechanus*, but bandit boats with specific rigs may target vermilion snapper, *Rhomboplites aurorubens*, as well.

#### Methods

Vessels required to take observers are randomly selected. The selection is stratified by season, gear, and region to ensure a proportional sampling effort. Effort data is updated annually and directs coverage levels toward region and gear strata with higher levels of fishing effort, while continuing to sample strata with lower fishing effort.

On board vessels, in addition to initial safety and vessel information, observers note gear configurations, location, depth, environmental parameters, species interactions, and fishing time for each sampled set. Fishery data obtained includes the length, weight, condition when captured, and fate of each fish. Observers also record if venting occurred for each fish, and only vent fish themselves by request in the same manner as the crew has demonstrated.

## Observer Presentations (con't)



Observer collecting data from reef fish in the Gulf of Mexico.

Photo: NOAA

### Results

To prevent vessels from shortening trips when observers are aboard, a minimum sea day requirement by gear type was established. Permit holders are required to carry an observer for at least 7 days during a selection period when using longline gear, 3 days for bandit gear, and 2 days for handline.

Sampling on longline vessels involves keeping track of how many hooks are set out during each haul and collecting data on every fish that comes aboard. Vertical line sampling becomes more complex because the different gear configurations require additional data. Each reel is numbered and the number of hooks is recorded along with the number of times each reel is dropped for each location and reel. If there are too many reels to keep up with, a subsample of reels is chosen using a random table to prevent favoring certain reels. The numbers of hooks fished for the unsampled reels are also recorded so species numbers can be extrapolated for the set.

Will all gear types, a number of situations may interfere with an observer's ability to collect all desired data. Observers must prioritize data to collect all information necessary to calculate catch per unit effort (CPUE). CPUE is calculated by hook hours fished, so fishing time and the amount of hooks fished are the highest priority

data. If a set cannot be sampled at all due to weather or other reasons, the minimum effort of fishing time, location, and depth are recorded. If time is a limiting factor, weights may be not obtained due to a flexible set of data priorities for the observer. Discarded captures need to be processed quickly to

prevent affecting mortality rates, so if a large number of undersized fish are on deck waiting to be measured, observers may return them to water without obtaining weights and sometimes lengths. To be considered a sampled set, at least the amount of kept and discarded species needs to be recorded.

Minimum sea day requirements were established to prevent some observer effect, but other influences are still undetermined. Observers are instructed only to vent discarded fish if it is normally practiced on board and in the manner that it is normally practiced. However, observers may more consistently vent, thus artificially decreasing mortality rates. Video monitoring may be able to help determine if venting differences affect data results by comparing mortality rates between vessels with and without observers and noting venting practices on the video. Fishermen who are unsure about an observer's role on board and suspect enforcement may refrain from retaining some species and sizes for sale or bait. While these differences are unavoidable, clear communication with the fishermen may prevent them. The Southeastern Observer Program has recognized potential sources of bias and implemented protocol to eliminate or reduce them, but observers must also work individually to mitigate bias where they see it and gather the most complete and accurate data possible.

## Observer Presentations (con't)

### Session 8: Fisheries law enforcement roles in domestic and international waters

#### Challenges (Conditions) of Data Collection for Scientific Observers in Demersal Crustacean Fishery Operating in Central Chile (poster)

Omar Yañez Barrera & R. Galleguillos, R., Scientific Observers, Instituto de Fomento Pesquero (IFOP), Chile

The crustacean trawl fisheries from the Chilean fleet come as a great challenge from data gathering for the selection of the boat, to catch sampling. As in any process there are several factors that influence the final product, in this case the data. For example, the effect of meteorological conditions on the instruments and the observer, and also the effect of the observer on the behavior of the rest of the crew, and the discard.

### Session 9: What are the future trends of transshipment observer programs?

#### (Dis)Harmony among Tuna Transshipment Observer Programs (TTOPs) – An At-Sea Observer's Perspective (panel)

Kimberly S. Dietrich, Consultant, USA

Keith G. Davis, IATTC Observer and Observer Professionalism Working Group Chair, USA

Ebol Rojas, Fisheries, Marine Mammal and Scientific Observer, Global Marine Monitoring, ICCAT, IOTC, CCSBT and CCAMLR, Mexico

#### Introduction

Monitoring of tuna transshipments (offloads) both at-sea and in port has become an important management, control and surveillance (MCS) tool for global tuna fisheries. Industry operates on a global scale, with vessels crossing multiple Regional Fisheries Management Organization (RFMO) / Regional Observer Programme (ROP) areas on a trip. Tuna and related pelagic species are also highly migratory. Management has been slow to harmonize and coordinate in order to manage these important global fisheries. Tuna Transshipment Observer Programme

(TTOP) implementation among all of the tuna RFMOs remains inconsistent and disjointed.

In this talk we share perspectives from several TTOP observers in regards to practices that negatively impact the management of tuna and related species as well as discuss observer workforce limitations, frustrations, and professionalism variations with regard to TTOP ROPs; and, offer solutions from a sea-level perspective.

#### Methods

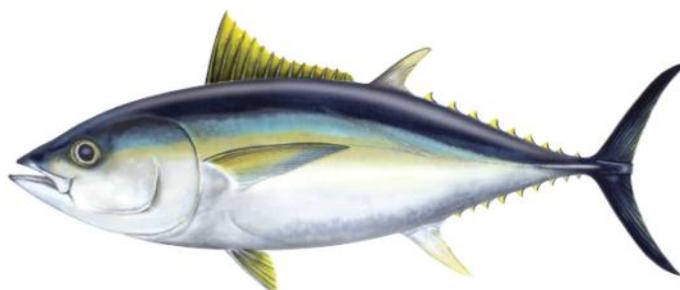
Information and opinions were gathered using a web-based questionnaire targeting tuna transshipment observers which allowed anonymous responses. There were several background questions pertaining to the respondents (e.g., active observer, former observer or other; gender; primary and secondary observer programme; payment source, hiring eligibility and training length). There were 23 statements which asked for respondents to rank from 1-5 (1 = "Strongly Agree" to 5 = "Strongly Disagree") for their primary programme. Finally, there were eight essay response options for suggestions and comments.

Because the panel presentation time allotment was limited, we focused our presentation to the 7<sup>th</sup> IFOMC on the questions that had the most comments and suggestions.

#### Results

Prior to the conference, there were 11 respondents. The questionnaire remained live until May 25, 2013 (more than 2 months) for a total of 14 respondents; of these, 11 were active observers. IATTC was the primary TTOP (n=9) but all RFMOs were represented. Respondents noted that observer payment in most programmes was via a third party entity ex-

Bigeye tuna. Image: Chapman et al. 2006



## Observer Presentations (con't)

cept the Western and Central Pacific Fisheries Commission (WCPFC) where salaries are paid by the respective governments although some travel expenses are covered directly by the carrier vessel operators (companies). There was little consistency in responses among and within programmes regarding hiring criteria and training length. This could be due to the quick changes these programmes have gone through as they developed. Therefore, depending on when the responders were hired, the responses could vary within a programme.

The overall average rank for the questions was 2.4 indicating that most of the respondents were generally in agreement. However, there were a few statements where the average dipped into the 'disagree' range of the rank (Table 1).

Disharmonies in the following practices negatively impact the effectiveness of management to "establish comprehensive systems... for monitoring and control of transshipments on the high seas":

- **Observer Professionalism:** Eligibility (including applicable experience such as observing on longline vessels), training that tests competency to perform the job, and enforceable code of conduct standards;
- **Observer and Programme Support:** One respondent suggested that the RFMOs develop an accreditation of RFMO training programme and resources (e.g. safety priority, manuals and frozen fish identification); issuance of safety and technical gear; logistical and financial means to support "qualified" observers and guard from conflicts of interest. Several respondents from the IATTC noted that their WCPFC counterparts were deployed for long periods of time (e.g. 8-10 months) while all the other RFMOs attempt to limit deployments to 90 or 120 days. Acknowledging the logistical difficulty that these global programs face, trip limits were recommended but there is some uncertainty regarding what a reasonable (or realistic) limit should be. The majority of respondents indicated that safe and clean drinking water should be a requirement for all carrier vessels;
- **"Observed" Detail:** Respondents noted that protocols for determining and designating (in the data) information collected **independently** by an observer verses information retrieved from third-party sources (e.g. vessel logbooks, fishing vessel reports, programme resources) is variable among the programmes making comparison of data from these programs a challenge. How are observer "interruptions" and "breaks" documented during transshipment activities? How are transshipment activities categorized or divided, based on: product origin, product destination, weather, etc.? Are scales made available to observers? How are observers interacting with fishing vessels (do they board fishing vessels)? How are tally-count precision and species identification accuracy determined and verified?
- **Vessel Detail:** Protocols for identifying vessels and vessel interests (e.g. operator and owner, home port, company address, etc.); photo evidence (what photos are taken, how categorized and described, verified by way of vessel photo database); how this information is categorized and recorded (in declarations), and verified by observers; and, how this information is updated from observer input and shared back with observers in the field;
- **Logbook and Declaration Forms:** Protocols that define information (including metadata) to be reported in fishing vessel logbooks and carrier vessel logbooks and declaration forms. Over half of the respondents noted that a standardized fishing logbook would be beneficial;
- **Species and Product Type Detail and Verification:** Fishing vessel, carrier vessel, port, and observer protocols for determining species (e.g. FAO codes and common names) and species product-types and codes; conversion factors from length to weight;

## Observer Presentations (con't)

**Table 1:** Questionnaire statements and average ranks (1 = “Strongly Agree” to 5 = “Strongly Disagree”).

Statement	Average Rank
1. Observer rights are respected and protected	2.1
2. Observers are independent data collectors and are supported well to be free from conflicting financial interests	1.8
3. Observers understand the objectives of their programme and their role(s) and duties are well defined.	1.5
4. It is clearly documented as to how observers are expected to conduct themselves professionally and observer codes of conduct are enforced.	1.7
5. Observer hiring eligibility and training requirements are adequate for preparing observers for their job	2.0
6. Observers are supported (with trainings, field manuals and guides, issued gear, enforcement follow-up, etc.) to complete all of their duties.	1.5
7. Observers have adequate access to carrier vessel facilities and equipment needed to complete their duties and live on-board unimpeded.	2.0
8. Observers' health and safety risks are minimized (with trainings, competency testing, issued gear, pre-sea vessel safety checks, drills, right to refuse an assignment, etc.) during all stages of their employment.	2.2
9. All observers in my Primary ROP collect and verify fishing vessel identification information by way of the same clear and consistent methods.	2.2
10. All observers in my Primary ROP collect photo evidence of fishing vessel identification markings (when alongside carrier vessels) by way of the same clear and consistent methods.	1.8
11. Fishing vessel identification materials (provided to Observers from my Primary ROP) make good use of observer information collected in the field and are regularly updated and provided to observers	2.7
12. All observers in my Primary ROP identify and report upon fish species and product types by way of the same clear and consistent methods.	2.2
13. Fishing vessel logbooks are standardized (from one fishing vessel to another; including protocols for how fishing vessel personnel are to complete all parts) with consideration for the data needs of the observer programme.	3.4
14. ROP Transshipment Declaration Forms are standardized (from one carrier vessel to another; including protocols for how carrier vessel personnel are to complete all parts) with consideration for the data needs of the observer programme.	2.2
15. Observer data contributes to the mission of preventing, deterring, and eliminating illegal unreported and unregulated (IUU) fishing and allows for rapid response to IUU fishing.	1.8
16. Observer compliance reporting is supported by enforcement follow-up.	2.7
17. Through post-deployment data editing/debriefing observer data is determined to be of high quality.	1.8
18. Port transshipment activities (outside ROP authority; under port state authority) do not jeopardize the mission of preventing, deterring, and eliminating IUU fishing.	3.3
19. Observer data from my Primary ROP is comparable with observer data from other TTOP ROPs in order to contribute towards the global mission of preventing, deterring, and eliminating IUU fishing.	2.5
20. To the best of my knowledge, my Primary ROP promotes industry (monitored entity) knowledge and understanding of the need for and their cooperative participation in accommodating observers.	2.2
21. To the best of my knowledge, observers in other ROPs are held to the same hiring eligibility requirements and code of conduct standards as are observers in my Primary ROP.	3.6
22. To the best of my knowledge, observers in other ROPs are held to the same training and data accountability (data editing/debriefing) standards as are observers in my Primary ROP.	3.8
23. To the best of my knowledge, all of the five TTOP ROPs work well together to cooperate in addressing (especially with regards to facilitating observer programmes) the global mission of preventing, deterring, and eliminating IUU fishing.	3.7

- **Port (State) Reporting and Monitoring:** National ('State') protocols for port transshipments, which are dealt with out of the primary scope of the RFMOs; and, product offload destination monitoring procedures and international (RFMO) inspections options;
- **Compliance Reporting, Accounting, and Enforcement:** Collecting evidence; on-board safety reporting (including communication procedures); formal reports (including affidavits); enforcement communication and observer follow-up. Several observers noted that fishing vessel boarding/inspection should be required in all TTOPs;
- **Transshipment Procedures:** Protocols for how fish are hoisted from fishing vessel to carrier vessel (directly out of hold or placed on deck) with consideration for observer duties. Several respondents suggested a requirement for a string of fish be composed of a single species in order to improve the quality of observer data and that inline scales be required to obtain actual weights. Observer duties could also include monitoring of scale cali-

## Observer Presentations (con't)

bration. There was general support for keeping shark fins attached prior to transshipment and observer should be authorized to open the bags of product to verify contents;

- **Fishing Vessel Support Accounting:**  
Tracking bait, oil delivery/disposal, crew, vessel parts, and food stuffs.

### Discussion

It was established at the 6<sup>th</sup> IFOMC, “tuna RFMOs generally have many of the ‘same objectives and purposes’... and... some see this essentially as a ‘worldwide observer programme’”<sup>2</sup> and most of the recommendations from the 2009 meeting were reiterated in respondents comments here. The multitude of authorities that manage worldwide Tuna Transshipment Observer Programmes can work at better defining standards and harmonizing with other authorities, with regards to: transshipment procedures and reporting protocols; observer and port monitor recruitment, training, duties, roles and support; observer data accountability; and, compliance reporting and enforcement. The exchange of information, staff, and observers from one RFMO to another will not only help with harmonizing protocols for TTOPs worldwide, but establish better avenues for sharing expertise and clearer paths for acknowledging “comprehensive” and “responsible” management and pitfalls.

A more detailed summary report based on this questionnaire can be downloaded at: <http://www.apo-observers.org/labor>.

<sup>1</sup>United Nations. 2004. Resolutions and Decisions adopted by the General Assembly during its fifty-ninth session. Volume I Resolutions (59/25). 14 September - 23 December 2004.

<sup>2</sup>Belay, B. and K.G. Davis (Eds.). 2010. 6th IFOMC Tuna Transshipment Observer Program (TTOP) Meetings. pp. 311-315 In: NMFS. 2010. Proceedings of the 6th International Fisheries Observer and Monitoring Conference. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-107.

## Session 10: How can Fishery Monitoring Programs Support an Ecosystem Based Approach to Fisheries Management?

### Implementation of Remote Sensing to Reduce Incidental Takes (poster)

Tyson Bottenus, Fisheries Observer  
Northeast Groundfish Observer Program, USA

To mitigate incidental takes of endangered or protected species, a greater effort should be placed on utilizing remotely sensed data in conjunction with data collected by fisheries observers. The end result would be an experimental product that could be distributed to the fishing industry in real time to aide them in preventing bycatch. This experimental product would delineate an environmental area where fishermen would have a higher probability of catching an incidental take than normal. A similar attempt at combining satellite data with existing bycatch information was conducted in 2006- 2007 in the Hawaii-based pelagic longline industry to prevent the bycatch of loggerhead sea turtles. Nick-named “TurtleWatch”; and distributed by NOAA Fisheries to captains, the product proved successful at predicting incidental takes.

### Green Sturgeon and California Halibut: Using and Improving Observer Data to Manage Resources (poster)

Andrew Corr, Fisheries Observer, West Coast Groundfish Observer Program, USA  
S. Wang, NOAA/NMFS, USA

The California halibut trawl fishery is a small but important commercial fishery in central and southern California. However, managers currently lack sufficient data needed to make decisions regarding management of the fishery and of bycatch. One bycatch species of particular concern is green sturgeon (*Acipenser medirostris*). The southern distinct population segment (DPS) of green sturgeon was recently listed as threatened under the Endangered Species Act. We

## Observer Presentations (con't)

discuss how the observer program provides a unique, cost-effective opportunity to gather needed data to inform effective management decisions in this fishery. The green sturgeon is a slow growing, late-maturing, long lived species with a complex life history that we don't fully understand. They spawn in large river systems, rearing in the rivers and estuaries for 1-4 years before heading out into marine waters, where their movements vary greatly. Green sturgeon are known to range from California to Alaska, using coastal estuaries from northern California to Washington, and returning to freshwater to spawn every 2-5 years after reaching maturity. They are regularly caught as bycatch in the California halibut fishery, especially near the mouth of the San Francisco Bay, which is the entry and exit point of the southern DPS's only spawning grounds in the Sacramento River. Observers make a significant contribution by providing one of the only sources of information on green sturgeon bycatch. Since 2007, observers have collected significant data on this species. These data are being used to assess the magnitude and significance of this bycatch to the Southern DPS and, over time, can be used to develop management measures. Future expansion of sampling studies can also be made to take advantage of observer interactions with this resource. For example, plans are in development to explore tagging by observers, as a useful way to learn about fish movement, mortality rates and even population estimates. The observers also provide valuable, consistent data to inform management of the California halibut fishery to protect and sustain the fishery. California halibut are a valuable resource with a complex life history which takes them in and out of open ocean and estuaries and bays, and their spawning grounds have not been completely identified. Through monitoring and data collection, observers once again have the ability to increase and improve the information available to managers to make informed decisions. Over time, these data will allow identification of temporal



Photo: <http://www.dfg.ca.gov/fish/Resources/Sturgeon/>

trends in the population's abundance and distribution. The interaction of observers with the resource can also be maximized with the addition of tagging studies and additional data collections. In summary, observers have a rare opportunity to provide valuable information to inform effective management of the California halibut fishery and address bycatch of green sturgeon. This is a rare opportunity where, without incurring considerable additional costs, the management of several resources could be greatly improved by skilled observers performing their duties.

### How can Fishery Monitoring Programs Support an Ecosystem Based Approach to Fisheries Management (poster)

Jody Van Niekerk, Fisheries Observer  
Southwest, USA

#### Introduction

The fishery National Observer Program (NOP) has been crucial in accumulating data for monitoring Ecosystems, especially in the Pelagic Regions of the Northern Pacific Ocean. Since its implementation in 1972 by NOAA, the program has been a witness to roughly 47 different fisheries monitored by Observer programs logging an estimated 77 000 observer days at sea. The Pacific Ocean in general is a difficult region to conduct studies in as the conditions at open sea can be extremely unforgiving. It is almost impossible to mimic the comfortable working conditions of a laboratory environment. Observers are expected to have a certain level of tolerance to bad weather conditions and an understanding of the open sea. This kind of dedication has led to vitally important data capturing by some of the most extraordinary men and woman in what many would perceive as impossible working conditions.

The objective/s of observers is to collect data that can be used to determine the effect of Conservation Laws governing, but not limited to, the commercial fishing industry. Data collection involves the acquisition of whole specimens (to identify natural history patterns), organs of specimens (e.g. crucial in testing for certain biochemical molecules which are used to identify prey items (amino acids), sexual maturity (gonads) and growth rates. The data is also used to find alternative or improved ways of fishing in order to prevent the capture of, and protect non-targeted species such as mammals, birds and turtles.

## Observer Presentations (con't)



Otoliths used to identify teleost prey species found in the stomachs of shortfin mako sharks, blue sharks, common thresher sharks, swordfish and the 2 species of common dolphins sampled by observers off the California coastline. Photo: Jody Van Niekerk

A key preventative measure was the utilization of pingers which deter mammals from swimming into drift gill nets by emitting sound frequencies which is unique to various marine mammal species. A prime example where the data is used in species research is to determine Highly Migratory Species (HMS) diets which have been recorded for almost 20 years, highlighting a clear pattern in pelagic species positions in the food web. By focusing on core representatives from various animal taxa a much broader view of predator-prey species interactions have been attained. There are 3 specific species worth mentioning, namely Pacific swordfish (*Xiphias gladius*), common thresher sharks (*Alopias vulpinus*) and shortfin mako sharks (*Isurus oxyrinchus*). They are important commercial species and make up the majority of pelagic fishing, together with tuna's, by vessels off the Californian coast.

Pacific swordfish are preyed upon by shortfin mako sharks which constitutes a relatively big portion of the latter's diet. Swordfish, on the other hand, are known to prey heavily upon Pacific hake (*Merluccius productus*) and market squid (*Loligo opalescens*), equally economical important species.

The interactions between these various species are all affected by man. By studying the predator-prey interactions we could establish ways of

managing our fish stocks more successfully, thus ensuring productive fish stocks for future generations and limit competition between man, non-targeted and protected species which share common resources. It is important to promote the observer program on an international scale and build close ties with the world's major fishing communities. Results obtained will ensure the survival of fish stocks at a level sufficient to sustain the global community and at the same time help preserve our precious marine ecosystems, albeit near shore or offshore.

