



Surveillance Report
Oregon Pink Shrimp Trawl Fishery
West Coast of USA: Oregon, Washington, California

Certificate No.: **MML-F-089**

Intertek Moody Marine
October 21, 2011

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Abbreviations

BRD	Bycatch Reduction Device	OLE	Office of Law Enforcement
BREP	Bycatch Reduction Engineering Program	OSP	Oregon State Police
CA	Corrective Action	OTC	Oregon Trawl Commission
CPUE	Catch Per Unit Effort	PFMC	Pacific Fishery Management Council
DPS	Distinct Population Segment	PRD	Protected Resources Division
ESA	Endangered Species Act	PSMFC	Pacific States Marine Fisheries Commission
EFH	Essential Fish Habitat	RCA	Rockfish Conservation Area
HT	Heavily Trawled	ROV	Remotely Operated Vehicle
LT	Lightly Trawled	SG	Scoring Guidepost
MSC	Marine Stewardship Council	SRE	Single Rig Equivalent
NMFS	National Marine Fisheries Service	USA	United States of America
NOAA	National Oceanic and Atmospheric Administration	WCGOP	West Coast Groundfish Observer Program
ODFW	Oregon Department of Fish and Wildlife		
OFWC	Oregon Fish and Wildlife Commission		

1.0 GENERAL INFORMATION

Scope against which the surveillance is undertaken: MSC Principles and Criteria for Sustainable Fishing as applied to the Oregon Pink Shrimp (*Pandalus jordani*) Trawl Fishery

Species: Pink Shrimp (*Pandalus jordani*)

Area: United States West Coast Waters of Washington, Oregon and California

Method of capture: Trawl

Date of Surveillance Visit:	October 2011 (As per the variation request granted by the MSC no on-site audit was conducted, consultations were held via conference call).			
Initial Certification	Date: December 6, 2007		Certificate Ref: MML-F-089	
Surveillance stage	1st	2 nd	3rd	4th
Surveillance team:	Lead Assessor: Amanda Park Assessor(s): Don Parsons, Susan Hanna, Mark Pedersen			
Company Name: Address:	Oregon Trawl Commission 16289 Highway 101 S. Suite C Brookings, Oregon USA 97415			
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2.0 RESULTS, CONCLUSIONS AND RECOMMENDATIONS

This report contains the findings of the third surveillance audit of the Oregon Trawl Commission (OTC) Oregon Pink Shrimp Trawl Fishery. As defined in the Certification Report, the specific scope of the fishery is the commercial pink shrimp fishery conducted by Oregon permitted harvesters within the coastal and federal waters off the states of Washington, Oregon, and California with the product landed in Oregon ports. Federal waters are defined as those waters beyond the three nautical mile state water limits out to the 200 nautical mile line. The surveillance audit was carried out in accordance with the Marine Stewardship Council (MSC) Fisheries Certification Methodology (FCM), version 6.1.

An announcement of the surveillance audit was published on the MSC website on the 6th of October 2011 advising stakeholders that the surveillance audit was taking place. At that time the surveillance audit notification was also circulated to known stakeholders through email. Subsequently, there were no written submissions received. Other than the client and management body, no stakeholders requested a meeting with the assessment team. In relation to the execution of the third surveillance audit for the fishery, the MSC granted a variation to allow the third surveillance audit, focused on the management and operation of the 2010 fishery, to be conducted as a desk audit. As such there was no site visit; rather the audit was carried out via conference call, email discussion and through a review of written submissions and available information. Over the course of the audit, the assessment team spoke to Brad Pettinger (Oregon Trawl Commission), as well as Bob Hannah and Steve Jones (Oregon Department of Fish and Wildlife). Discussions with both organisations focused on the operation and management of the 2010 fishery to assess if there was continued compliance with the conditions of certification, and to determine whether any significant changes in management or fishery operations would impact the certification.

The surveillance team consisted of Amanda Park, Don Parsons, Susan Hanna, and Mark Pedersen. The surveillance audit meetings were conducted by Amanda Park and Don Parsons, with the remaining team members responsible for the review of the audit report.

The following section is set out as a table, providing general information about the status of the stock and the fishery for this reporting period along with the surveillance team's observations, conclusions and recommendations on the current status of the fishery. Action had been taken to meet the requirements of the conditions of certification by the second audit, however during this surveillance audit conditions were revisited to document any further developments, continued actions or deficiencies.

