

Riva-Murray_Ecotoxicology_Online_Resource_1.pdf

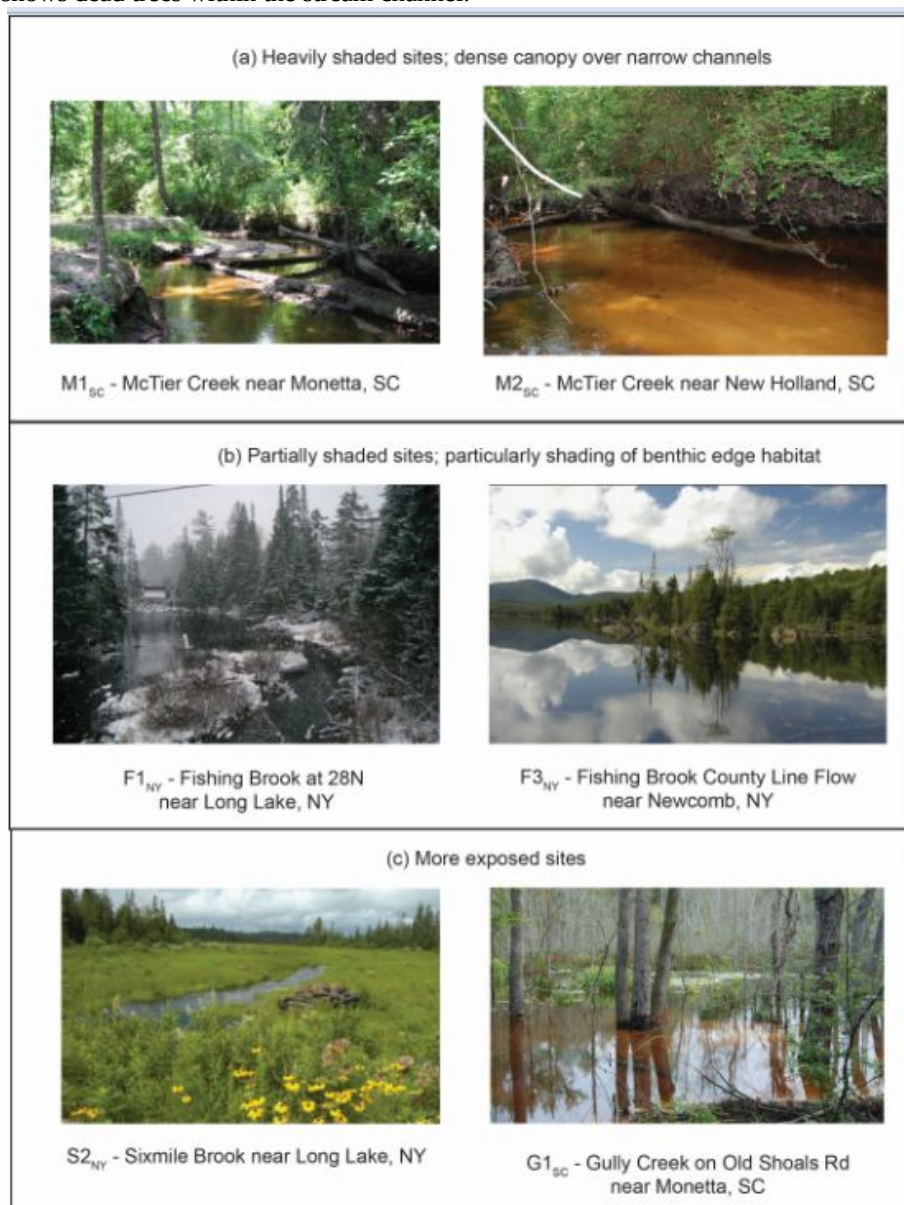
Influence of dietary carbon on mercury bioaccumulation in streams of the Adirondack Mountains of New York and the Coastal Plain of South Carolina, USA

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Plate S1. Photographs of stream reaches showing differing amounts of canopy cover and riparian shading of the benthic habitat from which macroinvertebrates and fish were collected. (a) Heavily shaded sites, with dense tree canopy over narrow channels; mean width is 3.8 m at M1_{SC} and 5.4 m at M2_{SC}; photo of M1_{SC} was taken during non-growing season; (b) partially shaded sites F1_{NY} and F3_{NY}; mean channel width of F1_{NY} is 2.9 m; although much of the actual channel of F3_{NY} is very wide (mean channel width 285 m) and exposed, the photic benthic habitat is limited to 1-3 meters from the channel edge, which is shaded by dense tree cover along the banks; (c) more fully exposed sites S1_{NY} and G1_{SC}; mean channel widths are 19.8 m at S1_{NY} and 58.6 m at G1_{SC}; the photograph of G1_{SC} shows dead trees within the stream channel.



Riva-Murray_Ecotoxicology_Online_Resource_2.pdf
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Figure S1. Selected chemical characteristics of study sites. Samples were collected under base flow conditions across the growing seasons of 2007-2009. Site names are provided in table 1.