### Discussion

The Marine Mammal Protection Act, Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act have their field aspects implemented by the Fisheries Observer Branch of the National Marine Fisheries Services, Southwest Region. The Marine Mammal Protection Act was established in response to public concern of small marine mammals such as dolphins and porpoises accidentally taken and killed by tuna fishermen using drift gill nets.

Beginning July 1990 the Fisheries Observer branch began placing observers on the California set gillnet fishery and Pacific drift gillnet fishery. The set gillnet fishery these days mostly target white sea bass (*Atractoscion nobilis*) and California halibut (*Paralichthys californicus*). The Pacific drift gillnet fisheries target swordfish, common thresher shark and shortfin mako shark but are not limited to these species as bluefin tuna (*Thunnus orientalis*), albacore tuna (*T. alalunga*), opah (*Lampris guttatus*), blue sharks (*Prionace glauca*) and common mola (*Mola mola*) are also taken on a regular basis.

Most of the above mentioned species are commercially significant except for blue sharks (inferior meat quality) and common molas, as they are of no use to fishermen. Common molas seem to have an overall high survival rate (studies are underway to confirm this), even after enduring long periods of time in drift gillnets, whereas blue sharks have a much lower

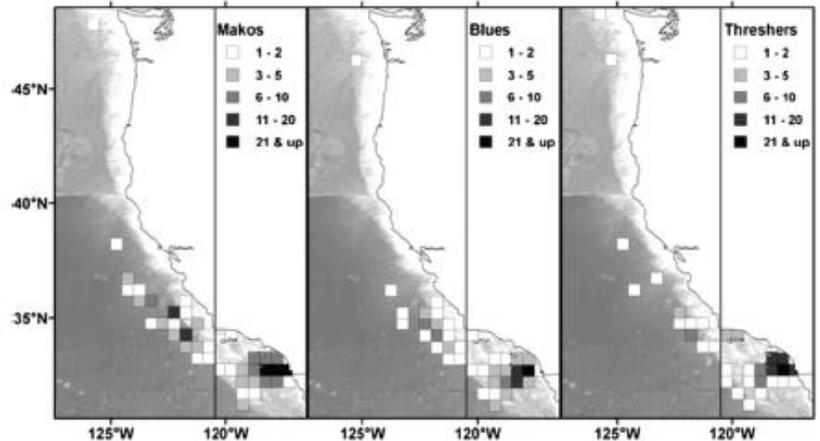
## Observer Presentations (con't)

survival rate. Studies are currently underway to determine the exact survival rate of blue sharks showing certain levels of activity, when released from the net. From the Magnuson-Stevens Conservation and Management Act point of view this study is extremely important to ascertain the number of blue shark individuals negatively affected by the Drift Gillnet Fishery (DGF), and the overall impact this mortality has/may have on the overall Pacific population. Declining numbers of the shortfin mako shark and the currently three recognized species of thresher sharks are also reason for concern. It has been found that after years of commercially fishing for these shark species a steady decline has been observed. Needless to say common thresher and shortfin mako sharks are also targeted by sport fisherman, however, it's the drift gillnet fishery that has the greatest negative effects on their populations.

In the Set Gillnet Fishery (SGF) various species of by-catch accompany the targeted species and in most instances more non-targeted species are caught than targeted ones. Marine mammals have also been the subject of debate as various species have succumbed to set and drift gillnets. In set gillnets, California sea lions arguably have the highest mortality rates of marine mammals as these nets are set close to shore. Fish trapped in the nets draw the sea lions and as they pick off the easy prey they themselves become trapped. Common dolphins such as *Delphinus delphis* and *D. capensis* have been some of the more common marine mammals that have succumbed in drift gillnets. Even large marine mammal species such as sperm, humpback, pilot and minke whales have drowned in drift gillnets.

As a matter of fact it is estimated that a total of about 138 marine mammals a year becomes trapped in drift gillnets and when released are either severely injured or dead. In Hawaii, the Hawaii longline Observer Program was established in February 1994 to monitor the incidental sea turtle and seabird (focusing on Black footed, Short tailed and Laysan Albatross) take for vessels targeting billfish and tunas. So, of course, the question is how the observer presence on these fishing vessels utilizing different fishing techniques contribute to the Ecosystem Based Approach to Fisheries Management?

Not only have observers documented data concerning species

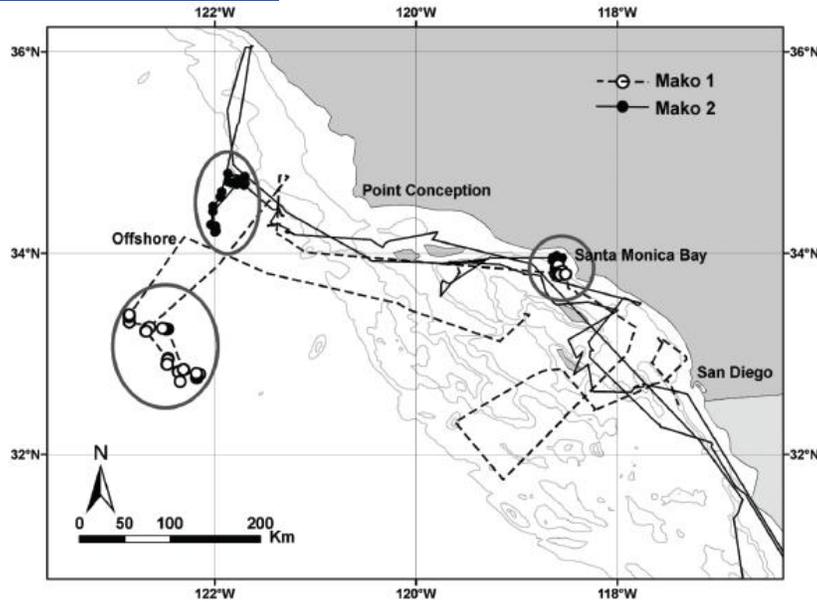


Maps showing collection areas of all Mako, Blue and Thresher shark samples from 2002 to 2008 used for diet analysis. (Maps courtesy of Southwest Fisheries Science Centre in La Jolla, San Diego, California)

catch numbers and type (targeted and non-targeted) but they have also collected various other data. Whole specimens of marine mammals have been secured by observers, especially of species which are seldom seen and deemed highly or critically endangered e.g. various species of beaked whales. As it is almost impossible to do research on a daily basis to try and secure specimens to conduct studies on due to costs involved, having observers on commercial fishing vessels is an economical viable way of attaining such specimens. Sampling of stomachs, DNA and gonads support studies on age, growth, reproduction and diet. Sampling is not only limited to marine mammals but are also targeted toward shark species, whether of commercial importance or not, tunas and billfishes. Scientists have realized that an overall holistic approach is needed in understanding the complexity of the very closely interlinked Highly Migratory Species. After all, the various species mentioned have an effect on one another, directly or indirectly. A study conducted on the comparative feeding ecology of shortfin mako, blue and thresher sharks have shed new light on the ecological importance of these species. It was found that these sharks feed on various types of prey and their feeding behavior can be related to the age and size of each species for example (Klimley 1985; Ebert 2002; Bethea et al 2004). Other factors which affects feeding behavior also include the proximity to shore, ocean current upwelling's (supplying nutrient rich waters from ocean depths to prey species) and weather pattern changes e.g. El Niño.

All three species co-occur in the California Current Large Marine Ecosystem (CCLME) and are commonly taken by the U.S. and Mexican fisheries throughout the CCLME. The man-

## Observer Presentations (con't)



The following map shows the horizontal movements of two Shortfin Mako sharks in the Southern California Bight (SCB). Focal foraging areas where vertical behavior was examined include Santa Monica Bay and two areas offshore. Isobaths are 500, 1000 and 2000 m. (Map courtesy of Southwest Fisheries Science Centre in La Jolla, San Diego, California).

ner in which scientists at the Southwest Fisheries Science Center (SWFSC) in La Jolla, California, conducted studies on feeding habits for example was by obtaining stomachs collected by observers placed on drift gillnet fishing vessels. Stomachs are dissected and carefully examined for otoliths (used in identifying various species of fish as they are unique in shape and size to specific fish species) and squid beaks (like otoliths the shape and size of the beaks are unique to each squid species).

Thresher sharks was found to be the most specialized, feeding predominantly on northern anchovy, pacific sardine and market squid. (Mearns et al. 1981; Preti et al 2001; Preti et al. 2004). They do share similarities in life history characteristics, spatial and temporal overlap in habitat with blue and shortfin mako sharks, but their diet is distinct from the other two species of sharks. Juvenile shortfin mako sharks it was established feed predominantly on Pacific sardine (*Sardinops sagax*), jack mackerel (*Trachurus symmetricus*), Pacific hake (*Merluccius productus*) and northern anchovy (*Engraulis mordax*) (Stillwell and Kohler 1982).

As shortfin mako's increase in size they hunt much larger prey such as swordfish, jumbo squid (*Dosidicus gigas*) and even other sharks (PFMC 2003). Blue sharks tend to feed predominantly on smaller teleost's such as those mentioned for juvenile shortfin mako sharks as well as market squid. However, a significant increase of jumbo squid has been observed in the diet of blue and shortfin mako sharks. It is important to mention that the occurrence of jumbo squid in the diet of blue sharks was rare in previous studies of blue shark diets in the California Current waters (Tricas 1979; Harvey 1989; Markaida and Sosa-Nishizaki 2010). The same goes for shortfin mako sharks. This shows that there is an increase in jumbo squid presence in the CCLME (Field et al. 2007). The problem is that the growing population of jumbo squid can cause a significant change in local food webs as the squid compete with other large pelagic species for resources.

It was found that jumbo squid are capable of living in more oxygen deficient waters than shortfin mako or blue sharks, hence they move to greater depths and so are able to evade mako and blue sharks for short periods of time (Vetter et al. 2008). Jumbo squid do have to ascend to oxygen rich surface waters in order to hunt, hence then falling prey to blue and mako sharks. This gives insight on the top-down and bottom-up effects on food webs. The study of Swordfish stomachs are shedding new light on their hunting techniques, and although studies are still currently underway we know they are able to follow jumbo squid down to greater depths as they are physiologically capable of hunting deeper than most other vertebrates (Fritsches, K.A., Brill, R.W., and Warrant, E.J. 2005). It is well known amongst fisherman that large shortfin mako sharks prey extensively on swordfish. However, it is rarely recorded in the laboratory as mako sharks tend to hunt from below, severing the tail of the swordfish and then feeding on the flesh of the body, seldom if ever ingesting the head, leaving no traces of otoliths to confirm the feeding of mako sharks on swordfish. Therefore the identification of certain fatty acids in the

## Observer Presentations (con't)

tissues of swordfish can shed new light on this subject, hence the collection of swordfish tissue samples by observers. Note that the hunting technique utilized by shortfin mako sharks to prey upon swordfish is not confirmed and is based solely on fisherman observations.

Mako shark stomachs which were collected during the months of October and November contained gravid striped mullet which had an 85% occurrence during this time. This is due to striped mullet undertaking fall spawning migrations, leaving coastal and estuarine habitats for open water (Eschmeyer et al. 1983). This is a good example of how the study of a predator's diet can give new insight to the natural history of another species.

### Conclusion

What does all this information mean? As we begin to understand the food web and predator-prey interactions more comprehensively, it will allow Fisheries Agencies such as the National Marine Fisheries Services (NMFS) to make important and informative decisions to govern one of our most crucial natural resources. We begin to fully comprehend the effect the removal of an apex predator such as sharks have on the overall ecosystem and overfishing of some of our most valuable food fishes e.g. Pacific sardine have on various other marine life. With regard to the removal of blue and mako sharks for instance, species such as jumbo squid could escalate in numbers possibly having cascading effects on many commercially important teleost's (Ferretti et al. 2010). We essentially are able to identify different habitats found at open sea and ultimately what the impacts of climate change have on populations as it could bring change in the CCLME.

The aim is to manage our marine resources in such a way as to try and eliminate as much by-catch as possible and at the same time ensure the survival of commercially important fishes for sustainable fisheries. When it was found that an already decreasing number of Pacific Leatherback turtles are succumbing to drift gillnets, time and area closures were implemented for the California Drift Gillnet Fisheries (CDGNF) with the intension to minimize and even prevent the further accidental take of this species. Increased fishing restrictions are believed to have contributed to the overall recuperation of various fish stocks. The major problem still, is that longline, set gillnet and drift gillnet fisheries are completely unselective in their catch. Restrictions such as hook shapes and size limits applied to long line fisheries still does not significantly reduce

by-catch. Many non-targeted species still succumb to the long line fishery. Set gillnet, drift gillnet and longline fishing boats is still responsible for the death of many non-commercial species caught as by-catch, which can have catastrophic effects on the marine ecosystem.

The drift gillnet had a severe negative effect on marine mammals, but, as mentioned before, after mandatory strategic placement of pingers (devices that emit sound at low frequencies easily detected by dolphins, whales and porpoises) the marine mammal take has been dramatically reduced. The problem still is that many other pelagic species are killed or mortally wounded and methods have yet to be found to prevent this. Observers are the first to witness the unnecessary killing of non-commercial species. It is because of data collected by the observer that solutions to these challenges that face us are being discovered. A holistic approach is of utmost importance to ecosystem-based management. As the majority of commercially important fish species, e.g. Pacific sardine, northern anchovy, bluefin tuna, yellowfin tuna, bigeye tuna and albacore are highly migratory it is important that the International community work hand in hand to govern this important natural commodity. It is imperative to extend the Observer program on a Global scale as the men and woman involved will be more able to supply their fellow biologists with invaluable data which can be used to not only protect our precious seas but also guarantee sustainable fish stocks for generations to come. The ultimate goal would be to reduce the by-catch numbers of marine turtles, marine mammals and seabirds to an absolute zero.

## Session 11: New and emerging observer programs

### Possible Improvements to Standardize Observer Safety Training with an Emphasis on Recertification (poster)

Patrick Carroll, Fisheries Observer

Southeast Shrimp and Reef Fisheries Observer Program, USA

The standardized observer safety training has many merits in preparing the new observers for emergency situations that may be encountered at sea. It introduces them to gear, techniques, and procedures which are vital to their and the vessels safety in these situations. The fixed pedagogy of the safety training is a great tool for new observers, but becomes redun-

## Observer Presentations (con't)

dant over a number of recertifications for experienced observers, as well as their instructors. It is possible to expand and improve the safety knowledge and skills of experienced observers with instruction in wider array of topics which would facilitate a safer workplace, and perhaps be a relief to certain safety instructors. There are many topics which would provide a broader safety knowledge base for observers. The first would be expanded first aid training, with an emphasis on venomous sea creatures and the proper techniques to alleviate their affects, as well as proper techniques for cleaning wounds, punctures and infections. Currently Red Cross first aid training is required by many programs, but it is inadequate for observers and the situations they may encounter.

A second topic that might be taught would be basic sea craft. Many new observers have never been on a vessel, and many experience observers have no real idea of why things are done the way they are on vessels. A basic course that addresses anchoring, stability, knots, rules of the road, meteorology, and other topics might give observers a safety advantage in being able to recognize and react to potential hazards before they become emergencies. A third topic that might be of use to observers would be a brief discussion on current topics and issues in fisheries biology, as well as a general briefing on fisheries biology itself. This might give observers knowledge that would let them prioritize tasks for greater efficiency in their work with a dividend of increased safety practices. A final suggestion would be the increased use of role playing in training which could be devised to model the many hazardous situations encountered by observers at sea. This technique is used in lessons on safety gear and drills, but could be expanded to include interpersonal and problem solving techniques. This type of training reinforces

knowledge and skills, and can be used to recreate past situations.

### **Investigating Post-Release Survival of Istiophorid Billfish in the Hawaii-based Longline Fleet: Example of Cooperation among Fisheries Observers, Industry, Government Agencies and Academia** (poster)

Chris Stoehr & F. O'Neill, Oceanic Environmental Consulting, Honolulu, HI, USA  
Ch. Moyes, K. Bremer & J. Kelly

Estimating post-release mortality of large pelagic bycatch species is critical to managing fisheries from an ecosystem-based approach. For catch-and-release to be a viable management strategy, there must be a high likelihood of post-release survival. As discards represent a significant proportion of the spawning biomass, determining their mortality is a management priority as established by the Magnuson-Stevens Fisheries Conservation and Management Act. Designing appropriate methods and tools to estimate survival is essential for establishing appropriate conservation techniques. Accurate estimations of mortality are challenging to derive because of logistics, cost, experimental design, and obtaining sufficient samples. Although they are the right tool to indicate post-release mortality, the cost of pop-up satellite archival tags (PSATs) precludes their widespread application. Moyes and colleagues introduced a cost effective biochemical approach that reduces experimental bias, increases sample size and would therefore optimize experimental design. We report the results of a survival study of striped (Kajikia audax) and Pacific blue marlin (Makaira nigricans) involving the cooperation of industry, federal fisheries agencies, university scientists and fisheries observers using minimally invasive state-of-the-art biochemical methods and PSATs.

To circumvent the problems of collecting sufficient sample sizes, cooperative efforts between crews of fishing vessels, government agencies, fisheries observers, contractors, and academia is

Photo:  
[www.oceanicllc.com](http://www.oceanicllc.com)



## Observer Presentations (con't)

not only vital but it represents an effective means of reducing costs. Since September 2010, the Pacific Islands Regional Observer (PIRO) program has been gathering biochemical samples and deploying PSAT tags as part of a post-release survival study on marlin involving scientists from the University of Hawaii, NOAA Fisheries and Queen's University. Though the techniques and sampling protocols are minimally invasive, one requirement of our sampling methods is that the observer must be well trained to process and store multiple biochemical samples in a timely and fastidious fashion; sometimes during adverse sea conditions. In addition, fisheries observers have provided critical input by further designing sampling strategies and gear that can be used onboard a wide range of fishing vessels with minimal impact to fishing operations.

While previous post-release mortality estimates for Pacific blue marlin have been reported on sport fishing vessels in the Hawaiian Islands, these estimates do not necessarily translate to the commercial longline fishery due to many factors associated with longlining (e.g. hook type, time spent hooked on the line, leader material, fish size, and handling and discard practices). Although chartering commercial vessels would be the most efficient approach for sampling, it is also cost-prohibitive. Using the fisheries observer program for the majority of field work has provided high quality data at an affordable cost. By providing seasoned observers, PIRO and the contractor for the observer program (Saltwater Inc.) have presented observers with a unique opportunity to engage in meaningful, cutting-edge science that is critical for management while also providing valuable outreach to vessel owners and captains. Furthermore, having a direct link between observers and researchers has proven to be crucial in the success of this project.

### Workshop: Data Quality Workshop (DQW)

#### Knowledge's, Skills and Abilities of Scientific Observers to Collect Quality Data – Challenging and Multifaceted Job

M. Ulloa, G. Bendel, S. Delgado, C. Villouta, & N. Luna, Instituto de Fomento Pesquero (IFOP), Base de Talcahuano

FAO (2010) states: "The fisheries are a socio-ecological system involving fishing operations and other policy areas, comprising the links established between people and the environment."



Observers recording data from shellfish. Photo: G.Bendel, IFOP

Scientific Fisheries Observers (FO), as part of a fishery system are involved in a turbulent interactions network within a much broader and complex socio-ecological system, where not only people are involved, but also technological, legal, economic, political, territorial, local culture, organizations, social, family, institutional, environmental ethnicity, etc.

The experience gained by FO in the Chilean fishing system will be shown as study case case in which we will explain: 1) the different fisheries and work environments in which they work, 2) the different tasks performed in each case and the difficulties faced and 3) the knowledge, competencies and skills they must have to collect quality data on the fishery system. All this in the context of the new Chilean Fisheries Law, which expands the scope and diversity of work to be performed by a FO.

Since "Scientific Fisheries Observers are the first essential link in fisheries research for sustainable management of resources" it is necessary to give the FO role the status of key person, to achieve that it is required the political will to take decisions to legally empower the FOs, so they are treated and accepted with due respect by the fisheries users, with whom they will interact to capture the knowledge they implicitly have, and register it as explicit scientific knowledge, giving context and meaning according to the requirements and standards set by the scientists.



## Observer Presentations (con't)



Observer Professionalism panelists (left to right): Keith Davis, Aubrey Barto, Elizabeth Mitchell, Joseph Fader, Douglas Brander, Kim Dietrich and Caleb McMahan. Photo: C. Roma

### Workshop: Observer Professionalism & Rights

Observers provide the front line of fisheries management. The integrity of an observer program is a function of the conduct, morale, and performance of observers. This workshop consisted of two Panel Sessions:

- Observer Professionalism
- International Observer Bill of Rights (IOBR)

Observer programmes provide the best source of independent data in support of sustainable fisheries management and observers have an important role to maintain as professional data collectors. All involved stakeholders in fisheries governance have stake and responsibility in acknowledging, protecting, and supporting observer professionalism and observer rights.

1st IFOMC—Vicki Cornish (below) and Mike Tork & Dennis Hansford (right).

