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APO Mail Buoy

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If you have a good picture that you would like on the cover of the next Mail Buoy, [submit a picture to us!](#)

6th INTERNATIONAL FISHERIES OBSERVER & MONITORING CONFERENCE



Portland, Maine, USA

July 20 - 24, 2009



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“Our intention with this survey is to gather feedback from all current and prospective members of the Association for Professional Observers (APO) on the need, expectations, and desired role of the organization.”

Project Updates

Website Revamp

Due to unforeseen problems, the release of the new website was delayed. But no longer! While some sections are still under construction, the majority of the site is up and running. Please visit the updated site at apo-observers.org! We welcome and encourage your feedback and suggestions as construction continues, so email webmaster@lotuswebconsulting.com!

APO Feedback Survey Update

We are glad to report that we currently have participation from 20 respondents to the [APO Feedback survey](#). This is a good start though we hope to encourage a great deal more participation in the coming months to this important project. Our intention with this survey is to gather feedback from all current and prospective members of the Association for Professional Observers (APO) on the need, expectations, and desired role of the organization. Our goal is to report the results to this survey at the 6th International Fisheries Observer and Monitoring Conference ([IFOMC](#)) to be held in July 2009.

You still have time left to share your perspectives with us. Please help us to evaluate the current role of the APO and shape a clear path for our future by providing your perspective in the [APO Feedback Survey](#). We greatly appreciate your consideration into this project.

Observer Short-story Book Progress

The APO's observer short-story book project Eyes on the Seas (EOS) is coming along rather nicely. The intent of this project is to introduce the increasingly important Fisheries Observer profession to a wider public and, with raised proceeds from book sales, help to facilitate future APO projects and scholarship opportunities geared at fostering the professional advancement of fisheries observers.

So far, we have received submissions of short-stories, poetry, illustrations, and imagery from over two dozen current and prior observers of many programs about the global, and we will continue to work with contributors to help finalize submissions over the next couple of months. For a sense of what is to come, check out a sample of EOS contributor Ethan Brown's poetry in the Creative Corner section of this edition. Ethan, an experienced U.S. and International Fisheries Observer, has contributed several of his poems and short-stories for consideration into this project.

We aim to have a working manuscript ready for a Review Period by early 2009. Several select individuals from among various stakeholder groups who have a vested interest with fisheries observers or observer programs will be asked to review and provide feedback as soon as we have a working manuscript ready for review.

For more information on this project, please see the [Eyes on the Seas Project Plan](#). If you wish to: be considered for participation in the EOS manuscript Review Period, endorse, or contribute in any manor into the production of this project, please contact the EOS editors directly: eyesontheseas@gmail.com.

Observer Conference Outlook

6th INTERNATIONAL FISHERIES OBSERVER & MONITORING CONFERENCE



Portland, Maine, USA

July 20 - 24, 2009

IFOMC Abstract/Presentation Guidance and Outlook

As is described in further detail in this edition's contribution from the [U.S. National Observer Program \(NOP\)](#); planning for the 6th International Fisheries Observer and Monitoring Conference ([IFOMC](#)), to be held July 2009 in Portland, Maine, is well underway, and the *Call for Abstracts* deadline (December 31st, 2008) is fast approaching.

At the last conference in Victoria, British Columbia (May, 2007), there appeared to be a good deal of concern that presentation participation by fisheries observers may be under-represented, especially in regards panel session participation. There are several ways to participate at the 6th IFOMC, though you must make a commitment NOW if you wish to be involved at the forthcoming conference.

It is our understanding that direct IFOMC funding for observers and other under-represented stakeholders in need may be limited for this conference. So, the best advice that we can give is, "Don't wait for funding!" Make a commitment to go, start the process with submitting your abstract(s) before the deadline, and then find some way to make your way to Portland, Maine next July.

Many observer contractors/service providers have traditionally supported (financially and otherwise) observers attending past conferences - some contractors, like Atlantic Inspection Services (AIS) of the Northeast, U.S. and Seawatch of Newfoundland, Canada sent several of their observers to Victoria in 2007. This is a great way for an observer provider to promote professional growth among their employees and the APO would like to commend all contractors who have taken on this initiative in the past. Nevertheless, an observer provider may not think of it or approach it first unless or until an ambitious observer approaches them about being funded to attend. Hint. Hint.

When submitting an abstract, you will be given the choice to submit a poster abstract or a panel session abstract. For submitting a panel session abstract, the [IFOMC website](#) states: "Be sure to indicate which topic on the panel program your abstract addresses. We will receive more worthy abstracts than the conference can accommodate in oral presentations. If your abstract is not selected for a panel session, be sure to indicate whether you would be willing to present your material as a poster."

From our experience, the best way to come up with an abstract that may be seriously considered for a panel session is to: first, thoroughly investigate the proposed panel program to figure a topic area that is most interesting to you, strictly follow the submission guidelines, and keep the focus of your abstract narrow - though some international context may help. If you would like additional advice on drafting or submitting IFOMC abstracts, contact Keith Davis: lblegend@yahoo.com.

The APO is currently investigating our approach for the 6th IFOMC. We have a few abstract ideas in the works as well as some thoughts for how we can help observers at the conference. Like we had in Victoria, we hope again to have an "Observer Crash Pad" apartment in Portland, Maine during conference week and we also have on the table the possibility of the APO facilitating an informal pre-conference "Observer Orientation/Mixer." Although funding considerations must be detailed long before we can begin to plan for either of these projects. If you would like to donate to the APO/IFOMC Fund, which is devoted to these two projects as well as other endeavors meant to promote and develop observer participation at the 6th IFOMC, please first contact us via email: apo@apo-observers.org.

*** The "Observer Biography Series" is a quarterly profile of an observer who has done something normal or new (but noteworthy) in the course of their career. Do you know of an observer whom you would like to see profiled in our next issue? Contact the [APO](#) to nominate him or her to be profiled!

Observer Biography Series

John Mulkey- Observer Develops Efficient Field Sampling Products



John at Lake Tapps with 17.5 inch Smallmouth Bass

Growing up on Lake Tapps, a glacial-fed lake approximately 30 miles south of Seattle; John Mulkey enjoyed a very exciting and active childhood.

As part of a Hydroelectric Project, Lake Tapps was formed by way of a dam built near Buckley, Washington designed to divert water into a natural basin. The diversion created one huge reservoir from what had been four smaller glacial lakes. The resulting man-made lake sports a vast surface area of 2,566 acres, including 45 miles of shoreline. There are many wooded islands around the lake as well as a large assortment of wildlife and various species of fish, and John had the opportunity to grow up enjoying all of the benefits of a leisure boating-oriented culture with an appreciation of nature's generous bounty. Fishing was just a canoe ride away on the lake right outside of his back door. Osprey and eagles nesting nearby...

In the eighth grade, a deep-sea excursion to Homer, Alaska, on a quest for halibut, served as the final tipping point of John's lifetime love of adventure and nature. This sense of adventure ultimately and auspiciously led John into the career path of an Observer.

John worked as a stack cutter during the later years of college at Northwest Design & Manufacturing, an industrial sewing company. A stack cutter layers fabric, places a pattern on top of the stacked fabric and then uses an electric knife to cut the layers of fabric, thus eliminating the need to cut all the pieces in a design one by one. There was access to equipment, materials and design knowledge, all of which allowed John to experiment with his product ideas. Through time and tests in the field, he developed his Marsupial Products to what they are today.

As John was finishing up his studies at Western Washington University (WWU), he was employed by Mid Puget Sound Fisheries Enhancement Group, as a Community Outreach Coordinator. He spoke at community functions from within the Mid Puget Sound region and spent time recruiting volunteers to participate in stream enhancement projects. These projects included organized efforts to install large woody debris in the stream, removing culverts, planting riparian vegetation, removing invasive plants and overall stream monitoring.

After graduation, John spent 5 years paying for his education working for a company specializing in fabricating and installing insulation blankets for engines on motor vessels. It was while disembarking a Trident fishing vessel he had been working aboard while docked in Tacoma, Washington when John came to the realization that he needed to explore new career paths and put his university degree to better use. He began in earnest looking for work as a scientist, and John knew that he wanted to work on fishing vessels while at sea.

After seeing a job posting on a WWU website, John applied and was accepted with an observer provider in the North Pacific, USA. John has been a North Pacific Groundfish observer for three years working mainly on trawlers based out of Dutch Harbor and has observed for the At-Sea Hake Observer Program based in the state of Washington.

A combination of John's experiences has sparked his imagination and challenged his practicality to think of more efficient methods for carrying out simple sampling tasks. All observers can relate to the need to think about the particular details of repetitive routines. Fortunately, John's unique background in industry equipped him with the necessary skills to envision better ways of doing things, and to ultimately create his much-needed field sampling products.

Real inspiration was born on a wet, snowy morning in Bellingham, Washington, as John was conducting a bird survey at the Sehome Hill Arboretum for a vertebrate ecology class at WWU. His clipboard was caked in wet snow and he had misplaced his pencil. Climb-

continued...



John Observing in the North Pacific

Observer Biography Series

John Mulkey, continued



ing and slipping up a hillside, he fumbled with all the required gear for the survey. Maneuvering over obstacles, slipping and losing essential data collection tools are things every observer can relate to. Wet, frustrated, and muddy, he decided, "There just has to be a better way to do this."

This experience led John to the innovative design and the development of a useful clipboard sleeve, cleverly named "The Shark." The design of this tally board is based on no fewer than eight prototypes and was built specifically with longline observers in mind. This is an extraordinarily specialized market, and an experienced observer will appreciate the special features and ease of use incorporated into the product.

