Workshop Examples

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Contents

Change some of the YAML settings to see what happens.

Notice, the down arrow at line 22. If you click this, you can hide the R code chunk. This is helpful when working through a large document.

On the right side of the R code chunk are additional options, Settings, a down arrow (run previous R code chunks), and a green play button (runs the current chunk). It's handy to check R code chunks as you go and to debug. Within the Assessment template, this is also the only way to see variables in your Environment.

1 Emphasis (R markdown and LaTeX)

Sebastes melanops

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Headers

1.1 Subhead 2

Subhead 3

1.1.0.1 Subhead 4

2 Commenting

3 Links

[Github](#)

4 Lists

R Markdown are finicky with spacing. . . * Item 1 * Item 2 + Item 2a + Item 2b

- Item 1
- Item 2
- Item 2a
- Item 2b

47 Bulleted list

48   • Git
49   • R

50 Numbered list

51   1. Git
52   2. R

5   References and Citations

54 We can reference a document section, see Lists in Section 4.

55 Citations: (Love et al. 2002) Love (2002)

6   Figure from a file

57 You can use any file extension, including PDFs

Figure 1: Here's my caption 1| fig:fig_example1

Figure 2: Here's my caption 2| fig:fig_example2

58 Figures are referenced using LaTeX syntax 1.

59 Put a space between the] and (above. Knit the document.

60 Now try adding your own picture to the directory, adding it in here, and referencing it.

7 R code chunks

⁶² You can embed an R code chunk like this:

```
##      speed           dist
## Min.    : 4.0  Min.    :  2.00
## 1st Qu.:12.0  1st Qu.: 26.00
## Median :15.0  Median : 36.00
## Mean    :15.4  Mean    : 42.98
## 3rd Qu.:19.0  3rd Qu.: 56.00
## Max.    :25.0  Max.    :120.00
```

⁷⁰ Play witht the r code chunk options, echo=TRUE, include=FALSE, results='asis'

8 Figure from R code chunk

⁷² You can also embed plots, for example:

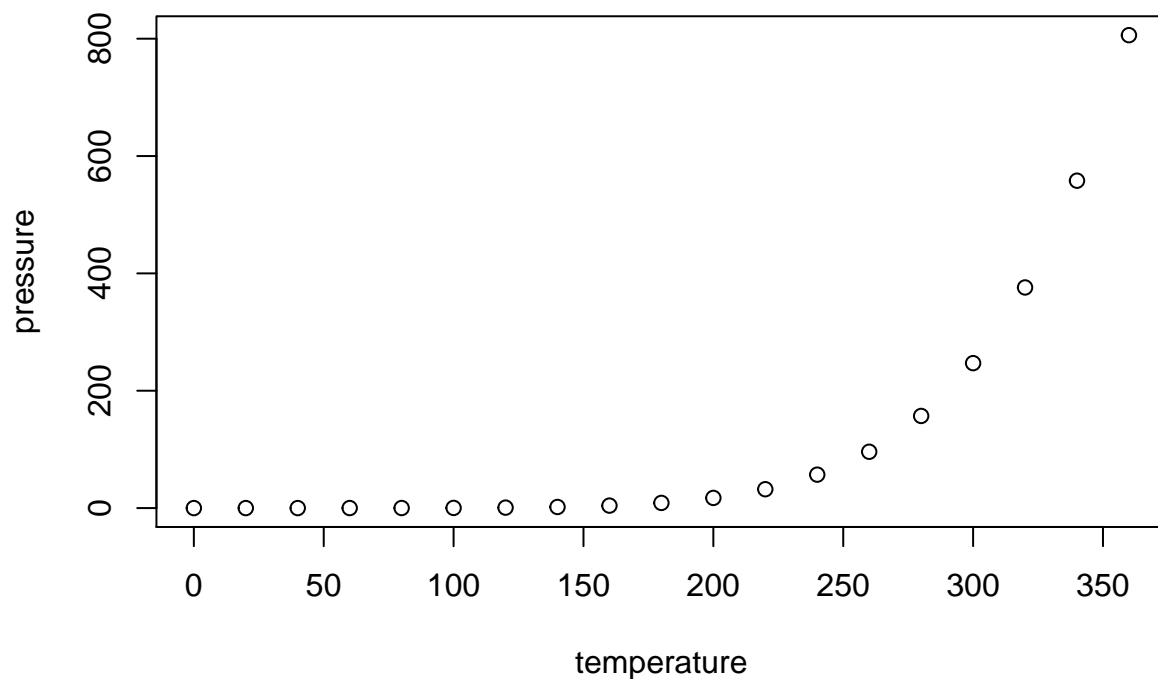Figure 3: Figure of something at 40°10′. fig:pressure

4

Note, you need extra \s when using LaTeX syntax within an R code chunk, or when inserting a backslash in R markdown. The same goes with percent signs and any other LaTeX reserved symbol.

