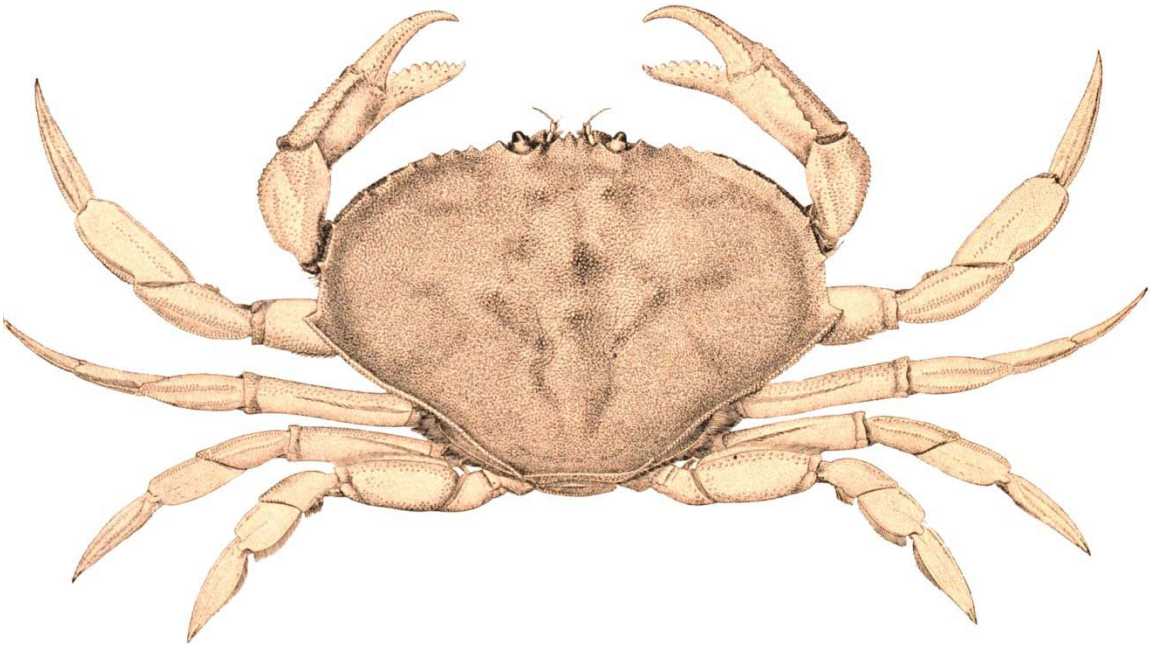
OREGON DUNGENESS CRAB

1st YEAR MSC Surveillance Audit Report

Certificate Number: SCS-MF-0024



SCIENTIFIC CERTIFICATION SYSTEMS

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General Information

Date of Issue	January 2012	
Prepared by	SCS University of Rhode Island	Sabine Daume, PhD Joseph DeAlteris, PhD
Certification Date		1 December 2010
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Surveillance Team	SCS	Sabine Daume, PhD (Lead) Joseph DeAlteris, PhD
Surveillance Stage	1st Annual Surveillance	
Methodologies	MSC Certification Requirements Version 1.1, November 2011	

Contents

Preface

All facts in this report were provided to SCS by the Oregon Dungeness Crab Commission (ODCC) represented by Mr. Nick Furman. However, the interpretation, opinions, and assertions made in this report as to the compliance of the fishery with MSC requirements are the sole responsibility of Scientific Certification Systems, Inc.

Executive Summary

The Oregon Dungeness Crab Fishery was certified on 1 December 2010 by Scientific Certification Systems, Inc. This report represents the findings of the first annual surveillance since the fishery was certified. SCS finds that the Oregon Dungeness Crab Fishery is still in general compliance with the MSC standard. SCS recommends the continued use of the MSC certificate. Significant progress on the several conditions has been made however the Fishery was found behind target on 4 conditions in terms of meeting the actions in the timeline outlined in the client action plan (Table 1).

Table 1: Summary of Performance Indicators with conditions

Indicator	***Status of Condition/Non-Conformance***
1.1.2	On Target
1.1.4	On Target
1.1.5	Behind Target, minor non-conformance
3.1.3	Behind Target, minor non-conformance
3.1.6.1	On Target
3.1.6.2	On Target
3.4.4	As per 1.1.5 Behind Target, minor non-conformance
3.6.2	Behind Target, minor non-conformance
3.6.3	As per 3.1.6.1 On Target

General background about the fishery

The Oregon Dungeness Crab Fishery (*Metacarcinus magister*) is occurring in both state (0-3 nm from shore) and federal (3-200 nm) waters along the Western Coast of Oregon, USA. Fishing is conducted by traps (pots) only.

