Appendix F: Comparisons For All Scenarios

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169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190	GF.TrawlGear fishery.177Survey catchabilities for NMFS trawl survey.177NMFS trawl survey.1177Fishery catchabilities for GTF.177Fishery catchabilities for RKF.188Fishery catchabilities for SCF.188Fishery catchabilities for GT.F.188Fishery catchabilities for GF.FixedGear.188Fishery catchabilities for GF.TrawlGear.188Selectivity functions for GTF(1 of 6).188Selectivity functions for GTF(2 of 6).188Selectivity functions for GTF(4 of 6).188Selectivity functions for GTF(5 of 6).199Selectivity functions for RKF(1 of 6).199Selectivity functions for RKF(2 of 6).199Selectivity functions for RKF(3 of 6).199Selectivity functions for RKF(6 of 6).199Selectivity functions for SCF(1 of 6).199Selectivity functions for SCF(2 of 6).199Selectivity functions for SCF(2 of 6). <td>$\begin{array}{c} 6 \\ 7 \\ 8 \\ 9 \\ 0 \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 0 \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \end{array}$</td>	$\begin{array}{c} 6 \\ 7 \\ 8 \\ 9 \\ 0 \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 0 \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \end{array}$

191	Selectivity functions for SCF(3 of 6)
192	Selectivity functions for SCF(4 of 6)
193	Selectivity functions for SCF(5 of 6)
194	Selectivity functions for SCF(6 of 6)
195	Selectivity functions for $TCF(1 \text{ of } 4)$
196	Selectivity functions for TCF(2 of 4)
197	Selectivity functions for TCF(3 of 4)
198	Selectivity functions for TCF(4 of 4)
199	Selectivity functions for GF.FixedGear(1 of 5)
200	Selectivity functions for GF.FixedGear(2 of 5)
201	Selectivity functions for GF.FixedGear(3 of 5)
202	Selectivity functions for GF.FixedGear(4 of 5)
203	Selectivity functions for GF.FixedGear(5 of 5)
204	Selectivity functions for GF.TrawlGear(1 of 5)
205	Selectivity functions for GF.TrawlGear(2 of 5)
206	Selectivity functions for GF.TrawlGear(3 of 5)
207	Selectivity functions for GF.TrawlGear(4 of 5)
208	Selectivity functions for GF.TrawlGear(5 of 5)
209	Retention functions for TCF(1 of 4)
210	Retention functions for TCF(2 of 4)
211	Retention functions for TCF(3 of 4)
212	Retention functions for TCF(4 of 4)
213	Estimated annual recruitment
214	Estimated recent recruitment
215	Estimated annual recruitment, on ln-scale
216	Estimated recent recruitment, on ln-scale
217	Estimated annual mature biomass
218	Estimated recent mature biomass
219	Estimated annual mature biomass, on ln-scale
220	Estimated recent mature biomass, on ln-scale
221	Population abundance trends
222	Recent population abundance trends
223	Ln-scale population abundance trends
224	Recent ln-scale population abundance trends
225	Population biomass trends
226	Recent population biomass trends
227	Ln-scale population biomass trends
228	Recent ln-scale population biomass trends

Population processes

Figures and tables in this section present comparisons between alternative model scenarios for estimated rates (e.g., natural mortality) or other attributes (e.g., molt increments) describing inferred Tanner crab population processes.

Natural mortality



Natural Mortality

Figure 1: Estimated natural mortality rates, by year.

Probability of terminal molt



Figure 2: Probability of terminal molt.

Mean growth



Figure 3: Mean growth.

Growth matrices

Growth matrices for each model case are compared as bubble plots in the following figure.



Figure 4: Estimated growth matrices, as bubble plots, for scenario B0.



Figure 5: Estimated growth matrices, as bubble plots, for scenario B0.2016.



Figure 6: Estimated growth matrices, as bubble plots, for scenario B0a.



Figure 7: Estimated growth matrices, as bubble plots, for scenario B1.



Figure 8: Estimated growth matrices, as bubble plots, for scenario B1a.



Figure 9: Estimated growth matrices, as bubble plots, for scenario B1b.



Figure 10: Estimated growth matrices, as bubble plots, for scenario B1c.



Figure 11: Estimated growth matrices, as bubble plots, for scenario B2.



Figure 12: Estimated growth matrices, as bubble plots, for scenario B2a.



Figure 13: Estimated growth matrices, as bubble plots, for scenario B2b.



Figure 14: Estimated growth matrices, as bubble plots, for scenario B3.

