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Black sea bass (BSB) Topics

- MRIP length comps
- HB index weighting
- Predicted HB Landings and Discards at age
- *Fits to Marmap bft length comps*
- *Dome-shaped selex of commercial pots*

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MRIP length comps

- Run with all yrs of MRIP length comps included
  - MRIP selectivity estimated separately from HB
  - See fits

- *Run with MRIP length comps excluded from likelihood*
  - To examine effect of pooled MRIP length comps on selectivity shared with HB

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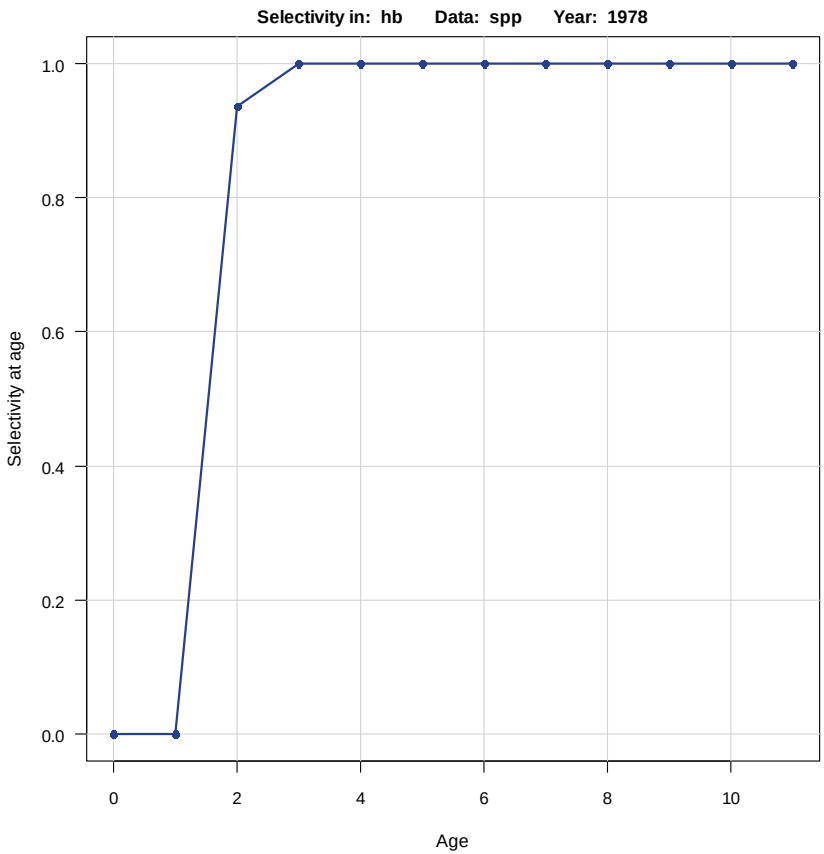
MRIP length comps (pooled)
Reg block 1 (no size limit)

With



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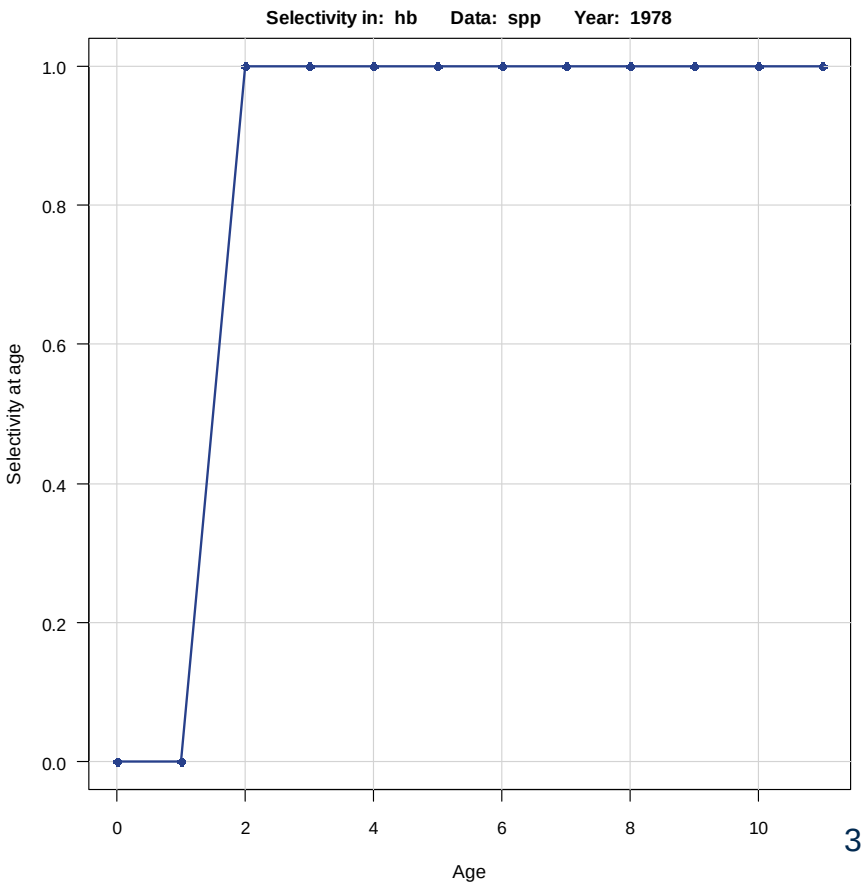