Photo: T. Turk



### Panel I: Observer Professionalism

#### IFOMC Historical Overview: Observer Professionalism in the Context of the International Observer and Monitoring Conference Series

Luis Cocas, SUBPESCA, Valparaiso, Chile  
Keith G. Davis, Observer, Observer Professionalism Working Group (OPWG) Chair, USA

#### Introduction

Management regimes worldwide utilize 'observers' for the independent collection of living marine resource information in completing their management and conservation objectives, and observers are usually the only independent data collection source for some types of at-sea or dockside information. The integrity of an observer program is a function of the conduct, morale, and performance of its employees.

In the 15 years since the beginning of the IFOMC Conference series, while observer and monitoring programmes have grown, financial difficulties have lead management towards alternatives to observer programmes. Securing observer professionalism has become more and more important globally! Throughout IFOM Conference series history, various driving themes and extended discussions have centered about observer professionalism topics.

## Observer Presentations (con't)

### Methods

#### 1st Conference; Seattle, USA; 1998

At the first Conference in Seattle, many observer professionalism and rights issues were raised and the idea for developing an Observer Bill of Rights was first presented by Dr. William Karp in response to topics raised by Teresa Turk, then of the Association for Professional Observers (APO).

#### 2nd Conference; St. John's, Canada; 2000

St. John's, Newfoundland & Labrador, Canada, was a fun conference led by Victoria Cornish. 30+ plus observers were in attendance and maybe 15-20 fishers (great attendance for these stakeholder groups).

During the first full day of the 2nd Conference, held in St. John's Newfoundland, Canada in '2000, the Observer Bill of Rights (OBR) document was formulated from discussions held at a substantial break-out session. The next day, the outlined initiatives in the OBR were presented to the main conference delegation by four observers (three of which are moderators and participants of this workshop; Kimberly Dietrich, Reuben Beazley, and Keith Davis). A lengthy question and answer session followed the original OBR panel discussing some of the presented items while outlining possible provisions that may help observer programs accommodate these 'rights'.

The OBR, 2000 was presented as a list of suggestions, by observers and observer advocates, of some basic principles that may foster the professional development of observers. The International Observer Bill of Rights (IOBR) project (during the 2nd part of this workshop) is following the tradition of the 2nd Conference, with breakout meetings in the Observer Room, and with involving active observers in presenting IOBR Articles.

#### 3rd Conference; New Orleans, USA; 2002

Placed right in the French quarter, the 3rd Conference was full of the 'Mardi Gras' spirit...

This conference largely increased international representation, especially from Australia and New Zealand. The conference series starts to be called "International Fisheries Observer Conference" (IFOC)... There were many observer presenters - many of whom were members of the Association for Professional Observers (APO) - presenting

topics surrounding: Observer training standards, observer support, and observer safety risk acknowledgment and protocols for minimizing health and safety risks.

There was even one observer there, who had just survived a horrible fire on the F/V Galaxy in Alaska; she had jumped into the water without a survival suit (because there were none available), as her sneakers were melting to the deck. She was one of the very last people to abandon ship. Luckily, a crew member gave her a life ring to hold her afloat. She was in the frigid Alaskan water for nearly two hours before being rescued; and, told her incredible story to tearful delegates who may not be aware of the dangers that observers do face only one month after the incident occurred.

#### 4th Conference; Sydney, Australia; 2004

There were approximately 30 nations represented at the 4th Conference, in beautiful Manley Beach, Sydney.

Andrew Rosenberg, keynote speaker of this conference said: "Observer programs will continue to be called upon to fill the gaps and "prove" the need for management actions... [And] "...The challenge for observer programmes is to make the data as comprehensive as possible and ensure that the data that are collected can be applied to broad scale situations.... [And] "... In summary, fisheries, fisheries science and fisheries management are changing very rapidly and observer programmes are a critical tool for their success and should be used to help lead the change rather than adapting to it." This



Observers at the 4th IFOMC. Photo: T. Turk

## Observer Presentations (con't)

conference also had the workshop on the “Best Practices for the Collection of Longline Data” that produced the same named document.

During the Closing Session of the 4th Conference, a general consensus arose in regards to taking action to change a portion of the structure of future Conferences to accommodate working groups that could dig deeper among some of the issues that we all deal with and produce “more firm outputs.”

programs to begin to identify “core” and “enhanced” training programme elements; the Safety group’s objectives were to network and build avenues for sharing information; for identifying common safety problems and provide suggestions for improvement.

The name of the IFOMC series changed to include “and Monitoring” as part of its title during the organizational stages of this conference.

### 6th Conference; Portland, USA; 2009

The Observer Professionalism Working Group (OPWG) initiated the Observer Professionalism Focused Interviews Project (OPFIP) to dig deeper into focused areas highlighted by the 5th Conference survey. The OPFI Project Workshop and resulting report, built upon the foundation laid out by the 2000 ‘Observer Bill of Rights’ workshop and document and the 2007/2008 OPWG Survey (5th Conference), was the result of the efforts of nearly 100 people (mostly active observers, though with help from many stakeholder) from many observer programmes around the world.

The pre-conference safety trainings and safety room were again a hit, and the tools of the trade room held some interesting and innovative observer tools.

#### *Discussion*

Bringing the IFOMC series to Chile has offered a fabulous opportunity to connect North America to South America and from around the world with regards to professionalism issues. This conference has exhibited great support for observer professionalism and rights projects being presented. This panel session will first present Observer Professionalism Themes, leading delegates to the perspectives shared in interviews from the Observer Professionalism Working Group’s 6th IFOMC work. Then, presentations will be given about various observer professionalism topics – addressing some serious issues that put observer professionalism in jeopardy, and some



6th IFOMC banquet.

Photo: K. Davis

### 5th Conference; Victoria, B.C. Canada; 2007

The 5th Conference, placed in the historical area of Victoria had several outside observer gatherings. Legend has it that one party had over 80 delegates pass through the doors of the APO apartment in one night. Victoria was comparable in international representation as the 4th Conference.

Three working groups were established in May 2006 between the 4th and 5th conference, on: “Observer Safety”, “Observer Training”, and “Observer Professionalism”. Working groups conducted investigations and surveys to gather further information into these topical areas. The training group sent out questionnaires among

## Observer Presentations (con't)

innovative and proactive approaches towards building stronger and retained professionalism.

The second half of the workshop will present the International Observer Bill of Rights (IOBR) project.

McElderry, H., Karp, W.A., Twomey, J., Merklin, M., Cornish, V., & Saunders, M. 1999. Proceedings of the First Biennial Canada/U.S. Observer Program Workshop. U.S. Dep. Commer., NOAA Tech. Memo. [NFS-AFSC-101](#), 113 pp.

Anon. 2000. [Canada - U.S. Fisheries Observer Program Workshop](#) - Proceedings. NMFS and DFO, St. John's, Newfoundland, Canada. 52p.

NMFS. 2004. Proceedings of the Third International Fisheries Observer Conference. U.S. Dep. Commerce, NOAA Tech. Memo. [NMFS-F/SPO-64](#), 192 p.

Mcvea, T.A., Kennelly, S.J. 2005. Proceedings of the 4th International Fisheries Observer Conference. NSW Department of Primary Industries, Cronulla Fisheries Research Center of Excellence, Cronulla, Australia. ISBN 1 9209 12 20 2. 230pp.

Dietrich, K., V.R. Cornish, K.S. Rivera, T.A. Conant. 2007. Best Practices for the Collection of Longline Data to Facilitate Research and Analysis to Reduce Bycatch of Protected Species: Report of a workshop held at the International Fisheries Observer Conference, Sydney, Australia, Nov. 8, 2004. U.S. Dep. Comm., NOAA Technical Memorandum [NMFS-OPR-35](#); 88 p.

McVea, T.A. and Kennelly, S.J. (ed.). 2007. [Proceedings of the 5th International Fisheries Observer Conference](#) –15 – 18 May 2007, Victoria, British Columbia, Canada. NSW Department of Primary Industries, Cronulla. Fisheries Research Centre of Excellence, Cronulla, Australia, 412 pp. ISBN 978 0 7347 1861 7.

NMFS. 2010. [Proceedings of the 6th International Fisheries Observer and Monitoring Conference](#). U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-107, 367 p.

### Observer Professionalism Themes

Keith G Davis, Observer, Observer Professionalism Working Group (OPWG) Chair, USA

#### Introduction

The collection of high quality information is essential to the sustainable management of aquatic living resources; and, human observers are the most reliable and the only independent and scientifically-viable data collection source for many types of at-sea and dockside information. Consequently, the integrity of many data products from an observer programme is greatly dependent on the conduct, performance accountability, quality experience retention, support and morale of that program's observers[1].

“An ‘observer’ is a person who is authorized by a regulatory

authority to independently collect aquatic resource information in the field (either at sea or on shore) outside the authority of the monitored entity.”[2] According to this workshop, the Observer Professionalism Working Group (OPWG), the Association for Professional Observers (APO) and the International Observer Bill of Rights (IOBR) project, the term ‘observer’ includes all professions that fit into this definition; including (but not limited to) titles such as ‘Fisheries Observer,’ ‘Scientific Fisheries Observer,’ ‘Dockside Monitor,’ ‘Protected Species Observer,’ ‘Marine Mammal Observer,’ ‘MCS Observer,’ ‘At-Sea Monitor (ASM),’ ‘Sea-sampler,’ ‘Dockside Sampler,’ and ‘Fisheries Inspector.’ Ob-

server should have financial interests independent from the interests of fishing industries; and, publications and monitoring programmes globally should guard from ever using the term ‘observer’ to describe “Industry Self-Monitors,” who do have financial dependency on industry. In order to do their jobs professionally, observers need (not an exhaustive list): clear and prioritized employment terms and rights (in written contract); evident responsibility expectations (codes of conduct) for all stakeholder entities involved in the fair, safe and healthy employment/deployment of observers; and, clear inter-stakeholder lines of communications (including grievance procedures), from employment start to observer data end-use.

**“An ‘observer’ is a person who is authorized by a regulatory authority to independently collect aquatic resource information in the field (either at sea or on shore) outside the authority of the monitored entity.”**

Observer Professionalism Themes is a collection of resources that represents the OPWG work up to finalizing its Observer Professionalism Focused Interviews Project (OPFIP) in the context of the 6th IFOMC (2009)[3].

#### Methods

The OPWG was founded in 2006, in the context of the IFOMC series, with the purpose of: investigating, categorizing, and prioritizing the international working knowledge of observer professionalism terms and observer rights initiatives; and, producing firmer conference outputs regarding this important topical area of worldwide observer and monitoring programmes. The OPWG greatly referenced the 2nd Conference's (St. John's, Newfoundland, 2000) Observer Bill of Rights (OBR) document[4] when shaping its founding goals; referenced this prelude to the 7th IFOMC's International Observer Bill of Rights (IOBR) project throughout all of its 5th

## Observer Presentations (con't)

and 6th Conference activities, and assisted with the drafting and editing of the IOBR and supporting Code of Conduct for Responsible Observer Programs - Observer Health and Safety (ROPHS) and Stakeholder Responsibilities (ROPSR)) documents - in the context of the 7th IFOMC.

For the 2009 OPFIP project, the OPWG (with 20 members) centered about collecting in-depth interviews from the four OPWG topical areas of study: 'Wages and Benefits,' 'Support and Opportunities,' 'Employment Standards,' and 'Social Equity.' The main project purpose was 'Outlining Avenues that Foster the Recruitment and Retention of a Professional, Equitably Employed Workforce of Observers.' To locate interview participants, OPWG members reached out among all of their networks and made announcements in the Spring 2009 Mail Buoy[5] and at the 6th IFOMC. Interviews were conducted by utilizing the following techniques: in person, on-line correspondence, telephone, or post. 74 interviewees (from many global observer programmes) completed 92 interviews, with approximately half of the interviews completed prior to the 6th IFOMC and half completed at or shortly thereafter the conference.

Digital transcripts of all OPFIP interviews were completed in 2011, and there is potential for living Observer Professionalism Themes resources to be extensive. These resources will continue be worked on long after the close of the 7th IFOMC.

- Deployment;
- Post Deployment;
- Employment Retention and Career Support;
- Observer Data End-Use;
- Feedback from Observers; and,
- Program Assessments and Harmonization.

Rather than analyzing what interviewees identified as professionalism issues and solutions, these resources are presented to exhibit the variety of perspectives shared (especially in the context of the OPFIP focused interviews, with other related background references). Stakeholders are encouraged to reference these resources according to their own investigations or interest and draw their own conclusions. These resources are meant to: exhibit a series of topics recognized to be of high importance to observer professionalism among global programmes; identify successful practices among programmes; address practices of concern; identify capacity building options, while addressing the practicality of programmes implementing strategies that could foster successful practices; and, ultimately lead stakeholders to resources and perspectives (interviews) to consider at their own discretion.

Without ever identifying interviewees to a personal level, interview response is defined according to classifications such as: stakeholder perspective, gender, ethnicity, experience, and region/country/programme. Observer professionalism Themes outputs carry no assumptions of the degree of responsibility each stakeholder within an observer programme (e.g. Regulatory Authority, Observer Programme, Observer Employer, Monitored Entity, Observer) would have in ensuring observer professionalism. The OPWG recommends following the Articles and Sections of the International Observer Bill of Rights (IOBR) and supporting ROPHS and ROPSR documents closely in accordance with all Observer Professionalism Themes outputs.

To review all public Observer Professionalism Themes resources (like the Observer Profession Glossary) and other OPWG resources or to

### Results/Discussion

OPFIP identified topics/issues are organized in Observer Professionalism Themes resources according to the progression of observer employment from start to end:

- Employment: Recruitment and Hiring;
- Deployment Preparation;



## Observer Presentations (con't)

provide feedback in regards to the continued work of the OPWG please navigate to OPWG web resources: <http://www.apo-observers.org/opwg>

Contact:: Keith Davis—[Keith.Granger.Davis@gmail.com](mailto:Keith.Granger.Davis@gmail.com)

### Acknowledgments:

We'd like to thank the 7th IFOMC organizers for making the Observer Professionalism and Rights Workshop possible. And, these resources could not have been possible without the help of the 25+ OPWG members (since foundation) and the 100+ observers and Conference delegates who have contributed to this work - Thank you!

- [1] Davies, S. L. and J. E. Reynolds. 2002. Guidelines for developing an at-sea fishery observer programme. FAO *Fish. Tech. Paper No. 414*:116 pp.
- [2] See the International Observer Bill of Rights (IOBR) project—<http://www.apo-observers.org/billofrights>
- [3] NMFS. 2010. Proceedings of the 6th International Fisheries Observer and Monitoring Conference. U.S. Dep. Commer., NOAA Tech. Memo. *NMFS-F/SPO-107*, 367 p. See pages 295-306:
- [4] Anon. 2000. Canada - U.S. Fisheries Observer Program Workshop - Proceedings. NMFS and DFO, St. John's, Newfoundland, Canada. 52p. OBR document, 5th IFOMC proceedings version: [www.apo-observers.org/docs/ObserverBillofRights.pdf](http://www.apo-observers.org/docs/ObserverBillofRights.pdf)
- [5] APO. 2009. Mail Buoy. *Spring 2009*; 12(1). A quarterly newsletter of the Association for Professional Observers (APO).

## Isolating Variables That Contribute To Increased Observer Retention

Aubrey J. Barto, Fisheries Observer  
Northeast Fisheries Observer Program, USA

### Introduction

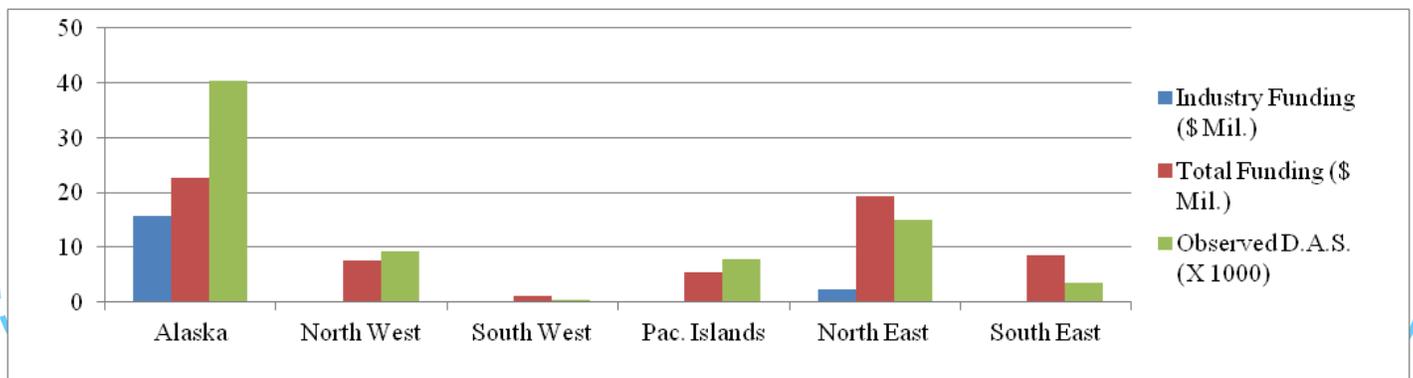
Isolating variables that contribute to increased observer retention has proven a difficult and costly endeavor for many

providers nationally. The high initial investment of training paired with the low statistical value of data produced by probationary monitors signifies a field throughout the employment process in need of reform. This study utilizes a survey comprised of eight questions, circulated through the United States' 11 primary observer providers. The survey used objective, circle-all-that-apply questions intended to illustrate both characteristics of each provider and the variables for observer acquisition and attrition, respectively. Data from the returned inquiries was paired with national coverage information to isolate statistically relevant variables that trend throughout surveyed providers. Due to a limited number of survey responses, the data pool for this study was restricted. This is likely the result of time constraints for provider reaction. Consequently, the available data represents %27 of the United States observer providers with a strong correlation in priority to education, work history, and full-time availability for observer acquisition. Release variables trended on stability, growth potential, and continued education.

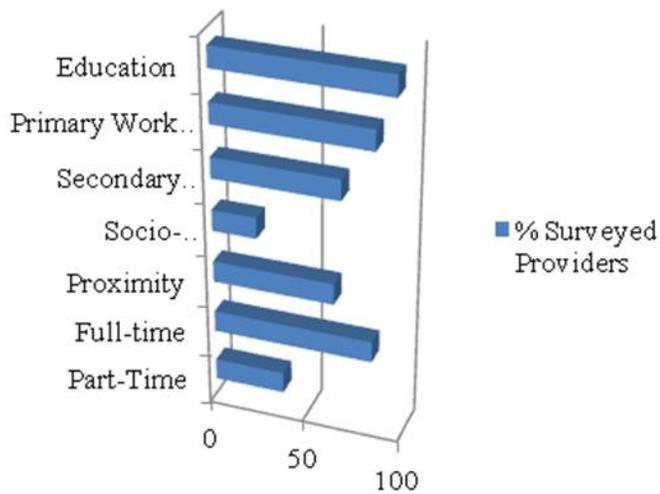
### Methods

To establish variable significance among United States observer providers, regional coverage information was obtained through the National Marine Fisheries Service annual report for F.Y. 2011. This includes data on available funding per region as a function of allocated DAS (Figure 1). This information was then paired with regional contracts held by domestic providers to determine which companies observed more DAS and, consequently rely most heavily on their ability to retain experienced observers. To collect provider-specific data regarding operation details as well as variables for observer acquisition and retention, a survey was constructed and distributed to the 11 primary United States observer providers covering six regions managed domestically. AIS, Alulike, AOI, EWTS, Fathom Research, Frank Orth, IAP, MRAG, NWO, SWI, and TSI were issued an eight question survey on 25 February 2013 via email and conventional mail. As a redundancy

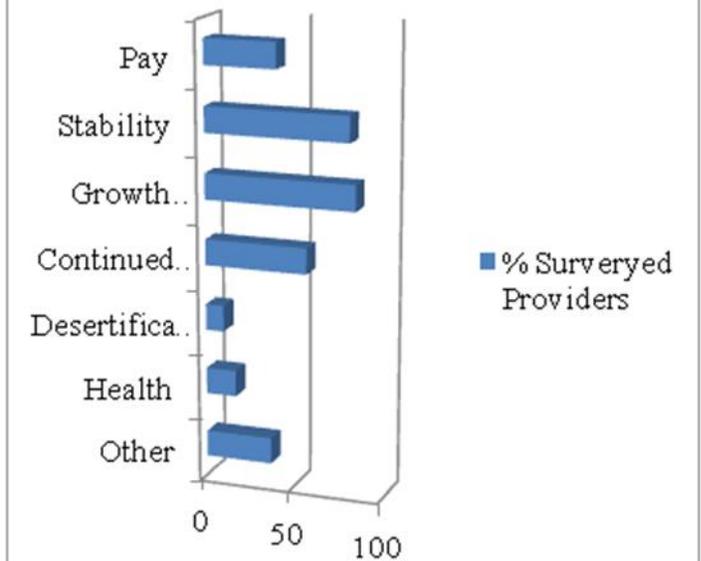
Figure 1. NMFS Coverage Analysis for F.Y. 2011



## Observer Presentations (con't)



**Figure 2.** Scaled Importance of Hiring Variables



**Figure 3.** Scaled Importance of Release Variables

measure, providers were first ask to circle all NMFS managed, domestic regions for which they maintained contracts to provide observers (Alaska, Pac. Islands, Northwest, Southwest, Northeast, Southeast). The following two questions asked the provider to scale the importance of variables that contribute to hiring qualified applicants and the loss of current observers from 1-10. Observer acquisition variables included education, primary and secondary work history, socioeconomic background, proximity, and full & part time preference. Release variables included pay, stability, growth potential, continued education, desertification, and health. Questions 4,5,6, and 7 had the provider isolate a range for variables such as average pay scale (per DAS), median observer age, majority male/ female, and number of years operating as an observer provider. The final question asked the provider to write in the maximum number of employed observers during the FY 2011. Having information from FY 2011 was critical for comparing data from NMFS' most recent annual report. Information from returned surveys was then evaluated and transcribed into relative percentages to illustrate highly versus less desired variables for the aforementioned suite of survey points.