The fishery is managed by the Oregon Department of Fish and Wildlife (ODFW). According to the ODFW, commercial ocean Dungeness crab landings into Oregon ports during the 2010-2011 season totaled 21.3 million pounds, from 7,619 separate landings (Figure 1). The landings this last season are down slightly for the previous season, but are well over the long-term average. In fact the 10 year running average trend continues to increase. The Newport area led all ports with over 7.5 million pounds, followed closely by Charleston and Astoria with 5.3 and 4.3 million pounds landed, respectively (Figure 2). Ex-vessel value of all crab landings into Oregon during the 2010-2011 crab season totaled over $48.9 million. Pot declarations (based on ve3ssels pot limits) totaled 121,500 for 333 Oregon permitted vessels that made landings into Oregon ports during the 2010-2011 season. The number of pots is slightly higher than the 117,400 pots used in the previous season, but substantially lower than the 200,000 estimated pots declared before the pot limits were implemented (Figure 3).

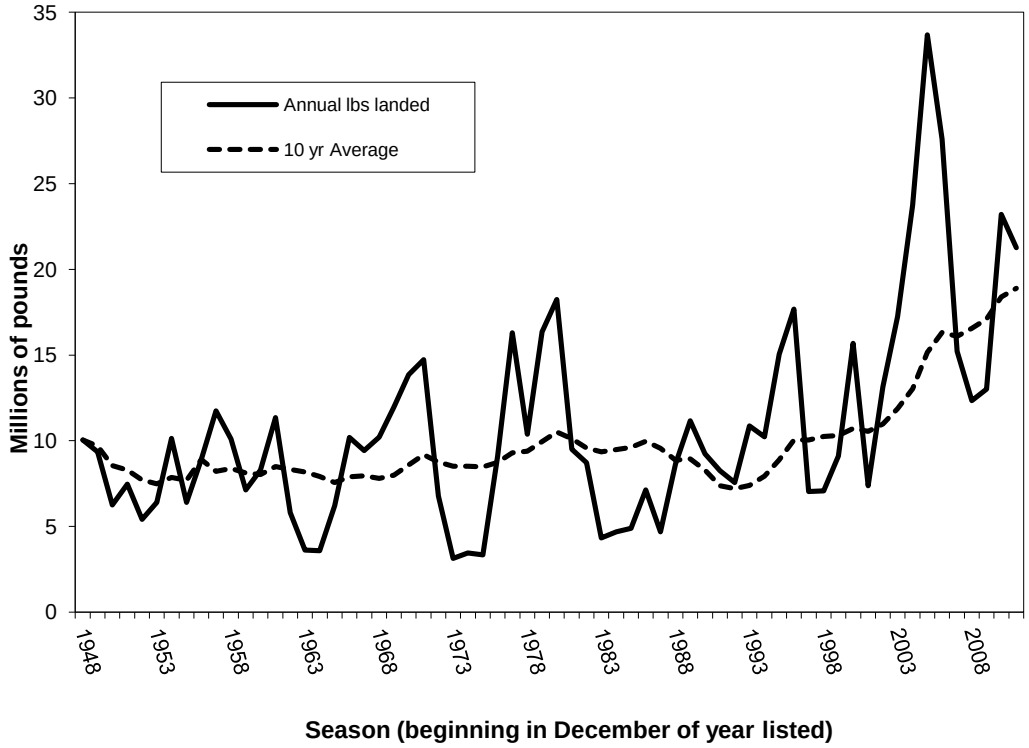

Figure 1. Dungeness crab landings in Oregon in the last 60+ years.

