Supplementary Materials

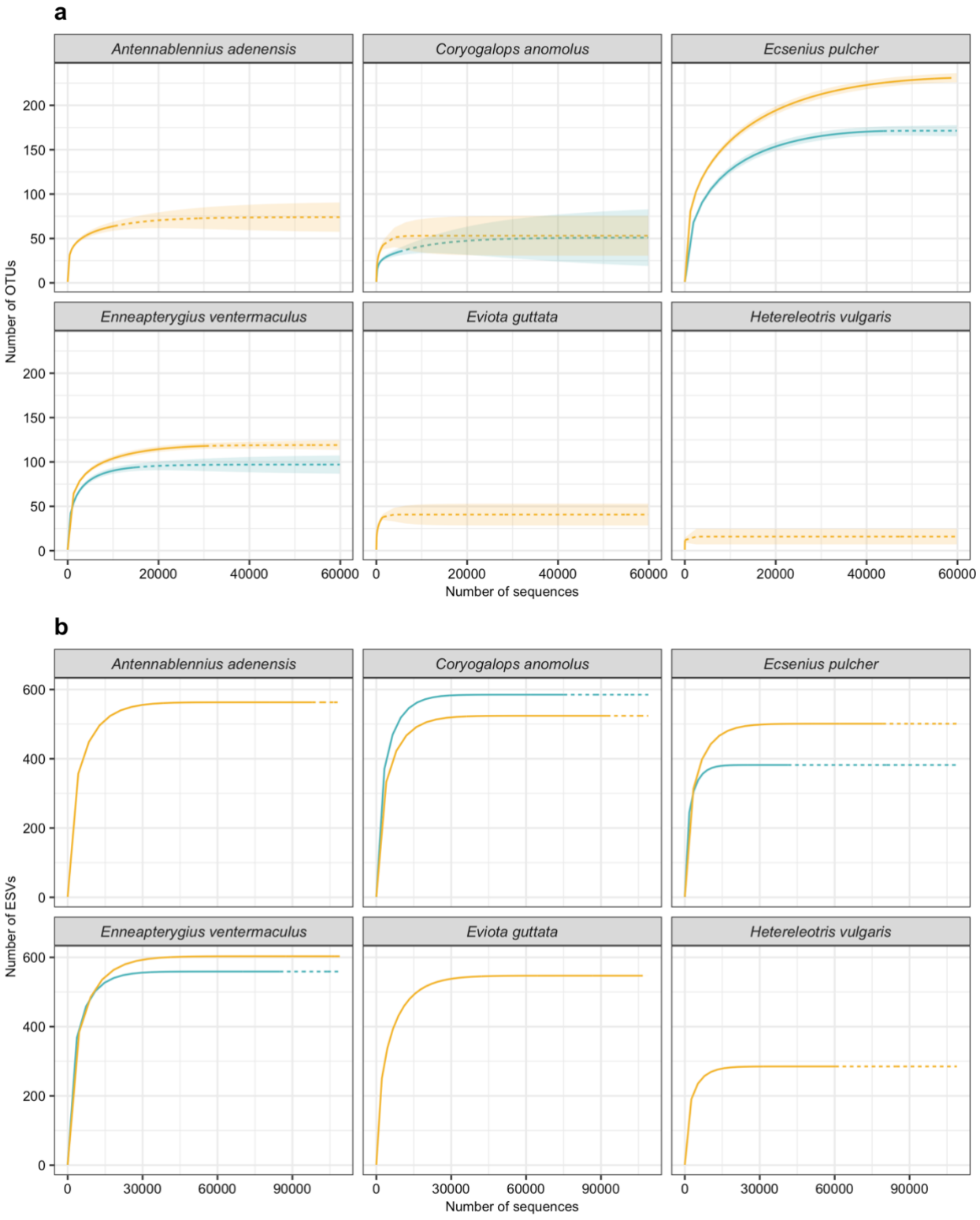

Fig. S1. Rarefaction curves of OTU and ESV richness across total sequences for six species in the Arabian Gulf (blue) and Gulf of Oman (gold). OTU curves (a) indicate the diversity of

prey items for each species and population as obtained from gut content DNA metabarcoding with the COI marker, while ESV curves (b) show the diversity of prey items obtained with the 23S marker. Solid lines indicate interpolated richness, while dashed lines indicate extrapolated richness (to the maximum number of sequences across species). Shaded ribbons indicate 95% confidence intervals of extrapolations.