### Results

Three of eleven observer providers responded to and completed the survey comprising %27 of domestic observer providers in the United States. Further, of that %27, all three providers maintain contracts in different regional management areas. Two of the three represented management regions do represent the majority of available funding and observed DAS, nationally. Still, much of the survey information proved statistically irrelevant due overall lack of correlative data. Data regarding observer acquisition and attrition did compare and show positive trends, in spite of the limited data pool.

Observer acquisition data correlated strongly. The mean response among surveyed providers shows that education is the primary influence for hiring qualified applicants with an average score of 9.3/10 (%93). Providers also demonstrated preference to primary work history with full time availability, both averaging 8.3/10 (%83). Secondary work history (%66.7) and proximity to work location (%63.3) illustrate the tertiary preference. Socioeconomic background (%23) and part time preference (%36.7) were not desirable variables when hiring applicants (Figure 2).

## Observer Presentations (con't)

The scaled importance of release variables also compares well, showing positive trends. The mean response among surveyed providers shows that the primary cause for attrition is growth potential, or relative lack thereof, averaging 8.3/10 (% 83). Stability (%80) and continued education (%56.7) were the only other variables that indicated any consideration. Pay (% 40), health (%16.7), and desertification (%10) comprised the lowest statistics for release variables among surveyed providers (Figure 3).

Range in pay (per DAS), median observer age, years in business, and max employed (FY 2011) were not statistically relevant variables worth consideration. Of the three surveyed providers, pay ranges from \$100.00 US to \$400.00 US; median age ranges from 20 years old to 40+; years in business ranges from 5 to over 30; and max employed during the FY 2011 ranges from 8 to 185.

### Discussion

In spite of the relative lack of data, it is interesting that some measured variables associate so well, both for confirming and disconfirming factors as worthy of consideration. This is especially true when considering how vastly different the surveyed providers are from one another. This is evident in the different regions for which they represent as well as the range in provider-specific characteristics such as pay, age, years in business, and number of employees. It is also interesting that the primary release variable is growth potential. This is unfortunate because presumably, these observers are comparatively experienced. This would be a significant loss to all stakeholders (provider, management, fishery, etc.). However the ultimate goal is to obtain and maintain a larger survey sample. Unfortunately, statistically conclusive results cannot be drawn from this study based on lack of data.

### The Vulnerability of Observers Working as “At Will” Contracted Employees

Elizabeth Mitchell, Association for Professional Observers, USA

#### Introduction

Outsourcing of observer employer (sometimes called “observer provider”) services is increasingly becoming the norm in federal fisheries observer programs around the world. Observers find themselves beholden to two bosses. On the one hand the government agency is their boss: the agency mandates observer coverage, dictates the observers'

duties, evaluates the observers' performance and often have hiring and firing standards required of observer employers. Yet, on the other hand, the private company is legally responsible for the observers' welfare and sometimes this can result in observers finding themselves in limbo with no job security and no grievance procedures.

#### Case Study

The case study I am about to present highlights the vulnerability that many observers face under contract employment, and involved mismanagement at multiple levels. The National Marine Fisheries Service (NMFS) Pelagic Observer Program (POP) in the Southeast of the United States fired a highly qualified observer for writing an e-mail to program managers, asking them why the agency wasn't enforcing rules meant to protect observers. The following day he was told by his employer, IAP Worldwide Services, which contracts with NMFS to provide observer services, informed them that he was no

longer to work in that program. Neither NMFS, nor the employer, gave him a reason for this, nor did they have any evidence against him to support their decision. He was simply told by his employer that their client, NMFS, didn't need an excuse, only that they didn't want him back. So, technically, he wasn't fired by NMFS. He wasn't told he did anything wrong. He wasn't fired by his employer. He was simply prevented from working again in that program.

**“The government agency has a moral obligation to support its observers, regardless of who actually pays the observer.”**

He subsequently reported this to the National Observer Program (NOP), which coordinates observer program management nationally, with a statement that included claims of mismanagement by multiple programs in the Southeast region. He reported they were ignoring observer reports of fisheries violations, and telling observers to ignore marine pollution violations. This was corroborated by multiple observers who we subsequently interviewed. After this statement, he was informed by his employers that he was banned from working with the entire region's programs. In spite of his reports of having witnessed several fisheries violations, to this day he has not been interviewed by NMFS enforcement nor told the reasons for the disciplinary actions against him.

Upon interviewing several observers, many were apprehensive about coming forward, saying they were fearful of losing

## Observer Presentations (con't)

their job. Observers in this region were reportedly pressured to accept unsafe vessel assignments during the BP oil spill. One observer reported that because so many of the vessel assignments violate the equal accommodation law, if they refused every vessel that violated this law, they feared they would lose their job. Another observer came forward and said that he spoke for 12 observers who were too scared to come forward and would only come forward with their stories if they could be guaranteed anonymity through a lawyer. In my view this encompasses a hostile work environment. In this situation, nobody was held accountable. Contracted employees in any sector have no whistleblower rights in the United States. Because NMFS was not the employer of the observer, their laws regarding official complaints did not apply to the observer.

### Discussion

The government agency has a moral obligation to support its observers, regardless of who actually pays the observer. Observers form a critical function in the government's ability to objectively manage public fisheries resources. The unbiased data that observers collect allows the government to make scientifically-based objective decisions. Instead of treating observers as their own, the work is often marginalized by all sectors. Instead of guaranteeing their rights and supporting them, there is an expectation that observers will put up

with the harsh treatment.

### Conclusion

Governments have the power to make the observer employer support the observer to do their job with integrity. They must require fair labor standards in the contract between the government and the employer and place conditions based on annual compliance reviews that include reports from observers. Without grievance procedures independent of the agency and the employer, observers are vulnerable to being fired without cause. Without agency support of its observers, regardless of who actually employs them, conflicts of interest, favoritism, discrimination, and collusion with the fishing industry have the potential to influence decision-making of observer placement and treatment.

Observers must have a venue to lodge formal complaints without negative repercussions. Otherwise the power of the program managers and employers remains unchecked. The fallout from this is an erosion of observers' rights, which eventually leads to attrition of qualified observers. This compromises the quality of the data and adds to observer program costs. Those who stay may compromise their own rights to stay in good standing. Observers shouldn't have to make this decision. If there are laws to protect them, the observer should know about them and expect that they will be enforced.

An observer cannot long defend the integrity of a program or maintain the illusion of representing the government, if they are not supported. If there are no protocols that hold everyone accountable for the integrity of observer programs, the quality of the data may be compromised. The observer supports the agency's ability to defend its scientifically-based decisions. They are well aware of the many pressures against this. But in order to do this, there must be mutual support and respect in order to carry out these objectives.

Onboard pelagic longline vessel.

Photo: J. Fader



## Observer Presentations (con't)

### Educating Crew Members:

#### The Observer Role

Joseph Fader, Pacific Islands Regional Observer Program, USA

##### *Introduction*

This presentation considered additional roles that observers could take on pelagic longline vessels covered by the Pacific Islands Regional Observer Program, as well as basic principles for how observers could be used in a more cost-effective and goal-oriented manner in any observer program. While captains of fishing vessels are ultimately responsible for staying up to date on current regulations, documenting catch and by-catch, and the proper handling of protected species interactions, these responsibilities often fall on crewmembers in the Hawaii longline fleet as captains are frequently not present on deck during actual fishing operations. Rarely, however, do the captain and crew speak the same language, and crewmen are commonly misinformed, or not informed at all, about regulations, fish identification, and what to do if a protected or endangered species is hooked or entangled.

These miscommunications are generally mitigated when fisheries observers are present on a vessel. Observers are well trained in safety, species identification, protected species handling, and current laws and can assist captains and crew in complying with these regulations and meeting the goals of the observer program. Unfortunately, many observer programs are not able to cover 100% of registered fishing trips and thus do not have the advantage of observer presence for meeting program goals during all fishing operations. This presentation discussed simple actions that fisheries observers could do during deployment to help advance observer program goals and increase compliance with fishing regulations on later trips when observers may not be present.

##### *Methods*

The pelagic longline observer program in Hawaii was discussed as a model for assisting captain and crew in meeting observer program goals. In this fishery, observers work closely with the crew and can provide hands-on training in species identification, protected species handling, as well as briefings or reviews of safety training. Observers could provide documentation to leave behind after the trip, updates on regulations, species identification guides, etc. This would be especially beneficial on deep-set (Tuna) trips as they currently receive 20% observer coverage.

##### *Conclusions*

Increasing the knowledge base of the crew could be a major step in increasing the effectiveness of observer programs with less than 100 percent coverage. Possible steps that observers could do while deployed on an observed fishing trip were discussed. These steps were specific to the Hawaii longline fleet but general principles were mentioned that are broadly applicable to other observer programs. With the amount of time that observers spend with captain and crew in some fisheries, there is a great opportunity to increase the knowledge and skills that are ultimately required for sustainable and well-regulated fisheries.

There was one comment from the audience emphasizing that observers themselves do not have the authority to independently implement additional policies or training programs. This was not specifically addressed in the presentation; however, the ideas presented here are not intended to be assumed by observers without proper training and full implementation by an observer program. The steps suggested would need to be officially recognized by the observer program and included in training programs.

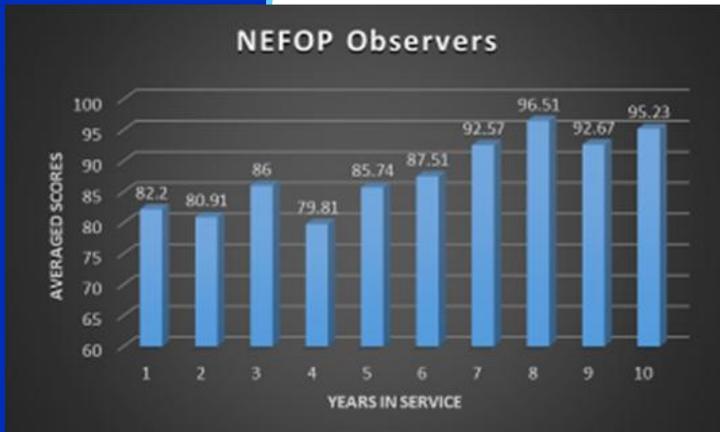
### What is the Relationship between Observer Experience and Data Quality?

Douglas E Brander, Jr. Northeast, USA

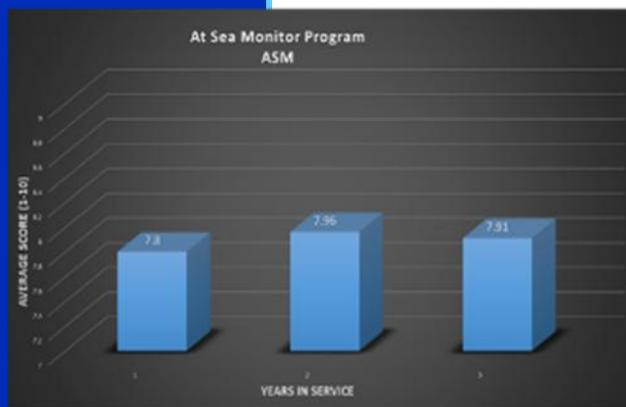
##### *Introduction*

It seems intuitive that the quality of data collected by a fisheries observer would improve as the individual gains experience. However, there are many factors that might affect the performance of an observer. The work environment of a fisheries observer is often ripe with challenges, including seasonal variations in weather, bad weather, unpredictable job security, dangerous work environments, and rigorous data collection protocols. The National Oceanic and Atmospheric Administration (NOAA, USA) administers observer coverage for federal fisheries in the Northeastern United States. There are two programs under consideration that maintain measures to evaluate observer performance and data quality. These programs include NEFOP (Northeast Fisheries Observer Program) and the ASM (At Sea Monitoring) program. The NEFOP program covers a number of the fisheries and gear types in federal waters, within the geographic region, spreading from approximately 34°N to 44°N, and out to the Exclusive Economic Zone boundary. The ASM program was implemented to provide observer coverage to the New England Groundfish Sectors (a newer catch shares program). The geographic

## Observer Presentations (con't)



**Figure 1.** Averaged annual NEFOP observer evaluation scores graphed by successive year of experience. Scale: 1-100. Evaluation data available from 2002 to 2012.



**Figure 2.** Averaged annual ASM observer evaluation scores by successive year of experience. Scale: 1-10. Evaluation data available from 2010 to 2012.

area covered by this program is smaller than NEFOP, including federal waters, stretching from approximately 36°N to 44°N, and out to the Exclusive Economic Zone boundary. The data collection requirements for each program are similar, however NEFOP observers collect more detailed information on gear types and configurations, they may collect tissue samples from selected species, and they may retain incidental takes, either whole or in portions.

### Methods

Observers and monitors in these programs receive periodic performance reviews. These reviews are scored based on scales, 1-100 for NEFOP, 1-10 for ASM. The scores for each observer were averaged over the course of each year. These annual averages were then used to calculate average values, which allowed for categorization by year trained. Evaluations dating to 2002 were available for the older NEFOP pro-

gram. And evaluations since the ASM program inception in 2010 were available. Results for the analysis of each program were represented graphically.

### Results

NEFOP observers receive quarterly performance evaluations. Under this program, which is older, and for which there are more observer evaluations available, an overall positive correlation can be seen. While there is some variation, there is an overall tendency to produce higher quality data with increased length of service within this program.

ASM monitors receive biannual performance evaluations. Under this program, which is newer, and for which there are only three years' worth of evaluations available, the scores have been found to be consistent with each successive year of experience.

### Discussion

There was little variation in the performance scores for ASM monitors with increased experience. However, this is a new program with only three years of performance evaluations to consider. It may just be that the program is too new to make a determination on the relationship between observer experience and data quality. The older NEFOP program offers performance evaluations over a longer period of time. From the averaged scored evaluations, it has been found that there is a positive correlation between observer experience and data quality. These findings were consistent with a similar study conducted by Van Atten, et al, 2007. It might be reasonable to expect a similar trend for the ASM program with time, as observers and monitors have similar work and data collection requirement, work within approximately the same geographic area, and perform observer coverage to many of the same vessels.

### References

Van Atten, A.S., K. McArdle, S. Wetmore, P. Yoos. 2007. NOAA. Data quality in relation to observers' length of employment.

## Observer Presentations (con't)

### Documentary Featurette, **OBSERVE THIS!**, Provides Observers with a Realistic Context and Means by which to Share Work-related Experience and Advice (poster & panel)

Caleb McMahan, Fisheries Observer  
Pacific Islands Regional Observer Program, USA

Because fisheries observers work independently out at sea and spend relatively little time each other are limited. This lack of discourse can in turn result in lost opportunities for observers to benefit and learn from the experiences of their colleagues. This 15 minute documentary featurette explores just a few of the challenges and other work related issues faced by current observers in the Pacific Islands Regional Observer Program (PIROP) as well as some of the methods these observers have used to deal with them. Using visual media and personal interviews to illustrate these experiences, **OBSERVE THIS!** serves as a unique way for these observers to share valuable information not just within PIROP, but to observers collecting data in other programs as well. Topics discussed include certain challenges regarding sampling methods and data collection duties, space constraints and other potential hazards typical to fishing vessels, maintaining positive working relationships with fishers personnel, as well as issues concerning diet and personal health. Because these topics are not program specific and likely apply to some if not all other programs, observers can benefit universally from this entertaining and informative method of discourse. Furthermore, in hopes of improving the quality and extent of knowledge that fisheries observers have about their and others' programs and in turn promoting an increased level of professionalism, we propose that **OBSERVE THIS!** serve as an example for ways of initiating an ongoing and international exchange between observers within and across programs.

Videos can be viewed at <https://vimeo.com/album/2341796> and also visit the [ObserveThis!](#) on FB.



### Establishing a Collaborative Network Linking Fisheries Observers with Agency / Institutional Scientists

Kimberly S. Dietrich and Elizabeth Mitchell, USA

Fisheries-dependent data collected by scientific observers is utilized by a wide range of people. Observers are an underutilized resource for agency or institutional staff using this data. Currently, there is no formal mechanism whereby observers who are interested in research can work directly with scientists and other data users in their field of interest.

Observers are the next generation of fisheries scientists – they need positive mentors and strong role models. Linking observers with data users is not a new concept. In fact, a similar concept was presented at the 5th IFOMC relating to increased collaboration between observer programs and the various Sea Grant programs that provide a marine extension service through public universities.<sup>1</sup> Linking observers with data users to enhance professional development needs to be institutionalized by observer programs.

A formalized network would benefit observers, data end users, the public and the resource. Potential benefits include:

- increased observer morale which in turn may encourage higher retention;
- increased pride to be associated with the observer program and improved data collection quality;
- provide an opportunity to perform analyses and contribute to publications;
- establishes a vehicle to mentor future fisheries scientists and managers; and
- increased understanding of data limitations by scientists (and data end users).

There are a variety of options to implement a formal network such as social media, a web-based database linking keywords with contact information, a formal mentorship program similar to the structure used by the American Fisheries Society and likely a host of other venues.

Observer-scientist collaborations exist but they are usually the exception rather than the rule. Examples include: 1) the collaboration of an observer, the U.S. National Marine Fisheries Service, U.S. Fish and Wildlife Service and the fishing industry to develop an albatross identification placard to be

## Observer Presentations (con't)

used by Alaska groundfish fisheries observers as well as the fishing industry; 2) Projeto Albatroz in Brazil focuses on the reduction of seabird and sea turtle bycatch. Many observers were also graduate students and their work was somewhat collaborative with fishers. These observers collected and analyzed the data and published results in peer reviewed journals.<sup>2</sup>

Carrying out this concept is not without a few hurdles. In a few countries, there is legislation relating to data confidentiality. Access to the raw data is not impossible but does involve additional steps to gain legal access. There may also be issues regarding who should make initial contact – observers or the data users. Finally, some programs already have a process in place. We are not trying to subvert any existing processes; rather we encourage much more interaction between and among observers and the data users. We encourage all delegates to help foster more collaboration between observers and data users in the future.

<sup>1</sup>Dietrich, K. 2007. Sea Grant and observer programs: opportunities for future cooperation. In: McVea, T.A and Kennelly, S.J. (ed.), 2007. Proceedings of the 5th International Fisheries Observer Conference – 15 – 18 May 2007, Victoria, British Columbia, Canada. NSW Department of Primary Industries, Cronulla Fisheries Research Centre of Excellence, Cronulla, Australia, 412 pp. ISBN 978 0 7347 1861 7.

<sup>2</sup>Bugoni, L. P.L. Mancini, D.S. Monteiro, L. Nascimento, and T.S. Neves. 2008. Seabird bycatch in the Brazilian pelagic longline fishery and a review of capture rates in the southwestern Atlantic Ocean. *Endangered Species Research*

5:doi: 10.3354/esr00115; Bugoni, L., T.S. Neves, N.O. Leite Jr., D. Carvalho, G. Sales, R. W. Furness, C. E. Stein, F.V. Peppes, B.B. Giffoni, and D.S. Monteiro. 2008. Potential bycatch of seabirds and turtles in hook-and-line fisheries of the Itaipava Fleet, Brazil. *Fisheries Research* 90: 217-224.

### Panel 2: International Observer Bill of Rights (IOBR)

An “Observer Room” was provided during the conference, where the IOBR team hosted several meetings before, during and immediately after the conference to seek feedback from all stakeholders. The IOBR team organized a panel session to present the documents to the main delegation at the 7th IFOMC, as part of Workshop 2 “Observer Professionalism and Rights Workshop”. Each article was presented by an observer, who shared the significance of the right according to their employment as an observer. The IOBR panel was moderated by Luis Alberto Cocas González.

**IOBR Introduction** (Elizabeth Mitchell): Summarized the history of the IOBR project and described the need for observer rights. Elizabeth said, “Observers are tasked with a wide range of duties that are primarily related to commercial fishing. They must balance their role as diplomat, compliance monitor and biologist. For this reason, it is vital for observer programmes to have the infrastructure and financial backing to provide adequate support for observers. This must include the creation and enforcement of laws

that protect observer safety and welfare while they are carrying out this difficult task. Observers are at the very foundation of the difficult decisions made to manage the ocean’s resources in a fair and objective way. It is a matter of world food stability and social security.