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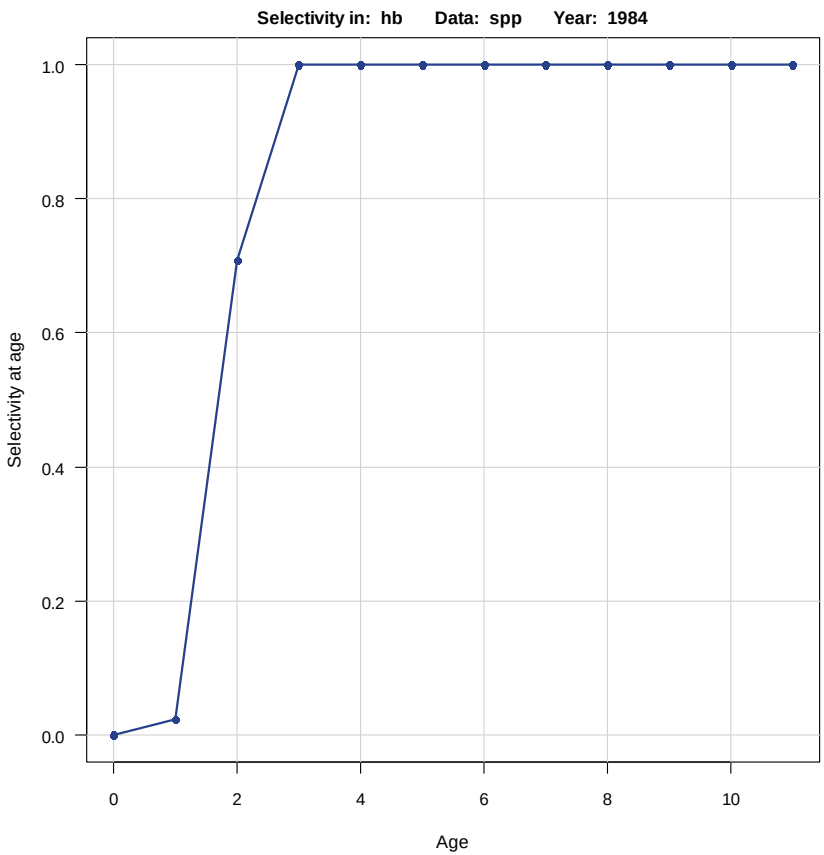
MRIP length comps (pooled) Reg block 2 (8 inch)

With



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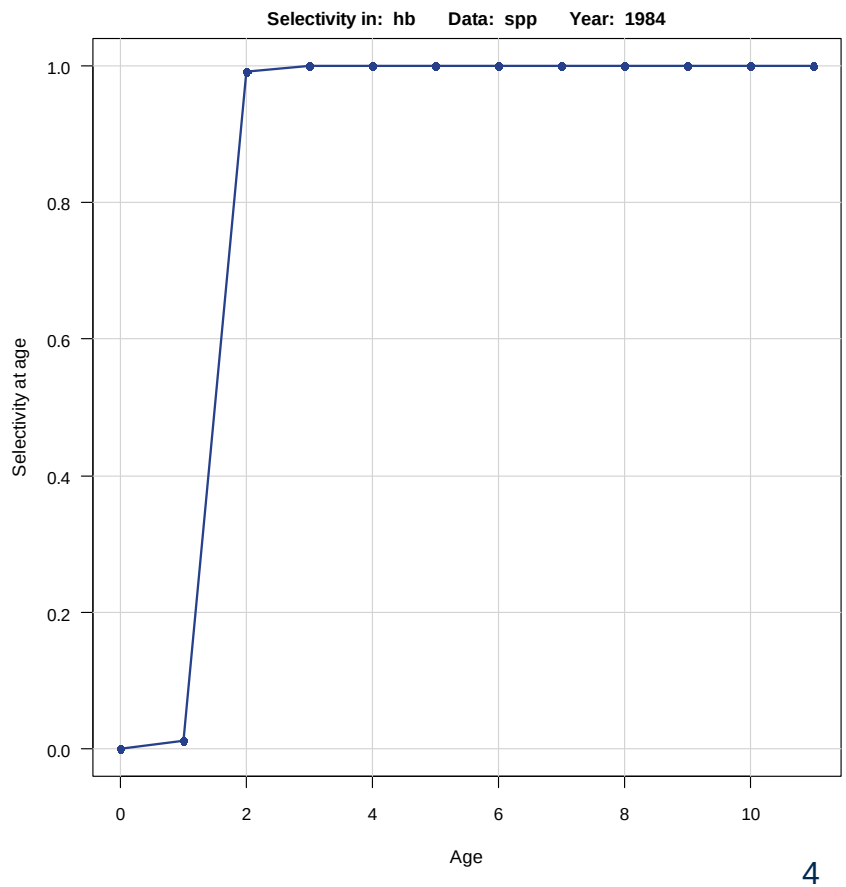

