

# Appendix B. Data files for model 21.1b

Data files can be provided by the author in a more readable format, [katie.palof@alaska.gov](mailto:katie.palof@alaska.gov)

## Model 21.1b data file for 2023

```
#updating trawl and fixed gear bycatch data for length comp. during 1986-2022 and biomass 2009-2021
# base data file 21.1b model fall 2023
#=====
# Gmacs Main Data File Version 1.1: BBRKC Example
# GEAR_INDEX DESCRIPTION
# 1 : Pot fishery retained catch.
# 1 : Pot fishery with discarded catch.
# 2 : Trawl bycatch
# 3 : Trawl survey
# Fisheries: 1 Pot Fishery, 2 Pot Discard, 3 Trawl by-catch, 4 Tanner bycatch 5 fixed gear
# Surveys: 6 NMFS Trawl Survey, 7 BSFRF Survey
#=====
1975 # Start year
2022 # End year - update annually in fall
7 # Number of seasons
6 # Number of fleets (fishing fleets and surveys)
2 # Number of sexes
2 # Number of shell condition types
1 # Number of maturity types
20 # Number of size-classes in the model
7 # Season recruitment occurs
7 # Season molting and growth occurs
6 # Season to calculate SSB
1 # Season for N output
# maximum size-class (males then females)
20 16
# size_breaks (a vector giving the break points between size intervals, dim=nclass+1)
65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165
# Natural mortality per season input type (1 = vector by season, 2 = matrix by season/year)
2
# Proportion of the total natural mortality to be applied each season
0.0000 0.2329 0.0000 0.2671 0.000 0.194 0.306 #1975
0.0000 0.2795 0.0000 0.2205 0.000 0.194 0.306 #1976
0.0000 0.3233 0.0000 0.1767 0.000 0.194 0.306 #1977
0.0000 0.2548 0.0000 0.2452 0.000 0.194 0.306 #1978
0.0000 0.2493 0.0000 0.2507 0.000 0.194 0.306 #1979
0.0000 0.2493 0.0000 0.2507 0.000 0.194 0.306 #1980
0.0000 0.2493 0.0000 0.2507 0.000 0.194 0.306 #1981
0.0000 0.2356 0.0000 0.2644 0.000 0.194 0.306 #1982
0.0000 0.2400 0.0000 0.2600 0.000 0.194 0.306 #1983
0.0000 0.2712 0.0000 0.2288 0.000 0.194 0.306 #1984
0.0000 0.2438 0.0000 0.2562 0.000 0.194 0.306 #1985
0.0000 0.2521 0.0000 0.2479 0.000 0.194 0.306 #1986
0.0000 0.2493 0.0000 0.2507 0.000 0.194 0.306 #1987
0.0000 0.2438 0.0000 0.2562 0.000 0.194 0.306 #1988
0.0000 0.2493 0.0000 0.2507 0.000 0.194 0.306 #1989
0.0000 0.3507 0.0000 0.1493 0.000 0.194 0.306 #1990
0.0000 0.3425 0.0000 0.1575 0.000 0.194 0.306 #1991
0.0000 0.3425 0.0000 0.1575 0.000 0.194 0.306 #1992
0.0000 0.3452 0.0000 0.1548 0.000 0.194 0.306 #1993
0.0000 0.3400 0.0000 0.1600 0.000 0.194 0.306 #1994
0.0000 0.3400 0.0000 0.1600 0.000 0.194 0.306 #1995
0.0000 0.3400 0.0000 0.1600 0.000 0.194 0.306 #1996
0.0000 0.3400 0.0000 0.1600 0.000 0.194 0.306 #1997
0.0000 0.3400 0.0000 0.1600 0.000 0.194 0.306 #1998
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #1999
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #2000
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #2001
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #2002
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #2003
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #2004
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #2005
0.0000 0.3000 0.0000 0.2000 0.000 0.194 0.306 #2006
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2011	3	1	1	3607.1	0.03	1	1	1	0	0.2
2012	3	1	1	3621.7	0.03	1	1	1	0	0.2
2013	3	1	1	3991	0.03	1	1	1	0	0.2
2014	3	1	1	4538.6	0.03	1	1	1	0	0.2
2015	3	1	1	4613.7	0.03	1	1	1	0	0.2
2016	3	1	1	3923.9	0.03	1	1	1	0	0.2
2017	3	1	1	3093.7	0.03	1	1	1	0	0.2
2018	3	1	1	2026.5	0.03	1	1	1	0	0.2
2019	3	1	1	1775.3	0.03	1	1	1	0	0.2
2020	3	1	1	1256.98	0.03	1	1	1	0	0.2
2021	3	1	1	17.45	0.03	1	1	1	0	0.2 # update annually - from item7
2022	3	1	1	23.1	0.03	1	1	1	0	0.2 # looks like this is from fish ticket data for test fishery

## Total Male pot fishery (t)

#year	seas	fleet	sex	obs	cv	type	units	mult	effort	discard_mortality
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1990	3	1	1	11621.8	0.04	0	1	1	0	0.2
1991	3	1	1	9792.9	0.04	0	1	1	0	0.2
1992	3	1	1	5916.2	0.04	0	1	1	0	0.2
1993	3	1	1	9516.8	0.04	0	1	1	0	0.2
1994	3	1	1	62.3	0.04	0	1	1	0	0.2
1995	3	1	1	52.8	0.04	0	1	1	0	0.2
1996	3	1	1	3845.2	0.04	0	1	1	0	0.2
1997	3	1	1	3758.8	0.04	0	1	1	0	0.2
1998	3	1	1	15644.8	0.04	0	1	1	0	0.2
1999	3	1	1	12112.3	0.04	0	1	1	0	0.2
2000	3	1	1	6579.7	0.04	0	1	1	0	0.2
2001	3	1	1	5711.5	0.04	0	1	1	0	0.2
2002	3	1	1	6961.4	0.04	0	1	1	0	0.2
2003	3	1	1	12166.5	0.04	0	1	1	0	0.2
2004	3	1	1	10692.0	0.04	0	1	1	0	0.2
2005	3	1	1	13615.9	0.04	0	1	1	0	0.2
2006	3	1	1	9254.0	0.04	0	1	1	0	0.2
2007	3	1	1	13871.9	0.04	0	1	1	0	0.2
2008	3	1	1	14894.9	0.04	0	1	1	0	0.2
2009	3	1	1	12218.8	0.04	0	1	1	0	0.2
2010	3	1	1	10095.4	0.04	0	1	1	0	0.2
2011	3	1	1	5665.3	0.04	0	1	1	0	0.2
2012	3	1	1	4495.5	0.04	0	1	1	0	0.2
2013	3	1	1	5305.9	0.04	0	1	1	0	0.2
2014	3	1	1	8113.8	0.04	0	1	1	0	0.2
2015	3	1	1	6726.8	0.04	0	1	1	0	0.2
2016	3	1	1	5651.8	0.04	0	1	1	0	0.2
2017	3	1	1	4077.2	0.04	0	1	1	0	0.2
2018	3	1	1	3423.2	0.04	0	1	1	0	0.2
2019	3	1	1	3144.6	0.04	0	1	1	0	0.2
2020	3	1	1	2299.7	0.04	0	1	1	0	0.2
2021	3	1	1	33.8	0.04	0	1	1	0	0.2
2022	3	1	1	28.3	0.04	0	1	1	0	0.2 # updated from item1a

## Female discards Pot fishery

#year	seas	fleet	sex	obs	cv	type	units	mult	effort	discard_mortality
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1990	3	1	2	3196.2	0.07	0	1	1	0	0.2
1991	3	1	2	233.9	0.07	0	1	1	0	0.2
1992	3	1	2	1976.3	0.07	0	1	1	0	0.2
1993	3	1	2	3141.5	0.07	0	1	1	0	0.2
1994	3	1	2	1.877	0.07	0	1	1	0	0.2
1995	3	1	2	1.612	0.07	0	1	1	0	0.2
1996	3	1	2	5.1	0.07	0	1	1	0	0.2
1997	3	1	2	182.7	0.07	0	1	1	0	0.2
1998	3	1	2	2769.3	0.07	0	1	1	0	0.2
1999	3	1	2	28.0	0.07	0	1	1	0	0.2
2000	3	1	2	821.9	0.07	0	1	1	0	0.2
2001	3	1	2	604.0	0.07	0	1	1	0	0.2
2002	3	1	2	45.6	0.07	0	1	1	0	0.2
2003	3	1	2	1784.4	0.07	0	1	1	0	0.2
2004	3	1	2	859.2	0.07	0	1	1	0	0.2
2005	3	1	2	2027.1	0.07	0	1	1	0	0.2
2006	3	1	2	187.4	0.07	0	1	1	0	0.2
2007	3	1	2	799.4	0.07	0	1	1	0	0.2
2008	3	1	2	724.2	0.07	0	1	1	0	0.2