“We remain very concerned by continued reports worldwide of observer harassment, interference, as well

**IOBR Panel Members – (left to right)**  
**Luis Cocas, Elizabeth Mitchell, Kim Dietrich, Caleb McMahan, Reuben Beazley, Sara Hutton, Christiano Roma, Guillermo Bendel Garcés**  
 Photo: T. Turk



## Observer Presentations (con't)

as the general marginalization and mockery of the observer profession by some politicians and fishermen. Observers are acutely aware of their vulnerabilities. Last year we lost at least two observers to vessels sinking. In 2010, a Papua New Guinea observer was murdered by 6 crew members, who apparently were released without charge."

**CCROP\_HS and CCROP\_SR Introduction** (Kim Dietrich): Summarized the need and purpose of the two supporting documents on safety and stakeholder responsibilities. Kim stated the following about the CCROP\_HS: "According to the International Labor Organization (ILO), fishing is one of the most dangerous occupations in the world and observers face many of the same risks as fishers. Observers need support from all of the stakeholders to minimize these risks, and the Health and Safety Code is an attempt to set international standards for responsible practices by integrating and expanding standards that already exist from around the world. We have integrated many of these into the documents to come up with the current draft."

About the CCROP\_SR, Kim stated that everyone involved in fisheries has a role to play regarding fisheries governance - that each entity has certain responsibilities to fulfill. The Stakeholder Responsibility document acts as a Code outlining the expected responsibilities for each stakeholder.

**Article I: Employment Terms** (Caleb McMahan, Hawaii, U.S.A.) – *Observers Have a Right to a Written Contract with Clear Employment Terms*[1]. Caleb related one aspect that could be considered in his observer contract: "In Hawaii (Pacific Islands Regional Observer Program), there are types of boats that you go out on: deep-set (tuna) trips that usually last 3-4 weeks and shallow-set (swordfish) trips that could last up to 7 weeks. Other observers, like Chris Stoer [points to other observer sitting in the audience] can probably tell you about a longer trip than that even. Now, they like to put experienced observers on these shallow-set (swordfish) trips. The curious thing about this is you [observers] stand to make way more money on a deep-set (tuna) vessel [due to the payment structure in the contract]. So, you have a 'green' observer fresh out of training that will be sent on a deep-set trip, while they'll send an experienced observer on a shallow-set trip. What I would like to see is more recognition for more-qualified observers to be able to get paid for what they are worth."

**Article II: Fair and Equitable Employment** (Reuben Beazley) – *Observers Have a Right to Fair and Equitable Employment*. This includes but is not limited to: a work environment free of discrimination, an equal opportunity grievance procedure available at no-cost to the observer, transparent and unbiased observer deployment standards, regular and transparent performance evaluations which include an appeal process, and termination or demotion must have a documented cause. Reuben stressed that, "a vessel cannot select or refuse an observer because of who they are... no picking, no choosing... when it's your turn, it's your turn." Then he said, "We all make mistakes, and there has to be a process by which you are allowed to learn and make mistakes at the same time, and not just be thrown on the scrap heap just because someone doesn't like you for no reason..."

**Article III: Competitive Wage Package** (Sara Hutton, Observer, Florida, U.S.A.) – *Observers Have a Right to a Competitive Wage Package Appropriate to the Country and Commensurate with Positions of Similar Duties and Educational Background*. Financial independence from the monitored industry is crucial. A competitive wage package includes but is not limited to: a step-based pay system; transferability of observer credit (experience) for purposes of financial compensation from one programme to the next, regardless of employer; health insurance coverage during employment period; options for year round coverage; disability and life insurance; retirement options; and leave remuneration. Sara said, "...I absolutely agree with a lot of the stuff that's in [the IOBR documents]." Regarding an issue that exists in her programme, she said, "There is a disconnect between the contractor who actually pays us [and the observer programme]. Observers need to have adequate support and motivation to do their jobs well and obtain this data. Encouraging and rewarding high job performance, as well as trying to retain qualified observers, are essential steps toward these goals. If contractors must employ the observers rather than [a governing agency], they should share these goals and be invested in the success of the programme."

**Article IV: Health and Safety** (Reuben Beazley) – *Observers Have a Right to Minimal Health and Safety Risks*. This Right includes but is not limited to: ensuring the ability to conduct duties free from assault, harassment, interference or bribery; right to refuse an assignment without negative repercussions or requirement that the observer address the issue; national/international protocol developed for checking minimum com-

## Observer Presentations (con't)

pulsory safety and emergency-action equipment prior to each deployment; development and enforcement of laws protecting observer health and welfare; established minimum standards for adequate accommodation for an observer deployment appropriate to the size of the monitored entity and equivalent to that of the officers of the monitored entity; transparency of safety and welfare reports from previous observer deployments; minimum health and safety training standards; communication protocols; and an emergency action plan that clearly outlines the chain of command. More detail is provided in the CCROP\_HS.

Reuben said: “This is an article that’s near and dear to my heart. By observers looking out for their own welfare – when they go aboard a boat and by completing their safety checklist first before they go to sea - we have not only made the ocean safer for ourselves. Now we have made it safer for all of those who sail with us – those fishermen, those captains, especially those who are not looking out for their own safety.” Regarding pre-sea vessel safety checks, Reuben shared a scenario: “Say if you go down to the dock and the life raft is expired. All that you should have to do [as an observer] is tell the captain, ‘The life raft is expired. I’m out of here. I’ll come back when it’s fixed. Call the company, call the [authority], call whomever – it’s not my problem, it’s your problem.’ I don’t know the people that I sail with. I don’t know the crewmen. I don’t know the history of the boat. I don’t know the defects or deficiencies. The only thing that I can check for me is that if [an emergency] happens that the safety equipment is there so that I can get off the thing. If we find a problem with safety issues, we have a right to walk away.” Reuben also stressed the need to, “...establish minimum standards for accommodations, equivalent to that of the officers. Sadly, some of the officers don’t live that well either, but when you are all in the same boat you can deal with it.” When speaking about an issue in his programme, he said: “One of the things that’s on my list of problems is making sure that you have safe drinking water and safe and nutritious

food - especially safe drinking water. That one has been an issue for a long time with [our programme].”

**Article V: Observer Support** (Christiano Roma, Observer, São Paulo, Brazil) – *Observers Have the Right to Regulatory Authority, Observer Programme and Observer Employer Support*. Christiano stressed that, “Regular communications are needed when observers are at sea. Communications need [to] be per week (or more frequent), private with the employer/programme, with no interference [or listening-in] by other people. The programme/employer needs to know about the observer’s health & safety conditions at all times. [At a minimum], the observer will describe his/her on-board condition during [regular] communications. Staff [should have field] experience in order to validate the information and [to] respond if something goes wrong.” Christiano also said, “Face-to-face briefing/debriefings [are important] for establishing good relationships between employers and observers. Standards need to be open and free for employers and observers to review, making them easy to access and modify [periodically] by all interested people [and] making the employer/programme consider the IOBR. For best results with observers’ health, they need counseling about drugs, alcohol, mental health, and about essential things to do during rest time (e.g. exercises, rest, good food, lifeway), independent of programme/employer. Medical certificates should be required before boarding to prove observer’s physical and mental health fitness and their capacity to go to sea. Adequate break time [is needed] to return and compose his/her mental situation after sea work.” These elements are further detailed in the CCROP\_HS and CCROP\_SR.

**Article VI: Stakeholder Integrity, Responsibility and Programme Transparency** (Keith Davis). The CCROP\_SR provides great detail pertaining to this article. However, a few critical elements include: financial independence of observer, observer employer and observer programme from monitored entity; institutionalized whistle-blower rights for observers with a

## Observer Presentations (con't)

third party; minimum data collection and debriefing standards that ensure the objectives of the programme are met; enforceable Codes of Conduct for all stakeholders (observers, observer employers, monitored entities, programme and regulatory authority staff) that support the integrity of all levels of the observer programme; and transparency of observer programme statistics that allow comparison of programmes regarding retention rates, actual deployment/employment rates etc. Keith emphasized the importance of guarding against conflict of interests for all stakeholders. To maintain data quality, all stakeholders' performance (not just observers' performance) should be regularly assessed and transparent to other stakeholders, including "always seeking feedback from observers." He emphasized the importance of clearly defining what it means to be an independent 'qualified observer' in a programme, according to stakeholder responsibilities, including the responsibility that programmes clearly define different observer levels (e.g. 'junior' vs. 'senior'; 'at-sea monitor' vs. 'observer, 'level 1' vs. 'level 2') within a programme. He also emphasized the need to be clear about when Electronic Monitoring (EM) can and cannot be used in place of human monitoring. Keith mentioned, "Many initiatives in the CCROP\_SR are well documented and are already present in existing programme standards. Monitored Entity Responsibilities can be addressed in pre-sea documentation and meetings."

**Article VII: Professional Development** (Guillermo Bendel Garcés, Observer, Valparaiso, Chile) – *Observers Have a Right to Professional Development*. Guillermo gave the following speech in Spanish: "No saben lo importante que es para los observadores de Chile entregar nuestra vision de nuestra labor, bien, el artículo 7 habla del desarrollo profesional los observadores tienen derecho al desarrollo profesional. Las entidades que administran a los observadores científicos tuvieron al tener permifeccion pertenecientes al programa de observacion que apoyan al desarrollo profesional, los días anteriores y hoy día en la mañana se escuchaba y se hablaba mucho sobre la calidad de los datos sumamente importantes para el rol que cumple el observador. A mi me gustaría algo mucho más importante: la calidad del observador. Si la calidad del observador no es buena, difícilmente ya no sera buena, por lo tanto la entidad de administración primero tiene que trabajar por las personas, para después obtener un resultado óptimo en lo que se refiere a los datos. Por lo tanto estas políticas tienen que ser coherentes en el desarrollo de las potencialidades para los observadores y en ese sentido la mayoría de los observadores van aumentando su experiencia,

para reconocer ese esfuerzo, por lo tanto podemos dar respuesta a una extraordinaria que existe en otros países. Por cierto aquí en Chile esa situación es menor y la retención de los observadores científicos en el sentido de que se reconozca el desarrollo profesional que tiene y que no es fácil deshacerse de un observador por una cuestión lógica de costos en una economía que siempre está preocupada en hacer más eficientes los costos, no es despreciable lo que se invierte en caducidad de un observador, por lo tanto se debe valorar e invertir en ese observador, potenciar y garantizar su trabajo... Y por cierto, la palabra 'Observador', el observador es el que ve, el que escucha, el que transmite, pero por todos estos elementos el que siente, en la medida en que los observadores podemos transmitir esto sin duda que lograremos avanzar eso no se debe perder, no creo que corra en riesgo nuestra labor, porque el día que no existan observadores, ya no va a haber recursos humanos, por lo tanto este es un llamado a tratar de aportar con nuestra experiencia, con nuestras capacidades, con nuestros compromisos. Para que el día de mañana cuando un recurso que está en estado de sobrexplotación, aumentando la recuperación, digamos todos los que estamos aquí y todos los observadores del mundo digan misión cumplida. Para finalizar tratando de que este momento continúe y crezca creo que hay un concepto: la organización aquí y ahora, no perdamos tiempo. una organización de observadores creada por observadores, administrada por los observadores y para los observadores. Muchas Gracias."

English Translation [2]"

"No one knows how important it is for Chilean observers to deliver our vision about our work. Well, it is about professional development, the observers have the right of professional development. The entities that manage scientific observers must have had strong belonging to the programmes in supporting their own professional development. The previous days and today in the morning I heard people speak much about how the quality of data is extremely important, for the role that the observer carries out. I would like to talk about something much more important – 'the quality of the observer.' If the quality of the observer is not good, it is improbable that [the data] will be good. The management entity first has to work for the people [the workers], in order to obtain an optimal result regarding data. Therefore, these policies have to be clear in the development of the potentials for the observers. And, in that sense, where most observers are increasing their experience - to recognize that effort, so that we can provide response to extraordinary events that occur in other countries. For certain here in Chile that situation is

## Observer Presentations (con't)

low; the retention of scientific observers in the sense that you recognize their professional development. That is not easily revealed about observers, and there's a logic issue of costs in an economy that are always concerned with making things more cost efficient. It is not insignificant to invest in observers [who are not retained by a programme]. Therefore, one must evaluate and invest in observers' potential and ensure their work. By the way, the word 'observer'... the 'observer' is the one who sees, the one who hears, the one who transmits. But, for all of these elements... that observers can transmit these [elements] without doubt - this, we [observers] will motion is not to be missed. I do not think that our work will run out, because the day that there are no observers, surely there will also no longer be human resources. So, this is a call to address the contributions of our experience, of our skills, of our compromises. At the end of the day, when a resource is in a state of recovery... all of us here would say and all observers would say 'mission accomplished.' In conclusion, this movement continues and grows. I think there is a concept of organization here that does not waste time... an international organization of observers, created by observers, administered by observers and for observers. Thank you."

### Results/Discussion

The results of the IOBR project include three documents – IOBR, CCROP-HS and CCROP-SR. These are 'living' documents and will be updated biennially, with input from stakeholders. They will be housed with the APO and used as working policy at the following URL: <http://www.apo-observers.org/billofrights>. For enquiries, comments, contributions and updates, please contact the IOBR team: E-mail: [iobr@apo-observers.org](mailto:iobr@apo-observers.org).

### Acknowledgments

We would like to acknowledge Oscar Guzmán, the 7th IFOMC Steering Committee, and the conference organizers and webmaster, for: providing the 'Observer Room'; encouraging observer participation for IOBR activities; and de-

voting an entire panel session to this project, for which we are very grateful. We would also like to thank the following for their efforts:

- Luis Cocas: for acting as the session moderator and translating IOBR project drafts into Spanish;
- Christiano Roma: for translating IOBR project drafts o into Portuguese (Brazilian);
- Caleb McMahan: for translating discussions with Spanish-speaking delegates;
- Henrique Ramos: for his consultation regarding Portuguese translations;
- We would also like to thank all of the observers and other stakeholders who shared input into this project over the 13 years of its progression.

[1]Reference Section III(9) of CCROP\_SR document.

[2]Transcribed in Spanish by Dayana Elena Delgado and translated from Spanish to English by IOBR Team. We acknowledge there may be transcription and/or translation errors.



### Chilean Observer, Omar Yañez, Delivers Closing Speech on Behalf of Observers

Existe una linda canción de Ricardo Montaner que se llama en el último lugar del mundo lejos de la cordillera.

Y es justo acá donde estamos, entre la hermosa cordillera de los andes y el océano pacífico, en Viña del Mar, esperamos que les haya gustado nuestro país.

Algunos piensan que justo ahora estamos terminando una conferencia de observadores y monitoreo, seguramente están en lo cierto,

También hay otros que creen que esto fue más que eso, que acá ocurrió algo especial, substancial, una concentración de conocimientos en tornos a el manejo, tecnología y por supuesto la

## Observer Presentations (con't)

sustentabilidad de recursos pesqueros, pero principalmente a personas que cumplen su tarea encomendada a pesar del mal tiempo, malas condiciones, a bordo de embarcaciones, contrariamente a las malas gestiones políticas que complican aún más su labor, pero aun así cometen con su compromiso.

Concebimos que no existe tecnología alguna que reemplace la perspectiva, el contacto, el instinto y el sentimiento que mueve a mujeres y hombres a no solo obtener datos biológicos pesqueros sino también a ver más allá de los artes y aparejos de pesca, a observar aves también mamíferos víctimas de la inconciencia y codicia que a veces el hombre deja ver, en especial en el medio en el cual nos desenvolvemos

En estos cinco días hemos asimilado del futuro, de nuevas tecnologías de los programas de los observadores científicos, de los riesgos. Pero además aprendimos que lo que nos une no solo son nuestros estudios, títulos o investigaciones, sino un espíritu de conservación a los recursos que observamos con celo, nos une las dificultades económicas, políticas y de salud con las cuales todos hemos lidiado. Que cada vez existen más observadores preocupados de la unión, y el bienestar de sus pares, que invierten de su tiempo en pos del cuidado de otros... muchas gracias por la declaración internacional de los derechos de los observadores. Muchas gracias a la APO y su constante preocupación por el trabajo del observador, Fuerza a nuestros sindicatos.

Puede que no consideren nuestros nombres en las publicaciones, Quizás nuestro estímulo económico no refleja nuestro esfuerzo. Aun así nuestra recompensa toma otro camino. Siento personalmente que nuestras ganancias van más allá de lo técnico, Ganamos respeto, de los investigadores, de los administradores, y de nuestros iguales. Considero que a pesar de las diferencias culturales y de idiomas, estamos cada vez más unidos, somos más fuertes y espero que estos lazos, no se rompan, al contrario se haga enérgico y que las fronteras, ni la distancia sean la excusa para terminar esta preciosa empresa que este año celebramos por séptima vez.

Muchas gracias.

A los presentadores de las sesiones orales y de los posters, el conocimiento entregado es invaluable.

Muchas gracias a todos los asistentes, pero de forma específica a, a los observadores presentes.

Desde el último lugar del mundo, lleven nuestros cariños a sus familias y en especial a todos aquellos que no lograron asistir pero que ustedes representaron fielmente,

Díganles que conocemos sus logros y dificultades, y que nuestro rumbo está marcado a aguas más convincentes y reconfortantes.

Cuéntenles que nunca la tecnología los va a reemplazar, son demasiado importantes

Exprésenle que los observadores de Chile respetamos su trabajo y reconocemos su fortaleza.

Y que no olviden, que si no fuera porque hay alguien dispuesto a subirse a las embarcaciones, las autoridades no podrían tomar las decisiones que auxiliaran a nuestros recursos pesqueros,

Los observadores son columna, no solo en sus respectivos trabajos si no también de un mundo marítimo que necesita de su valentía y compromiso.

Que Dios los bendiga a Todos.  
Omar Yañez.



English Translation:

There is a beautiful song by Ricardo Montaner which is called in the last place of the world away from the mountains. And right here is where we are, between the beautiful mountain range of the Andes and the Ocean Pacific, Viña del Mar, we hope you liked our country.

Some people think that we are just now ending a conference of observers and monitoring, surely they are right. There are also others who believe that this was more than that; that here was something special, substantial, a concentration of expertise in management, technology and, of course the sustainability of fisheries resources. But mainly a concentration of the people that fulfill their task despite the bad weather, bad conditions on board vessels and contrary to wrong political management to further complicate the work, but still carrying out their commitment.

We think that there is any technology that replaces the perspective, contact, instinct and feeling that moves men and women observers not only to obtain fishery biological data but also to look beyond the arts and fishing gear - watching

## Observer Presentations (con't)

birds and also mammals, the victims of unconsciousness and greed that often times mankind demonstrates, especially in the environment in which we operate.

These five days we have assimilated the future of new technologies, of scientific observer programmes, and of the risks. But we also learned that what connects us not only are our studies, titles or research, but a spirit of the conservation of resources that we observe with zeal, unites us the difficulties of economic, political and health with which all have grappled. That every time there are more observers concerned about the union, and the well-being of his peers, who invest their time in pursuit of the care of others... thank you for the International Observer Bill of Rights. Many thanks to the APO and its constant concern for the work of the observers and encouragement to our unions.

You may not consider our names in publications, perhaps our economic stimulus does not reflect our effort. Yet our reward takes another path. I feel personally that our profits go beyond the technical aspect, we earn respect among researchers, administrators, and our peers. I believe that despite language and cultural difficulties, we are ever more united, we are stronger and I hope that these ties are not broken, unlike becomes energetic and borders, nor the distance be the excuse to finish this lovely company that this year we celebrate for the seventh time.

Thanks a lot.

The presenters of the oral sessions and posters, the delivered knowledge is invaluable. Many thanks to all attendees, but specifically to the observers present.

From the last place of the world, take our love to their families and especially to all those who did not attend, but that you represented faithfully.

Tell them that we know their achievements and difficulties, and that our course is marked to waters more convincing and comforting. Tell

them that never will they be replaced with [EM] technology, they are far too important. Say that Chilean observers respect their work and recognize its strength.

And do not forget, if it wasn't for someone willing to get on the boats, the authorities could not make the decisions that will help our fisheries resources.

Observers are the pillar not only in their jobs but also in a maritime world that needs their courage and commitment.

May God bless them all

## 7th IFOMC Thoughts &

### Reflections

After the 7th IFOMC, the observers and a few other first time attendees were asked to submit their thoughts and impressions of the conference. This is what they had to say.....

**Aubrey Barto**, Fisheries Observer  
Northeast Fisheries Observer Program, USA

The Seventh International Fisheries Observer and Monitoring Conference (7IFOMC) was an incredible triumph for the global scientific community. I feel honored, privileged, and humbled to have been included in such collaboration. This conference offered an abundance of experience, ideas, and perspectives that were unknown to a naïve scallop observer from the Northeast. Having said that, attending 7IFOMC has been the highlight of my career as a fisheries scientist. Thank you.

Isolating the best part of the conference is a challenging undertaking. As a participant I thought the panel format was perfect. Short, concise speeches were presented to the audience, offering just enough information to insight conversation and lively discussion. Further, that

## 7th IFOMC Thoughts & Reflections (con't)

dialogue extended far beyond the conference room. The streets of Vina del Mar were buzzing with the sound of fisheries management. However, as a presenter, I found the format very challenging. Keeping in mind that I am admittedly not an experienced public speaker, the thought of presenting my ideas coherently and intelligently in seven minutes or less seemed impossible. I speculate that I am not the only one. In spite of my insecurities, I hope that my speech was well received. Observer retention seems to be an important subject. I received feedback and support from many domestic and international delegates; proof that you don't need an hour behind the podium to get your point across.