Table S1. Presence, abundance, and previous records of species sampled in the present study. Each row represents a species, with columns *AG* (Arabian Gulf) and *GO* (Gulf of Oman) indicating the abundance of the species in our samples. Column *R* indicates whether the species has been previously recorded in other parts of the Arabian Gulf (* = yes, – = no). References for previous records are provided.

Family	***Species***	***AG***	***GO***	***R***	***Reference***
Apogonidae	*Apogon coccineus*	6	10	*	present
Apogonidae	*Apogonichthyoides taeniatus*	2	0	*	present
Apogonidae	*Cheilodipterus novemstriatus*	2	9	*	present
Apogonidae	*Cheilodipterus persicus*	0	1	*	Krupp & Müller 1994
Apogonidae	*Fowleria variegata*	5	1	*	present
Apogonidae	*Ostorhinchus cyanosoma*	0	15	*	Krupp & Müller 1994
Apogonidae	*Ostorhinchus fleurieu*	0	30	*	Eagderi et al. 2019
Batrachoididae	*Colletteichthys occidentalis*	6	0	*	present
Blenniidae	*Antennablennius adenensis*	0	54	*	Bishop 2003
Blenniidae	*Ecsenius pulcher*	8	97	*	present
Blenniidae	*Laiphognathus multimaculatus*	1	0	*	present
Bythitidae	*Dinematichthys iluocoeteoides*	5	0	*	present
Gobiidae	*Asterropteryx semipunctata*	0	2	*	Krupp & Müller 1994
Gobiidae	*Callogobius bifasciatus*	2	0	*	present
Gobiidae	*Callogobius speA*	0	3	*	Eagderi et al. 2019
Gobiidae	*Coryogalops anomalus*	65	33	*	present
Gobiidae	*Eviota guttata*	0	69	*	Krupp & Müller 1994
Gobiidae	*Eviota punyit*	0	12	*	Krupp & Müller 1994[1]
Gobiidae	*Favonigobius melanobranchus*	1	0	*	present
Gobiidae	*Fusigobius inframaculatus*	0	3	*	Eagderi et al. 2019
Gobiidae	*Gnatholepis caudimaculata*	0	14	*	Eagderi et al. 2019
Gobiidae	*Gobiodon reticulatus*	0	2	*	Bishop 2003
Gobiidae	*Hetereleotris vulgaris*	0	405	*	Eagderi et al. 2019
Gobiidae	*Istigobius decoratus*	0	15	*	Eagderi et al. 2019
Gobiidae	*Priolepis cincta*	0	4	*	Winterbottom & Burridge 1992
Gobiidae	*Priolepis randalli*	0	2	*	Winterbottom & Burridge 1993
Gobiidae	*Priolepis semidoliata*	0	10	–	NA
Gobiidae	*Trimma corallinum*	0	11	*	Eagderi et al. 2019[2]
Muraenidae	*Gymnothorax speA*	0	12	*	Eagderi et al. 2019[3]
Ostraciidae	*Ostracion cubicus*	0	3	*	Eagderi et al. 2019
Pomacanthidae	*Pomacanthus maculosus*	7	0	*	present
Pomacentridae	*Chromis flavaxilla*	0	19	*	Bishop 2003
Pomacentridae	*Chromis xanthopterygius*	0	3	*	Bishop 2003
Pomacentridae	*Neopomacentrus cyanomos*	0	38	*	Bishop 2003
Pomacentridae	*Neopomacentrus miryae*	0	38	–	NA
Pomacentridae	*Neopomacentrus sindensis*	0	6	*	Bishop 2003
Pomacentridae	*Pomacentrus aquilus*	3	0	*	present
Pomacentridae	*Pomacentrus leptus*	0	5	*	Bishop 2003
Pomacentridae	*Pomacentrus trichrourus*	5	0	*	present
Pseudochromidae	*Pseudochromis aldabraensis*	0	4	*	Bishop 2003
Pseudochromidae	*Pseudochromis linda*	1	0	*	present