This is the LaTex inline math version (only one \): $40°10'$

We can now reference Figure 3. Note where this text ends up.

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

9 Tables

tables

Table 1: This is where you write your caption

tab:Table_example

Sample	Test1	Test2	Test3	Test4	Test5	Test6	Test7	Test8	Test9	Test10
1	333000000000.00	97.00	45	7169	5656	2642	8534	9173.00	230	2733
3	345.00	976.00	6	105	6382	2277	5848	7339495403.00	8613	5025
5	34.00	3333333333.00	7	2395	5632	5542	1645	380.00	1263	6728
7	234.00	34.00	46	5619	6063	8973	9362	1870.00	7651	683
9	234.00	0.00	45	6531	6824	3609	7627	3363.00	1534	8333

Table 2: WA black rockfish sensitivity table

tab:Table_brfWA

X	X.1	X.2	X.3	X.4	X.5	X.6	X.7	X.8	X.9	X.10	X.11	X.12	X.13	X.14	X.15	X.16	X.17	X.18	X.19	X.20
	Sensitivity scenario																			
	Base case		Index removal					Length comp removal								Age Comp removal				
			1	2	3	4		5	6	7	8	9	20	11		12	13	14	15	16
Total Likelihood	1213		1214	1224	1208	1217		1071	1100	1180	1149	1176	1191	814		955	1090	993	865	298
Survey Likelihood Components																				
Onboard CPUE	-1.23		-0.22	-1.50	-2.01	-1.77		-0.68	-2.57	-1.31	0.50	-3.38	-1.00	-3.34		-1.25	-1.27	-0.92	-2.98	-0.97
Onboard CPUE II	-14.28		-14.30	-2.61	-13.84	49.95		-13.63	-14.34	-14.11	-17.54	-17.68	-14.69	-17.32		-14.35	-14.30	-15.22	-14.72	-10.99
Dockside	1.38		0.06	3.19	7.84	13.86		-3.94	1.24	2.57	-2.17	1.05	0.43	-8.84		0.96	1.45	0.39	10.02	-4.15
Length Likelihood Components																				
Trawl	121.25		121.54	121.66	118.82	118.50		348.68	119.55	121.38	114.58	120.54	120.84	1052.56		121.03	117.73	122.25	119.43	110.18
Non-trawl dead	104.24		103.66	103.58	104.31	103.15		111.66	398.19	103.91	100.45	102.75	104.27	673.91		97.83	105.41	104.46	106.17	97.44
Non-trawl live	30.50		30.70	30.34	30.56	30.48		30.77	29.75	417.64	31.83	31.49	30.32	361.16		30.30	30.69	30.16	30.74	30.09
Recreational	46.83		48.00	45.75	44.09	41.41		40.62	44.20	47.04	921.14	48.52	48.97	853.58		44.85	47.82	46.46	41.98	32.47
Onboard CPUE	28.92		28.76	28.57	29.36	29.30		27.65	27.52	28.85	33.27	213.61	29.22	129.44		29.06	28.96	28.70	29.01	27.87
Recreational research	21.31		21.59	21.45	20.16	19.81		21.02	21.34	20.76	26.24	20.53	24.30	32.50		20.76	21.34	21.34	20.68	19.19
Age Likelihood Components																				
Trawl	228.27		228.31	228.04	228.37	228.46		223.88	225.82	227.90	225.23	227.29	228.02	223.95		342.49	220.50	226.16	212.04	725.40
Non-trawl dead	118.52		118.49	118.55	118.61	118.49		116.75	119.54	118.70	120.62	118.33	118.47	116.30		102.42	129.04	117.55	125.23	98.74
Recreational	212.60		212.92	212.45	211.78	211.50		212.44	213.10	212.07	211.88	211.29	212.51	211.45		216.24	211.79	228.94	193.87	337.53
Recreational research	316.66		315.27	316.94	319.89	319.92		308.24	317.69	314.47	304.63	316.61	315.79	290.14		309.60	320.79	313.41	484.47	515.43
