Supplemental Information

Figure S1: Population forecasts in response to varying removal efforts. Size distributions show the crab abundance in each size class, N_{size}, at the end of the year after overwinter mortality when *A.* 0 traps, *B.* 28 traps, *C.* 112 traps, *D.* 560 traps, *E.* 840 traps, *F.* 1400 traps, and *G.* 2800 traps were applied evenly over a trapping season of 14 biweeks. Solid line indicates the median size-structured abundance across simulation replicates, and the shaded area indicates ±1 standard deviation across simulation replicates. Colors indicate trap type used (i.e., in panel B, the purple line shows the resulting size distribution after a trapping effort of 28 Minnow traps).

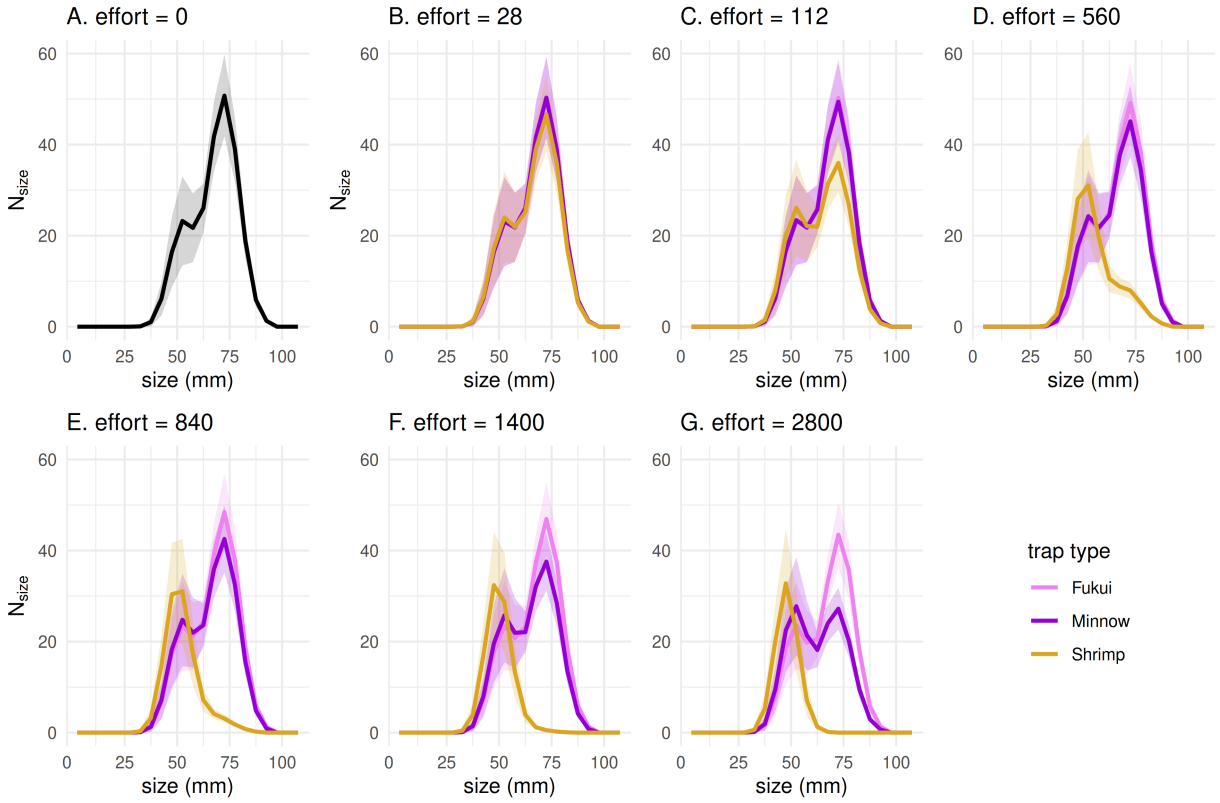

Figure S2: Population forecasts in response to varying removal efforts, relative to no removal. Size distributions show the ratio of crab abundance in each size class, N_{size}, when no removal occurred relative to a removal effort >0. Ratios are calculated based on size-structured abundance at the end of the year after overwinter mortality when *A.* 112 traps, *B.* 560 traps, and *C.* 2800 traps were applied evenly over a trapping season of 14 biweeks. A ratio of one means that the size-structured abundance after no removal equals the size-structured abundance after application of X traps. A ratio less than one means that the application