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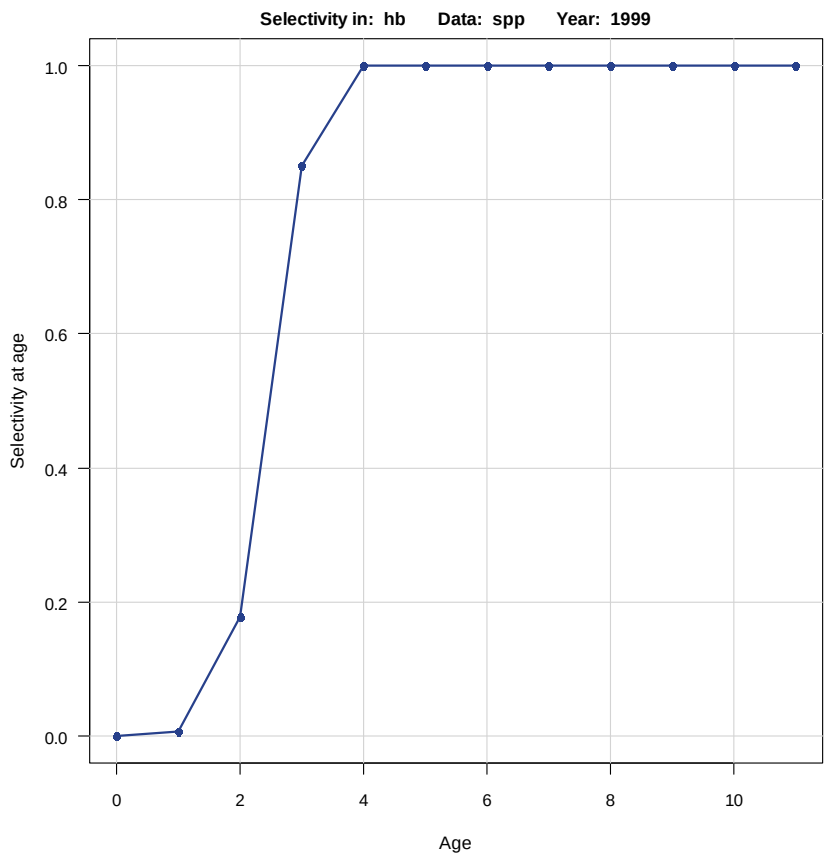
MRIP length comps (pooled) Reg block 3 (10 inch)

With



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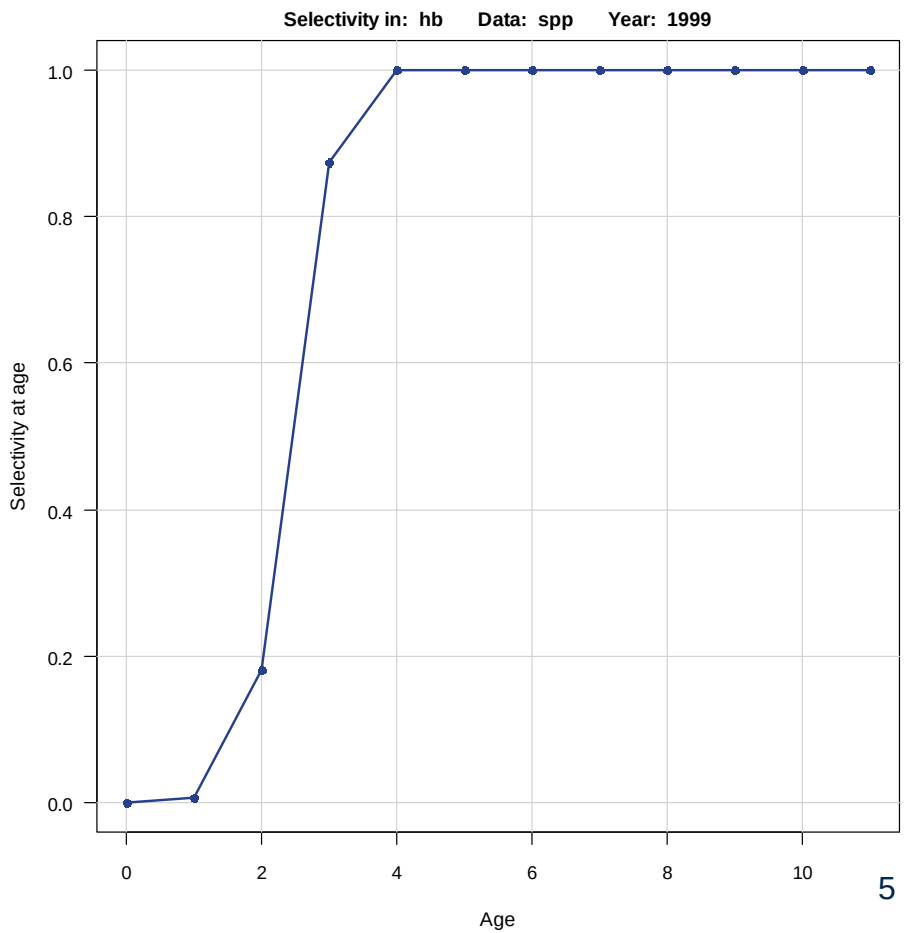

