

SUPPLEMENTARY MATERIAL

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Effect of drift sampler exposure time and net mesh size on invertebrate drift density in the Njoro River, Kenya

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Table S1: Sampling dates and the stream habitat areas sampled (right bank, mid-stream and left bank) during different sampling dates and occasions.

Sampling occasion	Sampling day	Sampling dates	Right bank	Mid-stream	Left bank
1	1	23/01/2017	100 μm	250 μm	500 μm
1	2	24/1/2017	500 μm	100 μm	250 μm
1	3	25/1/2017	250 μm	500 μm	100 μm
2	1	30/1/2017	100 μm	250 μm	500 μm
2	2	31/1/2017	500 μm	100 μm	250 μm
2	3	1/2/2017	250 μm	500 μm	100 μm
3	1	6/2/2017	100 μm	250 μm	500 μm
3	2	7/2/2017	500 μm	100 μm	250 μm
3	3	8/2/2017	250 μm	500 μm	100 μm
4	1	13/2/2017	100 μm	250 μm	500 μm
4	2	14/2/2017	500 μm	100 μm	250 μm
4	3	15/2/2017	250 μm	500 μm	100 μm
5	1	20/2/2017	100 μm	250 μm	500 μm
5	2	21/2/2017	500 μm	100 μm	250 μm
5	3	22/2/2017	250 μm	500 μm	100 μm
6	1	27/2/2017	100 μm	250 μm	500 μm
6	2	28/2/2017	500 μm	100 μm	250 μm
6	3	1/3/2017	250 μm	500 μm	100 μm
7	1	6/3/2017	100 μm	250 μm	500 μm
7	2	7/3/2017	500 μm	100 μm	250 μm
7	3	8/3/2017	250 μm	500 μm	100 μm

Table S2: Mean densities of invertebrates sampled in the Njoro River using drift samplers with different mesh sizes (100 µm, 250 µm, 500 µm) during different exposure times (minutes) at the right, left and midstream positions in the river. Values in parentheses are $\pm$ SE.

Sampler Net Mesh size	Sampler position	Exposure time	Invertebrate drift density
100µm	Right	5min	1.52 (0.31)
100µm	Right	10min	0.93 (0.22)
100µm	Right	15min	0.81 (0.18)
100µm	Right	20min	0.59 (0.14)
100µm	Right	25min	0.69 (0.18)
100µm	Right	120min	0.32 (0.09)
100µm	Mid-stream	5min	1.18 (0.31)
100µm	Mid-stream	10min	0.77 (0.58)
100µm	Mid-stream	15min	0.93 (0.26)
100µm	Mid-stream	20min	0.83 (0.22)
100µm	Mid-stream	25min	0.84 (0.23)
100µm	Mid-stream	120min	0.44 (0.11)
100µm	Left	5min	9.18 (4.87)
100µm	Left	10min	4.99 (1.99)
100µm	Left	15min	3.42 (1.15)
100µm	Left	20min	2.37 (0.65)
100µm	Left	25min	1.98 (0.53)
100µm	Left	120min	1.01 (0.34)
250µm	Right	5min	2.37 (0.61)
250µm	Right	10min	2.23 (0.81)
250µm	Right	15min	1.53 (0.59)
250µm	Right	20min	1.56 (0.45)
250µm	Right	25min	1.16 (0.31)
250µm	Right	120min	0.78 (0.44)
250µm	Mid-stream	5min	1.21 (0.33)
250µm	Mid-stream	10min	0.99 (0.24)
250µm	Mid-stream	15min	0.97 (0.27)
250µm	Mid-stream	20min	0.79 (0.22)
250µm	Mid-stream	25min	0.92 (0.25)
250µm	Mid-stream	120min	0.30 (0.08)
250µm	Left	5min	2.37 (0.61)

250µm	Left	10min	4.91 (3.11)
250µm	Left	15min	5.15 (4.09)
250µm	Left	20min	0.90 (0.21)
250µm	Left	25min	2.23 (1.05)
250µm	Left	120min	0.78 (0.41)
500µm	Right	5min	1.47 (0.51)
500µm	Right	10min	0.81 (0.21)
500µm	Right	15min	0.53 (0.14)
500µm	Right	20min	0.47 (0.13)
500µm	Right	25min	0.29 (0.08)
500µm	Right	120min	0.24 (0.07)
500µm	Mid-stream	5min	1.13 (0.31)
500µm	Mid-stream	10min	0.37 (0.11)
500µm	Mid-stream	15min	0.37 (0.10)
500µm	Mid-stream	20min	0.26 (0.06)
500µm	Mid-stream	25min	0.34 (0.12)
500µm	Mid-stream	120min	0.28 (0.12)
500µm	Left	5min	1.80 (0.81)
500µm	Left	10min	1.87 (0.62)
500µm	Left	15min	0.70 (0.25)
500µm	Left	20min	0.60 (0.17)
500µm	Left	25min	0.62 (0.29)
500µm	Left	120min	0.17 (0.05)

Table S3: Mean densities of the major invertebrate taxa that drifted in the Njoro River. Values in parentheses are $\pm$ SE.

