

***Kennedy II - Rainbow Trout Weight at 30 days
part of the raw data***

Obs	species	hardness	dose	tub	eggs	dead	eggs30	dead30	nweight30	weight30
1	RB	6	0	1	30	0	30	1	29	835
2	RB	50	41	1	30	1	29	0	29	877
3	RB	100	82	1	30	0	30	1	29	888
4	RB	250	267	1	30	0	30	0	30	846
5	RB	6	0	1	30	1	29	0	29	910
6	RB	50	41	1	30	0	30	0	30	803
7	RB	100	82	1	30	0	30	0	30	826
8	RB	250	267	1	30	0	30	0	30	823
9	RB	6	0	1	30	0	30	0	30	847
10	RB	50	41	1	30	0	30	0	30	856
11	RB	100	82	1	30	0	30	1	29	892
12	RB	250	267	1	30	0	30	0	30	841
13	RB	6	0	1	30	0	30	0	30	821
14	RB	50	41	1	30	0	30	0	30	823
15	RB	100	82	1	30	1	29	0	29	821
16	RB	250	267	1	30	1	29	1	28	877
17	RB	6	0	1	30	0	30	0	30	857
18	RB	50	41	1	30	0	30	1	29	855
19	RB	100	82	1	30	1	29	0	29	825
20	RB	250	267	1	30	1	29	0	29	900

***Kennedy II - Rainbow Trout Weight at 30 days
Summary of number of replicates in the study***

species RB

		tub		
		1	2	3
		N	N	N
hardness	dose			
6	0	5	5	5
	125	5	5	5
	250	5	5	5
	500	5	5	5
	1000	1	4	1
50	41	5	5	5
	125	5	5	5
	250	5	5	5
	500	5	5	5
	1000	5	5	5
100	82	5	5	5
	125	5	5	5
	250	5	5	5
	500	5	5	5
	1000	5	5	5
	2000	2	.	1

(Continued)

Kennedy II - Rainbow Trout Weight at 30 days
Summary of number of replicates in the study

species RB

		tub		
		1	2	3
		N	N	N
hardness	dose			
250	267	5	5	5
	500	5	5	5
	750	5	5	5
	1000	5	5	5
	1500	5	5	5
	2000	4	4	5
All		102	103	102

***Kennedy II - Rainbow Trout Weight at 30 days
Summary of number of replicates in the study***

species RB

		weight30	
		N	Mean
hardness	dose		
6	0	15	860
	125	15	849
	250	15	827
	500	15	820
	1000	6	793
50	41	15	856
	125	15	858
	250	15	848
	500	15	849
	1000	15	821
100	82	15	859
	125	15	846
	250	15	850
	500	15	857
	1000	15	844
	2000	3	816

(Continued)

Kennedy II - Rainbow Trout Weight at 30 days
Summary of number of replicates in the study

species RB

		weight30	
		N	Mean
hardness	dose		
250	267	15	855
	500	15	849
	750	15	856
	1000	15	849
	1500	15	853
	2000	13	830

Kennedy II - Rainbow Trout Weight at 30 days
Experimental conditions where weight cells were blank - ignored

species	hardness	dose	tub	eggs	dead	eggs30	dead30	nweight30	weight30
RB	6	1000	1	30	26	4	.	.	.
RB	6	1000	1	30	27	3	.	.	.
RB	6	1000	1	30	26	4	.	.	.
RB	6	1000	1	30	26	4	.	.	.
RB	6	1000	2	30	27	3	.	.	.
RB	6	1000	3	30	29	1	.	.	.
RB	6	1000	3	30	30	0	.	.	.
RB	6	1000	3	30	21	9	.	.	.
RB	6	1000	3	30	27	3	.	.	.
RB	6	2000	1	30	30	0	.	.	.
RB	50	2000	1	30	29	1	.	.	.
RB	6	2000	1	30	30	0	.	.	.
RB	50	2000	1	30	30	0	.	.	.
RB	100	2000	1	30	27	3	.	.	.
RB	6	2000	1	30	29	1	.	.	.
RB	50	2000	1	30	30	0	.	.	.
RB	250	2000	1	30	30	0	.	.	.
RB	6	2000	1	30	30	0	.	.	.
RB	50	2000	1	30	30	0	.	.	.
RB	100	2000	1	30	29	1	.	.	.
RB	6	2000	1	30	30	0	.	.	.
RB	50	2000	1	30	30	0	.	.	.
RB	100	2000	1	30	26	4	.	.	.
RB	6	2000	2	30	30	0	.	.	.
RB	50	2000	2	30	28	2	.	.	.

