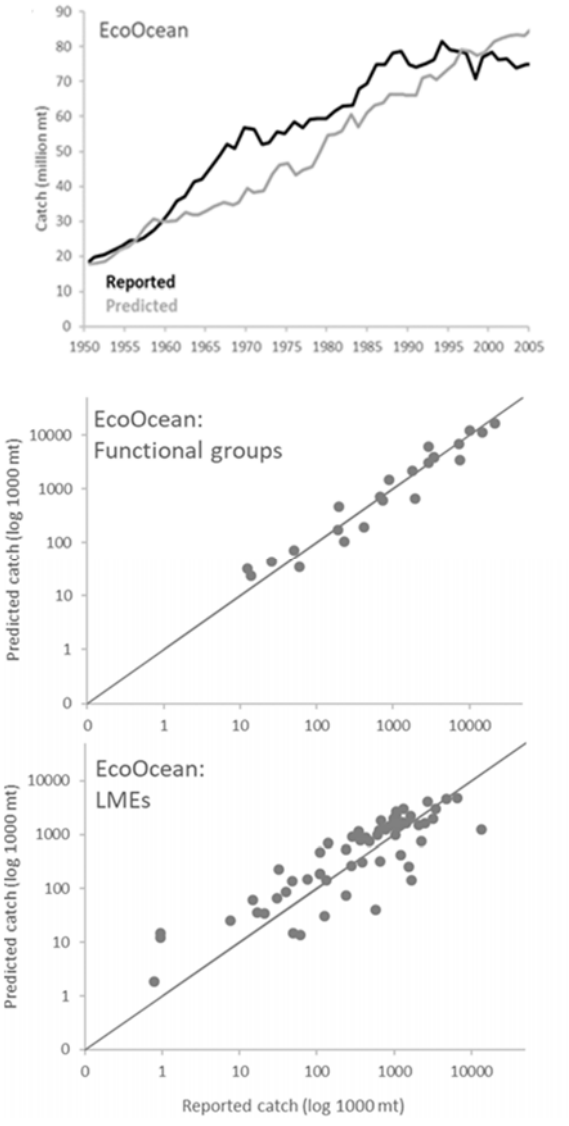
Supplementary Material

A. EcoOcean fitting to time series results

EcoOcean was fitted to historical fisheries data following a formal fitting procedure. We used historical fishing effort (Anticamara, *et al.* 2011, Watson, *et al.* 2013), global catch data from Sea Around Us (www.seaaroundus.org), and a customized version of the time-dynamic model Ecosim (Walters, *et al.* 1997) to estimate key vulnerability parameters for 5 functional groups (Figure S1-A).

Figure S1-A. Comparison of model-predicted and observed data for EcoOcean: predicted and reported a) global catch, b) catch by functional groups and c) LMEs (adapted from (Christensen, *et al.* 2015).



B. Temperature adjusted metabolic rates – complementary information

We implemented a Q_{10} modifier as a function of the local temperature relative to the baseline spatially averaged temperature following Lefevre and colleagues (Lefevre 2016):

$$m_{i,j} = Q_{10}^{(n*(T_{i,j}-\overline{T}))} \quad (1)$$

where $m_{i,j}$ is the Q_{10} modifier for cell i,j that will be applied to biomass, production/biomass and consumption/biomass; Q_{10} is the average base value for the entire ecosystem; n is the exponent (0.1 by default), $T_{i,j}$ is the temperature at cell i,j , and $\overline{T}$ is the baseline 50-year mean historical temperature of the global oceans as obtained from the GFDL historical, global half-degree temperature reanalysis.