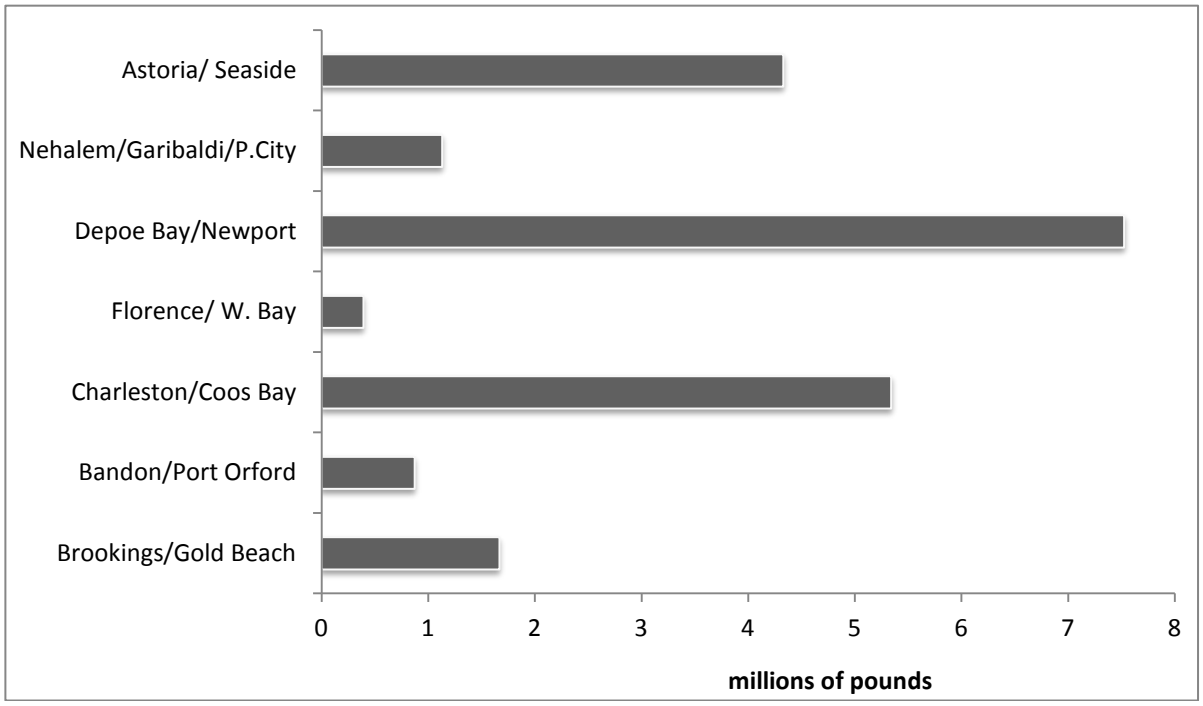

Figure 2. Distribution of Dungeness crab landings by port in Oregon in the 2010-2011 season.

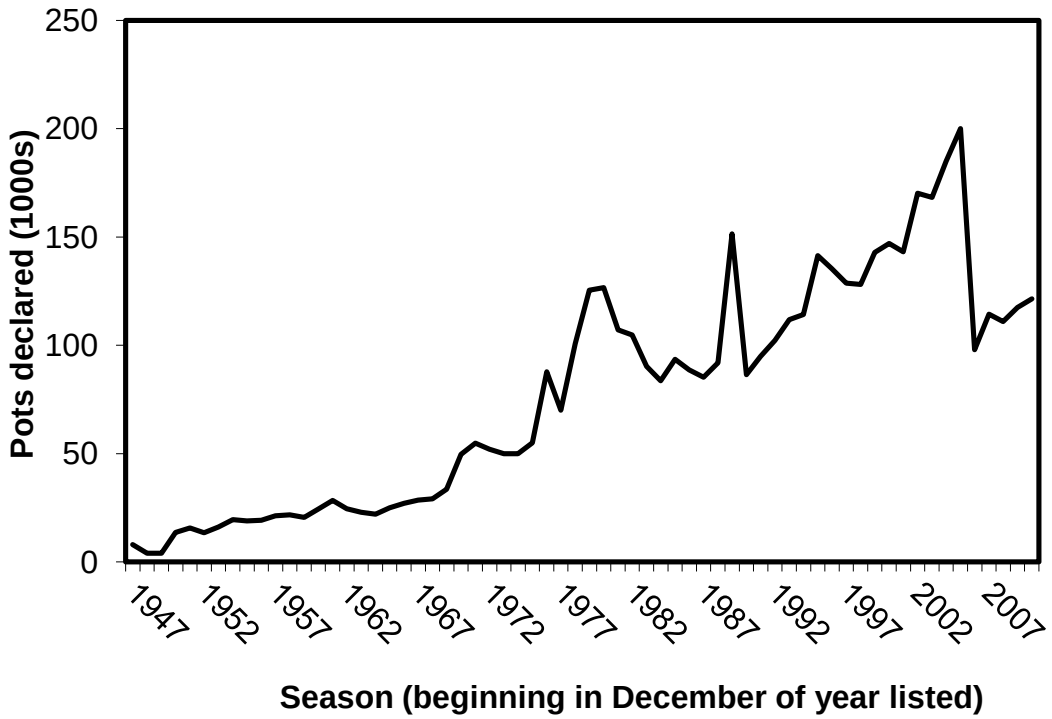

Figure 3. Pots declared in Oregon Dungeness crab fishery in the last 60+ years.

Assessment Overview

Methodology

The surveillance audit was carried out in accordance with the Marine Stewardship Council (MSC) Certification Requirements Version 1.1, November 2011. Should a fishery fail the surveillance audit, and cannot address identified deficiencies in a reasonable period of time, then the use of the certificate and the MSC logo can be revoked by the certifier.

The issues for the certifier are whether the fishery has sufficiently acted on the required conditions set forth in the original certification report, and whether a random check on the performance of the fishery verifies continued compliance with the MSC standards.

The annual surveillance audit process is comprised of four general parts:

1. The certification body provides questions around areas of inquiry to determine if the fishery is maintaining the level of management observed during the original certification. In addition, the surveillance team requires that the client provide evidence that the fishery management system has taken the necessary actions to meet all conditions placed on the fishery during the initial certification assessment or any previous surveillance audits.

