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## Preliminary IPHC Fishery-independent setline survey (FISS) results: 2017

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### PURPOSE

To outline the material on preliminary fishery-independent setline survey results that we expect to present at the September 2017 meeting of the SRB.

### INTRODUCTION

In 2017, the IPHC conducted its standard annual fishery-independent setline survey (FISS) in Regulatory Areas 2B, 2C, 3A, 3B, 4A and 4CDE. In addition to the annually fished stations, full FISS expansions were carried out in Regulatory Areas 4B and Area 2A. In Regulatory Area 4B, 118 new stations on an 18.5 km (10 nmi) grid were targeted for fishing within the 18-732 m (10-400 fm) depth range, more than doubling the size of the survey in that area (from 89 to 207 stations). In Regulatory Area 2A, the 2014 expansion grid was repeated with two important additions: the California grid was expanded south to 37.75°N (from 39°N in 2014), and station density was doubled off the north coast of Washington within depths of 37-503 m (20-275 fm). The California expansion was motivated by Pacific halibut captures south of 39°N on NMFS's West Coast trawl survey, and the data from this year's FISS expansion will replace the last remaining ad-hoc adjustment scalar accounting for those southern fish with model estimates in that region. The denser grid off Washington was requested from Commissioners and stakeholders due to concerns that localised patches of high density were not being detected by the standard grid design.

### SUMMARY OF PRELIMINARY RESULTS TO DATE

Initial FISS data entry is still in progress, but it is hoped that this will be complete in time for the September SRB meeting. Our intention is to present a detailed summary of weight-per-unit-effort (WPUE) data from the expansions in Regulatory Areas 4B and 2A, and a general overview of the results in other areas.

Indications from the FISS landings and data entered to date are that at least two regions of the FISS expansion in Regulatory Area 4B have mean WPUE that differs substantially from regions with annual coverage: Bowers Ridge was surveyed for the first time, and had low catch rates of Pacific halibut, while the eastern Andreanof Islands had high catch rates relative to elsewhere in Regulatory Area 4B. The latter result is consistent with the high WPUE found in adjacent waters of western Regulatory Area 4A in the 2014 FISS expansion.

In the California expansion in Regulatory Area 2A, only two Pacific halibut were captured south of 40°N, including one on a station just outside of San Francisco Bay (the southern limit of the 2017 FISS). Little data on the denser grid off Washington have been entered to date.

Overall, FISS landings and data entered to date indicate that raw WPUE is either steady or down from 2016 in most areas, with Regulatory Area 2C the only area likely to show a significant increase in WPUE from last year. These results are based on raw data, whereas the final results will be estimates from the space-time modelling, and will incorporate adjustments for bait competition and the timing of the FISS relative to the fishery. Thus, final results could differ considerably from those summarised here.