

NATIONAL MARINE FISHERIES SERVICE -
NORTHWEST FISHERIES SCIENCE CENTER REPORT

Groundfish Stock Assessment Prioritization For 2015

In preparation for this year's Council discussion and determination of groundfish assessments to be conducted in 2015, the NWFSC (in consultation with the SWFSC) has prepared a table (attached) which summarizes information that may be useful in evaluating priorities for 2015. Many types of factors have influenced Council decision-making on scheduling assessments over the past decade, but typically very little in the way of comprehensive supporting material has been available in a convenient format at the outset of each cycle's discussions. This table represents our first effort to assemble, in one place, information relating to many of the factors that have influenced prior assessment scheduling decisions. Color-coding in the table is intended to draw attention to factors that support consideration of a species for assessment in 2015, with green representing the upper tier, and yellow the intermediate tier, *for that factor*. There has been no attempt to derive a systematic overall priority rating for all species.

The first page of the table focuses on species which we believe are reasonable candidates for some level of assessment (or data report). The first columns indicate what level/type of assessment we think would be appropriate. Our highest priorities are marked with capital 'X's and highlighted in green (e.g. black rockfish), with less compelling choices designated by lower-case 'x's, in yellow. For several species, an assessment could be conducted as one of two or three different types, and the selection of a particular type (if any) will depend on workload considerations, species' priority, and other factors. The next set of columns summarizes information from the most recent assessment (excluding data-poor), if one exists. The column showing the year of the most recent assessment is colored green for stocks that are unassessed or were last assessed before 2009. Stocks assessed in 2009 or 2011 are colored yellow. This section includes the current Tier in which each species is managed, the last estimated depletion level, and an indicator for rebuilding stocks.

The next column shows each species' the PSA (vulnerability) score. Frequently, the highest PSA values are coded red, to indicate the stocks' higher vulnerability. However, since greater vulnerability elevates the importance for assessing a stock, those values are colored green in this table. Next is a block of 5 columns containing information regarding the importance of each stock to commercial and recreational fisheries. The commercial columns show the ranking of each species, on the basis of shoreside, ex-vessel revenue (2008-2012), for all gears and for hook-and-line gears. The recreational columns rank species on the basis of landed catch amounts for the entire coast, for California, and for Oregon and Washington, combined. In addition to the green and yellow coloring, situations where rebuilding species ranked outside the top-30 but are constraining for a fleet were highlighted in blue. The next two columns report the estimated fishing mortality in 2012, for each species as a percentage of its ABC and OFL (or the species' contributions to assemblage ABCs and OFLs). Where necessary, catch and specifications were combined across multiple areas, for purposes of this table. The final column provides a qualitative indication of the suitability of the NWFSC's bottom-trawl survey to

provide index and biological information to support an assessment. Species cells for which the survey is most informative are colored green.

The list of species on page 1 is a larger list than could likely be completed in 2015, even if the least time-consuming option were selected for each species. Given issues that arose in the 2013 data-moderate assessment and review process, it is probably desirable to limit the number of species assessed in that manner to 4 or 5, so that assessments using both modeling platforms can be completed and reviewed for each species. In most cases, models must be developed for multiple areas, which increases the development and review burden. The issue of single species requiring multiple assessment models is also a concern in the STAR process. Often multiple modeling areas are dictated by differences in the available data, as with black rockfish. In determining how many species can be assigned to a particular STAR panel, attention should be paid to how many separate models the panel will be asked to review.

The second page of the table shows information for all remaining previously-assessed (above data-poor) species in the upper section, and a selection of the remaining species that have some high-priority aspects, in terms of PSA score, fleet importance, or ABC attainment. The last page of the table includes all of the remaining species for which have only data-poor assessments have been conducted.

Although the Council is not scheduled to take final action on the 2015 assessment schedule until September, it would be very useful to have as clear a statement of Council priorities as is possible during the June discussion of this topic. Many of the species under consideration for full or update assessments have not been assessed for 5 or more years. In many such cases, there may be a substantial inventory of unaged otoliths, and the additional 3 months of ageing time may be quite important.

Background Information Pertaining to Selection of Groundfish Stocks for Assessment in 2015.