2. The surveillance/assessment team meets with the client fishery to allow the client to present the information gathered in answer to the questions asked by the surveillance team The surveillance team can then ask questions about the information provided to ensure its full understanding of how well the fishery management system is functioning and if the fishery management system is continuing to meet the MSC standards.

3. The surveillance team presents its findings to the client fishery at the end of the site visit. The results outline the assessment team's understanding of the information presented and its conclusion regarding the fishery management system's continued compliance with MSC standards. Where indicated, the surveillance team may provide the client fishery with additional time to supplement the information provided if the surveillance team finds that there are still issues requiring clarification.

4. Where appropriate, the client fishery submits final information to the surveillance/assessment team for consideration in the surveillance findings and report. The surveillance team then reviews the final information and submits a final report to the client fishery and the MSC for posting on the MSC website. If there are continued compliance concerns, these are presented as non-conformances that require further action and audits as specified in the surveillance report.

Surveillance Team

Two assessment team members were involved in the 1st annual surveillance audit. As outlined below and to fulfill the requirements of the Fisheries Certification Methodology (section 6.3) team members are clearly experienced and comparably qualified to the original assessment team.

Dr. Sabine Daume, Scientific Certification Systems (SCS)

Dr. Daume led the audit. She is responsible for leading SCS's Sustainable Seafood Certification program, which includes both fishery and chain of custody certification under the auspices of the Marine Stewardship Council (MSC), using the MSC methodology and standards. Dr. Daume has been involved and/ or led numerous pre and full assessments as well as surveillance audits. Dr. Daume is a marine biologist with special expertise in the biology and ecology of exploited marine resources. She has over 10 years experience working closely with the fishing and aquaculture industry in Australia. In her role as the Senior Research Scientist at the Department of Fisheries in Western Australia, she led research projects related to fishery and fisheries habitats of temperate and tropical invertebrate species. Dr. Daume is also a certified lead auditor under the International Standard Organization (ISO) 90011:2008 certification requirement. She was on the original assessment team of the Oregon Dungeness Crab Fishery at the later part of the assessment.

Dr. Joseph DeAlteris, University of Rhode Island

Dr. DeAlteris has an international reputation as an expert in the field of stock assessments. He brings intimate knowledge of invertebrate fisheries and has considerable experience in MSC fishery evaluations. Dr. DeAlteris has worked with SCS on the full assessment of the Louisiana blue crab evaluation and pre-assessment and full assessment of other crab fisheries in the north Atlantic region.

Surveillance Meeting

The surveillance audit for 2011 comprised:

1. An Audit Plan was provided to the client, fisheries management and scientists before the meeting. The opening with the client included an exchange of information relevant to the surveillance audit.

2. A meeting took place on the 1st December 2011 with Nick Furman representing the Oregon Dungeness Crab Commission, scientists and managers (see table 2). The discussions focused on the ongoing activities associated with the Conditions placed on the fishery and any changes that occurred since the fishery was first certified.

3. Necessary documents were presented by the client to SCS prior and during. Follow up emails were send to request additional information after the meeting.

Table 2: 1st Annual Assessment Meeting Attendees and Organizations

Attendees	***Organization***	***Role***
Dr. Sabine Daume	SCS	Team Leader
Dr. Joseph DeAlteris	University of Rhode Island	Assessment team member
Nick Furman	Client Representative	Oregon Dungeness Crab Commission
Kelly Corbett	Scientific Technical Expert	ODFW
Troy Buell	Scientific Technical Expert	ODFW
John Corbin	Chair	Oregon Dungeness Crab Commission
Noelle Yochum	Research/ PhD student	Oregon State University
Dan Averill	MSC outreach	Observer
Dr Sian Morgan	SCS	Observer

Results

General discussion

This is the 1st Annual Surveillance Report prepared by SCS to meet the requirements of the MSC for annual audits of certified fisheries.

The section below provides the general information about the status of the stock, the ecosystem impacts from fishing, and management arrangements for this reporting period.

According to the terms of the Action Plan, the client has provided the following information on the work undertaken since Certification in 2010:

1. ODCC 2011a. Summary of Oregon Dungeness Crab Fishery since MSC certification in 2010. November 2011.2p
2. ODCC 2011b. Derelict gear recovery program description, follow up letter and press release. November 2011.

