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Canary Rockfish Project – Status Report

Since filing our preliminary report with the PGCT in early June we have taken several more field trips and collected additional samples of canary rockfish. This brief status report summarizes our findings to date. Although our results are geographically limited and thus cannot be extrapolated to provide a reliable estimate of the overall numbers of female canary rockfish, our preliminary finding that the overall proportion of females is 59%, indicating that there may be a much higher female-to-male sex ratio than predicted by the most recent stock assessment. Our data support the hypothesis that older female canary rockfish live in high-relief areas and may not be adequately sampled by trawl gear, as opposed to being subject to elevated rates of natural mortality, as assumed by the most recent stock assessment.

As of July 28th we had made six hook-and-line sampling trips of canary rockfish aboard chartered fishing boats from Westport, WA (F/V *The Slammer*, one trip; F/V *Tequila Too*, one trip), Neah Bay, WA (F/V *Discovery*, one trip), Depoe Bay, OR (F/V *The Tackle Buster*, one trip), Bandon, OR (F/V *Mis-Chief*, one trip), and Newport, OR (F/V *Delma Ann*, one trip). These six sampling trips produced a total of 194 canary rockfish, of which 112 were female, 78 male, and 4 immature (Table 1). The vast majority of the fish were caught by rod and reel using baited flies in deep water (50-70 fathoms) over very rough bottom. Three of the fish were caught using vertical long-line gear baited with squid during the trip out of Newport.

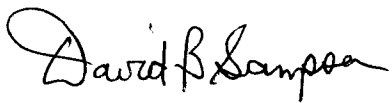
The female canary rockfish from these six trips had an average length of 52.4 cm and an average weight of 2.18 kg; (Table 2); the male fish had an average length of 50.2 cm and an average weight of 1.85 kg. The females had a much wider distribution of lengths than the males and were more skewed (Figure 1).

On July 29th we made an additional sampling trip from Westport and caught 14 canary rockfish from the "S. Gray's Canyon" site (9 females) and 18 fish from "The Barge" (10 females), but these additional fish are not included in the numbers depicted in the tables or figures. Including the fish from this most recent sampling trip the project has caught a total of 226 canary rockfish, of which 131 were female, 91 male, and 4 immature.

We took otoliths from all the canary rockfish that we caught and John Seigle, the project research assistant, made preliminary age readings for 57 of the otoliths using the break-and-burn method. For the selected fish the preliminary age-readings ranged from 7 to 16 years for the females (mean = 10.1 yr) and from 6 to 13 years for the males (mean = 9.7 yr). However, a comparison of the length-at-age data with the growth curve from the last assessment (Figure 2) indicates that John almost certainly under-aged the otoliths. Betty Kamikawa, the canary rockfish age-reading expert from the Newport age-reading laboratory, is doing an independent reading of some of the otoliths and will meet with John so that he can learn the standard protocols for age-reading canary rockfish otoliths.

We have one additional sampling trips planned (from Neah Bay, Washington) and by mid-August we should have sex and length data from 40 to 50 more canary rockfish. We are also hoping to make additional sampling trips during the summer from Bandon, Newport, and Garibaldi, Oregon and to expand our sampling into northern California during the autumn.

Sincerely



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Table 1. Summary of canary rockfish catch by fishing location (excluding 32 fish caught on July 29th during a trip from Westport).

Port	Site	Approx. location		No. fish		
		Lat.	Long.	female	male	unknown
Neah Bay, WA	North Blue Dot	48° 20'	125° 20'	19	19	0
Westport, WA	The Barge	47° 00'	124° 45'	18	10	0
	S. Gray's Canyon Outside	46° 50'	124° 50'	17	12	0
	The Tooth - drift 1	46° 35'	124° 35'	19	7	0
	The Tooth - drift 2	46° 35'	124° 35'	15	6	0
Depoe Bay, OR	Off Siletz Bay			1	0	1
Newport, OR	North of Hecate Bank			7	6	0
Bandon, OR	Off Coos Bay	43° 15'	124° 30'	16	18	3

