

SUPPORTING INFORMATION

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TITLE: Persistent Organic Pollutants in British Columbia Grizzly Bears: The Consequence of Divergent Diets

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Table S1. Supporting Information. Example of how we estimated the proportion of a contaminant concentration in a grizzly bear that is attributed to salmon consumption. Σ DDT and stable isotope data from bear #6 (5 year old, maritime, male grizzly bear) are used as a model. Bear #6 contained 11,100 ng/kg Σ DDT ($[\Sigma\text{DDT}]_{\text{TOTAL}}$), while our baseline herbivore bear (#1) contained 31.727 ng/kg ($[\Sigma\text{DDT}]_{\text{BASELINE}}$). See text for equations.

Equation (Eq.#) and variable	Solving	Calculated Values	Meaning of value obtained
(3) $\Delta\delta^{15}N_{\text{SEG}}$	(11.6–3.5), (14.1–3.5), (14.4–3.5), (14.0–3.5), (13.2–3.5), (9.3–3.5)	=8.1, 10.6, 10.9, 10.5, 9.7 and 5.8 ‰	Deviation from an herbivorous (100% plant) diet for the bear, using $\delta^{15}\text{N}$ values in each segment of hair
(4) $\Sigma\Delta\delta^{15}N_{\text{SEG}}$	8.1+10.6+10.9+ 10.5+9.7+5.8	=55.6 ‰	Cumulative deviation from an herbivorous diet over a four month period
(7) P_{MEAT}	55.6/91.8	=0.61	Proportion of diet consisting of salmon (based on Chinook Equivalency index)
(8) P_{VEG}	1.0–0.61	=0.39	Proportion of diet consisting of vegetation
(9) $[\Sigma\text{DDT}]_{\text{VEG}}$	0.39(31.727)	=12 ng/kg	Concentration of Σ DDT attributed to vegetation
(10) $[\Sigma\text{DDT}]_{\text{MEAT}}$	11,100–12.374	=11,088 ng/kg	Concentration of Σ DDT attributed to salmon
(11) $P_{[\Sigma\text{DDT}]}$	11,088/11,100	=0.99	Proportion of Σ DDT attributed to salmon