Kennedy II - Rainbow Trout Weight at 30 days
Experimental conditions where weight cells were blank - ignored

species	hardness	dose	tub	eggs	dead	eggs30	dead30	nweight30	weight30
RB	100	2000	2	30	30	0	.	.	.
RB	6	2000	2	30	30	0	.	.	.
RB	50	2000	2	30	30	0	.	.	.
RB	100	2000	2	30	29	1	.	.	.
RB	6	2000	2	30	30	0	.	.	.
RB	50	2000	2	30	29	1	.	.	.
RB	100	2000	2	30	30	0	.	.	.
RB	250	2000	2	30	26	4	.	.	.
RB	6	2000	2	30	30	0	.	.	.
RB	50	2000	2	30	30	0	.	.	.
RB	100	2000	2	30	28	2	.	.	.
RB	6	2000	2	30	30	0	.	.	.
RB	50	2000	2	30	30	0	.	.	.
RB	100	2000	2	30	26	4	.	.	.
RB	6	2000	3	30	30	0	.	.	.
RB	50	2000	3	30	30	0	.	.	.
RB	6	2000	3	30	30	0	.	.	.
RB	50	2000	3	30	28	2	.	.	.
RB	100	2000	3	30	27	3	.	.	.
RB	6	2000	3	30	29	1	.	.	.
RB	50	2000	3	30	30	0	.	.	.
RB	100	2000	3	30	28	2	.	.	.
RB	6	2000	3	30	30	0	.	.	.
RB	50	2000	3	30	30	0	.	.	.
RB	100	2000	3	30	28	2	.	.	.

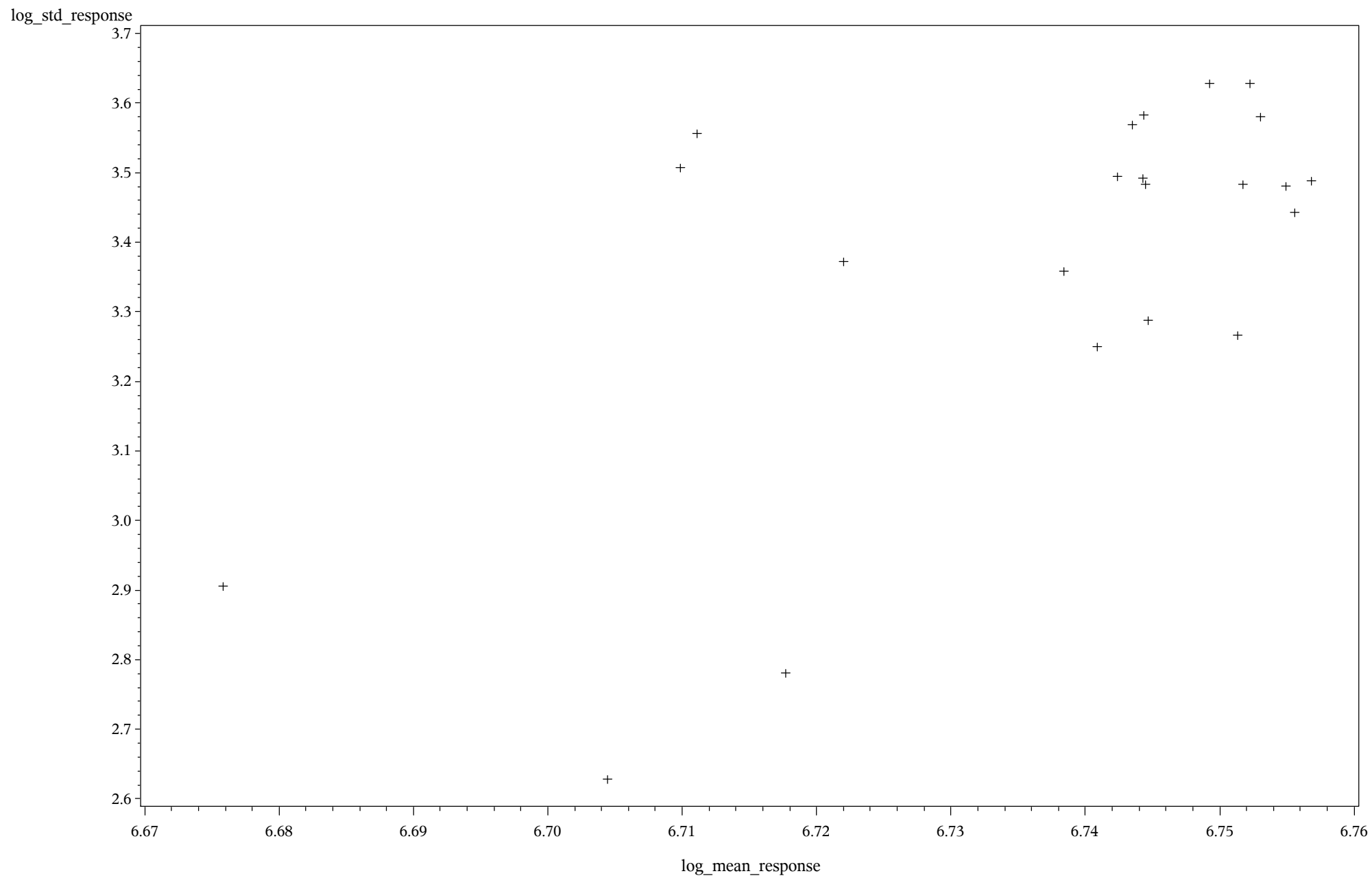
Kennedy II - Rainbow Trout Weight at 30 days
Experimental conditions where weight cells were blank - ignored

