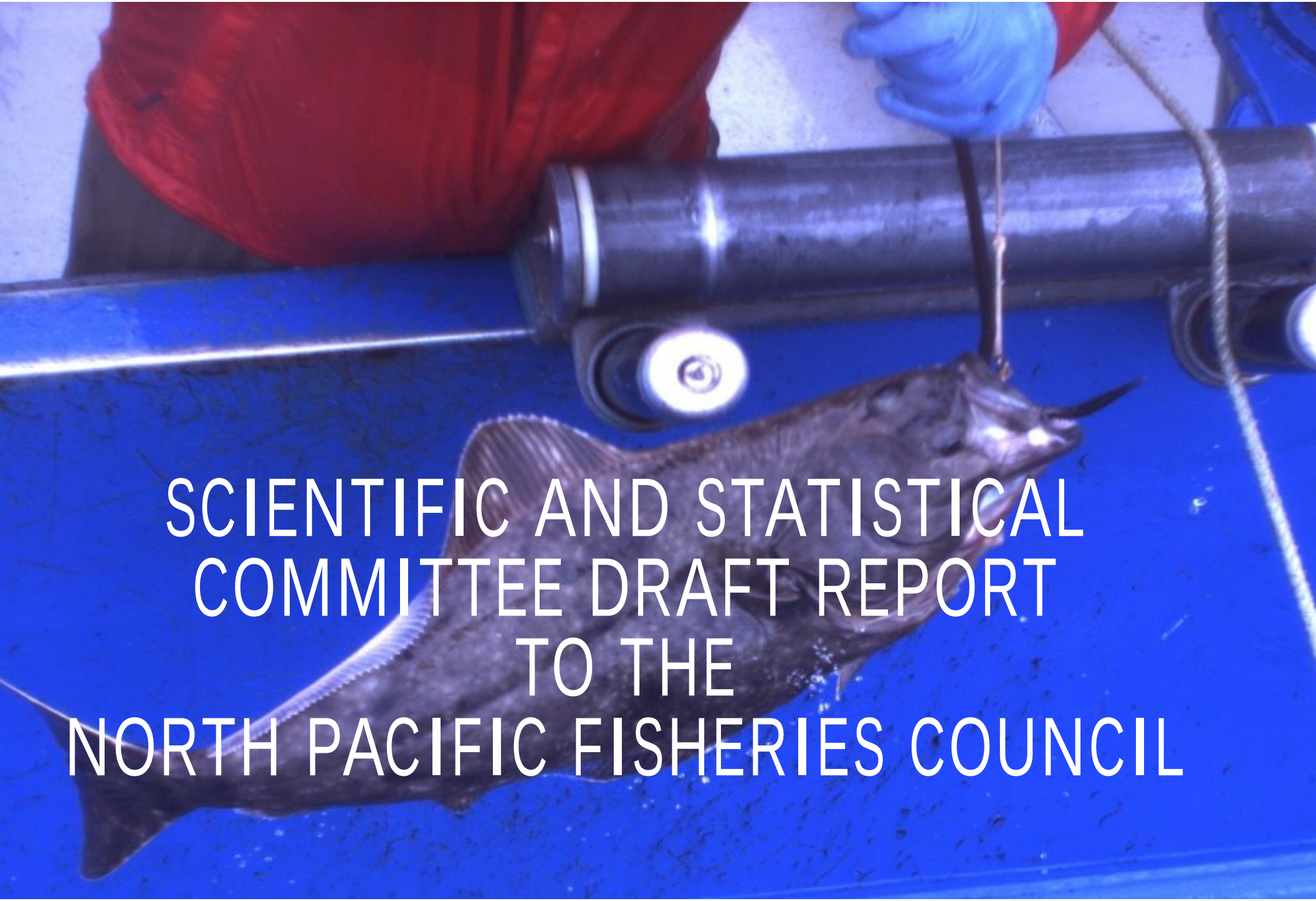

SCIENTIFIC AND STATISTICAL COMMITTEE DRAFT REPORT TO THE NORTH PACIFIC FISHERIES COUNCIL

C-1 OBSERVER ANNUAL REPORT

The North Pacific Fisheries Observer program is not only the larges observer program of any Country in the world it is also the best documented and vetted program, which includes elaborate in-seas QA/QC and annual in-depth analytical review.

The developing EM program is a first in establishing a data collect program that uses video to collect data for catch estimation compared to other compliance-based logbook programs that only provides catch for a focused set of species, which does not support ecosystem based assessment and/or management.