In addition to the panel format, there were so many qualities of the conference that I consider to be amazing. I would like to complement those in charge of the delegate selection process. There was an abundance professionals ranging from observers to directors, from South Korea to the Mediterranean, speaking on every imaginable fisheries related subject. It was complete sensory overload, in the best way possible. Personally, I rarely get the opportunity to "talk shop" with anyone that can relate. I have never had so much fun learning. I gained new perspective on electronic monitoring, self monitoring systems, digital modeling, and discard banning, to name a few. I was able to draw comparisons between artisanal fisheries, ecosystem-based management, and the local fishing effort on the Chesapeake Bay. I learned about the transshipment fish pirates and the potential for illegal activity, which tied itself well to the discussion on an observer enforcement role. I learned about other observers and their work. From that, I learned how lucky I am to work in a relatively localized, industry funded fishery. I have a whole new respect for the man-

agement system, in the U.S. and elsewhere. It was comforting to see that we really are all on the same team working for the same sustainable ends.

In closing, I would like to briefly acknowledge some of the other great aspects of the trip. The poster section was highly informative and a refreshing addition to the panel discussions/workshops. The food and hotel were fantastic. I appreciate the people (and the dogs) of Vina del Mar, Valparaiso, and Santiago for uncompromised kindness, assistance, and service. The translators were phenomenal, especially considering some of the jargon used. I was happy to see such a strong observer contingent, as well the united front that they represent. The steering committee and Mr. Oscar Guzman absolutely deserve respect for what you have accomplished. I want to thank those at NMFS and EWTS who gave me a chance to represent them on an international platform. I'd also like to thank the Scallopers in the Northeast for their encouragement in the pursuit of quality data. I would never be here without them.

I am just a humble observer that was given an extraordinary opportunity to see the world a little differently. Again, thank you.

**Reuben E. Beazley**, Fisheries Observer  
Newfoundland and Labrador, Canada

I have been a Fisheries Observer since 1978, first as an independent contractor to the Department of Fisheries and Oceans Canada (DFO), then in 1981 as an employee of Seawatch inc, based in St John's NL. My coverage area is the North West Atlantic, Greenland, Flemish Cap, Labrador Sea, and the Grand Banks being my main work areas. In the last 35 years I have worked on every gear type and species in that area. From U.S.S.R factory freezers in the 1970's to 16' speedboats as we speak.

I first became involved with the IFOMC when it was held in St John's NL in 2000. At that Conference we had 8 of our Observers in attendance as well as the management group from Seawatch, and a very good turn out from the national and local DFO. We had been evolving our Program in isolation, and many of the concepts presented at



Reuben's 3,650th sea day! Photo: R. Beazley

## 7th IFOMC Thoughts & Reflections (con't)

that first Conference meshed with what we were trying to address at the time. The Observer Bill of Rights that was started at that Conference became the template for the development of the Program in NL. As one example, our Annual General Meeting with the DFO science and enforcement, the real end users of our data, came about as a direct result of that Conference. The importance of this face to face contact was easily recognized by all parties.



Collecting data from surf clams. Photo: R. Beazley

I had no intention of going to Vina del Mar. Besides the funding issue, we had a crisis with the Observer Program here in Canada, and with things developing quickly, I did not see how I could leave at the time. The issue basically was the Government of Canada had written new Standards for the Observer Program here in Canada. Without any input from, or protection for, the Observers who had to live with it. EG, Observer experience was not an issue, no need for the winning bidder to have any Observers, if indeed the winning bidder wished to hire an experienced Observer from another Company/ Program; they could start them out at the minimum rate, and have them work up through the pay scale same as a rookie. Of course the Observer Company can charge the same day rate for all Observers, thus making experienced Observers less profitable. This is a sad part of the contract set up in many Programs, and needs to

be investigated. The only voice they listened to was the Fishing Industry, who for the third time put forward the multi-supplier model for Observer Provider contracts. The first two times myself and others had a chance to explain to the Government why this was a very bad idea, and they got it right away. Integrity of the Program. This time we did not have a chance for any input. So we are now left with a race to the bottom, with Observer wages and benefits on the chopping block, just a matter of how low can you go. Pretty low it seems.

Observers do not have to be supplied by a contract process, having the Observers as Government employees is a model that has been around for as long as Observers, and I believe to be the real answer to many of the issues we have. Good luck with that uh?

As we have said before, and as Gabriel Blanco so eloquently stated at the closing of the Conference, we have realize that Observers are an investment in the fishery, not a cost to the fishery. Sadly this message does not seem to be getting out there.

My journey to Vina del Mar started with an e-mail from Liz Mitchell informing me that herself, Kim Dietrich and Keith Davis had got together and purchased an airplane ticket for me. With that in hand I went to the Teamsters Union who agreed to cover my accommodation for the trip, then to Seawatch who agreed to throw in some expense money, with that in hand I approached Dennis Hansford, and he arranged through Any van Atten to get my Conference Registration covered. Got to love it, there can be no greater honor then the recognition of your peers. Thank you all.

What finally inspired me to attend was a hope that we in the international community would take the International Observer Bill of Rights (IOBR) and use it to provide clear guidelines as to what is required in a set of responsible Observer Standards, and hopefully keep others from making the mistakes we have made here in Canada.

## 7th IFOMC Thoughts & Reflections (con't)

What did I do at the Conference? I said hello to a group of people that I have become to think of as my extended family. These get-togethers are the ONLY chance I have to deal with a group of people that I can freely talk to about the Profession, with people who "get it". I am certain that without the support of this group I would have given up on Observing a long time ago. Maybe I should have the way things are in my world right now, it is simply that the Oceans are too important to give up on. I also got to meet new people, the Chilean Observers were a real treat, and hey, got to love Caleb and his "Observe This". Observers are one of the few independent sources to gather data on what lives beneath, on, and above the waves, and I have always, and still believe, that this work is extremely important.

My direct contribution was the presenting of Articles II and IV of the IOBR:

Article II: Fair and Equitable Employment.

This one is easy to sell; discrimination based on anything has no place in today's world, and especially in any occupation that professes to call itself a Profession. This included discrimination by the vessels. Can't be at it.

The real issue is in the set up of the Program in the first place, this is where the IOBR is so important. At the start there has to be built in oversight of the employment procedures by an outside entity, a contract that includes an appeal process that by passes the Company / and even goes over the head of the Government Agency for any issues that arise. No Observer should have to be put in the position of having to keep their mouth shut because they are in fear of losing their job due to Company / Government practices. This includes but is not limited to; black listed for daring to complain, repeatedly given the "shitty" trips, told to work on unsafe vessels, starved out of the Program due to lack of work (when there is plenty of work), Company favorites getting the majority of the work, onboard the "best" vessels, termination of employment due to non appealable trip evaluations... none of this has any place, in any job. Yet, they are real issues in this Profession; we still have a long way to go.

Article: IV Health and Safety: .

Big one. When I started out everything was new, we had to learn as we went along. As usual, it took the loss of a few lives before changes were made to upgrade the level of safety training, and the reporting and correcting of unsafe conditions. I see no need for more lives to be lost in order to re-

learn these things again. The IOBR and ROPSH contain within them a short cut to keeping Observers alive, healthy, and safe.

It is a sad situation that we had to develop the Pre-Trip Safety Checklist. In many cases it was simply because the vessels were not following already existing national standards, and the crewmembers, if aware of any short comings, were afraid to report or complain. This whole situation is nuts. We have had to do it in order to look out for our own safety, and the crewmembers safety as a bonus. Still, after traveling all night, to arrive at the wharf at 0400 A.M. and find that a life raft, for example, has an expired certification, and "no Captain, I will not be sailing with you today "this is unacceptable. It adds an unneeded level of stress to the job. These are things that should be investigated and corrected before a vessel is even allowed to take an Observer.

I can understand why Observers were not invited to the first Observer Conference in Seattle; we are an "Inconvenient Truth" to quote Mr. Gore. If we cannot get the support and recognition of the changes that are needed to be made in this forum then, "it's over". Here is where the BACK-UP for the Observers has to start. I am sure that Observer Companies and Government Agency's would prefer to work out their plans without the interference of a bunch of people that actually have to do the job, when that happens, you get the situation I am in now.

I refuse to be a body on a boat so some fishing company, bureaucrat, or politician can say that a fishery is being correctly managed, or so they can get their MSC certification. Not without the back up that is absolutely required for me, as the Observer, to independently confirm that it is indeed the case. It all does come down to back up. I have been amazed by what I have been able to accomplish when the Observer, Company, and Government Agency are all working together for a common goal. It really is special when the Fishing Industry comes on side.

I had been ready to walk away from this, beating your head of the same wall for an extended period of time, just simply gives you a head ache. As usual the spirit of the conference has again given me hope, and enough spite to give it one more go. So this AM, I will be heading to the South Side of St John's, getting out my Pre-Trip Safety Checklist, and trusting my life to a group of strangers once again. Hope to get 10,000 crab maturities this year.

## 7th IFOMC Thoughts & Reflections (con't)

**Lucas Blass**, Fisheries Observer

Pelagic Observer Program, Southeast, USA

Overall, I thought it was a great opportunity to interact with observers from very different programs all over the world and share perspectives, challenges, and success stories. Chilean fisheries and observer programs seem to be very up-and-coming, and enjoyed a lot of attention during the conference. There was a relatively small longline contingent present, so I was glad to be there to represent the Pelagic Observer Program (Miami, Florida). These are my day by day high points:

### Day 1

#### Electronic Scales:

- initial cost \$6000 vs. \$1000 for traditional scales, but apparently they prove their worth with increased accuracy and better durability

#### [THISFISH.info](http://THISFISH.info)

- NGO/Fishermen collaboration in anticipation of new regulations
- barcodes attached to fish at capture, allows end-user/consumer to see location and method of capture, fisherman, area info, etc.
- products rated based on sustainability matrix

#### Pulse Trawling

- new fishing method in North Sea
- involves electro-shock ticklers on trawl to stun fish and send them into the trawl
- only used by 5% of fleet, but very effective on flatfish
- highly questionable ethics

#### Indonesian Longline Observing

- fledgling, was voluntary until 20th Feb. 2013
- albatross and Ridley turtle bycatch are main concerns
- importing to US market becoming more common

### Day 2

#### Electronic Monitoring

- cost, effectiveness, and accuracy are still being debated
- Archipelago Research seems to control the industry, and partially sponsored the IFOMC, so there were many presentations made by them
- there was a significant dialogue and debate about electronic monitoring throughout day 2, especially regarding replacement of observers with new electronic technology. The official IFOMC stance was that EM should be an extension of observer programs, not a replacement of human observers.

#### OCEANA

- rated US observer programs based on a variety of factors
- POP fared pretty well, they wanted to see better online data accessibility and better statistical standards



Indonesian longline observer. Photo: <http://fisheriesimprovementindonesia.org/gallery/>

#### Dutch Trawl Self-Sampling

- monitoring agency directly contacts fishermen to record their self-collected data.
- data quality and frequency directly influences fishery management, ie license and quota allocation
- challenges include questionable objectivity, accuracy, and frequency of data collection

## 7th IFOMC Thoughts & Reflections (con't)

- NEFOP rated best overall, and apparently groundfish programs have the highest cost per sea day, although the NEFOP director took issue with OCEANA's cost calculation methods

### Day 3

#### Observer Retention

- how best to retain quality observers?
- lots of discussion about high turnover and problems with observer providers

#### Observe This!

- video magazine produced by longline observers in Hawaii (check it out on Youtube)

#### Observers vs. End-users

- how best to open dialogue and facilitate collaboration
- observers are an under utilized resource on the front lines of resource management, and could potentially be contributing more to science

#### At-will vs. Contract Employment

- observer treatment issues
- contractor problems
- no real recourse when contracts are lost/gained etc...

#### International Observer Bill of Rights

- guidelines for treatment and minimum conditions for fisheries observers worldwide

#### Data Quality as a Function of Funding Strategy?

NMFS > lowest bidding contractor > lower pay for observer > lower data quality, higher turnover, higher and more frequent training costs

### Day 4

#### Safety

- comparison of regional and international safety programs
- US seems to be on the cutting edge of maritime safety training, most observer programs seem to be basically covering similar topics
- Wilderness First Responder training for observers?

#### Data Bias

- social influence (observer effect)
- motivational factors

#### Enforcement

- importance of evidence collection and documentation in prosecution of fisheries infractions/crimes

#### Canadian Observers' Problems

- collusion: working with harvesters to falsify data
- inaccurate data
- complacency/laziness

#### Shark Bycatch in Large-scale Longline Industry

- bycatch very hard to estimate
- becoming more contentious as regulations tighten worldwide on shark fisheries
- very hard to identify shark species and correlations of "product" weights with the weight and condition of the animal it came from when products are offloaded from catcher vessels to processor/tender vessels
- Palau first in the islands to ban shark fishing, Marshall Islands and Guam have now followed suit

#### Transshipment

- mostly in southern Pacific
- catch and observers transferred between large scale tuna longline vessels which offload onto tender/processor vessels
- enormous vessels, out for very long periods of time, sometimes years
- difficult to standardize data collection methods, or even ship documentation
- very rough crew, human rights violations, indentured/imprisoned workers

I really enjoyed the IFOMC, and thought it provided a wonderful and all too rare opportunity for people in this strange line of work to see and be seen by each other. I feel that in many cases, the sense of isolation you often deal with as an observer leads to many of the morale and apathy problems that then lead to data quality and observer turnover issues. The observer bill of rights seems like a great step toward opening dialogue between different programs and different countries. I hope that one day a different system of employment is available to observers, to remove them from being caught in the middle of contractor and subcontractor negotiations where decreasing observer compensation is generally one of the few ways for companies to lower their contract bids.

## 7th IFOMC Thoughts & Reflections (con't)

Anyway, it was great meeting you at the conference, and let me know if I can help in any other way.

Thanks!

**Tyson Bottenus**, Fisheries Observer  
Northeast Groundfish Observer Program , USA

I was struck at the beginning of the conference when all observers in the audience were asked to stand. The conference room was big - it held 150 folks from 27 countries - but the number of observers that stood up seemed oddly small. Maybe only a handful of folks. Perhaps some observers chose not to stand, but still, even if they had, it seemed that as observers we were outnumbered. But it turned out that this was good, this was O.K., because despite the minority of observers present in Vina Del Mar, Chile, the 7th IFOMC was a huge success.

As an Industry Funded Scallop observer, I only observe one fishery. One fishery, one gear type, the same ~30 species of associated bycatch. From presentation to presentation, I felt like my world was expanding. Hearing from representatives from the Scottish Fishermen's Federation, I learned about the issues of a depleted fishery that can't quite find enough observers. From Alaska came a panel that investigated whether a partially observed fishery could produce better quality data than an industry-observed fishery.

The geek in me came out when the tech-savvy panels brought out Marel [platform] scales and iPad apps. What if we could somehow create a system where an observer just had to put a tared bushel basket on a Marel scale that was hooked up wirelessly with an iPad? No paper logs, no notebooks. Then what if this iPad could transmit the data via a satellite phone? These panel presentations got my head racing.

It's frustrating being an observer and having so many thoughts on your job but no community, per se, to really express these thoughts and feel-

ings. One can talk to their family, friends, roommates, significant others, but it's hard to convey exactly what happens offshore. The 7th IFOMC was the ideal spot to meet with likeminded people who have been through what you've been through, seen what you've seen, done what you've done.

**Douglas Brander**  
Northeast, USA

I live and work in the Northeastern US. I serve in the At Sea Monitoring and Industry Funded Scallop programs, both federal. I had a little idea for a study that I thought might rate a poster. That is, the question of the relationship between observer experience and data quality. I spoke with the branch chief, Amy Van Atten, in the Fisheries Sampling Branch. She is a very busy woman, but found the time to offer some ideas and insights and direct me to other people in the office that were also great. I was surprised and honored (and admittedly shitting myself) when I was asked to present as part of a panel, to an international, professional audience.

But, I am so glad that I did it. I learned of whole different worlds of stuff going on out there that I really knew nothing about. And I met some smart people, dedicated people, crazy people, and all good people in the process. It was a pleasure and an honor to have been offered this opportunity to participate in this conference with some World Class people.

For the next conference, if there is the same level of observer participation (I plan to be there), it would be great to see more of the character and personality of those of us out there doing this stuff. For example, Caleb's creativity in making a fun and interesting video magazine, or Derek's fish print and ukulele workshops.

I hope to see you all again in two years.

## 7th IFOMC Thoughts & Reflections (con't)

**Christi Campbell,**  
Fisheries Observer  
and At-Sea Monitor  
Northeast Ground-  
fish Observer Pro-  
gram, USA



When I was in high school and eagerly awaiting college there seemed to be a laundry list of things to do. Between taking standardized tests, completing college applications, and writing entrance essays I was a busy girl. I remember one Saturday morning taking the SATs. The essay prompt was something along the lines of, do you believe your job defines you. At the time I thought that one's identity and what you do to support yourself are not one in the same. Well, I've come to the conclusion that I missed the mark on that one. Since I started working on recreational fishing boats in college and now that I find myself observing on commercial vessels, I've come to the conclusion my personal identity is largely based on my work. My experiences at the 7th International Fisheries Observer and Monitoring Conference further instilled this new found realization that my contributions as an observer to fisheries management, research, and monitoring define my identity.

This conference was a unique opportunity to meet people from around the world that feel the same. I was proud to stand up and be acknowledged with my fellow observers at the start of the conference. Whether they worked in the Northeast where I call home, or in faraway places New Zealand, there was a sense of familiarity from the start. These were folks that could relate to my experiences regardless of the language they spoke, the fisheries they observe, or the ocean they sail on. It was humbling to be a part of a dialogue on fisheries monitoring with so many diverse stakeholders in the room. It was incredibly eye opening to see how involved the rest of the world was in solving the global crisis of over fishing. Pardon the pun, but it really feels like we are all in the same boat. Each country seems to be doing their best to strike a balance between healthy ecosystems, profitable fishing industries, and a sustainable harvest of the sea's bounty. Though success was stratified amongst participating nations, it was quite obvious that there was a significant international effort none the less.

While I enjoyed meeting my international colleagues, throughout the week's presentations, I was also reminded of the importance of my data. It is easy to forget how critical observer data is when the people you spend all your time at sea with might not feel the same way. Fishermen have a hard time relating to the work I do, when they are putting food on the nation's dinner plates. Yet time after time, the presenters drove home the message that observer data is the standard to which all other data collection, such as electronic monitoring, is measured against. I felt a sense of support that I hadn't felt since I finished training. Now when I'm having a tough day with a non-English speaking crew and the seas won't die down, or even if things are swell, I can think back to my international colleagues and those who rely on my field work and find new motivation. I realized that I never act alone as an independent observer, I have the support of everyone I met in Viña del Mar at the conference, as well as the wide network of government agencies and NGOs they represent.

The highlight of the conference was having the opportunity to present my work on striped bass recreational fishing. Sure, it was intimidating to stand up in front of such an esteemed room, but this challenge made the experience all the more rewarding. My talk opened doors to conversations with other professionals about the work they were doing with recreational data. My fellow panel presenters added to the theme of the conference as to the importance of sound data. One of my biggest take away messages was that we need to continue these partnerships, collaborations, and knowledge sharing events. We need to work together to produce the best data, with consistency, transferability, and unbiased information. Whether it is data collected by observers, industry, or electronic monitoring, there is a need to continue developing databases. The overwhelming support for observer data only continued to bolster my confidence and enhance the conversations I had with the professionals around me.

Upon receiving the invitation to attend the conference I was initially a bit intimidated and hesitant to travel internationally on my own. However, my experiences in Chile far exceeded my expectations, and I was disappointed to leave. The warm welcome we received from Oscar Guzman and the Chileans from IFOP and the surrounding city was truly heartwarming. I enjoyed every minute I got to spend talking "shop" with my fellow observers, sipping coffee with Feds from all over the world, and entrenched in Q & A sessions that proved so important in the dialogues the sessions' presenters started. My time in Viña del Mar, Valparaiso, and Santiago is not some-

## 7th IFOMC Thoughts & Reflections (con't)

thing I will soon forget. I find myself already looking forward to the 8th IFOMC and the topics that conference will address. A session on women in the workforce would be an interesting and informative panel to explore. I hope the connections established in Chile with other observers and professionals from around the world will only continue to grow and deepen as we face the many challenges before us. After all, as scientific observers, program directors, fisheries lawyers, federal observer advocates, and management officials our identities are inextricably linked to our professions and our contributions to fisheries.

