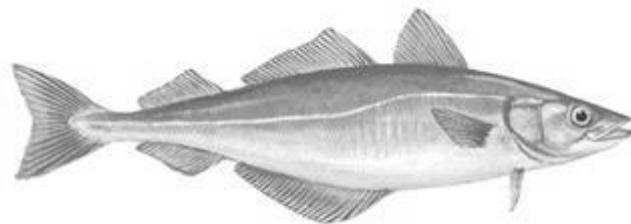


MSC SUSTAINABLE FISHERIES CERTIFICATION

On-Site Surveillance Visit: Report for Russian Sea of Okhotsk Midwater
Trawl Walleye Pollock Fishery



2nd Annual Surveillance

October 2015



Fisheries Department
6 Redheughs Rigg
South Gyle
Edinburgh, EH12 9DQ

T: 0131 335 6662
E: fisheries@acoura.com

Prepared For: **Russian Pollock Catchers Association**
Prepared By: **Acoura Marine Ltd**



Assessment Data Sheet

Certified Fishery	Russian Sea of Okhotsk Midwater Trawl Walleye Pollock
Fishery Management Agency	Federal Fisheries Agency, Russian Ministry of Agriculture
Species	Walleye pollock (<i>Theragra chalcogramma</i>)
Fishing Method	Midwater pelagic trawl
Certificate Code	F-FCI-0040
Certification Date	24.09.2013
Certification Expiration Date	23.09.2018

Certification Body	Acoura Marine 6 Redheughs Rigg Edinburgh EH12 9DQ, Scotland, UK
Tel:	+44(0)131 335 6601
	MSC Fisheries Department
Email:	fisheries@Acoura.com
Web:	www.Acoura.com

Surveillance Stage:	2 nd Annual Surveillance
Surveillance Date:	5–9 October 2015

Contents

- 1. Introduction 5**
- 2. General Information..... 6**
 - 2.1 Certificate Holder details 6
 - 2.2 General Background about the fishery 6
 - 2.2.1 Area under Evaluation 6
 - 2.2.2 Fishery Ownership and Organizational Structure 6
 - 2.2.3 History of the Fishery 7
- 3. Assessment Process..... 8**
 - 3.1 Scope and History of the Assessment 8
 - 3.2 Details of 2nd Surveillance Audit Process 9
 - 3.2.1 Determination of surveillance level 9
 - 3.2.2 Surveillance team details..... 9
 - 3.2.3 Date and location of surveillance audit..... 9
 - 3.2.4 Stakeholder consultation and meetings 9
 - 3.3 Surveillance Standards 10
 - 3.3.1 MSC Standards, Requirements and Guidance used 10
 - 3.3.2 Confirmation that destructive fishing practices or controversial unilateral exemptions have not been introduced 10
- 4. Results, Conclusions and Recommendations 11**
 - 4.1 Discussion of Findings 11
 - 4.1.1 Changes in fleet structure or operation 11
 - 4.1.2 Changes in stock status and exploitation patterns..... 11
 - 4.1.3 Changes in ecosystem interaction or management..... 11
 - 4.1.4 Changes in management 11
 - 4.1.5 Catch data 12
 - 4.2 Reporting on Conditions and Recommendations 12
 - 4.2.1 Condition 1 (P1.2.1: Harvest Strategy)..... 12
 - 4.2.2 Condition 2 (P1.2.3: Information/monitoring harvest strategy) 13
 - 4.2.3 Condition 3 (P1.2.4: Assessment of stock status) 15
 - 4.2.4 Condition 4 (P2.2.3: Information/monitoring bycatch) 16
 - 4.2.5 Condition 5 (P2.3.3: Information/monitoring ETP species) 17
 - 4.2.6 Condition 6 (P2.5.3: Information/monitoring ecosystem) 19
 - 4.2.7 Condition 7 (P3.2.2: Decision-making processes) 20
 - 4.2.8 Condition 8 (P3.2.5: Monitoring and management performance evaluation) 22
 - 4.3 New Conditions and Recommendations 23
 - 4.4 Conclusions 24
 - 4.5 Status of Certification 25
- 5. Catch Data..... 26**

Appendix 1 – Written Submissions from Stakeholders 27
Appendix 2 – Surveillance Plan 37
 Appendix 2.1 Rationale for determining surveillance score 37
Appendix 3 – Changes to Client Action Plan 38
Appendix 4 – References 39

1. Introduction

The purpose of the annual Surveillance Report is fourfold:

1. to establish and report on whether or not there have been any material changes to the circumstances and practices affecting the original complying assessment of the fishery;
2. to monitor the progress made to improve those practices that have been scored as below “good practice” (a score of 80 or above) but above “minimum acceptable practice” (a score of 60 or above) – as captured in any “Conditions” raised and described in the Public Report and in the corresponding Action Plan drawn up by the client;
3. to monitor any actions taken in response to any (non-binding) “recommendations” made in the Public Report;
4. to re-score any Performance Indicators (PIs) where practice or circumstances have materially changed during the intervening year, focusing on those PIs that form the basis of any “Conditions” raised.

Please note: The primary focus of this surveillance audit is to assess changes made in the previous year. For a complete picture, this report should be read in conjunction with the Public Certification Report for this fishery assessment.

2. General Information

2.1 Certificate Holder details

Certificate holder: Russian Pollock Catchers Association
Address: 517B, 51-a, Svetlanskaya St.
 Vladivostok 690990
 Russia

Contact Name: Mr Alexey Buglak
 PCA Executive Director
Tel: +7 (423) 222 43 13
Email: al.buglak@mail.ru
Web: www.pollock.ru

2.2 General Background about the fishery

Walleye (or Alaska) pollock (*Theragra chalcogramma*) are gadoid fish distributed in the Northwest Pacific from the NW Bering and Chukchi seas down the coast of the Kamchatka Peninsula into the Seas of Okhotsk and Japan and in the Northeastern Pacific from California north through the Gulf of Alaska and out to the Aleutian Islands. Pollock fisheries across the species' entire area of distribution constitute the largest whitefish fisheries by volume in the world. The two main fisheries for the species are in the Sea of Okhotsk and the Bering Sea, the latter within both the US and the Russian Exclusive Economic Zones (EEZs). Pollock are considered to be mainly pelagic fish, schooling in midwater. They live down to 1000 m deep, but typically concentrate at depths of 100–300 m, and are found both offshore and nearshore.

2.2.1 Area under Evaluation

The Unit of Certification (UoC) fishery takes place only in the Sea of Okhotsk, where scientific and fisher knowledge of stock structure and fishing activity is supported by understanding of spawning and migratory patterns. There are several spawning "hotspots", the most important of which are on the west Kamchatka shelf in the northern Sea of Okhotsk and in Shelikhov Bay; other smaller spawning areas are also known, though. Spawning fish and hence the fishery concentrate on the shelf and in shallow waters between 50 and 250 m deep. Sea of Okhotsk pollock are found throughout the northern part of the Sea, and there are four Russian fishery management subzones, the Northern Sea of Okhotsk (subzone 05.1), generally described as the western part of the Sea, and western Kamchatka (05.2) and Kamchatka–Kuril (05.4), which constitute the areas defined as the eastern part of the Sea; the eastern Sakhalin (05.3) subzone is not part of the certification.

2.2.2 Fishery Ownership and Organizational Structure

Eligible fishers in the UoC fishery include 30 pollock fishing organizations represented by the client group, the Pollock Catchers Association (PCA), based in Vladivostok. That number has decreased from the total of 45 organizations listed during the site visit for the original certification as a consequence of mergers and rationalization within the fishery. Association membership currently (in 2015) accounts for 73,55% of the total quota share for pollock in the Sea of Okhotsk (664 714 t out of a total Sea of Okhotsk quota of 903 800 t in 2015) and 64,55% of the total quota for pollock in the whole Russian Far East (the PCA share is 1 132 645 t out of a total TAC of 1 754 580 t – see Table 1 for a breakdown by area). The industrial trawl fishery (defined here as being on a large scale with full utilization of the raw material inclusive of direct human consumption) for pollock in the Sea of Okhotsk is prosecuted by an annually fairly stable number of vessels of large and medium tonnage. They catch the fish, then process it on board into frozen whole and gutted product, rendering the non-edible bycatch and fish processing waste into meal and oil, producing some canned fish and unfinished medical fish oil, then store the production on board until the vessel docks or the material can be transshipped at sea to reefer vessels and brought ashore. At-sea frozen product is also reprocessed by onshore processors, but such product falls under traceability audits so is not a necessary consideration for this surveillance.

Table 1. Alaska pollock TAC in the Russian Far East and the Sea of Okhotsk, and PCA company shares for 2015

Area	TAC (t)	PCA quota (t)	PCA share
Northern Sea of Okhotsk Subzone	325 400	261 149	80.25%
West Kamchatka Subzone	325 200	237 554	73.05%
Kamchatka Kuril Subzone	253 200	166 020	65.83%
Sea of Okhotsk total	903 800	664 714	73.55%
Russian Far East total	1 754 580	1 132 645	64.55%

2.2.3 History of the Fishery

The pollock fishery in the Sea of Okhotsk has existed for some 50 years. Starting in about 1962, it developed rapidly and, within a decade, annually exceeded one million metric tonnes. Initially, the main fishing grounds were off western Kamchatka, and fish were caught by both local and Japanese fishers. The annual catch in 1974/75 reached almost 1.3 million tonnes, but then it decreased in accord with a rigidly applied quota system, the introduction of a 200-mile economic zone and the cessation of the fishery in the Sea of Japan. Then, in 1984, the pollock fishery in the northeastern Sea of Okhotsk started to develop. Total annual catches in the Sea of Okhotsk varied between 450 000 and 950 000 t, but with a foreign fishery starting up in the central area in 1991, it again exceeded one million tonnes. However, in 1992/93, the Russian fishery was restrained as part of the recommended TAC was reserved for foreign fleets. That unregulated foreign fishery (including fleets from Poland, China, the Republic of Korea and Japan) in the central area was stopped in 1995 after bilateral agreements between Russia and the other countries were entered into in exchange for other pollock quota allocations within the Russian economic zone. Overall, however, as a consequence of the extensive fleet deployments in the northern Sea of Okhotsk, annual catches burgeoned to 1.6–1.7 million tonnes, and peaked at 2.0 million tonnes in 1996. Then, however, the annual catch there started to decline, and by 2002, had dropped by some two-thirds, a level maintained for several years before rising again modestly to present levels.