The table includes the assessment performance indicators, scoring guideposts (SG) associated with the 80 score, requirements of the conditions for those areas scoring below 80, and the elements of the client action plan directed at meeting the conditions.

In accordance with the Action Plan, the clients have provided information on the work undertaken to date. For each condition, the report sets out progress to date and provides an update on activities related to the closed conditions. This progress has been evaluated by the Moody Marine assessment team ('Observations' and 'Conclusion') against:

- The commitments made in the Action Plan
- The intent of the original Condition; and,
- The original scoring indicator, guideposts and commentary.

The influence of any overall legislative and management changes in the fishery have also been taken into consideration.

The surveillance audit includes a re-evaluation of the scoring of Performance Indicators in the original MSC assessment. Where the requirements of a condition have been met, the Performance Indicators are re-examined to ensure continued compliance with the condition, if required.

Item	Comments regarding <i>P. jordani</i> off US west coast
1	The Fishery and Stock status
Observations	<p data-bbox="492 260 638 287">The Fishery</p> <p data-bbox="492 306 1453 621">The 2010 Oregon pink shrimp fishing season (April 1 - October 31) was characterized by record high catch rates, continued low price and limited markets. However, because the catch rates were so high, time spent at sea (filling vessel holds or meeting plant-imposed trip limits) was usually two days or less, resulting in reduced operating costs. The high stock abundance was due to the exceptionally strong 2009 and 2008 year classes which comprised most of the catch (number of shrimp) in 2010 as age 1 (59%) and age 2 (38%) shrimp, respectively. The stock is considered healthy but, for the 2011 fishery, the outlook was somewhat uncertain, given that age-1 recruitment was forecast to be less than the exceptionally high levels observed in 2009 and 2010 (see below).</p> <p data-bbox="492 653 1453 842">Approximately 31.4 million pounds of shrimp were landed at Oregon ports in 2010, the highest reported since 2002 and about 9 million pounds more than the 2009 landings. Similar to 2009, most of the landings in 2010 were taken on the south coast, the area between Heceta Head and Cape Mendocino accounting for about 75%. Landings from the north coast were taken primarily in the Cape Lookout and Tillamook Head beds, each accounting for approximately 3.7 million pounds.</p> <p data-bbox="492 873 643 900">Stock Status</p> <p data-bbox="492 932 1453 1226">Since 2003, levels of fishing effort have been low. In 2010, 733 trips were made by 53 vessels, both slightly more than in 2009. Hours fished also increased slightly from about 18,000 single rig equivalent (SRE) hours in 2009 to 20,600 in 2010. The low fishing effort, coupled with the relatively high catch, resulted in the highest, annual catch per unit effort (CPUE) observed for this fishery - more than 1,500 lb/SRE hour. By area, highest CPUE was recorded off northern California (about 4,000 lb/SRE hour), followed by the Port Orford and Bandon beds at 3,000 and 2,200 lb/SRE hour, respectively. CPUE along the north coast was lower and more typical for the fishery (about 750 lb/SRE hour).</p> <p data-bbox="492 1257 1453 1572">Continued high catch rates at the end of season in 2010 indicated that abundance remained high and the strong age 1 recruitment in 2010 could result in significant, higher than normal hold-over for age 2 in 2011, especially on the south coast. However, the ODFW recruitment model (see Hannah, 2010, 2011), based on Crescent City sea level (which was 7.3 ft in 2010 compared to 6.74 in 2009, indicating that oceanographic conditions may have been less favourable to shrimp recruitment than they have been over the last two years), suggested that age 1 recruitment in 2011 will be slightly below average. The index of larval survival is a measure of general recruitment along the coast, but does not indicate specific areas or regions where recruitment may occur.</p> <p data-bbox="492 1604 1453 1898">Observations from the 2010 fishery gave mixed signals regarding abundance of age 0 shrimp in 2010. Market samples from September and October contained far fewer age 0 shrimp than in 2009, supporting observations from shrimpers during this period. On the other hand, shrimpers also reported unusually high abundance of age 0's off northern California and in areas in-shore of where most fishing occurred in 2010. There was no sampling from these areas to support these observations. At the time of this audit, the 2011 fishery was largely finished. It was reported (Hannah and Jones, pers. comm.) that the 2011 fishery was, in fact, supported by an exceptional hold-over of age two shrimp. Although the age-1 recruitment might have been below normal (the actual strength has not yet been determined), the stock remains healthy.</p>

