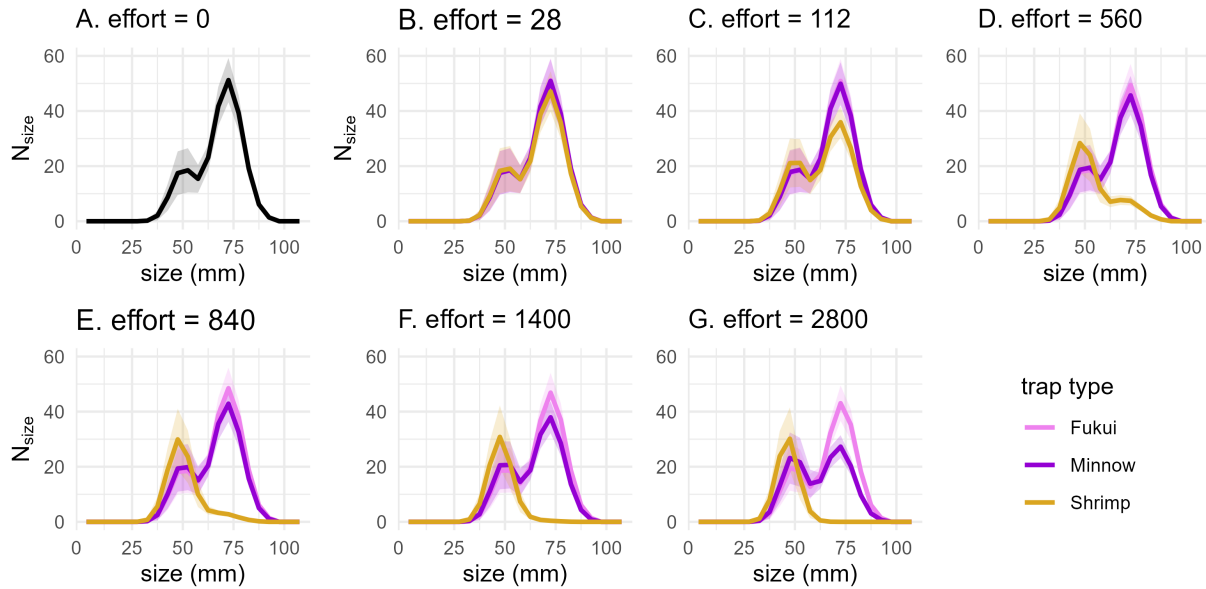


## Supplemental Information

**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  $\pm 1$  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  $\pm 1$  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).