3. Assessment Process

3.1 Scope and History of the Assessment

Table 2: Allocation of weighted scores at Sub-criteria, Criteria and Principle levels

Prin- ciple	Wt (L1)	Component	Wt (L2)	PI No.	Performance Indicator (PI)	Score		
One	1	Outcome	0.5	1.1.1	Stock status	90		
				1.1.2	Reference points	80		
				1.1.3	Stock rebuilding			
		Management	0.5			1.2.1	Harvest strategy	70
						1.2.2	Harvest control rules & tools	80
						1.2.3	Information & monitoring	75
						1.2.4	Assessment of stock status	75
		Two	1	Retained species	0.2	2.1.1	Outcome	80
2.1.2	Management					85		
2.1.3	Information					80		
Bycatch species	0.2					2.2.1	Outcome	80
						2.2.2	Management	85
						2.2.3	Information	75
ETP species	0.2					2.3.1	Outcome	80
						2.3.2	Management	80
						2.3.3	Information	70
Habitats	0.2					2.4.1	Outcome	80
						2.4.2	Management	85
						2.4.3	Information	85
Ecosystem	0.2					2.5.1	Outcome	85
						2.5.2	Management	80
						2.5.3	Information	75
Three	1			Governance and policy	0.5	3.1.1	Legal & customary framework	90
						3.1.2	Consultation, roles & responsibilities	95
						3.1.3	Long term objectives	100
		3.1.4	Incentives for sustainable fishing			80		
		Fishery specific management system	0.5			3.2.1	Fishery specific objectives	85
						3.2.2	Decision making processes	75
						3.2.3	Compliance & enforcement	85
						3.2.4	Research plan	80
						3.2.5	Management performance evaluation	70

Sourced from original assessment

The final weighted principle scores at certification were P1 (80.0), P2 (80.3) and P3 (85.1).

As a result of the assessment summarized above, eight Conditions of certification were raised by the original assessment team, and maintenance of the MSC certificate is contingent on the Russian Sea of Okhotsk Midwater Trawl Fishery for Walleye Pollock moving to comply with these Conditions within the time-scales set at the time the certificate was issued. These Conditions are detailed in **Section 4.2.1** of this report.

Date certified: 24.09.2013

Certificate expiry: 23.09.2018

Number of previous audits: One

3.2 Details of 2nd Surveillance Audit Process

3.2.1 Determination of surveillance level

See Appendix 2

3.2.2 Surveillance team details

The on-site surveillance visit was carried out by Andrew I. L. Payne (Team Leader) and David W. Japp. A third team member, Geir Hønneland, was not physically part of the on-site assessment but responded at all times in his capacity as Principle 3 specialist, directing the on-site team with regard to the information required. Both Dr Payne and Mr Japp were members of the original assessment team for the fishery, which was carried out on behalf of Intertek Moody Marine, then Intertek Fisheries Certification, now part of Acoura Marine.

3.2.3 Date and location of surveillance audit

Week commencing 5 October 2015, in Vladivostok, Russia.

3.2.4 Stakeholder consultation and meetings

The two members of the team on site made themselves available for consultation (electronic or face to face) and input from stakeholders during the whole week they were in Vladivostok. Fishing vessels *per se* were not visited, but one of the meetings held on site was with seagoing personnel. All potential stakeholders in the fishery were notified of the surveillance through the MSC website and in some cases directly by Acoura Marine, but only one peripheral to the local fishery, the Worldwide Fund for Nature (WWF), elected to speak to the team (electronically) while they were in Vladivostok. Two organizations involved in the Russian fisheries management system that the team had wished to consult were not available during the site visit, the local FSB (the Coastguard) and the local Centre for Fishery Monitoring and Control (CFMC), which falls under the aegis of the Federal Fisheries Agency (FFA; the Inspectorate, responsible for licensing and control), who did meet with the team. Such failure to meet did not have a negative impact on the surveillance on this occasion, because monitoring and control statistics were available and both organizations had been consulted extensively during the 1st surveillance visit in 2014, so their protocols and *modus operandi* were known. Moreover, specific questions to at least the CFMC that needed answering during this visit were addressed adequately at the FFA meeting. However, the team specifically request specifically that formal meetings with both the FSB and the CFMC be set up for the 3rd surveillance in 2016, perhaps more local to the fishery, in Kamchatka, because the 3rd surveillance is key in terms of the fishery then having to meet a notable number of the Conditions of management and control.

All meetings in Vladivostok, except those with the client alone, were attended also by a qualified Russian/English interpreter, Sergei Manyakin. It was he too who was responsible for translating much of the written technical material from Russian into English prior and also subsequent to (for extra material requested) the team's visit. His input and effort was deemed extremely valuable by the team.

Stakeholder consultation

In all, eight stakeholder organizations and individuals representing them having relevant interest in the assessment were identified and consulted during this surveillance audit. The interest of others not appearing on this list was solicited through postings on the MSC website.

6 October 2015, 09:30 (local time). Meeting at the Client's office, the Client being represented by Executive Director Alexey Buglak, with Acoura Marine surveillance team members Andrew I. L. Payne and David W. Japp.

6 October 2015, 11:00. Meeting at TINRO Centre with TINRO Centre scientists and advisors and the Client. Igor Melnikov (Deputy Director TINRO), Oleg Katugin (Chief, Department of International Cooperation, TINRO), Vladimir Kulik (Lead Scientist, TINRO), Anatoliy Smirnov (Head of Pollock Laboratory, TINRO), Artem Sheibak (Scientist, TINRO), Anna Skvortsova (Department of International Cooperation, TINRO), PCA Executive Director Alexey Buglak (representing the Client), Acoura Marine surveillance team members Andrew I. L. Payne and David W. Japp.

7 October 2015, 09:30, Meeting at TINRO Centre with KamchatNIRO and TINRO Centre scientists and advisors and the Client. Igor Melnikov (Deputy Director TINRO), Oleg Katugin (Chief, Department of International Cooperation, TINRO), Vladimir Kulik (Lead Scientist, TINRO), Anatoliy Smirnov (Head of Pollock Laboratory, TINRO), Oleg Il'in (Head of Stock Assessment Laboratory, KamchatNIRO), Alexander Varkentin (Head of Marine Resources Group, KamchatNIRO), Artem Sheibak (Scientist, TINRO), Anna Skvortsova (Department of International Cooperation, TINRO), PCA Executive Director Alexey Buglak (representing the Client), Acoura Marine surveillance team members Andrew I. L. Payne and David W. Japp.

7 October 2015, 18:00. Skype call (from team hotel and various locations in Europe with WWF. Konstantin Zgurovsky (Head of Marine, WWF Russia), Bruce Robson (scientific advisor to WWF on the Russian pollock fishery), Acoura Marine surveillance team members Andrew I. L. Payne and David W. Japp, Acoura Marine MSC Fisheries Scheme Manager Billy Hynes and MSC Fisheries Technical Officer Polly Burns, and Acoura translator Aleksandrs Paholovs.

8 October 2015, 09:30. Meeting at FFA office with FFA Primorsky Territory Department and Client. Vassily Sitnikov (FFA), Tatiana Zhukova (FFA), PCA Executive Director Alexey Buglak (representing the Client), Acoura Marine surveillance team members Andrew I. L. Payne and David W. Japp.

8 October 2015, 14:30. Meeting at Client office with seagoing personnel and Client. Andrei Chernega (Russian Fishery Company, RFC, Captain's processing assistant), Andrei Fatyanov (RFC Captain), Alexandr Burkov (RFC Captain's harvest assistant), Olga Leonova (RFC Commercial manager), Evgeniy Dobryi (RFC Processing department specialist), Sergei Baranov (Sofko Captain's processing assistant), Andrei Kuznetsov (Sofko Captain), Inna Brzhezinskaya (Traflot Export department manager), Evgeniy Pinchuk (NBAMR Captain), Pavel Shishmakov (NBAMR Captain), PCA Executive Director Alexey Buglak (representing the Client), Acoura Marine surveillance team members Andrew I. L. Payne and David W. Japp.

9 October 2015, 09:30. Meeting at his office with the Client, represented by Executive Director Alexey Buglak, Acoura Marine surveillance team members Andrew I. L. Payne and David W. Japp.

The team also noted (and reviewed) a new website being developed by the PCA: www.russianpollock.com

Documents referred to

See **Appendix 4**.

3.3 Surveillance Standards

3.3.1 MSC Standards, Requirements and Guidance used

This surveillance audit was carried out according to the MSC Fisheries Certification Requirements v.1.3.

3.3.2 Confirmation that destructive fishing practices or controversial unilateral exemptions have not been introduced

No indication was given or suggested during the surveillance audit to suggest that either of these practices is in evidence for this fishery.

4. Results, Conclusions and Recommendations

4.1 Discussion of Findings

4.1.1 Changes in fleet structure or operation

Since certification and indeed since the period of assessment, there have been no notable changes in fleet structure other than some rationalization within the companies forming part of the PCA, and the operational methods remain exactly the same as during the previous site visit of the original certification team. The same statement applies to the lack of changes since the 1st surveillance in September 2014. However, the number of vessels fishing for walleye pollock (midwater trawlers, coastal vessels and Danish seiners) has been declining; the total has dropped from slightly over 200 between 2010 to 2012 to <160 in 2014.

4.1.2 Changes in stock status and exploitation patterns

In terms of the stock status of the walleye pollock being exploited by the fishery, there appear to have been no major changes of a geographic or technical nature since the original certification; exploitation patterns follow the same general trend in the Sea of Okhotsk as they have throughout the fishery's main history. What there has been, however, is variable recruitment year on year, with an influx of one seemingly very good year class recently followed by some other reasonable year classes. There has also been some indication in 2015 of a more offshore, northwestern distribution of the fish and fishing activities in the Sea of Okhotsk early in the year apparently associated with warmer surface waters inshore off southern Kamchatka. Overall, catches have not been impacted negatively by this recent anomaly (the annual TAC for 2015 will be taken) and there is no real proof yet as to what has been the cause.

4.1.3 Changes in ecosystem interaction or management

Given that the fishery is operating technically, seasonally and geographically as it always has done throughout the recent past (apart from the minor difference referred to above in 4.1.2), it is unsurprising that ecosystem interactions and management remain the same. Scientifically, effort continues to be directed at understanding ecosystem interactions better than they are currently, notably through the development of trophic models at a high level of sophistication, presented very well by TINRO scientists. Of particular note in terms of ecosystem awareness, however, is that the discussions with seagoing staff revealed that interactions between the fishing gear and the seabed (and hence any effects on the bottom habitat) are still so rare as to be negligible. This was always suspected by the original assessment team and is covered in the Public Certification Report, but it was gratifying that the seagoing personnel interviewed during this surveillance made a very strong case that purely for economic (cost and downtime) reasons, every effort is made at all times to keep the gear well off the seabed, so minimizing the risk of fishing operations having any impact on the local physical habitat. It was also noted that considerable effort had been made through contracting professionals in the fields of seabirds and marine mammals to advance the understanding of the impacts the fishery might be having on these groups (the subject is discussed below in more detail).

4.1.4 Changes in management

The management system for the Russian (walleye) pollock fishery remains as it was during the original assessment and at the 1st annual surveillance; there have been no significant changes since the fishery was assessed. Licensing, control and inspection of all product is under the jurisdiction of the FFA (Federal Fisheries Agency of the Russian Ministry of Agriculture, which trains and contracts scientific and technical staff) and the FSB (the Coastguard, which trains and employs military personnel for the purpose of fisheries control and surveillance), each with their own inspection capability and direction, with independent scientific observations of fishing activities collated under the direction of TINRO, Vladivostok, and implemented through its own and sister scientific organizations' trained and contracted

staff. Gratifyingly, serious attempts are now being made to increase the capacity and penetration of the independent scientific observer system in line with the results of an analysis of need prepared before the first surveillance, and rigorous training of new staff will have started before publication of this report, with a view to the expanded capacity for observing taking effect at the start of 2016. The modus operandi for determining the annual level of TAC is the same as determined during the original assessment, with all catch and effort and scientific survey data being made available and subjected to rigorous scientific analysis by KamchatNIRO and TINRO before the output is evaluated under the auspices of VNIRO in Moscow (VNIRO takes the lead on this overview analysis for all Russian fisheries). The advice and input of experts in many scientific disciplines other than direct fisheries science, particularly of ecosystem components, is solicited in that overarching evaluation, which is conducted annually before the TAC is announced.

