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Poster Presentation – Wildlife

**Title:** Environmental contaminants in bald eagle eggs from New Hampshire and Maine.

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Steven E. Mierzykowski, U.S. Fish and Wildlife Service, 17 Godfrey Drive, Suite 2, Orono, ME 04473  
(207) 866-3344 x 112, [steve\\_mierzykowski@fws.gov](mailto:steve_mierzykowski@fws.gov)

Charles S. Todd, Maine Department of Inland Fisheries and Wildlife; Christian Martin, New Hampshire Audubon Society; Christopher DeSorbo, BioDiversity Research Institute; William Hanson, Next ERA Energy Resources

**Abstract:** Between 2000 and 2009, non-viable bald eagle (*Haliaeetus leucocephalus*) eggs were collected from nests in NH (n=2) and ME (n=67) and analyzed by the USFWS for organochlorine compounds and trace elements. Dioxin toxic equivalent (TCDD-TEQ) concentrations ranged from 28 to 1145 pg/g fresh wet weight. Twenty-seven percent of ME eggs had TCDD-TEQ concentrations above the suggested reproductive effect level for bald eagles (303 pg/g); both NH eggs were below the suggested threshold. Total PCB ranged from 0.16 to 17.29 µg/g and DDE ranged from 0.01 to 4.38 µg/g. Concentrations of both compounds in eagle eggs were below suggested toxicity threshold values for bald eagles or raptor species (Total PCB 20 µg/g, DDE 5.5 µg/g). Other organochlorine compounds were below sample detection limits or were detected in the low ng/g range. Total PBDE in eggs ranged from below the detection limit, < 12.0 ng/g, to 3,097 ng/g. Hatching success may be affected in raptor eggs containing 1,800 ng/g of PBDE. Hg ranged from below the detection limit, < 0.03 µg/g, to 1.09 µg/g fresh wet weight. Mean Hg ( $0.40 \pm 0.25$  µg/g) was below the suggested toxicity threshold range for birds (0.50 to 0.80 µg/g), but higher than the LC<sub>50</sub> reported in an Hg dosing study for other species of raptors (0.25 µg/g). Other trace elements found in NH and ME bald eagle eggs were below detection limits or suggested toxicity threshold levels.