

Gathering Data on Dolphin Behavior

Scientists can't see 100% of what an animal does every day, all day. But they can "sample" animal behavior. Two actual sampling forms are reproduced here. One is a survey. Shark Bay Dolphin Project researchers use surveys when they first come across a dolphin or group of dolphins. These five-minute "snapshots" record which dolphins are present and what they are doing. This survey (see Chapter Four) began as soon as Janet spotted Lick (LIC) and her calf Cheeky (CEY).

The habitat type wasn't visible from the surface, but the dolphins were in 5.4 meters of water near Red Cliff Bay (RCB). When first encountered, Lick was foraging about 200 meters away from the boat, mostly making peduncle dives, but she made at least one tail-up dive. Lick and Cheeky swam quite close to each other (less than two meters apart) and Cheeky was in BP (baby position) part of the time. The pair traveled in a straight line. Cheeky's skin was discolored; Lick had swollen mammary glands, as a nursing mom should (her underbelly was visible when she came over to bow-ride). During the five minutes of the survey no other dolphins joined Lick and Cheeky. Afterward, Janet switched to a focal follow form.

The second form reproduced is the focal follow of Lick and Cheeky. The "notes" column describes, in researcher shorthand, the fast-paced action as Lick and Cheeky were joined by other dolphins.

By gathering data in this standardized way, data from different dolphins and data collected at different times by different people can be put together and analyzed. Survey data (best for recording which dolphins are around) can be combined with focal follow data (best for recording behavior) to develop and test hypotheses.

CR JM

Date: 24-July-2011		Start Boat Time: 11:18		End Boat Time:		Survey# 1		Date/Initials Entered on computer:	
1st Observer: JM		GPS 3001		Substrate (circle 1)		General location		KPS Dec 5, 2011	
2nd Observer:		°		seagrass 1 2 3 4		RCB			
Scribe: KPS		South 25.77871		sand (90-100%)		Closest Depth (m) 3.4			
Time 1st ID: 11:25		°		channel (unknown)		Temp C 17.0			
Time depart: 11:30		East 113.70972		other:		MM		Beaufort .5	
Reason depart: 5 Re (Fo) Lo We Hi Eq Em Oth				seagrass 1:10-25%; 2:26-50%; 3:51-75%; 4:>75%				Transect#	
ID codes or names; Place animals that arrive > 5 min in parens.								#Ds 1st 5min	
CEY LIC								2	
								Total before depart	
								2	
Arrivals (IDs and times):								All fins photo or ID? (Y) N U	
Departures (IDs and times):									
PARTY DATA during first 5 min: Circle all predominant, check all occurrences. Put later data in notes								Bowriding (Y) n	
Activity	Spread-m	Surface-Dive Info	Spd.mph	ForageType/ IDs	lpf	ForEvents	LIC		
Rest	Vti < .3	rg rt snag	Vtr < 1	bchfor	mllfor	ID:	CEY		
(Travel)	(Fig. 3-2)	td ✓	Str 1-2	begboat	rtfor		bup cf fch fed fj fs		
Social	Mod 2-5	pp lp	Str 1-2	brdmll	sffor		fshflw fsw ft plywd		
Forage	Spr 5-10	pd	Str 2-3	btg	snk		plyblow shagcofor snp		
Other:	Wsp > 10	rs	Mtr 3-4	bupfor	spf		spg tw wdpok wf wrb		
Unk	Unk	Initial	Ftr 4-6	cstfor	tdpdfor		Other:		
Movement	(straight)	Act.	Btr > 6	gtfor	other:		Synchs:		
meander mill var	FOR	: y/n	Var	kplfor			11:27 E(1): LIC CEY		
	200M	: y/n	Unk						
Notes: consorts, subgroups, social, SSSS, fish, other				Social Type 1st 5: gse pet prb shickick bnd mnt ere jaw other IDs:					
CEY - horrible discoloration									
LIC - mammary swollen - JM									
FILM: start-end frame, description, blanks									