"The Shark" is equipped with three pencil pockets, thus enabling ease of access to writing equipment while providing a handy spot to store forceps. The two mesh pockets were fashioned to hold small gear items like otolith vials and other small items. Two grommets on the neck strap provide convenient tie-off points. An elastic band holds papers to the clipboard to secure against the wind. The unpredictable nature of boats makes storage space quite challenging, so a magnet was incorporated to hold "The Shark" to any metallic surface. The 'rare earth magnet' also works as a security measure that prevents lost work in the bilge. There are ten available spaces to place thumb counters. The Velcro design gives easy visibility of numbers, yet

allows maneuverability, so the observer can clear to zero without fumbling around with its position. Finally, there is a secure pocket next to the pencil pouch to hold calipers.

The "Bering Sea Work Belt" was a concept that occurred to John on a boat while trying to find a handy place to put his gloves. As an observer, he would be working aboard a vessel and have no place to keep them once they were removed from his hands. Crewmembers oftentimes drape their gloves from pipes on the ceiling, or just take any community gloves from the changing room dryer. This sharing option was understandingly unappealing to John. Another dilemma was the annoyance of constantly needing to store gloves while working with items that needed to stay dry while in adverse conditions. These two problems served to activate the gears of John's brain once again, and resulted in the manufacture of a very handy premium quality work belt.

The belt has a mesh pocket in the rear for carrying items and, in particular, storing gloves. Also, situated on the side is a tab of 2-inch nylon webbing that the wearer can use to attach a knife sheath. A loop sewn into the belt allows gloves and a knife to hang conveniently out of the way on one of the many hooks present in the gear changing rooms of fishing vessels.

Currently there are "Bering Sea Work Belts" available at LFS in Seattle with plans to expand to all of their stores. The North Pacific Groundfish Observer Program has purchased 40 "Sharks" and 40 "Bering Sea Work Belts" in order to better equip their observers in the field. John and Marsupial Products will continue to design new products and improve on the existing ones, with hopes to expand the existing line of offerings to other genres of field workers. Everyone who carries a clipboard or just needs more pockets to make field work that much easier, could benefit from this type of specialty outfitting equipment.



There are many as yet undiscovered opportunities for the future of the Marsupial Products. When working in the field, you may ask yourself questions such as these: "Is there a better way to do this?"..."Could this be simpler or safer?"..."How could I improve upon whatever I'm doing?"

If you have an idea or suggestion, please feel free to contact Marsupial Products website at <http://marsupialproducts.com/>.... Who knows, it just might lead to a brand new design!



Observer equipped with both "The Shark" and the "Bering Sea Work Belt"

International Spectrum

Fisheries Observer Harassment and Interference¹ - a Global Challenge

Ebol Rojas; International "Scientific" Fisheries Observer; Mexico

With extensive and widely accessible systematic statistics in regards to the number and types of harassment and interference incidents affecting fisheries observers, it would be possible to begin to understand and categorize the variety of threatening incidents observers may face in the profession and begin to outline the circumstances in which these scenarios may arise and chart how they can be addressed. Consequently, this would help in building a framework on observer harassment and interference with the intention of amending and implementing management measures meant to prevent these types of situations for future employees in the Fisheries Observer profession.

Big problem.

Amid the various Regional Fisheries Management Organizations (RFMOs²) and among many worldwide observer programs, it can be very difficult to obtain reliable information on the levels of observer harassment and interference. The lack of data on infractions and the difficulty to retrieve access to existing data are fundamental obstructions that discourage the possibility of constructing a proper systematic analysis of the levels of harassment and interference against fisheries observers. RFMO's and some national observer programs don't have the means to gather data regarding observer harassment and interference incidents nor the capacity for managing this data well. In addition, they don't commonly share existing information of this nature - the amount per type of incident involving the harassment and interference of observers. Therefore, on a global scale, incident rates remain a mystery. A mystery in grave need of solving...

It is important to understand that sampling and data outputs can be and are threatened by harassment, interference, or by other professional obstructions affecting observers. In some cases an observer may finish a deployment with an absolute loss of sampling data generated, with significantly biased data due to an introduced harassment or interference situation while at sea³ or even with serious physical and mental injuries⁴.

In the USA, this problem has been well documented in several reports, as provided by the: Marine Resources Assessment Group (MRAG, 2000) , U.S. Department of Commerce (Office of Inspector General, 2004) , Public Employees for Environmental Responsibility (PEER), as mentioned in the Fall 2007 edition of the Mail Buoy (Mitchell, E., 2007) .

However, in an international context, the existing information on this important issue does not reflect reality. Nevertheless, what international efforts have been made towards improving measures designed to help avoid observer harassment and interference?

One RFMO that has given special attention to cases involving observer harassment and interference is the Inter-American Tropical Tuna Commission (IATTC). Within the IATTC, the International Dolphin Conservation Program (IDCP) and the International Review Panel (IRP) were established by a resolution in April of 1992, and the Agreement on the International Dolphin Conservation Program (AIDCP) was adopted at the 35th Intergovernmental Meeting (IGM) in February 1998⁵.

In 1998, with regard to observer harassment and interference, the IRP reported that it is the responsibility of the member state governments to support their observers and to proceed on the information reported by them and that matters should be considered in the framework of the IGM⁶.

continued...

¹ For the purposes of this article, the term *Fisheries Observer Harassment and Interference* refers to the act of assaulting, intimidating, impeding, or interfering with the work or livelihood of a fisheries observer.

² *Regional Fisheries Management Organizations (RFMO)* are international organizations comprised of multiple member nations, "states," who are granted the authority to cooperatively manage the fisheries among bio-regions spanning among the marine borders (Exclusive Economic Zones) of the member states.

³ Van Zile, D. 2002. Sorting 'em out. *National Fisherman*. December: 20-23.

⁴ Bry, S. 2001. Observer in conflict on Spanish trawler. *Atlantic Fisherman*. December: 9.

⁵ IATTC website: www.iattc.org

⁶ International Review Panel, Annual Report. 1998

International Spectrum

Global Challenge, cont.

At its 21st meeting in 1999, the IRP decided that observers should be instructed that in the event observers are approached by vessel personnel in a way that suggested attempted bribery, they are to turn down such approaches clearly and forcefully, but also to report them. The Panel also decided then that - if it was unable to identify a possible observer interference infraction due to vague or subtle information, the incident should be tracked by recording the individual(s) and vessel involved for future reference and the observer should be kept apprised of the action taken. At this meeting, the IRP also recommended to member states that they should put special attention to the situations regarding observer harassment and interference, requesting guidance be provided to the captains of vessels with the intention of avoiding situations that may be misinterpreted as observer harassment and/or interference⁷.

In 2007, in the 2nd Meeting of IATTC and the National Observer Programs were issued several recommendations regarding training within the Observer Program of the AIDCP, as follows:

“4. IATTC and AIDCP resolutions and regulations.

This part of the training session should emphasize that the observer’s role is to document the vessel’s activities, and not to enforce, interpret or offer advice on any resolutions or regulations. The observer must be aware of these regulations, and in form vessel personnel about them if requested, but must not take them into account when recording data.

In particular, this part of the training should focus on making trainees aware of the possibility of interference (including bribery attempts), intimidation or obstruction by vessel crew during a trip, and preparing them to identify, deal with, and document any such instances, using actual cases as examples.

They should be instructed in the importance of addressing such situations in a decisive and professional manner. The trainees should be able to identify such instances, and describe them clearly and in detail without including personal opinions, assumptions or irrelevant comments.⁸”

As had been requested at the last meeting of the Panel; In 2007, the IDCP Secretariat presented the Document IRP-43-INF A, outlining *Identified Cases of Observer Interference* (Table 1⁹).

Table 1.- Document IRP-43-INF A					
Identified Cases of Observer Interference					
Year ^a	Number of Cases	No infraction	Under investigation	Confirmed	No response
1999	1	1			
2000	11	6	1	4	
2001	7	2	2	3	
2002	5	4		1	
2003	4	1		2	1
2004	5			2	3
2005	8	3	1		4
2006	2		1		1
Total	43	17	5	12	9

^a Trip departure year

continued...

⁷ International Review Panel, Annual Report. 1999

⁸ International Dolphin Conservation Program. On-Board Observer Program. DOCUMENT OBS-2-03b. Guidelines for Technical Training of Observers. 2nd Meeting of IATTC and National Observer Programs. La Jolla, California (USA), 27 October 2007.

⁹ International Dolphin Conservation Program. Document IRP-43-INF A, Identified cases of Observer Interference. International Review Panel, 43rd Meeting Cancun (Mexico) 19 June 2007.

International Spectrum

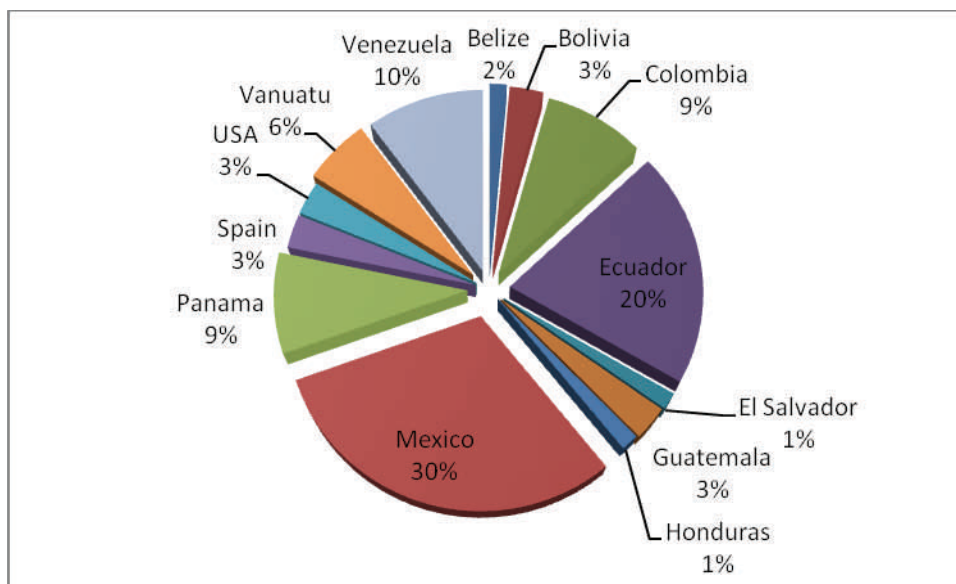
Global Challenge, cont.