Port	Site	Av. Length (cm)		Max. Length (cm)			
		female	male	unknown	female	male	unknown
Neah Bay, WA	North Blue Dot	55.8	52.4		62.0	56.5	
Westport, WA	The Barge	53.8	48.8		60.5	51.0	
	S. Gray's Canyon Outside	52.9	48.4		61.0	52.5	
	The Tooth - drift 1	52.8	49.4		58.0	52.0	
	The Tooth - drift 2	52.0	51.9		56.5	53.5	
Depoe Bay, OR	Off Siletz Bay	40.0		33.0	40.0		33.0
Newport, OR	North of Hecate Bank	56.8	50.9		62.9	52.8	
Bandon, OR	Off Coos Bay	45.3	49.3	32.0	62.0	55.8	38.5

Table 2. Length frequency of the canary rockfish catch (excluding 32 fish caught on July 29th during a trip from Westport).

Length (cm) Lower bound	No. fish by sex		
	female	male	unknown
26	1		1
28			
30			1
32			1
34	1		
36	1		
38	1		1
40	3		
42	4	2	
44	3	3	
46	3	11	
48	11	15	
50	16	22	
52	15	19	
54	16	5	
56	18	1	
58	13		
60	3		
62	3		
Total	112	78	4

Av Length (cm) = 52.4 50.2 32.3
 Av Weight (kg) = 2.18 1.85 0.48

Figure 1. Length frequency of the canary rockfish catch (N = 194, excluding 32 fish caught on July 29th during a trip from Westport).

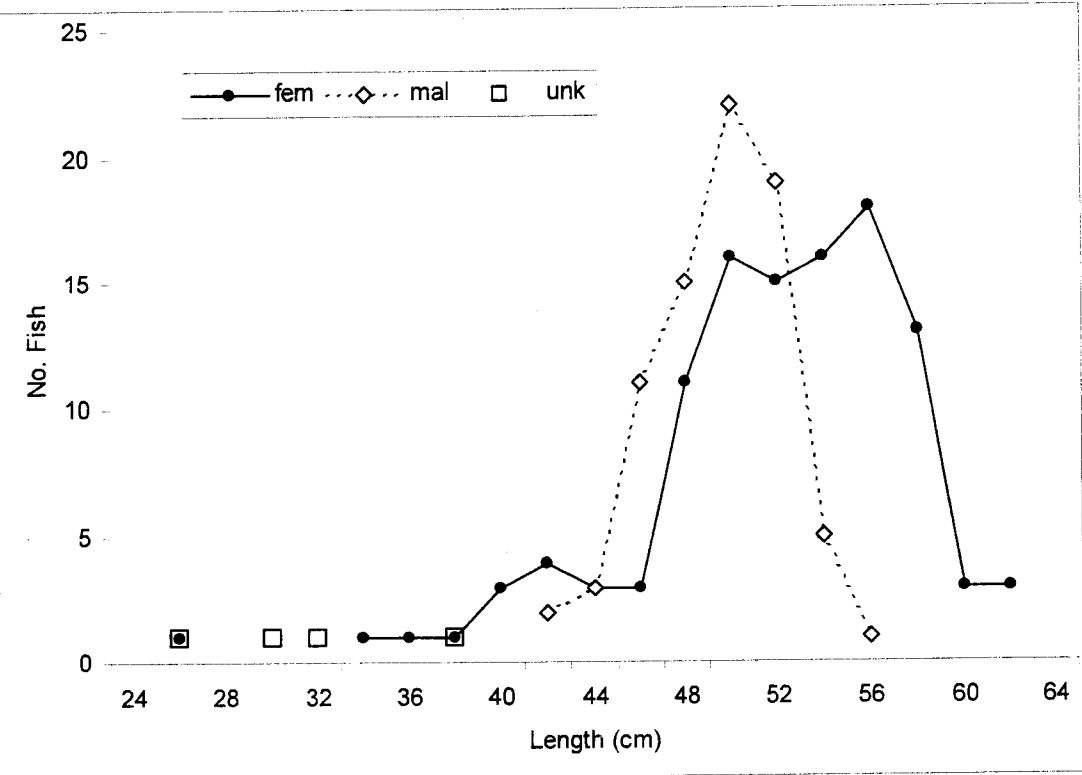


Figure 2. Length-at-age of part of the canary rockfish catch (N = 57). The lines are the predicted lengths-at-age based on the growth curves in the 2001 stock assessment. The data for one immature fish are not shown.