Item	Comments
2	Condition of Certification 1
PI and 80SG	<p data-bbox="492 277 1458 363">PI 1.1.2.1 All fishing related mortality is recorded/estimated. This includes landings, discards, and incidental mortality (adult and juvenile).</p> <p data-bbox="492 401 1458 552">80SG</p> <ul data-bbox="581 432 1458 552" style="list-style-type: none"> • Landings and discards are accurately recorded in log books as required by regulation. • Discards are well estimated for adult and juvenile shrimp.
Condition	<p data-bbox="492 560 1458 653">The client must meet the requirements of the 80 scoring guidepost prior to the first annual surveillance audit. Discards are to be accurately recording in log books. Discards are to be well estimated for adult and juvenile shrimp.</p> <p data-bbox="492 684 1458 930">During the first surveillance audit in the fall of 2008, the assessment team clarified their intent of this condition by reissuing the condition as: “The client can meet the requirements of the 80 scoring guidepost if 60% of logbook compliance related to discards is observed prior the first annual surveillance audit; and significant improvement in that percentage shown by the second and third annual surveillance audit. Results of estimations of target species discard and by-catch will be provided within seven months of the annual end of season.”</p>
Action Plan	<p data-bbox="492 938 1458 1184">ODFW agrees that having this information would be very valuable to their shrimp management program. Timing is also excellent in this corrective action (CA), as the department was planning on reordering shrimp logbooks this coming year and they will now modify the existing logbooks with a column that will catch the discard information. The OTC is also working with Pacific States Marine Fisheries Commission (PSMFC) on an electronic logbook for all west coast trawl fisheries and that feature will be incorporated as well.</p>
Conclusion	<p data-bbox="492 1192 1458 1306">This condition was closed out following the second surveillance audit. The issues associated with this PI are considered as part of the overall review of the on-going operation of the fishery.</p>

Item	Comments
3	Condition of Certification 2
PI and 80SG	<p data-bbox="493 247 607 275">PI 2.1.1.4</p> <p data-bbox="493 279 1448 338">Information exists on the ability of the ecosystem to recover from fishery related impacts.</p> <p data-bbox="493 371 558 399">80SG</p> <ul data-bbox="537 403 1448 499" style="list-style-type: none"> <li data-bbox="537 403 1448 499">• The main elements of the ecosystem affected by the fishery have been documented and are understood, and this provides a convincing scenario of how the ecosystem would recover from the fishery related impacts.
Condition	<p data-bbox="493 535 1448 720">Within one year, the client must document the main elements of the ecosystem affected by the fishery. Within two years the client must have completed a study (including a report) that will provide inferences into understanding of the type and magnitude of effects that shrimp trawling has on the main ecosystem elements. Based on the results of the research, a report should provide a convincing scenario of how the ecosystem would likely recover if there are significant fishery related impacts.</p> <p data-bbox="493 753 1448 1035">[As a suggestion, the team thinks that two actions are required: firstly conduct a literature search that focuses on characterizing the effects of sediment plumes and physical contact on representative marine communities, and then prepare a report that infers likely effects (and significance) to key infauna species on shrimp grounds; and secondly, analyze any existing data, if available, to compare areas of heavy trawling vs. light (or no) trawling to develop inferences related to ecosystem recovery. The study would include a semiquantitative analysis of differences in the physical character of the seabed, the abundance of seapens, shrimp, tube worms, corals and other key infaunal communities between the various treatments.</p> <p data-bbox="493 1068 1448 1316">If results do not allow for development of a convincing scenario of how the ecosystem would recover from fishery related impacts, then within 5 years, design and implement, as funding becomes available, a controlled experiment to characterize ecosystem recovery. The approach would be to establish at least two control (non-trawled) and two shrimp trawled sites; then through underwater video or other acceptable means, perform at least a semi-quantitative analysis of differences in seabed character and the abundance of key infaunal communities between the two treatments.]</p>
Action Plan	<p data-bbox="493 1354 1448 1572">This corrective action is in two parts, 1) a literature search and 2) the design and application of a controlled experiment. The OTC will fund the literature search and ODF&W has already started an ROV study on benthic impacts this last month. It is important to point out that this study was already on the drawing board before the Assessment Team began discussing it as a possible CA. The proactive approach of the shrimp program, continually trying to better understand the fishery and it's impacts, is why the Oregon pink shrimp fishery has scored as well as it has.</p> <p data-bbox="493 1606 688 1633"><u>Literature Search</u></p> <p data-bbox="493 1667 1448 1822">The OTC will hire a qualified contractor to conduct a literature search that will focus on characterizing the effects of sediment plumes and other effects on representative marine communities and to prepare a report that infers likely effects (and significance) to key fauna species on the shrimp grounds that will satisfy the CA requirements. This work will be completed within the 12 month time frame.</p> <p data-bbox="493 1856 1036 1883"><u>Fishing Effects on Ecosystem Comparison Study</u></p>