The same growth matrices are compared in the following figure(s) as line plots for each pre-molt size bin, by sex.



male growth: 1948-2016, 1948-2015

Figure 15: Growth matrices for males during 1948-2016, 1948-2015, page 1.



male growth: 1948-2016, 1948-2015

Figure 16: Growth matrices for males during 1948-2016, 1948-2015, page 2.



Figure 17: Growth matrices for males during 1948-2016, 1948-2015, page 3.



female growth: 1948-2016, 1948-2015

Figure 18: Growth matrices for females during 1948-2016, 1948-2015, page 1.



female growth: 1948-2016, 1948-2015

Figure 19: Growth matrices for females during 1948-2016, 1948-2015, page 2.



Figure 20: Growth matrices for females during 1948-2016, 1948-2015, page 3.

Size distribution for recruits



Figure 21: Size distribution for recruits.

Model fits

Growth data



Figure 22: Model fits to EBS.



Figure 23: Negative log-likelihood values for fits to EBS.



Figure 24: Z-scores for fits to EBS.



Figure 25: Model fits to Kodiak.



Figure 26: Negative log-likelihood values for fits to Kodiak.



Figure 27: Z-scores for fits to Kodiak.

Survey biomass





Figure 28: Comparison of observed and predicted survey biomass for NMFS trawl survey.

NMFS trawl survey



Figure 29: Comparison of observed and predicted survey biomass for NMFS trawl survey. Recent time period.

[1] "NMFS trawl survey"


Figure 30: Z-scores for index catch biomass in NMFS trawl survey.

Fishery retained catch biomass



Figure 31: Comparison of observed and predicted retained catch mortality for TCF.

TCF



Figure 32: Comparison of observed and predicted retained catch mortality for TCF. Recent time period.

[1] "TCF"



Figure 33: Z-scores for retained catch biomass in TCF.

Fishery total catch biomass



TCF

Figure 34: Comparison of observed and predicted total catch for TCF.



Figure 35: Comparison of observed and predicted total catch for TCF. Recent time period.



Figure 36: Comparison of observed and predicted total catch for SCF.



Figure 37: Comparison of observed and predicted total catch for SCF. Recent time period.



Figure 38: Comparison of observed and predicted total catch for GTF.



Figure 39: Comparison of observed and predicted total catch for GTF. Recent time period.



Figure 40: Comparison of observed and predicted total catch for RKF.



Figure 41: Comparison of observed and predicted total catch for RKF. Recent time period.





Figure 42: Comparison of observed and predicted total catch for GF.FixedGear.





Figure 43: Comparison of observed and predicted total catch for GF.FixedGear. Recent time period.

GF.TrawlGear



Figure 44: Comparison of observed and predicted total catch for GF.TrawlGear.

GF.TrawlGear



Figure 45: Comparison of observed and predicted total catch for GF.TrawlGear. Recent time period.

- [1] "TCF" "SCF" "GTF" "RKF"
- [5] "GF.FixedGear" "GF.TrawlGear"



Figure 46: Z-scores for total catch biomass in TCF.



Figure 47: Z-scores for total catch biomass in SCF.



Figure 48: Z-scores for total catch biomass in GTF.



Figure 49: Z-scores for total catch biomass in RKF.



Figure 50: Z-scores for total catch biomass in GF.FixedGear.





Figure 51: Z-scores for total catch biomass in GF.TrawlGear.

Mean survey size compositions



Figure 52: Comparison of observed and predicted mean survey size comps for NMFS trawl survey.

Fishery retained catch mean size compositions



Figure 53: Comparison of observed and predicted mean retained catch size comps for TCF.



Fishery total catch mean size compositions

Figure 54: Comparison of observed and predicted mean total catch size comps for GTF.



Figure 55: Comparison of observed and predicted mean total catch size comps for RKF.



Figure 56: Comparison of observed and predicted mean total catch size comps for SCF.



Figure 57: Comparison of observed and predicted mean total catch size comps for TCF.



Figure 58: Comparison of observed and predicted mean total catch size comps for GF.FixedGear.



Figure 59: Comparison of observed and predicted mean total catch size comps for GF.TrawlGear.

Survey size composition residuals



Figure 60: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.



Figure 61: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.2016.



Figure 62: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0a.



Figure 63: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1.



Figure 64: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1a.


Figure 65: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1b.



Figure 66: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1c.



Figure 67: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2.



Figure 68: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2a.



Figure 69: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2b.



Figure 70: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B3.



Figure 71: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.



Figure 72: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.2016.



Figure 73: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0a.



Figure 74: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1.



Figure 75: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1a.



