

Appendix

MEASUREMENTS OF BODY PROPORTIONS OF THE PYGMY BLUE WHALE, LEFT BY THE LATE DR TADAYOSHI ICHIHARA

INTRODUCTION BY EDITOR

One of the most prominent works of The Late Dr T. Ichihara is the discovery of the "Pygmy Blue Whale". The name pygmy blue whale was first given by Ichihara (1961) on blue whales inhabiting the waters around Kerguelen Island, recognizing differences in the external characteristics from the blue whales elsewhere in the Antarctic. Since then researches on this population have been carried out by various authors *i.e.* Ichihara, 1963 and 1966; Gambell, 1964; Ichihara and Doi, 1964; Zemsky and Boronin, 1964; Omura, Ichihara and Kasuya, 1970.

The subspecies *Balaenoptera musculus brevicauda* was proposed by Ichihara in a paper read in 1963 at the First Symposium on Cetacean Research held in Washington, D. C. His paper was not published until 1966, due to delay in printing. Meanwhile the name *brevicauda* was published by Zemsky and Boronin (1964). This is a nomen nudum according to van Bree, pers. comun.; and the first valid publication of the name was by Ichihara 1966 (Rice, 1977).

His conclusion is mainly based on the differences in the external morphology between the ordinary and pygmy blue whales. To our regret the basic data of the measurements of body proportions of each whale he measured (Table 1) were not appended to this important thesis. Accordingly these valuable data could not be used by researchers who desire to use them. This is the reason why we publish them here at this moment. (H.O.)

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TABLE 1. MEASUREMENTS OF BODY PROPORTIONS OF THE PYGMY
(Measurement of 1 are in metres and other

Serial no.	1. Total length, tip of snout to notch of flukes of snout to anterior end of flipper 11. Notch of flukes to umbilicus 21. Skull, greatest width 3. Tip of snout to blow-hole 7. Eye to ear, centres 12. Notch of flukes to end of system of vertical height 15. Dorsal fin, length of base 22. Skull length, condyle to tip of premaxilla 6. Flipper, tip to axilla 8. Notch of 10							
	1	3	5	6	6'	7	8	10
	[MALE]							
602N0000	18.00	17.67	19.39	44.88	33.67	5.50	21.56	27.50
612K0974	18.05	19.67	20.78	47.09	35.46	5.26	24.10	28.25
60K J 1025	19.30	—	21.24	43.52	—	3.63	19.17	27.98
612K0987	19.30	16.58	19.27	—	29.53	5.38	22.79	27.05
612K0960	19.90	18.59	19.10	—	34.17	6.53	22.61	25.63
60K J 0876	20.00	—	19.75	42.00	—	5.25	22.00	26.00
60K J 0795	20.50	—	20.49	45.37	—	4.39	20.49	25.37
612K0938	20.00	19.50	21.25	46.50	35.75	5.25	21.00	26.00
613N1334	20.40	18.48	20.74	44.80	—	5.44	23.04	26.86
60K J 0878	21.00	—	21.90	42.86	—	4.77	20.95	27.62
60K J 1149	21.50	19.53	20.00	42.33	32.56	5.58	21.40	25.12
602T1216	21.60	15.28	—	44.44	—	—	23.15	25.00
612K0954	21.30	16.67	18.07	—	28.64	6.81	28.09	27.46
613K1876	21.30	—	20.66	42.72	31.46	4.69	19.72	25.35
613K1875	21.30	—	20.19	39.44	29.58	4.69	21.60	24.41
60K J 1116	22.00	18.18	—	43.18	35.45	—	20.45	23.64
602T1578	22.10	18.55	21.27	—	31.22	—	23.98	—
60K J 0619	22.20	—	20.27	43.69	34.68	4.96	20.36	24.77
613K1863	22.10	18.55	23.98	38.91	29.86	—	23.53	26.70
60K J 0640	23.10	—	18.61	—	—	—	—	24.67
60K J 1261	23.10	—	19.91	—	—	—	—	27.27
	[FEMALE]							
60K J 1015	18.60	—	18.28	40.32	—	4.03	24.73	26.88
612T0845	19.10	19.90	22.25	46.07	35.60	4.87	21.62	27.23
60K J 1022	20.30	—	21.92	43.34	—	3.20	21.67	27.09
60K J 0941	20.50	—	20.00	43.41	—	4.39	22.44	26.83
60K J 0875	20.80	—	20.43	42.31	—	5.29	22.60	27.88
60K J 0796	21.00	—	20.95	42.86	—	6.19	22.86	27.62
60K J 0912	21.10	—	22.27	42.18	—	2.85	22.27	27.01
60K J 1117	21.30	18.31	19.72	40.85	33.33	6.10	22.54	25.82
602N0924	21.30	17.37	19.01	—	31.46	5.07	24.55	25.96
60K J 0770	21.30	16.43	20.19	42.25	32.39	4.69	23.47	24.88
602T1231	21.30	17.84	19.72	—	32.39	5.16	23.00	25.35
60K J 0944	21.40	19.16	20.56	44.39	34.11	6.54	20.09	26.17
602T1656	21.40	19.63	22.36	—	36.45	5.14	22.43	27.10
602T1212	21.50	16.28	—	42.79	—	—	23.26	30.23
60K J 0914	21.60	—	20.14	43.52	—	3.70	—	28.70
602N0848	21.70	18.89	21.01	—	33.18	2.95	25.35	27.88
602N0804	21.70	18.66	20.05	—	31.34	4.83	21.01	25.99
60K J 0858	21.80	20.18	21.10	44.04	33.49	5.51	21.56	26.15
613N1326	21.25	17.88	20.14	41.88	—	5.13	20.71	25.65
613N1845	21.30	20.33	21.64	43.66	—	5.26	—	24.13