Mesh size	Chironomidae	Baetidae	Simuliidae	Caenidae	Culicidae
100 μ m	15.43 (2.87)	9.30 (1.19)	15.45 (7.32)	6.18 (1.47)	1.52 (0.20)
250 μ m	19.97 (4.90)	16.51 (6.32)	3.61 (1.19)	3.77 (0.75)	2.44 (0.39)
500 μ m	6.12 (0.92)	5.48 (1.42)	2.03 (0.47)	1.99 (0.42)	2.11 (0.37)

Table S4: Taxa list of invertebrates collected from drift in a riffle biotope in the Njoro River. (+) represent taxa present, and (-) represent taxa not observed.

Taxa	Drift net mesh size		
	100 µm	250 µm	500 µm
Aeshnidae	+	-	+
Baetidae	+	+	+
Caenagrionidae	+	+	+
Caenidae	+	+	+
Ceratopogonidae	+	+	+
Chironomidae	+	+	+
Culicidae	+	+	+
Dixidae	-	+	-
Elmidae	+	+	+
Scirtidae	+	+	-
Heptageniidae	+	+	+
Hydrachnellae	+	+	-
Hydropsychidae	+	+	+
Leptoceridae	+	-	+
Libellulidae	-	-	+
Muscidae	+	+	+
Oligochaeta	-	+	+
Psychodidae	-	+	-
Pyralidae	+	+	+
Simuliidae	+	+	+
Sphaeriidae	-	-	+
Tipulidae	-	+	-
Veliidae	-	-	+



Figure S1: The sampled riffle biotope at the Njoro River, showing the drift samplers placed side by side. The white arrow shows the direction of water movement.

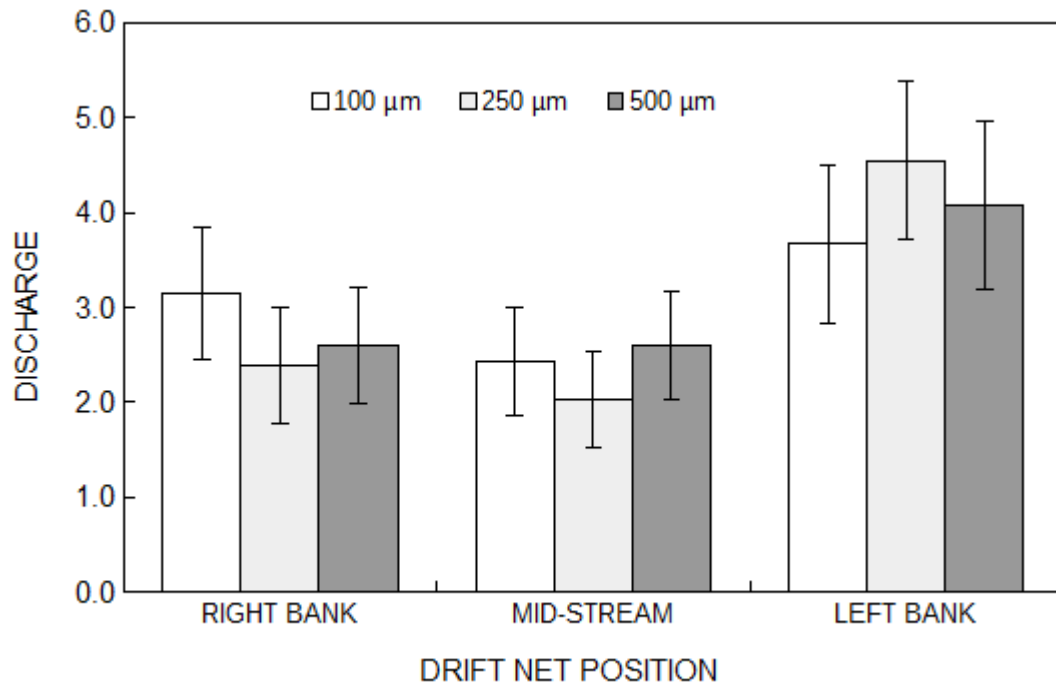


Figure S2: Mean discharge (m^3) values at the right, mid-stream and left bank positions in the Njoro River study site. Vertical lines are $\pm$ SE.