Table 2 and Figure 1 outline the breakdown, categorized by member state, of observer harassment or interference cases reported among IRP meetings between 1998 and 2006:

Table 2 - Resume of the cases analyzed using data reported from the IRPs meetings between 1998-2006 (18 to 42)¹⁰:

Country	Number of cases
Belize	1
Bolivia	2
Colombia	6
Ecuador	14
El Salvador	1
Guatemala	2
Honduras	1
Mexico	21
Panama	6
Spain	2
USA	2
Vanuatu	4
Venezuela	7

Figure 1. Percentage of cases on observer interference/harassment investigated by the IRP between Meetings 18 and 42, segregated by Country.



There are nine cases without response since 2003 and three cases under investigation since the years 2000 and 2001 (Table 1). This plainly exhibits a poor commitment by governments to close investigation of observer interference cases. Table 2 and Figure 1 show that some member states have a great deal more harassment and interference cases than others.

continued...

¹⁰ International Review Panel, Meetings 18th to 42nd

International Spectrum

Global Challenge, cont.

The global challenge

One thing is certain, fisheries observer activities have a significant impact on the successful management of global fisheries. And, the commitment to managing the harassment and interference problems occurring with global fisheries observer programs must be confronted with international cooperation. As illustrated with the reviewed cases, observer harassment and interference issues do not impact fisheries management in only one country or region. Oftentimes, for many worldwide fisheries, vessels operate in several regions, across multiple national marine borders, and among international waters. Observer harassment and interference must be approached as a global problem involving the cooperation of national and regional observer programs throughout the world.

As with the methods used by the IRP (in the context of the AIDCP & IATTC) and by PEER (in the context of NMFS Observer Programs), it is important to share information regarding cases of observer harassment and interference with multiple stakeholders among the observer profession. This will allow a knowledge base to be built in regards to the types of situations which may lead to the interference or harassment of observers so that these situations may be prevented in the future.

However, in some situations, the data being gathered is not enough to understand the nature of incidents, and, in some investigated cases, several incidents affecting an observer may be considered as one- the simple sharing of information is not good enough. It is important also to trace the steps taken in investigations and to appropriately weigh the results found for each case. In order to construct a thorough understanding of the nature of the observer harassment/interference problem and statistically evaluate it on a global or even on a national scale, programs must publish observer harassment and interference statistics based on the same criteria. By example, to avoid confusion (as did happen with PEER and NMFS published statistics) in regards to an apparent intensification of incidents in a particular region/program being misinterpreted as an overall increase in the numbers of incidents statistically, it is very important to work towards standardizing a data set (like as related to the number of observer sea days) of observer harassment and interference cases.

Globally Outlawing Observer Harassment and Interference

With wide sharing of standardized observer harassment and interference data, measures could be taken to impose an obligation for observer programs to work on a gradual decrease of cases, with the intent of reaching a given maximum acceptable rate of observer harassment/interference incidents (incidents/observer sea days). These measures could initially be based on a reduction from present levels and could then be gradually lowered through encourage methodologies, and changes and implementation of laws which foster the reduction of observer harassment and interference incidents.

Possible solutions that may help us to understand and the gravity of this global problem and work towards minimizing incidents:

- A) Dissemination of information and building awareness (regarding impacts and recommendations) amongst stakeholders, fundamentally fishers, on the problem of observer harassment/interference;
- B) Development of an international model, which works to: specify and define the types of situations considered to be observer harassment and interference, update the current knowledge base on harassment/interference information gathering and sharing, and explore avenues that tackle observer harassment and interference problems. A model designed as such could help to: standardize the overall observer harassment and interference statistic data series for evaluating these situations, and harmonize laws so that they may be easily adopted by programs and nations (“states”);
- C) A joint declaration in the context of the forthcoming IFOMC, together with the Observer Professionalism Working Group (OPWG)¹¹, issuing a plan to reduce worldwide the cases of observer harassment and interference;

continued...

¹¹ The 2008 Observer Professionalism Working Group (OPWG) Report, exhibiting all of the Group's work to date (as of June 2008), can be found at the following link: http://apo-observers.org/docs/IFOC_OPWG_Report_2008.pdf

International Spectrum

Global Challenge, cont.

ANNEX: Examples of actual cases involving Observer Harassment and Interference, involving multiple regions and States and/or multiple incidents of a single case.

Case example #1: FV America No. 1. (American flag, international waters)

An evident case of interference, attempt of bribery, and threat against an observer has involved the FV "America No. 1" flagged in the USA at the time, the observer commented about the trip in international waters and partially with CCAMLR license:

"Before we set sail, the owner suggested to myself and the South African observer that we should seriously think about working for the company long term, with benefits and regular trip rotations. I considered this to be a form of bribery.....When I first boarded, the captain bragged about how he was a "legal pirate" and prided himself with being able to jump through regulation hoops. He bragged a couple of times in the beginning about being able to convince NMFS to throw out the data from one of his observers, claiming that the observer was biased (this was in the North Pacific program). Basic observer duties outside of fishing—checking positions, sending reports about operations, recording MARPOL violations, etc.—were met with hostility from the captain and I received no support from the other observer. Then the captain tried to claim that I was biased and threatened to have my data pulled even before I began collecting any data.....The owner ordered us not to fish in order to not risk the CCAMLR permits. So our vessel transferred 20 tons of bait and 50,000 liters of fuel to one of their Spanish partner's boats in the area, so that vessel could continue fishing. That was a non-CCAMLR permitted boat and we were pretty close to CCAMLR waters so I reported it in my weekly report. The punching bag in the work-out room was turned into an effigy of Greenpeace (not the environmental group who sued), which I thought was a healthy way of dealing with the frustration of not being able to fish. But the captain didn't box, so he took his frustrations out on me. He tried to prevent me from looking at the charts, claiming that the VMS was recording their position and that there was no need for me to look at the charts. He increased his threats about pulling my data, even though there was no data yet to pull and eventually threatened in front of other officers to throw me overboard."

Months after that vessel left the American flag joined to Honduras changing the name for "Apache I", was discovered involved in IUU activities fishing inside of the Division 58.5.1 of CCAMLR, being apprehended by France on 25 of Jun 2004, and was included in the CCAMLR IUU list; a time later was converted to a State naval vessel under the name of "Le Malin."

Condensed from: <http://www.observernet.org/obsforum/forumdisplay.php?f=58>

continued...

International Spectrum

Global Challenge, cont.

Case example #2: FV Dong Won 630 (South Korean flag, South African licence)

"In June 2005 the South Korean fishing vessel "Dong Won 630", fishing with a South African license, was reported by the observer to be involved in illegal activities such as cutting off the fins and tails of sharks and throwing the live sharks back into the sea. Attempts were also made to bribe the observer not to report their activities to the authorities, and once this failed he was threatened. The vessel was apprehended following a dramatic overnight sea chase involving the "Ruth First", one of South Africa's patrol ships. The master of the vessel, Hwan Lee-An, received a suspended sentence and a comparatively light fine of R50 000 (US\$7 500)."

Extracted from: Study and analysis of the status of IUU fishing in the SADC region and an estimate of the economic, social and biological impacts. Volume 2-Main Report. May 2008. MRAG & CAPFISH.

Case example #3: FV Anabella M (Argentinean flag, Southwestern Atlantic, Argentinean waters).

In the trip identified as 52/04 (2004), the observer reported poor accommodation conditions (vessel's hospital) and not enough space in the sampling station. During the trip, there were several sampling interferences (discards and sorting of smallest species): the sampling of incidental catch of Patagonian toothfish (*Dissostichus eleginoides*) was refused by the crew several times, the observer reported that the captain asked him to remove a biological sample with high levels of younger Toothfish and to not sample young *D. eleginoides* in order to minimize that composition in the final report, the captain said that he could make a monetary arrangement, which the observer emphatically stated that he would not do. The observer requested his disembarkation due to the lack of safety conditions to perform his activities on board.

Condensed from: http://www.cedepesca.org.ar/noticias/210704/verguenza_l_anabellam.htm ("Documento Técnico N° 28 de la Comisión Asesora para el Seguimiento de la Actividad Pesquera de la especie Merluza Negra (*Dissostichus eleginoides*)")



National Observer Program Updates

US NOP and IFOMC Updates

Dennis Hansford and Richard Kupfer; National Observer Program; USA

International Fisheries Observer and Monitoring Conference Update:

The 6th International Fisheries Observer and Monitoring Conference (IFOMC) will be held July 20 – 24, 2009, in Portland, Maine, USA.

You may have noticed the conference's name has changed. We've added the words "and Monitoring" to the former, "International Fisheries Observer Conference." We want to stay true to our roots and

continue to focus on fisheries observers and their programs. But we recognize that other modes of monitoring fisheries are essential to supplement the work of observers and support successful fisheries management.

The 2009 conference is being planned by a steering committee comprised of individuals with international experience and dedication that share in the mission to improve fishery monitoring programs worldwide by sharing practices and developments of new methods of data collection and analysis and by providing a forum for dialog between those responsible for monitoring fisheries and those who rely upon the data they collect.

The members of the 2009 IFOMC Steering Committee are: Dennis C. Hansford, Conference Chair, NOAA Fisheries Service, USA; Dr Gavin Begg, Fisheries and Forestry, Australia; Lisa Borges, Directorate General for Maritime Affairs and Fisheries, Belgium; Victoria Cornish, The Ocean Conservancy, USA; Andrew France, Ministry of Fisheries, New Zealand; Dr. Charles Gray, Department of Primary Industries, New South Wales, Australia; John P. Lafargue, NOAA Fisheries Service, USA; Howard McElderry, Archipelago, Inc., Canada; Dr. James M. Nance, NOAA Fisheries Service, USA; Miguel Ñiquen Carranza, MSc., Instituto del Mar del Peru; Mark Showell, Department of Fisheries and Oceans, Canada; Amy Sierra Van Atten, NOAA Fisheries Service, USA; and Greg Workman, Department of Fisheries and Oceans, Canada.

