

Supplementary data

Table S1. *Post Hoc* Planned comparison of prey capture success against control (16 cm s⁻¹ flow velocity). Significance accepted at $P_{\text{cutoff}} < 0.01$.

	Flow velocity (cm s ⁻¹)	t	p
Free stream	33	0.644	0.52
	51	1.019	0.31
	68	4.350	<0.01
	84	5.776	<0.01
Refuging	33	2.001	0.05
	51	4.308	<0.01
	68	6.938	<0.01
	84	8.485	<0.01

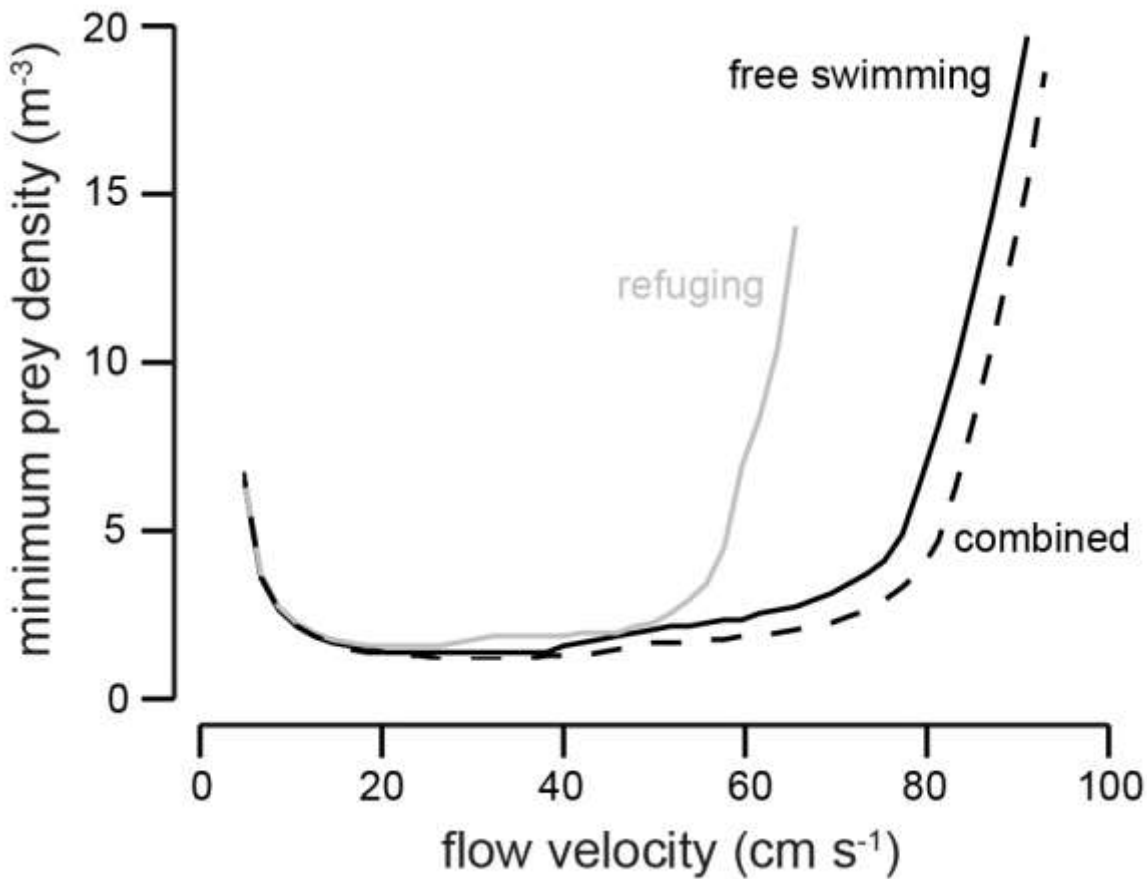


Fig. S1.

Minimum prey density required to gain an energetic surplus across flow velocity. At flows < 10 cm s^{-1} , a high prey density is required due to the low delivery rate of prey. Within flow velocities of $10 - 50$ cm s^{-1} , required prey density falls below 2 prey m^{-3} due to the lower cost of attack and increased prey capture success. At higher flow velocities, minimal prey density increases rapidly due to lower capture success rate and increased cost of attack. Note that refuging individuals (gray line) require the highest prey density when flow velocities exceed 50 cm s^{-1} due to the greater cost of attack.