Parameters																				
NatM_p_1_Fem_GP_1	0.18		0.19	0.18	0.17	0.16		0.22	0.19	0.18	0.16	0.18	0.18	0.36		0.16	0.19	0.18	0.17	0.16
L_at_Amin_Fem_GP_1	23.39		23.42	23.44	23.35	23.44		23.23	23.36	23.35	23.49	23.29	23.37	23.29		24.08	23.36	24.22	19.50	28.87
L_at_Amax_Fem_GP_1	54.54		54.56	54.62	54.41	54.46		53.72	55.46	54.54	54.58	54.35	54.54	50.77		53.06	55.42	54.91	52.99	53.28
VonBert_K_Fem_GP_1	0.15		0.15	0.15	0.15	0.15		0.15	0.14	0.15	0.15	0.16	0.15	0.16		0.15	0.15	0.14	0.23	0.09
CV_young_Fem_GP_1	0.09		0.09	0.09	0.09	0.09		0.09	0.10	0.09	0.10	0.09	0.09	0.10		0.09	0.10	0.11	0.05	0.07
CV_old_Fem_GP_1	0.07		0.07	0.07	0.07	0.07		0.07	0.07	0.07	0.07	0.07	0.07	0.06		0.06	0.06	0.07	0.08	0.03
NatM_p_1_Mal_GP_1	0.13		0.13	0.13	0.12	0.11		0.14	0.14	0.13	0.11	0.13	0.13	0.16		0.12	0.14	0.13	0.13	0.13
L_at_Amin_Mal_GP_1	25.21		25.24	25.21	25.12	25.08		25.07	25.32	25.11	24.89	24.89	25.14	24.70		25.81	25.12	25.62	23.55	25.32
L_at_Amax_Mal_GP_1	46.00		45.96	46.01	46.02	46.06		45.44	46.24	46.04	46.10	45.86	45.98	43.62		45.88	46.43	45.43	46.87	47.30
VonBert_K_Mal_GP_1	0.21		0.21	0.21	0.22	0.22		0.21	0.20	0.22	0.23	0.22	0.22	0.25		0.19	0.21	0.21	0.24	0.13
CV_young_Mal_GP_1	0.09		0.09	0.09	0.10	0.09		0.10	0.09	0.10	0.10	0.10	0.10	0.11		0.09	0.10	0.10	0.05	0.06
CV_old_Mal_GP_1	0.07		0.07	0.07	0.07	0.07		0.07	0.07	0.07	0.07	0.07	0.07	0.04		0.06	0.07	0.08	0.07	0.04
SR_LN(R0)	7.61		7.66	7.52	7.46	7.23		7.88	7.71	7.58	7.36	7.60	7.64	8.22		7.54	7.64	7.63	7.56	7.70
SizeSel_1P_1_Trawl	49.34		49.34	49.31	49.47	49.48		39.01	48.84	49.38	49.82	49.48	49.38	17.02		49.80	49.36	49.23	49.03	49.66
SizeSel_1P_2_Trawl	0.32		0.32	0.33	0.29	0.27		2.41	0.10	0.31	0.06	0.31	0.30	-3.45		0.29	0.40	0.28	0.40	0.27
SizeSel_1P_3_Trawl	3.47		3.47	3.46	3.49	3.49		-0.62	3.41	3.48	3.57	3.49	3.48	-0.44		3.65	3.48	3.43	3.57	3.70
SizeSel_2P_1_nonTrawldead	41.72		41.68	41.75	41.83	41.87		42.97	25.01	41.72	41.00	41.26	41.57	36.38		41.90	41.53	42.07	41.56	42.83
SizeSel_2P_2_nonTrawldead	-1.82		-1.83	-1.83	-1.79	-1.82		-1.17	-0.63	-1.77	-5.82	-2.36	-1.86	-2.30		-2.20	-2.14	-1.80	-1.78	-5.83
SizeSel_2P_3_nonTrawldead	4.28		4.27	4.29	4.29	4.30		4.34	-0.72	4.28	4.31	4.28	4.27	-1.59		4.31	4.26	4.31	4.27	4.37
SizeSel_3P_1_nonTrawllive	34.58		34.54	34.57	34.68	34.69		34.86	34.83	35.00	34.21	34.46	34.53	34.63		34.78	34.60	34.74	34.49	35.95
SizeSel_3P_2_nonTrawllive	-0.98		-1.06	-1.10	-0.88	-1.29		-0.31	-0.90	-3.90	-8.12	-2.03	-1.16	-2.14		-0.43	-1.28	-0.50	-0.35	-0.39
SizeSel_3P_3_nonTrawllive	2.79		2.78	2.79	2.80	2.81		2.84	2.83	-0.90	2.72	2.74	2.78	-1.01		2.85	2.78	2.84	2.72	3.19
SizeSel_3P_4_nonTrawllive	4.15		4.30	4.34	4.01	4.60		2.46	3.84	-1.03	5.22	5.12	4.43	-1.01		2.39	4.48	2.87	2.20	1.81
SizeSel_3P_6_nonTrawllive	-3.17		-3.82	-3.99	-2.47	-3.63		-0.68	-3.06	-4.99	-4.73	-4.70	-4.16	-4.96		-0.79	-4.31	-1.47	-0.90	-0.12