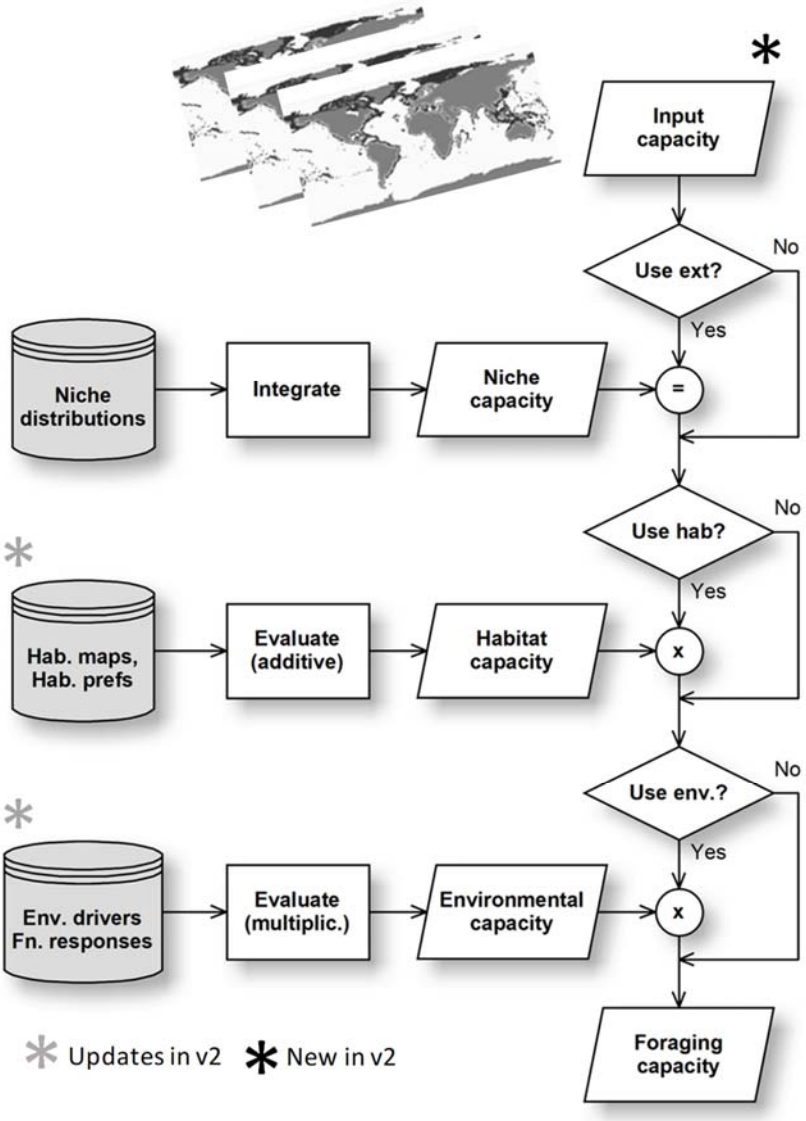
EcoOcean v2 applies the $m_{i,j}$ modifier to the baseline mass-balanced parameters for biomass, production and consumption (master equations of Ecopath model, (Christensen and Walters 2004) spatially explicit implementation in Ecospace model (Walters, *et al.* 1999)) for every spatial cell in the global oceans based on deviations of long-term averaged temperatures from the mean temperature. During the model initialization phase, EcoOcean v2 scales the baseline biomass as follows:

$$b_{i,j} = b_0/m_{i,j} \quad (2)$$

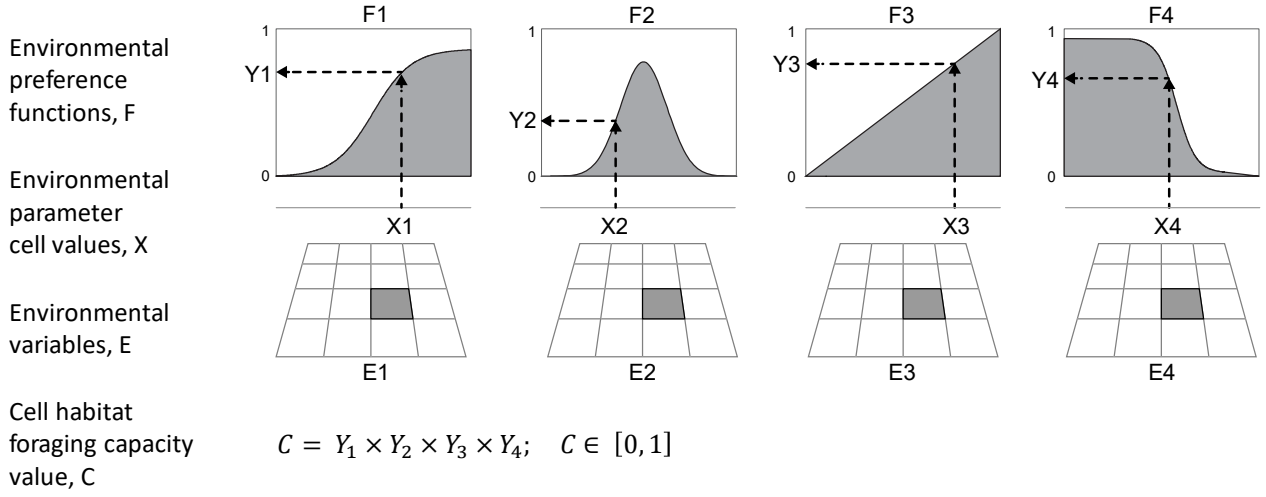
where $b_{i,j}$ is the biomass scaled by the Q_{10} modifier for cell i,j , b_0 is the baseline biomass and $m_{i,j}$ is the Q_{10} modifier for cell i,j. The locally scaled biomass is then distributed across the map via the habitat base foraging response model. This spatially modifies the initial biomasses across the map as a function of temperature. To retain the mass-balanced properties at cell i,j, the production/biomass and consumption/biomass terms are scaled inverse to the Q_{10} multiplier, yielding spatially distributed biomasses and growth parameters. In response to the spatial changes in baseline parameters, vulnerabilities and search rates (Ahrens, *et al.* 2012, Walters, *et al.* 1997) now vary spatially as a function of spatially distributed biomasses under influence of local, historical long-term temperatures.

C. Supplementary Figures

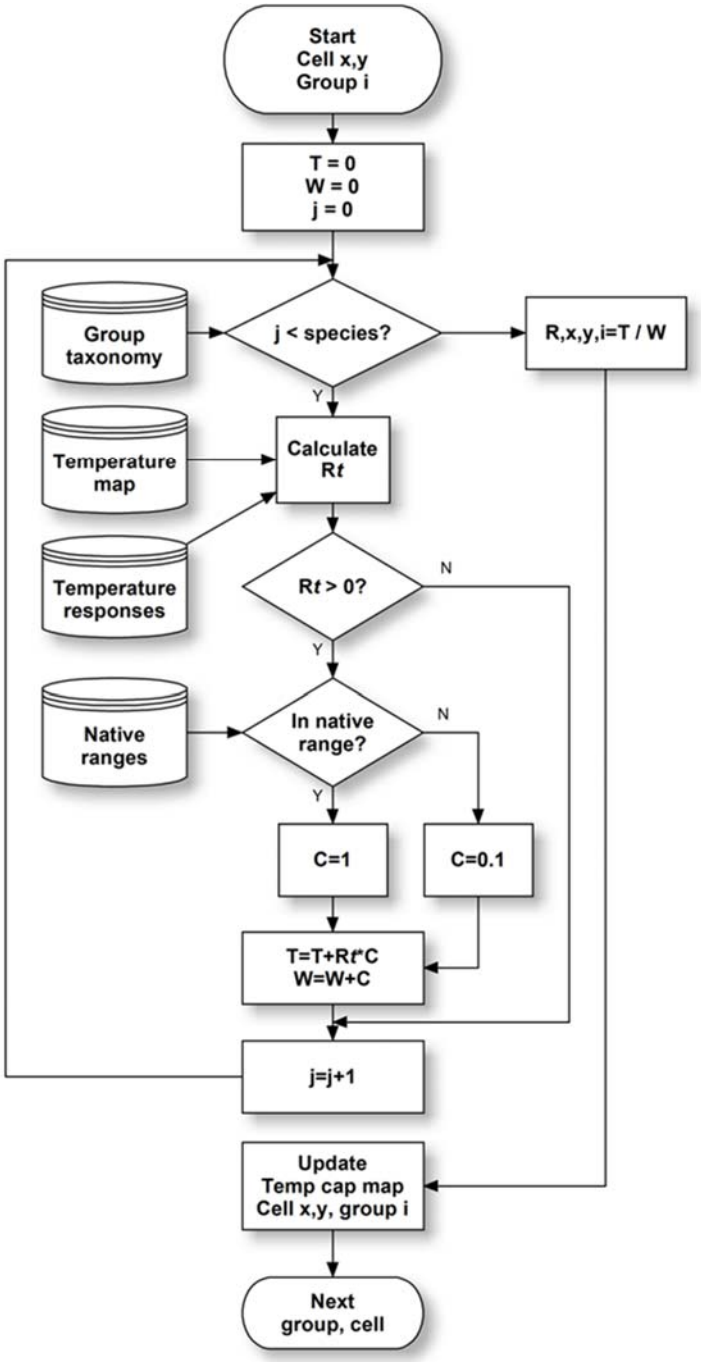
Supplementary Figure 1. Modularity of the Habitat Foraging Capacity model (HFCM) (Christensen et al., 2014) and functioning of the native ranges configuration in EcoOcean v2 (Figure 1 - main body).