4.1.5 Catch data

See Section 5.

4.2 Reporting on Conditions and Recommendations

4.2.1 Condition 1 (P1.2.1: Harvest Strategy)

As the harvest strategy is newly implemented, there is no evidence to demonstrate that it is achieving its objectives. The harvest strategy is to undergo testing to explore its robustness to management and assessment uncertainties. The client must annually provide evidence during the certificate validity period of the results of annual monitoring which demonstrate that the harvest strategy is achieving its objectives as reflected in the target and limit reference points.

Progress against interim milestones

At each annual surveillance audit (1st–3rd), the client has to provide detailed written evidence of the annual monitoring in order to demonstrate that the harvest strategy is working satisfactorily and is achieving the exploitation levels required in relation to the established reference points.

To meet its obligations for the second surveillance, the PCA again commissioned KamchatNIRO to analyse two key aspects of the harvest strategy now implemented for the fishery in the Sea of Okhotsk, the primary area of fishing by the entire fleet: 1) the efficiency of the harvesting strategy for pollock, and 2) uncertainty and risk considerations related to the fishing strategy and TAC determination. The latest report (Varkentin and Ilyin 2015, an update on the work conducted by the same two authors in 2014, for the first surveillance) was delivered to the team, and it is the team's opinion that the work provides exactly what would be expected of it at this second surveillance stage of the certification. It covers all the information collected during the past few years and covers the assessment itself and its testing, while carefully evaluating the current reference points.

To summarize it, after a series of relatively average or weaker year classes, the 2011 year class is strong, and the 2013 and 2014 year classes likely to be relatively medium-strength to strong, giving rise to expectations that the stock will again grow strongly from 2016 (in 2014, the spawning stock biomass (SSB) of pollock in the Sea of Okhotsk was some 5.4 Mt, and by early 2016, it is expected to be 5.5 Mt). Target reference points are based on maximum sustainable yield (MSY) and limit reference points above levels at which spawning might be impacted negatively. The current value of B_{lim} is calculated at 2.583 Mt to be slightly below that calculated at certification (2.632 Mt).

Three forms of uncertainty are taken into consideration: measurement error associated with possibly unrepresentative levels of sampling, model uncertainty in terms of fishery dynamics, and uncertainty in terms of natural variation in stock parametrization. In the opinion of the surveillance team, the first two of these are taken adequately into account in the model parameter and stock condition estimates and reference points through the bootstrap method employed, and the third form when evaluating the efficiency of the various controls during the modelling process. In terms of risk, predictive modelling is

showing that if levels of exploitation remain within the range recommended by the harvest control rule, there is a 95% probability that the stock will remain within safe limits and close to the target reference point for SSB.

It should be stated here that, in terms of the first form of uncertainty, there are concerns among some stakeholders that the level of juvenile mortality is not being evaluated sufficiently well, largely because the number of trawls of the UoC fishery being officially observed by the independent scientific observation team is low. Even with the planned small increase in that observer coverage from now on, the stakeholder concerns will remain. The idea has been mooted by at least one stakeholder that, at the very least, observations from the FSB inspectors and the GMI should be taken into account in the analysis, but it is the team's understanding that although there is coverage by those inspectors, the information being collected is not of sufficient rigour to allow it to be incorporated into the analysis. The same stakeholder suggests that other forms of control be instituted, e.g. camera systems, advanced acoustic systems that can differentiate between juvenile and adult fish, or further sorting grids in the net opening (there is already one form of sorting grid in place, the efficacy of which some seagoing personnel question anyway).

While the surveillance team understands fully the source of the concern about juvenile pollock mortality, even with the move-on rule currently applied, it does not agree with the stakeholder contention that observer sampling levels have to be enhanced to such a level that the percentage of trawls observed would burgeon dramatically (few MSC-certified fisheries have that form of coverage), nor that investment in on-board camera systems or some of the rapidly improving acoustic devices can totally mitigate the concerns that are annually raised. Hence, the surveillance team for now only suggests that some of the new devices (acoustic and camera) be tested at sea with a view to them being instituted in future.

Overall, though, given that the stock appears in all respects to being managed through the harvest strategy towards a slightly higher level of sustainable exploitation than currently (by taking less than the calculated replacement yield) and that the regular reporting on this aspect is at the very least adequate, it is the team's opinion that the fishery and client are on schedule to meet this Condition before recertification starts in 2017. Efforts to improve data collection associated with evaluating juvenile pollock mortality should be increased, but the rigour which the KamchatNIRO evaluation brings to the table is deemed adequate for the task in hand in terms of this Condition.

Remedial actions

None at this stage.

Changes to Condition

No change to the Condition or the score is suggested at this surveillance, and the Condition remains.

Updated status

Although everything is on track thus far, the client still needs to confirm through robust analysis by the fourth surveillance audit that the harvest strategy is achieving its objective of working satisfactorily based on target and limit reference points. With even more years of harvesting and assessment and with the planned increased observer coverage strengthening particularly the estimates of juvenile mortality, the data available should be adequate to carry out such an analysis.

4.2.2 Condition 2 (P1.2.3: Information/monitoring harvest strategy)

By the fourth surveillance audit, the client should provide a written report evaluating the monitoring programme for the fishery (e.g. analysis of the accuracy and at-sea observer coverage of both the ichthyoplankton/trawl survey and fishery removals), which demonstrates that stock abundance and fishery removals are regularly monitored at a level of accuracy and at-sea observer coverage consistent with the harvest control rule.

Progress against interim milestones

At the second surveillance audit, the client must provide a written report, which outlines an implementation plan to address shortcomings in the monitoring program identified in the first surveillance audit. This report would demonstrate how each issue is to be addressed by the fourth surveillance audit.

There is no written report in English, but the team is satisfied from the Russian language material presented (from the [minutes of the] working group that has been established since certification) and actions clearly taken and listed for the team that the client is addressing this Condition in a manner that should hopefully allow Condition 4 to be closed off by the fourth surveillance. Largely from the TINRO *et al.* (2014) report on monitoring levels provided at the first surveillance audit and taking cognizance of several issues raised by the surveillance team in 2014, two main thrusts of improvement were required to fulfil the Condition in principle if not in full by producing a written report.

The first was to enhance the number of scientific observers trained and able to participate in the fishery; planning for this is definitely in place with a view to at least an extra 5–6 observers becoming active in the fishery in 2016 and another 5–6 the following year (bringing the total scientific observer component to the required 22–25 recommended by the TINRO *et al.*, 2014, report). It proved impossible to train more than six trainees per year within the current trained staff corps of TINRO, so the team is satisfied that enhancement of the trained scientific group can take place in two annual stages. Using local educational establishments, training (anticipated to be 90 h of intense study) will result in diplomas being awarded. The team noted too that protocols, instructions and keys are being developed by TINRO, responding both to suggestions made during the previous surveillance and to proposals and ideas generated by members of the officially constituted working group, mentioned beneath.

The second requirement was for a working group on Sea of Okhotsk pollock monitoring to be established, including representatives of the TINRO monitoring group, WWF Russia, the Far East Technical Fisheries University and the PCA (the client). This working group has been established and is looking at:

- developing and implementing actions aimed at further improving monitoring of the fishery by scientific observers;
- developing and managing training resources;
- updating protocols and instructions for observers carrying out the monitoring;
- developing proposals to enhance observer functions, rights and status on board fishing vessels;
- arranging cooperation with other fishery management agencies.

The Minutes of the 1st meeting (4 September) were seen, and so was the 80-page draft observer manual developed by TINRO. The latter took cognizance too of the need for observers wherever possible also to record observations on seabirds and marine mammals (P2 issues), as outlined by scientists at the Kamchatka Institute of Geography. A second meeting of the working group had also been held shortly before the site visit, focusing on educational details of the programme.

There are still a number of concerns of the stakeholders. These revolve around accurate assessment of juvenile mortality, for which stakeholders believe that better technology might be the solution (see the comments against Condition 1 above), and the fact that they do not believe that appropriately reviewed and if necessary amended conversion factors are being applied to the fishery extractions to accurately determine green (live) weight of the pollock being caught. The team is not convinced that the technological improvements (cameras and acoustics) suggested will yet be a cost-effective and accurate means of improving confidence in understanding juvenile mortality so, as stated against Condition 1, suggest that the situation continue to be monitored but that the move-on rule be rigorously applied and enforced. However, responding to the concerns about the condition factors being applied, the team asked the Client to Commission a short report from TINRO outlining the methods and modus operandi of condition factor (also referred to as yield coefficient) calculation and application in the fishery. This was supplied (TINRO 2015), and from discussions held, it was determined that acceptable methodology was being applied to calculate them, that the current values were applied from June 2014, and that they will be reviewed again in 2017, in a rigorous manner. The team accepts this (and the

regularity of review) as international best practice so is confident that the live weight extraction values for pollock used in fishery management are as accurate as needed.

Overall, the team is satisfied with delivery against this Condition. However, it is necessary for the minutes of the working group's meetings to be at least summarized (not translated in full) into English immediately, for team and MSC records. The team was also pleased to learn that the intention was for the working group to be maintained as a permanent body of NGOs (e.g. WWF), state research institutions (e.g. TINRO) and educationists (the Fisheries University) to evaluate any further issues or shortcomings that might arise in the monitoring programme in future.

The client seems to be on track for meeting this Condition by the fourth surveillance audit, but producing the final report evaluating the programme of monitoring of survey efficacy as well as fishery removals and associated observations (the latter is what is being done now) will be challenging.

Remedial actions

Urgently provide a translated summary of working group agenda and meetings, for proper and complete record purposes.

Changes to Condition

No change to the Condition or the score is suggested at this surveillance, and the Condition remains as is.

Updated status

Training of new observers to supplement the existing corps of trained staff is now taking place and the working group of experts on scientific observers in the pollock fishery in the Sea of Okhotsk has been formally constituted by TINRO order 87 of 7 July 2015, with clear and acceptable goals (terms of reference). Therefore, provided the observer coverage increases during 2016 and that the working group continues to meet and implement its plans meaningfully, this Condition should be met by the fourth surveillance audit.

4.2.3 Condition 3 (P1.2.4: Assessment of stock status)

By the third surveillance audit, the client should provide a report which details how the assessment appropriately evaluates major sources of uncertainty and takes them into account.

Progress against interim milestones

By the second surveillance audit, the client must provide evidence that the review has been commissioned, the final terms of reference for the review and the final list of candidates chosen to complete the review.

The team cannot fault client action thus far in this regard. Revised terms of reference (paying somewhat less attention to an evaluation of other assessment models, as suggested during the first surveillance) and the name and CV of the contracted internationally based reviewer are fully in compliance with the requirements to meet this Condition at the third surveillance, provided that the commissioned report is delivered by the target date early in 2016 and proves satisfactory in all respects, notably in addressing all major forms of uncertainty. The client also requested KamchatNIRO to evaluate again the major sources of uncertainty in the model, and their analysis is presented in a formal report (Varkentin and Ilyin 2015).

