



Table 1. Selected study streams and hydrodynamic, chemical, and metabolic characteristics estimated from previous measurements. 15N addition experiments have already been conducted in Hugh White Creek, NC and in several Alaska streams (denoted by \*) and the results of these studies will also be used in the intersite comparative analyses.

Stream	Biome	Season of Study Q	Hydrodynamics Q	Water Chemistry			Detritus Chemistry		Metabolism	
				A <sub>s</sub> :A	DIN	N:P	C:N	GPP	P:R	
Quebrada Bisley, PR	Trop/Forest	winter	10	<0.2	250	220	high	<200	<0.5	
Sycamore Ck., AZ	Temp/Arid	spring	10	>1	33	1.9	low	8000	1.4	
Gallina Ck., NM	Temp/Semi-arid	autumn	5	>1	26	9	low	400	0.5	
S. Kings Ck., KA	Temp/Praire	spring	5	0.2	20	<20	low	600	4.9	
Ball Ck., NC	Temp/Forest	autumn	60	0.4	8	9.5	high	<50	<0.2	
Hugh White Ck., NC*	Temp/Forest	summer	10	1.5	12	12	high	<10	<0.1	
Walker Br., TN	Temp/Forest	spring	10	0.1	30	20	high	300	0.4	
Mack Ck., OR	Temp/Forest	summer	70	<0.2	12	2	low	600	1.4	
Smith Ck., MI	Temp/Forest	summer	40	>1	550	22	high	100	0.2	
Bear Br., NH	Temp/Forest	summer	5	<0.2	420	940	high	<10	<0.2	
Kuparuk R. Trib., AK	Tundra	summer	25	?	10	5	high	?	>1	
Kuparuk R. (control), AK*	Tundra	summer	1000	0.2	20	14	high	?	>1	
Kuparuk R. (P fert.), AK*	Tundra	summer	4000	0.2	9	3.5	high	?	>1	
Blueberry Ck., AK*	Tundra	summer	300	0.3	9	3.4	high	?	>1	
Imnavait Ck., AK*	Tundra	summer	100	?	8	7.6	high	?	>1	

Units: Q (L/s), A<sub>s</sub>:A (m<sup>2</sup>/m<sup>2</sup>), DIN (ugN/L), N:P (atomic, inorganic), GPP (mgO<sub>2</sub>/m<sup>2</sup>/d), P:R (atomic). Estimates of detritus C:N ratios are based on importance of algae (e.g. high GPP=low C:N) and dominant type of allocthonous input (e.g. tree leaves=high, peat=high, grasses=low).