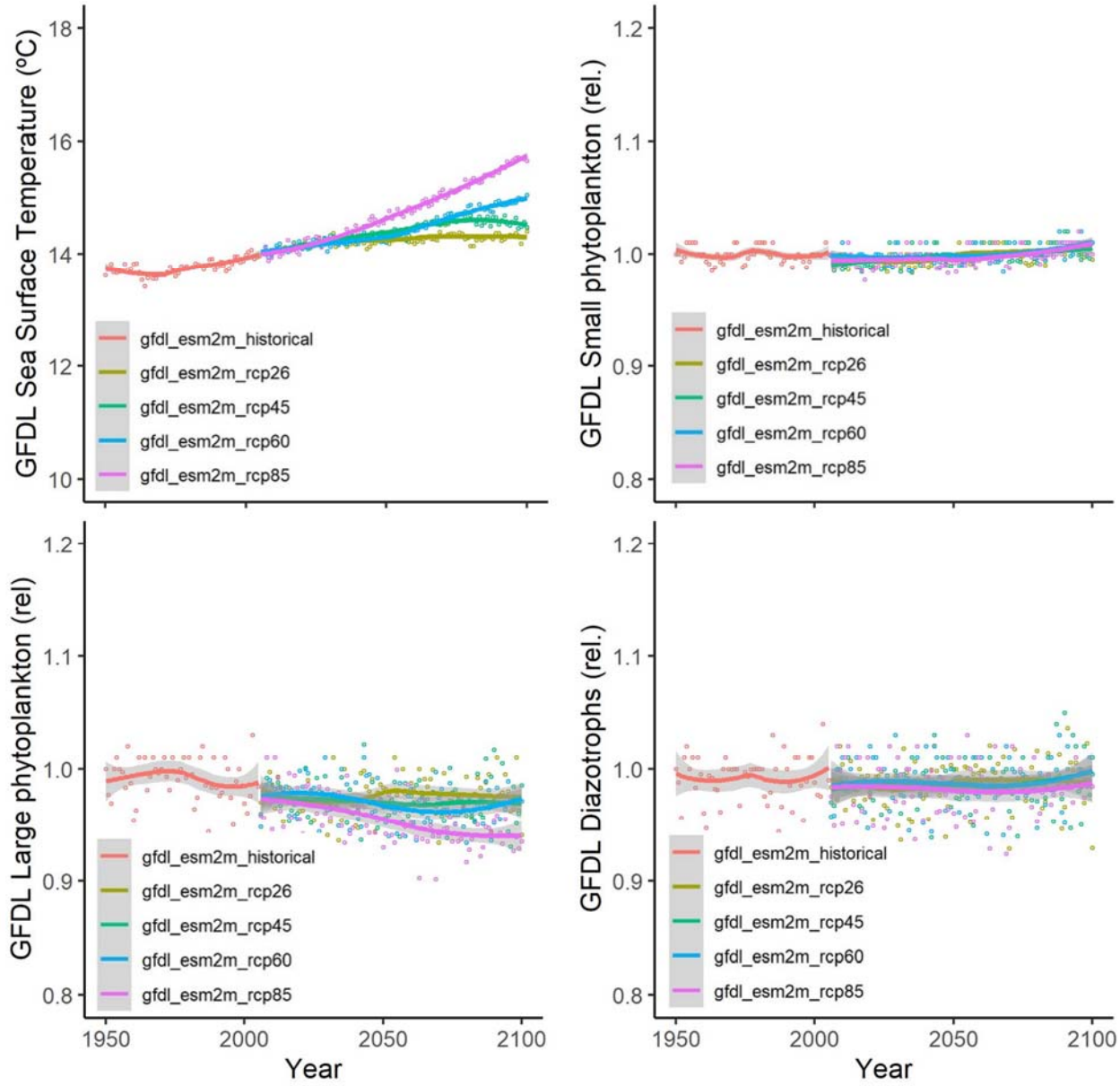
Supplementary Figure 2. Schematic representation of the Habitat Foraging Capacity Model (modified from Christensen et al. 2014), the niche model used in EcoOcean v2 (Figure 1 – main body).