Remedial actions

None at this stage.

Changes to Condition

No change to the Condition or the score is suggested at this surveillance, and the Condition remains

as is.

Updated status

Commissioning of an independent report has been done, so the review and report, scheduled for delivery early in 2016, are awaited.

4.2.4 Condition 4 (P2.2.3: Information/monitoring bycatch)

By the second surveillance audit, the Client should demonstrate through a detailed analysis and written report that sufficient data continue to be collected to estimate outcome status with respect to biological based limits (SI 2) and to detect any increase in risk to main bycatch species (e.g. attributable to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy) (SI 4).

Progress against interim milestones

At the second surveillance audit, the client must provide a detailed written report and analysis of the data collected on all main by-catch species. An evaluation of their vulnerability status due to the operation of the fishery will be made using biological based limits. The report is to be prepared in collaboration with the working group specified under Condition 2. Provided the actions defined in the milestone and the deliverables in the client action plan are met, the PI would be re-scored at 80 or higher at the second surveillance audit.

To meet the requirements of this Condition, the PCA commissioned and received a report from TINRO on the non-target species taken by the Sea of Okhotsk Pollock fishery (Smirnov 2015). The report focuses on the results of the scientific observer coverage during 2014 and 2015 and provides a retrospective analysis of bycatch composition for the years 2010–2013. There have been no significant changes over the years studied, with pollock itself dominating catches to the tune of >99.5% annually. The bycatch of even the most valuable commercial species (cod and Greenland halibut) was insignificant, as indeed was the most common bycatch species, the commercially acceptable herring. The report also says that the bycatch component (percentages) in commercial catches mirrors the findings of a fishery-independent integrated trawl and acoustic survey conducted by TINRO in April/May 2014.

Other than queries made to the FFA (on behalf of the CFMC, who were not available for a visit during the on-site surveillance), the surveillance team did not query in great depth the move of logbook reporting to electronic systems throughout Russian fisheries, which at least one stakeholder believes is necessary to meet this Condition. Such reporting is becoming the norm in fisheries around the world and its robustness and immediacy certainly engenders confidence that management is taking its responsibilities for accuracy and decisiveness to the levels expected of MSC-certified fisheries. Certainly, immediate and accurate bycatch monitoring becomes possible with electronic systems. The Client and the Russian pollock fishery in total do not yet benefit from having electronic reporting systems in place across the board, but it is to be hoped that advances in this regard will be made in the coming 12 months, and that the CFMC will make themselves available for interview at the 3rd surveillance in late 2016 to demonstrate the achievements that have been made.

Apart from information on the monitoring method referred to above, this Condition requires information to be provided in the report on stock status (from formal assessments) of herring, cod and Greenland halibut; formal stock assessments of the other, non-commercially sought species are not made. For the three main commercially sought species, the conclusion from considering their stock statuses is that the pollock fishery is not having any negative impact on them, but although that is a valuable conclusion, it is not based, as requested, on an analysis of their vulnerability status attributable to the pollock fishery in terms of their biological based limits.

Apart from the above omission in terms of the type of analysis needed to meet the Condition, the delay in implementing the enhanced monitoring levels being recommended by the working group required under Condition 2 through expanding the observer corps (and hence the amount of data being collected) means that it is not possible to close out this Condition in 2015 as planned in terms of SI2 and SI4, both of which were originally scored down in lieu of the low level of observer coverage. It is

also necessary for proof to be provided that observer coverage is indeed unbiased and random. We believe that with more observers being deployed during 2016 this “failing” should be addressed during the forthcoming season and that, if another report such as that produced by Smirnov (2015) is produced in 2016, with a full analysis of the vulnerability of the main bycatch species attributable to the pollock fishery through biologically based limits, then this Condition could be met in 2016, one year behind schedule.

Remedial actions

None at this stage other than further observer data collection and possibly evidence of a move to electronic logbook reporting.

Changes to Condition

The Condition should be amended to read that it should be met by the third surveillance audit rather than by the second surveillance audit. The score remains as is for this year.

Updated status

A further annual evaluation of bycatch report building on those of Smirnov (2014) and Smirnov (2015), with another season’s data up to and including early 2016 is necessary.

4.2.5 Condition 5 (P2.3.3: Information/monitoring ETP species)

By the fourth surveillance audit the client needs to demonstrate that sufficient data are available to allow fishery-related mortality and the impact of fishing to be quantitatively estimated for ETP species. In particular, the client needs to initiate studies on the diet and foraging behaviour of Steller sea lions in the Sea of Okhotsk to determine feeding rates on pollock, to be completed by the end of year 3 of certification, and to record observations of sea mammal and seabird interactions with trawls to determine if there are any mortalities of sea mammals and seabirds in pollock trawls, to be completed by the end of year 3 of the certification.

Progress against interim milestones

By the second surveillance audit, the client must provide a written report on the commissioned Steller sea lion work and the annual report of interactions between the fishery and seabirds including seabird mortalities. The report is to be prepared in collaboration with the working group specified under Condition 2. The surveillance team will review and confirm whether the information the client provides is likely to fulfil their expectations for meeting this Condition. Meeting this milestone would likely not result in a change in score at this surveillance audit.

This Condition relates to ETP species, which in this case refers entirely to the (seabird) short-tailed albatross and the (marine mammal) Steller sea lion, and not to fish. At least one stakeholder believes that steelhead trout and Chinook salmon are caught seasonally in the Sea of Okhotsk, but data collected throughout the year and covering all areas of fishing activity by the UoC fleet, as well as interviews with seagoing personnel and scientific observers during certification and at the first and second surveillances fail to support this contention. In terms of marine mammals and seabirds, the client has correctly commissioned two local, but internationally highly respected, experts at the Pacific Institute of Geography in Kamchatka to fulfil the necessary deliverables. For this surveillance, two reports were deemed necessary, one providing an outline of the sea lion work that has been commissioned and the second a report on interactions between seabirds (especially their mortality) and the fishery. The two experts produced separate reports (seabirds – Artyukhin 2015; marine mammals – Burkanov *et al.* 2015) based largely on the results of an at-sea survey during commercial fishing operations made by themselves and a few of their fully trained assistants in the winter 2015 main fishing season in the northern Sea of Okhotsk, where fishing is concentrated then. Although both were well planned and executed, like all surveys of such nature, the data documented are sparse, seasonally and geographically constrained and cover a very small percentage of the total hauls made by the UoC fishery even in the current year.

In terms of seabirds, Artyukhin (2015) recorded no ETP species while he and his colleagues were aboard, but he did identify a number of seabird/fishery interactions, including mortalities, for other species in the area during winter. It is a good piece of work, and he noted that auks and procellariids (mainly fulmars) constituted more than half of the avian fauna around the vessels, whose waste and discarded small fish attracted them in sometimes fairly large numbers; albatrosses (only the occasional Laysan albatross was seen) and storm petrels were rare. Seabird/gear interactions were dominated by wire strikes (mainly by fulmars and a few gulls), more so during towing than during deployment and recovery, but only a few resulted in the death of the bird. Light “pollution”, i.e. where vessel lights attract seabirds during the hours of darkness, was a contributing factor to the interactions, but it is difficult to quantify the relative effects of seabird/wire strikes at night and by day from the small amount of data that are available. The report does provide some useful suggestions for mitigating direct seabird impact during fishing operations and much of the information has been taken up in the draft observer manual for observers produced in partial fulfilment of Condition 2. The team noted the response of a stakeholder regarding the relatively limited extent of the survey, i.e. that although the report was comprehensive it was nevertheless a small subsample of the fleet, limited in time and space. It was also noted that although ETP mortality was zero (for short-tailed and Laysan albatross), there was mortality associated with other bird species indicating that trawl warps, deck lighting and other overside cables presented significant hazards for seabirds around the fishing vessels.

Regarding marine mammals, Burkanov and his colleagues, in another well-considered and valuable report, recorded 11 species during the same fishing season and in the same area as surveyed by Artyukhin for seabirds. The three rare (ETP) species were the dominant Steller sea lion and the extremely rare fin and North Pacific right whales. The other eight species, two species of seal, several species of whale and one species of porpoise, are common, so give rise to no concern. Only four of the 11 species seemingly interacted with the fishing vessels, with two of these (Steller sea lion, the most common marine mammal encountered, and the occasional minke whale) noticeably approaching the vessels to feed, and the other two species (both species of seal whose populations are not under any threat) remaining indifferent to fishing operations. During the survey, only a single bycatch of a marine mammal was observed, a ribbon seal that entered the trawl and drowned. Consequently, from the data collected in 2015, the fishery is deemed not to pose a massive threat to any marine mammal species, not even to the ETP species, i.e. Steller sea lion. Again, a protocol for marine mammal observation is being included in the draft observer manual being prepared for Condition 2 fulfilment. Also, suggestions are made in the report for developing more effective means of widespread observation of marine mammal interaction with gear and vessels. Anecdotal information stated in the report (e.g. 20 sea lions caught in a single trawl) cannot be compared with real data, and the surveillance team, in interviews with seagoing staff, failed to find credibility in the statement.

One failure of the 2015 surveys was the observation log for marine mammals and seabirds developed and distributed to a sample of the fishing vessels. Few returns were made, and none were useful. This year’s report on marine mammals also failed to produce any further detailed analysis of foraging/dietary studies on Steller sea lions other than a few generic comments. At the first surveillance, there was a report, however, and Burkanov and his colleagues should update that with new data for the next surveillance, along probably with analysis of scat data that could be collected in 2015/early 2016, both near and away from current fishing operations. A stakeholder’s contention, based on statements in the Burkanov report, that 57 trained observers need to be deployed in a massive effort to accompany 30% of the UoC fishery trawls annually is not achievable, nor in the opinion of the surveillance team, necessary. So many trained observers are not available, and the cost of conducting such research is prohibitive; this certification is based on pollock, not ETP species, so it is necessary only to collect information around the year and geographically spread out to ensure that better understanding is gained on ETP species/pollock trophic interactions. That is why the team believes that concentrated analysis of scat data would be a more appropriate means of generating the required data than a totally unachievable massive survey and research programme based on a huge number of trained observers being deployed solely for ETP observations throughout the year.

To meet this Condition, it is not deemed necessary by the surveillance team to repeat the whole seagoing survey in 2016, but a repeat survey in 2017 (with reporting in time for the fourth audit) would strengthen the possibility of this Condition being met on time in 2017. Further such a repeat survey should be able to expand the spatial and temporal information base on particularly seabird interactions and could provide an opportunity to test mitigation options in collaboration with the research team led by Artyukhin. Although the seabird mortality was associated with non-ETP species, it would be prudent

not only to look again at impacts on ETP seabird species (in particular short-tailed albatross) but also to investigate the impact on the numerous other species for which mortality was reported. If this is done with a statistically robust methodology, it would strengthen the status of the overall seabird impact estimates.

Remedial actions

None

Changes to Condition

No change to the Condition or the score is suggested at this surveillance, and the Condition remains as is.