2009	3	1	2	441.3	0.07	0	1	1	0	0.2
2010	3	1	2	592.6	0.07	0	1	1	0	0.2
2011	3	1	2	124.8	0.07	0	1	1	0	0.2
2012	3	1	2	55.9	0.07	0	1	1	0	0.2

2013	3	1	2	490.7	0.07	0	1	1	0	0.2
2014	3	1	2	424.3	0.07	0	1	1	0	0.2
2015	3	1	2	1195.6	0.07	0	1	1	0	0.2
2016	3	1	2	617.2	0.07	0	1	1	0	0.2
2017	3	1	2	266.9	0.07	0	1	1	0	0.2
2018	3	1	2	750.4	0.07	0	1	1	0	0.2
2019	3	1	2	218.0	0.07	0	1	1	0	0.2
2020	3	1	2	76.1	0.07	0	1	1	0	0.2
2021	3	1	2	29.4	0.07	0	1	1	0	0.2
2022	3	1	2	4.7	0.07	0	1	1	0	0.2 # update annually from item 1b
## Trawl fishery discards (t, without applying to handling mortality rate)										
#year	seas	fleet	sex	obs	cv	type	units	mult	effort	discard_mortality
1976	5	2	0	853.494	0.10	2	1	1	0	0.8
1977	5	2	0	1562.313	0.10	2	1	1	0	0.8
1978	5	2	0	1650.775	0.10	2	1	1	0	0.8
1979	5	2	0	1664.925	0.10	2	1	1	0	0.8
1980	5	2	0	1295.625	0.10	2	1	1	0	0.8
1981	5	2	0	274.229	0.10	2	1	1	0	0.8
1982	5	2	0	718.610	0.10	2	1	1	0	0.8
1983	5	2	0	525.554	0.10	2	1	1	0	0.8
1984	5	2	0	1367.550	0.10	2	1	1	0	0.8
1985	5	2	0	487.576	0.10	2	1	1	0	0.8
1986	5	2	0	250.758	0.10	2	1	1	0	0.8
1987	5	2	0	233.045	0.10	2	1	1	0	0.8
1988	5	2	0	747.996	0.10	2	1	1	0	0.8
1989	5	2	0	219.023	0.10	2	1	1	0	0.8
1990	5	2	0	324.883	0.10	2	1	1	0	0.8
1991	5	2	0	436.783	0.10	2	1	1	0	0.8
1992	5	2	0	366.816	0.10	2	1	1	0	0.8
1993	5	2	0	501.770	0.10	2	1	1	0	0.8
1994	5	2	0	109.129	0.10	2	1	1	0	0.8
1995	5	2	0	102.623	0.10	2	1	1	0	0.8
1996	5	2	0	113.495	0.10	2	1	1	0	0.8
1997	5	2	0	71.862	0.10	2	1	1	0	0.8
1998	5	2	0	232.580	0.10	2	1	1	0	0.8
1999	5	2	0	188.101	0.10	2	1	1	0	0.8
2000	5	2	0	102.161	0.10	2	1	1	0	0.8
2001	5	2	0	241.011	0.10	2	1	1	0	0.8
2002	5	2	0	189.018	0.10	2	1	1	0	0.8
2003	5	2	0	171.114	0.10	2	1	1	0	0.8
2004	5	2	0	216.889	0.10	2	1	1	0	0.8
2005	5	2	0	155.924	0.10	2	1	1	0	0.8
2006	5	2	0	189.660	0.10	2	1	1	0	0.8
2007	5	2	0	192.571	0.10	2	1	1	0	0.8
2008	5	2	0	170.561	0.10	2	1	1	0	0.8
2009	5	2	0	118.672	0.10	2	1	1	0	0.8
2010	5	2	0	104.005	0.10	2	1	1	0	0.8
2011	5	2	0	70.286	0.10	2	1	1	0	0.8
2012	5	2	0	42.641	0.10	2	1	1	0	0.8
2013	5	2	0	83.613	0.10	2	1	1	0	0.8
2014	5	2	0	43.129	0.10	2	1	1	0	0.8
2015	5	2	0	56.410	0.10	2	1	1	0	0.8
2016	5	2	0	84.127	0.10	2	1	1	0	0.8
2017	5	2	0	114.624	0.10	2	1	1	0	0.8
2018	5	2	0	97.561	0.10	2	1	1	0	0.8
2019	5	2	0	100.915	0.10	2	1	1	0	0.8
2020	5	2	0	100.842	0.10	2	1	1	0	0.8
2021	5	2	0	42.990	0.10	2	1	1	0	0.8
2022	5	2	0	18.969	0.10	2	1	1	0	0.8 # update annually - gf_weight?
# Tanner crab fishery discards males										
#year	seas	fleet	sex	obs	cv	type	units	mult	potlifts	discard_mortality
1975	5	3	1	0	0.07	2	1	1	106.445	0.25
1976	5	3	1	0	0.07	2	1	1	233.667	0.25
1977	5	3	1	0	0.07	2	1	1	408.437	0.25
1978	5	3	1	0	0.07	2	1	1	356.594	0.25
1979	5	3	1	0	0.07	2	1	1	476.410	0.25
1980	5	3	1	0	0.07	2	1	1	496.751	0.25
1981	5	3	1	0	0.07	2	1	1	322.634	0.25
1982	5	3	1	0	0.07	2	1	1	192.538	0.25
1983	5	3	1	0	0.07	2	1	1	44.546	0.25
1984	5	3	1	0	0.07	2	1	1	67.037	0.25
#1985	5	3	1	0	0.07	2	1	1	0.0001	0.25

#1986	5	3	1	0	0.07	2	1	1	0.0001	0.25
1987	5	3	1	0	0.07	2	1	1	39.827	0.25
1988	5	3	1	0	0.07	2	1	1	92.551	0.25
1989	5	3	1	0	0.07	2	1	1	306.175	0.25
1990	5	3	1	0.000	0.07	2	1	1	493.82	0.25
1991	5	3	1	1890.540	0.07	2	1	1	360.864	0.25
1992	5	3	1	263.854	0.07	2	1	1	508.922	0.25
1993	5	3	1	118.614	0.07	2	1	1	286.62	0.25
1994	5	3	1	38.907	0.07	2	1	1	228.254	0.25
#1995	5	3	1	0.000	0.07	2	1	1	201.988	0.25
#1996	5	3	1	0.000	0.07	2	1	1	64.989	0.25
#1997	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#1998	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#1999	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2000	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2001	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2002	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2003	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2004	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2005	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
2006	5	3	1	14.334	0.07	2	1	1	15.273	0.25
2007	5	3	1	5.536	0.07	2	1	1	26.441	0.25
2008	5	3	1	9.245	0.07	2	1	1	19.401	0.25
2009	5	3	1	3.089	0.07	2	1	1	6.635	0.25
#2010	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2011	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2012	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
2013	5	3	1	37.426	0.07	2	1	1	16.633	0.25
2014	5	3	1	68.588	0.07	2	1	1	72.768	0.25
2015	5	3	1	189.229	0.07	2	1	1	130.302	0.25
#2016	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2017	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2018	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2019	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2020	5	3	1	0.000	0.07	2	1	1	1e-4	0.25
#2021	5	3	1	0.000	0.07	2	1	1	1e-4	0.25 # update annually
#2022	5	3	1	0.000	0.07	2	1	1	1e-4	0.25 # update annually item 2a

#	Tanner	crab	fishery discards				females			
#year	seas	fleet	sex	obs	cv	type	units	mult	potlifts	discard_mortality
1975	5	3	2	0	0.07	2	1	1	106.445	0.25
1976	5	3	2	0	0.07	2	1	1	233.667	0.25
1977	5	3	2	0	0.07	2	1	1	408.437	0.25
1978	5	3	2	0	0.07	2	1	1	356.594	0.25
1979	5	3	2	0	0.07	2	1	1	476.410	0.25
1980	5	3	2	0	0.07	2	1	1	496.751	0.25
1981	5	3	2	0	0.07	2	1	1	322.634	0.25
1982	5	3	2	0	0.07	2	1	1	192.538	0.25
1983	5	3	2	0	0.07	2	1	1	44.546	0.25
1984	5	3	2	0	0.07	2	1	1	67.037	0.25
#1985	5	3	2	0	0.07	2	1	1	0.0001	0.25
#1986	5	3	2	0	0.07	2	1	1	0.0001	0.25
1987	5	3	2	0	0.07	2	1	1	39.827	0.25
1988	5	3	2	0	0.07	2	1	1	92.551	0.25
1989	5	3	2	0	0.07	2	1	1	306.175	0.25
1990	5	3	2	0.000	0.07	2	1	1	493.82	0.25
1991	5	3	2	3690.303	0.07	2	1	1	360.864	0.25
1992	5	3	2	698.992	0.07	2	1	1	508.922	0.25
1993	5	3	2	99.498	0.07	2	1	1	286.62	0.25
1994	5	3	2	0.488	0.07	2	1	1	228.254	0.25
#1995	5	3	2	0.000	0.07	2	1	1	201.988	0.25
#1996	5	3	2	0.000	0.07	2	1	1	64.989	0.25