	<p>ODF&W has recently completed 20 hours of remotely operated vehicle (ROV) generated video tape of the sea floor in four areas around the Nehalem Bank. Two sites were selected inside and outside of an area newly closed to bottom trawling off of the northern Oregon Coast. The 20 hours of film footage taken with the ROV will require a tremendous amount of time to review, analyze and evaluate and those efforts will begin this winter and could take up to two years. Additional studies relative to this issue are part of a long term line of investigation (5-10 years). The department is directed by the Governor (through designees) and the legislature (through budgets) and the staff has a limited ability to truly commit to do future projects. However, I believe that the shrimp program has an outstanding track record of following through on their plans. As Director of the OTC, I am also on the external budget committee for ODF&W and am able to help explain the value of this project to the fishery and the coastal communities if funding turns into an issue (Brad Pettinger, OTC Executive Director, 2007).</p>
Conclusion	<p>This condition was considered fully met and closed during the second surveillance audit. In relation to condition requirements no further activities were conducted during the third surveillance period.</p>

Item	Comments
4	Condition of Certification 3
PI and 80SG	<p>PI 3.1.3 The management system incorporates and applies an adaptive and responsible exploitation strategy.</p> <p>80SG A responsible management strategy is followed, including:</p> <ul style="list-style-type: none"> • explicit long-term management objectives seek to maintain stocks at high levels of productivity. • an explicit harvest strategy which accounts for uncertainty. • the management system estimates all commercial catches, landings and by-catch and annually assesses the status of target stocks.
Condition	<p>Prior to the first annual surveillance audit, the client must prove that the management system estimates all commercial catches, landings and by-catch and annually assesses the status of the stock.</p> <p>[Condition Intent: The deficiencies that reduce the score below 80 relate to shortcomings of total catch and estimates of discards (see 1.1.2.1 for elaboration). Periodic observer coverage exists that records discards of undersized shrimp, but there are no estimates of total catches compared with total landings data.]</p>
Action Plan	<p>ODFW had already planned on re-ordering shrimp logbooks in 2008 and they codified the existing logbooks with a column that caught the discard information. The Oregon Trawl Commission (OTC) is also working with the PSMFC on an electronic logbook for all west coast trawl fisheries, and that feature will be incorporated as well.</p>
Conclusion	<p>This Condition was closed out at the first annual audit and, as such, has become part of the annual audit review of the on-going operations of the fishery.</p>