BLUE WHALE, LEFT BY THE LATE DR TADAYOSHI ICHIHARA.
are percentages against the total length)

5. Tip of snout to centre of eye 6. Tip of snout to tip of flipper 6'. Tip flukes to posterior emargination of dorsal fin 10. Notch of flukes to anus ventral grooves 13. Anus to reproductive aperture, centres 14. Dorsal fin, 17. Flipper, tip to anterior end of lower border 19. Flipper, greatest width (23). Flukes, greatest width

11	12	13	14	15	16	17	19	21	22	(23)
42.89	41.00	7.22	0.89	3.28	—	—	—	12.44	26.00	—
44.88	43.21	6.65	0.66	2.49	—	—	—	—	—	—
44.04	—	8.29	—	—	12.18	15.13	3.74	—	—	—
45.08	40.41	7.89	1.24	2.85	—	—	—	—	—	—
42.21	37.19	—	—	—	—	—	—	—	—	—
44.00	—	8.50	—	—	9.50	12.25	3.40	—	—	—
43.90	—	6.83	—	—	11.22	13.66	3.66	—	—	—
40.00	39.00	6.30	1.15	3.00	—	—	—	—	—	—
42.65	36.76	6.96	0.98	3.77	—	—	—	—	—	—
44.76	—	6.19	—	—	10.48	13.10	3.90	—	—	—
40.93	—	6.97	—	—	—	—	—	—	—	—
41.67	31.48	7.87	1.06	—	—	—	—	—	—	—
42.96	38.97	5.87	1.13	2.58	—	—	—	—	—	—
40.85	37.09	7.04	0.99	3.05	—	—	—	—	—	—
39.91	38.03	7.51	0.85	2.82	—	—	—	—	—	—
40.91	39.09	8.18	0.77	3.18	—	—	—	—	—	—
—	—	—	0.90	3.17	—	—	—	—	—	—
40.54	37.39	6.76	0.81	2.25	—	—	—	—	—	—
43.89	42.08	8.60	1.09	2.49	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
41.93	—	2.68	—	—	9.68	12.90	3.12	—	—	—
42.15	43.36	3.14	1.10	5.08	—	—	—	12.04	25.92	—
43.84	—	2.96	—	—	10.04	12.81	3.89	—	—	—
44.39	—	3.41	—	—	10.54	13.71	3.95	—	—	—
44.71	—	2.89	—	—	9.62	12.74	3.65	—	—	—
42.86	—	2.86	—	—	10.00	12.86	3.57	—	—	—
43.13	—	2.85	—	—	9.48	11.80	3.51	—	—	—
41.78	36.62	2.35	0.89	2.35	—	—	—	—	25.35	—
41.60	38.31	3.48	0.66	3.66	—	—	—	—	—	—
45.07	42.72	2.35	0.99	2.82	—	—	—	—	24.88	—
42.25	37.56	2.82	0.70	2.11	—	—	—	—	—	—
40.65	38.32	2.33	0.98	3.27	—	—	—	—	26.17	—
42.99	40.65	1.87	1.12	2.10	—	—	—	—	—	—
45.12	42.79	2.79	1.26	2.05	—	—	—	—	—	—
42.13	—	3.24	—	—	10.19	12.96	3.61	—	—	—
44.47	43.09	3.46	1.38	4.06	—	—	—	—	—	—
43.09	38.57	3.04	0.92	4.10	—	—	—	—	—	—
42.66	38.07	2.29	0.87	2.75	—	—	—	—	26.15	—
42.82	38.21	2.59	0.75	3.67	—	—	—	—	—	—
41.55	37.55	5.07	—	—	—	—	—	—	—	—