#1997	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#1998	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#1999	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#2000	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#2001	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#2002	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#2003	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#2004	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
#2005	5	3	2	0.000	0.07	2	1	1	1e-4	0.25
2006	5	3	2	0.883	0.07	2	1	1	15.273	0.25



1	1988	1	5	1	0	35373.6	0.228	1	0
1	1989	1	5	1	0	42357.7	0.232	1	0
1	1990	1	5	1	0	38727.8	0.242	1	0
1	1991	1	5	1	0	66528.0	0.443	1	0
1	1992	1	5	1	0	25096.2	0.176	1	0
1	1993	1	5	1	0	35670.6	0.198	1	0
1	1994	1	5	1	0	23002.5	0.174	1	0
1	1995	1	5	1	0	27251.9	0.266	1	0
1	1996	1	5	1	0	26815.7	0.203	1	0
1	1997	1	5	1	0	59638.3	0.264	1	0
1	1998	1	5	1	0	46208.6	0.182	1	0
1	1999	1	5	1	0	44528.7	0.204	1	0
1	2000	1	5	1	0	38390.7	0.216	1	0
1	2001	1	5	1	0	27942.7	0.187	1	0
1	2002	1	5	1	0	45139.9	0.202	1	0
1	2003	1	5	1	0	74641.0	0.283	1	0
1	2004	1	5	1	0	90354.3	0.321	1	0
1	2005	1	5	1	0	54789.5	0.171	1	0
1	2006	1	5	1	0	51215.2	0.169	1	0
1	2007	1	5	1	0	58144.3	0.174	1	0
1	2008	1	5	1	0	67214.4	0.249	1	0
1	2009	1	5	1	0	43170.4	0.326	1	0
1	2010	1	5	1	0	39020.6	0.223	1	0
1	2011	1	5	1	0	27385.1	0.213	1	0
1	2012	1	5	1	0	30655.4	0.237	1	0
1	2013	1	5	1	0	39650.2	0.244	1	0
1	2014	1	5	1	0	60649.4	0.191	1	0
1	2015	1	5	1	0	37085.3	0.208	1	0
1	2016	1	5	1	0	27184.9	0.194	1	0
1	2017	1	5	1	0	25335.3	0.173	1	0
1	2018	1	5	1	0	16034.2	0.161	1	0
1	2019	1	5	1	0	15169.9	0.157	1	0
1	2021	1	5	1	0	18235.4	0.177	1	0
1	2022	1	5	1	0	24940.4	0.181	1	0
1	2023	1	5	1	0	20590.04	0.246	1	0
1	1975	1	5	2	0	66558.7	0.193	1	0
1	1976	1	5	2	0	71252.4	0.207	1	0
1	1977	1	5	2	0	138684.3	0.144	1	0
1	1978	1	5	2	0	143646.6	0.152	1	0
1	1979	1	5	2	0	63000.5	0.164	1	0
1	1980	1	5	2	0	80701.3	0.221	1	0
1	1981	1	5	2	0	62850.4	0.190	1	0
1	1982	1	5	2	0	69601.4	0.251	1	0
1	1983	1	5	2	0	13713.6	0.214	1	0
1	1984	1	5	2	0	56188.5	0.606	1	0
1	1985	1	5	2	0	7318.7	0.159	1	0
1	1986	1	5	2	0	6884.6	0.420	1	0
1	1987	1	5	2	0	22475.5	0.209	1	0
1	1988	1	5	2	0	19223.7	0.228	1	0
1	1989	1	5	2	0	12778.0	0.232	1	0
1	1990	1	5	2	0	20722.8	0.242	1	0
1	1991	1	5	2	0	17363.5	0.443	1	0
1	1992	1	5	2	0	12238.2	0.176	1	0
1	1993	1	5	2	0	17235.1	0.198	1	0
1	1994	1	5	2	0	9101.7	0.174	1	0
1	1995	1	5	2	0	10816.3	0.266	1	0
1	1996	1	5	2	0	17143.2	0.203	1	0
1	1997	1	5	2	0	24392.1	0.264	1	0
1	1998	1	5	2	0	37892.7	0.182	1	0
1	1999	1	5	2	0	20225.3	0.204	1	0
1	2000	1	5	2	0	28990.5	0.216	1	0
1	2001	1	5	2	0	24512.6	0.187	1	0
1	2002	1	5	2	0	23946.5	0.202	1	0
1	2003	1	5	2	0	41118.5	0.283	1	0
1	2004	1	5	2	0	40201.7	0.321	1	0
1	2005	1	5	2	0	50937.4	0.171	1	0
1	2006	1	5	2	0	43262.1	0.169	1	0
1	2007	1	5	2	0	45183.0	0.174	1	0
1	2008	1	5	2	0	45867.2	0.249	1	0
1	2009	1	5	2	0	47376.6	0.326	1	0
1	2010	1	5	2	0	41480.2	0.223	1	0
1	2011	1	5	2	0	39023.0	0.213	1	0

# update annually males use CV for combined males and females





2009	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2010	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2011	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2012	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
2013	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000
2014	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2015	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2016	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2017	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000
2018	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
2019	3	1	1	1	0	0	150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	3	1	1	1	0	0	150	0	0	0	0	0	0	0	0	0	0	0	0
2021	3	1	1	1	0	0	5.05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	3	1	1	1	0	0	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#Total males																				
#Year	Season	Fleet	Sex	Type	Shell	Maturity	Nsamp	DataVec												
1990	3	1	1	0	0	0	127.2	0	0	0.0004	0.0028	0.0016	0.0043	0.0024	0.013	0.0173	0.0263	0.0263	0.0263	
1991	3	1	1	0	0	0	150	0.0009	0.0038	0.0075	0.0081	0.0092	0.0149	0.0124	0.0241	0.0236	0.0262	0.0262	0.0262	
1992	3	1	1	0	0	0	150	0	0.0006	0.0008	0.0075	0.0151	0.0375	0.0591	0.0777	0.0806	0.0838	0.0838	0.0838	
1993	3	1	1	0	0	0	150	0.0009	0.0025	0.0032	0.0028	0.0035	0.007	0.0177	0.0325	0.0445	0.0615	0.0615	0.0615	
1996	3	1	1	0	0	0	32.1	0	0	0	0.0047	0.0187	0.0296	0.0265	0.0109	0.0171	0.0249	0.0249	0.0249	
1997	3	1	1	0	0	0	150	0	0.0001	0.0002	0.0003	0.0006	0.0081	0.0227	0.0446	0.0519	0.0534	0.0534	0.0534	
1998	3	1	1	0	0	0	150	0.0001	0.0002	0.0004	0.0021	0.0037	0.0054	0.0056	0.0104	0.0246	0.0588	0.0588	0.0588	
1999	3	1	1	0	0	0	150	0	0	0	0.0013	0.0013	0.0006	0.0017	0.0013	0.0025	0.0059	0.0059	0.0059	
2000	3	1	1	0	0	0	150	0.0002	0.002	0.0071	0.0185	0.0234	0.0242	0.0256	0.0262	0.0254	0.0291	0.0291	0.0291	
2001	3	1	1	0	0	0	150	0.0004	0.0023	0.0037	0.005	0.0066	0.0139	0.0249	0.0381	0.0447	0.0539	0.0539	0.0539	
2002	3	1	1	0	0	0	150	0.0017	0.0046	0.0044	0.0051	0.0043	0.0054	0.0066	0.0151	0.0272	0.0504	0.0504	0.0504	
2003	3	1	1	0	0	0	150	0.0034	0.0053	0.0065	0.0144	0.0257	0.0323	0.0355	0.0335	0.0315	0.0322	0.0322	0.0322	
2004	3	1	1	0	0	0	150	0.0001	0.0019	0.0061	0.016	0.021	0.0231	0.0316	0.0519	0.0613	0.0616	0.0616	0.0616	
2005	3	1	1	0	0	0	150	0.0001	0.0005	0.0008	0.0017	0.0044	0.0128	0.0199	0.0243	0.0264	0.0383	0.0383	0.0383	
2006	3	1	1	0	0	0	150	0.0001	0.0006	0.0019	0.0065	0.014	0.0171	0.0166	0.0154	0.02	0.0333	0.0333	0.0333	
2007	3	1	1	0	0	0	150	0.0006	0.0021	0.0034	0.0051	0.0089	0.0191	0.034	0.044	0.0477	0.044	0.044	0.044	
2008	3	1	1	0	0	0	150	0.0001	0.0002	0.0007	0.0026	0.0059	0.0078	0.0088	0.0118	0.0243	0.0445	0.0445	0.0445	
2009	3	1	1	0	0	0	150	0.0002	0.0005	0.0009	0.0016	0.0021	0.0038	0.0093	0.0213	0.033	0.0371	0.0371	0.0371	
2010	3	1	1	0	0	0	150	0.0004	0.0006	0.0013	0.0028	0.0044	0.0061	0.0077	0.0113	0.0179	0.0286	0.0286	0.0286	
2011	3	1	1	0	0	0	150	0.0008	0.0031	0.0055	0.0097	0.01	0.0089	0.0129	0.0147	0.0193	0.0265	0.0265	0.0265	