Figure 76: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1b.



Figure 77: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1c.



Figure 78: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2.



Figure 79: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2a.



Figure 80: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2b.



Figure 81: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B3.



Figure 82: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.



Figure 83: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.2016.



Figure 84: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0a.



Figure 85: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1.



Figure 86: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1a.



Figure 87: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1b.



Figure 88: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1c.



Figure 89: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2.



Figure 90: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2a.



Figure 91: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2b.



Figure 92: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B3.



Figure 93: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.



Figure 94: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0.2016.



Figure 95: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B0a.



Figure 96: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1.



Figure 97: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1a.



Figure 98: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1b.



Figure 99: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B1c.



Figure 100: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2.
NMFS trawl survey



Figure 101: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2a.

NMFS trawl survey



Figure 102: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B2b.

NMFS trawl survey



Figure 103: Pearson's residuals for proportions-at-size from the NMFS trawl survey for scenario B3.

Effective Ns for survey size compositions



NMFS trawl survey

Figure 104: Input and effective sample sizes from retained catch size compositions from the NMFS trawl survey.

Fishery retained catch size composition residuals



TCF

Figure 105: Pearson's residuals for proportions-at-size from the TCF for scenario B0.



Figure 106: Pearson's residuals for proportions-at-size from the TCF for scenario B0.2016.



Figure 107: Pearson's residuals for proportions-at-size from the TCF for scenario B0a.



Figure 108: Pearson's residuals for proportions-at-size from the TCF for scenario B1.



Figure 109: Pearson's residuals for proportions-at-size from the TCF for scenario B1a.



Figure 110: Pearson's residuals for proportions-at-size from the TCF for scenario B1b.



Figure 111: Pearson's residuals for proportions-at-size from the TCF for scenario B1c.





Figure 112: Pearson's residuals for proportions-at-size from the TCF for scenario B2.





Figure 113: Pearson's residuals for proportions-at-size from the TCF for scenario B2a.



Figure 114: Pearson's residuals for proportions-at-size from the TCF for scenario B2b.





Figure 115: Pearson's residuals for proportions-at-size from the TCF for scenario B3.

Effective Ns for retained catch size compositions



TCF

Figure 116: Input and effective sample sizes from retained catch size compositions from the TCF fishery.

Fishery total catch size composition residuals



TCF

Figure 117: Pearson's residuals for proportions-at-size from the TCF for scenario B0.



Figure 118: Pearson's residuals for proportions-at-size from the TCF for scenario B0.2016.



Figure 119: Pearson's residuals for proportions-at-size from the TCF for scenario B0a.



Figure 120: Pearson's residuals for proportions-at-size from the TCF for scenario B1.



Figure 121: Pearson's residuals for proportions-at-size from the TCF for scenario B1a.



Figure 122: Pearson's residuals for proportions-at-size from the TCF for scenario B1b.



Figure 123: Pearson's residuals for proportions-at-size from the TCF for scenario B1c.



Figure 124: Pearson's residuals for proportions-at-size from the TCF for scenario B2.



Figure 125: Pearson's residuals for proportions-at-size from the TCF for scenario B2a.



Figure 126: Pearson's residuals for proportions-at-size from the TCF for scenario B2b.



Figure 127: Pearson's residuals for proportions-at-size from the TCF for scenario B3.

SCF



Figure 128: Pearson's residuals for proportions-at-size from the SCF for scenario B0.



Figure 129: Pearson's residuals for proportions-at-size from the SCF for scenario B0.2016.

SCF





Figure 130: Pearson's residuals for proportions-at-size from the SCF for scenario B0a.





Figure 131: Pearson's residuals for proportions-at-size from the SCF for scenario B1.





Figure 132: Pearson's residuals for proportions-at-size from the SCF for scenario B1a.





Figure 133: Pearson's residuals for proportions-at-size from the SCF for scenario B1b.





Figure 134: Pearson's residuals for proportions-at-size from the SCF for scenario B1c.

SCF



Figure 135: Pearson's residuals for proportions-at-size from the SCF for scenario B2.





Figure 136: Pearson's residuals for proportions-at-size from the SCF for scenario B2a.
SCF



Figure 137: Pearson's residuals for proportions-at-size from the SCF for scenario B2b.

SCF



Figure 138: Pearson's residuals for proportions-at-size from the SCF for scenario B3.

Figure 139: Pearson's residuals for proportions-at-size from the GTF for scenario B0.



Figure 140: Pearson's residuals for proportions-at-size from the GTF for scenario B0.2016.

