

Table S1. Prey identified to the lowest taxonomic level comprising prey categories used in dietary analysis.

Prey Category	Lowest Taxonomic Group Observed
Crab	Cancer crabs
	<i>Cancer</i> spp.
	<i>Cancer branneri</i> (Furrowed Rock Crab)
	megalops larvae
	Majid crabs
	<i>Pugettia</i> spp.
	<i>Oregonia gracilis</i> (Graceful Decorator Crab)
	<i>Chorilia longipes</i> (Longhorn Decorator Crab)
	Crabs unknown
	Megalops larvae
Fish	Pelagic fishes
	<i>Clupea pallasii</i> (Pacific Herring)
	<i>Ammodytes personatus</i> (Pacific Sand Lance)
	<i>Oncorhynchus gorbuscha</i> (Pink Salmon)
	Demersal fishes
	<i>Sebastes</i> spp. (Rockfish)
	<i>Hemilepidotus hemilepidotus</i> (Red Irish Lord)
	Fish Eggs
	Fishes unknown
	Octopus
Euphausiids	<i>Euphausia</i> spp.
Shrimp	Pandalidae
	<i>Pandalus stenolepsis</i> (Rough Patch Shrimp)
	<i>Pandalus hypstinotus</i> (Coonstriped Shrimp)
	<i>Pandalus platyceros</i> (Spot Shrimp)
	<i>Pandalus</i> spp.
	Eualus spp.
Shrimp unknown	
Worm	Polychaeta spp.
	Worm unknown
Algae	Algae unknown