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A comprehensive suite of performance metrics was used to evaluate deployment rates, representativeness of the samples, and adequacy of the samples from 2016 fishery.

The SSC focused primarily on the review of performance of the partially observed coverage category.

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The observing program in 2016 can be deemed successful based on efficient use of fees collected as well as effective deployment and performance based on the reported metrics.

Changes made between 2015 and 2016 deployments were effective at reducing bias and increasing efficiency of obtaining an unbiased sample of observed trips.

Stratification by gear for the partially observed trip selection strata appears straightforward to interpret and is more effective at obtaining representative trips in these strata than stratification schemes used in past deployments (except when tenders are involved).

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The ODDS system largely works as intended for trip planning and logging of trips, although plans to link ODDS with eLandings are progressing very slowly.

The EM selection pool continues to evolve and expand numbers as intended in the pre-implementation phase.

The analysts were very responsive to past SSC comments and recommendations on the program, with a separate section of the report dedicated to details of their responses.

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There remain indications that the program is not fully achieving an unbiased sample of trips from the partially observed category.

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There are differences in the characteristics between observed and unobserved trips. Many of the differences were detected in the hook-and-line and trawl gear strata. There also continues to be problems with sampling of tendered trips, with vessels sometimes making several delivers as part of a single, multi-leg, unobserved trip.

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There are also indications that funds to adequately observe trips in these same strata are decreasing and this situation will likely continue to decrease the rate of sampling. A 15% minimum sampling rate is recommended as necessary for adequate spatial coverage of observed trips among the gear strata.

The SSC supports the minimum sampling rate of 15% across strata and encourages sampling rates higher than the minimum.

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Moreover, the SSC foresees that funds to keep sampling at this minimum level of coverage may not be available in the near future. This is further complicated as the contract for observing services is renegotiated for 2019.

Adequate funding of this program is critical to the success of the in-season management, stock assessment, and specifications setting processes that depend on these data.

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The SSC agrees in large part with the recommendations made by the OSC and NMFS for the 2018 deployment year. Given the current challenges of the program, the SSC has the following recommendations relative to the partially observed category.

C-1 OBSERVER ANNUAL REPORT

The SSC agrees with the NMFS longer-term recommendation to explore plant monitoring of offloads, including tender offloads, combined with EM for compliance monitoring to address the issue of PSC estimation and tissue sampling.

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There is strong evidence of bias in unobserved trips relative to observed trips, and some vessels conducting an entire fishing season without carrying an observer.

The NMFS recommendation for 100% coverage of trawl vessels delivering to tenders may be impractical, fiscally infeasible, and may not be necessary.

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While the SSC greatly appreciates that the development of variances for use in planning of deployments and stock assessment is ongoing, we strongly urge the analysts to initiate a comparison of the likely magnitude of bias that has been detected between observed and unobserved trips with the overall magnitude and precision of discard or PSC that is being monitored for compliance by management.

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SSC recommends that other optimization approach(s) should be brought forward and compared with the currently recommended equal effort approach to allocating observed trips, making it possible to fully understand the magnitude and consequence of these potential tradeoffs.

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- Given the current and impending funding constraints, the SSC encourages the Council to review the current fee structure of the observer program relative to the recent decrease in funding available to deploy sufficient observer days.
- From our June 2010 report on this issue that the initial analysis of the revised observer program was based on the assumptions of a maximum 2% fee and a daily observer cost of $450. A 2-year delay so resolving this critical funding shortfall should be made without delay and would be more likely to support a program in line with Council objectives.

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- Without a clear evaluation of these trade-offs the SSC recommends that the current foot print of the EM voluntary fleet not be expanded as it is not known how this will impact catch estimation.
- The SSC does encourage EM expansion of the under 40' no coverage fleet for 2018 as this represents a large segment of the targeted halibut trips and in fact some vessels have significant landings. Deployment options should be brought forward for discussion during our ADP review in October.
- Another potential area for expanding testing of EM would be compliance monitoring for full retention of salmon in the pollock fleet.

C-1 OBSERVER ANNUAL REPORT

Compliance and enforcement issues remain a problem within the observer program that are contributing to bias and in fact seem to be getting worse.

The SSC encourages the Council to recommend training of crew fleetwide on the necessity of the observing program to proper fishery management and how crew can contribute to the success of the program by interacting appropriately with observers. It is critical that these issues be addressed immediately.