species	hardness	dose	tub	eggs	dead	eggs30	dead30	nweight30	weight30
RB	6	2000	3	30	30	0	.	.	.
RB	50	2000	3	30	30	0	.	.	.
RB	100	2000	3	30	29	1	.	.	.

Kennedy II - Rainbow Trout Weight at 30 days

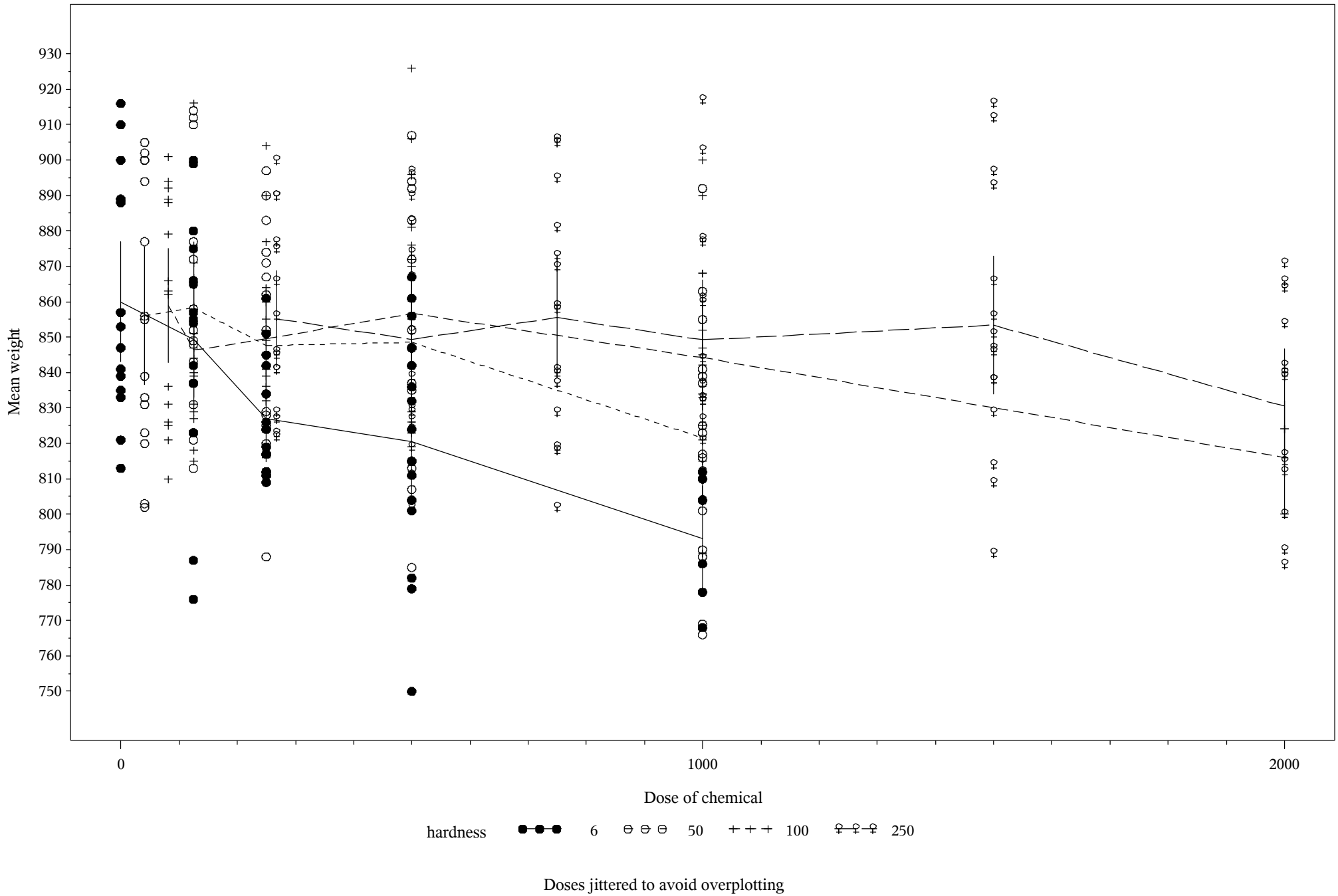
Log(std) vs log(mean) to check for transformations