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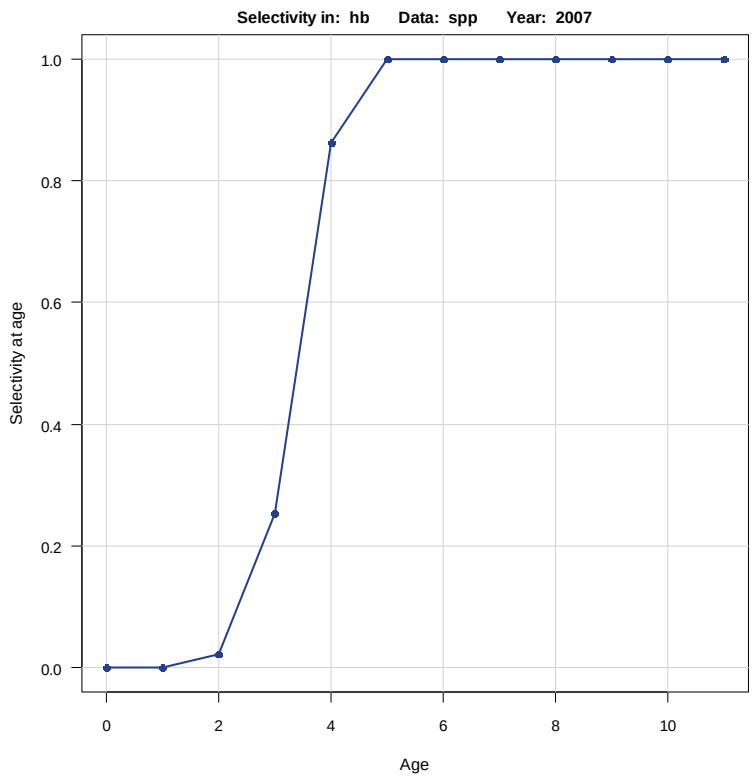
MRIP length comps (pooled) Reg block 4 (12 inch)

With



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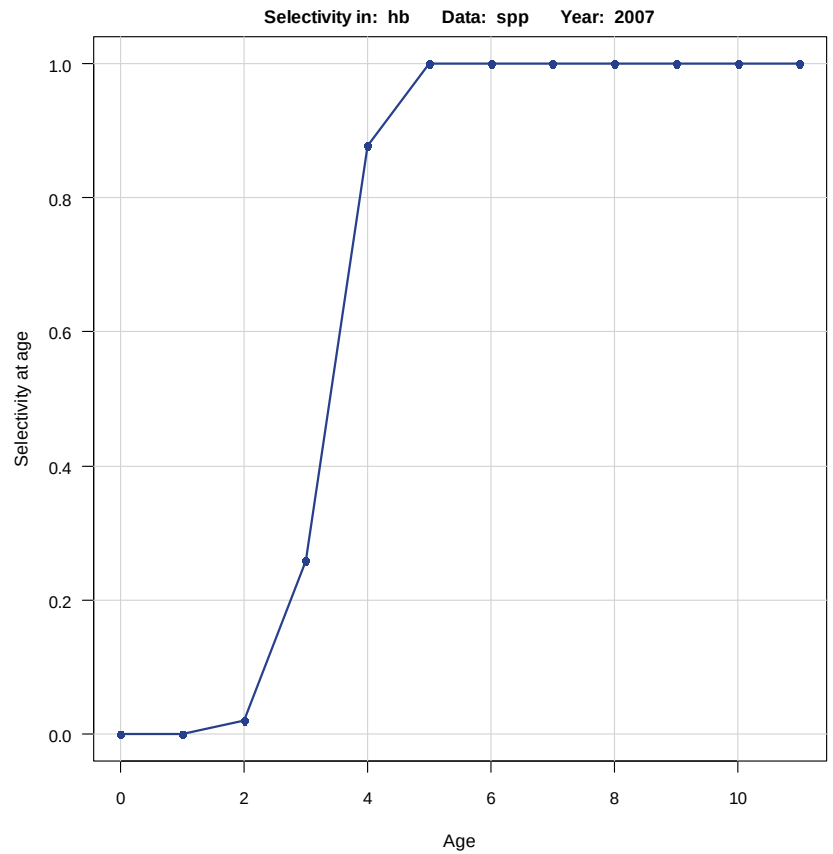