Continued . . .

TABLE 1. Continued

Serial no.	1	3	5	6	6'	7	8	10
613K 1884	21.40	17.29	21.03	—	—	—	20.09	24.77
613K 1859	21.50	19.53	—	42.33	—	—	23.26	27.91
613N 1324	21.82	15.99	19.25	42.67	—	5.04	22.91	27.27
613N 1328	21.90	17.58	19.95	43.38	—	4.79	21.37	27.58
613K 1858	21.90	19.18	23.74	42.46	—	—	21.92	27.40
60K J 0581	22.00	15.91	19.09	—	32.27	5.00	20.00	24.09
602N 0897	22.10	17.65	18.78	—	32.13	4.84	22.35	24.38
60K J 0808	22.10	—	20.81	42.53	—	4.98	21.72	27.60
602T 1723	22.10	19.00	20.81	—	32.13	—	22.62	26.70
602T 1767	22.10	19.00	21.27	—	34.39	4.97	21.72	25.79
602T 1275	22.30	18.83	19.73	—	32.29	4.49	22.42	29.15
602T 1591	22.30	16.59	20.18	—	32.74	6.73	23.32	25.11
60K J 0801	22.30	18.83	20.18	43.05	32.74	5.38	21.97	26.91
60K J 0798	22.50	—	20.44	42.22	—	5.78	22.67	28.44
602T 1693	22.60	17.26	20.35	—	34.51	5.31	23.45	27.43
602T 1612	22.60	16.81	22.57	—	37.17	—	20.80	22.57
602N 0896	22.70	19.82	21.32	—	34.10	5.20	22.91	27.31
602N 0907	22.80	17.06	18.95	—	31.45	4.38	23.90	22.63
602N 0805	22.80	17.98	20.04	—	30.26	5.18	20.18	23.90
60K J 0897	23.00	—	21.20	44.57	—	3.90	21.20	28.13
60K J 0624	24.20	—	19.42	—	—	—	—	26.86
	[FOETUS, MALE]							
60K J 0912	2.52	—	15.82	40.79	—	7.99	23.81	30.16
60K J 0946	2.70	—	17.15	44.44	—	6.92	24.81	29.63
602N 0924	3.25	14.15	16.31	—	32.62	6.46	22.46	28.92
602T 0805	3.57	14.00	17.09	—	33.89	—	22.97	29.41
60K J 0945	3.65	—	16.44	43.84	—	8.77	27.40	31.51
602T 0772	4.15	14.46	18.32	—	35.42	—	24.10	30.12
60K J 0941	4.52	—	17.26	45.13	—	8.18	23.67	27.88
60K J 0889	4.70	—	15.77	42.13	—	7.21	25.53	31.06
60K J 0858	6.30	13.81	18.10	44.44	32.22	5.56	25.08	30.63
	[FOETUS, FEMALE]							
602T 0736	2.30	15.22	—	—	35.65	—	23.91	29.57
602T 0771	2.30	13.48	16.09	—	—	—	23.04	29.13
60K J 0875	2.70	—	17.04	45.56	—	9.63	24.44	30.37
602T 0769	3.15	14.92	17.14	—	33.65	—	25.08	29.21
60K J 1040	4.35	—	15.86	44.14	—	8.97	26.67	29.66
602N 0896	4.73	15.22	17.97	—	33.62	5.29	25.37	29.61
60K J 0872	4.81	—	17.05	44.91	—	8.11	25.57	27.03
60K J 0801	5.20	14.42	16.35	45.58	33.08	—	24.04	—
602T 0816	5.36	14.93	17.16	—	32.46	6.16	24.25	29.85

