Parameter estimates for the EBS pollock reference model

Includes paraemter set from Model 20.0a, uses VAST full time series including Northern Bering Sea segment and the USV data for 2020 converted to biomass (extending the ATS data) and with the stock-recruitment relationship that ignores the influence of the 1978 year class.

index	name	value	std.dev
1	log_avgrec	9.8391e+00	9.5296e-02
2	log_avginit	4.8745e+00	6.9454e-01
3	log_avg_F	-1.5220e+00	6.4180e-02
4	log_q_std_area	-5.3583e-01	1.0840e-01
5	log_q_eit	-6.9117e-01	7.6761e-02
6	log_Rzero	1.0014e+01	2.0546e-01
7	steepness	6.4007e-01	7.4014e-02
8	log_q_cpue	2.3148e-02	1.7172e-01
9	log_q_avo	-9.4697e+00	9.5294e-02
10	log_initdevs	3.3061e+00	7.6685e-01
11	log_initdevs	2.8503e+00	7.7073e-01
12	log_initdevs	1.3149e+00	8.7316e-01
13	log_initdevs		1.0048e+00
14	log_initdevs	1.1447e+00	8.7924e-01
15	log_initdevs	3.5036e-01	1.0328e+00
16	log_initdevs	-7.8411e-01	
17	log_initdevs	-1.2393e+00	
18	log_initdevs	-1.2320e+00	1.5470e+00
19	log_initdevs	-1.2344e+00	
20	log_initdevs	-1.2364e+00	
21	log_initdevs	-1.2379e+00	
22	log_initdevs	-1.2394e+00	
23	log_initdevs	-1.2412e+00	
24	log_rec_devs	-1.0512e+00	
25	log_rec_devs		2.6532e-01
26	log_rec_devs	-2.0075e-01	
27	log_rec_devs		2.7448e-01
28	log_rec_devs		2.9611e-01
29	log_rec_devs		2.7628e-01
30	log_rec_devs		2.8631e-01
31	log_rec_devs	-2.5612e-01	
32	log_rec_devs	-4.5530e-01	
33	log_rec_devs		2.1341e-01
34 35	log_rec_devs	-5.7144e-02	2.1643e-01
36	log_rec_devs	-5.7144e-02 -2.8247e-01	
36 37	log_rec_devs log_rec_devs	-2.8247e-01 -1.9464e-01	
38	log_rec_devs		1.7094e-01 1.3433e-01
39	log_rec_devs		1.1167e-01
40	log_rec_devs		1.2866e-01
41	log_rec_devs		1.2365e-01
42	log_rec_devs	-8.2783e-02	
43	log_rec_devs	9.7240e-01	
44	log_rec_devs	-3.2911e-01	
45	log_rec_devs		1.1450e-01
46	log_rec_devs	-4.2918e-01	
47	log_rec_devs	-1.0296e+00	
48	log_rec_devs	-1.2024e+00	
49	log_rec_devs	-4.7496e-01	1.1614e-01
50	log_rec_devs	9.7728e-01	1.0036e-01
51	log_rec_devs	3.2825e-01	1.0570e-01
52	log_rec_devs	1.6515e-01	1.0869e-01
53	log_rec_devs	9.0072e-01	1.0201e-01
54	log_rec_devs	-2.0413e-01	1.1282e-01
55	log_rec_devs	-5.8202e-01	1.1779e-01
56	log_rec_devs	1.9669e-01	1.0531e-01
57	log_rec_devs	4.9861e-01	1.0256e-01
58	log_rec_devs	-2.1426e-01	
59	log_rec_devs	-1.3660e-01	1.0838e-01

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      sel_one_bts_dev
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      sel one bts dev
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      sel_one_bts_dev
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                         0.0000e+00 6.7251e-01
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      rec_dev_future
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838
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                         4.6968e+01 7.2317e-02
841
      L2
842
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      d_scale
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844
      d scale
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      d_scale
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      d scale
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      d_scale
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      d_scale
                         8.3313e-01 1.3712e-02
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      d_scale
                         8.4518e-01 1.3958e-02
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                         8.2888e-01 1.3794e-02
                         8.3887e-01 1.3983e-02
      d scale
851
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      d scale
853
      d_scale
                         8.5792e-01 1.4472e-02
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      d_scale
                         8.5715e-01 1.5062e-02
                         9.6480e-01 1.6608e-02
855
      d scale
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                         0.0000e+00 1.0000e+00
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860
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      coh_eff
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      coh_eff
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      coh eff
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      coh_eff
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                         0.0000e+00 1.0000e+00
923
      coh_eff
```

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                         6.3318e-01 1.1159e+00
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926
      yr_eff
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      yr_eff
927
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928
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                         2.0865e-01 9.0576e-01
929
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      yr_eff
930
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931
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                         2.4923e-01 9.2742e-01
932
      vr eff
933
      yr_eff
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934
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      yr_eff