2012	3	1	1	0	0	0	150	0.0002	0.0003	0.0008	0.0014	0.0037	0.0088	0.0141	0.0189	0.018	0.0192	0.0192	0.0192	
2013	3	1	1	0	0	0	150	0.0001	0.0007	0.0017	0.0022	0.0047	0.0058	0.0096	0.015	0.0257	0.0378	0.0378	0.0378	
2014	3	1	1	0	0	0	150	0.0003	0.0006	0.0008	0.0012	0.0017	0.0038	0.0063	0.0111	0.0155	0.0206	0.0206	0.0206	
2015	3	1	1	0	0	0	150	0.0001	0.0002	0.0008	0.0017	0.0038	0.0059	0.0063	0.007	0.012	0.0271	0.0271	0.0271	
2016	3	1	1	0	0	0	150	0.0001	0.0002	0.0015	0.0034	0.0046	0.0064	0.0111	0.0188	0.0225	0.0279	0.0279	0.0279	
2017	3	1	1	0	0	0	150	0.0002	0.0006	0.0031	0.0115	0.0241	0.0341	0.0294	0.0235	0.0197	0.0248	0.0248	0.0248	
2018	3	1	1	0	0	0	150	0.0004	0.0027	0.0072	0.0082	0.0067	0.011	0.0232	0.0432	0.0643	0.0723	0.0723	0.0723	
2019	3	1	1	0	0	0	150	0	0.0001	0.0002	0.0019	0.0084	0.017	0.0218	0.0194	0.0196	0.0356	0.0356	0.0356	
2020	3	1	1	0	0	0	150	0	0.0007	0.0034	0.0075	0.0101	0.0142	0.0177	0.03	0.0426	0.0589	0.0589	0.0589	
2021	3	1	1	0	0	0	55	0.0009	0.0000	0.0082	0.0127	0.0073	0.0127	0.0145	0.0200	0.0218	0.0418	0.0418	0.0418	
2022	3	1	1	0	0	0	54.4	0.0000	0.0000	0.0000	0.0009	0.0000	0.0009	0.0074	0.0064	0.0064	0.0119	0.0119	0.0119	

#Total females																				
#Year	Season	Fleet	Sex	Type	Shell	Maturity	Nsamp	DataVec												
1990	3	1	2	0	0	0	34.95	0	0.0014	0.0029	0.0029	0.0057	0.0072	0.0143	0.0672	0.1016	0.1731	0.1731	0.1731	
1991	3	1	2	0	0	0	18.75	0.0027	0.024	0.0613	0.096	0.1333	0.16	0.1227	0.072	0.0693	0.056	0.056	0.056	
1992	3	1	2	0	0	0	50	0	0.0013	0.0029	0.0177	0.0803	0.1765	0.195	0.1698	0.0958	0.0815	0.0815	0.0815	
1993	3	1	2	0	0	0	50	0.0013	0.0024	0.0044	0.0059	0.013	0.0326	0.1011	0.1598	0.1443	0.1139	0.1139	0.1139	
1996	3	1	2	0	0	0	0.55	0	0	0	0.0909	0.6364	0.2727	0	0	0	0	0	0	
1997	3	1	2	0	0	0	45.3	0	0	0.0011	0.0011	0.0099	0.0265	0.0364	0.0464	0.0695	0.1391	0.1391	0.1391	
1998	3	1	2	0	0	0	50	0.0002	0.0004	0.0009	0.0026	0.0066	0.0174	0.055	0.1755	0.2268	0.1521	0.1521	0.1521	
1999	3	1	2	0	0	0	2	0	0	0	0.025	0.025	0.025	0.05	0.025	0	0.125	0.125	0.125	
2000	3	1	2	0	0	0	50	0	0.0044	0.0256	0.0607	0.0744	0.0816	0.0701	0.0543	0.055	0.0998	0.0998	0.0998	
2001	3	1	2	0	0	0	50	0.0007	0.0042	0.0129	0.0307	0.0568	0.0844	0.0986	0.0909	0.0646	0.0568	0.0568	0.0568	
2002	3	1	2	0	0	0	35.3	0.0595	0.1714	0.1601	0.1388	0.1091	0.0581	0.0297	0.0326	0.0382	0.0326	0.0326	0.0326	
2003	3	1	2	0	0	0	50	0.012	0.0164	0.0231	0.0635	0.102	0.1075	0.0682	0.043	0.06	0.0866	0.0866	0.0866	
2004	3	1	2	0	0	0	50	0.0003	0.0056	0.0258	0.0575	0.0774	0.0918	0.1413	0.1308	0.0876	0.0449	0.0449	0.0449	
2005	3	1	2	0	0	0	50	0.0004	0.0013	0.0022	0.005	0.0146	0.05	0.0788	0.0931	0.1233	0.1212	0.1212	0.1212	
2006	3	1	2	0	0	0	50	0.0003	0.004	0.0256	0.1183	0.1939	0.1616	0.0692	0.0519	0.0672	0.0704	0.0704	0.0704	
2007	3	1	2	0	0	0	50	0.0029	0.0124	0.0214	0.0235	0.0461	0.0886	0.1116	0.0832	0.0556	0.0739	0.0739	0.0739	
2008	3	1	2	0	0	0	50	0.0004	0.0018	0.0097	0.0362	0.0775	0.0662	0.0472	0.0772	0.1071	0.0871	0.0871	0.0871	
2009	3	1	2	0	0	0	50	0.0036	0.0083	0.0099	0.0144	0.0164	0.0282	0.0652	0.0867	0.0803	0.0912	0.0912	0.0912	
2010	3	1	2	0	0	0	50	0.0036	0.0051	0.0052	0.0199	0.0276	0.0292	0.0269	0.0444	0.0882	0.1135	0.1135	0.1135	
2011	3	1	2	0	0	0	50	0.013	0.037	0.0604	0.101	0.076								



1986	5	2	2	0	0	0	0	0.0038	0.0014	0.0038	0.0000	0.0038	0.0099	0.0329	0.0762	0.0630	0.0470	0.0494	0.0466	0.0428	0.0202
1987	5	2	2	0	0	0	0	0.0020	0.0020	0.0030	0.0100	0.0180	0.0311	0.0331	0.0401	0.0220	0.0311	0.0160	0.0391	0.0080	0.0080
1988	5	2	2	0	0	0	0	0.0079	0.0143	0.0032	0.0079	0.0063	0.0127	0.0222	0.0333	0.0476	0.0524	0.0397	0.0222	0.0175	0.0079
1989	5	2	2	0	0	0	0	0.0026	0.0024	0.0013	0.0022	0.0065	0.0108	0.0205	0.0429	0.0502	0.0480	0.0435	0.0295	0.0256	0.0170
1990	5	2	2	0	0	0	0	0.0022	0.0044	0.0077	0.0088	0.0121	0.0121	0.0198	0.0220	0.0374	0.0297	0.0308	0.0264	0.0165	0.0099
1991	5	2	2	0	0	0	0	0.0000	0.0036	0.0073	0.0036	0.0000	0.0073	0.0036	0.0073	0.0291	0.0182	0.0182	0.0291	0.0182	0.0327
1992	5	2	2	0	0	0	0	0.0030	0.0000	0.0000	0.0030	0.0420	0.0631	0.0480	0.0480	0.0450	0.0480	0.0631	0.0691	0.0480	0.0450
1994	5	2	2	0	0	0	0	0.0000	0.0035	0.0088	0.0280	0.0333	0.0438	0.0298	0.0665	0.0455	0.0175	0.0140	0.0123	0.0140	0.0450
1995	5	2	2	0	0	0	0	0.0083	0.0000	0.0000	0.0250	0.0083	0.0250	0.0417	0.0167	0.0250	0.0000	0.0250	0.0000	0.0083	0.0167
1996	5	2	2	0	0	0	0	0.0000	0.0000	0.0008	0.0091	0.0207	0.0339	0.0149	0.0165	0.0182	0.0248	0.0256	0.0190	0.0240	0.0215
1997	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0029	0.0000	0.0265	0.0383	0.0678	0.0944	0.0472	0.0413	0.0560	0.0295
1998	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0007	0.0014	0.0042	0.0182	0.0503	0.0545	0.0441	0.0392	0.0322	0.0469	0.0371
1999	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0016	0.0000	0.0000	0.0048	0.0048	0.0079	0.0207	0.0254	0.0223	0.0350	0.0238
2000	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0027	0.0041	0.0082	0.0151	0.0192	0.0082	0.0151	0.0316	0.0425	0.0178	0.0233
2001	5	2	2	0	0	0	0	0.0000	0.0000	0.0025	0.0025	0.0138	0.0126	0.0289	0.0226	0.0252	0.0302	0.0201	0.0239	0.0302	0.0340
2002	5	2	2	0	0	0	0	0.0000	0.0009	0.0000	0.0018	0.0035	0.0079	0.0149	0.0272	0.0527	0.0369	0.0281	0.0316	0.0395	0.0430
2003	5	2	2	0	0	0	0	0.0000	0.0058	0.0039	0.0116	0.0155	0.0233	0.0174	0.0194	0.0213	0.0271	0.0252	0.0426	0.0310	0.0329
2004	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0016	0.0016	0.0142	0.0299	0.0377	0.0393	0.0299	0.0535	0.0330	0.0409	0.0220
2005	5	2	2	0	0	0	0	0.0010	0.0058	0.0077	0.0048	0.0087	0.0212	0.0346	0.0500	0.0673	0.0596	0.0260	0.0308	0.0221	0.0192
2006	5	2	2	0	0	0	0	0.0000	0.0000	0.0009	0.0009	0.0043	0.0094	0.0068	0.0103	0.0154	0.0231	0.0300	0.0308	0.0342	0.0257
2007	5	2	2	0	0	0	0	0.0000	0.0000	0.0016	0.0016	0.0033	0.0139	0.0269	0.0359	0.0359	0.0376	0.0465	0.0563	0.0522	0.0506
