

The New Zealand port sampling programme revealed some important aspects of purse seine catch sampling in port. Overall we believe that this work allowed us to determine accurate estimates of species composition of the catch at the trip level but was not good at determining accurately the change of species composition with set type, and through space and time over the course of a trip. This is due to among other things well mixing and sorting by the vessel during the trip. So while port sampling may be a useful means to determine the catch proportions of various species and provide accurate estimates of overall catch of individual species. I suspect that it will provide limited data from a stock assessment point of view. In order to provide these data it seems that we will need to rely on observers to collect samples that are time, location and set type specific.

The following are some points that should be taken from the New Zealand experience.

- While attempting to implement the High Seas Alternative, New Zealand undertook detailed sampling of 100% of the trips (9) undertaken between January and July 2009 for all four New Zealand vessels fishing in the area 20°N-20°S. This sampling programme resulted in observers obtaining port samples from all 4 of our vessels (including one sample from a transhipped catch).
- As part of this programme the observers measured 22,353 fish measuring over 5 tons of fish per sample. In addition to this, New Zealand vessels hosted two observers trained in spill and grab sampling. These observers collected data that will

contribute to the analysis of sample effects on species composition and length frequency currently being undertaken by the SPC. Detailed summaries of these trips were sent to the WCPFC Secretariat within 30 days of the completion of each trip. When available the observer reports were sent directly to WCPFC as part of our reporting to the Commission.

- The results of this work highlighted a flaw in the WCPFC system where the catch records and the limits derived from those were based on catch estimates that we now understand to be significantly inaccurate. New initiatives should be progressed to address rectifying this and SPC's observers trials seem to be the most parsimonious way of addressing this matter.
- To investigate fully the impacts sampling has on species composition, set-specific data are required that sample one set using all three methods. For a number of trips within the 2009 fishing year, observers on New Zealand flagged vessels were required to sample using both spill and grab samples from the same set whenever possible. The wells into which these sets are stored were noted and the port sampling programme sampled these wells in accordance with the agreed port sampling protocols. These data can now be compared and can be compared to the cannery records which have been submitted to SPC to aid the ongoing analysis.

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