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HB index weighting (pooled MRIP length comps included)

Profile 1

HBwgt	nLL (data)	nLL (penalized)	nLL (SR)	U. Mbft	U. Mcvt	U. cl	U. hb	U. hbd	len. Mbft	len. cl	len. cp	len. hb	len. mrip	len. hb.D	age. Mbft	age. Mcvt	age. cl	age. cp	age. hb	age. mrip
1	8801	8832	-31	17	85	10	35	16	66	98	5	6913	1205	80	8	118	21	15	85	20
2	9008	9039	-30	16	91	10	76	20	59	100	19	6928	1218	78	8	238	22	21	83	14
4	9257	9295	-28	9	76	53	137	18	62	253	20	7001	1197	79	9	139	68	14	93	19
8	9705	9749	-19	7	84	17	226	29	60	103	20	7040	1198	80	10	322	54	34	343	31
16	9630	9678	-14	5	99	20	213	18	65	105	5	7076	1200	79	13	251	70	27	259	50

Profile 2 (different bounds and priors on some sel parms)

HBwgt	nLL (data)	nLL (penalized)	nLL (SR)	U. Mbft	U. Mcvt	U. cl	U. hb	U. hbd	len. Mbft	len. cl	len. cp	len. hb	len. mrip	len. hb.D	age. Mbft	age. Mcvt	age. cl	age. cp	age. hb	age. mrip
1	8769	8802	-29	19	81	10	35	16	63	99	5	6899	1216	79	7	121	20	9	71	13
2	9013	9044	-29	16	91	10	76	20	60	100	19	6929	1221	78	8	238	22	21	84	14
4	8989	9022	-27	10	78	12	139	17	61	103	6	6983	1216	77	7	143	24	10	70	16
8	9698	9742	-22	5	87	28	210	24	59	124	6	7032	1219	77	9	164	252	222	127	24
16	9710	9758	-13	7	106	20	288	31	69	104	20	7075	1198	82	12	247	62	22	225	60

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HB index weighting

- Primary conflict with the HB index appears to be HB length comps
  - Iterative reweighting could resolve this

- In some cases selectivity parameters are getting stuck at bounds.
  - This primarily occurred in cases where the double gaussian was forced into a flat-topped selectivity (by fixing 3 of 6 parameters)
  - Consider changing to logistic fcn for flat-topped selex