Pseudochromidae	*Pseudochromis nigrovittatus*	2	1	*	present
Pseudochromidae	*Pseudochromis persicus*	1	0	*	present
Serranidae	*Cephalopholis hemistiktos*	2	2	*	present
Syngnathidae	*Corythoichthys flavofasciata*	0	5	*	Froese & Pauly 2019
Syngnathidae	*Doryrhamphus excisus*	0	3	*	Bishop 2003
Tripterygiidae	*Enneapterygius ventermaculus*	131	262	*	present
Tripterygiidae	*Helcogramma fuscopinna*	0	134	–	NA

[1]identified as *E. sebreei*
[2]synonymous with *T. winterbottomi*
[3]genus level

Table S2. Contrasts between levels of the explanatory variable for the model testing CT_{max} differences in cryptobenthic reef fishes. Population columns highlight the contrast estimated in the model, whereas the estimate and its confidence intervals indicate estimated differences.

Population I	**Population II**	**Estimate**	**LCI**	**UCI**
C. anomolus.AG	*E. pulcher.AG*	*0.486*	*-0.079*	*1.054*
C. anomolus.AG	*E. ventermaculus.AG*	*1.360*	*0.808*	*1.949*
C. anomolus.AG	*E. pulcher.GoO*	*1.114*	*0.581*	*1.726*
C. anomolus.AG	*E. ventermaculus.GoO*	*1.633*	*0.939*	*2.342*
C. anomolus.AG	*E. guttata.GoO*	*1.143*	*0.534*	*1.759*
C. anomolus.AG	*H. fuscopinna.GoO*	*2.392*	*1.758*	*2.992*
C. anomolus.AG	*H. vulgaris.GoO*	*0.492*	*-0.061*	*1.078*
E. pulcher.AG	*E. ventermaculus.AG*	*0.879*	*0.509*	*1.252*
E. pulcher.AG	*E. pulcher.GoO*	*0.636*	*0.244*	*1.016*
E. pulcher.AG	*E. ventermaculus.GoO*	*1.159*	*0.624*	*1.737*
E. pulcher.AG	*E. guttata.GoO*	*0.656*	*0.227*	*1.134*
E. pulcher.AG	*H. fuscoguttata.GoO*	*1.905*	*1.463*	*2.341*
E. pulcher.AG	*H. vulgaris.GoO*	*0.011*	*-0.368*	*0.417*
E. ventermaculus.AG	*E. pulcher.GoO*	*-0.245*	*-0.640*	*0.118*
E. ventermaculus.AG	*E. ventermaculus.GoO*	*0.277*	*-0.260*	*0.815*
E. ventermaculus.AG	*E. guttata.GoO*	*-0.225*	*-0.680*	*0.212*
E. ventermaculus.AG	*H. fuscopinna.GoO*	*1.024*	*0.578*	*1.449*
E. ventermaculus.AG	*H. vulgaris.GoO*	*-0.878*	*-1.265*	*-0.508*
E. pulcher.GoO	*E. ventermaculus.GoO*	*0.519*	*-0.0290*	*1.073*
E. pulcher.GoO	*E. guttata.GoO*	*0.020*	*-0.426*	*0.494*
E. pulcher.GoO	*H. fuscopinna.GoO*	*1.274*	*0.839*	*1.726*
E. pulcher.GoO	*H. vulgaris.GoO*	*-0.628*	*-1.037*	*-0.253*
E. ventermaculus.GoO	*E. guttata.GoO*	*-0.502*	*-1.125*	*0.106*
E. ventermaculus.GoO	*H. fuscopinna.GoO*	*0.750*	*0.130*	*1.344*
E. ventermaculus.GoO	*H. vulgaris.GoO*	*-1.148*	*-1.710*	*-0.584*
E. guttata.GoO	*H. fuscopinna.GoO*	*1.252*	*0.735*	*1.778*
E. guttata.GoO	*H. vulgaris.GoO*	*-0.647*	*-1.094*	*-0.148*
H. fuscopinna.GoO	*H. vulgaris.GoO*	*-1.906*	*-2.363*	*-1.449*