11	12	13	14	15	16	17	19	21	22	(23)
—	39.25	2.80	0.70	1.87	—	—	—	—	—	—
46.51	44.19	2.79	0.51	2.28	—	—	—	—	—	—
44.63	39.92	2.43	0.78	4.22	—	—	—	—	—	—
45.16	38.36	2.51	0.87	3.70	—	—	—	—	—	—
42.01	40.64	2.28	0.82	2.97	—	—	—	—	—	—
40.91	39.09	2.27	0.82	5.91	—	—	—	—	—	—
41.18	36.92	2.54	0.77	3.35	—	—	—	—	—	—
42.99	—	3.17	—	—	9.28	12.22	3.39	—	—	—
42.53	40.72	1.81	1.00	2.94	—	—	—	—	—	—
42.08	40.27	3.17	1.18	2.26	—	—	—	—	—	—
45.29	40.36	2.69	1.12	2.02	—	—	—	—	—	—
41.70	38.16	0.91	0.99	2.24	—	—	—	—	—	—
42.15	39.46	2.24	0.94	2.02	—	—	—	—	25.56	—
41.78	—	2.64	—	—	9.33	11.78	3.56	—	—	—
42.48	39.82	2.22	0.88	1.99	—	—	—	—	—	—
44.69	42.48	4.86	—	—	—	—	—	—	—	—
43.52	39.47	2.65	1.37	3.52	—	—	—	—	—	—
44.12	34.21	4.12	1.05	3.46	—	—	—	—	—	—
40.39	36.75	4.17	0.70	3.73	—	—	—	—	—	—
42.84	—	3.03	—	—	10.39	12.77	3.50	—	—	—
—	—	—	—	—	—	—	—	—	—	—
46.03	—	7.94	—	—	11.11	15.48	4.37	—	—	—
44.44	—	7.41	—	—	11.52	15.56	4.44	—	—	—
42.46	46.46	7.70	1.54	5.54	—	—	—	—	—	—
45.94	43.98	—	1.68	4.34	—	—	—	—	—	—
47.67	—	6.85	—	—	13.15	17.81	4.38	—	—	—
45.30	42.65	6.27	1.69	4.82	—	—	—	—	—	—
45.80	—	8.40	—	—	12.83	17.26	5.09	—	—	—
47.23	—	6.39	—	—	13.19	16.38	4.38	—	—	—
46.98	43.17	7.47	1.59	4.13	—	—	—	—	—	—
45.22	—	2.17	1.74	3.48	—	—	—	—	—	—
46.09	43.48	2.61	1.30	4.35	—	—	—	—	—	27.39
47.41	—	2.59	—	—	12.22	16.67	4.81	—	—	—
43.81	41.27	2.22	1.59	3.44	—	—	—	—	—	22.22
44.60	—	1.83	—	—	12.64	16.32	4.37	—	—	14.25
47.36	44.40	2.74	1.90	5.07	—	—	—	—	—	—
40.96	—	1.66	—	—	12.46	16.22	4.57	—	—	—
—	—	—	2.31	4.81	—	—	—	—	—	—
46.27	45.90	2.24	1.31	3.17	—	—	—	—	—	—