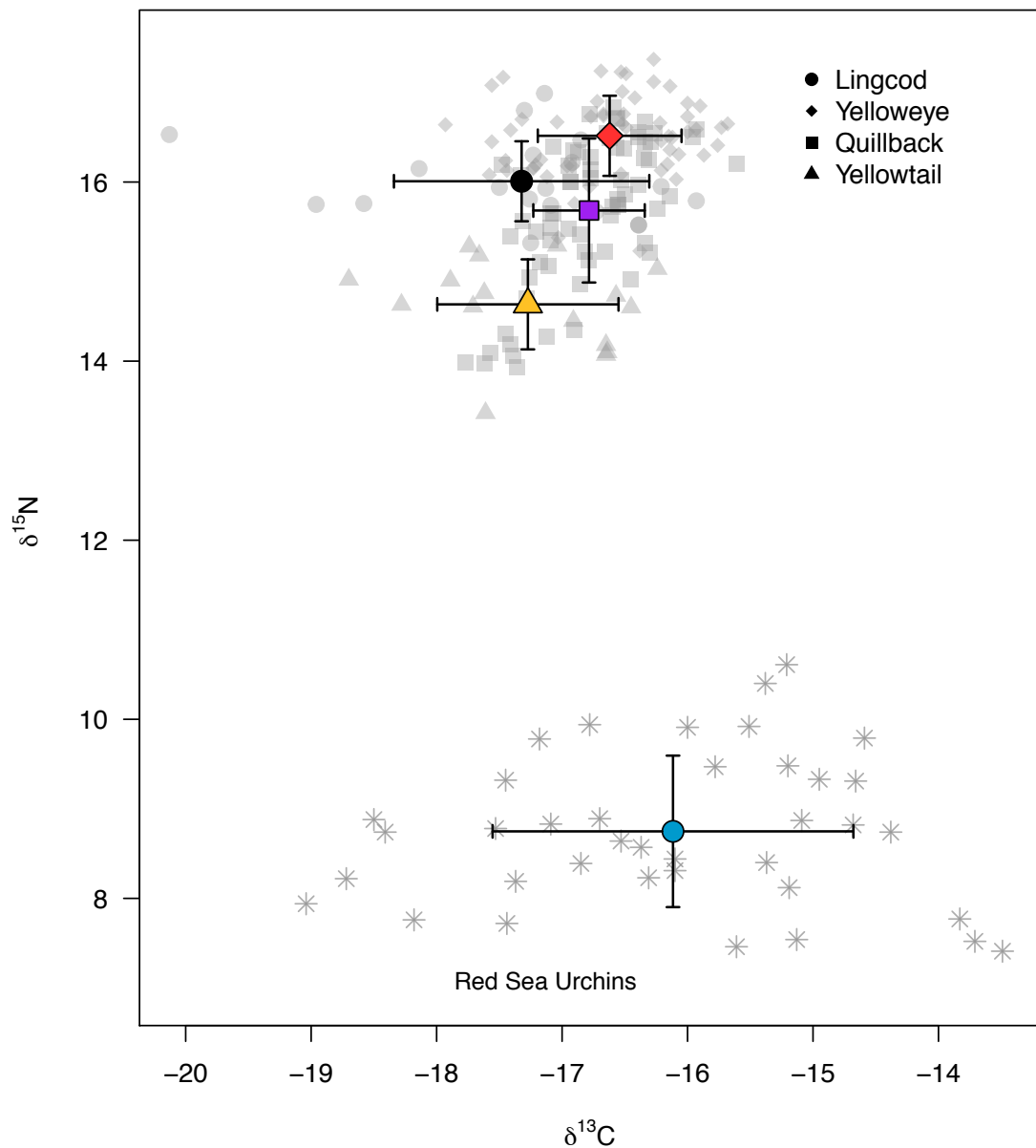


Fig. S1.  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  stable isotope signatures (mean  $\pm$  standard deviation) of fish examined. The mean red urchin isotope signatures is indicated by the blue circle (stars = individuals). Grey symbols indicate isotopic signatures of individuals.