Item	Comments
5	Condition of Certification 4
PI and 80SG	<p>PI 3.6.1 The management system measures and records and evaluates all aspects of the fishery to provide a basis for assessment of stocks and management performance.</p> <p>80SG</p> <ul style="list-style-type: none"> • There is a monitoring program that covers all indicators of stock health and management performance. • The monitoring program has been subjected to independent outside review to identify gaps
Condition	<p>Within one year, the client shall subject the fishery monitoring program to an independent outside review to identify gaps. The review shall verify that the monitoring program covers all indicators of stock health and management performance.</p> <p>The review must be undertaken by a credible management expert.</p>
Action Plan	<p>The OTC will to hire a credible management expert to review the performance of the management system. Within 6 months of the certificate award the OTC will provide:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The proposed reviewers(s) curriculum vita <input type="checkbox"/> The terms of reference and scope for the management Review. <p>Prior to the First Annual Surveillance Audit, the OTC will provide:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The report of results of the Management Review <input type="checkbox"/> Identify Gaps from review process <input type="checkbox"/> Proposed corrective action for identified gaps <input type="checkbox"/> Propose timeline for corrective action plan <input type="checkbox"/> Propose period and rationale for subsequent management review
Observation	<p>The report of the independent management review was provided to the certifier as required during the first surveillance audit (see Appendix 3 of surveillance audit 1). The performance indicator was rescored to 80 following the first surveillance audit and the condition closed out.</p> <p>During the second audit, the status of the proposed actions identified in the management review were examined and it was determined that no action was needed, as actions to improve performance in this area continued. At the same time, Moody Marine confirmed that the management/scientific agencies committed to conducting the proposed corrective actions, in particular in relation to the occurrence of proposed management review, noting that compliance with this should be examined in future audits.</p> <p>During the third surveillance audit, it was noted that no actions have been taken to proceed with the implementation of regular program reviews, as outlined in the corrective actions related to the program review. While continued regular independent review is not a condition requirement, and as such does not affect scoring or the status of the condition, in both the review and the client action plan there was a commitment to examine the feasibility of the conducting subsequent or regular independent review.</p> <p>It was noted that the listing of eulachon has taken priority and requires significant resources.</p>

	However, in relation to other proposed actions following the previous review, it should be noted that the client and ODFW continue to encourage NMFS to provide coverage and data necessary and in a timely fashion to evaluate the new logbook program and gear research on bycatch reduction is ongoing.
Conclusion	This Condition was closed out at the first annual audit. The surveillance team note that actions identified in the independent management have not been undertaken, however, this was not part of the requirements set out in the condition.

6	Any complaints against the certified operation; recorded, reviewed and actioned
	No complaints that would potentially compromise the certification were reported or brought to the attention of the audit team during the third surveillance audit.

7	Any relevant changes to legislation or regulation.
	<p>During the past year the following regulation changes were noted that relate to the fishery:</p> <p><u>Eulachon listed under ESA:</u> On March 18, 2010 the NOAA Fisheries Service formally listed the southern Distinct Population Segment (DPS) of Pacific eulachon smelt (<i>Thaleichthys pacificus</i>) as "threatened" under the Endangered Species Act (ESA) (NOAA, 2011). In response to the listing, the Oregon Fish and Wildlife Commission (OFWC) imposed a regulation requiring 3/4" rigid grate bycatch reduction devices (BRD's) by 2012. This was the most effective measure to reduce the eulachon bycatch using existing technology, while allowing the fishery to continue. Furthermore, it provides time for managers and industry to explore additional means of minimizing eulachon bycatch, if necessary. The National Marine Fisheries Service (NMFS) has also published a proposal to define eulachon critical habitat which, in time, could include grounds currently fished for shrimp.</p> <p>The Oregon Department of Fish and Wildlife (ODFW) Marine Resources Program is proactive in the task of minimizing eulachon by catch, primarily through trawl groundline gear modifications (ODFW Annual Pink Shrimp Review, 2011; Hannah et al., 2011).</p> <p><u>BRD Regulation Changes:</u> Further to the eulachon issue above, the OFWC adopted new BRD requirements for the shrimp fishery. Effective 1 January 2011, only rigid-grate BRD's are allowed with a maximum bar spacing of 1.0 inch. Soft-panel BRD's are not allowed. The maximum allowable rigid-grate bar spacing will decrease to 3/4" as of 1 January 2012.</p> <p>The following have been in place previously, therefore are not new changes, however they are noted here as they are applicable to the certified fishery:</p> <p><u>Essential Fish Habitat Trawl Closures:</u> The Pacific Fisheries Management Council (PFMC) designated several Essential Fish Habitat (EFH) areas off the Oregon coast as no-trawl zones to protect hard bottom habitats and associated species. Shrimpers are prohibited from trawling within these areas. The Nehalem Bank/Shalepile EFH is most relevant to shrimpers. Other EFH no-trawl areas near traditional shrimp grounds are Daisy Bank, Stonewall Bank, Heceta Bank and Coquille Bank. The Vessel Monitoring System will enable NMFS to enforce the EFH no-trawl zones (PFMC, 2011).</p>

