

3.0 Executive summary

Stephen Keith and Jamie Goen

Fishery-independent surveys produce important, high-quality abundance and trend information for assessment and management of the Pacific halibut stock. The International Pacific Halibut Commission (IPHC or Commission) has conducted fishery-independent setline surveys in selected areas during most years since 1963, and has carried out a coast-wide survey with a consistent sampling design since 1998. The IPHC has also taken part in the National Marine Fisheries Service (NMFS) Bering Sea groundfish trawl survey since 1998 and the NMFS Aleutian Islands trawl survey since 2012. These two NMFS surveys contribute Pacific halibut data from areas either poorly covered or not covered by the Commission's own fishery-independent survey. In this chapter, we report on the results of the IPHC and the NMFS surveys, as well as analysis of data derived from them.

In the first two articles we document the IPHC fishery-independent setline survey for 2016, including a synopsis of the additional special research projects conducted during the survey (Henry et al. 2017), and the expansion of the IPHC survey in the Area 4D Edge (Webster and Soderlund 2017). This year's expansion was the third in a series of planned survey expansions that will eventually cover all regulatory areas. The two NMFS trawl surveys are described in Sadorus et al. 2017a and Sadorus et al. 2017b.

The second series of articles present data and analysis derived from the fishery-independent surveys. A new space-time modeling approach for the analysis of survey data was introduced in 2016 (Webster 2017). This modeling approach is a clear improvement over the previous empirical method, as it makes greater use of the information within the data, and better accounts for uncertainty in the estimation. The age distribution of Pacific halibut from the IPHC survey is described in Forsberg 2017. Finally, Geernaert 2017 reports seabird observations from the Commission's fishery-independent setline survey. Because of its comprehensive scale, the IPHC survey is an important data source for many species in addition to Pacific halibut.

References

- Henry, E. Soderlund, E., Geernaert, T. O., Ranta, A. M., Kong, T. M., and Forsberg, J. 2017. 2016 IPHC fishery-independent setline survey. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 175-215.
- Webster, R. and Soderlund, E. 2017. Area 4CDE edge IPHC survey expansion. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 216-219.
- Sadorus, L., Lauth, R., and Ranta, A. 2017a. Results from the Bering Sea NMFS trawl survey in 2016. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 220-231.
- Sadorus, L., Palsson, W. A., and Ranta, A. 2017b. Results from the NMFS Aleutian Islands Biennial Bottom Trawl Survey in 2016. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 232-240

- Webster, R. 2017. Results of space-time modelling of IPHC fishery-independent setline survey WPUE and NPUE data. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 241-257.
- Forsberg, J. 2017. Age distribution of Pacific halibut in the 2016 IPHC fishery-independent setline survey. Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 258-266.
- Geernaert, T. 2017. Trends in seabird counts from the IPHC fishery-independent setline surveys (2002-2016). Int. Pac. Halibut Comm. Report of Assessment and Research Activities 2016. IPHC-2016-RARA-26-R: 267-276.