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Table S3. Contrasts between levels of the explanatory variable for the model testing CT_{min} differences in cryptobenthic reef fishes. Population columns highlight the contrast estimated in the model, whereas the estimate and its confidence intervals indicate estimated differences.

Population I	Population II	Estimate	LCI	UCI
C. anomolus.AG	*E. pulcher.AG*	*0.613*	*0.173*	*1.069*
C. anomolus.AG	*E. ventermaculus.AG*	*-0.400*	*-0.851*	*0.054*
C. anomolus.AG	*E. pulcher.GoO*	*0.747*	*0.316*	*1.211*
C. anomolus.AG	*E. ventermaculus.GoO*	*-1.391*	*-1.887*	*-0.888*
C. anomolus.AG	*E. guttata.GoO*	*-0.784*	*-1.241*	*-0.317*
C. anomolus.AG	*H. fuscopinna.GoO*	*-1.235*	*-1.736*	*-0.754*
C. anomolus.AG	*H. vulgaris.GoO*	*-0.080*	*-0.549*	*0.384*
E. pulcher.AG	*E. ventermaculus.AG*	*-1.011*	*-1.313*	*-0.709*
E. pulcher.AG	*E. pulcher.GoO*	*0.137*	*-0.165*	*0.446*
E. pulcher.AG	*E. ventermaculus.GoO*	*-2.003*	*-2.402*	*-1.641*
E. pulcher.AG	*E. guttata.GoO*	*-1.394*	*-1.704*	*-1.076*
E. pulcher.AG	*H. fuscopinna.GoO*	*-1.847*	*-2.206*	*-1.489*
E. pulcher.AG	*H. vulgaris.GoO*	*-0.694*	*-1.010*	*-0.358*
E. ventermaculus.AG	*E. pulcher.GoO*	*1.149*	*0.847*	*1.459*
E. ventermaculus.AG	*E. ventermaculus.GoO*	*-0.990*	*-1.382*	*-0.610*
E. ventermaculus.AG	*E. guttata.GoO*	*-0.381*	*-0.706*	*-0.065*
E. ventermaculus.AG	*H. fuscopinna.GoO*	*-0.836*	*-1.201*	*-0.475*
E. ventermaculus.AG	*H. vulgaris.GoO*	*0.318*	*-0.016*	*0.648*
E. pulcher.GoO	*E. ventermaculus.GoO*	*-2.138*	*-2.526*	*-1.766*
E. pulcher.GoO	*E. guttata.GoO*	*-1.530*	*-1.843*	*-1.213*
E. pulcher.GoO	*H. fuscopinna.GoO*	*-1.985*	*-2.341*	*-1.615*
E. pulcher.GoO	*H. vulgaris.GoO*	*-0.832*	*-1.174*	*-0.519*
E. ventermaculus.GoO	*E. guttata.GoO*	*0.607*	*0.231*	*1.018*
E. ventermaculus.GoO	*H. fuscopinna.GoO*	*0.152*	*-0.260*	*0.582*
E. ventermaculus.GoO	*H. vulgaris.GoO*	*1.307*	*0.895*	*1.691*
E. guttata.GoO	*H. fuscopinna.GoO*	*-0.453*	*-0.822*	*-0.088*
E. guttata.GoO	*H. vulgaris.GoO*	*0.700*	*0.360*	*1.041*
H. fuscopinna.GoO	*H. vulgaris.GoO*	*1.153*	*0.799*	*1.543*