species=RB



Kennedy II - Rainbow Trout Weight at 30 days

Preliminary plot of the conditional weight curve by dose at 30 days
species=RB



***Kennedy II - Rainbow Trout Weight at 30 days
Comparison of models using AICc - smaller is better***

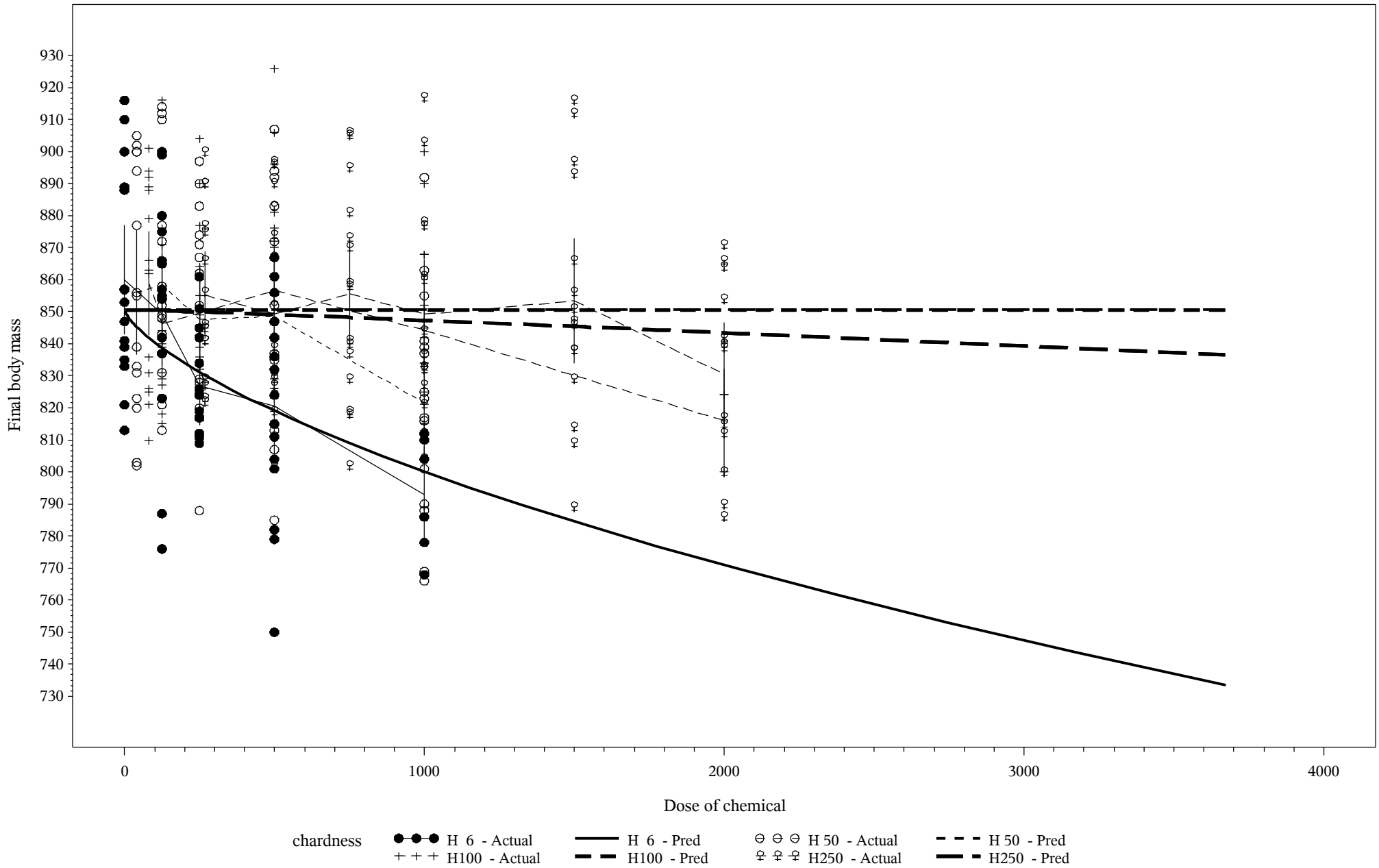
species=RB

Obs	species	model	nparms	LogL	AICc	delta_aicc	aicc_weight
1	RB	c(.) ld50(h) b(h)	10	-1499.58	3019.91	0.000	0.99
2	RB	c(.) ld50(.) b(.)	4	-1510.59	3029.32	9.410	0.01
3	RB	c(h) ld50(h) b(h)	13	-1906.64	3840.53	820.624	0.00