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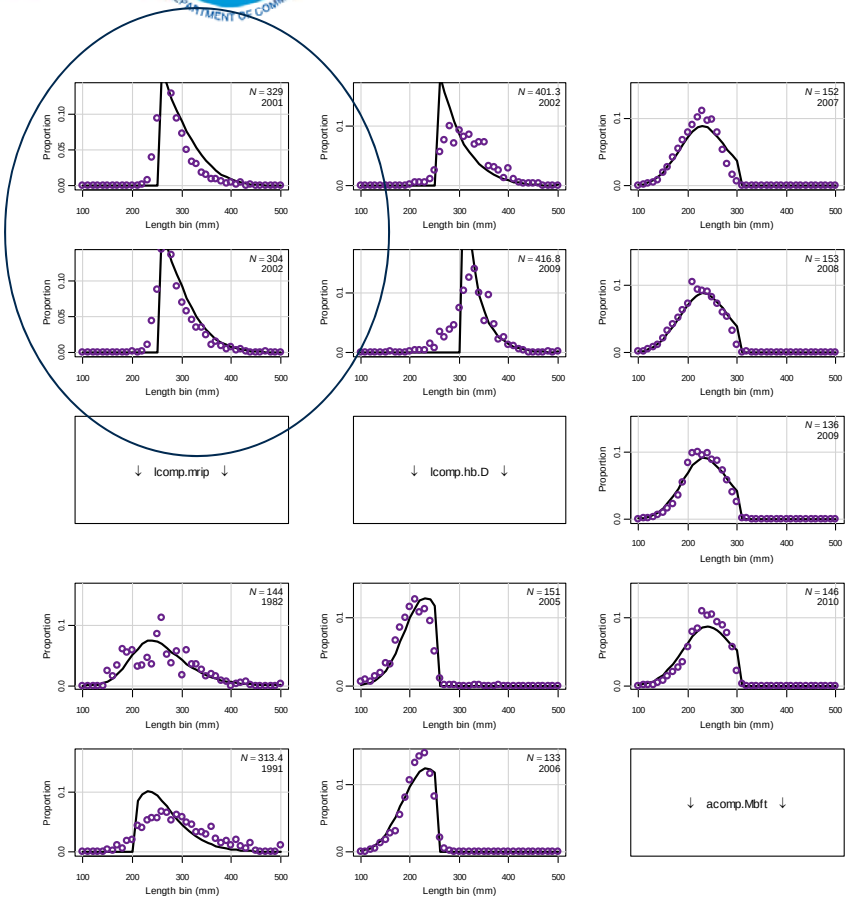
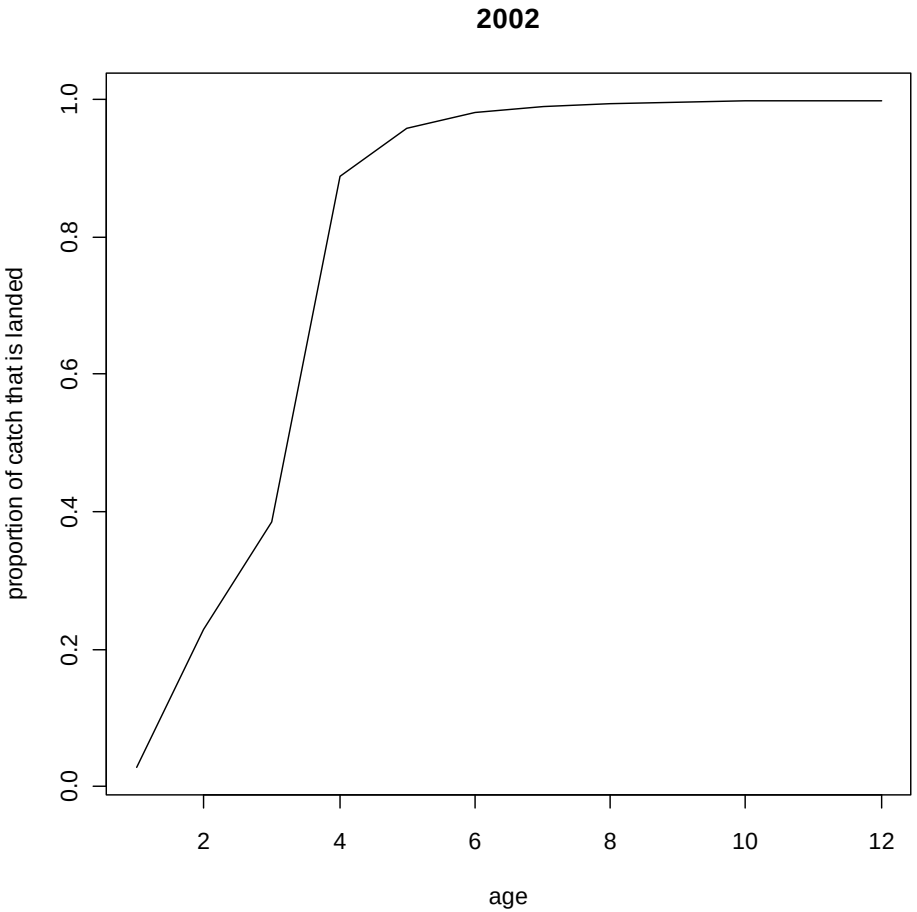
Predicted HB landings and discards at age





