

Supporting information for the publication: Demographic assessment of mono(2-ethylhexyl) phthalate (MEHP) and monoethyl phthalate (MEP) concentrations in common bottlenose dolphins (*Tursiops truncatus*) from Sarasota Bay, FL, USA

M. K. Dziobak¹, R. S. Wells², E. C. Pisarski³, E. F. Wirth⁴, L. B. Hart⁵

¹Environmental and Sustainability Studies Graduate Program, College of Charleston, Charleston, SC.

²Chicago Zoological Society's Sarasota Dolphin Research Program, c/o Mote Marine Laboratory, Sarasota, FL.

³CSS Inc., (under contract to NOAA/NOS/NCCOS), Charleston, SC.

⁴National Oceanic and Atmospheric Administration, National Ocean Service, National Centers for Coastal Ocean Science, Charleston, SC.

⁵Department of Health and Human Performance, College of Charleston, Charleston, SC.

Contents of this file

Figures S1 to S2

Introduction

This file includes information regarding detectable urinary concentrations of monomethyl phthalate (MMP), monoethyl phthalate (MEP), mono(2-ethylhexyl) phthalate (MEHP), mono-2-ethyl-5-hydroxyhexyl phthalate (MEHHP), mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP), monobenzyl phthalate (MBzP), monoisobutyl phthalate (MiBP), and monobutyl phthalate (MBP) in wild bottlenose dolphins. Tables provide information on limit of detection values for each sampling year (Table S1) as well as raw concentration data for each individual dolphin (Table S2).

Table S1: Limit of detection (LOD) values (ng/mL) for phthalate metabolites measured in bottlenose dolphin urine samples from time periods 1) 2016, 2017 and 2) 2010-2015, 2018, 2019, as well as two samples with less than 1mL of urine (3 and 4).

LOD number	Sampling year(s)	MMP	MEP	MEHP	MEOHP	MEHHP	MBzP	MiBP	MBP
1	2016, 2017	0.1	2.42	0.6	0.1	0.2	0.1	0.5	0.5
2	2010-2015, 2018, 2019	0.1	1	0.24	0.42	0.54	0.48	0.59	0.51
3	2015	0.17	2.06	0.4	0.7	0.9	0.8	0.98	0.85
4	2014	0.12	3.43	0.28	0.49	0.64	0.56	0.69	0.6

Table S2: Bottlenose dolphin characteristics with associated concentrations (ng/mL) of 8 urinary phthalate metabolites.

Bottlenose dolphin	Sampling year	Age at sampling	Sex	Age Class	LOD number	MMP	MEP	MEHP	MEOHP	MEHHP	MBzP	MiBP	MBP
1	2012	16	F	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
2	2015	17	F	Adult	2	<LOD	<LOD	36.9	<LOD	<LOD	<LOD	<LOD	<LOD
3	2019	27	M	Adult	2	<LOD	2.85	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
4*	2014	15	F	Adult	2	<LOD	<LOD	63.5	<LOD	<LOD	<LOD	<LOD	<LOD
5	2015	16	F	Adult	2	<LOD	4.35	30.29	70	491	6.26	<LOD	<LOD
6	2014	22	M	Adult	2	0.32	<LOD	49.2	<LOD	<LOD	<LOD	<LOD	<LOD
7	2018	22	M	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.56
8*	2010	10	F	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
9	2017	17	F	Adult	1	<LOD	<LOD	2.1	<LOD	<LOD	<LOD	<LOD	<LOD
10	2015	25	F	Adult	4	<LOD	<LOD	28.12	0.49	<LOD	<LOD	<LOD	1.03
11	2017	28	M	Adult	1	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
12	2017	15	M	Adult	1	<LOD	<LOD	1	<LOD	<LOD	<LOD	<LOD	<LOD
13	2016	21	M	Adult	1	<LOD	1.3	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
14	2016	20	M	Adult	1	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
15*	2011	13	M	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
16	2014	16	M	Adult	2	<LOD	<LOD	27.1	<LOD	<LOD	<LOD	<LOD	<LOD
17	2014	11	F	Adult	2	<LOD	<LOD	31.1	<LOD	<LOD	<LOD	<LOD	<LOD
18	2015	13	F	Adult	2	<LOD	6.31	37	<LOD	76.6	11.3	<LOD	<LOD
19*	2016	12	F	Adult	1	<LOD	<LOD	3.4	<LOD	<LOD	<LOD	<LOD	<LOD
20	2016	12	F	Adult	1	<LOD	5.3	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
21	2010	5	F	Calf/ Juvenile	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
22	2018	11	F	Adult	2	<LOD	2.44	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
23*	2012	7	F	Calf/ Juvenile	2	<LOD	<LOD	2.73	<LOD	<LOD	<LOD	<LOD	<LOD
24	2019	10	F	Adult	2	<LOD	<LOD	2.19	<LOD	<LOD	<LOD	<LOD	<LOD
25*	2010	9	F	Calf/ Juvenile	2	<LOD	2.72	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
26	2016	15	F	Adult	1	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
27*	2010	5	F	Calf/ Juvenile	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
28	2011	6	F	Calf/ Juvenile	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
29	2018	19	M	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.42
30	2010	26	F	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
31	2014	32	F	Adult	3	<LOD	<LOD	76.6	<LOD	<LOD	<LOD	<LOD	<LOD
32	2014	7	F	Calf/ Juvenile	2	<LOD	<LOD	15.99	<LOD	<LOD	<LOD	<LOD	<LOD
33*	2012	22	M	Adult	2	<LOD	<LOD	1.28	<LOD	<LOD	<LOD	<LOD	<LOD
34*	2014	24	M	Adult	2	<LOD	2.35	0.46	<LOD	<LOD	<LOD	<LOD	<LOD
35	2017	27	M	Adult	1	<LOD	3.1	1.7	0.4	<LOD	<LOD	<LOD	<LOD
36	2015	3	F	Calf/	2	<LOD	<LOD	28.4	<LOD	<LOD	<LOD	<LOD	<LOD