3. ODF&W 2011a. Oregon Dungeness Crab Summit Agenda and Summary. June 2011. 5p.
4. ODF&W 2011b. Pre-season Testing Protocol for the Tri-state Coastal Dungeness Crab Commercial Fishery. Revised August 2011 11 p.
5. ODF&W 2011c. Oregon Dungeness Crab Monitoring and Research Plan. November 2011. 7p.
6. ODF&W 2011d. Commercial Ocean Dungeness Crab Fishery Logbook CPUE Preliminary Assessment. November 2011. 21 p.
7. ODF&W 2011e. Oregon Dungeness Crab Summit Agenda and Summit summary. July 2011. 6p.
8. ODF&W 2011f. Oregon Dungeness Crab Season Delay Notice. November 2011.1p
9. ODF&W 201o. Oregon Dungeness Crab Season Closure Notice. December 2010.1p
10. ODF&W 2011g. Oregon Dungeness Crab Advisory Committee Agenda and Meeting Summary. August 2011. 6p.
11. Agenda Coastal Dungeness Crab Tri-State Committee Meeting Pacific States Marine Fisheries Commission, Portland, Oregon. May 2011
12. Corbett, K. 2011. 3rd Annual Crab Fishery Newsletter. ODF&W October 27, 2011. 4p
13. Rasmuson, I. 2011, Proposal for the Synthesis of Dungeness Crab Literature, 6 p.
14. Yochum, N. 2011. Research proposal submitted to Oregon Dungeness Crab Commission, on RAMP approach to estimate discard survival. September 2011. 8 p.

Principle 1 - Stock Status and Harvest Strategy

As noted previously, commercial ocean Dungeness crab landings into Oregon ports during the 2010-2011 season totaled 21.3 million pounds (Figure 1). The landings this last season are down slightly for the previous season, but are well over the long-term average. In fact the 10 year running average trend continues to increase. Pot declarations (based on vessels pot limits) totaled 121,500 for 333 Oregon permitted vessels that made landings into Oregon ports during the 2010-2011 season. The number of pots is slightly higher than the 117,400 pots used in the previous season, but substantially lower than the 200,000 estimated pots declared before the pot limits were implemented (Figure 3).

Based on the criteria established in the MSC Public Certification Report for the Fishery, the fishery is considered healthy and well managed (SCS 2010). Work on establishing a Limit Reference Point has started and as a first step 2 years of fishery dependent, logbook data (CPUE) has been analyzed (see also progress on condition 1.1.5).

Principle 2 – Ecosystem impacts from fishing

There have been no changes in the ecosystem impacts of the fishery since the assessment of the fishery last year. Neither the subtle changes proposed in management nor the slight reduced catch (even above average catch) is likely to affect the impacts of the fishery on or the status of

retained species, bycatch, ETP species, habitat, or trophic function. There were no conditions placed on the fishery under Principle 2 during the certification. However the ODCC started an industry-funded derelict gear recovery program in May, 2011 after working with ODFW on a NOAA-funded grant project over the previous two years. Crab Commission plans to continue the program and effort next spring to recover derelict crab pots along the Oregon coast.

Principle 3 – Management and Regulation

In late 2010 the Tri-State advisory group and the Oregon Dungeness Crab Advisory Committee (ODCAC) were combined, creating a single ODFW crab advisory body that has designated Tri-State representatives as members of the larger group. ODFW and the crab industry participated in two major management-related meetings this year, resulting in 'protocol' changes to pre-season testing procedures agreed upon at the Tri-State meeting with CA and WA (May 23/24) held in Portland, OR, and a few 'rule changes' proposed at the biennial Crab Summit (June 22, 2011). ODFW also holds regular meetings of its Dungeness Crab Advisory Committee (ODCAC) to discuss proposed management and regulation changes and to solicit industry guidance on specific issues. These specific changes were discussed at the August 2011 ODCAC meeting.

Conclusions and Recommendations

It is SCS's view that the Oregon Dungeness Crab Fishery continues to meet the standards of the MSC and to comply with the 'Requirements for Continued Certification'. SCS recommends the continued use of the MSC certificate through to the 2nd audit with no additional corrective action requests other than those still outstanding from the original assessment.

Status of previously raised conditions

1.1.2		
All removals from the Dungeness crab population are known, including the commercial and recreational catch, by-catch in the trawl fishery, and the catch and return of female Dungeness crabs and undersized males.		
SG 60	**SG 80**	**SG 100**
Commercial landings are known. Recreational catch, trawl by-catch, and mortalities to catch of females and undersized males are not well known, but generally believed to be at levels low enough to avoid compromising status of the stock.	Commercial landings are known. There are estimates of the effect of fishing on female mortality. There are at least crude estimates of recreational landings, trawl by-catch, and mortalities of undersized males after capture.	Commercial landings are known, there is a data-based estimate of recreational landings, there is a data-based estimate of trawl by-catch and there are estimates of mortalities due to return of females and small males after capture

Score: 70

Commercial landings of Dungeness crab are well known. The managers asserted a belief while recreational catch, trawl by-catch, and mortalities due to catch of females and undersized males are not well known, they are generally believed to be at levels low enough to avoid compromising status of the stock. This belief is based on anecdotal and historical information. There is some cause for concern because of the closures and low allowed catches in the salmon fishery (which may shift recreational effort to Dungeness crab), and the increasing targeting of Dungeness crabs by commercial passenger fishing vessels (party boats).