2008	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0006	0.0063	0.0044	0.0075	0.0169	0.0307	0.0269	0.0263	0.0269	0.0338	0.0194
2009	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0017	0.0120	0.0231	0.0453	0.0427	0.0256	0.0274	0.0342	0.0436	0.0393
2010	5	2	2	0	0	0	0	0.0011	0.0011	0.0011	0.0011	0.0044	0.0122	0.0244	0.0322	0.0322	0.0433	0.0599	0.0511	0.0488	0.0433
2011	5	2	2	0	0	0	0	0.0000	0.0000	0.0046	0.0137	0.0091	0.0068	0.0342	0.0091	0.0205	0.0228	0.0433	0.0456	0.0524	0.0342
2012	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0036	0.0320	0.0214	0.0463	0.0142	0.0356	0.0320	0.0285	0.0569	0.0463
2013	5	2	2	0	0	0	0	0.0021	0.0000	0.0021	0.0000	0.0083	0.0062	0.0249	0.0416	0.0333	0.0395	0.0249	0.0187	0.0229	0.0353
2014	5	2	2	0	0	0	0	0.0000	0.0000	0.0038	0.0038	0.0038	0.0077	0.0268	0.0153	0.0460	0.0307	0.0268	0.0153	0.0115	0.0115
2015	5	2	2	0	0	0	0	0.0000	0.0024	0.0024	0.0073	0.0342	0.0293	0.0465	0.0538	0.0318	0.0465	0.0367	0.0293	0.0293	0.0220
2016	5	2	2	0	0	0	0	0.0000	0.0000	0.0065	0.0049	0.0016	0.0081	0.0097	0.0097	0.0097	0.0227	0.0373	0.0324	0.0340	0.0243
2017	5	2	2	0	0	0	0	0.0000	0.0000	0.0028	0.0028	0.0181	0.0056	0.0070	0.0028	0.0056	0.0070	0.0097	0.0153	0.0153	0.0125
2018	5	2	2	0	0	0	0	0.0000	0.0045	0.0067	0.0112	0.0078	0.0112	0.0157	0.0347	0.0168	0.0202	0.0246	0.0291	0.0314	0.0325
2019	5	2	2	0	0	0	0	0.0024	0.0024	0.0097	0.0036	0.0085	0.0194	0.0073	0.0109	0.0122	0.0170	0.0182	0.0170	0.0207	0.0182
2020	5	2	2	0	0	0	0	0.0000	0.0026	0.0026	0.0026	0.0092	0.0052	0.0105	0.0079	0.0131	0.0105	0.0065	0.0131	0.0209	0.0157
2021	5	2	2	0	0	0	0	0.0000	0.0020	0.0000	0.0000	0.0040	0.0060	0.0099	0.0080	0.0219	0.0040	0.0080	0.0119	0.0159	0.0219
2022	5	2	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0222	0.0222	0.0222	0.0222	0.0444	0.0222	0.0111	0.0111	0.0000

#Tanner crab	bycatch	Male	(male and female combined compositons are normalized to be 1)																		
#Year	Season	Fleet	Sex	Type	Shell	Maturity	Nsamp	DataVec													
1991	5	1	1	0	0	0	50	0.0026	0.0048	0.0029	0.0042	0.0051	0.0042	0.0102	0.0141	0.0144	0.0112	0.0112	0.0112	0.0112	0.0112
1992	5	1	1	0	0	0	48.25	0.0000	0.0000	0.0010	0.0031	0.0114	0.0166	0.0259	0.0238	0.0259	0.0301	0.0301	0.0301	0.0301	0.0301
1993	5	1	1	0	0	0	24.85	0.0000	0.0000	0.0000	0.0000	0.0040	0.0020	0.0262	0.0483	0.0584	0.0664	0.0664	0.0664	0.0664	0.0664
1994	5	1	1	0	0	0	0.85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006	5	1	1	0	0	0	7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0214	0.0500	0.0429	0.0500	0.0786	0.0857	0.0857	0.0857	0.0857
2007	5	1	1	0	0	0	2.65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0189	0.0189	0.0189
2008	5	1	1	0	0	0	7.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0069	0.0138	0.0276	0.0897	0.0897	0.0897
2009	5	1	1	0	0	0	9.65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0052	0.0155	0.0207	0.0207	0.0207
2013	5	1	1	0	0	0	40.7	0.0000	0.0012	0.0000	0.0000	0.0000	0.0000	0.0086	0.0074	0.0135	0.0184	0.0393	0.0393	0.0393	0.0393
2014	5	1	1	0	0	0	31.55	0.0000	0.0000	0.0016	0.0000	0.0000	0.0079	0.0079	0.0127	0.0190	0.0158	0.0317	0.0317	0.0317	0.0317
2015	5	1	1	0	0	0	50	0.0017	0.0038	0.0017	0.0024	0.0181	0.0247	0.0178	0.0115	0.0153	0.0205	0.0205	0.0205	0.0205	0.0205

#Tanner crab	bycatch	female																			
#Year	Season	Fleet	Sex	Type	Shell	Maturity	Nsamp	DataVec													
1991	5	1	2	0	0	0	0	0.0051	0.0105	0.0096	0.0102	0.0240	0.0326	0.0565	0.0466	0.0827	0.1150	0.1150	0.1150	0.1150	0.1150
1992	5	1	2	0	0	0	0	0.0000	0.0000	0.0010	0.0062	0.0228	0.0456	0.0819	0.0933	0.0870	0.0539	0.0539	0.0539	0.0539	0.0539
1993	5	1	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0040	0.0342	0.0825	0.1127	0.0805	0.0362	0.0362	0.0362	0.0362	0.0362
1994	5	1	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006	5	1	2	0	0	0	0	0.0000	0.0000	0.0000	0.0071	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0143	0.0143
2007	5	1	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0189	0.1698	0.2264	0.2453	0.1321	0.1321	0.1321	0.1321
2008	5	1	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0069	0.0069	0.0138	0.0621	0.0552	0.0552	0.0552	0.0552
2009	5	1	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0155	0.0622	0.0674	0.0518	0.0518	0.0518
2013	5	1	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0221	0.0504	0.1806	0.1437	0.0774	0.0774	0.0774	0.0774
2014	5	1	2	0	0	0	0	0.0000	0.0000	0.00											

2001	5	4	1	0	0	0	50	0.0000	0.0002	0.0006	0.0004	0.0016	0.0044	0.0074	0.0111	0.0201	0.0221	0.0239	0.0233	0.0257	0.		
2002	5	4	1	0	0	0	50	0.0000	0.0000	0.0000	0.0003	0.0009	0.0017	0.0003	0.0020	0.0049	0.0111	0.0151	0.0220	0.0305	0.		
2003	5	4	1	0	0	0	50	0.0011	0.0000	0.0032	0.0118	0.0150	0.0171	0.0235	0.0107	0.0075	0.0118	0.0128	0.0299	0.0310	0.		
2004	5	4	1	0	0	0	50	0.0000	0.0005	0.0018	0.0055	0.0037	0.0092	0.0114	0.0284	0.0307	0.0288	0.0343	0.0247	0.0243	0.		
2005	5	4	1	0	0	0	50	0.0005	0.0000	0.0014	0.0000	0.0005	0.0042	0.0009	0.0116	0.0075	0.0075	0.0205	0.0266	0.0266	0.		
2006	5	4	1	0	0	0	50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0027	0.0016	0.0070	0.0070	0.0107	0.0161	0.0155	0.		
2007	5	4	1	0	0	0	39.25	0.0000	0.0000	0.0000	0.0000	0.0013	0.0000	0.0000	0.0013	0.0025	0.0051	0.0051	0.0140	0.0051	0.		
2008	5	4	1	0	0	0	50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0026	0.0069	0.0172	0.0232	0.0369	0.0378	0.0464	0.		
2009	5	4	1	0	0	0	50	0.0000	0.0000	0.0000	0.0000	0.0009	0.0009	0.0009	0.0101	0.0129	0.0129	0.0129	0.0202	0.0395	0.		
2010	5	4	1	0	0	0	25.65	0.0000	0.0000	0.0019	0.0000	0.0000	0.0019	0.0019	0.0000	0.0019	0.0039	0.0117	0.0136	0.0273	0.		
2011	5	4	1	0	0	0	50	0.0000	0.0000	0.0008	0.0017	0.0000	0.0025	0.0017	0.0025	0.0042	0.0025	0.0050	0.0067	0.0076	0.		
2012	5	4	1	0	0	0	50	0.0000	0.0000	0.0003	0.0007	0.0013	0.0010	0.0047	0.0074	0.0114	0.0138	0.0225	0.0269	0.0316	0.		
2013	5	4	1	0	0	0	50	0.0073	0.0097	0.0153	0.0253	0.0210	0.0185	0.0211	0.0215	0.0232	0.0264	0.0275	0.0327	0.0340	0.		