	B0a	B0a			
	male	female			
150 (mm CW)	B0a male ••••••••••••••••••••••••••••••••••••	B0a female	all maturity all shell	val · 0 0 1 2 3 4 5	sign ● <0 ● >0
50					
	1980 1990 2000 2010	1980 1990 2000 2010			
	yc				

Figure 141: Pearson's residuals for proportions-at-size from the GTF for scenario B0a.

	B1	B1			
	male	female			
150 · size (mm CM)	B1 male	B1 female	all maturity all shell	· 0 O 1 O 3 O 4 O 5	sign ● <0 ● >0
	1980 1990 2000 2010	1980 1990 2000 2010			
	уе	ar			

Figure 142: Pearson's residuals for proportions-at-size from the GTF for scenario B1.

	B1a	B1a			
	male	female			
150 size (mm CM) 100	B1a male	B1a female	all maturity all shell	val	sign ● <0 ● >0
	1980 1990 2000 2010	1980 1990 2000 2010			
	уе	al			

Figure 143: Pearson's residuals for proportions-at-size from the GTF for scenario B1a.

	B1b	B1b			
	male	female			
150 (mm CW) 100	B1b male	B1b female	all maturity all shell	val · 0 1 2 3 4 5	sign ● <0 ● >0
50					
	1900 1990 2000 2010 Ve	1900 1990 2000 2010			
	y =				

Figure 144: Pearson's residuals for proportions-at-size from the GTF for scenario B1b.

	B1c	B1c			
	male	female			
150 - 100 - 50 -		Image: Intelling Image: Intelling	all maturity all shell	val 0 1 2 3 4 5	sign ● <0 ● >0
	уе	ar			

Figure 145: Pearson's residuals for proportions-at-size from the GTF for scenario B1c.

	B2	B2			
	male	female			
150 · 100 · 50 ·		female	all maturity all shell	val 0 0 1 2 3 4 5	sign ● <0 ● >0
	ye	ar			

Figure 146: Pearson's residuals for proportions-at-size from the GTF for scenario B2.

	B2a	B2a			
	male	female			
	0000000000000000000000000	oo.o.o.o.o.o.o.o.o.o.o.o.o.o.o.o.o			
150		· · · · · · · · · · · · · · · · · · ·			
100		······································		val	sign
nm CW)			all mat all sh	$\bigcirc 1$ $\bigcirc 2$	>0
size (n			nell	\bigcirc 3 \bigcirc 4 \bigcirc 5	
				Ŭ	
50					
	1980 1990 2000 2010 ye	1980 1990 2000 2010 ar			

Figure 147: Pearson's residuals for proportions-at-size from the GTF for scenario B2a.

	B2b	B2b			
	male	female			
150	male	female			
(MC			<u>ಬ</u>	val · 0 O 1	sign ● <0 ● >0
size (mm (ll maturity all shell	$\bigcirc 2$ $\bigcirc 3$ $\bigcirc 4$ $\bigcirc 5$	
50					
	1980 1990 2000 2010 ye	1980 1990 2000 2010 ar			

Figure 148: Pearson's residuals for proportions-at-size from the GTF for scenario B2b.

GTF



Figure 149: Pearson's residuals for proportions-at-size from the GTF for scenario B3.



Figure 150: Pearson's residuals for proportions-at-size from the RKF for scenario B0.



Figure 151: Pearson's residuals for proportions-at-size from the RKF for scenario B0.2016.



Figure 152: Pearson's residuals for proportions-at-size from the RKF for scenario B0a.



Figure 153: Pearson's residuals for proportions-at-size from the RKF for scenario B1.



Figure 154: Pearson's residuals for proportions-at-size from the RKF for scenario B1a.



Figure 155: Pearson's residuals for proportions-at-size from the RKF for scenario B1b.



Figure 156: Pearson's residuals for proportions-at-size from the RKF for scenario B1c.



Figure 157: Pearson's residuals for proportions-at-size from the RKF for scenario B2.



Figure 158: Pearson's residuals for proportions-at-size from the RKF for scenario B2a.



Figure 159: Pearson's residuals for proportions-at-size from the RKF for scenario B2b.



Figure 160: Pearson's residuals for proportions-at-size from the RKF for scenario B3.

GF.FixedGear



Figure 161: Pearson's residuals for proportions-at-size from the GF.FixedGear for scenario B3.

GF.TrawlGear



Figure 162: Pearson's residuals for proportions-at-size from the GF.TrawlGear for scenario B3.

Effective Ns for total catch size compositions



TCF

Figure 163: Input and effective sample sizes from total catch size compositions from the TCF fishery.