Condition 1.1.2: Present results of sampling Dungeness crab fishing to determine the rate at which females are caught, whether hard or soft shelled, and time to release. Present an estimate of the mortality rate of released female crabs. Review estimates of recreational catch, by-catch in the trawl fishery and the catch of undersized males. Where data are lacking, conduct the sampling/monitoring necessary for estimates. Present a crude (or better) estimate of recreational catch, by-catch in the trawl fishery and the catch of undersized males.

By the 1st annual surveillance audit, Provide a list of the data available for each category requested and the planned approach.
By the 2nd annual surveillance audit, provide a list of who will accomplish each requirement and any results available.
By the 3rd annual surveillance, provide all requested results; including data, analyses, and a description of sampling in place for future data.

Progress on Condition: At the first annual surveillance, the audit team was presented with documents that describe the data available, and a planned approach to collect and analyze the required data. These documents include a monitoring and research plan outline (ODF&W, 2011c), a proposal for the application of the RAMP approach to determine discard survival in the pot and trawl fisheries (Yochum, 2011), and the revised Pre-season testing protocol for the Tri-state Coastal Dungeness Crab commercial fishery (ODF&W, 2011b). These documents fully describe a plan to address the issues associated with bycatch and discard survival in both the pot and trawl fisheries.

Status of Condition 1.1.2: Open – on target

1.1.4		
The dependence of productivity on abundance has been estimated and used to estimate potential TRPs and associated uncertainties.		
SG 60	**SG 80**	**SG 100**
A yield-per-recruit analysis has been performed, with results accounting for uncertainties.	The dependence of productivity on abundance has been estimated and used to determine that current levels of catch and size limit are within the range of uncertainty about a TRP (accounting for reproduction and potential environmental effects).	The dependence of productivity on abundance has been estimated and used to determine a TRP. Size limits and effort are set accordingly (while accounting for reproduction and potential environmental effects).

Score: 70

As part of the full assessment of the fishery the Oregon Dungeness Crab Commission presented a report by Selina Heppell (2009) to satisfy this indicator. The only prior analysis we know of for this fishery is the study by Methot (1989). He performed a partial yield-per-recruit analysis with the information available at the time (i.e. existing mortality estimates and a hypothetical growth model). He concluded that a precise estimate of the best lower size limit would be difficult because of existing uncertainties in growth and mortality rates. Yield analyses have been conducted for other populations of Dungeness crab (Siddeek, et al. 2004, Zhang, et al. 2004).

The Heppell (2009) report used an age structured model of both male and female Dungeness crab. The report shows how increasing female catch by changing the size limit and allowing the females to be landed would increase yield-per-recruit. However, it does not show the cost of that policy, i.e., the decrease in eggs-per-recruit by those policies. In the examples of the current policy of not landing females, the total annual mortality due to females being caught and released is set between 0.2 and 0.6. This figure seems high. Female growth is represented in the model in such a way that few females are caught in the fishery, and they are not caught until the cohort is eight years old, and thus substantially reduced by natural mortality. Neither the female mortality, nor the growth are related to data.

Condition 1.1.4: By the 2nd Annual Surveillance, update analysis of both yield-per-recruit (YPR) and eggs-per-recruit (EPR) that evaluates the trade-off in yield involved in a policy of not fishing females by incorporating values for mortality of catch and release mortality of females, and growth of females.

This analysis should include some evaluation of the effects of uncertainty on the conclusions regarding management policy. It should include the relevant conclusions in Methot (1989).

Progress on Condition: With regard to this condition while there were no specific requirements for the first annual surveillance, the audit team was presented with documents that included a proposal for a synthesis of Dungeness crab literature (Rasmusen, 2011), that will synthesize what is known about Dungeness crab and where the information gaps are.

Status of Condition 1.1.4: Open – on target

1.1.5		
A Limit Reference Point (LRP) has been established and its level is computed at appropriate time intervals to determine whether the stock is depleted.		
SG 60	**SG 80**	**SG 100**
An LRP has been defined, has been estimated every ten years, and when last estimated it was above the minimum level.	An LRP has been defined, is estimated every five years, and when last estimated it was above the minimum level.	An LRP has been defined, it is estimated annually, and is currently above the minimum level.

Score: 75

As part of the full assessment of the fishery the Oregon Dungeness Crab Commission presented a recommended LRP condition in Part II of the Heppell (2009) report:

"Recommended LRP: Decline in catch sustained over 4 years (approximately 1 generation time) and an overall reduction in catch of >=80% from the 20 year average (approximately 5 generations; current floor would be 2.8 million pounds)."

