

PRIORITIZATION OF SPECIES AND NMFS FINAL RECOMMENDATIONS FOR
STOCK ASSESSMENTS IN 2019 AND 2021

Drawing upon the prioritization analysis provided in March and advisory body comments, the Council identified seven species as preliminary choices for full assessments, including cabezon for which Oregon and California models were expected to occupy an entire STAR Panel. The only major change to the spreadsheet from March are recommended times, locations, and species for the 2019 STAR Panels. Data from the 2017 bottom trawl survey were not yet available by the briefing book deadline, but it is hoped that they will be prior to the start of the Council meeting. No further exploration of potential changes to improve the ranking of stocks in out-years was conducted.

Based on our review of workload and data availability (and, in particular our capacity to develop new age data), we recommend benchmark (full) assessments in 2019 for cabezon (OR+CA), cowcod, the gopher/black-and-yellow rockfish complex, longnose and big skates, sablefish, and either Pacific cod or the southern yellowtail stock. We are recommending no more than one updated assessment, for either petrale sole or widow rockfish.

Recommendations for 2021 are necessarily more tentative, as they are subject to new information and the decisions made for 2019. The strongest recommendations would be for benchmarks of a vermilion/sunset rockfish complex, copper rockfish, black rockfish, bank rockfish, Dover sole, lingcod, and quillback rockfish. Although lingcod was assessed in 2017, the entire history of fishery age data were removed from the north and south models on technical grounds that could be easily addressed in 2021. If a petrale sole update is not conducted in 2019, a benchmark should definitely be conducted in 2021, although it may be a top candidate, regardless, as new research shows promise for better explaining recruitment variability. If Pacific cod is not assessed in 2019, it would also be a strong candidate in 2021, based on its lack of an assessment-based OFL.

The major workload elements that affect the prospects for successful assessments are resources required to develop age data and the resources needed to conduct each assessment and provide reliable responses to STAR Panel requests during the intensive review process. Age reading has already begun at the NWFSC/PSMFC ageing lab on sablefish and big skate. The former is likely to involve 7,000-10,000 ages, while the latter requires additional time to prepare vertebrae for examination. Longnose skate samples will be read at the AFSC, as part of a cross-regional study. Review of the work that would be required to also bring Dover sole up to date indicates that it is not realistic to attempt an assessment of that species in 2019. Nearly 30,000 Dover otoliths have been collected since the last assessment in 2011, of which only 2,000 have been aged. Even with extensive sub-sampling of the fishery structures, a total of 11,000-16,000 age reads would be desirable, with 9,500-13,000 of those needing to be aged in the NWFSC lab. The 1-1.5 age-reader years that number would require is unrealistic, given other priorities. Factors adding to current age-reading uncertainties include the recent injury of one age-reader, the potential departure of another in June, and another in January, pending election results.

Other possible species to include in a panel with sablefish would include Pacific cod and southern yellowtail rockfish. A joint effort by WDFW and NWFSC may be able to age most of the 7,000 unaged otoliths available, and those discussions are ongoing. As recognized recently,

the OFL for Pacific cod is still being set at the maximum landings level of 3,200 mt from some pre-2000 set of years. Consequently, an assessment of some form is called for. A benchmark assessment was attempted for southern yellowtail rockfish in 2017, but was determined to be insufficiently complete to be reviewed along with the northern model. This stock would require very little additional age reading, but also has limited amounts of other data types available.

The Council tentatively adopted two species for update assessments in 2019: petrale sole and widow rockfish. If the 2017 survey biomass estimate is lower than 2016 (or unknown at the time of the final decision), a petrale update would be advised. However, there is likely to be new research available by 2021 that would allow ecosystem drivers of petrale recruitments to be included in a new benchmark, at that time. If the survey biomass trend is non-decreasing from 2016 to 2017, the Council should consider postponing consideration of petrale until a benchmark assessment until 2021. Roughly 4,500 ages would need to be read for a 2019 petrale update, while widow rockfish would require roughly 6,200 age reads. One of these two could likely be accommodated without lowering targets for other species, but attempting both of them would require compromises in achieving current age determination targets for several species.

It is anticipated that the SWFSC would lead assessments for cowcod and gopher/black-&-yellow rockfishes. All other benchmarks and updates would be conducted by the NWFSC. With 5 benchmark species, including one that will require 2 state-specific models, and one update, the NWFSC will need to add a combination of 2-3 current graduate students, post-docs, or a potential new hire to the mix to balance the workload across species. Recent polling of students provides a great deal of confidence that the additional help will be available.

Review of the potential dates for assessment reviews, data availability, and assessment complexity has led to the following recommendations for scheduling 2019 STAR Panels:

Recommended

Dates	Species	Location
5/6-5/10	Cabezon (OR/CA)	Seattle, WA or Newport, OR
6/3 -6/7	Longnose skate & Big Skate	Seattle, WA or Newport, OR
7/8-7/12	Gopher rf/black-and-yellow rf & Cowcod	Santa Cruz, CA
7/22 - 7/26	Sablefish (and P Cod or S. Yellowtail)	Seattle, WA

June Council Meeting

6/18- 6/25	Petrale sole or widow Rf Update	San Diego, CA
9/30-10/4	Mop-up (if needed)	

May						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Council Meetings Holidays Prospective Briefing Book Deadlines

Possible STAR Panel weeks, for review in June Recommended
 Possible STAR Panel weeks, for review in Sept. Recommended

Additional review week, if needed