2014	5	4	1	0	0	0	50	0.0019	0.0026	0.0040	0.0026	0.0033	0.0054	0.0089	0.0128	0.0121	0.0145	0.0191	0.0238	0.0285	0.		
2015	5	4	1	0	0	0	50	0.0007	0.0011	0.0007	0.0022	0.0063	0.0098	0.0107	0.0130	0.0125	0.0192	0.0177	0.0170	0.0150	0.		
2016	5	4	1	0	0	0	50	0.0018	0.0032	0.0062	0.0090	0.0192	0.0210	0.0240	0.0291	0.0261	0.0229	0.0247	0.0189	0.0155	0.		
2017	5	4	1	0	0	0	50	0.0000	0.0014	0.0000	0.0071	0.0141	0.0148	0.0163	0.0120	0.0071	0.0163	0.0085	0.0120	0.0078	0.		
2018	5	4	1	0	0	0	50	0.0009	0.0020	0.0041	0.0080	0.0045	0.0126	0.0242	0.0392	0.0399	0.0470	0.0385	0.0255	0.0201	0.		
2019	5	4	1	0	0	0	43.15	0.0000	0.0023	0.0046	0.0104	0.0185	0.0197	0.0255	0.0209	0.0209	0.0197	0.0070	0.0139	0.0139	0.01		
2020	5	4	1	0	0	0	12.3	0.0122	0.0000	0.0041	0.0000	0.0000	0.0000	0.0000	0.0041	0.0081	0.0000	0.0081	0.0203	0.0122	0.0285		
2021	5	4	1	0	0	0	6.0	0.000	0.000	0.000	0.000	0.000	0.000	0.0083	0.0167	0.0000	0.0083	0.0083	0.0250	0.0167	0.0083	0.0000	0.
2022	5	4	1	0	0	0	2.5	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0400	0.0200	0.0000	0.0600	0.0000	0.0600	0.0200	0.0600	0.

# Fixed gear	crab	bycatch female																							
#Year	Season	Fleet	Sex	Type	Shell	Maturity	Nsamp	DataVec																	
1996	5	4	2	0	0	0	0	0.0066	0.0013	0.0053	0.0040	0.0159	0.0079	0.0238	0.0423	0.0556	0.0860	0.1270	0.1230	0.0847	0.0741				
1997	5	4	2	0	0	0	0	0.0000	0.0000	0.0008	0.0008	0.0047	0.0126	0.0299	0.0260	0.0339	0.0252	0.0165	0.0126	0.0071	0.0071				
1998	5	4	2	0	0	0	0	0.0000	0.0000	0.0010	0.0000	0.0000	0.0000	0.0068	0.0251	0.0309	0.0193	0.0203	0.0097	0.0058	0.0106				
1999	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031	0.0075	0.0131	0.0194	0.0256	0.0237				
2000	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0017	0.0017	0.0102	0.0152	0.0237	0.0508	0.0440	0.0423	0.0321				
2001	5	4	2	0	0	0	0	0.0004	0.0002	0.0000	0.0016	0.0028	0.0066	0.0127	0.0195	0.0177	0.0205	0.0441	0.0787	0.0678	0.0380				
2002	5	4	2	0	0	0	0	0.0000	0.0003	0.0009	0.0000	0.0000	0.0006	0.0000	0.0029	0.0060	0.0106	0.0086	0.0226	0.0340	0.0348				
2003	5	4	2	0	0	0	0	0.0011	0.0005	0.0011	0.0101	0.0198	0.0150	0.0091	0.0069	0.0150	0.0240	0.0331	0.0337	0.0342	0.0438				
2004	5	4	2	0	0	0	0	0.0005	0.0000	0.0023	0.0032	0.0055	0.0114	0.0174	0.0330	0.0293	0.0284	0.0476	0.0481	0.0458	0.0426				
2005	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0005	0.0005	0.0023	0.0056	0.0149	0.0322	0.0503	0.0499	0.0517	0.0718	0.0555				
2006	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0011	0.0016	0.0123	0.0348	0.0717	0.1108	0.1055	0.0964	0.0675	0.0498				
2007	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0038	0.0064	0.0318	0.0446	0.0815	0.1197	0.1108	0.0726	0.0433				
2008	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0043	0.0120	0.0198	0.0438	0.0335	0.0576	0.0653	0.0730	0.0490				
2009	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0028	0.0147	0.0184	0.0220	0.0294	0.0340	0.0312	0.0487	0.0395				
2010	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.0019	0.0039	0.0000	0.0058	0.0214	0.0663	0.0682	0.0975	0.1111	0.1150	0.0663				
2011	5	4	2	0	0	0	0	0.0000	0.0017	0.0008	0.0067	0.0076	0.0176	0.0202	0.0336	0.0580	0.0664	0.1000	0.0908	0.0739	0.0639				
2012	5	4	2	0	0	0	0	0.0000	0.0000	0.0010	0.0027	0.0020	0.0104	0.0215	0.0262	0.0339	0.0346	0.0339	0.0571	0.0668	0.0648				
2013	5	4	2	0	0	0	0	0.0056	0.0108	0.0224	0.0266	0.0243	0.0245	0.0249	0.0316	0.0354	0.0272	0.0251	0.0241	0.0296	0.0412				
2014	5	4	2	0	0	0	0	0.0023	0.0061	0.0049	0.0014	0.0042	0.0056	0.0084	0.0229	0.0422	0.0537	0.0497	0.0502	0.0511	0.0560				
2015	5	4	2	0	0	0	0	0.0002	0.0002	0.0002	0.0045	0.0072	0.0132	0.0228	0.0512	0.0745	0.0879	0.1082	0.1064	0.0767	0.0557				
2016	5	4	2	0	0	0	0	0.0037	0.0028	0.0044	0.0162	0.0245	0.0208	0.0231	0.0370	0.0499	0.0695	0.0931	0.0845	0.0640	0.0464				
2017	5	4	2	0	0	0	0	0.0007	0.0007	0.0021	0.0127	0.0155	0.0261	0.0184	0.0184	0.0240	0.0382	0.0615	0.0912	0.0876	0.1110				
2018	5	4	2	0	0	0	0	0.0006	0.0039	0.0026	0.0050	0.0067	0.0162	0.0344	0.0613	0.0585	0.0615	0.0574	0.0713	0.0654	0.0520				
2019	5	4	2	0	0	0	0	0.0000	0.0000	0.0012	0.0104	0.0174	0.0313	0.0290	0.0406	0.0788	0.0823	0.0788	0.0718	0.0637	0.0707				
2020	5	4	2	0	0	0	0	0.0000	0.0041	0.0041	0.0000	0.0041	0.0041	0.0285	0.0081	0.0244	0.0366	0.0813	0.0650	0.0691	0.0935				
2021	5	4	2	0	0	0	0	0.0000	0.0083	0.0083	0.0000	0.0083	0.0083	0.0250	0.0167	0.0333	0.0417	0.0583	0.0333	0.0750	0.0667				
2022	5	4	2	0	0	0	0	0.0000	0.0000	0.0000	0.000	0.0200	0.0400	0.0400	0.0400	0.0400	0.0600	0.0600	0.0600	0.0600	0.0400	0.0400	0.0400	0.0400	0.

#NMFS	males	combined																						
#Year	Season	Fleet	Sex	Type	Shell	Maturity	Nsamp	DataVec																
1975	1	5	1	0.000	0	0	200	0.0222	0.0411	0.0299	0.0379	0.0342	0.0299	0.0309	0.0246	0.0264	0.0314	0.0268	0.0292	0.0284	0.			
1976	1	5	1	0.000	0	0	200	0.0025	0.0127	0.0268	0.0503	0.0623	0.0522	0.0559	0.0449	0.0392	0.0329	0.0409	0.0438	0.0369	0.			
1977	1	5	1	0.000	0	0	200	0.0040	0.0043	0.0065	0.0102	0.0199	0.0376	0.0453	0.0441	0.0414	0.0450	0.0409	0.0409	0.0311	0.			
1978	1	5	1	0.000	0	0	200	0.0043	0.0120	0.0136	0.0240	0.0172	0.0191	0.0178	0.0279	0.0296	0.0297	0.0300	0.0304	0.0291	0.			
1979	1	5	1	0.000	0	0	200	0.0206	0.0154	0.0103	0.0123	0.0144	0.0163	0.0137	0.0155	0.0164	0.0157	0.0235	0.0338	0.0333	0.			