Updated status

Given the impressive amount of work conducted since the first surveillance, the client is on track to meet this Condition, especially in terms of seabirds and the potential mortality associated with the fishery. However, apparent omissions thus far are the production of a plan to produce an up-to-date detailed analysis of the foraging/diet of Steller sea lions and testing of mitigation options to minimize seabird mortality. These omissions can easily be addressed in the coming year, if plans are made immediately.

4.2.6 Condition 6 (P2.5.3: Information/monitoring ecosystem)

By the second surveillance audit, provide evidence to demonstrate that sufficient information is available and continues to be collected on the impacts of the fishery on ecosystem components (i.e. target, bycatch, retained and ETP species, and habitats) and key elements of the ecosystem (e.g. trophic structure and function, community composition, productivity pattern and biodiversity) to detect any increase in risk level (e.g. attributable to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).

Progress against interim milestones

By the second annual surveillance audit, the client must provide a report which details an analysis of these data in order to demonstrate that the current level of monitoring is adequate in relation to understanding the impact of the fishery on the whole ecosystem.

It is the team's opinion that sufficient information continues to be collected to be able to evaluate the impacts of the pollock fishery on target species (Condition 2), bycatch (Condition 4), retained and ETP species (Condition 5) and habitats (TINRO's ongoing marine habitat studies, including maps, seen annually) and that adequate analytical work has been done to enhance understanding of the pollock fishery's effect on the ecosystem generally. The team is also pleased that not just trophic structure and function of the ecosystem has been analysed, but new and good work has been produced now on community composition, productivity and biodiversity.

The report by Kulik (2015) is comprehensive and at the time of writing this report is being expert-reviewed also by the PICES community in addition to having been presented in detail to the surveillance team. There are three aims of this year's ecosystem effects evaluation: (i) to determine the dynamics and trends in ecosystem indicators that reflect changes in the trophic structure, community composition and biodiversity; (ii) to determine functional groups of species and thence to adjust ecosystem model settings; (iii) to use estimates of biomass, productivity and trophic index (from other scientific components of the Sea of Okhotsk research work, some mentioned earlier in this surveillance report), to simulate the different levels of the fishery's impact on the ecosystem.

Key findings are that: (a) the average annual catch of pollock (<650 000 t) does not unduly influence trophic flow models for the ecosystem, so the ecosystem has clearly compensated for the pollock extraction already; (b) the effectiveness of biomass accumulation (growth) shown by the catches is demonstrated by the fairly stable level of annual removals of pollock but weakly correlates to the catches

of other species, although the catches of these other species facilitate distribution of biomass through other trophic levels; and (c) were the annual pollock catches to increase by 2–3 times, trophic flows through the ecosystem would be negatively affected and trophic structure altered.

The team also noted that the Sea of Okhotsk ecosystem and the importance of walleye pollock featured in a comprehensive analysis of all Russian Far Eastern seas presented to PICES in 2014 (Dulepova 2014). Notable change is not predicted at current levels of pollock catching.

Data to drive this analysis continue to be collected, but the team concludes that the analyses already conducted show that the ecosystem effects of the fishery are not notable. Overall environmental variability, such as the warm water experienced off Kamchatka this year that influenced distribution patterns and no doubt also pollock recruitment, are likely to have a far greater effect on the ecosystem than the fishery itself. Nevertheless, the team acknowledges that the fishery can alter the behaviour of seabirds and marine mammals that may congregate around the trawlers, although the impact on these species is probably benign.

Remedial actions

None

Changes to Condition

None required

Updated status

The team believes that PI 2.5.3 can now be rescored at 80, and the Condition deemed as being met. Such a changed score would have the effect of P2 overall being rescored at 80.7 (up from 80.3 at certification).

4.2.7 Condition 7 (P3.2.2: Decision-making processes)

By the second surveillance audit, the client will implement a strategy to ensure that its management decision-making processes which respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, are transparent (i.e. that information is more readily available) and take account of the wider implications of decisions.

Progress against interim milestones

At the second surveillance audit, the client must provide evidence that a strategy has been implemented to ensure that its management decision-making processes which respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, are transparent (i.e. that information is more readily available) and take account of the wider implications of decisions. Provided the actions defined in the milestones and the deliverables in the client action plan are met, the PI would be re-scored at 80 or higher at the second surveillance audit.

This is always going to be a difficult Condition to meet for a Russian-speaking country and fishery, especially in that it has to convince non-Russian-speaking stakeholders and others that the need for total transparency of processes really is being taken seriously. The Client does engage extensively with Government agencies and makes a lot of information available, in their website under construction largely in English or through weblinks (virtually all of the latter unsurprisingly are in Russian so are largely unintelligible to interested stakeholders, and critics, in the western world). However, following detailed discussion with the client and other parties and careful perusal of the documentation and material that is available in English, or using google translator for selected texts and pieces of information, the team is comfortable that very little information of importance to good governance of the fishery, and especially of the UoC fishery prosecuted by the Client, is being withheld or not presented openly. In other words, the team has reached the conclusion that international best practice is being followed in its management decision-making, from the fishery through science to policy.

The TINRO website itself contains summarized information that meets many of the requirements to fulfil this Condition, and TINRO is the main provider of the information being used to populate the Client’s under-construction website in English (<http://www.russianpollock.com>). The PCA’s traditional website is really only of value to Russian-speakers, so it is essential that the highly informative new website in English be fully populated soon so that interested parties other than Russian-speaking ones can have access to full understanding of management decision-making processes across all the agencies and can evaluate whether all the decisions being made are taking full and adequate account of their wider implications (ecosystem components, etc). The new website should also allow or give access to all the documentation and background data used to evaluate fishery and ecosystem performance and management.

As the various teams had done previously, the team reviewed whether there was any IUU activity associated with the UoC fishery. It seems not, with formal agreements between Russia and neighbouring states existing and being taken seriously. Also, with a view to providing proof of management’s insistence on total compliance within the UoC fishery, the surveillance team again reviewed inspections and infractions/violations since 2008 (updating the information from that provided at certification) – see Table 3. The number of boardings of fishing vessels seems to have dropped during 2014 as the number of vessels active in the fishery declined slightly through vessel and company rationalization, but in the opinion of the surveillance team it is still at an acceptable level. As mentioned in earlier years too, all apparent violations of fishing rules (2014 posted the largest number since 2009, but are still few relative to the number of boardings) are being dealt with immediately and firmly by the authorities, and tough sanctions are being applied. Overall though, and despite 2014 values of compliance and boarding in Table 3 looking less promising than in earlier years, the fishery is deemed to be at acceptable levels of control and compliance.

Table 3: Summary compliance information for the Sea of Okhotsk pollock fishery

Inspection/compliance parameter	2008	2009	2010	2011	2012	2013	2014
Number of vessels boarded	1 088	1 334	1 406	1 629	1 578	1 630	1452
Increase over previous year	+43.5%	+22.6%	+5.4%	+15.8%	-3.2%	+3.3%	-10.9%
Number of violations	37	33	24	10	23	13	28
Decrease from previous year	-14%	-11%	-28%	-41%	+230%	-56%	+215%
Annual level of non-compliance (violations/inspections)	3.4%	2.5%	1.7%	0.6%	1.4%	0.8%	1.9%

It had been intended in the Client Action Plan that with the new website being constructed in 2015 containing *inter alia* the basic material and information required to demonstrate good management and governance in the UoC fishery, it might have proved possible to close this Condition at this surveillance. However, the new website is not yet fully populated nor does it provide all the requisite information or links to the most relevant websites (organizations and data) associated with management of the fishery, so the surveillance team was forced to resort to searching for those data on various links provided to largely Russian-language websites. Although those searches were gratifyingly rewarded with evidence of good management practice by international standards, more effort needs to be deployed now to ensuring that the new website is kept up to date and made readily available to stakeholders (and critics, with as much as possible translated into English), possibly commissioning a dedicated experienced web manager to assist in this task. The current deliverables fall short of a level that might allow the team to rescore this PI in terms of total transparency of information, allowing the wider implications of management decisions to be clear to all, so it will be impossible to re-score and potentially close the Condition in 2015. The situation will have to be reviewed at the third surveillance, because while the current situation of having an incomplete website exists, no-one in the western world can feel confident that all material relevant to the fishery (and available, i.e. transparent to readers) is being provided accurately and timeously for decision-making and governance to be adjudicated at the level commensurate with what this Condition was originally designed to achieve. Without such proof being available, it will not be possible for anyone to assert that the wider implications of decision-making are being considered effectively in the management process.

Remedial actions

The new website needs to be fully populated with all the relevant documentation and information, largely in English, and weblinks, showing all that the wider implications of management decisions on all components of the fishery and ecosystem are being considered effectively.

Changes to Condition

The Condition should be amended to read that it should be met by the third surveillance audit rather than by the second surveillance audit. The PI score remains as is for this year.

Updated status

Meeting the requirements of this Condition is not a trivial task, so serious effort needs to be devoted by more than just a representative of the Client and some TINRO scientists in meeting the necessities for delivery. Specifically, but not only, something needs to be done to bring the interactions with the VNIRO (the central Russian) evaluation system for all fisheries management in the country into a form that critics and stakeholders can see what the team see some evidence of, that it is taking the implications of management decisions on wider aspects of the ecosystem into account.

4.2.8 Condition 8 (P3.2.5: Monitoring and management performance evaluation)

By the third surveillance audit, the client fishery will provide evidence to show that it has in place mechanisms to evaluate key parts of the management system other than the scientific assessment and is subject to occasional external review.

Progress against interim milestones

By the second surveillance audit, the client must have identified potential external reviewers and the key parts of the management system that will be reviewed. The milestone associated with the second surveillance audit has been defined as a means to monitor progress, so meeting the milestone would likely not result in a change in score at this surveillance audit.

What is being asked for here to meet the Condition is essentially similar (though covering a different subject) to what is being proposed for Condition 3. In this case, however, the requirement is for the surveillance team to see that a mechanism is in place to evaluate the key parts of the management system other than the standard elements of scientific and stock assessment practice. Terms of reference were drafted at the first surveillance, and these are now being honed (evidence was seen of this) to make them absolutely clear as to what is being proposed to meet the Condition. Further, although there have been some discussions since last year about names of potential reviewers and the Client has apparently contacted some of them, we were not shown a list of available names under consideration (the eventually selected reviewer should be Russian-speaking, but ideally totally separate from the fishery and, as stated last year, internationally based even if Russian-born). It is deemed inappropriate for the audit team to select potential reviewers, but some names have been identified by the surveillance team and others during various discussions over the past 12 months.

The Client asked for guidance as to whether a slightly different option would be appropriate, namely to contract a Russian-based expert for the review itself and then to have that review internationally peer-reviewed. This could be an option if a single Russian-speaking international reviewer to do the whole job cannot be found, but in the opinion of the team conducting the second surveillance, would not be the preferred option.

Remedial actions

None.

Changes to Condition

No change to the Condition or the score is suggested at this surveillance, and the Condition remains as is.

Updated status

Everything is currently on track to meet this Condition as stipulated. Finalized terms of reference should be shown to the surveillance team in 2016, along with the name(s) and CVs of the selected reviewer; in terms of meeting the Condition as written, seeing the actual review is not essential at the third surveillance, but clear progress towards that end by the same time in 2016 would be advisable.

