

**Agonistic Interactions and Dominance Relationships in  
Three Groups of Captive Odontocetes: Method of  
Assessment and Inter-Species/Group Comparison**

**Supplemental Tables & Appendices**

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## Supplemental Tables

**Table S1.** Total number of decided interactions between pairs: interactions starting with an aggressive behaviour (A), with a neutral behaviour (B), and “successful” mounts (C). Winners of interactions are presented in the top row and losers in the first column.

(A)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoxi	Xiaozhuang	Ailun	Beila	Jiesen	Luoke	R
Duoduo	NA	34	16	0	20									
F7	1	NA	0	0	0									
F9	7	12	NA	0	2									
Taotao	25	39	14	NA	20									
Yangyang	1	15	8	0	NA									
Xiaomeng						NA	20	24	4					
Xiaomi						3	NA	51	1					
Xiaoxi						2	3	NA	0					
Xiaozhuang						5	27	39	NA					
Ailun										NA	0	6	5	NA
Beila										2	NA	1	4	NA
Jiesen										0	0	NA	11	0
Luoke										5	1	16	NA	NA
R										NA	0	NA	NA	NA

  

(B)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoxi	Xiaozhuang	Ailun	Beila	Jiesen	Luoke	R
Duoduo	NA	4	4	0	2									
F7	0	NA	0	0	0									
F9	2	7	NA	2	0									
Taotao	6	9	2	NA	2									
Yangyang	16	8	6	0	NA									
Xiaomeng						NA	18	35	15					
Xiaomi						3	NA	23	0					
Xiaoxi						2	3	NA	2					
Xiaozhuang						10	27	23	NA					
Ailun										NA	0	1	1	NA
Beila										0	NA	1	1	NA
Jiesen										3	0	NA	1	0
Luoke										0	1	3	NA	NA
R										NA	0	NA	NA	NA

  

(C)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoxi	Xiaozhuang	Ailun	Beila	Jiesen	Luoke	R
Duoduo	NA	NA	NA	14	NA									
F7	NA	NA	NA	NA	NA									
F9	NA	NA	NA	NA	NA									
Taotao	101	NA	NA	NA	NA									
Yangyang	NA	NA	NA	NA	NA									
Xiaomeng						NA	NA	NA	NA					
Xiaomi						NA	NA	14	3					
Xiaoxi						NA	3	NA	2					
Xiaozhuang						NA	8	18	NA					
Ailun										NA	NA	9	19	NA
Beila										NA	NA	NA	NA	NA
Jiesen										3	NA	NA	2	NA
Luoke										0	NA	7	NA	NA
R										NA	NA	NA	NA	NA

**Table S2.** Total number of social play interactions for bottlenose dolphins

	Ailun	Beila	Jiesen	Luo ke	R
Ailun	NA	28	30	30	NA
Beila	28	NA	38	92	4
Jiesen	30	38	NA	42	NA
Luo ke	30	92	42	NA	NA
R	NA	4	NA	NA	NA

**Table S3.** Total number of threats (A), tail slaps (B), bites (C), chases (D), avoiding (E), and escaping (F) for each pair of individuals; the individual that displayed the behavior is indicated in the top row, and the receiver is indicated in the first column.

(A)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoshi	Xiaozhuang	Ailun	Beila	Jiesen	Luo ke	R
Duoduo	NA	10	16	0	12									
F7	2	NA	4	0	4									
F9	10	11	NA	1	5									
Taotao	13	31	4	NA	5									
Yangyang	1	10	10	3	NA									
Xiaomeng						NA	16	19	3					
Xiaomi						8	NA	52	4					
Xiaoshi						3	7	NA	2					
Xiaozhuang						22	22	48	NA					
Ailun										NA	0	5	12	NA
Beila										0	NA	1	9	0
Jiesen										4	0	NA	20	NA
Luo ke										5	4	22	NA	NA
R										NA	0	NA	NA	NA

  

(B)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoshi	Xiaozhuang	Ailun	Beila	Jiesen	Luo ke	R
Duoduo	NA	17	16	9	21									
F7	1	NA	6	4	0									
F9	8	9	NA	2	9									
Taotao	22	18	8	NA	22									
Yangyang	4	6	13	0	NA									
Xiaomeng						NA	2	13	2					
Xiaomi						2	NA	8	0					
Xiaoshi						8	21	NA	2					
Xiaozhuang						3	8	1	NA					
Ailun										NA	2	0	6	NA
Beila										0	NA	3	3	0
Jiesen										2	5	NA	2	NA
Luo ke										1	3	4	NA	NA
R										NA	0	NA	NA	NA

  