1980	1	5	1	0.000	0	0	200	0.0067	0.0133	0.0376	0.0287	0.0295	0.0296	0.0265	0.0262									

1992	1	5	1	0.000	0	0	200	0.0010	0.0000	0.0020	0.0127	0.0252	0.0355	0.0552	0.0528	0.0382	0.0399	0.0291	0.0378	0.0348	0.0627
1993	1	5	1	0.000	0	0	200	0.0021	0.0110	0.0137	0.0105	0.0095	0.0157	0.0142	0.0235	0.0309	0.0443	0.0417	0.0627	0.0479	0.0627
1994	1	5	1	0.000	0	0	163.75	0.0016	0.0000	0.0031	0.0237	0.0235	0.0152	0.0124	0.0173	0.0213	0.0354	0.0412	0.0403	0.0403	0.0627
1995	1	5	1	0.000	0	0	200	0.0283	0.0683	0.0557	0.0220	0.0110	0.0169	0.0222	0.0255	0.0275	0.0305	0.0263	0.0268	0.0343	0.0627
1996	1	5	1	0.000	0	0	200	0.0278	0.0135	0.0298	0.0529	0.0632	0.0594	0.0276	0.0225	0.0117	0.0179	0.0140	0.0150	0.0139	0.0627
1997	1	5	1	0.000	0	0	200	0.0000	0.0036	0.0022	0.0052	0.0127	0.0564	0.0943	0.1070	0.0910	0.0515	0.0301	0.0162	0.0149	0.0627
1998	1	5	1	0.000	0	0	200	0.0209	0.0174	0.0103	0.0127	0.0120	0.0101	0.0135	0.0169	0.0226	0.0467	0.0485	0.0523	0.0451	0.0627
1999	1	5	1	0.000	0	0	200	0.0583	0.0244	0.0134	0.0104	0.0120	0.0110	0.0121	0.0148	0.0047	0.0132	0.0182	0.0233	0.0520	0.0627
2000	1	5	1	0.000	0	0	200	0.0018	0.0047	0.0195	0.0396	0.0310	0.0200	0.0228	0.0163	0.0201	0.0147	0.0134	0.0296	0.0294	0.0627
2001	1	5	1	0.000	0	0	200	0.0069	0.0050	0.0106	0.0149	0.0156	0.0421	0.0372	0.0523	0.0346	0.0200	0.0253	0.0166	0.0140	0.0627
2002	1	5	1	0.000	0	0	200	0.0534	0.0638	0.0436	0.0272	0.0119	0.0091	0.0076	0.0106	0.0229	0.0266	0.0347	0.0290	0.0203	0.0627
2003	1	5	1	0.000	0	0	200	0.0149	0.0069	0.0142	0.0236	0.0392	0.0320	0.0301	0.0165	0.0112	0.0143	0.0133	0.0251	0.0236	0.0627
2004	1	5	1	0.000	0	0	200	0.0371	0.0289	0.0268	0.0195	0.0187	0.0187	0.0350	0.0535	0.0436	0.0445	0.0293	0.0238	0.0142	0.0627
2005	1	5	1	0.000	0	0	200	0.0353	0.0586	0.0419	0.0160	0.0098	0.0228	0.0234	0.0215	0.0184	0.0171	0.0219	0.0233	0.0159	0.0627
2006	1	5	1	0.000	0	0	200	0.0133	0.0197	0.0173	0.0276	0.0291	0.0369	0.0210	0.0208	0.0129	0.0188	0.0116	0.0128	0.0236	0.0627
2007	1	5	1	0.000	0	0	200	0.0017	0.0025	0.0053	0.0084	0.0196	0.0271	0.0345	0.0436	0.0386	0.0288	0.0288	0.0233	0.0236	0.0627
2008	1	5	1	0.000	0	0	200	0.0000	0.0008	0.0038	0.0068	0.0149	0.0188	0.0194	0.0239	0.0372	0.0470	0.0453	0.0328	0.0382	0.0627
2009	1	5	1	0.000	0	0	200	0.0010	0.0005	0.0037	0.0053	0.0053	0.0104	0.0096	0.0225	0.0330	0.0301	0.0315	0.0328	0.0363	0.0627
2010	1	5	1	0.000	0	0	200	0.0000	0.0033	0.0080	0.0094	0.0077	0.0054	0.0161	0.0134	0.0130	0.0153	0.0270	0.0363	0.0302	0.0627
2011	1	5	1	0.000	0	0	200	0.0036	0.0044	0.0125	0.0204	0.0169	0.0138	0.0168	0.0151	0.0182	0.0132	0.0181	0.0203	0.0161	0.0627
2012	1	5	1	0.000	0	0	200	0.0025	0.0040	0.0120	0.0159	0.0128	0.0227	0.0336	0.0247	0.0174	0.0174	0.0153	0.0196	0.0217	0.0627
2013	1	5	1	0.000	0	0	200	0.0008	0.0025	0.0123	0.0145	0.0101	0.0174	0.0134	0.0235	0.0280	0.0261	0.0323	0.0348	0.0303	0.0627
2014	1	5	1	0.000	0	0	200	0.0000	0.0005	0.0026	0.0030	0.0160	0.0313	0.0437	0.0348	0.0313	0.0192	0.0231	0.0326	0.0336	0.0627
2015	1	5	1	0.000	0	0	200	0.0105	0.0207	0.0103	0.0093	0.0047	0.0110	0.0158	0.0149	0.0244	0.0187	0.0285	0.0203	0.0235	0.0627
2016	1	5	1	0.000	0	0	200	0.0066	0.0009	0.0026	0.0032	0.0041	0.0043	0.0034	0.0083	0.0069	0.0129	0.0085	0.0145	0.0127	0.0627
2017	1	5	1	0.000	0	0	200	0.0032	0.0011	0.0029	0.0095	0.0243	0.0199	0.0135	0.0068	0.0083	0.0077	0.0086	0.0134	0.0064	0.0627
2018	1	5	1	0.000	0	0	161	0.0051	0.0173	0.0173	0.0153	0.0093	0.0161	0.0144	0.0174	0.0367	0.0160	0.0334	0.0210	0.0033	0.0627
2019	1	5	1	0.000	0	0	143	0.0017	0.0036	0.0106	0.0071	0.0071	0.0314	0.0157	0.0244	0.0231	0.0336	0.0299	0.0436	0.0424	0.0627
2021	1	5	1	0.000	0	0	142.75	0.0038	0.0187	0.0136	0.0140	0.0248	0.0129	0.0183	0.0211	0.0198	0.0245	0.0236	0.0229	0.0384	0.0627
2022	1	5	1	0.0000	0	0	180	0.0000	0.0044	0.0176	0.0143	0.0197	0.0098	0.0256	0.0319	0.0209	0.0241	0.0168	0.0295	0.0402	0.0627
2023	1	5	1	0.0000	0	0	200	0.0012	0.0034	0.0070	0.0229	0.0443	0.0524	0.0321	0.0166	0.0168	0.0194	0.0108	0.0261	0.0214	0.0627

#NMFS	female																					
#Year	Season	Fleet	Sex	Type	Shell	Maturity	Nsamp	DataVec														
1975	1	5	2	0.000	0	0	0	0.0331	0.0401	0.0481	0.0494	0.0564	0.0439	0.0444	0.0454	0.0326	0.0289	0.0162	0.0158	0.0116	0.0627	
1976	1	5	2	0.000	0	0	0	0.0029	0.0092	0.0313	0.0563	0.0688	0.0628	0.0494	0.0269	0.0121	0.0137	0.0066	0.0049	0.0023	0.0627	
1977	1	5	2	0.000	0	0	0	0.0026	0.0068	0.0079	0.0193	0.0337	0.0701	0.0808	0.0715	0.0453	0.0435	0.0415	0.0316	0.0151	0.0627	
1978	1	5	2	0.000	0	0	0	0.0060	0.0111	0.0187	0.0201	0.0233	0.0418	0.0920	0.1212	0.0791	0.0440	0.0301	0.0267	0.0176	0.0627	
1979	1	5	2	0.000	0	0	0	0.0286	0.0154	0.0121	0.0147	0.0148	0.0230	0.0381	0.0734	0.0922	0.0876	0.0565	0.0336	0.0215	0.0627	
1980	1	5	2	0.000	0	0	0	0.0048	0.0219	0.0322	0.0292	0.0597	0.0820	0.0487	0.0581	0.0540	0.0424	0.0315	0.0130	0.0110	0.0627	
1981	1	5	2	0.000	0	0	0	0.0152	0.0113	0.0151	0.0190	0.0366	0.0456	0.0443	0.0472	0.0600	0.0774	0.0804	0.0510	0.0252	0.0627	
1982	1	5	2	0.000	0	0	0	0.0536	0.0954	0.0603	0.0378	0.0423	0.0482	0.0398	0.0232	0.0190	0.0257	0.0281	0.0203	0.0114	0.0627	
1983	1	5	2	0.000	0	0	0	0.0174	0.0383	0.0475	0.0629	0.0647	0.0398	0.0341	0.0152	0.0107	0.0042	0.0090	0.0056	0.0061	0.0627	
1984	1	5	2	0.000	0	0	0	0.0174	0.0585	0.1229	0.1105	0.0647	0.0325	0.0159	0.0119	0.0038	0.0017	0.0000	0.0004	0.0001	0.0627	
1985	1	5	2	0.000	0	0	0	0.0009	0.0155	0.0377	0.0521	0.0643	0.0555	0.0516	0.0397	0.0161	0.0068	0.0000	0.0000	0.0015	0.0627	
1986	1	5	2	0.000	0	0	0	0.0124	0.0224	0.0355	0.0274	0.0263	0.0313	0.0362	0.0388	0.0274	0.0113	0.0072	0.0008	0.0000	0.0627	
1987	1	5	2	0.000	0	0	0	0.0013	0.0124	0.0525	0.0918	0.0761	0.0462	0.0445	0.0569	0.0414	0.0292	0.0179	0.0079	0.0018	0.0627	
1988	1	5	2	0.000	0	0	0	0.0006	0.0076	0.0064	0.0062	0.0139	0.0695	0.0910	0.0979	0.0697	0.0600	0.0407	0.0184	0.0077	0.0627	
1989	1	5	2	0.000	0	0	0	0.0017	0.0000	0.0017	0.0082	0.0310	0.0740	0.0646	0.0692	0.0531	0.0376	0.0315	0.0194	0.0064	0.0627	
1990	1	5	2	0.000	0	0	0	0.0041	0.0052	0.0235	0.0513	0.0525	0.0071	0.0256	0.0601	0.0732	0.0708	0.0633	0.0410	0.0215	0.0627	
1991	1	5	2	0.000	0	0	0	0.0042	0.0115	0.0196	0.0320	0.0218	0.0344	0.0343	0.0310	0.0366	0.0329	0.0281	0.0431	0.0232	0.0627	
1992	1	5	2	0.000	0	0	0	0.0000	0.0053	0.0074	0.0197	0.0364	0.0414	0.0625	0.0448	0.0353	0.0273	0.0450	0.0407	0.0265	0.0627	
1993	1	5	2	0.000	0	0	0	0.0066	0.0080	0.0175	0.0085	0.0131	0.0248	0.0437	0.0647	0.0639	0.0269	0.0300	0.0268	0.0271	0.0627	
1994	1	5	2	0.000	0	0	0	0.0000	0.0016	0.0044	0.0030	0.0169	0.0092	0.0124	0.0213	0.0431	0.0416	0.0362	0.0280	0.0395	0.0627	
1995	1	5	2	0.000	0	0	0	0.0294	0.0482	0.0316	0.0145	0.0139	0.0182	0.0163	0.0254	0.0234	0.0334	0.0272	0.0234	0.0240	0.0627	
1996	1	5	2	0.000	0	0	0	0.0260	0.0219	0.0436	0.0794	0.0796	0.0436	0.0226	0.0218	0.0245	0.0202	0.0161	0.0285	0.0244	0.0627	
1997	1	5	2	0.000	0	0	0	0.0004	0.0037	0.0016	0.0020	0.0146	0.0791	0.0969	0.0616	0.0212	0.0137	0.0095	0.0146	0.0143	0.0627	
1998	1	5	2	0.000	0	0	0	0.0145	0.0196	0.0101	0.0088	0.0111	0.0116	0.0303	0.1040	0.1153	0.0594	0.0303	0.0252	0.0225	0.0627	
1999	1	5	2	0.000	0	0	0	0.0243	0.0169	0.0125	0.0115	0.0044	0.0055	0.0093	0.0164	0.0512	0.0800	0.0583	0.0358	0.0340	0.0627	
2000	1																					



```

19.5      -10      25      3      0 10.0 25.0      # logRini, to estimate if NOT initialized at unfished (n68)
