



Figure 2 -Relative contribution of the PCDFs, grouped by the number of chlorine atoms in the molecule, regarding hepatic concentrations in male and females (M and F) franciscana dolphins from SP state in comparison with air levels in São Paulo city. The figure exposes the individual codes of each dolphin (e.g. BP104, BP116, BP125 and etc) as well.

Table 2 - Mean \sum PCDD and \sum PCDF concentrations (pg/g, l.w.) in blubber (B) and liver (L), with standard deviation (\pm SD), number of individuals of each species/area of sampling from all over the world.

Species - Common name	Area	PCDDs Mean \pm S.D.	PCDFs Mean \pm S.D.	SEX	Tissue	n	Ref.
Finless porpoise	Japan	60.9	6.0	NS	B	1	9
Killer whale	Japan	N.D.	344.8	M	B	1	10
Hector's dolphin	New Zealand	38.7 \pm 8.1	41.6 \pm 11.1	M	B	4	11
False killer whale	N. America	41.9	117.2	M	B	1	12
Harbor porpoise	N. America	84.8 \pm 112.2	13.1 \pm 14.4	M	B	4	12
Bottlenose dolphin	Italy	72.3 \pm 46.0	75.3 \pm 44.6	M	L	4	13
Striped dolphin	Italy	271.0 \pm 148.0	92.3 \pm 70.6	M	L	3	13
Pilot whale	Italy	183.3	195.5	M	L	1	13
Franciscana dolphin	S-SE Brazil	236.3 \pm 323.1	113.2 \pm 113.0	M	L	13	PS
Franciscana dolphin	SP, Brazil	348.2 \pm 163.4	100.0 \pm 53.8	F	L	5	PS

NS, non-specified; PS, present study

The DRC concentrations verified in the present study constitute a matter of concern for the conservation of the species. This apprehension is enhanced if it is taken into account that franciscana dolphins inhabit anthropogenically disrupted environments, facing a number of potential and known threats², as well as that molecules of this class of pollutants have been shown to be risk factors for cancer, immune deficiency and reproductive abnormalities¹⁴.

References:

- Dorneles PR, Lailson-Brito J, Dirtu AC, Weijs L, Azevedo AF, Torres JPM, Malm O, Neels H, Blust R, Das K, Covaci A. (2010); *Environ Int.* 36(1): 60-7
- Secchi ER, Danilewicz D, Ott PH. (2003); *J Cetacean Res Manage.* 5(1): 61-8
- Eljarrat E, Martínez MA, Sanz P, Concejero MA, Piña B, Quirós L, Raldúa D, Barceló D. (2008); *Chemosphere* 71(6): 1156-61
- Van den Berg M, Birnbaum LS, Denison M, de Vito M, Farland W et al. (2006); *Toxicol Sci.* 93: 223-41.
- Lailson-Brito J, Dorneles PR, Azevedo-Silva CE, Azevedo AF, Marigo J, Bertozzi C, Vidal LG, Malm O, Torres JPM (2007); *Organohal Comp.* 62: 364-6
- Assunção JV, Pesquero CR, Bruns RE, Carvalho LRF. (2005); *Chemosphere* 58: 1391-8
- Rolf C, Broman D, Näf C, Zebühr Y. (1993); *Chemosphere* 27(1-3): 461-8
- Kannan K, Blankenship AL, Jones PD, Giesy JP. (2000); *Human Ecol Risk Assess.* 6(1): 181-201
- Tanabe S, Kannan N, Ono M, Tatsukawa R. (1989); *Chemosphere* 18(1-6): 485-90
- Ono M, Kannan N, Wakimoto T, Tatsukawa R. (1987); *Mar Pollut Bull.* 18(12): 640-3
- Buckland SJ, Hannah DJ, Taucher JA, Slooten E, Dawson S. (1990); *Chemosphere* 20(7-9): 1035-42
- Jarman WM, Norstrom RJ, Muir DCG, Rosenberg B, Simon M, Baird RW. (1996); *Mar Pollut Bull.* 32(5): 426-36
- Jimenez B, Gonzalez MJ, Jimenez O, Reich S, Eljarrat E, Rivera J. (2000); *Environ Sci Technol.* 34: 756-63
- Schecter A, Birnbaum L, Ryan JJ, Constable JD. (2006); *Environ Res.* 101: 419-28