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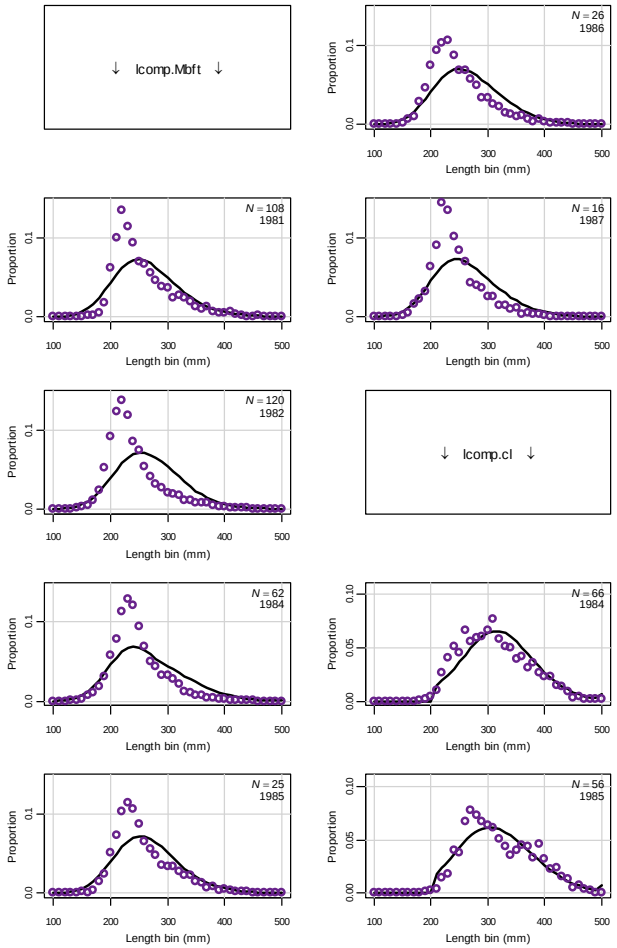
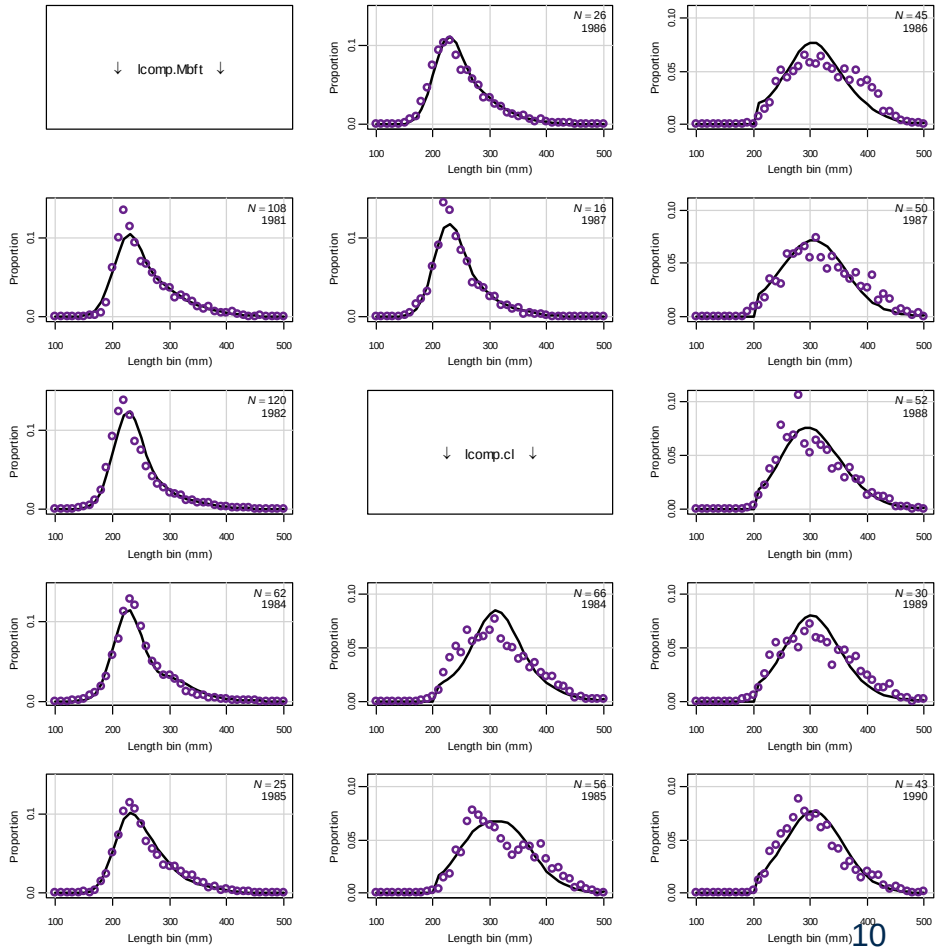
Fits to Marmap bft length comps

Len.Mbft wgt = 1



Len.Mbft wgt = 100



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Fits to Marmap bft length comps

- Increased weight (100) on Mbft length comps appears to resolve the issue
  - Some tradeoff in fit to the one year (1983) of Mbft age comp
  - Resolved through lower estimate of CV of size at age

- This suggests that iterative reweighting could address the problem

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Dome-shaped selex of comm pots

- Exploratory model run

Comm pot sel	NLL-length	NLL-age
Flat-topped w/ priors	5	24
Dome-shaped w/priors	3	9

- Catch curve analysis (thanks, Eric)

