

Article title: Study of repertoire use reveals unexpected context-dependent vocalizations in bottlenose dolphins (*Tursiops truncatus*)

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Fig.S1 Aerial view of the facility in which our study group was housed. The observatory pool was the P₄ (marked in red in the figure)



Table S1 Description of the six behavioral categories considered during the acoustic production

Behavioural context	Description
Affiliative	Include many tactile behavioural events such as rubbing, swim contact, petting, and synchronous movements.
Agonistic	One dolphin starts a series of aggressive displays towards one or several other individuals by performing: chasing, mouth-biting, hitting, threatening, or head butting. The interaction ends with the attack and/or the flee.
Sexual	At least two individuals separating by one body-length interacting in series of both rough and gentle behaviours, including: mate and attempts to mate, rubbing, genital inspection, chasing, biting, jaw clapping, erection and general touching of genital parts with any part of the body.
Social play	Two or more dolphins interact playing. This behaviour can be vigorous with one dolphin chasing another or both spinning around each other quickly. Alternatively, play can be calmer with the dolphins circling gently around each other, or pushing one another. Individuals took turns as a chaser in chasing and/or mouth-biting.
Solitary play	Playing alone, potentially with objects

(such as a ball, pool float) or water. This can involve pushing, tossing, carrying or biting an object, as well as catching or manipulating water jets.

Other

Non-social activities consisting of general movements/stationary behaviors. One dolphin swim alone within at least more than one body-length from the nearest conspecific, without showing any synchronous movements. Also characterized by exploration above water or lying at the bottom of the pool.

Table S2 Overview of the Output of the binomial GLM model composed by: “Emission” (Presence, Absence of vocalization) as a response variable, interaction between “Vocal category” (coded with the seven possible vocal categories obtained in this study: Burst pulses, BP; Click trains, Cl; Whistles, Wh; Burst pulse-Click trains, BP-Cl; Burst pulse-Whistles, BP-Wh; Click trains-Whistles, Cl-Wh; Burst pulse-Click trains-Whistles, BP-Cl-Wh) and “Context” (coded according to the six categories of behavioural contexts observed: Affiliative; Agonistic; Sexual; Social play; Solitary play; Other) as fixed variable, as well as “Vocal category” and “Context” without interaction as fixed variables. The significant p-values are showed in bold. AIC of the GLM= 2615; df= 3359.

Coefficient	Estimate	S E	S tatistic	p- value
(Intercept)	-2.418	0.348	-6.951	< 0.001
BP-Cl	0.000	0.492	0.000	1.000
BP-Cl-Wh	-0.435	0.545	-0.797	0.425
BP-Wh	-1.156	0.681	-1.698	0.089
Cl	1.779	0.402	4.430	< 0.001

CI-Wh	0.974	0	2	0.
		.424	.296	022
Wh	1.142	0	2	0.
		.418	.734	006
Agonistic	1.214	0	2	0.
		.581	.089	037
Other	0.425	0	0	0.
		.707	.602	547
Sexual	-0.840	0	-	0.
		.617	1.362	173
Social-play	0.797	0	1	0.
		.433	.841	066
Solitary-play	0.403	0	0	0.
		.464	.868	385
BP-CI:Agonistic	-15.362	4	-	0.
		70.590	0.033	974
BP-CI-Wh:Agonistic	-0.066	0	-	0.
		.900	0.073	941
BP-Wh:Agonistic	0.925	0	0	0.
		.963	.960	337
CI:Agonistic	-2.612	0	-	0.
		.869	3.006	003
CI-Wh:Agonistic	-2.989	1	-	0.
		.199	2.494	013
Wh:Agonistic	-0.936	0	-	0.

		.766	1.222	222
BP-CI:Other	-14.574	4	-	0.
		79.910	0.030	976
BP-CI-Wh:Other	-14.139	4	-	0.
		79.910	0.029	976
BP-Wh:Other	-0.029	1	-	0.
		.373	0.021	983
CI:Other	-0.731	0	-	0.
		.859	0.851	395
CI-Wh:Other	-1.424	1	-	0.
		.050	1.356	175
Wh:Other	0.771	0	0	0.
		.845	.913	361
BP-CI:Sexual	0.976	0	1	0.
		.782	.247	212
BP-CI-Wh:Sexual	2.643	0	3	0.
		.778	.398	001
BP-Wh:Sexual	2.665	0	2	0.
		.893	.986	003
CI:Sexual	-0.698	0	-	0.
		.723	0.965	334
CI-Wh:Sexual	-0.114	0	-	0.
		.749	0.152	879
Wh:Sexual	1.114	0	1	0.
		.694	.607	108

BP-CI:Social-play	-0.294	0	-	0.
		.625	0.471	638
BP-CI-Wh:Social-play	-0.237	0	-	0.
		.688	0.345	730
BP-Wh:Social-play	0.777	0	0	0.
		.786	.989	323
CI:Social-play	-1.714	0	-	0.
		.540	3.174	002
CI-Wh:Social-play	-1.540	0	-	0.
		.590	2.613	009
Wh:Social-play	-0.733	0	-	0.
		.541	1.355	175
BP-CI:Solitary-play	0.177	0	0	0.
		.648	.273	785
BP-CI-Wh:Solitary-play	0.909	0	1	0.
		.678	.342	180
BP-Wh:Solitary-play	1.993	0	2	0.
		.783	.546	011
CI:Solitary-play	-0.786	0	-	0.
		.553	1.420	156
CI-Wh:Solitary-play	-2.871	0	-	0.
		.886	3.242	001
Wh:Solitary-play	-2.092	0	-	0.
		.692	3.022	003

Anova on the GLM

Coefficients	Statistic	d f	<i>p-value</i>
Vocal category	68.40	6	<0.001
Context	14.78	5	0.011
Vocal category:Context	162.98	3 0	<0.001