	<p><u>Declarations required:</u> NMFS requires shrimpers to file a declaration report before the vessel operates in any Rockfish Conservation Area (RCA). Only one declaration is required but it must be filed before leaving for the first shrimp trip of the season (NOAA Office of Law Enforcement, 2011).</p>
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8	<p>Any relevant changes to management regime.</p> <p><u>Increased NMFS observer coverage:</u> Observer coverage in the 2010 fishery was 12.8% (94 of 733 trips), substantially higher than the 8.7% coverage rate achieved in 2009. While this level of coverage falls short of the 20% target set for 2010, it does show improvement toward attaining this goal. Coverage at this higher level will help refine catch estimates of eulachon by shrimpers. Additionally, Washington-based shrimpers were observed for the first time during 2010, which may help define spatial and temporal eulachon catch patterns by shrimpers along the west coast in the future.</p> <p><u>Enforcement Issues:</u> The Oregon State Police (OSP) will inspect rigid-grates and measure bar spacing at the beginning of the 2011 season, to ensure compliance with the current rigid-grate 1.0" maximum bar spacing requirement. ODFW staff will meet with OSP officers to establish a protocol for taking the measurements. No count-per-pound issues occurred during the 2010 season.</p>
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9	<p>Any other relevant changes</p> <p>In response to the listing of eulachon as "threatened", and documented concern from stakeholders, ODFW has been proactive in reducing impacts on eulachon smelt and, by extension, other bycatch species. Furthermore, the Oregon pink shrimp industry gives high priority to the reduction of eulachon in the catches. The OFWC will require 3/4" rigid grate BRD's by 2012. As of 3 December 2010, only rigid grates are permitted; soft-panel BRDs are not allowed. ODFW encourages shrimpers to be proactive in reducing bycatch by using grates with 3/4" bar spacing as soon as possible, considering changes in gear design (e.g. eliminating accelerator panels, modifying ground gear) and moving away from areas where eulachon are encountered.</p> <p>Efforts are ongoing to define eulachon critical habitat, develop a rebuilding plan and obtain more information on eulachon ecology. The Protected Resources Division (PRD), while encouraging more research on bycatch reduction, has recognized the efforts made to reduce eulachon bycatch in the shrimp fishery and that the shrimp fishery is not likely the primary cause of the eulachon decline.</p> <p>The Marine Resources Program of ODFW gives high priority in 2011 to research designed to reduce eulachon bycatch through groundgear modification, and observing eulachon behaviour as they interact with a rigid-grate BRD during trawling. Although the research is focussed on eulachon, bycatch reductions will also benefit species such as darkblotched rockfish that are designated as "overfished".</p> <p>A shrimp fleet survey to document the styles and prevalence of groundgear currently utilized by Oregon shrimpers was planned to begin in March 2011. Survey results may be very useful in future, should groundgear alteration prove to be an effective way to reduce eulachon catch.</p> <p>The model used to forecast recruitment for this fishery (Hannah, 2010; 2011) has proven to be very informative, not only for forecasting the magnitude of the next</p>
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	year's fishery, but also for demonstrating that recruitment of pink shrimp is driven by environmental factors rather than fishery effects. This knowledge is fundamental to the way the fishery is managed.
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10	Overall conclusion regarding the certification of the Oregon pink shrimp trawl fishery
	The pink shrimp resource is considered to be healthy, despite the possibility of lower recruitment of age 1 shrimp to the fishery in 2011. No changes in management have taken place that would be detrimental to the performance of this fishery against the MSC standard. Management and industry continue to be proactive with research and efforts to reduce impacts on habitat and bycatch of non-target species. MSC Certification should therefore continue with annual audits.

Information Sources:

Golden Marine Consulting. 2008. Report of the Independent Review: Oregon Pink Shrimp Fishery. Oregon, USA; 35pgs.

Hannah, R.W. 2011. Variation in the distribution of ocean shrimp (*Pandalus jordani*) recruits: links with coastal upwelling and climate change. Fish. Oceanogr. 20:4, 305-313.

Hannah, R.W., Jones, S.A., Lomeli, M.J.M, Wakefield, W.W. 2011. Trawl net modifications to reduce the bycatch of eulachon (*Thaleichthys pacificus*) in the ocean shrimp (*Pandalus jordani*) fishery. Fisheries Research 110 (2011): 277-282.