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      yr_eff
937
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938
      yr_eff
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                         -4.4090e-01 5.3992e-01
939
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      yr_eff
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                        -1.0596e+00 5.5136e-01
941
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                        -1.1356e+00 5.6783e-01
942
      yr eff
943
      yr_eff
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944
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                        -4.6067e-01 4.0440e-01
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      yr_eff
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948
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      yr_eff
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      vr eff
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                         6.4287e-02 1.3891e-01
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      yr_eff
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968
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      yr_eff
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973
974
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975
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976
      yr_eff
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977
      yr_eff
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      yr_eff
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982
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983
      endyr_N
984
      endyr_N
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                         8.7782e+02 2.1221e+02
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      endyr_N
986
      endyr_N
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      endyr_N
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988
      endyr_N
      endyr_N
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      endyr_N
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      endyr_N
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      endyr_N
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995
                         6.7222e+00 2.1913e+00
      endyr_N
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997	Bzero		1.1901e+03
998	Percent_Bzero		1.1779e-01
999	Percent_Bzero_1	4.5393e-01	1.0554e-01
1000	Percent_Bzero_2	4.5046e-01	
1001	Percent_B100	4.8219e-01	5.1158e-02
1002	Percent_B100_1	4.2809e-01	4.8377e-02
1003	Percent_B100_2	4.2482e-01	4.8495e-02
1004	SPR_OFL	3.0196e-01	6.9226e-02
1005	F40	2.7338e-01	1.9831e-02
1006	F35	3.4818e-01	2.6901e-02
1007	SSB	5.5331e+02	1.5123e+02
1008	SSB	6.5556e+02	1.5010e+02
1009	SSB	7.6174e+02	1.6519e+02
1010	SSB	9.5483e+02	1.8548e+02
1011	SSB	1.1787e+03	2.2483e+02
1012	SSB	1.4365e+03	2.6319e+02
1013	SSB	1.6691e+03	2.9376e+02
1014	SSB	1.7576e+03	3.0281e+02
1015	SSB	1.6635e+03	2.8323e+02
1016	SSB	1.3965e+03	2.5624e+02
1017	SSB	1.0402e+03	2.2235e+02
1018	SSB	8.8664e+02	1.7377e+02
1019	SSB	9.0328e+02	1.4114e+02
1020	SSB	9.4901e+02	1.2422e+02
1021	SSB	9.7706e+02	1.1596e+02
1022	SSB	9.7507e+02	1.0944e+02
1023	SSB	1.1261e+03	1.0477e+02
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1025	SSB	2.7126e+03	1.4807e+02
1026	SSB	3.3416e+03	1.7231e+02
1027	SSB	3.6013e+03	1.8070e+02
1028	SSB	3.8667e+03	1.7556e+02
1029	SSB	4.0576e+03	1.6541e+02
1030	SSB	4.1231e+03	1.4915e+02
1031	SSB	4.0328e+03	1.2832e+02
1032	SSB	3.5525e+03	1.1139e+02
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1034	SSB		7.9260e+01
1035	SSB	2.2140e+03	
1036	SSB		9.5409e+01
1037	SSB	3.4725e+03	
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1040	SSB		1.1369e+02
1041	SSB		1.0532e+02
1042	SSB		1.0031e+02
1043	SSB SSB		9.7673e+01 1.0147e+02
1044			9.4940e+01
1045	SSB		9.0636e+01
1046	SSB		8.8937e+01
1047	SSB		8.3408e+01
1048 1049	SSB SSB		7.3838e+01
1050	SSB		6.9497e+01
1050	SSB		5.8767e+01
1051	SSB		6.2849e+01
1053	SSB		7.0853e+01
1054	SSB		8.4212e+01
1055	SSB		1.0502e+02
1056	SSB		1.3233e+02
1057	SSB		1.4763e+02
1058	SSB		1.7468e+02
1059	SSB		2.6921e+02
1060	SSB		3.5929e+02
1061	SSB		3.7135e+02
1062	SSB		3.9113e+02
1063	SSB		3.5990e+02
1064	sel_fut		9.8984e-05
1065	sel_fut		3.6468e-03
1066	sel_fut		2.2430e-02
1067	sel_fut	5.6620e-01	7.2833e-02

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1069
       sel fut
                          1.6249e+00 1.7887e-01
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       sel_fut
                          1.5147e+00 1.7557e-01
1071
       sel_fut
                          1.4104e+00 1.6959e-01
1072
       sel fut
                          1.3312e+00 1.4910e-01
       sel_fut
                          1.1625e+00 8.4800e-02
1073
1074
       sel_fut
                          1.1625e+00 8.4800e-02
1075
       sel_fut
                          1.1625e+00 8.4800e-02
1076
       sel fut
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1077
       sel_fut
                          1.1625e+00 8.4800e-02
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       wt_last