				Juvenile									
37	2018	14	M	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
38*	2012	19	M	Adult	2	<LOD	2.145	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
39*	2010	17	M	Adult	2	<LOD	<LOD	3.27	<LOD	<LOD	<LOD	<LOD	<LOD
40	2012	19	M	Adult	2	<LOD	8.66	1.95	<LOD	<LOD	<LOD	<LOD	<LOD
41	2016	3	F	Calf/ Juvenile	1	<LOD	<LOD	<LOD	0.2	<LOD	<LOD	<LOD	<LOD
42	2010	2	M	Calf/ Juvenile	2	<LOD	<LOD	0.26	<LOD	<LOD	<LOD	<LOD	<LOD
43	2019	44	F	Adult	2	<LOD	4.68	0.39	<LOD	<LOD	<LOD	<LOD	<LOD
44	2017	2	F	Calf/ Juvenile	1	<LOD	<LOD	5.9	0.3	<LOD	<LOD	<LOD	<LOD
45	2017	2	F	Calf/ Juvenile	1	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
46	2017	23	F	Adult	1	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
47*	2012	20	M	Adult	2	<LOD	<LOD	1.83	<LOD	<LOD	<LOD	<LOD	<LOD
48*	2014	22	M	Adult	2	1.13	<LOD	43.39	<LOD	<LOD	<LOD	<LOD	<LOD
49*	2012	20	M	Adult	2	<LOD	<LOD	4.14	<LOD	<LOD	<LOD	<LOD	<LOD
50	2018	26	M	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
51	2019	4	F	Calf/ Juvenile	2	<LOD	3.4	0.55	<LOD	<LOD	<LOD	<LOD	<LOD
52	2019	11	F	Adult	2	<LOD	<LOD	3.91	<LOD	<LOD	<LOD	<LOD	<LOD
53	2018	6	M	Calf/ Juvenile	2	<LOD	4.23	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
54	2019	2	F	Calf/ Juvenile	2	<LOD	<LOD	2.31	<LOD	<LOD	<LOD	<LOD	<LOD
55	2019	2	F	Calf/ Juvenile	2	<LOD	<LOD	6.35	<LOD	<LOD	<LOD	<LOD	<LOD
56	2016	4	M	Calf/ Juvenile	1	<LOD	33.4	2	<LOD	<LOD	<LOD	<LOD	<LOD
57	2017	4	M	Calf/ Juvenile	1	<LOD	<LOD	3.1	<LOD	<LOD	<LOD	<LOD	<LOD
58	2017	4	M	Calf/ Juvenile	1	<LOD	1.6	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
59	2019	N/A	M	Adult	2	<LOD	<LOD	0.39	<LOD	<LOD	<LOD	<LOD	<LOD
60*	2012	28	F	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
61	2017	33	F	Adult	1	<LOD	<LOD	0.9	<LOD	<LOD	<LOD	<LOD	<LOD
62	2011	30	M	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
63*	2012	23	M	Adult	2	<LOD	<LOD	1.39	<LOD	<LOD	<LOD	<LOD	<LOD
64*	2010	21	M	Adult	2	<LOD	<LOD	1.84	<LOD	<LOD	<LOD	<LOD	<LOD
65	2012	23	M	Adult	2	<LOD	2.42	1.9	<LOD	<LOD	<LOD	<LOD	<LOD
66	2016	34	F	Adult	1	<LOD	21.2	1.5	<LOD	<LOD	<LOD	<LOD	<LOD
67	2010	39	F	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
68*	2011	41	F	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
69	2013	43	F	Adult	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1.03

*Repeated urine sample not included in analysis