**Pat Carroll**, Fisheries Observer

Southeast Shrimp and Reef Fisheries Observer Program, USA

Greetings and Thanks Damas y Caballeros

As an attendee of the of the 7th IFOMC conference in Vina Del Mar Chile, I have been requested to summarize my experience and thoughts while in attendance. I was intrigued by the opportunity to submit an abstract for funding to the IFOMC conference. I considered the sessions and initially wrote two submissions, and then added a third, "Possible improvements to Standardized Observer Safety Training with an Emphasis on Recertification" which was the one which was picked as a poster presentation. I was very happy to be invited, though worried as I had not quite developed the topic. I put off making my poster until about a week before the trip. I had little experience with Power Point, but thanks to our now living in the future, I was able to get it together quickly with amazingly few

problems. I did go through a few edits, for which I would like to thank Mike Harrellson and Jeff Pulver, both Galveston, TX coordinators for taking the time to look my project over and for their helpful comments.

The trip to Chile was very easy, I had packed my poster in my luggage, so on arriving at the airport I was able to observe all the observers carrying their poster tubes. I struck up a conversation with two of the tube carriers, and as the destiny of the sea would have it, ran into two old friends to whom I had not been introduced. These were Mr. Caleb McMahan and Chris Stoehr out of the Hawaiian program, Que tal Amigos?

Onward we reached the hotel, made more interesting with the smooth translations of Senor Caleb in negotiating our taxi fare. I was very impressed with the Hotel O'Higgins, its Staff, and the general ease of checking in.

The city of Vina Del Mar, was a busy place. The park next to the O'Higgins was very nice and was well used by the locals, as a place of relaxation and amusement. A band was usually playing there around lunchtime. It seems that Chileans listen to a lot of our music; this was one of the few times while there that I heard local music, of which I am very fond. The people were not exuberant, yet neither were they in anyway mean. I was amazed to see school kids walking after dark by themselves.

The conference began in a very modern and commendable facility. The audio visual equipment seemed very good, and translation service was provided. I was very impressed by the number of countries represented, and realized quickly the significance of the conference. The amount of information covered by the sessions, workshops, and posters was impressive. The presentations that I appreciated the most, were "Electric fishing for Flatfish in the North Sea; pulse trawling", by M.Rasenberg, and "This Fish : an Example of Industry Designed Innovation in Seafood Traceability" by A. Barny. Both

Shrimp research in  
Gulf of Mexico.  
Photo: NOAA Fisheries



## 7th IFOMC Thoughts & Reflections (con't)

of these presentations seemed to have new ideas that could be implemented in the Gulf of Mexico region, where I am often deployed. The first intrigued me in the possibility of using electric pulse technology to reduce by catch in the shrimp industry, and the second in addressing the mislabeling and packaging of sea food as well as creating marketing tools" in a box "for local fishermen , their communities as well as consumers.

My two Gulf of Mexico (GOM) co-observers, Jake LaBeau and Sara Hutton, did great jobs in transiting from posters to presentations with short notice, and hopefully, the thanks of the IFOMC committee. I would also like to say thanks to and acknowledge my GOM co-observer Derek Kuda, who presented a poster and created an impressive impromptu hands-on art workshop with great results, all on his own means.

I would also like to point out the innovation and entrepreneurship of Caleb McMahan and Chris Stoehr. "Observe this" the online video production by Caleb was a big hit with the audience, and Chris's consulting ideas are forward thinking and innovative. I am very impressed and wish them the best of luck.

The closing session was inspiring. The observer was elevated, thanked, and praised by many. The most inspiring comments were made by the chairman of the IFOMC Steering Committee, Mr. Oscar Guzman, who called for observers to be recognized as a significant and respected component of global fisheries management. He implied that observers are competent individuals who deserve the same consideration as ministers, statisticians, and bona fide scientists. His words made me proud to do the work we do, and reinforced the idea that we are working on a global project, and that it was really fantastic that so many nations could come together to discuss ideas on how to better the process.

The presence of the Association of Professional Observers at the conference was also appreciated. This was the first time I had meet both Liz Mitchell and Teresa Turk, and perhaps the second time I had meet Kim Dietrich. I mention Teresa Turk as I believe she founded the APO and did mucho for all of us, though perhaps she advises now. Thanks to you, for all of your work on my behalf and the behalf of all the other observers. Sometimes I look at observing as saving the fishers from themselves, I see this with the APO as well. In both there is a lot of altruism in being interested enough to care

and motivated enough to get things together and moving, with very little help and lots of work. Thanks again and it was a pleasure to meet you.

I am honored to have been asked to participate in this conference. I realize that I have been irresponsible in not attempting to attend previous conferences. This is my misfortune, which I will try not to repeat. I return to the United States with new inspiration for my work, and am much richer in ideas as well as realization of the scope of the work we do in global fisheries management.

It was an extraordinary to be able to meet so many people from all around the world, who are all involved with similar work and goals. It was as if the 10 blind men describing the elephant were all made to see at last, the elephant, and say with amazement "so that's what it looks like", and smile in agreement. Thanks for this outstanding opportunity; it was a pleasure to meet everyone.

• ■ • ■ • ■ • ■ • ■ • ■

**Keith Davis**, Fisheries and Transshipment Observer, Alaska, USA (Shellfish) and IATTC (Tuna Transshipment)

Did Dr. William "Bill" Karp know what he was suggesting when he - at the 1st Conference in the IFOMC series (Seattle, WA, USA; 1998[1]) in discussions with then APO representative Teresa Turk - recommended that observers establish an Observer Bill of Rights? Did he think that Teresa would team up with then APO colleague Kim Dietrich to at the following Conference (St. John's, Newfoundland, Canada; 2000[2]) coordinate a workshop and panel session, resulting in the 2000 Observer Bill of Rights (OBR) document? Could he have even imagined that it would take 15 years (after that first Conference) for observers and observer rights advocates to finally get organized enough to band together to establish an International Observer Bill of Rights (IOBR) at the 7th IFOMC? Observers have never had consistent voice in matters that determine their livelihood. Transient or seafaring existences often do not translate to consistent communications, conference outputs are often disjointed by off years between conferences, and observers are oftentimes isolated by the policy of their particular employer and/or programme. It has been a long and rocky road for observers to be able to organize to a level by which they are considered a stakeholder group. Many, even at the 7th IFOMC with the highest observer participation yet, still did not acknowledge observers as such.

## 7th IFOMC Thoughts & Reflections (con't)

The APO and the Observer Professionalism Working Group (OPWG) have helped bring the observers' voice to the forefront. However, observers would not have been able to accomplish what we did at the 7th IFOMC - in my opinion a historical act -without the support, direction and superb leadership of 7th Conference chair Oscar Guzman. I'd like to also acknowledge other conference organizers for supporting our efforts before and during the conference: Dennis Hansford, Amy Van Atten, Teresa Turk, Luis Cocas, John LaFargue – the list goes on... Maybe they knew it was time to grant observers this opportunity to organize and rise to this momentous occasion, because they themselves have all spent time out at sea and some of them know the observer profession very well from years of personal experience...

In late November, 2012 – when I disembarked from my tuna transshipment observer trip in Pohnpei, Federated States of Micronesia – I was a bit disheartened because OPWG membership and projects had just about stalled out. I was skeptical about what could be accomplished for observers at the 7th IFOMC, just over 4 months away. I checked my email, and there was Kim

Dietrich... encouraging me (and others) to get some abstracts together before the fast-approaching deadline. Like she did when her and Teresa encouraged Reuben Beazley and I to speak on the original OBR panel in 2000, she was now again lighting a fire under me arse. Almost immediately, we started working with Liz Mitchell of the APO, and Reuben Beazley, veteran Canadian observer, and others to get abstracts in by the deadline.

Ebol Rojas, Liz and I had discussed revising the OBR document previously. We and others agreed that the time had finally come. With over a century of combined observer experience, we knew we had a great team to provide substantial contribution toward protecting observer rights and professionalism:

- Kim Dietrich: 15 years observer experience; a driving force behind the APO for the first 10 years; scientist – data end-user for longline seabird mitigation; co-author of the West African Observer Manual;
- Liz Mitchell: 25 years observer experience; 13 years with the APO;
- Reuben Beazley: 35 years observer and observer union shop steward experience;
- Ebol Rojas; 6 years with the APO; extensive international Regional Fishery Management Organization (RFMO) observer program development; and 15 years observer experience;
- Jonathan Combs: 13 years observer experience in a variety of US programs;
- Alfred “Bubba” Cook: Three years policy development with NMFS in Alaska; 7 years with World Wildlife Fund (WWF) fisheries conservation work in Alaska, Russia and the Western and Central Pacific; joined the APO board last year;
- Myself: 14 years observer experience in a variety of US and international programs; 7 years with the APO; Co-chair of the OPWG;

Through much of the month of December 2012, Liz and Kim began drafting the IOBR, building upon the original OBR, The IOBR team concluded that in order to be effectively imple-

Derek Kuda & Keith Davis jam in the hotel lobby. Photo: K. Dietrich



## 7th IFOMC Thoughts & Reflections (con't)

mented among programmes, it soon became evident that there was a need for more detail regarding minimum health and safety standards and the stakeholder responsibilities for carrying out the protection of the rights outlined in the IOBR. Using her training and instructor experience with the Alaska Marine Safety Education Association (AMSEA), Kim drafted the Health and Safety document and I drafted the Stakeholder Responsibilities document, drawing from the work I was doing with the OPWG projects. I realized that, in those projects, I was trying to address many of the same issues that we were working on in the IOBR project, especially with regards to the various responsibilities that each stakeholder has in acknowledging, protecting and supporting the rights (and ultimately the professionalism) of observers.

By the end of January, we had a workable draft of all 3 documents – the IOBR, and the two Codes of Conduct for Responsible Observer Programmes documents – Observer Health and Safety and Stakeholder Responsibilities. By the 2nd week in February we advertised them through the APO email list, website and Facebook page and through personal correspondences, primarily looking for feedback from observers. We opened up the documents for comments to all stakeholders in mid-March and they remained open through September 2013. We did get some very constructive comments, but admittedly not a lot of feedback overall. Why? Well, one observer put it... “I don’t see anything that needs to be changed.” I’m not saying that this is the only answer to that question, but it’s one that I tend to agree with – at least right now[6]... The IOBR project has been 15 years in the making – the IOBR team is new to none of this, and there’s really very little to nothing new in these documents. It mostly comprises a collection of standards (from a variety of existing observer, monitoring programme and maritime documents) that are already in place – “it sets the bar” as Kim says.

I told my father long before we traveled to the 7th IFOMC together, that I was “All in” (as you would say as you push all of your chips on to the table during a poker game), and I maintained this philosophy through to completion of this conference. Why? Because, soon after my skepticism in late 2012 of what we could accomplish at the 7th IFOMC vanished – when things started to beautifully come together - I realized that observers finally had a really great hand to play, where we could make a difference. I admit I cried (tears of joy) several times during the 7th IFOMC conference week. I wasn’t the only one, right Liz? We realized that we actually cried at the same time, from across the other side of the conference

room, during a Chilean observer’s speech, Omar Yañez (Instituto de Fomento Pesquero, IFOP scientific observer), who referred to the IOBR project, during the closing session of the conference. I was not at all embarrassed that my Dad was sitting next to me... he knew. I was just dumfounded by the support that we received to put this project forward in this setting. The Chileans were all so very supportive from start to finish - made real by the 30 or so Latin American (mostly Chilean, but Costa Rican, Panamanian, Peruvian, Ecuadorian, Argentine, Brazilian, etc.) observers who presented [7] and who were in attendance during the IOBR panel session. The IOBR panel session hugely influenced the remainder of the conference through to the closing session. The Argentine delegation was the first to state during the IOBR panel discussion “We have reviewed the documents, and we agree with them 100%.” “Wow!” Reuben and I both said, as we locked our gaze with each other with those on the panel. The 7th IFOMC, was NOT ONLY a very special time for me – an experience I hold as a greater personal accomplishment than graduating from University... one that I (I know I’m not alone...) will remember until the day I die.

Though Liz and I thought of (jokingly) sending a thank you card to Congressman Don Young from the state of Alaska because his recent ignorant remarks [8] had prompted an uprising of observer solidarity, I will say “Thanks Bill” (for his part in instigating this process) and would like to thank all of the hundreds who have contributed to APO, OPWG, IFOMC, and IOBR pursuits to get observers to this point.

Next, the IOBR team (and others... Who’s ready to step up?) would like to begin assessing observer and monitoring programmes by IOBR documents standards. Yeah sure, there are many out there trying to delegitimize the (human) observer profession for reasons such as: to save money (not at all for the long term... as resources dwindle...), to pursue financial interests in pushing electronic monitoring (EM), to have the fox guard the chicken coop (with “Industry Self-Monitoring”), etc. But, I’m not too worried – in my opinion the 7th IFOMC delegation held a general consensus that EM can “never” (stated by several solid sources) replace human observers for many science and management objectives, and “Industry Self-Monitoring” is still realistically a joke to many worldwide scientists and managers who were in attendance at the 7th IFOMC. EM will certainly have its place in the future of observer and monitoring programmes, but it is time (after years and years of EM pilot studies) to be realistic (with standards) of what EM can and cannot do. [9] That record needs

## 7th IFOMC Thoughts & Reflections (con't)

to be set straight (as I believe it was at the 7th IFOMC). The IOBR project establishes a foundation of principles that begin to define a 'responsible' [10] observer and monitoring programme; but, it's only just a first step in a long process. We'll see where we're at in another 15 years!

- [1] [http://www.ifomc.com/dis/pdf/6th\\_IFOC\\_Proceedings\\_Portland\\_Maine\\_2009.pdf](http://www.ifomc.com/dis/pdf/6th_IFOC_Proceedings_Portland_Maine_2009.pdf)  
 [2] [http://www.apo-observers.org/docs/2000\\_IFOC\\_Proceedings.pdf](http://www.apo-observers.org/docs/2000_IFOC_Proceedings.pdf)  
 [3] <http://www.kimdietrich.com/WAfr-Manual/WAfr-Manual-v1.2.htm>  
 [4] <http://www.amsea.org/>  
 [5] <http://spo.nmfs.noaa.gov/tm/TM107.pdf>  
 [6] The IOBR Team intends to periodically update IOBR documents, potentially in the context of future conferences.  
 [7] See page 34 for summary of IOBR panel.  
 [8] <http://naturalresources.house.gov/calendar/eventsingle.aspx?EventID=322259>  
 [9] NMFS. 2013. Electronic Monitoring and Electronic Reporting: Guidance & Best Practices for Federally-Managed Fisheries. Discussion Draft. August 2013. 58 pp.  
 [10] 'Responsible' in the context of the FAO's [Code of Conduct for Responsible Fisheries](#).

**Dave Edick**  
 Alaska, West Coast, USA  
 Alaskan Observers Inc.  
 General Manager



The initial attraction the 7th International Fisheries Monitor and Observer Conference (IFMOC) held for many of the observers I met there was predictable. The chance to travel and far, particularly for the many participants flying out of the Northern hemisphere's cold and wet spring, transported overnight into the golden, early Autumn sun in Vin del Mar. Many had post-conference travel plans, and some even showed up with surfboards, like college kids on a lark, spring break writ large.

Observing is by its very nature isolating. In most programs observers remain the sole biologists on their boats, sharing workspace with fishing crews while pursuing completely different objectives, forming friendships while remaining outsiders nevertheless. Observers often end up feeling isolated from their employers and agency supervisors too—people they see only briefly and intermittently, and who seem too far removed by lack of experience, or at least by time, to appreciate what observers really go through in the field.

The most striking thing about the conference was how quickly it broke down this sense of isolation. The experience of Andrew Corr was typical. Corr has enjoyed a lot of success, both personal and professional, as a lead observer in the West Coast Groundfish Observer program in the U.S.—he's been happy enough to stick with the job for over a decade and has made a significant contribution as a result. The conference, he said afterwards, was "by far the most rewarding experience" he's had as an observer.

Part of what he found rewarding was simply the variety of the presentations he saw. He hadn't previously given much thought to how widespread observer programs are, to the contribu-

Derek Kuda and Claudia Valenzuela – new friends meet during the poster session. Photo: D. Kuda



## 7th IFOMC Thoughts & Reflections (con't)

tions observers make in improving both fisheries and markets, to the role they play worldwide in aiding efforts to protect endangered species, or how the way technology is being used in other programs could shed light on ways it might be better deployed on the West Coast. But the real revelation for him came from meeting observers from around the world and realizing that they are involved in a common undertaking with a common purpose. The real revelation was that he wasn't so isolated after all.

This isn't to say that the observers who traveled to Chile didn't find what drove them there. They found their rivers to run, their surfing, their fishing. At the very least they found their beer, with stony-faced manikins standing watch from balconies over the courtyard at Café Journal. But like Corr most of them would recommend other observers make an effort to attend future conferences because of discovered connections that surprised and energized them in ways that will inform their approach to their work for a long while to come.

• ■ • ■ • ■ • ■ • ■ • ■

**Joseph Fader**, Fisheries Observer  
Pacific Island Regional Observer Program, USA

As an observer based in Hawaii with the Pacific Island Regional Observer Program (PIROP) of the National Marine Fisheries Service (NMFS), I felt very fortunate to attend and participate in the 7th International Fisheries Observer and Monitoring Conference (IFOMC) in Viña del Mar, Chile this year. Indeed, I owe a huge debt of gratitude to the US delegation of the conference steering committee, especially the head of my program in Hawaii, John Kelly, for providing me with the financial assistance that allowed me to be a part of this amazing opportunity. It was an experience that far exceeded my highest expectations and one I won't soon forget.

Upon registering in February, I was naturally very excited to visit Chile and participate in the conference. However, as a relatively new observer (<2 years), and first-time participant, I wasn't exactly sure what to expect. I imagined a small group of observers and providers, maybe a few government folks, drily discussing regulations, contracts, and optimization of observer coverage. What I found instead was an incredibly diverse group of talented individuals from over 30 countries. There were scientists, managers, government representatives,

NGO's, captains, observers, observer providers, and many more. A plethora of topics and current issues regarding the monitoring of fisheries was covered. I learned everything from the history of observer and monitoring programs to their future and the new technologies that will shape that future. I learned about the different stakeholders and considerations in developing, funding, and implementing observer or other monitoring programs. I was amazed at the diversity of fisheries that need to be monitored and the wide variety of solutions that have been developed to do so. An entire panel session on the challenges of monitoring fisheries in developing countries was particularly interesting to me.

I also had the privilege and honor of participating in an excellent panel on observer professionalism. Composed mostly of observers and former observers, topics included data quality by observers, observer retention, and connecting observers with fellow observers and other stakeholders in fisheries monitoring. To me the highlight of the panel was Caleb McMahon premiering his concept of a video forum for observers called 'Observe This.' Although the audience saw a mere few minutes of the 30-minute production, the response was overwhelmingly positive and Caleb ran out of DVDs within minutes of the end of the session. The crowd literally went wild. It was definitely an appropriate and deserved finale to a really informative and valuable panel session.

• ■ • ■ • ■ • ■ • ■ • ■

**Sara Hutton**, Fisheries Observer  
Southeast Shrimp and Reef Fisheries Observer Program, USA

The 2013 IFOMC in Chile was truly inspiring. I am eternally grateful to the NOP for providing me with the funding to attend, the conference organizers for making the event happen, and the steering committee for inviting me to present. I must admit that at times I felt intimidated by the collected professional experience in the room, and some presentations went over my head. However, I found the attendees to be open and supportive and I left the conference feeling like I gained much and contributed something to the group.

I always value the chance to talk to other observers since it happens so rarely and people outside the profession have trouble understanding what it's really like living and working at sea. The opportunity to communicate with colleagues and make friends from around the world rather than just in my

## 7th IFOMC Thoughts & Reflections (con't)



**Vermillion Snapper catch.** Photo: NOAA Fishshwatch.gov

program was amazing. We were able to compare experiences as well as learn about other programs, which I was woefully ignorant of.

The presence of scientists who actually utilize our data brought home the importance of our job and made me feel

appreciated. I learned more about other programs, issues they are facing, and projects they are working on. The main take away was how important our data is to fisheries management and why data quality is so important.

The most personally relevant discussions were about observer issues. I had been wishing for these changes before the conference, but the event highlighted their importance and showed that others share these ideas. We need quality observers collecting quality data, so programs need a way to keep observers motivated to do their job well and retain experienced observers. I see the following as essential components of successful observer programs: raises based on work performance; more pay for special projects; the opportunity for observers to be involved in analysis/data use, and more conferences and trainings; and better communication between NOAA and the contractor. There are many other observer rights issues which need addressing, but if observer programs begin to treat the observer profession as a profession rather than a straight out of college step to a real career, many aspects of the jobs will have to change for the better and will result better data. If we don't have good data, what's the use of the science or management based on it?

***“If we don't have good data, what's the use of the science or management based on it?”***

**Derek Kuda**, Aka: Observer Guy™  
Fisheries Observer  
Southeast Shrimp and Reef Fisheries Observer Program, USA

My Fellow Observer Guys and Gals,

I recently attended the International Observer Conference for the first time and I have to say that it was an experience of a lifetime. The critical sharing of information, face time with the honchos, and camaraderie with other observers from around the world and domestically was indispensable. I presented a poster with ways for us to stay physically and mentally sound on long trips. I paid my own way to get to Chile because I knew what I had to share was important. One of the Argentinean observers told me directly “I think you have a big heart” when he saw my poster. Truth has no language barrier. The investment was well worth it by making new lifelong friendships and I will do my best to make the next conference. The previous two conferences, I found out about after getting vessel assignments. If you have never attended the observer conference, I highly recommend it. Besides, I want to see the number of observers outnumber the bureaucrats and even the program coordinators. It's OUR conference and I hope we can show up en masse next time.