The steering committee has identified a variety of critical topics that will be covered during the conference.

- The future for fisheries monitoring: What is the role of technology? What's new?
- Best practices for fisheries observer programs, standardization, and sharing of resources.
- Observer professionalism, training, safety, work standards, and career development.
- Data collection methodologies, confidentiality, and data sharing.
- Analysis and use of fisheries monitoring data.
- The role of fishery monitoring in ecosystem management.
- Coordinating stakeholder input in the design of fishery monitoring.
- Challenges in fishery monitoring - small vessel fleets, large vessel fleets, multiple objectives, complex service delivery mechanisms. Costs and benefits of monitoring.
- Recommendations for the future. What progress has been made and where do we go from here?

To be considered successful, the 2009 IFOMC have set the following goals:

- Improve the quality of fishery monitoring data through sharing of best practices for collection and analysis of information.
- Improve the use of fishery monitoring data to support sustainable resource management.

6th INTERNATIONAL FISHERIES OBSERVER & MONITORING CONFERENCE



Portland, Maine, USA

July 20 - 24, 2009

continued...

National Observer Program Updates

US NOP and IFOMC Updates, cont.

- Promote the international exchange of ideas and best practices from fishery monitoring programs throughout the world.
- Improve accessibility to fishery monitoring data.
- Support the development of new innovative data collection methods.
- Improve the training and safety of at-sea fisheries observers.
- Advance the development of the observer profession.

IFOMC Call for Abstracts:

The IFOMC Steering Committee invites everyone involved with fisheries observing and monitoring – observers, fishermen, researchers, program managers, observer providers, and others – to present their research, findings, and accomplishments at the 2009 IFOMC.

IFOMC Topics: Please review the conference [program](#) to determine where your project will best fit. If your abstract does not align with any of the program topics, select "other" on the [abstract entry form](#). We will consider your abstract for a poster.

Deadline for Abstract Submission: December 31, 2008

Questions: Send your questions by e-mail to IFOMC.SC@noaa.gov

Abstracts will be reviewed by the IFOMC Steering Committee in early 2009 and acceptance decisions will be announced no later than March 15, 2009.

[Download](#) an example of a successful abstract submitted for 2007.

Conference Format

There will be two ways at IFOMC 2009 to present your research, analysis, or lessons learned from your fisheries monitoring experiences. We invite you to submit an abstract of your material for presentation as a [poster](#) or in a [panel session](#).

Posters

Poster presentations will be a central part of IFOMC 2009. At IFOMC 2009, the posters will be set up on Monday night adjacent to the dining area where we'll meet for breakfast, lunch, and breaks. This will allow conference delegates to informally review the posters throughout the week.

On Wednesday evening, we will feature the posters during a dedicated conference session. Poster presenters will have an opportunity during this session to more formally present their research to all of the delegates. This will also allow the presenters to make connections with other delegates doing similar work. The poster session is always a great success at the IFOMC.

To present a poster at the IFOMC 2009, submit an abstract through our web form. Click on the button below. We welcome abstracts for posters that are relevant to fishery monitoring but are beyond the scope of the conference program. If the poster will address one of the conference program topics, indicate the conference topic on the abstract form. If the topic is not on the conference program, simply indicate "Other" on the form and use the abstract to demonstrate how the poster relates to broader conference themes and interests.

Visit www.IFOMC.com for conference information and scheduled events that promises another great conference. If you have any questions, send an e-mail to: IFOMC.SC@noaa.gov

National Observer Program Updates

US NOP and IFOMC Updates, cont.

Safety Training Update:

Alaska Marine Safety Educational Association (AMSEA) recently conducted a Marine Safety Instructor Training (MSIT) and MSIT refresher workshop in Falmouth, MA Sept. 9-14. Hosted by the NMFS Northeast Observer Training Center, the workshop was an effort to keep instructors up to date on survival equipment and procedures, and exchange effective teaching methodologies and problem solving skills.

The class was attended by NMFS staff members from 5 regions that ranged from first time certifications to third time refreshers, as well as a representative from the USCG who was receiving an initial instructor's certification. Seventeen people received training in all, 9 refreshers and 8 certifications. Members from the local USCG office, the fishing industry, and private safety supply/services also attended the class, and provided insight, expertise, and materials for the benefit of the students.

The course focused on hands on safety training, and instruction methods. During safety sessions, students were immersed in safety technology, survival skills, damage control, vessel drills, and demonstrating of what they had learned. The method of instructions sessions taught students about teaching theories and methods, course planning, classroom technology and teaching tools, and required students to present 2 teaching sessions combining what they had learned on instructions and safety.

Course descriptions and dates can be found on AMSEA's webpage: <http://www.amsea.org/>



Liferaft, survival suit, and PFD training - pool session; NMFS

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***We greatly depend on volunteered news and updates regarding observing in your area of the world. Please, [submit stories and commentaries](#) from any well-established, new, or proposed national, regional or international observer program, from any stakeholder perspective, around the globe.

Observer Program News and Updates

South Africa

Empowering Community in Seabird Conservation Efforts

Nicola Okes; World Wildlife Fund (WWF); Cape Town, South Africa

Thousand of seabirds are killed every year while foraging for food behind fishing vessels in South African waters. Longliners and trawlers attract thousands of seabirds, including endangered albatrosses and petrels, as the bait and discards provide an easy meal. Unfortunately, the birds often get hooked or entangled in the fishing gear and are drowned, resulting in 21 000 seabirds being killed each year. Albatross are long lived and breed slowly, which are characteristics that may suit them for life at sea, but unfortunately make them vulnerable to high mortality rates. This accidental mortality of seabirds is known as bycatch, and is the number one reason why many albatross and petrel species currently face extinction.

Luckily, these unnecessary deaths are completely avoidable. Total Oil Company is now assisting WWF and Birdlife SA, in conjunction with Kommetjie Environmental Action Group with a poverty relief project where handicapped people from Ocean View construct tori lines to frighten birds away from vessels and out of danger. Tori lines are 'bird scaring' lines, developed by a Japanese fisherman, that are flown behind vessels over the area where birds are most likely to dive for the bait and get hooked. The lines are brightly coloured, and have streamers attached which flap around and deter the birds away from the dangerous hooks and fishing gear.

The Ocean View Centre for the Handicapped was given the task of constructing these lines. The centre consists of a group of 58 handicapped people who work together on a number of jobs, including recycling hangers and weaving bags. At first they found the tori line project to be challenging as it involves the knotting and tying of strong, tough rope, but they were determined to do what they could to ensure the survival of albatross. Working as a team, they each perform a job assigned to them based (on) their capabilities and can now produce 7 lines of 50m each in one day. To date they have made over three hundred tori lines, and use their practical knowledge and resourcefulness to develop and improve the line where they see fit.



Tori line work at the Ocean View Center; Nicola Okes



Tori lines deployed on South African Trawler; Keith Davis

Since being deployed in South African waters, tori lines have been very successful and are in high demand, especially since flying a tori line has become a permit condition on trawlers and long liners and is enforced by compliance officers. Observers on board vessels note whether a tori line has been flown or not during fishing, and send this information on to the monitoring companies. If birds are caught and the vessel was not flying tori lines, then there are serious consequences.

This project has huge potential as those that work on tori lines have immense pride in their work, and enjoy the challenge. Not only does it improve the chances of survival for albatrosses worldwide, but it empowers those that are handicapped to know that they are making a huge difference.

Observer Program News and Updates

A New Resource on South and Southern African Jellyfish

***The following piece, in its entirety, has been extracted from the [South African Jelly Watch website](#).

Elsewhere in the world, jellyfish are becoming more common and they threaten many coastal economic and recreational activities. Although we know they can be a problem in some parts of the southern African sub-region, we don't understand how much of a problem they are locally. In fact, by comparison with many other groups of much smaller and less spectacular organisms, we don't even know how many different types there are, let alone anything about their general biology!

SA Jelly Watch aims to build a network of volunteer observers around South and southern Africa who will monitor jellyfish on a regular basis, and has been put together by scientists at the University of the Western Cape. The information that is collected will be centrally organized and used to establish a "baseline" understanding of jellyfish biology and seasonality that can eventually be mined to predict when and where jellyfish outbreaks might occur.

Who Can Help: You do not have to be an expert to help monitor jellyfish: if you work or relax near the coast or have an interest in marine matters then you can help. We are particularly keen to enlist the support of regular users of the sea and coast such as walkers, divers, surfers, canoeists, fisher-folk and shellfish farmers, vessel skippers and crew, and harbour users and masters, but ANYONE can participate.

How YOU Can Help: We need you to make some fairly basic observations on jellyfish whenever you can - even if they are just washed up on the beach - and then to enter that information on our website (<http://sajellywatch.uwc.ac.za>). The information we request includes: whether jellyfish are present or absent in your area, and if they are present how many do you see in a five minute period, and what sort of size or colour are they. It is the sort of information that is quick and easy to collect, remember or record and requires NO previous training.

The Website provides a guide to the common jellyfish that you are likely to see in the region (so if you can put a name to the animal you see on the shore even better!), a brief introduction to jellyfish diversity (Jellyfish 101), a glossary of terms and a simple key to major jellyfish groups. A general warning about jellyfish is provided, complete with useful contact numbers in the event of a medical emergency, and hazard warnings on the homepage also alert you to where recent (though unverified) sightings of potentially deadly species and other outbreaks have been made. There is an opportunity for you send us your photos of jellyfish so that we can try and identify them and give you some feedback. You can ask us questions about jellyfish and provide us with other relevant information. It is our eventual hope that you will be able to track your contributions and those of others using this website.