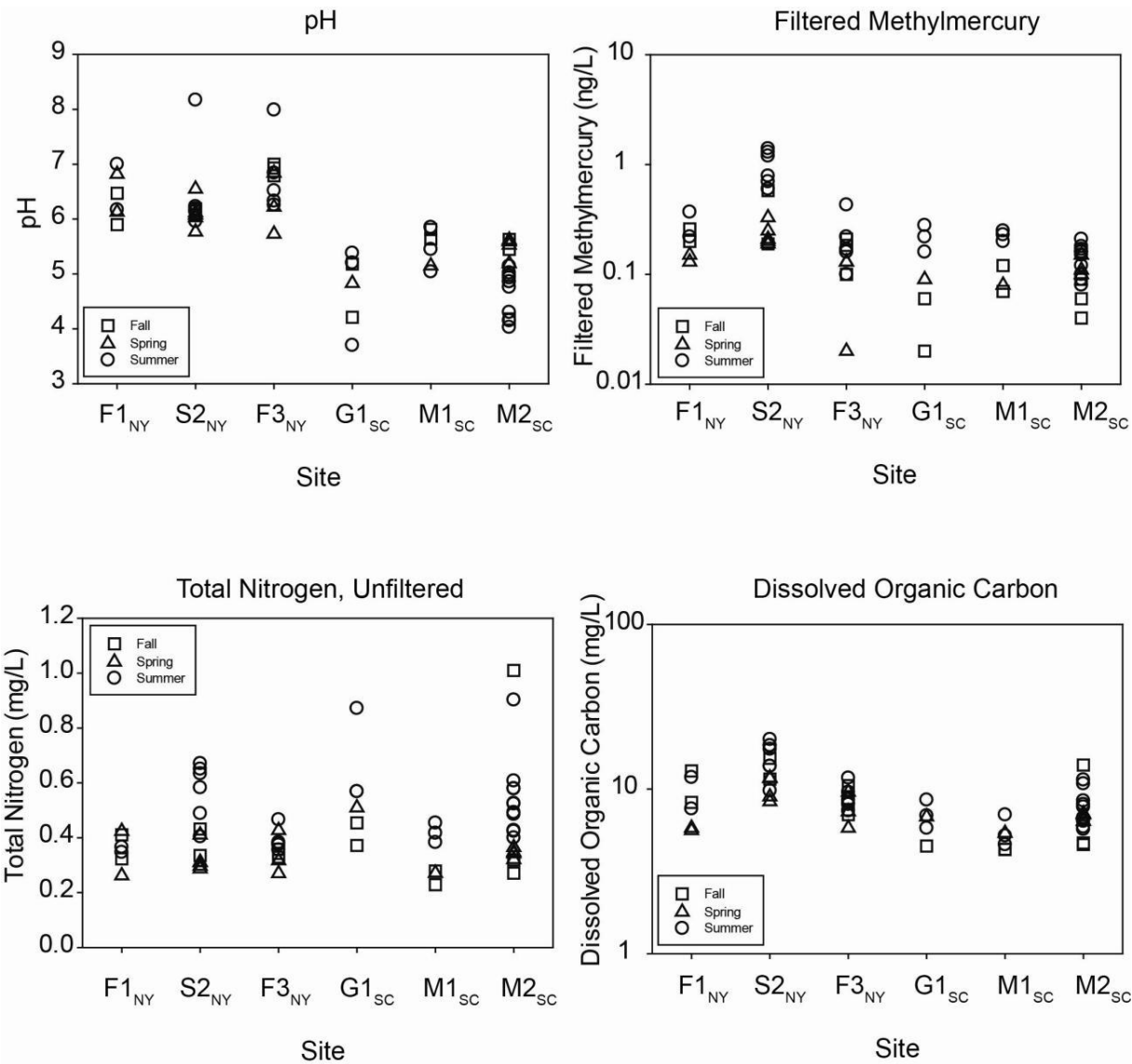


Table S1. Mercury (Hg) concentrations (total Hg, THg for fish and methylmercury, MeHg for invertebrates) and base-N adjusted nitrogen stable isotope ratios ($\Delta\delta^{15}\text{N}$) of selected secondary consumers collected from six sites. Shiner species collected from NY sites were common shiner (*Luxilus cornutus*); those collected from SC sites were mainly yellowfin shiner (*Notropis lutipinnis*). Two families of dragonfly larvae (Odonata) were collected: Aeshnidae (darnier dragonflies) and Libellulidae (common skimmer dragonflies) family Libellulidae). Values are means, with standard deviation in parentheses; n, number of samples collected (most samples are composites of multiple specimens).

Site	Shiners			Darnier dragonflies			Common skimmer dragonflies		
	n	THg (ng/g dw)	$\Delta\delta^{15}\text{N}$	n	MeHg (ng/g dw)	$\Delta\delta^{15}\text{N}$	n	MeHg (ng/g dw)	$\Delta\delta^{15}\text{N}$
F1 _{NY}	1	252.0	3.52	6	177.3 (14.2)	2.67 (0.23)	2	174.5 (9.19)	2.62 (0.13)
S2 _{NY}	22	693.0 (127.3)	5.25 (0.59)	18	305.3 (49.1)	4.33 (1.29)	6	272.2 (79.8)	2.0 (0.49)
F3 _{NY}	57	428.1 (133.4)	5.77 (0.53)	25	192.9 (29.3)	3.34 (0.55)	11	154.6 (25.1)	2.57 (0.55)
G1 _{SC}	16	562.9 (154.8)	8.92 (0.28)	4	318.3 (27.9)	5.42 (0.35)	17	210.1 (76.7)	5.53 (0.52)
M1 _{SC}	27	511.9 (119.2)	5.91 (0.62)	8	423.1 (124.9)	6.32 (0.52)	9	274.6 (93.9)	6.24 (0.41)
M2 _{SC}	55	490.3 (122.3)	6.34 (0.81)	9	541.0 (171.6)	4.93 (0.80)	25	281.7 (82.6)	5.30 (0.70)