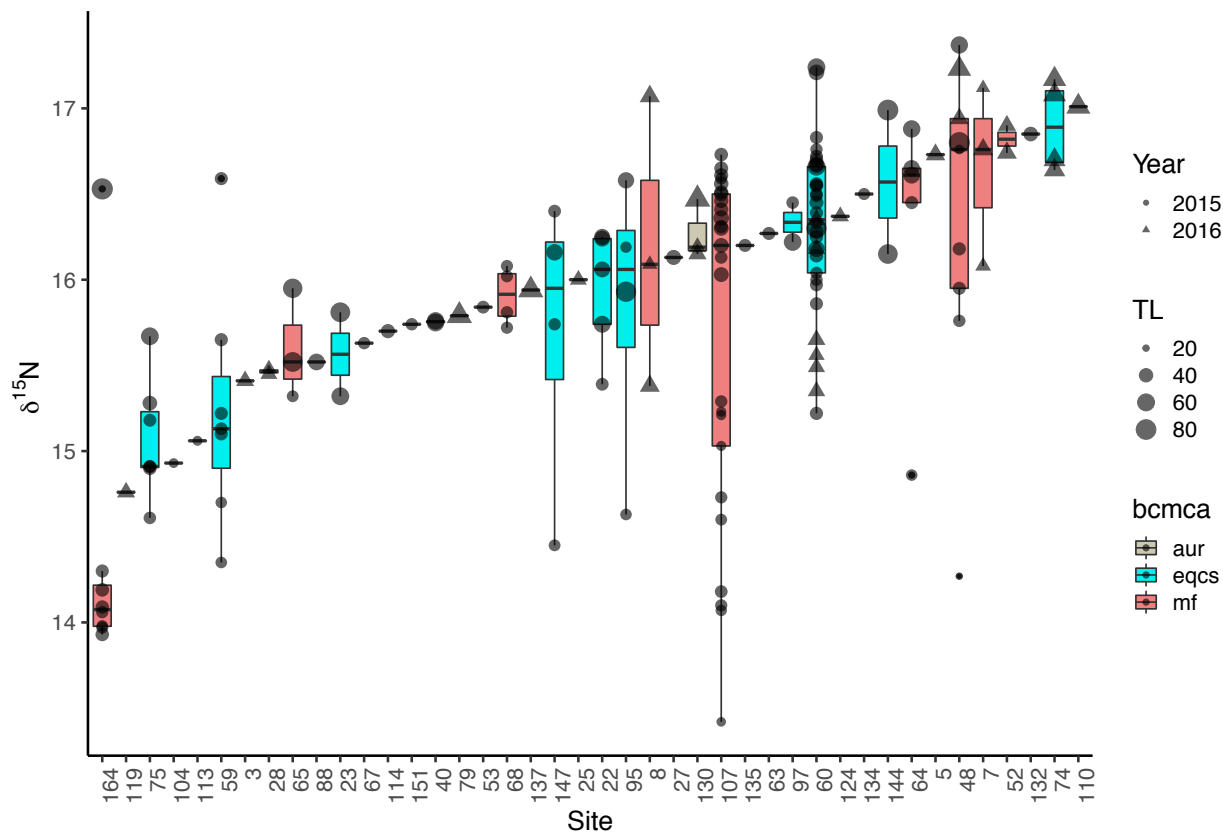


Fig. S2. Variation of fish  $\delta^{15}\text{N}$  across sampling sites. Sites are ordered on the x-axis by increasing  $\delta^{15}\text{N}$  values and coloured by the British Columbia Marine Conservation Analysis (bcmca) Oceanographic Regions (BCMCA 2011): grey = Aristazabal Upwelling Region (aur), blue = Eastern Queen Charlotte Sound (eqcs), and red = mainland fjords (mf). Year is indicated by symbol (circle = 2015, triangle = 2016). Symbol size represents relative total lengths (TL) of fish based on 20 cm bins.