Hannah, R.W., S.A. Jones, W. Miller and J.S. Knight. 2009. Effects of trawling for ocean shrimp (*Pandalus jordani*) on macroinvertebrate abundance and diversity at four sites near Nehalem Bank, Oregon. Fishery Bulletin. 108: 30-38.

Hannah, R.W. 2010. Use of a pre-recruit abundance index to improve forecasts of ocean shrimp (*Pandalus jordani*) recruitment from environmental models. CalCOFI Rep., Vol. 51: 9pp.

Oregon Department of Fish and Wildlife. 2011. 22nd Annual Pink Shrimp Review, Newport Oregon: 12p. [Online]. Available from: <http://www.dfw.state.or.us/MRP/publications>. Accessed: October 2011.

National Oceanographic and Atmospheric Administration (NOAA). 2011. Eulachon (Columbia River) [Online]. Available from: <http://www.nwr.noaa.gov/Other-Marine-Species/Eulachon.cfm>. Accessed: October 2011.

NOAA Office of Law Enforcement. 2011. Northwest VMS – Declaration Requirements for Limited Entry Open Access Tribal Fisheries [Online]. Available from: http://www.nmfs.noaa.gov/ole/nw_declarationreqs.html. Accessed: October, 2011.

Pacific Fishery Management Council (PFMC). 2011. Fishery Management Plan and Amendments: Fishery Management Plan Appendices [Online]. Available from: <http://www.pcouncil.org/groundfish/fishery-management-plan/fmp-appendices/>. Accessed: October 2011.

Meetings			
Date	Organisation	Attending	Topics Discussed
October 11, 2011	Oregon Department of Fish and Wildlife	Bob Hannah, Steve Jones	<ul style="list-style-type: none"> _ Logbook program implementation and results from 2010 _ Quantity of catch landed and discarded over the season _ Bycatch composition and quantity _ Updates on ongoing research (gear modification, bycatch reduction) _ Eulachon: research, results of listing as 'threatened', interaction between fishery and eulachon
October 11, 2011	Oregon Trawl Commission	Brad Pettinger	<ul style="list-style-type: none"> _ Changes in management, operation, personale, and/or regulations in 2010 fishery _ Forecast for 2011 fishery

Standards and Guidelines used:

1. MSC Principles and Criteria for Sustainable Fishing
2. MSC Fishery Certification Methodology Version 6. September 2006
3. TAB Directives - all

APPENDIX 1: Surveillance Audit Notification**OREGON PINK SHRIMP****MSC Certification****Certification Body: Intertek Moody Marine****Desk Top Audit: Third Surveillance**

Following certification of this fishery, we are now continuing the process of annual surveillance audits of the fishery, with the third surveillance audit being conducted by Amanda Park and Don Parsons. In addition, the audit report will be reviewed by Susan Hanna and Mark Pedersen.

These audits have two principal functions:

1. To review any changes in the management of the fishery, including regulations, key management or scientific staff, or stock evaluation
2. To evaluate the progress of the fishery against any Conditions of Certification raised during the Main Assessment

A variation has been granted by the MSC to allow for the third surveillance audit, focused on the management and operation of the 2010 fishery, to be conducted as a desk top audit. As such there will be no on-site visit conducted; rather the audit will be conducted via conference call, email discussion, and review of written submissions. As with all surveillance audits the assessment team will be speaking with representatives of the fishery and fishery management organisations, will be available to stakeholders for discussions, and will consider any written submissions received.

Should you have any information on this fishery that you feel should be considered during the surveillance audit, please advise us of:

- a) your name and contact details
- b) your association with the fishery
- c) the issues you would like to discuss (in order for us to arrange appropriate representation)
- d) when would like to meet, all verbal discussions will be conducted via conference call

All stakeholder interactions, written and verbal, must be concluded by **5pmGMT on October 14th**. As such, written submissions will be accepted until **5pm GMT, October 14th, 2011**. Should you wish to arrange a discussion with the assessment team, please notify us by **October 11th, 2011** to arrange a date and time.

Best Regards,

Amanda Park
Lead Assessor
September 27, 2011

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