We interpret that to mean that the fishery would have breached the LRP if the catch declined 4 years in a row, and the catch after the last decline was less than the average catch over the 20-years prior to the beginning of the four sequential years of decline.

The basis for the choice of this LRP was the fact that the catch record for Dungeness crab had never gone through a period of decline lasting more than 4-years. However the management response to breaching the LRP condition, which is a necessary part of an LRP, was not define.The major shortcoming of the LRP condition is the fact that it is based on catch, rather than an index of abundance such as catch-per-unit-effort. As such it could be breached by management actions or market conditions alone, rather than a decline in abundance.

Condition 1.1.5: By the 1st annual surveillance develop a method for integrating a measure of CPUE (or other estimate of abundance) with the long-term data available from the catch series to formulate a Limit Reference Point.
By the 2nd annual surveillance the Limit Reference Point and explicit management responses need to be formulated and in the process of being adopted by the ODF&W as regulatory instruments.
By the 3rd annual surveillance the Limit Reference Point and explicit management responses need to be adopted by ODF&W as a regulatory instrument.

Progress on Condition: The audit team was presented with documents that describe the results of analyses of logbook catch per unit effort (CPUE) (ODF&W, 2011d) that will provide an index of relative abundance. At this time the ODF&W has analyzed two years of data, and has another year of data that has not been analyzed. By the time of the second annual audit, it is anticipated the ODF&W will have a total of at least three years of data of CPUE analyzed. The audit team recommended that ODF&W analyze the long term (50+ years) data set on landings and effort (declared pots) generating a long-term index of CPUE, and then fit the recent CPUE data to the long-term series. This is also in line with the conditions outlined above but as of this has not been accomplished as ODF&W devoted its effort to the analysis of recent data of CPUE. By the time of the second surveillance, there will be three years of recent CPUE data available and the possibility of evaluating the merit of this approach will be better. However, it will be impossible for the ODF&W to credibly meet the requirements of the 2nd annual surveillance as described.

Status of Condition 1.1.5: Open – behind target

Minor Non-Conformance 1.1.5:
By the 2nd annual surveillance ODF&W shall provide the analysis of the recent CPUE data, and attempt to fit that recent data (3 years of data) to the long term CPUE index. For the 3rd annual surveillance, ODF&W shall attempt to evaluate the recent CPUE data in terms of developing Limit Reference Points for stock abundance. By the 4th annual surveillance audit the Limit Reference Point and explicit management responses need to be adopted by ODF&W.

3.1.3		
The management system incorporates and applies an effective strategy to assess the socioeconomic potential and socioeconomic impacts of the fishery.		
SG 60	**SG 80**	**SG 100**
Economic and social data are irregularly collected. The management system considers social and economic impacts of fishing, but has no formal strategy.	Economic and social data are regularly collected, and some assessment is conducted.	The management system has a strategy that takes into account all significant social and economic impacts of the fishery, including those on harvesters, processors and communities.

Score: 70

Condition 3.1.3: A plan for the regular collection and assessment of economic and social data on the Dungeness crab fishery should be developed. The data should support the assessment of the socio-economic potential of the fishery, the socio-economic impacts of the fishery and the socio-economic impacts on the fishery of implementing no-take marine reserves.

By the 1st annual surveillance, a synthesis of existing data shall be developed.
By the 2nd annual surveillance, a draft plan shall be developed.
By the 3rd annual surveillance, the data collection plan shall be implemented.

Progress on Condition: The assessment team was not presented with any documentation in response to this condition; no summary of existing data was presented.

Status of Condition 3.1.3: Open – behind target

Minor Non-conformance 3.1.3:
By the second annual surveillance audit a synthesis of existing data shall be developed in conjunction with a draft plan to incorporate this data within the framework of ODFW's CMP.

3.1.6.1		
The management system has a plan for research needed to support the harvest strategy.		
SG 60	**SG 80**	**SG 100**

Some limited research to support management is undertaken. Some research results are considered.	There is a research plan to support the management system. The research plan includes biological, ecological and economic elements. Resources are available for critical studies in support of management. Most research results are considered.	There is a research plan developed jointly by scientists and managers to support the management system. The research plan includes biological, ecological and economic elements. Resources are available to support research for the needs of management. Research results are made public and they are considered under the management system.

Score: 75

Condition 3.1.6.1: A strategic Research Plan for the Oregon Dungeness crab fishery should be developed to include

- biological, ecological and economic elements,
- a strategy for securing research funding support, and
- identified information gaps, needed research, and a strategy for filling information gaps.
-

The identification and synthesis of existing research should be completed by the time of the 1st annual surveillance audit.
The Plan shall be developed by the 2nd annual surveillance audit. The Plan shall be implemented by the 3rd annual surveillance audit. Evidence of procured research funding should be available by the end of the 5 year certification period

Progress on Condition: The audit team was presented with documents that describe the data available, and a planned approach to collect and analyze the required data. These documents include a research plan outline (ODF&W, 2011c).

