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Accepting final counts from repeat readings of otoliths: should a common criterion apply to the age estimation of fish?

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Table S1. Model fits to Percentage of Disagreements (PD) with nominal age evaluated using AIC_C.

AIC_C = Akaikes Information Criterion for small sample sizes; "Best fit" calculated as lowest (or equivalent lowest) AIC_C. See Table 2 for details of data groups. PD values were excluded from the analysis if calculated from fewer than five data. (* indicates outlier(s) omitted).

Species	Method	Group	n	H_1 AIC_C	H_2 AIC_C	H_3 AIC_C	Best fit (PD data)
A. leucogrammicus	S	1	9	30.54	28.61	33.41	H_2, H_1
C. altivelis	S	2	10	27.79	32.60	36.88	H_1
C. altivelis	S	3	10	29.96	27.60	31.88	H_2
C. altivelis	S	27	10	30.29	33.37	37.66	H_1
C. altivelis	S	28	10	30.12	32.54	36.82	H_1
C. altivelis	S	29	7*	20.98	23.32	34.79	H_1
C. altivelis	S	30	14	36.55	42.54	62.26	H_1
C. cyanostigma	S	4	20	53.58	56.78	59.65	H_1
C. cyanostigma	S	5	33	75.30	66.25	66.96	H_2, H_3
E. fasciatus	S	6-8	16	44.42	46.69	49.82	H_1
E. fasciatus	S	31	12	36.06	36.69	40.66	H_1, H_2
E. fasciatus	W	9	11	32.36	26.27	30.02	H_2
E. fasciatus	W	32	11	31.62	34.22	40.63	H_1
E. ongus	S	10	17	39.66	45.89	49.62	H_1
E. ongus	S	11	14	39.75	40.37	43.76	H_1, H_2
E. ongus	S	33	18	49.02	52.82	55.90	H_1
G. hebraicum	S	34	17	39.26	41.73	58.08	H_1
L. carponotatus	W	13	8	24.63	17.58	23.18	H_2
L. carponotatus	W	14	7*	20.43	18.23	28.23	H_2
L. carponotatus	W	35	7	17.41	19.37	27.42	H_1, H_2
L. carponotatus	W&S	12-13	18	44.41	53.64	56.66	H_1
L. miniatus	W	15	14	36.99	40.65	44.00	H_1
L. miniatus	W	16	13	40.60	35.61	38.00	H_2
L. miniatus	W	36	12	38.13	32.84	35.74	H_2
L. nebulosus	S	17	20	55.94	50.08	53.13	H_2
P. areolatus	S	18	11	28.03	32.24	36.16	H_1
P. areolatus	S	39	11	34.57	38.45	45.92	H_1
P. auratus	S	19	20	56.11	55.57	58.80	H_2, H_1
P. auratus	S	37	24	58.58	64.48	67.27	H_1
P. auratus	S	38	14*	42.01	31.57	34.99	H_2
P. leopardus	S	20	13	36.72	32.86	36.33	H_2
P. maculatus	S	21	7*	19.57	24.59	31.68	H_1
P. maculatus	S	40	7*	19.87	25.16	35.81	H_1
P. multidens	S	22	16	48.62	40.39	42.17	H_2, H_3
S. semifasciatus	W	23	8	25.68	25.37	30.97	H_2, H_1
S. semifasciatus	W	24	5*	19.43	20.64	40.80	H_1, H_2
S. semifasciatus	W	25	6	21.66	22.66	32.73	H_1, H_2
S. semifasciatus	W	26	5*	17.73	20.79	41.22	H_1

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Table S2. Model fits to mean inter-read discrepancy (IRD) with nominal age evaluated using AIC_C. IRD analyses were undertaken to corroborate PD analysis results.

AIC_C = Akaikes Information Criterion for small sample sizes; * indicates outlier(s) omitted; -- indicates models not fitted / AIC_C not calculated due to insufficient replicates. IRD values excluded if calculated from fewer than three data. "Best fit" calculated as lowest (or equivalent lowest) AIC_C. See Table 2 for details of data groups. Results in parentheses were deemed suspect because of difficulty comparing AIC_c values among all models.