South
Africa

British
Columbia,
Canada

Overview of British Columbia's Fisheries and Monitoring Programs

Mike Orcutt; Archipelago Marine Research Ltd./Prior Observer ; Victoria, British Columbia

Most fisheries in British Columbia (BC), Canada have expanded reporting or monitoring requirements that are met through the use of independent third party service providers. There are four companies offering monitoring services in BC, three of which offer specialty services to one or a few similar fisheries. Archipelago Marine Research Ltd. (Archipelago) is the largest company, providing a broad range of services to several fisheries. Monitoring programs in BC are uniformly structured with a single company providing services for an entire fishery or fleet group, ensuring cost efficiencies and continuity of services across the fishery. In most programs, industry funds the majority of the monitoring service cost and industry associations contract directly with the service provider for monitoring services. Service providers are selected through a competitive bidding process and follow performance specifications defined by industry and Fisheries and Oceans Canada (DFO). Uniquely, most programs in BC are fully stand alone, where the service provider is responsible for developing the methodology and resources to carry out all the steps from program design to final data delivery. The 'products' of monitoring programs are provision of service to meet the operational needs of the fishery and the provision of keypunched, edited data, analyses and reports.

continued...

Observer Program News and Updates

British Columbia, Canada

British Columbia's Fisheries and Monitoring Programs, cont.

BC's groundfish fishery comprises a fleet of about 300 vessels, and, on a yearly basis - 3,500 trips, 20,000 days at sea, 230 million pounds landed weight, and a value of about \$140 million (CDN). BC groundfish fisheries occur coast wide and year round, and include a variety of gears including trawl, longline, trap, demersal troll and hand line. Trawl fishing involves a fleet of about 70 vessels that further subdivide into a small inshore (Gulf of Georgia) component, an offshore component and a midwater trawl component fishing Hake (*Merluccius productus*). Within the hook and line component, there are about 240 vessels which are separately licensed into six distinct fisheries including halibut, sablefish, lingcod, dogfish, inshore rockfish, and offshore rockfish. Collectively, the groundfish fishery encompasses about 60 different stocks, delineated by both species and area.

BC's groundfish fisheries are governed by a principle of individual accountability, which mandates high levels of at-sea and shore based monitoring and compels fishers to account for their entire catch, including at-sea releases. Monitoring systems include hails, logbooks, a dockside monitoring program (DMP), an at-sea observer program (ASOP) (offshore trawl), and an electronic monitoring program (EMP) (inshore trawl, midwater trawl for hake in northern regions, and hook and line). Most components of the monitoring system are contracted and funded by industry. DFO partially funds the ASOP and EMP and has a major role in contracting the ASOP.

Description of Fisheries and Monitoring Systems:

Table 1 provides a summary of several different fisheries that receive monitoring services from Archipelago. The top portion of Table 1 outlines the general characteristics of the fishery and the lower portion identifies the monitoring systems in place. The values shown are in Canadian dollars. The Table identifies eight fisheries across multiple species, gears and areas. The management issues and monitoring systems of these fisheries varies widely.

Table 1. Overview of Selected BC Fisheries and Monitoring Systems (2007).

	Groundfish Fisheries					Other Fisheries			
	Hook and Line	Offshore Trawl	Inshore Trawl	Hake (m/w trawl)	Total Groundfish	Salmon (all)	Shrimp Trawl	Geoduck (diver)	Crab Trap
Fishery Profile									
Vessels	244	48	9	34	301	1,485	71	40	52
Trips	1,607	789	364	760	3,520	n/a	1,264	2,100	1,973
Seadays	12,000	4,752	839	2,115	19,706	n/a	3,720	n/a	4,129
Offload Hrs	4,300	7,100	450	4,750	16,600	n/a	n/a	2,300	n/a
Lbs. Landed	28,459,120	81,101,245	299,451	120,600,121	230,459,937	43,728,733	1,388,962	3,437,500	8,140,914
\$/Lb	\$3.00	\$0.50	\$2.50	\$0.10	\$0.60	\$0.69	\$1.00	\$8.63	\$2.00
Total Value	\$85,377,360	\$40,550,623	\$748,628	\$12,060,012	138,736,622	\$30,253,783	\$1,388,962	\$29,665,625	\$16,281,828
Monitoring System Components									
BDC	100%	100%	100%	100%		100%	100%	100%	100%
DMP	100%	100%	100%	100%				100%	
ASOP		100%					~2%	89%	
EMP	100%		100%	100%**					100%

Source: Fisheries and Oceans Canada

* - Most of the fishery requires monitoring with ongrounds patrol vessels
 ** - 100% EM in northern region only (72% of total days)

Observer Program News and Updates

The
Southwest
Region,
USA

Marine Mammal Take Reduction in Gill-net Fisheries

Scott Casey; Frank Orth & Associates/Prior Observer; Long Beach, California

Frank Orth & Associates (FOA) is the service provider for the drift gillnet and pelagic longline observer programs for the National Marine Fisheries Service Southwest Region based out of Long Beach, CA and has been responsible for the fleet coverage since 1996. The drift gillnet fishery is our primary program and targets swordfish and thresher sharks from August through January every year. All permitted vessels work out of various ports in Central and Southern California, and we maintain 20% observer coverage and employ approximately 7-10 observers during this fishery's season.

The program runs under the authorization of the Marine Mammal Protection Act and the Magnuson – Stevens Fisheries Conservation and Management Act (MSFCMA). Observers are responsible for monitoring the catch on a daily basis, recording the amount of the target and the bycatch caught, and monitoring for marine mammal sightings and interactions. Due to the nature of the fishing gear, there is the possibility that marine mammals can interact with the fishing gear and occasionally become entangled.

The Take Reduction Team has implemented different regulations on the fleet to reduce the entanglement rates to as close to zero as possible. Some of the regulations include increasing the length of extender lines that attach the net to the buoys and attaching acoustic pingers along the length of the net. The longer extender lines are used to lower the net deeper in the water to allow more space for any marine mammals or protected species to swim between the top of the net and the water surface. Acoustic pingers are deployed along the top and the bottom of the net while it is drifting at night. The pingers are used as an acoustic signal to alert the mammals that there is something in the water in that area, with the intention to encourage them to swim around the object.

Various companies manufacture different styles of pingers that are battery operated and are required to broadcast a sound with certain volume, duration, and rate characteristics. The different pinger styles allow them to be attached as the gear is being deployed and removed as it is retrieved or they can be sewn onto the net so that they are permanently attached. Some of the different styles are also salt water activated so that once the net is pulled onboard the pingers will shut off and preserve battery power. Observers are required to count the numbers of pingers that are deployed on each set so that it can be determined if the proper amount of pingers are being used for the length of the net. The observers also check each pinger when possible at the beginning of the trip to verify that it is emitting a signal and is working or if the batteries need to be replaced.



Acoustic pinger attached to gillnet; Dukane Cooperation

Once the initial experiment on the use of pingers was concluded, with the help of the observers, it was determined that the use of the pingers on the net significantly reduced the incidental take of marine mammals. That is when the Take Reduction Team implemented the regulation requiring that each vessel deploying a drift gillnet has to attach the appropriate number of pingers depending on the length of the net on each set.

***This section of the Mail Buoy focuses on the professional livelihood of observers, from employment parameters and standards to professional development opportunities. If you would like to share with us an important aspect of observer professionalism, please [contact us](#).

Observer Professionalism

“Yours for the Taking”: A US Observer’s Injury Compensation Claim

Mark Wormington; Fisheries Observer/APO Board; U.S. North Pacific

Thirteen calendar years of observing, mostly in Alaska waters, caught up with me quite suddenly last November. I’d come to expect more soreness and stiffness from my gradually deteriorating knee joints, but did not seek a thorough diagnosis until the pain became barely tolerable while I was working Bering Sea longliners last fall. I now know that my outer knee joints are virtually devoid of cartilage, and the prognosis is for total knee replacement surgeries within the next five years.

This much I know is true. The North Pacific Groundfish Observer Program (NPGOP) random sampling protocols and working conditions at sea cumulatively have been disastrous to my health. My longliner days are over to say the least.

The standard operating procedure for management of the NPGOP Alaska groundfish fishery reflects the Council’s concern for the challenges of the industry, of NOAA Fisheries, and of observer providers -- in that fast-descending order. Indispensable to the fishery management process, observers still have no standing. Or maybe we have the standing of interchangeable pack mules that will be conveniently taken off the books before we break down.

Contracted federal fishery observers, due to lack of information and organization, have been walking away from legally mandated health insurance benefits since 1996. That year an amendment to the Magnuson – Stevens Fisheries Conservation and Management Act (MSFCMA) declared us federal employees for purposes of compensation under the Federal Employees Compensation Act (FECA), as can be viewed on the US National Observer Program’s [website](#).

What you won’t learn from this website is how easy it is to have benefits delayed or denied because Fisheries Observers in the United States have been appended as an afterthought to a system that never anticipated the conditions of our employment, a system whose methodology and jargon is alien to us observers and to our employers.

In most cases of job-related traumatic injury, we can count on adequate compensation by stingy U.S. standards. Yet any longtime observer knows of cases where an injured colleague felt certain that he or she deserved better while settling for less. Do you hire a lawyer and go to court? Legal consultation available through my union amounts to an empty gesture. Our legal system increasingly favors deeper pockets. But at least traumatic injuries stimulate a reliable response from our contractors and their risk management companies.

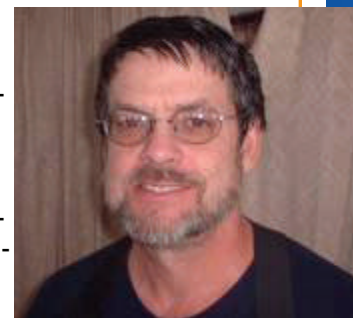
Occupational injuries and diseases are a very different matter. When our NMFS debriefers develop arthritic backs or knees they notify their supervisors, and a Form CA-2 is filed and the FECA compensation system is efficiently engaged. “Special claims,” our appendage to the system, can work for us too, but chances are that you must first resolve to be a fierce advocate for yourself and approach the claim forms like you would a Master’s thesis. That is the lesson I’ve learned over the past ten months.