Species	Suggestions for 2015 Assessments				Most Recent Assessment and Current Status						PSA	Fleet rank, based on 2008-2012:					2012 catch as a % of		Survey Trend NWFS Shelf/ Slope
	Full	Up-date	D-M	Data Report	Current Assess. Tier	Year of last assmnt.	Type	Platform	Last Est. Status	Rebuilding?		Comm. \$		Rec. mt			ABC *	OFL *	
												All gear	Hook & Line	All	CA	OR-WA			
arrowtooth flounder			x		2	2007	Full	SS v2	79%		1.21	8	48	52		26	21%	17%	
bank rf			x		2	2000	"Full"	SS v1			2.02	30	42	47	44		4%	3%	
black rf	X				1	2007	Full	SS v2	65%		1.94	6	3	1	1	1	53%	51%	
blue rf			x		2	2007	Full	SS v2	30%		2.01	33	17	4	9	5	33%	29%	
bocaccio	x	x		x	1	2013	Update	SS v 3	31%	Y	1.93	42	26	7	5	13	20%	19%	
CA scorpionfish			x		1	2005	Full	SS v2	80%		1.41	36	20	5	4		65%	62%	
canary rf	X				1	2011	Update	SS v 3	23%	Y	2.01	46	67	17	19	12	8%	7%	
chilipepper	x	x			1	2007	Full	SS v2	71%		1.35	14	27	30	29	39	17%	16%	
cowcod	x			x	2	2013	Full	xDB-SRA	34%	Y	2.13	73	56	45	42		11%	9%	
darkblotched rf				x	1	2013	Full	SS v3	36%	Y	1.92	22	24				22%	21%	
gopher rf			x		1	2005	Full	SS v2	97%		1.76	12	7	10	7		42%	39%	
kelp greenling	x		x		1	2005	Full	SS v2	49%		1.56	18	10	15	17	6	79%	59%	
longnose skate	x				1	2007	Full	SS v2	66%		1.68	9	25	61		32	34%	33%	
olive rf			x		3						1.87	47	31	13	13	31	21%	17%	
Pacific grenadier			x		3						1.82	51	79				7%	6%	
Pacific ocean perch	x	x		x	1	2011	Update	SS v3	19%	Y	1.69	31	43				6%	6%	
petrale sole	X	X			1	2013	Full	SS v3	22%	Y	1.94	3	44	40	40	19	91%	87%	
sablefish	X	X			1	2011	Full	SS v3	33%		1.64	1	1	42	48	15	66%	63%	
widow rf	X				1	2011	Full	SS v3	51%		2.05	28	41	33	32	17	6%	6%	
yelloweye rf	x			X	2	2011	Full	SS v3	21%	Y	2.00	61	45	27	33	11	25%	24%	

Key	
	Higer Priority
	Lower Priority
	Constraining
X	Recommended
x	Potential

* In cases where individual ABCs and OFLs were not published for a species, its ABC- and OFL-contributions were used

Background Information Pertaining to Selection of Groundfish Stocks for Assessment in 2015. (cont.)