Date: 24-JULY-2011

Mom: LIC
Calf: CEY

1JX-STA

SCRIBE: KPS

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Observer: JM

Time	Dis	Calf Act	Mum Act	Party Composition	Join/Leave	BP M/B	Notes
11:35	BP	BP	CTR	LIC CEY		M:31:29	
36	0	BOW	BOW	LIC CEY		B:35:40	CEY physical condition seems normal, reg body size
37	1	CTR	CTR	LIC CEY			only skin messed up.
38	1	CTR	CTR	LIC CEY			
39	1	CTR	CTR	LIC CEY		M:39:40	ED(10): LIC CEY
40	BP	BP	MILKFOR	"			
41	BP	BP	MILKFOR	"			
42	BP	BP	"	"			
43	BP	BP	"	"		B:43:54	
44	0	CTR	"	"			
45	1	CTR	"	"	L:CEY J:CEY J:CEY SAV INI		
46	3	SOC	"	CEY SAV INI LIC			SOC W/ SAV INI
47	3	SOC	"	"			SOC W/ SAV INI
48	3	SOC	"	"	L:CEY SAV INI		SOC W/ SAV INI
49	4	SOC	"	(CEY SAV INI) (LIC)	J:CEY SAV INI		"
50	4	SOC	"	(CEY SAV INI) (LIC)	J: LIC		"
51	3	SOC	"	CEY SAV INI LIC			E(0): SAV CEY BHD INI CEY IS IT.
52	2	SOC	"	"	L: LIC		E(0): SAV CEY INI E(0): SAV CEY BHD INI
53	4	SOC	"	(CEY SAV INI) (LIC)			E(0): SAV INI CEY BHD CEY INI BHD
54	4	SOC	"	"	J: LIC		INI GSE CEY CEY STILL IT
55	3	SOC	"	CEY SAV INI LIC			
56	3	SOC	"	"	L: LIC		
57	6	SOC	"	(CEY SAV INI) (LIC)			E(0): SAV INI
58	6	SOC	"	"			CEY BHD CEY INI MNT SAV E(0): CEY SAV
59	6	SOC	"	"			E(0): INI CEY TO SAV INI CHSIP
12:00	6	XPI	"	"			SAV STILL IT INI IT
01	7	XPI	"	"	J: PUC		E(0): CEY INI BHD SAV E(MNT): CEY SAV INI
02	7	XPI	"	(CEY SAV INI PUC) (LIC)			E(MNT): SAV CEY ON INI INI BHD
03	7	XPI	"	"	L: PUC		possible even CEY E(0): SAV CEY
04	7	XPI	"	(CEY SAV INI) (LIC)			
05	7:8	XPI	"	"			E(0): CEY INI BHD SAV SAV = IT
06	7:8	XPI	"	"			E(0): INI CEY INI E(MNT): CEY SAV ON
07	7:8	XPI	"	"			SAV chslo
08	6	XPI	"	"	J: LIC		INI chslo SAV = IT
09	6	XPI	"	(CEY SAV INI) (LIC PUC)	J: CEY SAV INI		
10	2	XPI	"	CEY SAV INI PUC LIC	L: LIC CEY	M:10:20	
11	BP	BP	CTR	CEY LIC			
12	BP	BP	MILKFOR	"	MUTE J		
13	BP	BP	MILKFOR	CEY LIC SAV PUC INI	L: CEY LIC		
14	BP	BP	"	CEY LIC	MUTE J	B:14:53	
15	3	CTR	"	CEY LIC SAV PUC INI			
16	2	MILKFOR	"	"			
17	2	"	"	"			lots of PP #1P
18	1-2	"	"	"			
19	1-3	SOC	"	"			SOC W/ SAV INI
20	3	SOC	"	"			
21	3	SOC	"	"			
22	2	LRF	LRF	"	L: PUC		
23	2-3	"	"	CEY LIC SAV INI	L: SAV LIC CEY		CEY & LIC IP > 3
24	0	"	"	LIC CEY	MUTE J	M:24:00	
25	3	"	"	LIC CEY SAV INI PUC	J: URC COO REA	B:24:40	
26	3-4	"	"	LIC CEY SAV INI PUC URC COO REA			