After numerous missteps I’ve finally managed to have my FECA claim for occupational disease benefits accepted. From time to time I’ll let you know through the Mail Buoy what these benefits amount to. What treatments or surgeries will be covered and to what extent? What sort of vocational rehab benefits can be practically obtained for someone who is nominally a federal employee yet has little profile and no place within the vast federal agency employment system?

Our FECA eligibility is essentially a vague promise. Our working conditions have steadily improved -- if too late for some of us -- but our pay and benefits do not adequately reward our contributions toward sustainable fisheries.

Your APO and your union are nothing without participation. If you won’t support them then you ought to support another Service Delivery Model that would make us federal employees under a new regulatory regime. In any case, please get involved.

If you are an observer working through chronic pain you had better bone up on your rights in a hurry. I’m happy to field any of your questions by email at: siberio@hotmail.com



Mark Wormington aboard a vessel in the North Pacific

¹² Observers - learn the basics for filing a FECA claim for job-related injuries at: <http://www.st.nmfs.noaa.gov/st4/nop/feca.html>.

***This section focuses on the end-use (scientific product) of observer data and related fisheries science. If you would like to share an important use of observer data or provide a lead to scientific publications which utilize observer-collected data or exhibit related fisheries science, please [contact us](#).

Observer Data End Use and Fisheries Science

Unguja, Zanzibar: A Fishery in Need of Sustainability¹³

Christopher Sands Phelan; University of Vermont Student; Burlington,

&

Allison Stewart; Colby College Student; Waterville, ME

In coastal Tanzania, the number of fishers participating in the fisheries of the island of Unguja, Zanzibar has increased from 8,365 to a current number (2007 census) of 26,660 over the past 19 years (IMS 2008)¹⁴. It is estimated that by the year 2050, roughly 75% of the population of Tanzania will live within the coastal areas. With increasing dependencies on fish as food and profit it is not surprising to find the issues of over fishing around Tanzania. On Zanzibar in the past, fishing has been relatively sustainable due to the natural inefficiency of the artisanal fishery, which makes up 95% of all fishing. The artisanal methods restrict boats to within a few miles from shore, therefore restricting fishing grounds. Gears used would be considered outdated on the industrial scale but here they have become highly efficient. When one also considers the depletion of the world fisheries working against Zanzibar, these aspects together make the pains of over fishing easily felt (Semaki 2003)¹⁵.

While we, Allison Stewart and Christopher Phelan, studied coastal ecology abroad through the School for International Training (SIT) program in Zanzibar, we noticed the sad state of the fisheries in Zanzibar. Most landings were coming onto the beach at incredibly small sizes and this prompted us to delve into the details of the Zanzibarian fishing community. We conducted a study to determine if fish species size according to the Fisheries Act of 1988 (Tanzania 1988¹⁶) is a good indicator of sustainability. We spent a month collecting data on the length and identity of over 10,000 fish from two sites on the Island near Mkunguni:

Kizimkazi and Nungwi. Using differentials to construct a mathematical model finding an appropriate fishing rate for sustainability, comparisons were made between the actual fishing rate and a more sustainable approach. This data was interpreted using this model which claims if over 43.75% of fish caught are too small, the fishery populations will decrease. At the two sites the data for the major relevant species was evaluated and it was concluded that 11 of the 13 species analyzed were over the 43.75% limit, meaning their population numbers are currently decreasing. If a limit on species size was enforced properly and efficiently then according to our results this method of sustainability, slowly but surely, could veer Unguja off the track of over fishing.

Zanzibar and Pemba



continued...

¹³ This is an abridged edition of "A Sustainable Fishery through Species Size, Unguja Island," by the same authors; Spring 2008. To see Christopher's and Allison's complete work, navigate to the following link: http://apo-observers.org/docs/Unguja_Island.pdf

¹⁴ Jiddawi, Narriman. IMS Lecture Series: The Artisanal Fishery and Other Marine Resources of Tanzania. Institute of Marine Science, University of Dar es Salaam. February 11th, 2008.

¹⁵ Semaki Consultants Limited. Livelihood Assets Required for an East Africa FADs Programme. 2003. Dar es Salaam, Tanzania. May 3rd 2008. http://www.fmisp.org.uk/Documents/r8249/r8249_1.pdf

¹⁶ The Fisheries Act, 1988. 21 Dec. 1988; and, The Fisheries Act No. 8 of 1988: An order to Limit the Size of Fish . Pub. L. 6. 21 Dec. 1988. Stat. d.

Observer Data End Use and Fisheries Science

Unguja, Zanzibar, cont.

Methodology:



Allison Stewart, local artisanal fisher, and Chris Phelan at research site - Unguja, Zanzibar

We visited both landing sites at two different times, morning and afternoon, when the fishers were coming in with the high tide with their catch for the day. Through the Swahili we learned on our program and the congenial personalities of the local peoples, we easily learned how to identify and measure species caught.

Once our data was collected, we needed a way to determine if fishing size is an indicator of fish stock depletion. In order to determine what percentage of fish caught undersize is detrimental we conducted a case study on one type of fish, the emperor fish changu, or *Lethrinus nebulosus*. This is one of the most heavily caught fish in Unguja during the long rain season and since it has both a reef and pelagic life, it has similar life expectancies and growth rates of other fish species within the artisanal fisheries fishing range. The population doubling time for this species is 4.5-14 years (Fish Base 2008¹⁷). This species has a depth range of 10-75 meters, which is within the range that the dhows fish. The maximum length for this species is 87 centimeters. Since at some stage in their life they are a schooling species, they are easily targeted by fishers on Unguja. In order to underestimate the growth rate and operate on a best-case scenario basis, we will assume that the doubling time is 4.5 years, which is the fastest rate possible for this species.

By the use of Fibonacci numbers, or differential equations, we constructed a model to represent the growth of the changu in the coastal waters of Zanzibar. To first figure out our model we had to determine what the growth rate per year is for changu.

$$G_t = \frac{1}{4.5} \equiv .2222 \quad (1)$$

Once we knew the natural growth of the population we set up a differential equation to represent the natural population growth.

$$\frac{dP}{dT} = P_{t-1} + .22(P_{t-1}) \quad (2)$$

Without the influences of fishing the population would grow according to equation 2. To include the influences of fishing on this population we chose variable f , a percentage, to represent the number of fish that are killed per year by fishermen. The new equation representing this percentage is given below.

$$P_t = P_{t-1} + .22(P_{t-1}) - f(P_{t-1}) \quad (3)$$

With few resources in Zanzibar, it is difficult to determine what percentage of a population is being killed due to fishing. First, population estimates are hard to come by, let alone a census of all the fish caught year round of one species type. After visiting landing sites for three weeks and looking at our model, we determined f to be 12.5%. This is most likely an underestimate of fish caught for the species located within the range of the artisanal fishery, based on what we have seen. By both underestimating the amount of fish caught and overestimating the growth rate of this species, we are placing the fishery in a best-case scenario for our model. Figure one shows how the population will increase over time with this low amount of fishing and fast population growth. Figure one shows the model in action, with the fish population at time zero with 10,000 fish and after fifteen years, the population has grown to 40,218 fish. When the growth rate, 22.22% is equal to the death rate, f ,

continued...

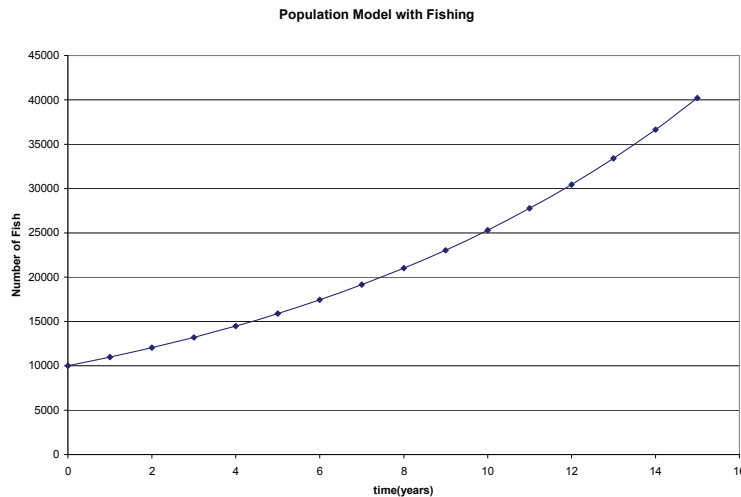
¹⁷ Froese, Rainer. Emperor Fish. Fishbase. 2001. <http://www.fishbase.org/summary/speciessummary.php?id=5987>

Observer Data End Use and Fisheries Science

Unguja, Zanzibar, cont.

the population reaches equilibrium, or its maximum yield of fishing possible. Since f is less than the growth rate the population is able to increase over time.

Figure One: Fish population growth with 12.5% fishing per year and 22.22% growth rate.



The variable x will represent the percentage of fish that are fished and therefore taken out of the growth factor of the population.

$$P_t = P_{t-1} + (1 - x) \cdot 22P_{t-1} - fP_{t-1} \tag{3}$$

Equation 3 gives the new model with a growth rate dependent on the number of fish taken before they can reproduce. As x changes, the population changes accordingly.

Now that we have the model which includes all factors affecting the population growth we can determine the maximum x which allows the population to stay constant, with our determined f of 12.5%.

$$P_t = P_{t-1} + (1 - x) \cdot 22P_{t-1} - fP_{t-1} \tag{4}$$

$$(1 - x) \cdot 22P_{t-1} = fP_{t-1} \tag{5}$$

$$x = .4375 \tag{6}$$

Equations 4-6 show the calculation of the optimal x , the percent of fish that are caught that can be too small, allowing the population to stay constant. This is known as the maximum sustainable yield. continued...