Status of Condition 3.1.6.1: Open – on target

3.1.6.2		
The management system has a plan for research needed to support the understanding of the ecological impacts of fishing.		
SG 60	**SG 80**	**SG 100**

Some limited research to support ecosystem management is undertaken. Some research results are considered	There is a research plan to support the ecosystem. Resources are available for critical studies in support of ecosystem management. Most research results are considered.	There is a research plan developed jointly by scientists and managers to support ecosystem understanding and to determine where ecological impacts from fishing may be occurring. The effectiveness of the research plan has been assessed. Resources are available to support research for the needs of ecosystem management. Research results are made public and they are considered under the management system.

Score: 75

Condition 3.1.6.2: Research on the ecological impacts of fishing should be included as part of the research plan to be developed under Condition 3.1.6.1.

Progress on Condition: As mentioned above the assessment team was presented with a research plan outline (ODF&W, 2011c). Other documents included a proposal to review the Dungeness crab literature and will include the summarized knowledge of known impacts of crab/pot fisheries and considered in the preparation of the CMP research plan.

Status of Condition 3.1.6.2: Open – on target

3.4.4

There is a process in place for rapid development of a recovery plan for Dungeness crab populations should significant depletion occur, as did the population near San Francisco in the late 1950s. Significant depletion can be defined as dropping below the LRP.

SG 60	SG 80	SG 100
In the event of significant declines, there is a process in place to develop a plan to recover depleted populations, and there is an appropriate trigger condition.	In the event of significant declines, there is a process in place to rapidly develop a plan to recover depleted populations within 20 years. The trigger for the process is tied to annual catch remaining at historically low levels for 10 years.	In the event of significant population declines, there is a process in place to rapidly develop a plan to recover depleted populations within 10 years and the trigger to implement the process is tied to annual monitoring of the LRP.

Score: 60

Condition 3.4.4: The definition of an LRP and plan for implementation of the management response required if the LRP is breached, as specified in the condition for 1.1.5, will meet the 80 scoring guidepost.

Status of Condition 3.4.4: Open – behind target (see condition 1.1.5 for details)

3.6.2		
The management system provides for external assessment and review.		
SG 60	**SG 80**	**SG 100**
The management system has a system for occasional external evaluation of management performance.	The management system has a system for a regular external evaluation of management performance.	The management system provides for an independent, expert review of management performance.

Score: 60

Condition 3.6.2: As described in the Dungeness Crab Conservation and Management Act, biennial reporting shall be implemented on the status and management of the fishery including:

- stock status and trends throughout its range;
- description of the research and scientific review processes used to determine stock status and trends; and
- measures implemented or planned to prevent or end overfishing.

An updated report compliant with the specifications of the Act should be completed and submitted to Congress by the time of the 1st annual surveillance audit. In addition, a plan for the external review of the biennial reports to Congress and of management performance should be developed by the 1st annual surveillance audit and implemented by the time of the second annual surveillance audit. The plan should include a description of the primary data sources supporting the assessment, data management processes and funding.

Progress on Condition: No documents were submitted to the audit team in response to this condition. The client of this fishery provided evidence to the CB that he had communicated with the Pacific States Marine Fisheries Commission (PSMFC) about the progress on this. Originally a draft updated report was expected at the time of the first surveillance audit.

Status of Condition 3.6.2: Open – behind target

Minor Non- conformance 3.6.2

At the second annual surveillance audit the updated report compliant with the specifications of the Act should be completed and submitted to Congress. A copy of the finalized report will be provided to the CB ahead of the next surveillance audit to bring this condition back on track. In addition, a plan for the external review of the biennial reports to Congress and of management performance shall be developed by ODCC and implemented by the second annual surveillance audit.

3.6.3		
The management system identifies research needs and directs appropriate funding and other resources to these problems.		
SG 60	**SG 80**	**SG 100**
Resources for research are adequate to address at least some of the gaps in knowledge that are identified by the management system.	Resources for research are adequate to address critical gaps in knowledge that are identified by the management system.	Resources for research are adequate to address most gaps in knowledge that are identified by the management system.

Score: 70

Condition 3.6.3: Actions to address Condition 3.1.6.1 and the research plan it describes will also address PI 3.6.3.

Status of Condition 3.6.3: Open – on target (see condition 3.1.6.1 for details)

References

ODCC 2011a. Summary of Oregon Dungeness Crab Fishery since MSC certification in 2010. November 2011.2p
ODCC 2011b. Derelict gear recovery program description, follow up letter and press release. November 2011.

ODF&W 2011a. Oregon Dungeness Crab Summit Agenda and Summary. June 2011. 5p.
ODF&W 2011b. Pre-season Testing Protocol for the Tri-state Coastal Dungeness Crab Commercial Fishery. Revised August 2011 11 p.
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