Figure 164: Input and effective sample sizes from total catch size compositions from the SCF fishery.



Figure 165: Input and effective sample sizes from total catch size compositions from the GTF fishery.



Figure 166: Input and effective sample sizes from total catch size compositions from the RKF fishery.



Figure 167: Input and effective sample sizes from total catch size compositions from the GF.FixedGear fishery.



Figure 168: Input and effective sample sizes from total catch size compositions from the GF.TrawlGear fishery.

Survey characteristics

Survey catchability



Figure 169: Survey catchabilities for NMFS trawl survey.

Survey selectivity functions



NMFS trawl survey

Figure 170: NMFS trawl survey.1

Fisheries

Fishery catchability



Figure 171: Fishery catchabilities for GTF.



Figure 172: Fishery catchabilities for RKF.


Figure 173: Fishery catchabilities for SCF.



Figure 174: Fishery catchabilities for TCF.



Figure 175: Fishery catchabilities for GF.FixedGear.



Figure 176: Fishery catchabilities for GF.TrawlGear.

Total selectivity functions



Figure 177: Selectivity functions for GTF(1 of 6).



Figure 178: Selectivity functions for GTF(2 of 6).



Figure 179: Selectivity functions for GTF(3 of 6).



Figure 180: Selectivity functions for GTF(4 of 6).



Figure 181: Selectivity functions for GTF(5 of 6).



Figure 182: Selectivity functions for GTF(6 of 6).



Figure 183: Selectivity functions for RKF(1 of 6).



Figure 184: Selectivity functions for RKF(2 of 6).



Figure 185: Selectivity functions for RKF(3 of 6).



Figure 186: Selectivity functions for RKF(4 of 6).



Figure 187: Selectivity functions for RKF(5 of 6).



Figure 188: Selectivity functions for RKF(6 of 6).



Figure 189: Selectivity functions for SCF(1 of 6).



Figure 190: Selectivity functions for SCF(2 of 6).



Figure 191: Selectivity functions for SCF(3 of 6).



Figure 192: Selectivity functions for SCF(4 of 6).



Figure 193: Selectivity functions for SCF(5 of 6).



Figure 194: Selectivity functions for SCF(6 of 6).



Figure 195: Selectivity functions for TCF(1 of 4).



Figure 196: Selectivity functions for TCF(2 of 4).



Figure 197: Selectivity functions for TCF(3 of 4).



Figure 198: Selectivity functions for TCF(4 of 4).



Figure 199: Selectivity functions for GF.FixedGear(1 of 5).



Figure 200: Selectivity functions for GF.FixedGear(2 of 5).



Figure 201: Selectivity functions for GF.FixedGear(3 of 5).



Figure 202: Selectivity functions for GF.FixedGear(4 of 5).



Figure 203: Selectivity functions for GF.FixedGear(5 of 5).



Figure 204: Selectivity functions for GF.TrawlGear(1 of 5).



Figure 205: Selectivity functions for GF.TrawlGear(2 of 5).



Figure 206: Selectivity functions for GF.TrawlGear(3 of 5).



Figure 207: Selectivity functions for GF.TrawlGear(4 of 5).



Figure 208: Selectivity functions for GF.TrawlGear(5 of 5).
Retention functions



Figure 209: Retention functions for TCF(1 of 4).



Figure 210: Retention functions for TCF(2 of 4).



Figure 211: Retention functions for TCF(3 of 4).



Figure 212: Retention functions for TCF(4 of 4).

Population quantities

Figures and tables in this section present comparisons between alternative model scenarios for estimated quantities (e.g., recruitment, abundance time series) describing the inferred Tanner crab population.

Recruitment



Figure 213: Estimated annual recruitment.



Figure 214: Estimated recent recruitment.



Figure 215: Estimated annual recruitment, on ln-scale.



Figure 216: Estimated recent recruitment, on ln-scale.

Mature biomass



Figure 217: Estimated annual mature biomass.



Figure 218: Estimated recent mature biomass.



Figure 219: Estimated annual mature biomass, on ln-scale.



Figure 220: Estimated recent mature biomass, on ln-scale.

Population abundance



Figure 221: Population abundance trends.



Figure 222: Recent population abundance trends.



Figure 223: Ln-scale population abundance trends.



Figure 224: Recent ln-scale population abundance trends.

Population biomass



Figure 225: Population biomass trends.



Figure 226: Recent population biomass trends.



Figure 227: Ln-scale population biomass trends.



Figure 228: Recent ln-scale population biomass trends.