16.5      -10      25      1      0 10.0 20.0 #1      # logRbar, to estimate if NOT initialized at unfished #1
72.5      55      100     -4      1 72.5 7.25     # recruitment expected value (males or combined)
0.726149  0.32    1.64    3      0 0.1 5.0      # recruitment scale (variance component) (males or combined)
0.00      -5      5      -4      0 0.0 20.0     # recruitment expected value (females)
0.00      -1.69    0.40    3      0 0.0 20.0     # recruitment scale (variance component) (females)
-0.10536  -10      0.75    -4      0 -10.0 0.75     # ln(sigma_R)
#-0.10    -5      5.0      4      0 -10.0 10.0     # ln(sigma_R)
0.75      0.20    1.00    -2      3 3.0 2.00     # steepness
0.01      0.00    1.00    -3      3 1.01 1.01     # recruitment autocorrelation
# 0.00     -10      4      2      0 10.0 20.0     # Deviation for size-class 1 (normalization class)
1.107962885630 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 2
0.563229168219 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 3
0.681928313426 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 4
0.491057364532 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 5
0.407911777560 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 6
0.436516142684 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 7
0.40612675395550 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 8
0.436145974880 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 9
0.40494522852708 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 10
0.30401970466854 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 11
0.2973752673022 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 12
0.1746800712364 -10     4      9      9 0 10.0 20.0     # Deviation for size-class 13
0.0845298456942 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 14
0.0107462399193 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 15
-0.190468322904 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 16
-0.376312503735 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 17
-0.699162895473 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 18
-1.15881771530 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 19
-1.17311583316 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 20
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 1
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 2
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 3
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 4
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 5
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 6
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 7
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 8
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 9
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 10
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 11
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 12
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 13
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 14
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 15
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 16
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 17
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 18
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 19
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 20
0.425704202053 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 1
2.268408592660 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 2
1.810451373080 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 3
1.37035725111 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 4
1.158258087990 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 5
0.596196784439 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 6
0.225756761257 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 7
-0.0247857565368 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 8
-0.214045895269 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 9
-0.560539577780 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 10
-0.974218300021 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 11
-1.24580072031 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 12
-1.49292897450 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 13
-1.94135821253 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 14
-2.05101560679 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 15
-1.94956606430 -10     4      4      9 0 10.0 20.0     # Deviation for size-class 16
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 17
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 18
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 19
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 20
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 1
-100.00    -101     5      -2      0 10.0 20.0     # Deviation for size-class 2

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15.8 0 20 -33 0 0 999 # Males
15.8 0 20 -33 0 0 999 # Males
15.7 0 20 -33 0 0 999 # Males
15.7 0 20 -33 0 0 999 # Males
15.6 0 20 -33 0 0 999 # Males
15.6 0 20 -33 0 0 999 # Males
15.5 0 20 -33 0 0 999 # Males
15.5 0 20 -33 0 0 999 # Males
#1.38403 0.5 3.7 7 0 0 999 # Males (beta)
1.0 0.5 3.0 6 0 0 999 # Males (beta)
13.8 0 20 -33 0 0 999 # Females
12.2 0 20 -33 0 0 999 # Females
10.5 0 20 -33 0 0 999 # Females
8.4 0 20 -33 0 0 999 # Females
7.5 0 20 -33 0 0 999 # Females
7 0 20 -33 0 0 999 # Females
6.6 0 20 -33 0 0 999 # Females
6.1 0 20 -33 0 0 999 # Females
5.6 0 20 -33 0 0 999 # Females
5.1 0 20 -33 0 0 999 # Females
4.6 0 20 -33 0 0 999 # Females
4.1 0 20 -33 0 0 999 # Females
3.6 0 20 -33 0 0 999 # Females
3.2 0 20 -33 0 0 999 # Females
2.7 0 20 -33 0 0 999 # Females
2.2 0 20 -33 0 0 999 # Females
1.7 0 20 -33 0 0 999 # Females
1.2 0 20 -33 0 0 999 # Females
0.7 0 20 -33 0 0 999 # Females
0.4 0 20 -33 0 0 999 # Females
#1.38403 0.5 3.0 7 0 0 999 # Females (beta)
1.5 0.5 3.0 6 0 0 999 # Females (beta)
15.4 0 20 -33 0 0 999 # Females
13.8 0 20 -33 0 0 999 # Females
12.2 0 20 -33 0 0 999 # Females
10.5 0 20 -33 0 0 999 # Females
8.9 0 20 -33 0 0 999 # Females
7.9 0 20 -33 0 0 999 # Females
7.2 0 20 -33 0 0 999 # Females
6.6 0 20 -33 0 0 999 # Females
6.1 0 20 -33 0 0 999 # Females
5.6 0 20 -33 0 0 999 # Females
5.1 0 20 -33 0 0 999 # Females
4.6 0 20 -33 0 0 999 # Females
4.1 0 20 -33 0 0 999 # Females
3.6 0 20 -33 0 0 999 # Females
3.2 0 20 -33 0 0 999 # Females
2.7 0 20 -33 0 0 999 # Females
2.2 0 20 -33 0 0 999 # Females
1.7 0 20 -33 0 0 999 # Females
1.2 0 20 -33 0 0 999 # Females
0.7 0 20 -33 0 0 999 # Females
0.0 -1.0 1.0 -7 0 0 999 # Females (beta)
#1.38403 0.5 3.7 -7 0 0 999 # Females (beta)
15.1 0 20 -33 0 0 999 # Females
14 0 20 -33 0 0 999 # Females
12.9 0 20 -33 0 0 999 # Females
11.8 0 20 -33 0 0 999 # Females
10.6 0 20 -33 0 0 999 # Females
8.7 0 20 -33 0 0 999 # Females
7.4 0 20 -33 0 0 999 # Females
6.6 0 20 -33 0 0 999 # Females
6.1 0 20 -33 0 0 999 # Females
5.6 0 20 -33 0 0 999 # Females
5.1 0 20 -33 0 0 999 # Females
4.6 0 20 -33 0 0 999 # Females
4.1 0 20 -33 0 0 999 # Females
3.6 0 20 -33 0 0 999 # Females
3.2 0 20 -33 0 0 999 # Females
2.7 0 20 -33 0 0 999 # Females
2.2 0 20 -33 0 0 999 # Females
1.7 0 20 -33 0 0 999 # Females

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