

Corrected Table

for

Effects of mining-derived metals on riffle-dwelling crayfish and in-situ toxicity to juvenile *Orconectes hylas* and *Orconectes luteus* in the Big River of southeast Missouri, USA

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Table 26. No-effect hazard concentrations (NEHC) of metals and hazard quotient (HQ) of wild (*O. luteus*) and caged (*O. luteus* and *O. hylas*) crayfish for receptor wildlife species.

[dw = dry-weight; values in boldface exceed 1.0 indicating risk]

Species	NEHC ¹	Concentration				HQ			
		Wild <i>O. luteus</i>		Caged crayfish		Wild <i>O. luteus</i>		Caged crayfish	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Cobalt									
Robin ²	25	1.07	4.86	0.84	10.2	0.04	0.19	0.03	0.41
Heron ³	211	1.07	4.86	0.84	10.2	0.01	0.02	0.00	0.05
Shrew ⁴	59.1	1.07	4.86	0.84	10.2	0.02	0.08	0.01	0.17
Mink ⁵	262	1.07	4.86	0.84	10.2	0.00	0.02	0.00	0.04
Nickel									
Robin ²	22.1	1.30	5.71	1.00	10.4	0.06	0.26	0.05	0.47
Heron ³	186	1.30	5.71	1.00	10.4	0.01	0.03	0.01	0.06
Shrew ⁴	13.7	1.30	5.71	1.00	10.4	0.09	0.42	0.07	0.76
Mink ⁵	60.7	1.30	5.71	1.00	10.4	0.02	0.09	0.02	0.17
Zinc									
Robin ²	217	79.7	328	78.4	371	0.37	1.51	0.36	1.71
Heron ³	1836	79.7	328	78.4	371	0.04	0.18	0.04	0.20
Shrew ⁴	608	79.7	328	78.4	371	0.13	0.54	0.13	0.61
Mink ⁵	2693	79.7	328	78.4	371	0.03	0.12	0.03	0.14
Cadmium									
Robin ²	4.8	0.33	19.8	0.27	8.1	0.07	4.09	0.06	1.68
Heron ³	40.8	0.33	19.8	0.27	8.1	0.01	0.48	0.01	0.20
Shrew ⁴	6.2	0.33	19.8	0.27	8.1	0.05	3.19	0.04	1.30
Mink ⁵	27.5	0.33	19.8	0.27	8.1	0.01	0.72	0.01	0.29
Lead									
Robin ²	5.4	0.72	134	0.77	272	0.13	25.0	0.14	50.7
Heron ³	45.3	0.72	134	0.77	272	0.02	2.96	0.02	6.01
Shrew ⁴	37.9	0.72	134	0.77	272	0.02	3.54	0.02	7.18
Mink ⁵	168	0.72	134	0.77	272	0.00	0.80	0.01	1.62

¹ NEHC=Toxicity reference value (TRV)/daily food ingestion (DI); HQ= maximum concentration in crayfish/NEHC; all assuming a diet of 100 percent crayfish

² American robin, *Turdus migratorius*; DI=1.52 kg/kg/d (USEPA, 1993)

³ Great blue heron, *Ardea herodias*; DI=0.18 kg/kg/d (USEPA, 1993)

⁴ Short-tailed shrew, *Blarina brevicauda*; DI=0.62 kg/kg/d (USEPA, 1993)

⁵ American mink, *Mustela vison*; DI=0.14 (USEPA, 1993)