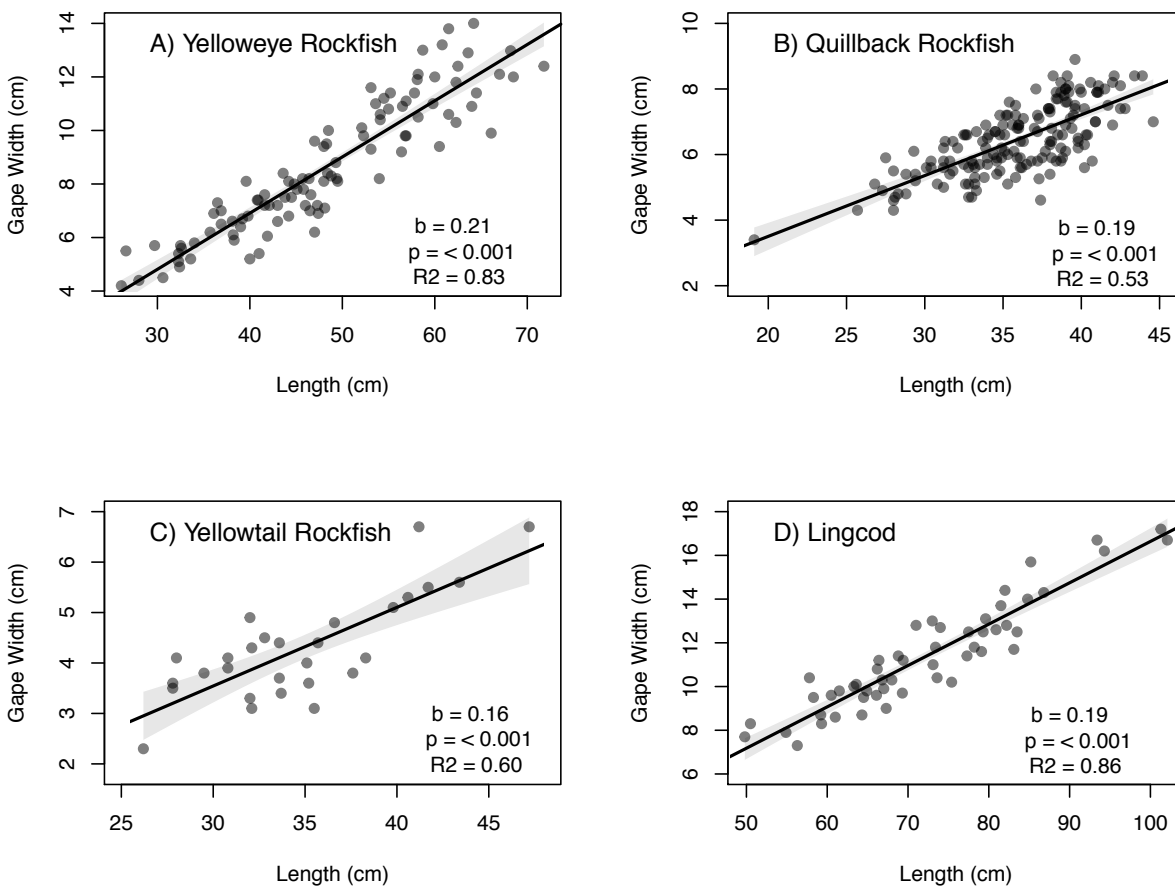


Fig. S3. Linear relationships between total length (cm) and gape width (cm) for A) yelloweye rockfish ( $n = 100$ ), B) quillback rockfish ( $n = 168$ ), C) yellowtail rockfish ( $n = 28$ ), and D) lingcod ( $n = 52$ ). Data includes all catch from Frid et al. (2016) from the Central Coast of British Columbia, which includes, but also extends beyond the sites and dates used in this study.