Kennedy II - Rainbow Trout Weight at 30 days

Fitted lines from the highest ranked model

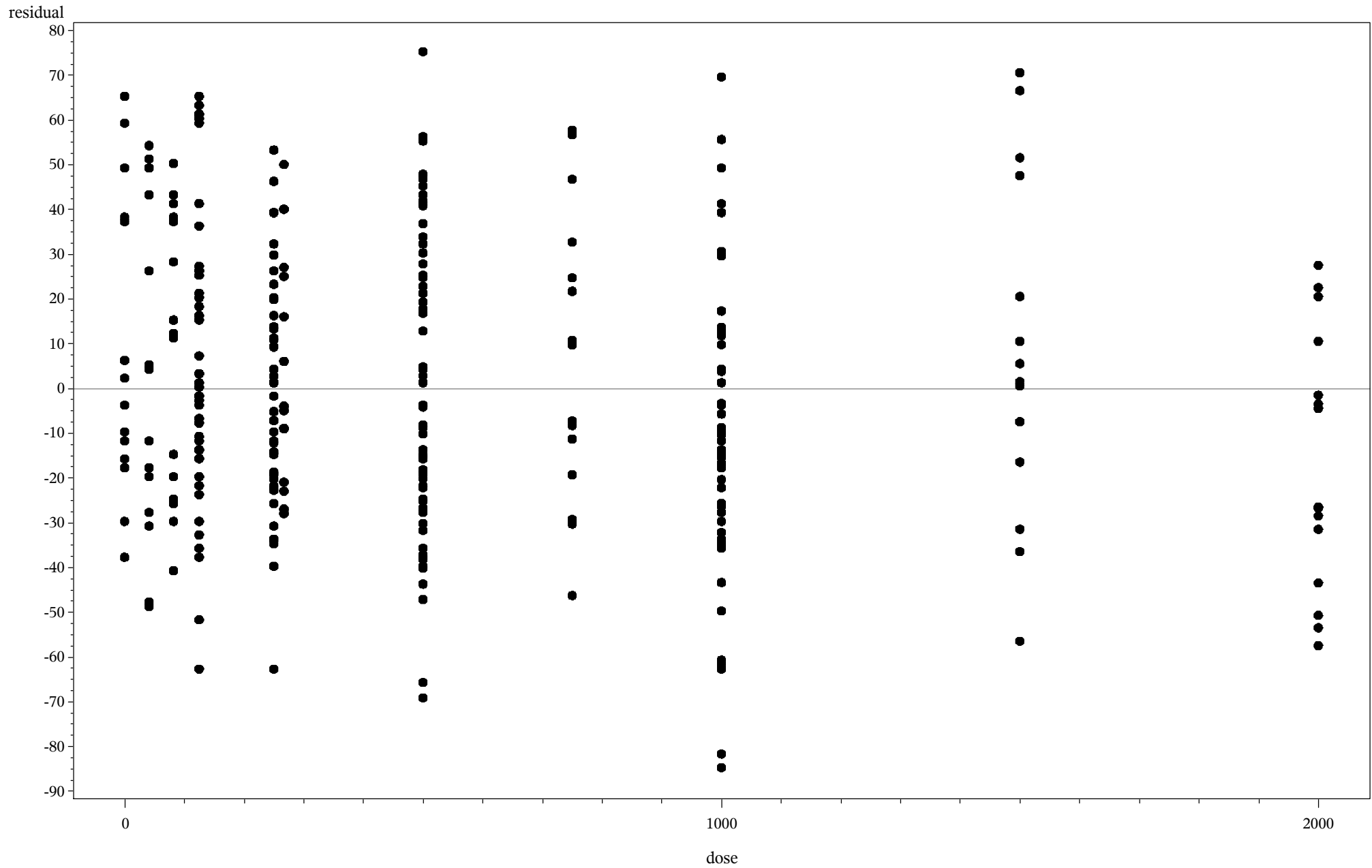
species=RB



Kennedy II - Rainbow Trout Weight at 30 days

Residuals from highest ranking model

species=RB



***Kennedy II - Rainbow Trout Weight at 30 days
Estimated endpoints***

species RB, endpoint LC10

	c(.) ld50(.) b(.)		c(.) ld50(h) b(h)		c(h) ld50(h) b(h)	
	Est log dose	SE log dose	Est log dose	SE log dose	Est log dose	SE log dose
hardness						
6	7064.0	2984.4	2210.0	391.43	898.01	41.51
50	7064.0	2984.4	40775	76.44	930.61	27.06
100	7064.0	2984.4	50170	34.71	192.57	.
250	7064.0	2984.4	19823	7100.9	0.00	.