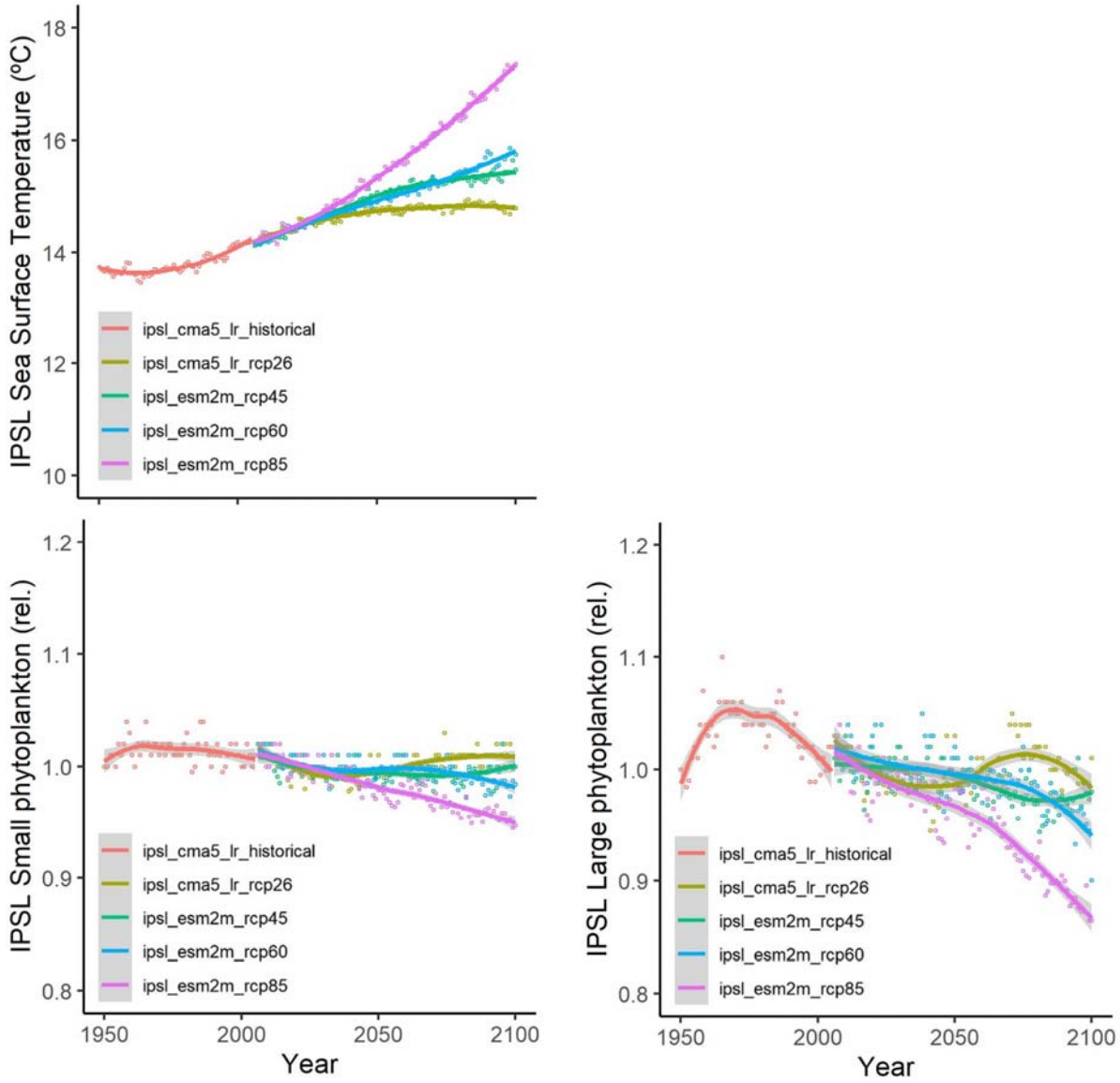
Supplementary Figure 3. Cell-specific response functions implementation in EcoOcean v2 (Figure 1 – main body).