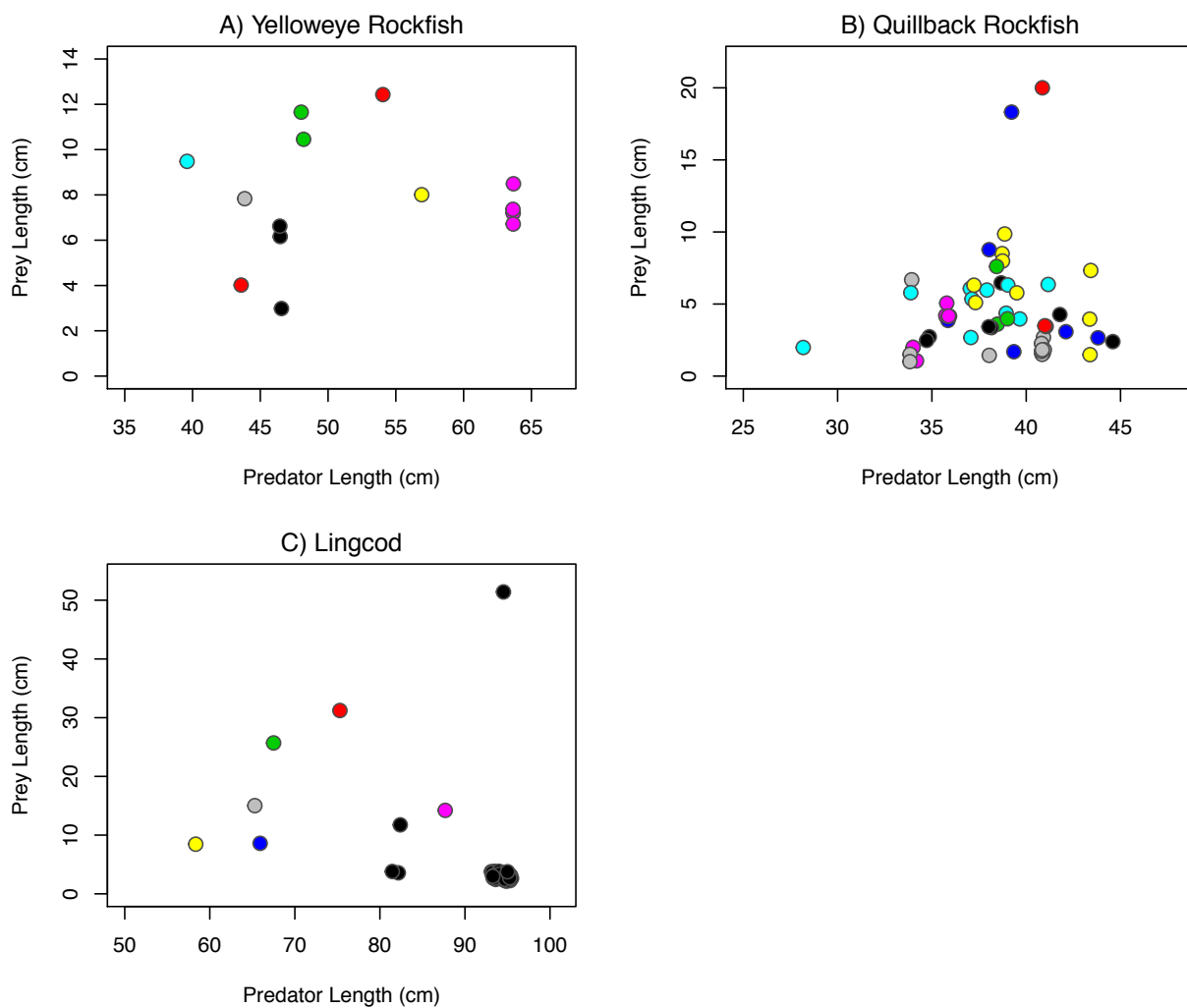


Fig. S4. Predator size by prey size from predator stomach contents. Unique colors represent prey items from the same individual. Hierarchical quantile regressions did not find significance in minimum, median, or maximum quantiles between predator length and prey length.

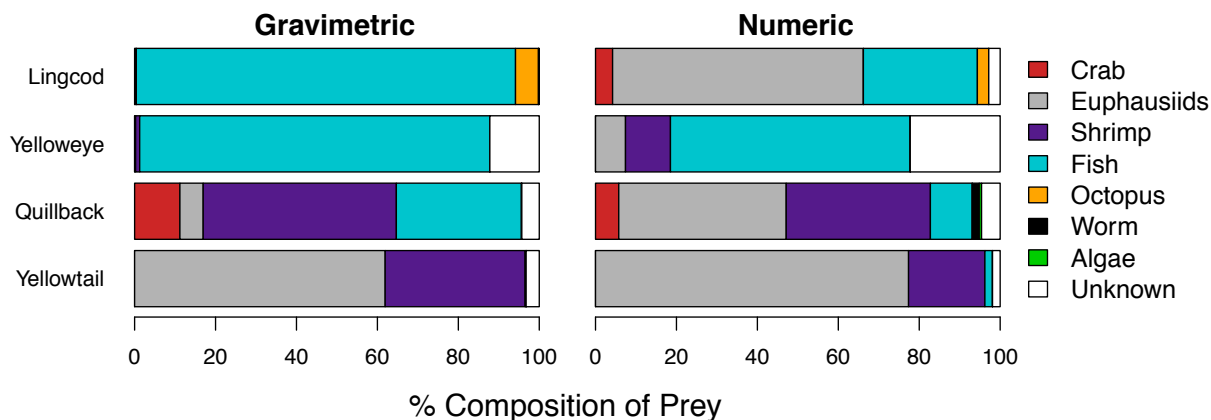


Fig. S5. Percent composition of prey consumed by fish predator species (lingcod, yelloweye rockfish, quillback rockfish, and yellowtail rockfish) based on mass (gravimetric) and abundance (numeric) prey metrics.

#### SUPPLEMENTARY LITERATURE CITED

BCMCA 2011. Oceanographic Regions (Renamed Upper Ocean Sub Regions). In Marine Atlas of Pacific Canada. a product of the British Columbia Marine Conservation Analysis. [http://bcmca.ca/datafeatures/eco\\_physical\\_oceanographicregions/](http://bcmca.ca/datafeatures/eco_physical_oceanographicregions/).