Biogeographical variation in the distribution, abundance, and interactions among key species on rocky reefs of the northeast Pacific

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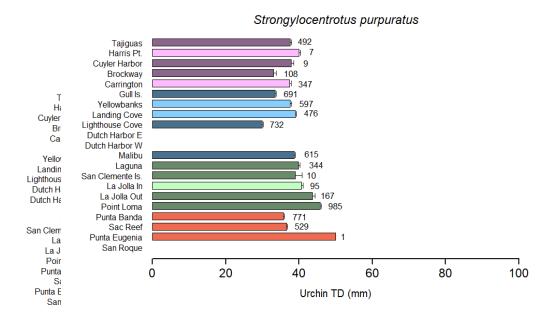


Figure S1: Mean (+ SE) urchin size, pooled across transects and years, 2009-2011, for each survey site. Sample sizes are provided at the head of each bar. Sites are oriented from north to south, and colors are coordinated regionally as in Figure 1 with MPA sites shaded lighter within each Region. No data on urchin size were collected at Dutch Harbor E and Dutch Harbor W.

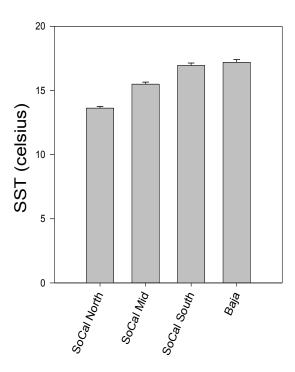


Figure S2: Mean sea surface temperature from 2009-2011 for each Region. SST derived from monthly AVHRR data in 1 km pixels at closest pure ocean points from each sampling site.

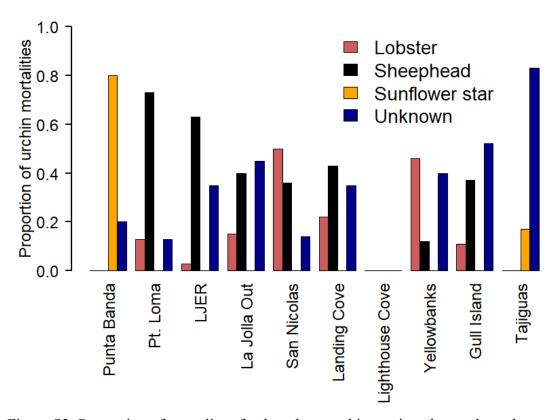


Figure S3: Proportion of mortality of tethered sea urchins assigned to each predator species at each site. MPA status is shown in Table 1. Lighthouse Cove represented an urchin barren in which no mortality occurred.

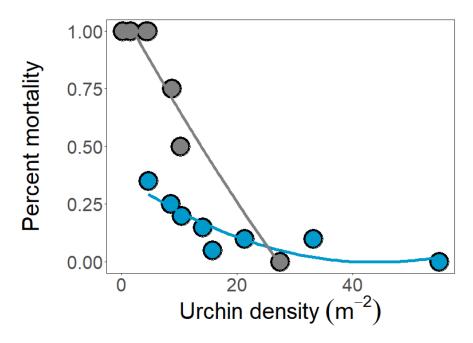


Figure S4: Relationship between natural urchin density observed during surveys and mean percent mortality of tethered urchins after 24 h at the same site. Each circle represents the urchin mortality and mean density for a particular site in a given year. Blue points denote sites in the northern half of the study region, grey points are those in southern half. Lines are polynomial model fits for each region separately and are shown to visualize the interaction between urchin density and region revealed in the Cox proportional hazard analysis.