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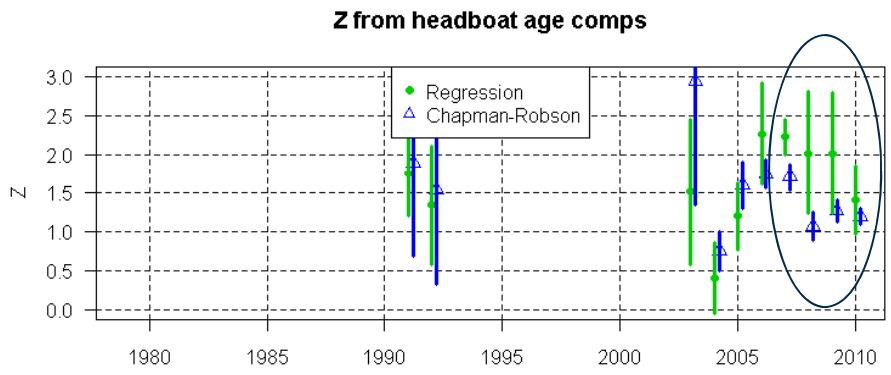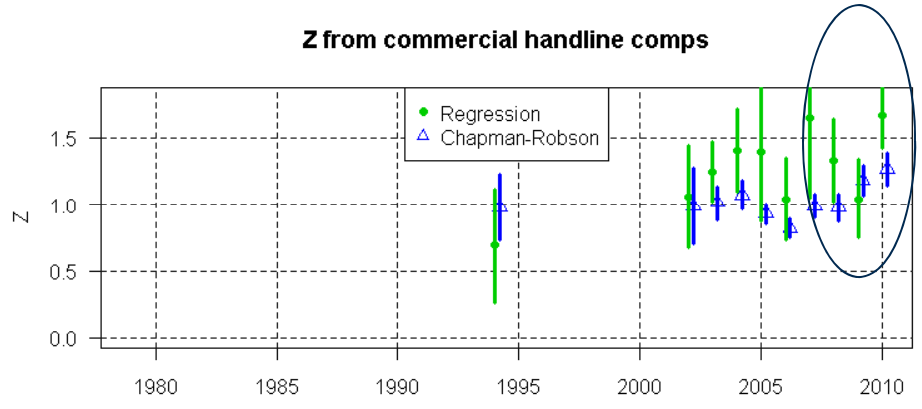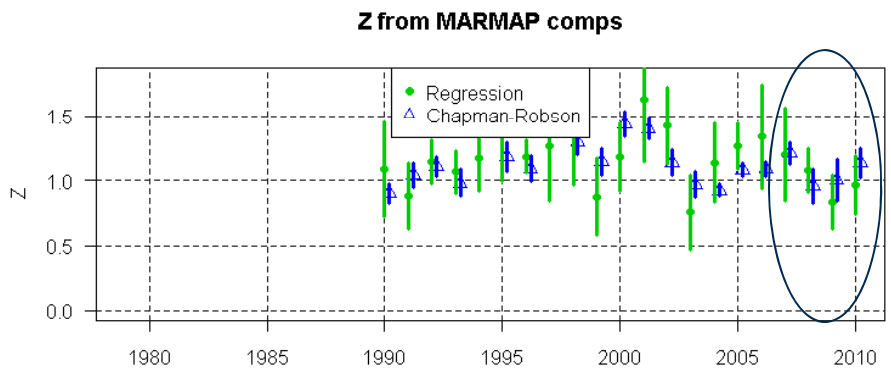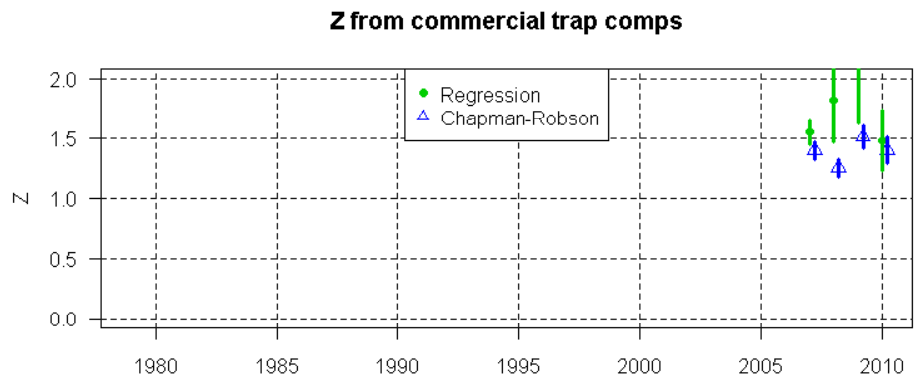
Catch curve analysis