4.3 New Conditions and Recommendations

No new Conditions or Recommendations are raised at this surveillance. This second surveillance considered whether Conditions 4, 6 and 7 had been met as planned, but of these, the team only felt that Condition 6 had been fulfilled adequately, although good progress was being made towards meeting the requirements of the other two.

Apart from Conditions 4 and 7, the third surveillance team assembled in 2016 will be carefully evaluating whether Conditions 1 and 3 certainly, and Condition 8 in terms of having the necessary mechanism in place rather than a review having been done, have been met. Given the large number of Conditions still in place on the fishery, the fact that a lot of documentation is anticipated and that some stakeholders still have many issues to air relating to the fishery and its management/governance, it is considered as essential that the 3rd surveillance takes place in 2016 on site in Vladivostok, and it is urged (though not Recommended) that meetings with the Coastguard (the FSB) and the Centre for Fisheries Monitoring and Control (the CFMC, which falls under the FFA) be planned, even if those have to take place elsewhere than in Vladivostok.

4.4 Conclusions

Table 4: Summary of progress on conditions/recommendations

Binding Conditions / Recommendations	Descriptions	Status of Progress
Condition 1	As the harvest strategy is newly implemented, there is no evidence to demonstrate that it is achieving its objectives. The harvest strategy is to undergo testing to explore its robustness to management and assessment uncertainties. The client must annually provide evidence during the certificate validity period of the results of annual monitoring which demonstrate that the harvest strategy is achieving its objectives as reflected in the target and limit reference points.	In Progress. Proof of effectiveness of the harvest strategy can only come with time, but the annual rigorous testing is already providing some evidence that it is working well.
Condition 2	By the fourth surveillance audit, the client should provide a written report evaluating the monitoring programme for the fishery (e.g. analysis of the accuracy and at-sea observer coverage of both the ichthyoplankton/trawl survey and fishery removals), which demonstrates that stock abundance and fishery removals are regularly monitored at a level of accuracy and at-sea observer coverage consistent with the harvest control rule.	In Progress. The observer working group has been formally constituted with clear and acceptable terms of reference, and enhancement of the trained scientific observer corps is under way. Fishery extractions and data allowing confidence in P2 issues are being monitored and recorded well.
Condition 3	By the third surveillance audit, the client should provide a report which details how the assessment appropriately evaluates major sources of uncertainty and takes them into account.	In Progress. ToRs for a review have been updated, and an internationally respected Russian-speaking reviewer identified.
Condition 4	By the second surveillance audit, the Client should demonstrate through a detailed analysis and written report that sufficient data continue to be collected to estimate outcome status with respect to biological based limits (SI 2) and to detect any increase in risk to main bycatch species (e.g. attributable to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy) (SI 4).	Still in progress; not met at the 2 nd surveillance but on track to be met one year late, at the 3 rd surveillance. Bycatch, especially cod, herring and Greenland halibut, dynamics, catches and stock status are being addressed adequately. The observer system is being enhanced and all Russian fisheries are moving towards electronic logbook reporting
Condition 5	By the fourth surveillance audit the client needs to demonstrate that sufficient data are available to allow fishery-related mortality and the impact of fishing to be quantitatively estimated for ETP species. In particular, the client needs to initiate studies on the diet and foraging behaviour of Steller sea lions in the Sea of Okhotsk to determine feeding rates on pollock, to be completed by the end of year 3 of certification, and to record observations of sea mammal and seabird interactions with trawls to determine if there are any mortalities of sea mammals and seabirds in pollock trawls, to be completed by the end of year 3 of certification.	In Progress. Good survey information has been collected which, together with other data that can be collected now, would place the fishery in a good place to meet this Condition.
Condition 6	By the second surveillance audit, provide evidence to demonstrate that sufficient information is available and continues to be collected on the impacts of the fishery on ecosystem components (i.e. target, bycatch, retained and ETP species, and habitats) and key elements of the ecosystem (e.g. trophic structure and function, community composition, productivity pattern and biodiversity) to detect any increase in risk level (e.g. attributable to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).	Met and closed. Appropriate data have been collected and subjected to rigorous analysis that shows that at the current level of fishing, no negative affect on ecosystem components is being identified.
Condition 7	By the second surveillance audit, the client will implement a strategy to ensure that its management decision-making processes which respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, are transparent (i.e. that information is more readily available) and take account of the wider implications of decisions.	In Progress. Everything is still not available in the English language, but a start has been made. The Client shows evidence of extensive interaction with Government agencies, but its new website is still incompletely populated.
Condition 8	By the third surveillance audit, the client fishery will provide evidence to show that it has in place mechanisms to evaluate	In Progress. Client has understood the requirement and

	key parts of the management system other than the scientific assessment and is subject to occasional external review.	has put in place the plans for this to take place.
Recommendations	None	n/a

Sourced from original assessment

4.5 Status of Certification

No change at this time, so the Certification should remain in place.

5. Catch Data

Table 5: Catch Data

Total TAC for most recent fishing year (2014):		821 000 t
Unit of Certification share of the total TAC established for the fishery in most recent fishing year *		
Sea of Okhotsk industrial pollock quota (2014)	UoC 1	761 153 t
Client share of the total TAC established for the fishery in most recent fishing year:		613 815 t
Total greenweight catch taken by the client group in UoC 1 in the two most recent calendar years (2013 + 2014):		1 170 686 t

* To be added into MSC database for each Unit of Certification

Source: Fishery client based on fishery catch statistics database

Appendix 1 – Written Submissions from Stakeholders

Email from Sustainable Fisheries Partnership (SFP) dated 1 October 2015

Dear Ms Burns,

Under the current SFP strategy our fisheries improvement work is being done in direct contact with supplier chains. SFP notes that the Russian Pollock Sustainability Alliance to be invited by "Acoura" for comments represents stakeholder interest of a number of world leading supplier companies trading with Russian pollock from the Sea of Okhotsk.

SFP regularly prepares and maintains sets of improvements recommendations on each of the fisheries which profile are included in FishSource database. Summarised improvement recommendations are then forwarded to stakeholders of our Supplier Roundtables (SRs), in this case to the RFE Whitefish SR. For information on RFE whitefish SR please see its landing page on <http://www.sustainablefish.org/fisheries-improvement/whitefish/russian-far-east-whitefish-roundtable/rfe-whitefish-supplier-roundtable>

A link on the page would direct you to the list of fisheries considered by the SR, including Russian Pollock – Sea of Okhotsk fisheries FishSource profile on http://www.fishsource.com/site/goto_profile_by_uuid/8010d44a-2e4d-11dd-891e-daf105bfb8c2

The Sea of Okhotsk pollock fisheries profile, in particular, contains the following current SFP recommendations to catchers and regulators:

1. Regulators and, in particular, their fisheries institutes, should be requested to provide Pollock Catchers Association (PCA) with practical support required in order to implement effectively its action plan on closing Marine Stewardship Council (MSC) imposed certification Conditions.
2. Information on the progress with the observer system development and implementation should be made public of the PCA website, in particular, in view of the fact that the data to be collected by observers are required for closing five out of eight MSC-imposed certification Conditions.
3. The Sea of Okhotsk pollock sustainability page on the PCA website should be updated to include time series of stock assessment summaries and summaries of data collected by scientific observers on all types of by-catches and discards."

In essence, these recommendations could be taken as SFP comments to the second surveillance audit to be conducted by "Acoura".

With best regards,

Eugene Sabourenkov

SFP fisheries improvement coordinator - Russia projects



for a living planet

WWF Smart Fishing Initiative • Moenckebergstraße 27 • 20095 Hamburg

WWF Global Fisheries Programme

Smart Fishing Initiative (SFI)

Polly Burns

Fisheries Technical Officer

Acoura Fisheries

6 Redheughs Rigg

Edinburgh

EH12 DQ

Moenckebergstraße 27

20095 Hamburg

Germany

p: +49 40 530200-310

Fax: +49 40 530200-313

annika.mackensen@wwf.de

www.panda.org/smartfishing

October 29th, 2015

Dear Ms. Burns,

The WWF-Russia Marine Program and the WWF-International Smart Fishing Initiative appreciate the opportunity to submit comments on the second surveillance audit for the Russian Sea of Okhotsk pollock fishery to Acoura Fisheries. WWF has participated in the MSC assessment process for the Russian Sea of Okhotsk (SOO) pollock fishery as an active stakeholder since the beginning of the fishery certification process. Throughout this process we have presented detailed documentation on improvements that we believe are necessary for the fishery to fully meet the MSC requirements for a fully sustainable fishery. In the opinion of WWF, the Client has made some good progress towards meeting milestones defined for the second surveillance audit. In particular, the observer working group was officially constituted, and has resulted in the initiation of a process of training of additional observers. In addition, more information has been collected and presented on SOO ecosystem and the assessment of fishery impacts on marine mammals and seabirds. At the same time, the assessment process left a number of important issues unresolved concerning the target stock (MSC Principle 1), ecosystem impacts (MSC Principle 2) and the fishery management system (MSC Principle 3) many of which were addressed by the conditions set for the fishery in the Final Certification Report. We provide an overview of our concerns below. We have reviewed the reports and supporting materials submitted to the Assessment Team by the fishery client, the Pollock Catchers Association (PCA) that were kindly provided to us by the CAB following our recent teleconference with courtesy of consent of your Client. Based on this review we are able to offer the comments below on progress made to date for the second

surveillance audit. Overall WWF believes that progress has been made and we continue to support the collaboration between the PCA, management agencies and stakeholders through the observer working group.

Please feel free to contact us if you have any questions.

Sincerely,



Dr Annika Mackensen
Fisheries Certification and Livelihoods Manager
WWF Smart Fishing Initiative
Mönckebergstraße 27
20095 Hamburg
Germany
T: +4940 - 530200-130
Fax +4940 - 530200-112
E-mail: annika.mackensen@wwf.de



Dr Konstantin Zgurovsky
Marine Program Coordinator
WWF-Russia
Nikoloyamskaya Street
Moscow, PO Box 3, 109240
Russia
T: + 7 495 727 0939
E: kzgurovsky@wwf.ru

Condition 1 – PI 1.2.1 Harvest Strategy:

Condition 1 requires evidence of annual monitoring that demonstrates that the harvest strategy is achieving its objectives as reflected in the target and limit reference points. As was the case at the first annual surveillance audit, WWF and other stakeholders do not yet have access to the report concerning the results of annual monitoring during the second year of certification and thus cannot evaluate whether the harvest strategy is currently achieving its objectives. This is because the annual report on the harvest strategy and fishing mortality rates specified under Condition 1 has not yet been released for stakeholder review. Although we acknowledge and respect the need for a rigorous peer review process prior to publication of technical reports, we cannot offer a stakeholder opinion as to whether the second annual milestone has been completed or not.

As an engaged stakeholder, WWF remains concerned about the effectiveness of the management measures within the harvest strategy that address bycatch and discard of juvenile pollock. Available information is still inadequate to determine whether the move on rule is an effective management tool for minimizing bycatch of juvenile pollock and whether the associated regulations are enforced. As a member of the Observer Working Group, WWF understands that the client is in the process of implementing additional scientific observer coverage based on the findings of the report prepared by experts at the TINRO for the first surveillance audit. WWF strongly supports this process and agrees with the determination in the first surveillance report that the planned increased observer coverage will strengthen the estimates of juvenile mortality (i.e. reduce uncertainty) allowing for a better assessment of the harvest strategy.