SizeSel_4P_1_Rec	31.24		31.21	31.12	31.42	31.38		31.62	31.37	31.33	35.00	31.07	31.20	35.49		31.18	31.23	31.17	31.26	31.19
SizeSel_4P_2_Rec	-3.05		-3.03	-2.99	-3.26	-3.22		-3.92	-2.93	-3.07	2.73	-3.11	-2.99	-1.85		-2.94	-2.98	-3.17	-3.51	-3.52
SizeSel_4P_3_Rec	3.35		3.35	3.35	3.36	3.37		3.39	3.36	3.35	-0.60	3.35	3.35	-0.30		3.38	3.34	3.34	3.26	3.46
SizeSel_5P_1_OnboardCPUE	26.89		26.74	26.47	26.91	26.31		27.33	26.81	26.95	26.36	31.00	26.77	44.90		26.49	26.90	26.69	27.28	26.70
SizeSel_5P_2_OnboardCPUE	-2.12		-2.10	-2.11	-2.09	-2.03		-2.33	-2.07	-2.13	-2.05	-4.84	-2.11	-4.08		-2.03	-2.13	-2.12	-2.17	-2.19
SizeSel_5P_3_OnboardCPUE	2.28		2.22	2.20	2.28	2.15		2.41	2.21	2.32	2.07	-0.92	2.23	-3.99		2.11	2.27	2.12	2.44	2.29
SizeSel_7P_1_RecResearch	26.33		26.34	25.83	26.47	25.78		28.99	26.76	26.44	25.02	25.67	32.50	32.50		26.41	26.41	26.74	28.36	26.75
SizeSel_7P_2_RecResearch	-1.44		-1.44	-1.37	-1.46	-1.36		-2.06	-1.50	-1.45	-1.23	-1.34	0.00	0.00		-1.46	-1.45	-1.52	-1.84	-1.56
SizeSel_7P_3_RecResearch	2.89		2.89	2.73	2.93	2.73		3.66	2.99	2.92	2.44	2.66	4.00	4.00		2.96	2.92	3.05	3.47	3.35
Catchability (analytic solution)																				
Onboard CPUE	8.20E-05		7.63E-05	8.49E-05	9.67E-05	1.07E-04		6.84E-05	7.83E-05	8.58E-05	7.12E-05	1.10E-04	7.84E-05	1.30E-03		7.93E-05	8.23E-05	7.75E-05	1.27E-04	6.18E-05
Onboard CPUE II	9.39E-05		8.51E-05	1.19E-04	1.29E-04	2.54E-04		7.94E-05	8.49E-05	1.02E-04	8.57E-05	1.18E-04	8.85E-05	1.19E-03		9.09E-05	9.42E-05	8.86E-05	1.57E-04	6.81E-05
Dockside	4.87E-05		4.52E-05	5.12E-05	5.83E-05	6.72E-05		4.19E-05	4.47E-05	5.13E-05	4.37E-05	6.16E-05	4.64E-05	7.97E-04		4.77E-05	4.88E-05	4.60E-05	7.51E-05	3.76E-05
Derived quantities																				
SB0	1062		1045	1012	1070	1046		726	1104	1067	1222	1047	1055	105		1214	1037	1038	1164	1387
SB2015	353		392	249	229	55		287	398	320	469	410	378	49		353	357	363	222	406
SB2015/SB0	33%		38%	25%	21%	5%		40%	36%	30%	38%	39%	36%	46%		29%	34%	35%	19%	29%
Yield at SPR50%	319		325	299	300	265		336	326	314	321	319	324	373		320	318	318	335	319

5

81 Try changing the R chunk options above.

82 We can now reference Table 1.

83 Now, try putting the R code chunk within and HTML comment.

10   Create you own table

create-you-own-table

85 Either create a .csv file or copy one into the repo folder on your computer.

86 Now, create a table!

11   Math mode

math-mode

88 You can use LaTeX math mode both inline and for inserting equations. It's handy for using
89 inline math mode for management measure and lat/long.

90 Inline looks like this: $SPR_{40\%}$
91 Note the % sign has a when used in math mode, but not in R markdown text.

92 To get degrees and minutes type: $40°10'$

References

references

94 Love, M., Yoklavich, M., and Thorsteinson, L. 2002. The rockfishes of the northeast Pacific.
95 University of California Press, Berkeley, CA, USA.

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