of X traps removes decreases the size-structured abundance, relative to no removal. A ratio greater than one means that the application of X traps increases the size-structured abundance, relative to no removal. Solid line indicates the median size-structured abundance across simulation replicates, and the shaded area indicates ±1 standard deviation across simulation replicates. Colors indicate trap type used (i.e., in panel B, the purple line shows the resulting size distribution ratio after a trapping effort of 0 traps, relative to 560 Minnow traps).

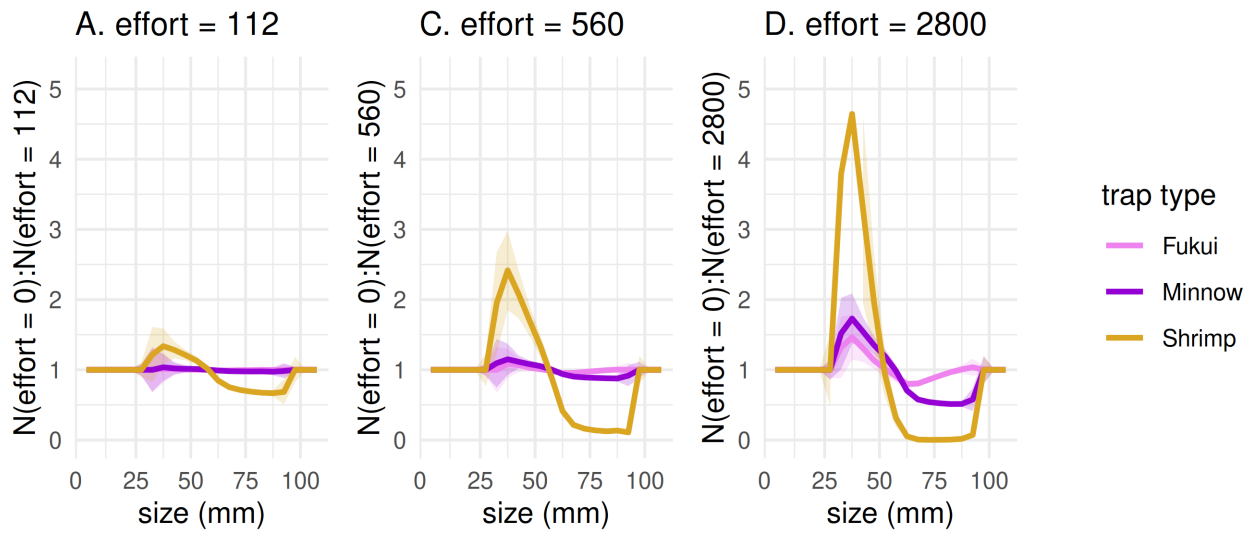

Table S1: Total equilibrium abundance across all size classes, N_{total} for population forecasts in response to varying removal efforts. Mean refers to the mean N^E_{total} across all simulation replicates, and sd refers to the standard deviation of N^E_{total} across all simulation replicates.

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type	effort	N^E_{total} (mean)	N^E_{total} (sd)
NA	0	256.4	44.2
Fukui	28	256.2	44.3
Fukui	112	255.5	43.9
Fukui	560	252.1	42.8
Fukui	840	249.8	41.9
Fukui	1400	245.5	40.6
Fukui	2800	235.1	37.6
Minnow	28	255.6	44.2
Minnow	112	253.4	43.8
Minnow	560	241.4	41.9
Minnow	840	234.2	40.8
Minnow	1400	220.5	39.1
Minnow	2800	191.5	36.6
Shrimp	28	245.6	42.7
Shrimp	112	216.6	39.4
Shrimp	560	136.4	36.7
Shrimp	840	120.1	36.4
Shrimp	1400	107.5	35.1
Shrimp	2800	95.4	32.1