However we also note that the planned incremental increase in scientific observer coverage will likely only increase coverage levels to 5-6% of the total number of hauls. Additional information are already being collected by GMI and FFA inspectors that should also be used to evaluate the effectiveness of the move on rule to minimize juvenile mortality in the SOO fishery. In the opinion of WWF, the CAB should require a more detailed reporting of the data on juvenile bycatch recorded by GMI and FFA inspectors rather than just annual coverage levels as were reported in Appendix 5 to the first surveillance report. This information should be summarized and reported to substantiate claims that juvenile bycatch and discard does not occur, especially during years where strong pollock year classes make this more likely. The SOO fishery monitoring report submitted for the first surveillance audit summarized the data collection responsibilities of GMI and FFA inspectors and provided links to a

public website where monitoring results are published.¹ WWF reviewed the information provided on these websites and only found information for enforcement actions conducted by Coast Guard vessels and aircraft, including 3 enforcement actions involving IUU Pollock. No public information was provided regarding data collected by GMI or FFA inspectors on board of the fishing vessels.

WWF also stresses the critical importance of the information and monitoring conducted by GMI and FFA inspectors in light of the recent announcement by the head of the Federal Agency for Fishery, Ilya Shestakov, that the Rosrybolovstvo intends to prohibit fishermen from discarding fish, which now amounts to 20% of the catch.² Mr. Shestakov also stated that the Border Control agencies should pay greater attention to these problems. In view of this, we encourage the CAB to recommend that the Client work together with the Fishery Agency and Coast Guard to develop a special program to evaluate discard and mitigate measures that includes: observers and cameras onboard; field experiments with special devices installed in the trawl opening such as sorting grids to minimize juvenile bycatch; up-to date acoustic equipment that can distinguish adult and juvenile fish assemblages; and on-board electronic scales for measuring total catch. This type of research will be extremely important when the fishery is reassessed and is required to evaluate measures to minimize unwanted catch under the new MSC Fishery Certification Requirements v2.0.

In summary, while we acknowledge the progress that has been made in implementing and monitoring the new harvest strategy, WWF remains concerned that the elements of the harvest strategy designed to minimize juvenile bycatch require additional monitoring and compliance efforts.

Condition 2 – PI 1.2.3 Information/Monitoring:

Condition 2 requires that stock abundance and fishery removals be regularly monitored at a level of accuracy and at-sea observer coverage consistent with the harvest control rule. For the first surveillance audit, TINRO conducted a detailed analysis that identified shortcomings in observer coverage and included a concrete proposal on how to improve the monitoring system by substantially increasing observer coverage and monitoring of fishery removals to levels that are consistent with the harvest control rule. These actions were consistent with the first audit milestone, but they were inconsistent with the client action plan that mandated the establishment of an observer working group. However at the time of the first audit, the working group had yet to be officially constituted. At the second surveillance audit the client fishery is required to develop an implementation plan to increase observer coverage, the main shortcoming identified in the monitoring system. This plan was also to be developed in collaboration with the observer working group that is now officially constituted. At the time of the second surveillance audit the first group of new observers is scheduled for deployment in the 2016 winter fishery. WWF applauds the progress made to date on this condition (and associated conditions under Principle 2, however we want to stress that critical foundational elements of this program are at risk of being overlooked if the process currently being implemented does not include clear principles and criteria on how observers will be trained; how observer protocol are developed, and what the legal rights and status of observers are under the expanding system. WWF has submitted detailed recommendations on these issues both during the assessment process and to the observer working group. We can again provide these to the assessment team if necessary.

WWF also remains concerned that the accuracy of landings continues to be calculated using the final product weight multiplied by a coefficient. This issue was not adequately addressed in the 2014 Appendix 5 SOO fishery monitoring report. We do not know whether more information is provided in the fishery monitoring report for second surveillance audit however it is our opinion that the methodology used to calculate total removals is not accurate enough. The SOO pollock fishery is an MSC certified sustainable fishery and should begin moving toward state-of-the-art technology for calculation of total catch weight.

Lastly, we reiterate again in the second surveillance audit that the annual monitoring reports must adequately address the issue of juvenile pollock bycatch and what measures need to be taken to fully assess and resolve this issue. The stock assessment data indicate a strong 2012 pollock year class

¹ e.g. 2014 – <http://www.svrpu.ru/oficialnoe/press/2014/0.shtml>

² <http://planet-today.ru/novosti/ekonomika/promyshlennost/item/23267-rosrybolovstvo-zapretit-vybros-ryby-kotoryjsegodnya-sostavlyayet-do-20-ulova>

that may have resulted in high juvenile bycatch levels in recent years. WWF strongly recommends that reliable and accurate data be collected to quantify juvenile mortality. There have been serious problems in the past in this fishery and the data should be consistently collected now and in the future at a level of accuracy and of at-sea coverage to ensure that juvenile mortality does not endanger the productivity and stability of the SOO pollock stock.

Condition 3 – PI 1.2.4 Assessment of Stock Status:

WWF has been given an opportunity to review the TOR for Condition 3 and is aware of the expert reviewer. As an important component of the report detailing how the assessment method evaluates and takes into account major sources of uncertainty, WWF strongly recommends a careful consideration of uncertainty in estimates of juvenile mortality as a specific component of the review. This is especially important in light of the potential for a legally mandated discard ban as described under our comments under Condition 1. We have included as an appendix to our comments the links to a series of articles addressing the discard issue published recently in the Russian Fish News journal by Golenkevich and Mayss (references below). These articles clearly and succinctly summarize the important factors and their interaction regarding fishery discards and propose viable solutions to these issues.

Condition 4 – PI 2.2.3 Information/Monitoring:

At the second annual surveillance audit, the client is required to provide a detailed written report and analysis of the data collected on main by-catch species. WWF has reviewed the report and analysis provided to the Client by TINRO on the data collected on bycatch species in the SOO pollock fishery. WWF appreciates the detailed information included in the report from both the fishery and survey data, however a number of concerns remain as to whether sufficient data continue to be collected to estimate outcome status with respect to biologically based limits and to detect any increase in risk to main bycatch species. First, WWF expressed concern in response to the first surveillance report that given the low level of coverage and the non-random deployment of scientific observers in this fishery, it may not be possible to determine if the bycatch data is collected in an unbiased manner or not and therefore whether the bycatch information is truly representative of bycatch levels in the entire SOO Pollock fishery. As additional observers are deployed during 2016 WWF would like to see an improved plan for observer deployment that is developed in conjunction with the observer working group. Most importantly, until observer access to all fishing vessel is officially required, it is difficult to maintain truly random deployment of observers.

We reiterate again this year that under the second milestone for the first surveillance audit the Client is also required to provide a report on the status of the development of EFJ (electronic vessel logbook) for use in the Russian fisheries management system, and in particular in the SOO Pollock fishery. In the reports provided to WWF there is currently no discussion of the status of the development of the EFJ or a potential timeline for deployment in the SOO Pollock fishery. The status of the EFJ was discussed in the first surveillance report, however that is the only written update that has been provided. WWF requests that the assessment team address this issue in the surveillance report and if necessary keep this condition open until this milestone is met at a subsequent annual audit.

Lastly, we note that the data presented in the Principle 2 bycatch report prepared for this surveillance audit only addresses the winter fishery. While we realize that the majority of catch occurs during the winter fishery, we are concerned that no data is presented for some species of interest (e.g. salmon) for which catch levels may increase during the summer/fall period.

Condition 5 – PI 2.3.3 Information/Monitoring:

Condition 5 requires that the client will demonstrate that sufficient data are available to allow fishery related mortality and the impact of fishing to be quantitatively estimated for ETP species. The PCA contracted a team of internationally respected seabird and marine mammal researchers to conduct pilot studies to evaluate the extent of direct marine mammal and seabird bycatch in the SOO pollock fishery. To conduct the pilot study, three observers were deployed on large trawl vessels to monitor marine mammal interaction with the fishery and record any observed mortality events. One of these observers also conducted research on seabird interactions; however the report was not yet available at the time of the 2nd surveillance audit. The marine mammal report by Burkanov et al. is unequivocal

in its findings and provides a well-reasoned approach to determining the necessary next steps to quantitatively estimate fishing related mortality. These findings are succinctly summarized in the conclusions of the report and include the following important points:

- The sample size in terms of vessels and hauls observed is not adequate to properly assess Steller sea lion (SSL) mortality based on the results of this study;
- The statistical properties of bycatch events are not linear -- for some areas, times, trawl types, or vessel types mortality rates could be very high;
- Interviews with fisherman reported that SSL captures were not uncommon and that on one trip a boat caught as many 20 SSL in the northern SOO;
- The report concludes that to obtain credible baseline data on SSL capture frequency, a onetime deployment of approximately 57 trained observers would be required to ensure coverage of approximately 30% of the vessels and hauls.

In the opinion of WWF, a targeted program to make quantitative baseline assessments of seabird and SSL interactions should be developed as recommended in the marine mammal report prepared for the second surveillance audit. While it may seem cost-effective to add these duties to the brief of TINRO observers it is unlikely that they will be able to adequately identify marine mammal or seabirds interactions because they are often working below deck. These issues should be considered carefully by the CAB in the current surveillance report and direction given where necessary for consideration in the observer working group as required by the conditions and milestones.

The report summarizing available literature on Steller sea lion diet and feeding rates on Alaska pollock commissioned for the first surveillance audit indicates the potential for trophic interactions between the pollock fishery and Steller sea lions (and other major predators). The report also clearly showed that data are completely lacking on the distribution, diet and feeding rate on Alaska pollock during the winter period when the pollock fishery is most active and has the greatest potential to compete with sea lions for food and potentially cause mortality in trawls. The report commissioned for the second surveillance audit provides a detailed assessment of how the fishery could collaborate in the collection of data on the winter diet and foraging behavior of Steller sea lions in the SOO to address this issue if marine mammal observers continue to be deployed on pollock vessels.

In summary, the PCA is currently on track to meet the requirements for Condition 5 for the identified marine mammal and seabird ETP species, however a sustained commitment will be required moving forward to fully resolve this condition by either the third or fourth surveillance audit.

Finally, WWF would wishes to reiterate that we do not feel that bycatch of steelhead (a red list species) and Chinook salmon in the pollock fishery was adequately addressed during the assessment process. WWF continues to be concerned that there may be hotspots with high bycatch levels during some seasons that could impact protected salmon stocks. Due to low observer coverage levels and potential bias due to non-random observer deployment there is not adequate assurance that salmon species are not impacted by the SOO fishery.

Condition 6 – PI 2.5.3 Information/Monitoring:

Condition 6 requires that sufficient information is available and continues to be collected on the impacts of the fishery on these components and key elements of the ecosystem to detect any increase in risk level. The Ecosystem report authored by Kulik (2015) provided to WWF by the Client is an interesting and worthwhile analysis that moves significantly forward from the mean trophic level analysis presented for the first surveillance report. In particular it begins to address community composition, productivity patterns and biodiversity as requested by the assessment team in the first assessment report. Given the length and overall complexity of the analysis more time would be required to make substantive comments on merits the analysis itself. Regarding the status of the condition, we note that the assessment team recommended that the analysis be exposed to peer review (e.g. at a PICES meeting) and it is not clear whether this has yet been done.