Observer Data End Use and Fisheries Science

Unguja, Zanzibar, cont.

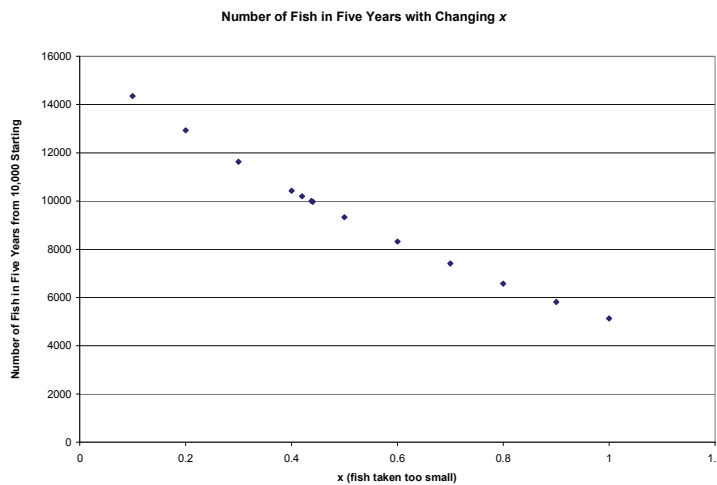


Figure Three: The relationship between population and the value of x, with a constant f of 12.5%. Each point represents a population in five years, from a starting point of 10,000 fish, and a certain value of x.

Figure three shows what happens when x is smaller and larger than the ideal .4375.

For our project, the percent 43.75% is very important. From this number, we can determine if a species is in detriment of population decrease over time. By using the regulations on species size catch and the data we have collected at the landing sites of Kizimkazi and Nungwi, we can now determine if species size is an issue in this fishery. Our model merely creates an average of the fish that can be feasibly caught within the area and the numbers calculated only address these fishes and not total species populations of the entire Western Indian Ocean region.

Results:

Figure Four: Kizimkazi Fish Species Results. The species tabulated here occurred most often in this location

Swahili	English	Total Fish	Total too Small	Percent too Small
Changu	Emperor Fishes	228	109	48%
Kanadi	Queenfish	109	4	4%
Sehewa	Kawa Kawa Tuna	20	14	70%
Kikande	Triggerfish	11	10	91%
Msusa	Barracuda	30	26	87%
Mkondaji	Goatfish	21	21	100%

continued...

Observer Data End Use and Fisheries Science

Unguja, Zanzibar, cont.

Figure Five: Nungwi Fish Species Results. The species tabulated here occurred most often in this location.

Swahili	English	Total Fish	Total too Small	Percent too Small
Changu	Emperor Fishes	1797	1136	63%
Jodari	Yellowfin Tuna	54	6	11%
Sehewa	Kawa Kawa Tuna	139	77	55%
Zanuba	Frigate Tuna	209	113	54%
Kikande	Triggerfish	31	18	58%
Kibua	Mackerel	6,670	6070	91%
Chewa	Grouper Fishes	29	17	59%
Mkondaji	Goatfish	18	18	100%

As figures four and five easily illustrate, the percentage of fish caught too small according to our model is over a sustainable rate for many species.

Discussion:

There are many approaches to this problem that would be locally acceptable: regulating fishing gears, seasonability of species, or putting a maximum number on fish caught. Our project addresses fish sizes, based on an act which is already in place but heavily outdated and not visibly enforced, according to our observations. Fish size is important in that fish caught too small are not a part of the reproductive cycle of the populations. We measured the importance of this factor on a fisheries growth and found it was significant. Too many fish in this fishery are caught at juvenile ages and this will prove to be detrimental to the fishery in the near future.



Emperor Fish, "changu," or *Lethrinus nebulosus*

According to our results, implementation of the Fisheries Act of 1988 could protect the fishery. This act is in the process of being updated. We recommend the new act to include stronger consequences for catching small fish and to include more species on the legal size list. Not only is this method of increasing sustainability preferable to other methods because the legal initiative is already in place, but the implementation is simpler than that of other measures.

Of a catch observed off of southern Zanzibar, "51.3% of the catch was immature, 37.8% possessed developing gonads and only 7.8% were in a spawning state" (Semaki 1997). This catch shows how immature the fish being caught were in 1997, which does not give hope for the maturity of fish currently caught. This evidence, coupled with the large increases in fishermen over the past years, gives further proof that the issue of over fishing in Zanzibar is worsening along with the rest of the world. It is imperative that Unguja takes initiative now, regardless of whether these measures include issues addressed in our study. The consequences of ignoring this problem would leave many people jobless, with a large part of their diets unsatisfied.

continued...

Observer Data End Use and Fisheries Science

Unguja, Zanzibar, cont.

Conclusion:

According to our limit of 43.75%, many of the fish in Unguja are being caught at juvenile sizes. The scope of our conclusion is restricted by our research being conducted during the rainy, low fishing season, few amounts of days spent at each site and an overall understanding of the fishery on Unguja. This study hopefully sheds light on the issues of overfishing on Unguja and shows proof of the problem relative to species size. We have concluded that enforcement of a size regulation on fish could provide important measures necessary to create a sustainable fishery on Unguja.

Additional References:

- Zanzibar Winter Program 2007¹⁸
- Google Earth 2008¹⁹
- Stanley, Richard D. et al. 1999²⁰
- Nuttall, Nick 2007²¹
- Greenpeace 2006²²
- Knox, David 1999²³
- Richmond, Matt 1997²⁴
- Torre-Castro, Maricela de la 2008²⁵

¹⁸ Zanzibar Winter Program. Island of Zanzibar, Tanzania. 2007. Seton Hall Law. May 3, 2008. <http://law.shu.edu/.../zanzibar/zanzibar.html>

¹⁹ Google Earth. NASA. 2008. May 3, 2008. <http://www.google.com>

²⁰ Stanley, Richard D. et al. 1999, Editors. Fisheries Stock Assessment in the Traditional Fisheries Sector: The Information Needs. Institute of Marine Sciences, Zanzibar. University of Dar es Salaam. 1997. Canadian International Development Agency.

²¹ Nuttall, Nick. Over fishing: A Threat to Marine Biodiversity. United Nations Environmental Programme. 2007. May 5, 2008. <http://www.un.org/events/tenstories/06/story.asp?storyID=800>

²² Greenpeace. The Over fishing Problem. Greenpeace Australia Pacific. 2006. May 5, 2008. <http://www.greenpeace.org/australia/issues/overfishing/overview/problem>

²³ Knox, David. The Status of the Large Pelagic Fisheries in Nungwi. Narriman Jiddawi. SIT Zanzibar. May 1999.

²⁴ Richmond, Matt. A Field Guide to the Seashores of Eastern Africa and the Western Indian Ocean Islands. Second edition. Sida and the University of Dar es Salaam. 1997.

²⁵ Torre-Castro, Maricela de la. Beyond Regulations in Fisheries Management: The Dilemmas of the "Beach Recorders" Bwana Dikos in Zanzibar, Tanzania. Resilience Alliance. 2006. May 6, 2008. www.ecologyandsociety.org/vol11/iss2/art35/ES-2006-1876.pdf

²⁶ Adams and McShane. The Myth of Wild Africa: Conservation without Illusion. The University of California Press. 1996.

Observer Data End Use and Fisheries Science

Observer Data Use Reference List New Additions

The APO maintains a reference list of papers that utilize observer data (click Observer Data on the left side bar on our website). Recent additions to observer data bibliography include:

General > Observer Program Conferences

OPWG. 2008. Observer Professionalism Working Group (OPWG). 5th International Fisheries Observer Conference Report. Edited by K.G. Davis and D.G. Quelch. http://apo-observers.org/docs/IFOC_OPWG_Report_2008.pdf

General > Bycatch

Neves, T., P. L. Mancini, S. O. da Silva, H. A. G. da Silva, and I. N. Martins. 2008. 1st South American Fishers Forum to Reduce the Incidental Capture of Seabirds, December 12-14, 2006, Delphin Hotel, Guarujá-SP, Brazil.

North Pacific

Dietrich, K. S., E. F. Melvin, and L. Conquest. 2008. Integrated weight longlines with paired streamer lines – Best practice to prevent seabird bycatch in demersal longline fisheries. *Biological Conservation* 141:1793-1805. Contact kdiet@myuw.net for pdf.

Edwards, A. E. 2008. Annual breeding, biennial breeding and foraging strategies among Laysan albatrosses *Phoebastria immutabilis* (oral presentation). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

Fischer, K., R. M. Suryan, D. D. Roby, and G. R. Balogh. 2008. Post-breeding season marine habitat use of black-footed *Phoebastria nigripes* and Laysan *P. immutabilis* albatrosses: Inter-specific variation and implications for overlap with fisheries. 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

Fitzgerald, S., R. Narita, and K. S. Rivera. 2008. Research - Regulation - Operation: An evaluation of the effectiveness of seabird mitigation requirements in the Alaskan demersal groundfish longline fleet (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

Matta, M. E., and D. R. Gunderson. 2007. Age, growth, maturity, and mortality of the Alaska skate, *Bathyraja parmifera*, in the eastern Bering Sea. *Environ. Biol. Fish* DOI 10.1007/s10641-007-9223-8. Available online: <http://www.springerlink.com/content/1073102772w24577/fulltext.pdf>

Perez, M. A., and T. R. Loughlin. 1991. Incidental catch of marine mammals by foreign and joint venture trawl vessels in the U.S. EEZ of the North Pacific, 1973-88. NOAA Tech. Report NMFS 104, U.S. Dep. Commer.