Species	Method	Group	n	H_1 AIC_C	H_2 AIC_C	H_3 AIC_C	Best fit (IRD data)	**Best consistent fit (PD & IRD data)**
A. leucogrammicus	S	1	8	1.42	3.74	12.10	H_1	**H_1**
C. altivelis	S	2	11	1.14	5.07	10.31	H_1	**H_1**
C. altivelis	S	3	11	-11.23	-7.52	-2.35	H_1	**-**
C. altivelis	S	27	9*	-0.75	4.04	11.24	H_1	**H_1**
C. altivelis	S	28	9*	1.15	5.95	13.15	H_1	**H_1**
C. altivelis	S	29	7*	-0.36	6.26	20.26	H_1	**H_1**
C. altivelis	S	30	14	-2.77	0.54	4.59	H_1	**H_1**
C. cyanostigma	S	4	19*	-3.76	-3.57	0.46	H_2, H_1	**H_1**
C. cyanostigma	S	5	28	-3.96	-1.44	1.30	H_1	**-**
E. fasciatus	S	6-8	16	-11.78	-8.71	-5.07	H_1	**H_1**
E. fasciatus	S	31	13	-5.00	-1.53	2.80	H_1	**H_1**
E. fasciatus	W	9	12	-6.41	-2.74	1.09	H_1	**-**
E. fasciatus	W	32	11*	3.93	2.87	5.56	H_2, H_1	**H_1**
E. ongus	S	10	19	-16.84	-17.81	-14.55	H_1, H_2	**H_1**
E. ongus	S	11	14	-10.94	-8.62	-4.58	H_1	**H_1**
E. ongus	S	33	17	-15.83	-13.89	-10.41	H_2, H_1	**H_1**
G. hebraicum	S	34	16	-20.46	-19.70	-16.13	H_2, H_1	**H_1**
L. carponotatus	W	13	6*	-4.94	5.06	35.06	H_1	**-**
L. carponotatus	W	14	7	3.75	3.86	17.86	H_1, H_2	**H_2**
L. carponotatus	W	35	7	-0.33	6.67	20.67	H_1	**H_1**
L. carponotatus	W&S	12-13	17	-12.63	-9.64	-6.16	H_1	**H_1**
L. miniatus	W	15	11	-13.07	-9.63	-6.96	H_1	**H_1**
L. miniatus	W	16	12	-4.36	-0.94	3.78	H_1	**-**
L. miniatus	W	36	9*	-7.77	-3.64	3.56	H_1	**-**
L. nebulosus	S	17	19	-10.14	-7.62	-4.36	H_1	**-**
P. areolatus	S	18	11	-9.62	-5.69	-0.71	H_1	**H_1**
P. areolatus	S	39	11	0.95	4.86	10.09	H_1	**H_1**
P. auratus	S	19	18*	-12.62	-15.88	-12.51	H_2	**H_2**
P. auratus	S	37	26	-19.43	-17.84	-15.03	H_2, H_1	**H_1**
P. auratus	S	38	16	3.30	4.37	8.00	H_1, H_2	**H_2**
P. leopardus	S	20	12*	-8.56	-10.86	-6.39	H_2	**H_2**
P. maculatus	S	21	9	-6.30	-3.78	3.14	H_1	**H_1**
P. maculatus	S	40	7*	-5.61	1.26	15.26	H_1	**H_1**
P. multidens	S	22	17*	-32.97	-30.51	-27.02	H_1	**-**
S. semifasciatus	W	23	6	-4.87	5.13	35.13	H_1	**H_1**
S. semifasciatus	W	24	5	1.21	20.45	--	(H_1)	**H_1**
S. semifasciatus	W	25	4	--	--	--	-	
S. semifasciatus	W	26	5	-1.76	18.11	--	(H_1)	**H_1**