Species	Suggestions for 2015 Assessments				Most Recent Assessment and Current Status						PSA	Fleet rank, based on 2008-2012:					2012 catch as a % of		Survey Trend NWFS Shelf/ Slope
	Full	Up-date	D-M	Data Report	Current Assess. Tier	Year of last assmnt.	Type	Platform	Last Est. Status	Rebuilding?		Comm. \$		Rec. mt			ABC *	OFL *	
												All gear	Hook & Line	All	CA	OR-WA			
starry flounder					2	2005	Full	SS v2	50%		1.02	41	49	41	39	24	1%	1%	
cabezon					1	2009	Full	SS v3	49%		1.48	10	4	11	12	4			
greenstriped rf					2	2009	Full	SS v3	81%		1.88	45	60	38	36	26	3%	2%	
lingcod					1	2009	Full	SS v3	67%		1.55	7	5	2	2	2	28%	26%	
splitnose rf					1	2009	Full	SS v3	66%		1.82	34	46				6%	6%	
blackgill rf					1	2011	Full	SS v3	30%		2.08	15	9				77%	73%	
Dover sole					1	2011	Full	SS v3	84%		1.54	2	33	57	53	37	17%	16%	
greenspotted rf					2	2011	Full	SS v3	35%		1.98	53	34	18	16	32	11%	9%	
spiny dogfish					1	2011	Full	SS v3	63%		2.13	29	23	31	30	23	41%	38%	
aurora rf					1	2013	Full	SS v 3	64%		2.10	38	30				116%	97%	
brown rf					2	2013	D-M	xDB-SRA	40%		1.99	13	6	9	6	20	57%	48%	
China rf					2	2013	D-M	xDB-SRA	55%		2.23	25	12	16	15	10	124%	104%	
copper rf					2	2013	D-M	xDB-SRA	59%		2.27	32	16	8	8	9	65%	54%	
English sole					2	2013	D-M	exSSS	89%		1.19	24	63	58	55	39	2%	2%	
longspine thd					2	2013	Full	SS v3	75%		1.53	5	14				32%	27%	
Pacific sanddab					3	2013	Full	SS v3	96%		1.25	20	22	12	10	21	9%	6%	
rex sole					2	2013	D-M	exSSS	79%		1.28	16	64				15%	10%	
rougheye/blksp. rf					2	2013	Full	SS v3	47%		2.27	23	15	28	26	37	375%	313%	
sharpchin rf					2	2013	D-M	exSSS	89%		2.05	55	72				7%	6%	
shortspine thd					1	2013	Full	SS v3	74%		1.80	4	2				41%	39%	
stripetail rf					3	2013	D-M	exSSS	78%		1.80	75	75	51	47		35%	29%	
yellowtail rf					1	2013	D-M	exSSS	69%		1.88	11	29	6	11	3	36%	34%	
black and yellow rf					3						1.70	21	11	21	20	34	76%	63%	
calico rf					3						1.57	82	77	34	34		95%	91%	
flag rf					3						1.97	57	40	25	24	39	65%	55%	
grass rf					3						1.89	17	8	23	22	25	72%	60%	
honeycomb rf					3						1.97	78	69	29	27		96%	80%	
kelp rf					3						1.59	43	28	22	21		91%	76%	
quillback rf					3						2.22	35	18	20	28	7	169%	141%	
redbanded rf					3						2.02	37	21	52	52	34	71%	59%	
shortraker rf					3						2.25	40	35				365%	304%	
squarespot rf					3						1.86	66	58	32	31		95%	79%	
starry rf					3						2.09	50	32	14	14		41%	34%	
tiger rf					3						2.06	54	36	36	45	14	274%	229%	
tree rf					3						1.73	39	19	24	23		117%	98%	
vermilion/sunset rf					3						2.05	27	13	3	3	8	94%	79%	

Key	
	Higher Priority
	Lower Priority

* In cases where individual ABCs and OFLs were not published for a species, its ABC- and OFL-contributions were used

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												All gear	Hook & Line	All	CA	OR-WA			
redstripe rf					3						2.16	70	70	62	59	39	5%	4%	
bronzespotted rf					3						2.12	74	65						
California skate					3						2.12	69	73	55	50		5%	3%	
greenblotched rf					3						2.12	64	54	43	41		5%	4%	
speckled rf					3						2.10	63	51	26	25		27%	23%	
rosethorn rf					3						2.09	60	52				35%	29%	
chameleon rf					3						2.03	65	55						
pink rf					3						2.02	79	79				34%	28%	
silvergray rf					3						2.02	62	59	49		22	2%	2%	
soupin shark					3						2.02	44	50	46	43	39	6%	4%	
leopard shark					3						2.00	49	38	19	18		33%	23%	
big skate					3						1.99	58	71	48	46	28	24%	17%	
yellowmouth rf					3						1.96	52	47				6%	5%	
southern rock sole					3						1.95	48	61	39	38	34	32%	22%	
harlequin rf					3						1.94								
Swordspine rf					3						1.94	81	76	62	58		1%	0%	
rosy rf					3						1.89	56	39	50	50	29	20%	17%	
pinkrose rf					3						1.82	80	74	60	55				
Mexican rf					3						1.80	67	57	59	53		2%	1%	
spotted ratfish					3						1.72	71	66	54	48		9%	6%	
freckled rf					3						1.55	77	68						
pygmy rf					3						1.55	83	79						
halfbanded rf					3						1.38			35	35				
Pacific cod					3						1.34	19	37	44		16	29%	20%	
curlfin sole					3						1.23	68	62				30%	21%	
sand sole					3						1.23	26	53	37	37	18	16%	11%	
butter sole					3						1.18	72	79	55	57	30	72%	50%	
shortbelly rf					2				73%		1.13	76	78				0%	0%	
flathead sole					3						1.03	59	79				39%	27%	

Key	
	Higer Priority
	Lower Priority

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