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1092
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1093
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       wt_cur
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1106
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1107
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       wt_next
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                          9.1383e-01 7.5482e-02
1109
       wt next
1110
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       wt_next
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1111
1112
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       wt_next
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       wt_next
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1118
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1119
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1120
       wt_yraf
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1122
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1128
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                          1.4295e+00 6.0861e-02
1129
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1130
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1132
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1133
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1134
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1135
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1136
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1137
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1138
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1139
       Fmsy2_dec
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1142
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       Fmsy2_dec
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1144
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       Fmsy2_dec
                          3.2387e-01 3.1808e-02
1145
1146
       Fmsy2_dec
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1147
       Fmsy2_dec
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       Fmsv2 dec
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1148
1149
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       lnFmsy2
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1303
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1355
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       SER
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       SER
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       future_SSB
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1498
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                           2.9615e+03 3.5990e+02
1499
       future SSB
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1501	future_SSB	2.3570e+03 3.37	'03e+02
1502	future_SSB	2.3761e+03 4.20	23e+02
1503	future_SSB	2.6022e+03 6.89	
	_		
1504	future_SSB	2.8643e+03 9.10	
1505	future_SSB	2.9615e+03 3.59	
1506	future_SSB	2.5675e+03 3.41	.34e+02
1507	future_SSB	2.2849e+03 3.36	79e+02
1508	future_SSB	2.2777e+03 4.17	′57e+02
1509	future_SSB	2.4874e+03 6.83	326e+02
1510	future_SSB	2.7304e+03 8.94	69e+02
1511	Age3 Abund	2.2637e+03 7.47	
1512	Age3_Abund	2.2468e+03 7.83	
	• -		
1513	Age3_Abund	1.6725e+03 6.35	
1514	Age3_Abund	5.4914e+03 1.37	
1515	Age3_Abund		29e+03
1516	Age3_Abund	6.4637e+03 1.67	'42e+03
1517	Age3_Abund	5.5433e+03 1.56	300e+03
1518	Age3_Abund	6.3777e+03 1.65	57e+03
1519	Age3_Abund	5.5677e+03 1.50	068e+03
1520	Age3_Abund	3.3138e+03 1.09	08e+03
1521	Age3_Abund	2.6381e+03 8.90	
1521		5.8482e+03 1.08	
	Age3_Abund		
1523	Age3_Abund	4.6252e+03 8.89	
1524	Age3_Abund	4.1481e+03 7.30	
1525	Age3_Abund	3.3595e+03 5.55	
1526	Age3_Abund	3.7056e+03 5.41	.96e+02
1527	Age3_Abund	6.7270e+03 6.55	84e+02
1528	Age3_Abund	1.6097e+04 9.78	318e+02
1529	Age3_Abund	6.6141e+03 5.84	39e+02
1530	Age3_Abund	8.3770e+03 6.70	
1531	Age3_Abund	4.4409e+03 4.61	
	-		
1532	Age3_Abund	1.2775e+04 7.52	
1533	Age3_Abund	3.4761e+03 3.61	
1534	Age3_Abund	8.2916e+03 5.37	
1535	Age3_Abund	3.1531e+03 2.99	57e+02
1536	Age3_Abund	1.7282e+03 1.77	72e+02
1537	Age3_Abund	1.4545e+03 1.46	80e+02
1538	Age3_Abund	3.0059e+03 2.08	314e+02
1539	Age3_Abund	1.2842e+04 4.40	12e+02
1540	Age3_Abund	6.6929e+03 3.26	
1541	Age3_Abund	5.7178e+03 3.18	
1542	Age3_Abund	1.1939e+04 4.83	
	-		
1543	Age3_Abund	3.9558e+03 2.52	
1544	Age3_Abund	2.7048e+03 1.95	
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1546	Age3_Abund	7.9695e+03 3.26	78e+02
1547	Age3_Abund	3.9144e+03 2.21	.21e+02
1548	Age3_Abund	4.2313e+03 2.30	08e+02
1549	Age3_Abund	6.5689e+03 2.86	90e+02
1550	Age3_Abund	9.0793e+03 3.19	61e+02
1551	Age3_Abund	6.0497e+03 2.52	
1552	Age3_Abund		891e+02
1553	• -	1.6941e+03 1.18	
	Age3_Abund		
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1557	Age3_Abund	3.6512e+03 2.30	31e+02
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1560	Age3_Abund	3.8577e+03 3.04	49e+02
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1562	Age3_Abund		310e+03
1563	Age3_Abund	1.4826e+04 1.39	
	• -		
1564	Age3_Abund	3.4408e+03 5.43	
1565	Age3_Abund	1.6570e+03 3.91	
1566	Age3_Abund	2.5106e+03 6.23	
1567	Age3_Abund	4.7703e+03 9.28	325e+02