South Pacific

Ayala, L., S. Amoros, C. Cepedes, and S. Kelez. 2008. Bycatch of albatrosses and petrels in northern Peru (oral presentation). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

Delegation of Ecuador, Delegation of Argentina, and BirdLife International. 2008. Capacity Building: Onboard Observer Technical Training, Ecuadorean National Observer Program. Doc.54, Agreement on the Conservation of Albatrosses and Petrels, Fourth Meeting of Advisory Committee, Cape Town, South Africa, 22 – 25 August 2008. <http://www.acap.aq/>

Fairfax, D. 2005. Marine Protected Species Interactions with Commercial Fisheries 2003-2004. Conservation Services Programme, Department of Conservation, New Zealand.

Gales, R., R. Alderman, K. Springer, and I. Hay. 2008. Bycatch mitigation and feral pest eradication: Conservation strategies to protect albatrosses and petrels at Macquarie Island (oral presentation). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

Lawson, T. 2004. Observer coverage rates and reliability of CPUE estimates for offshore longliners in tropical waters of the western and central Pacific Ocean. SCTB17-SWG-4, Pp 1-13, 17th Meeting of the Standing Committee on Tuna and Billfish.

Reid, T. A., C. Willcox, and M. Hindell. 2008. Distribution and foraging habitats of the flesh-footed shearwater *Puffinus carneipes* off eastern Australia (oral presentation). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

North Atlantic

Anon. 1993. Interactions between sea turtles and the summer flounder trawl fishery, November 1991 - February 1992. *continued...*

Observer Data End Use and Fisheries Science

Observer Data Use Reference List New Additions, cont.

1992. US Dep. Commerce, NOAA Technical Memorandum NMFS-SEFSC-307.
- De la Sterna, J. M., J. M. Ortiz, and S. Garcia. 2006. Peces espada en peligro. Cada vez se capturan ejemplares más jóvenes. *Revista Electrónica del Instituto Español de Oceanografía* **5**:12-16.
- Fanning P, Zwanenburg KCT, Showell MA (1987) Haddock nursery closed areas: delineation and impact. CAFSAC Res Doc 87/59, Canadian Atlantic Fisheries Scientific Advisory Committee, Dartmouth
- ICES. 2008. Report of the Working Group on Seabird Ecology (WGSE), 10-14 March 2008, Lisbon, Portugal. ICES CM 2008/LRC:05.
- Nance, J., E. Martinez, D. Emiliani, J. Davis, L. Rathmell, and Z. Zein-Eldin. 1993. Trawl Bycatch in the Galveston Bay System. Pages 249-253 in R. W. Jensen, R. W. Kiesling, and F. S. Shipley, editors. Proceedings of the Second State of the Bay Symposium, February 4-6, 1993. Galveston Bay National Estuary Program Publication GBNEP-23.
- Nance, J. M., and E. Scott-Denton. 1997. Bycatch in the Gulf of Mexico shrimp fishery. Pages 98-102 in D. A. Hancock, D. C. Smith, A. Grant, and J. P. Beumer, editors. Developing and Sustaining World Fisheries Resources; The State of Science and Management; The State of Science and Management, 2nd World Fisheries Congress, CSIRO Publishing, Collingwood, Victoria, Australia.
- Ortiz, M., and F. Arocha. 2004. Alternative error distribution models for standardization of catch rates of non-target species from a pelagic longline fishery: billfish species in the Venezuelan tuna longline fishery. *Fisheries Research* **70**:275-297.
- Palka, D. and M. Warden. 2006. Seabird catch from the NOAA Pelagic Observer Program. Document presented to the Atlantic Marine Bird Conservation Cooperative Workshop. 29 January – 1 February 2006. Northeast Fisheries Science Center, Woods Hole, MA.
- Palka, D., and M. Warden. 2007. Numbers of seabirds observed interacting with fishing gear in the US Northwest Atlantic waters (north of South Carolina) in the period from the first year gear type was observed through July 2006. Unpublished Report for Bycatch breakout group of the Atlantic Bird Conservation Cooperative Workshop, 11 pp.
- Renaud, M., J. Nance, E. Scott-Denton, and G. Gitschlag. 1997. Incidental capture of sea turtles in shrimp trawls with and without TEDs in US Atlantic and Gulf waters. *Chelonian Conservation and Biology* **2**:425-427.
- Silva, M. A., R. Feio, R. Prieto, J. M. Goncalves, and R. S. Santos. 2002. Interactions between cetaceans and the tuna fishery in the Azores. *Marine Mammal Science* **18**:893-901.
- Turtle Expert Working Group. 2007. An assessment of the leatherback turtle population in the Atlantic Ocean. NOAA Tech. Mem. NMFS-SEFSC-555, U.S. Dep. Commer.

South Atlantic

- Barquete, V., and P. G. Ryan. 2008. White-chinned petrel *Procellaria aequinoctialis*: Foraging area inferred from stable isotopes (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Cipro, C. V. Z., M. J. Casceas, F. I. Colabuono, S. Taniguchi, and R. C. Montone. 2008. Polybrominated diphenyl ethers in liver and fat samples of Procellariiformes collected in Southern Brazil (oral presentation). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Colabuono, F. I., S. Taniguchi, A. C. Adornes, P. L. Canabarro, T. S. Neves, and R. C. Montone. 2008. Polychlorinated biphenyls and organochlorine pesticides in Procellariiform from Southern Brazil (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Favero, M., P. Gandini, G. Blanco, E. Frere, F. Quintana, F. Rabuffetti, A. Schiavini, P. Yorio, G. Garcia, S. Copello, and J. P. Seco Pon. 2008. Seabird mortality associated with trawlers in the Patagonian shelf: Discard management as a measure to mitigate the number of contacts with fishing gear (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Jimenez, S., A. Domingo, M. Pons, and M. Abreu. 2008. Spatial-temporal patterns in the incidental capture of black-browed *Thalassarche malanophris* and Atlantic yellow-nosed *T. chlorhynchos* albatrosses and white-chinned petrels *Procellaria aequinoctialis* by pelagic longline in the Southwest Atlantic (oral presentation). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Jimenez, S., A. Marquez, M. Abreu, A. D'Anatro, A. Pereira, and A. Domingo. 2008. The white-capped albatross *Thalassarche steadi* in the South-western Atlantic: Interactions with the pelagic longline fleet and considerations on its global distribution (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape continued... Town,

Observer Data End Use and Fisheries Science

Observer Data Use Reference List New Additions,

South Africa.

- Mancini, P. L., L. Bugoni, L. Nascimento, and T. S. Neves. 2008. Effect of tori lines on seabird bycatch and fishery productivity in the pelagic longline fleet based in southern Brazil (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Seco Pon, J. P., A. G. Laich, S. Copello, G. Garcia, and M. Favero. 2008. Incidental mortality of southern royal albatrosses *Diomedea epomophora* associated with "freshies" in the south-west Atlantic Ocean (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Techow, N. M. S. M., P. G. Ryan, and C. O'Ryan. 2008. Philopatry and population structure in the vulnerable white-chinned petrel *Procellaria aequinoctialis* enables the assignment of bycatch fatalities to natal colonies (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

Indian Ocean

- Barbraud, C., C. Marteau, V. Ridoux, K. Delord, and H. Weimerskirch. 2008. Demographic response of a population of white-chinned petrels *Procellaria aequinoctialis* to climate and longline fishery bycatch (oral presentation). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Barquete, V., and P. G. Ryan. 2008. White-chinned petrel *Procellaria aequinoctialis*: Foraging area inferred from stable isotopes (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.
- Techow, N. M. S. M., P. G. Ryan, and C. O'Ryan. 2008. Philopatry and population structure in the vulnerable white-chinned petrel *Procellaria aequinoctialis* enables the assignment of bycatch fatalities to natal colonies (poster). 4th International Albatross and Petrel Conference, 11-15 August 2008, Cape Town, South Africa.

If you know of additional literature, please send us an email (apo@apo-observers.org) and we'll be sure to add the citation to the list. An electronic copy would be useful as well. Thanks & keep up the hard work our there!

US North Pacific Observer Data Seminar Series

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Each year approximately 300 trained observers collect information onboard Alaskan fishing vessels.

The following (remaining) presentations highlight how that data are utilized*

Nov 5: Shannon Fitzgerald (AFSC / REFM)

Use of observer data in quantifying seabird interactions

Nov 12: Jennifer Mondragon (AK Region)

Use of observer data in the catch accounting system

Nov 26: Craig Faunce (AFSC / FMA)

Use of observer data in fisheries science and management: A review

*3:00 pm, Observer Training Room 1055, Bldg. #4, NOAA Sand Point, Seattle, WA

For more information, contact Jennifer Ferdinand: Jennifer.Ferdinand@noaa.gov

***Contributions to this section aim to exhibit the creative side of observers. Please, [submit](#) your observer or related sea poetry, cartoons, creative writings, and illustrations for publishing quarterly in the MB's Creative Corner.

Creative Corner

Poem: "The Big Wet Blue Eyeball"

Ethan Brown; Fisheries Observer; USA and International

The stars come together in thick dark cake,
as you stare into the light years ahead
The tunnel vision clears, the funnel full of fears,
dissolves and disappears in the holy black lake
The ship churns quiet thru the fading soup,
the sky's cheek glows red above the calm bay
The souls of lost sailors whisper their dreams,
nights on the beach full of whiskey and pay,
Drumbeats and knives and cheating exwives
sunk in their holes drunk in their souls
The seamoon rises and murders the day.
The big wet blue eyeball spins around again
On the beach we drink the rest of the gin,
we teach and reach and it never ends
Bleeding and breeding and feeding our sins,
leeching and preaching with big silly grins,
prayers just lost and tossed in the wind.
The big wet blue eyeball spins round again.

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www.st.nmfs.gov/st4/nop

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www.ifomc.com

AMSEA (Marine Safety Instruction)

www.amsea.org

***** Submissions for the forthcoming Winter Mail Buoy are due by December 31st 2008. The APO is currently recruiting for observer representatives from national and international observer programs. Please, contact us if you are interested with helping with the APO!**

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