I even have an idea for a presentation for the next conference. I noticed that some observers were afraid of being replaced by electronic monitoring (cameras). Fear not fellow observers, because I will advocate and explain the reasons why quality observers are indispensable. Ironically, the primary reason why observers should always be people is because we are human. One of the statisticians at the conference in Vina del Mar said “observers are tools”. I thought the comment was hilarious yet disturbing. I've been called worse. We need to point out to them that we are more than tools. We are underutilized tools in most of the US observer programs. Other countries like New Zealand are so far ahead of the US it feels like

## 7th IFOMC Thoughts & Reflections (con't)

we are in the stone-age. The Kiwis have measuring boards that transmit the measurements with a push of a button to their computer, and their observers who collect the particular trip's data enter and report on it and are treated as professional scientists. No camera or robot can be a sympathetic sounding board for fishermen. I was an observer aboard one of the EM study trips on grouper longliners on the Gulf of Mexico. A camera couldn't measure, tag, and biopsy the turtles like I did. The cameras were challenged to even observe the event because one take event was at night and big animals like sea turtles drag the gear all over the place.

As an observer, I consider myself an ambassador, and for many of my shipmates working with me is their first positive experience with a person affiliated with the government. As a good shipmate, I consider it my duty to watch out for the safety of my crew on deck. By being a responsible shipmate, I have been involved with saving fishermen and putting out fires. No camera can do that. I do believe that the EM has its place for legal compliance, which would relieve pressure on us observers if the program is involved with compliance. I'm all for that application, which is where EM and vessel monitoring should be used. If you have any feedback for me on this topic, please contact me. However, I do call dibs on the topic for the next conference unless I can't attend then I may pass the torch.

Be safe out there and watchale (Spanglish for watchout),

• ■ • ■ • ■ • ■ • ■ • ■

**Jacob LeBeau**, Fisheries Observer  
Southeast Shrimp and Reef Fisheries Observer Program, USA

Greetings,

My name is Jake LeBeau and I am a fisheries observer for the Southeast Observer Program based out of Galveston, TX. I was fortunate enough to have been selected by the U.S. components of the Steering Committee to attend the 7th IFOMC and present my abstract there during the session 7 panel. When I submitted my abstract to the conference last fall, at one point during the submission process it is asked of the person submitting whether they would prefer to give a poster presentation, a panel presentation, or either. Having a very dim understanding as to what might give my abstract the best chance of being selected, and thus give me the best chance of attending the conference, I chose either – thinking, if the conference is short on either poster or panel presenters, maybe

that might mean the difference in my being selected or not. In any event I was asked to give a panel presentation, and so I set about preparing one, not knowing too well exactly how I needed to prepare myself for giving a presentation.

There really wasn't a panel session I didn't thoroughly enjoy attending. Two in particular that I was exceedingly fond of were the Artisanal Fisheries session and the Transshipment session. The myriad fisheries discussed during these sessions were completely unfamiliar to me. I'm certain I sat in the conference room with my mouth hanging open, sitting on the edge of my chair, eyes wide and looking perfectly stupid as I was enthralled by every word spoken during these two sessions. The presenters took obvious care with material that would have had me fascinated otherwise, and they were all both knowledgeable and effective communicators.

I was equally impressed by the quality of work done and displayed by fellow observers. Aubrey Barto, Christi Campbell, and Joseph Fader all gave panel presentations that left me enthused by the material they presented and envious of their considerable skills as orators. The initiative taken by Chris Stoehr in his research on the post-release survival of billfish was inspiring. Caleb McMahan demonstrated no small amount of artistic vision and craftsmanship in putting together OBSERVE THIS!, his documentary featurette. I was particularly impressed with Pat Carroll, Sara Hutton, and Derek Kuda (all colleagues of mine in the Southeast Program), who I thought each did a terrific job presenting their material. To an individual, I thought every observer at the conference demonstrated an admirable amount of knowledge about their respective topics, and skill in presenting those topics.

The session 7 panel remains a bit of a blur for me. It was held on the second to last day of the conference, so I had had some extra time to prepare my presentation during my first few days in Chile, which was a blessing, but I was still a bundle of nerves during the session in anticipation of having to present, and potentially answer questions during the Q&A that followed. Panelists Hugues Benoit, Craig Faunce, Rosemarie Nijman (who put together a presentation on very short notice for a colleague who was unable to attend the conference), and session leader John Carlson all were exemplary presenters, and I felt humbled to be sharing the stage with them. Observers and fellow panelists Sara Hutton and Toby Shewan also did fantastic work presenting their material. I

## 7th IFOMC Thoughts & Reflections (con't)

was admittedly a little star-struck to meet Hugues Benoît, as I had pored over one of his academic papers for months leading up to the conference and it had informed part of my abstract. To my great relief he could not have been more friendly and generous.

After the session 7 panel I felt substantially more at ease, and was able to fully appreciate my surroundings a little more. Thursday night was punctuated by a screening of **OBSERVE THIS!** and an impromptu jam session that lasted until the wee hours of the morning. On Saturday, after the conference, my brother (who made the trip to Chile with me) and I made the short trip

from Viña del Mar to Valparaiso with several of the observers who had also attended the conference. Our time spent there, in the good company of those observers, was one of the highlights of the trip for me, and something I won't soon forget.

ver for reviewing my abstract, the Southeast Observer Program, and anyone who at any point before, during, or after the conference helped translate something spoken in Spanish to English for me (it is a long list). The conference was fun and informative, Chile was beautiful, and the company was outstanding. To anyone reading this who happens to make a living collecting or utilizing quality biological and fisheries data – Keep up the good work.

**Tom Maher**, Fisheries Observer  
Southwest, USA

I really didn't know what to expect when I found out I was going to be attending the conference. What I discovered was infinitely more valuable than I ever could have imagined. I had no idea there would be so many different countries from all over the planet participating. This was a very eye opening experience for me and it has reinvigorated me as an observer. The sense of community and camaraderie fostered during the conference was also great to partake in. All in all I feel it was a very successful and meaningful event.

**Christiano Roma**  
Fisheries Observer,  
Brazil & Azores,  
Portugal



To me the 7th IFOMC was a great experience to know the many people that work with observers. The conference was a great moment to share ideas and give a new atmosphere for the science of marine resource. I complement the good people involved and am determined to offer solutions to the future studies.

The trip to Chile for the conference was a deeply enriching experience, and rejuvenating, in that I've since returned to work refocused and rededicated, with a strong sense that we working as observers, fisheries managers, monitors, and research scientists aren't all toiling away in a vacuum. Seeing firsthand what is being done all over the world with regard to the collecting of fisheries data and responsibly managing those fisheries is, for me, akin to being administered oxygen or some such other essential life force.

I am eternally grateful to the Steering Committee for having selected me to receive funding to attend the conference. I would also like to thank Oscar Guzmán and the host committee for being terrific hosts, my coordinator Jeff Pul-



**Keith, Caleb, Christiano, and Omar—jamming at the poster session.**  
Photo: D. Kuda

## 7th IFOMC Thoughts & Reflections (con't)

**Toby Shewan**, Fisheries Observer  
West Coast Groundfish Observer Program, USA

It was an honor representing WCGOP at the 2013 IFOMC in Vina del Mar. The venue was very accommodating and staff was friendly. I thought the conference went very smoothly and was planned out well by Mr. Guzman as well as the steering committee. Each session and workshop had a pertinent theme and the speakers on each panel were able to cover many aspects of the themes discussed. I also like the time allocated to the question and answer session after the panel was finished.

As a presenter the audio/visual set up was user friendly and I had no issues uploading my presentation. I appreciated the support and input given to me by staff (John Lafargue and Jason Janot) during the process of preparing for my presentation as well. The steering committee did a good job of selecting a variety of aspects of bias to be discussed by a variety of presenters.

I liked the presentation, "This Fish", which focused on traceability of seafood from the fishermen that caught it to the store that sells it to the consumer. Many people are currently interested in where their seafood comes from and that is harvested sustainably. This program seems to accommodate this trend while benefitting the fishers, sellers of the product and the consumer as well.

The conference was a great opportunity to meet and share ideas with individuals from many programs from many different places. WCGOP was well represented by staff and experienced observers alike. Participating in the conference was a great experience and I look forward to attending more in the future if given the opportunity.

• ■ • ■ • ■ • ■ • ■ • ■

**Jody Van Niekerk**, Fisheries Observer  
Southwest, USA

First and foremost I would like to thank the sponsors and everyone involved in organizing this important event. It is crucial for Scientific/Fisheries Observers to come together and realize how their hard work and dedication contribute to the sustainability of the natural resources of our oceans. It is a

solitary profession practiced under the harshest of circumstances. Not only does an Observer have to show reasonable physical fitness, but he/she most importantly has to prove to be emotionally and psychologically equivalent to perhaps men and women serving in the armed forces. Some might think this is an over statement but very few have actually spent enough time at sea to be able to give a fact based opinion.

Not only do Observers have to endure isolation, sleep deprivation, inconsistent eating habits, close living quarters with strangers, invasion of personal space, long working hours and a work environment such as the open ocean, but they are expected to capture very important data accurately and efficiently. A conference such as the one attended in Chile by Marine Scientists from all over the world is important in connecting people who are leaders in their own respective fields. Being able to share their ideas with fellow scientists and shedding new light on data needed for ground breaking research. After all, e-mails and telephones cannot replace face to face interaction.

The conference was a huge success in this respect. The venue was excellent and everything needed was available. There were some issues that did deserve more attention though:

1. Even though men and women working as Observers endure harsh circumstances, the rewards are few. Salaries do not fit the job description and this is not the type of work that can be equivocated to a career.
2. Work is based on seasons and for most, especially in the South West Fisheries division (USA) the seasons do not last longer than approximately six months. Should the Observer want to work more consistently he/she would possibly have to move to a different State.
3. There are no benefits to be had and therefore working as an Observer is not seen as a long term investment for the party involved.
4. More money is spent in training new Observers and the biggest problem is finding quality men and women who have the right qualities to do the job efficiently.
5. Another problem is, if an Observer wants to get involved in another program he/she has to do almost the same training all over again and for the same period of time, sometimes even longer depending on the region.
6. Observers can/should be given more responsibility, those working in the Southwest Region do get to do biopsies,

## 7th IFOMC Thoughts & Reflections (con't)

tagging of turtles and sharks and sampling of tissues from sharks, turtles, marine mammals, fish and birds.

7. It will also be advantageous to keep the Observer up to date with the current research as Observers work so hard to obtain data and are most often the only person to independently record fishing practices first hand.
8. It is understandably a very important profession that merits a lot more attention and support from government and other agencies involved.

It was mentioned that electronic monitoring (EM) equipment will/might be installed and many were skeptical whether or not it could replace the Observer. EM could never replace Observers as it is incapable of collecting sufficient data especially when sampling is involved. The Scientific Observer plays an integral part in fisheries monitoring programs and is at the front line so to speak in the acquisition of crucial data on which very important decisions are based. After all, our living natural resources are more important than anything else. It affects our health and overall well-being and is therefore crucial for our survival as a species. No research can ever be done without properly attained, accurate data. Commercial fishing vessels do prove to be one of the hardest platforms to acquire sufficient data from. From the strenuous working conditions to the attitude some fishing crew show toward Observers. I recall the case of the Observer who was thrown overboard and the body was never to be found.

Conferences should be held on a more regular basis, no more than 2 years apart at least. Attention should definitely be given to enhance the Observer program and make it a more integral part of the Marine Sciences. It is one of the most important professions in the Marine Sciences and should be treated as such.

## APO ACTIVITIES (con't)

**APO Strategic Plan:** We're in the process of completing a 5-year strategic plan to advance the activities of the APO. We will have this completed by February 2014 and will be distributing the draft for public comment at that time. If you are interested in reviewing it, please contact the APO.

**APO Gains New Board Member:** Alfred "Bubba" Cook joined the APO in November 2012. Please check out his [profile](#) on our board page. We're happy to have his broad expertise in policy, observer advocacy and nonprofit management. APO will be recruiting board members in 2014. We'll be sending out an announcement in the next Mail Buoy.

**APO Forming Regional Chapters:** Since the 7th IFOMC, there has been tentative interest in creating APO chapters in Argentina and Chile. Building camaraderie between observers in various regions of the world through APO Chapters has been one of APO's long term visions and we hope to form the foundation for this in 2014.

### APO Advocacy:

- [06 November 2013](#): APO signed on to a letter to the Western and Central Pacific Fisheries Commission (WCPFC) calling for more transparency, access to meetings, and sharing of information
- [13 March 2013](#): APO statement submitted to the House Natural Resources Committee in response to Alaska Senator Don Young disparaging remarks about observers
- [2-6 December 2012](#): Position paper for the Western and Central Pacific Fisheries Commission (WCPFC) 9th Regular Session of the Commission held in Manila, Philippines

**New Membership:** To become an official Observer Member of the APO, you must currently be collecting or have collected fisheries monitoring data for a fisheries management authority

## APO ACTIVITIES (con't)

and donate \$15 or more annually. Non-observers may become a Supporting Member by donating \$10 or more annually. Membership is based on date of receipt. Donations can be made via PayPal at: <http://www.apo-observers.org/join>.

**APO T-shirts:** Available in size M, L, XL, 2X in black and turquoise; turquoise and black; black and white. The price is \$35 plus shipping and includes membership.



## OBSERVER PROGRAM NEWS

### NOP & IFOMC Fund Observer Attendance

A big **THANK YOU** goes to the US National Observer Program for funding 19 observers to attend the IFOMC. This funding was greatly appreciated. The IFOMC Steering Committee also waived registration for an indeterminate number of observers as well as coordinating places for the observers to stay while in Chile. Thank you for supporting observer attendance!

### 7th IFOMC Steering Committee.

## OBSERVER PROGRAM NEWS (con't)

### Regulatory Advances Improve Observer Program in Chile

With the active participation of a dedicated cadre of scientific observers in Chile, many advances have been made for observers there, some of which have been inspired by the IOBR and CCROP documents presented at the 7th IFOMC in April this year. New observer program rules were established by the Ministry of Economy, Development and Tourism, Undersecretary of Fisheries and Aquaculture, Chile. Under these draft rules, the administration and management of the observer program has been turned over to the Instituto de Fomento Pesquero (IFOP) and priority has been given to the basic research carried out by observers, as well as outlining the requirements, functions and obligations of scientific observers on board industrial and artisanal fishing vessels, landing points and processing plants. Among other things, the draft rule outlines the responsibilities of the fishing industry toward facilitating the ability of observers to collect data and to ensure adequate conditions of work, habitability, communication and personal safety.

Locally, the IFOP office in Talcahuano, Chile, created the "Implementation of a System of Integrated Management and Social Responsibility" and Chilean observers were integrally involved in its development. This document allows for a structured methodology that characterizes labor, environmental, social, psychological and medical issues from the perspective of observers. Observers in Chile now have an improved



## OBSERVER PROGRAM NEWS

(con't)

mechanism with which to address these issues that affect their work.

Moreover, Chilean observers are participating in a workshop that seeks to describe the observers' responsibilities and authority, as well as to increase their pay. The workshop also seeks to establish a career track whereby the observer can continually improve their skills and receive specialized training, which will enable the observer to access the career service within the agency.

Finally, Chilean observers are actively engaged in developing a project on reporting fishery discards and fishery interactions. The name of the project is "Research Program - Bycatch and Interactions". This project will establish the observers' authority to collect information on discards on board industrial and artisanal fishing vessels, something that had been previously lacking in Chilean fisheries regulations.

Source: Guillermo Bendel Garcés, Instituto de Fomento Pesquero (IFOP), Chile; Implementación de un Sistema de Gestión Integrado y Responsabilidad Social en Instituto de Fomento Pesquero Talcahuano; Aprueba Reglamento de Observadores Científicos de la Ley General de Pesca y Acuicultura (Draft).

## LABOR UPDATES

Observers in Alaska and Hawaii, contact Tracey Mayhew for any union- or contract-related questions:

Seafarers International Union -  
Anchorage Port Agent  
721 Sesame Street, Suite 1C  
Anchorage, Alaska 99503  
Phone: (907) 561-4988  
Fax: (907) 563-0122  
Email: [tmayhew@seafarers.org](mailto:tmayhew@seafarers.org)



## MISC. NOTES & TIDBITS

### Sites of Interest

Alaska Marine Safety Education Association-  
[www.amsea.org](http://www.amsea.org)

International Observer Bill of Rights: [www.apo-observers.org/billofrights](http://www.apo-observers.org/billofrights)

### Facebook Groups:

- ObserveThis! - <https://www.facebook.com/groups/observethis/>
- Marine Mammal Observers (International) - <https://www.facebook.com/groups/12764735511/>
- GOM Reef/Shrimp Observers - <https://www.facebook.com/groups/184991854968759/>
- Observadores INIDEP (Argentina) - <https://www.facebook.com/groups/655048951178731/>
- International Observer Bill of Rights—  
<https://www.facebook.com/groups/IOBRObservers/>

### Observer Data

Have you ever wondered what happens with the data collected by observers? Below are a few recent references which utilize observer-collected data. See more citations at <http://www.apo-observers.org/usage>.

- Carruthers, E. H., J. D. Neilson, and S. C. Smith. 2011. Overlooked bycatch mitigation opportunities in pelagic longline fisheries: Soak time and temperature effects on swordfish (*Xiphias gladius*) and blue shark (*Prionace glauca*) catch. *Fisheries Research* 108:112-120.
- Godin, A.C., T. Wimmer, J. Wang and B.Wurm. 2013. No effect from rare-earth metal deterrent on shark bycatch in a commercial pelagic longline trial. *Fisheries Research* 143: 131-135
- Okuda, T. and M. Kiyota. 2012. Analysis of variability of krill size and fish by-catch in the Japanese krill fishery based on scientific observer data. *CCAMLR Science* 19:31-47.
- Yeh, Y-M., H-W Huang, K.S. Dietrich, E. Melvin. 2013. Estimates of seabird incidental catch by pelagic

## MISC. NOTES & TIDBITS (con't)

longline fisheries in the South Atlantic Ocean. *Animal Conservation* 16 (2): 141–152

Żydelis, R., C. Small and G. French. 2013. The incidental catch of seabirds in gillnet fisheries: A global review. *Biological Conservation* 162: 76–88.

### Conferences & Workshops

Intl. Fisheries Observer and Monitoring Conference:  
[www.ifomc.com](http://www.ifomc.com)

International MCS Network – 4th Global Fisheries Enforcement Training Workshop, February 2014— <http://imcsnet.org/about-us/network-activities/4gftw/>

Second Symposium on Fishery-Dependent Information in Rome, Italy 3–6 March, 2014 - <http://www.imr.no/prosjektsiter/fdi/en>

Fisheries Bycatch: Global Issues and Creative Solutions  
29th Lowell Wakefield Fisheries Symposium  
May 13–16, 2014, Anchorage, AK

<http://seagrant.uaf.edu/conferences/2014/wakefield-bycatch/index.php>

3rd International Marine Conservation Congress, 14–19 August, 2014 • Glasgow, Scotland

<http://www.conbio.org/mini-sites/imcc-2014/registration-participation/71-questions>

American Fisheries Society, Aug. 17–21, 2014, Quebec City, PQ - <http://fisheries.org/meetings>



Seabirds flying over pancake ice off Atlantic Canada. Photo. R. Beazley



## Association for Professional Observers

PO Box 933

Eugene, OR 97440

USA

Phone: (541) 344-5503

E-mail: [apo@apo-observers.org](mailto:apo@apo-observers.org)

Website: [www.apo-observers.org](http://www.apo-observers.org)

FB: [www.facebook.com/groups/apobservers/](https://www.facebook.com/groups/apobservers/)

The APO is a non-profit, non-governmental organization whose mission is to strengthen observer programs through advocacy and education. Our goal is to facilitate the exchange of fisheries information while providing an important source of fisheries observer program and fisheries observer data-use information. It is our intention that the results of our activities may encourage the recruitment and retention of professional observers and foster the best quality observer data for the purposes of conservation and the responsible management of marine living resources.

### Current Board Members:

Liz Mitchell — [emitch@efn.org](mailto:emitch@efn.org)

Ebol Rojas — [ebolred@yahoo.com.ar](mailto:ebolred@yahoo.com.ar)

Alfred "Bubba" Cook — [acook@wwfpacific.org.fj](mailto:acook@wwfpacific.org.fj)

Supporting Observers since 1996!

# Volunteers Needed!!

The **SUBMISSION DEADLINE** for the next issue of the Mail Buoy is **December 31, 2013** and we're looking for some writing and editing assistance. The APO continues to be interested in your ideas - if you have an idea for an article or story, would like to respond to a previous article, or think the APO has overlooked some issues, don't hesitate to contact us. Contributions from all sectors are welcome.

APO also needs help with: volunteer coordination, outreach, web design and maintenance, database updates, research (observer program updates, fisheries management issues, etc.), grant writing, helping with official APO statements and letters. Contact Liz at the APO if you're interested.

Chilean observers honor IFOP with a fish print.

Photo: D. Kuda