(C)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoshi	Xiaozhuang	Ailun	Beila	Jiesen	Luo ke	R
Duoduo	NA	0	0	3	0									
F7	1	NA	0	0	0									
F9	0	0	NA	0	0									
Taotao	4	0	0	NA	0									
Yangyang	0	0	0	0	NA									
Xiaomeng						NA	2	2	0					
Xiaomi						1	NA	8	2					
Xiaoshi						2	2	NA	9					
Xiaozhuang						4	9	9	NA					
Ailun										NA	4	14	17	NA
Beila										9	NA	1	16	0
Jiesen										46	1	NA	29	NA
Luo ke										33	64	12	NA	NA
R										NA	0	NA	NA	NA

(D)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoshi	Xiaozhuang	Ailun	Beila	Jiesen	Luoke	R
Duoduo	NA	0	0	0	1									
F7	0	NA	1	0	0									
F9	0	0	NA	0	0									
Taotao	1	0	0	NA	0									
Yangyang	1	1	1	0	NA									
Xiaomeng						NA	9	12	1					
Xiaomi						1	NA	26	0					
Xiaoshi						0	2	NA	0					
Xiaozhuang						3	11	15	NA					
Ailun										NA	15	22	5	NA
Beila										8	NA	4	33	0
Jiesen										8	2	NA	23	NA
Luoke										2	54	33	NA	NA
R										NA	0	NA	NA	NA

  

(E)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoshi	Xiaozhuang	Ailun	Beila	Jiesen	Luoke	R
Duoduo	NA	1	7	31	22									
F7	22	NA	20	63	13									
F9	11	0	NA	10	11									
Taotao	5	1	4	NA	12									
Yangyang	11	0	2	10	NA									
Xiaomeng						NA	9	5	30					
Xiaomi						70	NA	11	158					
Xiaoshi						90	89	NA	213					
Xiaozhuang						100	16	6	NA					
Ailun										NA	20	30	41	NA
Beila										14	NA	0	83	0
Jiesen										29	7	NA	123	NA
Luoke										17	33	41	NA	NA
R										NA	0	NA	NA	NA

  

(F)	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoshi	Xiaozhuang	Ailun	Beila	Jiesen	Luoke	R
Duoduo	NA	1	1	2	1									
F7	0	NA	4	8	3									
F9	0	0	NA	0	0									
Taotao	0	0	0	NA	1									
Yangyang	0	0	0	0	NA									
Xiaomeng						NA	1	0	2					
Xiaomi						28	NA	2	13					
Xiaoshi						32	33	NA	18					
Xiaozhuang						19	5	1	NA					
Ailun										NA	4	1	4	NA
Beila										12	NA	0	19	0
Jiesen										6	1	NA	21	NA
Luoke										12	14	8	NA	NA
R										NA	0	NA	NA	NA

**Table S4.** Number and rate/h of agonistic interactions initiated by each individual

	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoxi	Xiaozhuang	Ailun	Beila	Jiesen	Luke	R
Number	47	132	120	17	103	53	89	156	12	10	10	40	51	0
Rate/h	1.08	3.03	2.73	0.39	2.37	1.79	3.02	5.29	0.41	0.29	0.29	1.18	1.51	0

**Table S5.** Percentage of interactions won for each pair of individuals. Winners of interactions are presented in the top row and losers in the first column.

	Duoduo	F7	F9	Taotao	Yangyang	Xiaomeng	Xiaomi	Xiaoxi	Xiaozhuang	Ailun	Beila	Jiesen	Luke	R
Duoduo	NA	97.4359	68.96552	9.589041	53.65854									
F7	2.564103	NA	0	0	0									
F9	31.03448	100	NA	11.11111	12.5									
Taotao	90.41096	100	88.88889	NA	100									
Yangyang	41.46341	100	87.5	0	NA									
Xiaomeng						NA	86.36364	93.65079	55.88235					
Xiaomi						13.63636	NA	90.72165	6.060606					
Xiaoxi						6.349206	9.278351	NA	4.761905					
Xiaozhuang						44.11765	93.93939	95.2381	NA					
Ailun										NA	0	72.72727	83.33333	NA
Beila										100	NA	100	71.42857	NA
Jiesen										27.27273	0	NA	35	NA
Luke										16.66667	28.57143	65	NA	NA
R										NA	NA	NA	NA	NA

## Supplemental Appendices

**Appendix 1.** Daily frequency of agonistic encounters for each individual based on three 15-min observation sessions per day. YFP = Yangtze finless porpoises, EAFPs = East Asian finless porpoises, and BDs = bottlenose dolphins.



**Appendix 2.** Daily duration of agonistic encounters for each individual based on three 15-min observation sessions per day. YFPs = Yangtze finless porpoises, EAFPs = East Asian finless porpoises, and BDs = bottlenose dolphins.