Condition 7 – PI 3.2.2 Decision-making processes:

As stated in our previous comment letters, WWF has have seen evidence that the PCA continues to work with government agencies towards a more transparent management system. However some

information such as the data collected on juvenile bycatch and discards discussed under Condition 1 is still not publically available. It is also important to note once again however, that surveillance report materials should be made publically available in a timely fashion to enable stakeholders to comment on this process. In addition when searching for these materials on the PCA website we found a substantial number of sections that remain unpopulated with information. In summary, we feel that there continues to be progress on this condition, and we hope the PCA continues this collaboration with government agencies and that this condition can be closed at the next surveillance audit.

Condition 8 – PI 3.2.5 Monitoring and management performance evaluation:

WWF is still eager to analyze this report, however we did not receive it as a part of the package of materials for review for this surveillance audit.

Appendix 1. Russian Fish News journal by Golenkevich and Meissen.

1. Классификация выбросов
http://www.fishkamchatka.ru/?cont=long&id=48216&year=2014&today=24&month=02&_utl_t=ok;
2. Анализ причин выбросов <http://www.fishnews.ru/rubric/krupnyim-planom/7954>;
3. Факторы выбросов <http://www.fishnews.ru/rubric/krupnyim-planom/8075>;
4. <http://www.fishnews.ru/rubric/krupnyim-planom/8238>



for a living planet

WWF Smart Fishing Initiative • Moenckebergstraße 27 • 20095 Hamburg

Polly Burns
 Fisheries Technical Officer
 Acoura Fisheries
 6 Redheughs Rigg
 Edinburgh EH12 DQ

WWF Global Fisheries Programme
Smart Fishing Initiative (SFI)

Moenckebergstraße 27
 20095 Hamburg
 Germany

p: +49 40 530200-310
 Fax: +49 40 530200-313

annika.mackensen@wwf.de

www.panda.org/smartfishing

November 10th, 2015

Dear Ms. Burns,

The WWF-Russia Marine Program and the WWF-International Smart Fishing Initiative appreciate the opportunity to submit additional comments to Acoura Fisheries on the seabird bycatch report submitted for the second surveillance audit for the Russian Sea of Okhotsk pollock fishery. We have reviewed the report submitted to the Assessment Team by the fishery client, the Pollock Catchers Association (PCA) that was kindly provided to us by the CAB. Based on this review we are able to offer comments pertaining to the second surveillance audit milestones regarding seabird mortality under Condition 5. Overall WWF believes that substantial progress has been made to meet the milestones required at the second surveillance audit and that the seabird report is a valuable addition to the information provided to date.

Condition 5 requires that the client demonstrate that sufficient data are available to allow fishery related mortality and the impact of fishing to be *quantitatively* estimated for ETP species, in particular the two IUCN and Russian Federation Red List species, Steller sea lion and short-tailed albatross. Specifically for seabirds, at the second surveillance audit an annual report is required on interactions between the fishery and seabirds including seabird mortality. Similar to the marine mammal report authored by Burkanov et al., WWF believes that the seabird interaction report prepared by Y. B. Artyukhin (2015) is a detailed and insightful analysis that provides a valuable foundation to determine the necessary steps to quantitatively estimate seabird mortality related to the Sea of Okhotsk pollock fishery. These findings are succinctly summarized in the separate sections and conclusions of the report. In the opinion of WWF the following points are critical to consider for this surveillance audit and to determine the subsequent steps necessary to close Condition 5:

- Although researchers deployed on three vessels during the winter pollock fishery observed no shorttailed albatrosses and only one individual was observed in the southern Sea of Okhotsk from a transit vessel, Artyukhin (2015) concludes that their presence in the Sea of Okhotsk during the winter should be assumed based on both the presence of Laysan albatross, a

closely related species, and previous satellite telemetry studies detailing the seasonal movements of short-tailed albatross.

- To gain a better understanding of the overlap between the distribution of a rare species such as the short-tailed albatross and the Sea of Okhotsk Pollock fishery, directed seabird surveys must be conducted at a broader spatial and temporal scale from all vessel types participating in the fishery. Available data presented by Artyukhin (2015) indicate that a priority area for future seabird observations in the Sea of Okhotsk fishery is the Kamchatka-Kuril subzone due to the higher seabird mortality rates observed for other species and the likelihood of the occurrence of short-tailed albatross in this area. Unfortunately Kamchatka-Kuril subzone was poorly covered during this study due to non-typical distribution of fishing effort during 2015. This underscores the need for additional research on seabird mortality in subsequent fishing seasons.
- Significant levels of seabird mortality were observed for other species, mainly due to collisions with trawl warps and in particular with depth-sounder wires. The frequency distribution of bird collisions with wires differed by fishing area with the highest rate of collisions recorded in Kamchatka-Kuril subzone (8.35/hour for fulmars and 0.22/hour for gulls) than in the rest fishing areas.
- Of the collisions observed during surveys, 8 cases (0.6%) resulted in a mortality event. All recorded mortality events involved fulmars that drowned after being trapped under the depth sounder cable (7 individuals) or under the trawl warp. A total of 12 seabird mortalities were recorded by observers during the 2015 pollock fishery, however only one bird entangled in the depth-sounder cable was retrieved with the haul, indicating that only a small fraction of the overall seabird mortality may be observed by current reporting methods based on logbook reports recorded by the crew or by scientific observers who work primarily below deck.
- The Sea of Okhotsk pollock trawl fishery is a predominant factor in the formation of mass winter aggregations of seabirds in the Sea of Okhotsk due to the discharge of processing wastes. Seabird mortality resulting from these mass aggregations is primarily caused by collisions with fishing gear and light pollution created by trawling fleets.

The report concludes by stating that in order to obtain objective and credible baseline data on fleet-wide seabird mortality rates, monitoring surveys should be continued with broader spatial and temporal coverage of fishing effort by observers. These conclusions are also consistent with the recommendations of Burkanov et al. 2015 regarding Steller sea lion mortality in the Sea of Okhotsk pollock fishery. As WWF stated in our previous comments for this surveillance audit, it is clear that the research conducted to date underscores the need for a targeted ETP observer program in order to make quantitative baseline assessments of seabird and Steller sea lion mortality to meet the requirements of Condition 5 for ETP species. As with marine mammal observations, it is unlikely that the TINRO scientific observers will be able to adequately identify seabird interactions and mortality events because they normally work below deck. These issues should be considered carefully by the CAB in the current surveillance report and direction given where necessary for consideration in the observer working group as required by the conditions and milestones.

It is also important to note that Artyukhin (2015) identifies the potential for significant seabird mortality rates for species not currently identified as ETP species. Although the pollock fishery is not specifically required to implement measures bycatch mitigation measures for non-ETP species under MSC Fisheries Certification Requirements v1.3, if recertified under the new FCR v2.0 the fishery will be required to evaluate and implement measures minimize unwanted catch of out-of-scope species such as seabirds. The report by Artyukhin (2015) identifies a number of options such as streamer lines or devices to reduce the length of the depth-sounder cable that are practical and inexpensive means to

minimize seabird mortality that could be easily implemented in the Sea of Okhotsk pollock fishery. WWF encourages the CAB to recommend that PCA evaluate the feasibility of these measures to proactively address the issue of seabirds in general, and potential mortality of shorttailed albatross in particular.

In summary, the PCA is currently on track to meet the requirements for Condition 5 for the identified marine mammal and seabird ETP species, and we commend the PCA for bringing in internationally recognized seabird and marine mammal experts to assist them in meeting the requirements of Condition 5. However, as we stated in our previous comments a sustained commitment will be required moving forward to fully resolve this condition by either the fourth surveillance audit.

Please feel free to contact us if you have any questions.

Sincerely,



Dr Annika Mackensen
Fisheries Certification and Livelihoods Manager
WWF Smart Fishing Initiative
Mönckebergstraße 27
20095 Hamburg
Germany
T: +4940 - 530200-130
Fax +4940 - 530200-112
E-mail: annika.mackensen@wwf.de



Dr Konstantin Zgurovsky
Marine Program Coordinator
WWF-Russia
Nikoloyamskaya Street
Moscow, PO Box 3, 109240
Russia
T: + 7 495 727 0939
E: kzgurovsky@wwf.ru

Appendix 2 – Surveillance Plan

Table A2.1: Fishery Surveillance Plan

Surveillance Category	Year 1	Year 2	Year 3	Year 4
Normal surveillance	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit and recertification site visit

Appendix 2.1 Rationale for determining surveillance score

The team has determined the above surveillance plan based on the number and detail of the open conditions. The surveillance plan still complies with what was decided using the scoring under the original CRv1.3 assessment.

Appendix 3 – Changes to Client Action Plan

Two of the Conditions expected to be fulfilled were not met this year, so the timescale for meeting them in the Client Action Plan (CAP) needs to be modified. Also, although no actual changes of substance to the CAP are foreseen at this stage, the client would do well to take on board some of the suggestions made by the team to facilitate meeting these two Conditions and others still targeted for being met over the next two years.

Appendix 4 – References

- Artyukhin, Yu. B. 2015. Report on research works for the study of pollock trawl fishery impact on the condition of seabird populations in the Sea of Okhotsk, collection of statistical and analytical data on presence, interaction with fishing gear and accidental by-catch of seabirds and marine mammals in the pollock trawl fishery in the Sea of Okhotsk during 2014/2015 fishing season. Kamchatka Branch of the Pacific Geography Institute, Petropavlovsk-Kamchatsky. 73 pp.
- Burkanov, V. N., Usatov, I. A. and Fomin, S. V. Organization of monitoring and presence, interaction with fishing gear and accidental by-catch of Steller sea lion and other marine mammal species in the Pollock trawl fishery in the Sea of Okhotsk during 2014-2015 fishing season. Kamchatka Branch of the Pacific Geography Institute, Petropavlovsk-Kamchatsky. 79 pp.
- Dulepova, E. P. 2014. Northwestern Pacific subarctic marine ecosystems structure and possible trends of it changing in nearest future. TINRO, Vladivostok. Abstract and Powerpoint presentation.
- Kulik, V. 2015. A study of Pollock trawling fishery impact on the ecosystem of the Sea of Okhotsk. TINRO, Vladivostok. 126 pp.
- Smirnov, A. V. 2015. A study of by-catch of non-target aquatic species, preparation and analysis of data on basic by-catch species in the Pollock mid water trawl fishery in the Sea of Okhotsk. TINRO, Vladivostok. 54 pp.
- TINRO 2015. Catch calculation of aquatic biological catch in the Russian Federation. TINRO, Vladivostok. 4 pp.
- TINRO, KamchatNIRO and Pollock Catchers Association 2014. Pollock stock and fishery monitoring in the Sea of Okhotsk in 2013. PCA, Vladivostok. 40 pp.
- Varkentin and Ilyin 2015. Analysis of efficiency of the pollock fishery strategy in the north Sea of Okhotsk, and uncertainty considerations for pollock stock assessment and TAC planning in north Sea of Okhotsk. Research Report Kamchatka Research Institute of Fisheries and Oceanography. KamchatNIRO, Petropavlovsk. 92 pp.