***Kennedy II - Rainbow Trout Weight at 30 days
Estimated endpoints***

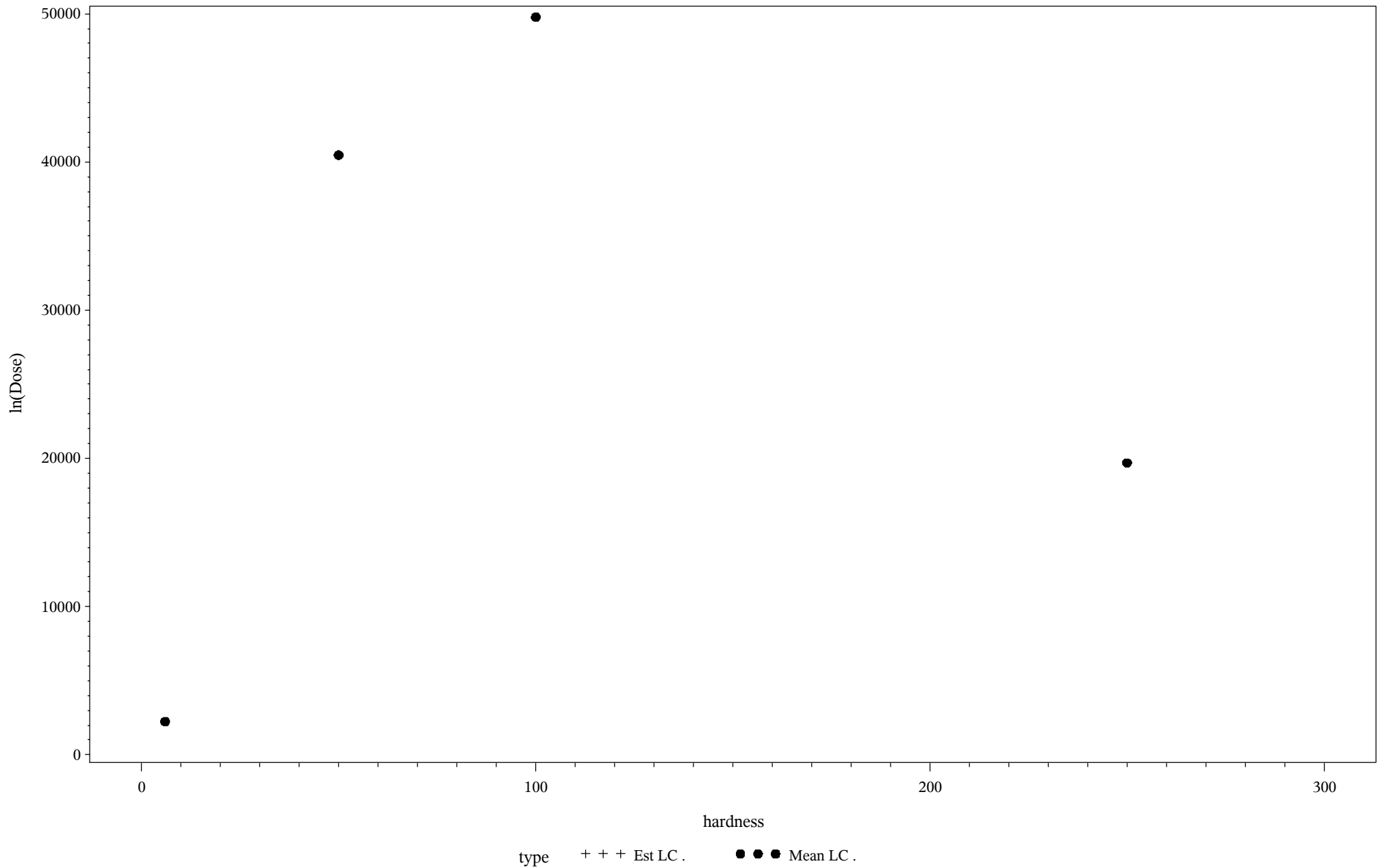
species RB, endpoint LC10

	c(.) 1d50(.) b(.)		c(.) 1d50(h) b(h)		c(h) 1d50(h) b(h)	
	Est dose	SE dose	Est dose	SE dose	Est dose	SE dose
hardness						
6
50
100	429E81	.
250	1.0	.

Kennedy II - Rainbow Trout Weight at 30 days

Estimated model-averaged end-points (log-scale)

species=RB



Plotting positions jittered at the hardness levels

Kennedy II - Rainbow Trout Weight at 30 days
Summary of model averaged estimates of LCxx at various hardness levels - log scale

	endpoint			
	LC10			
	Est	SE	LCL	UCL
hardness				
6	2253.51	441.09	1388.98	3118.04
50	40472.2	609.97	39276.6	41667.7
100	49783.5	768.88	48276.5	51290.5
250	19708.2	7154.62	5685.12	33731.2

All estimates are model averaged

***Kennedy II - Rainbow Trout Weight at 30 days
Summary of model averaged estimates of LCxx at various hardness levels - antilog scale***

All estimates are model averaged