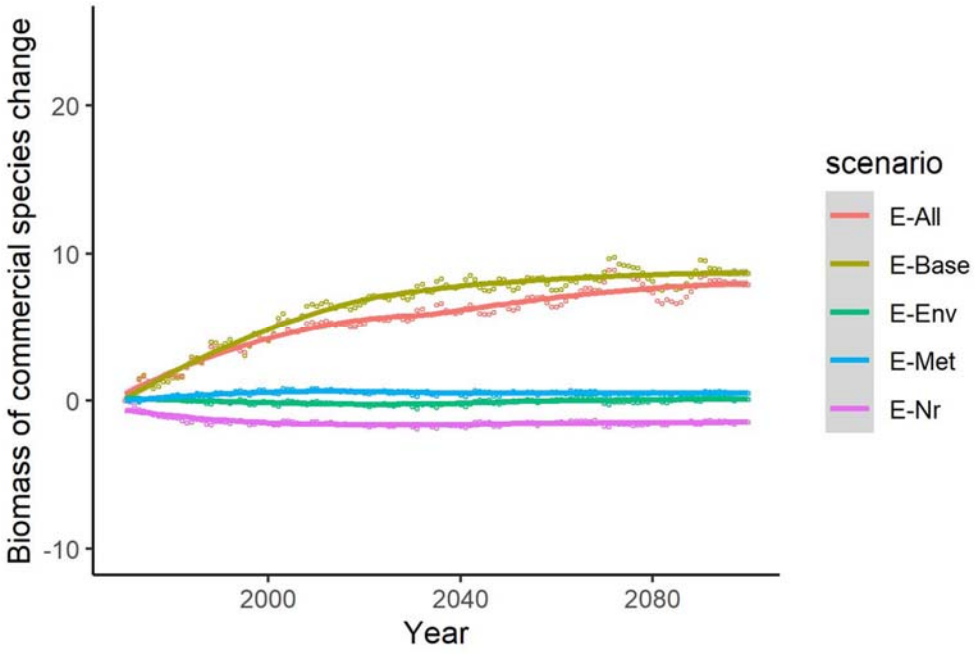
Supplementary Figure 4. Climate-change scenarios from GFDL-ESM2M and contrasting emission pathways (RCPs 2.6, 4.5, 6.0 and 8.5) for historical (1950-2005) and future (2006-2100) periods.



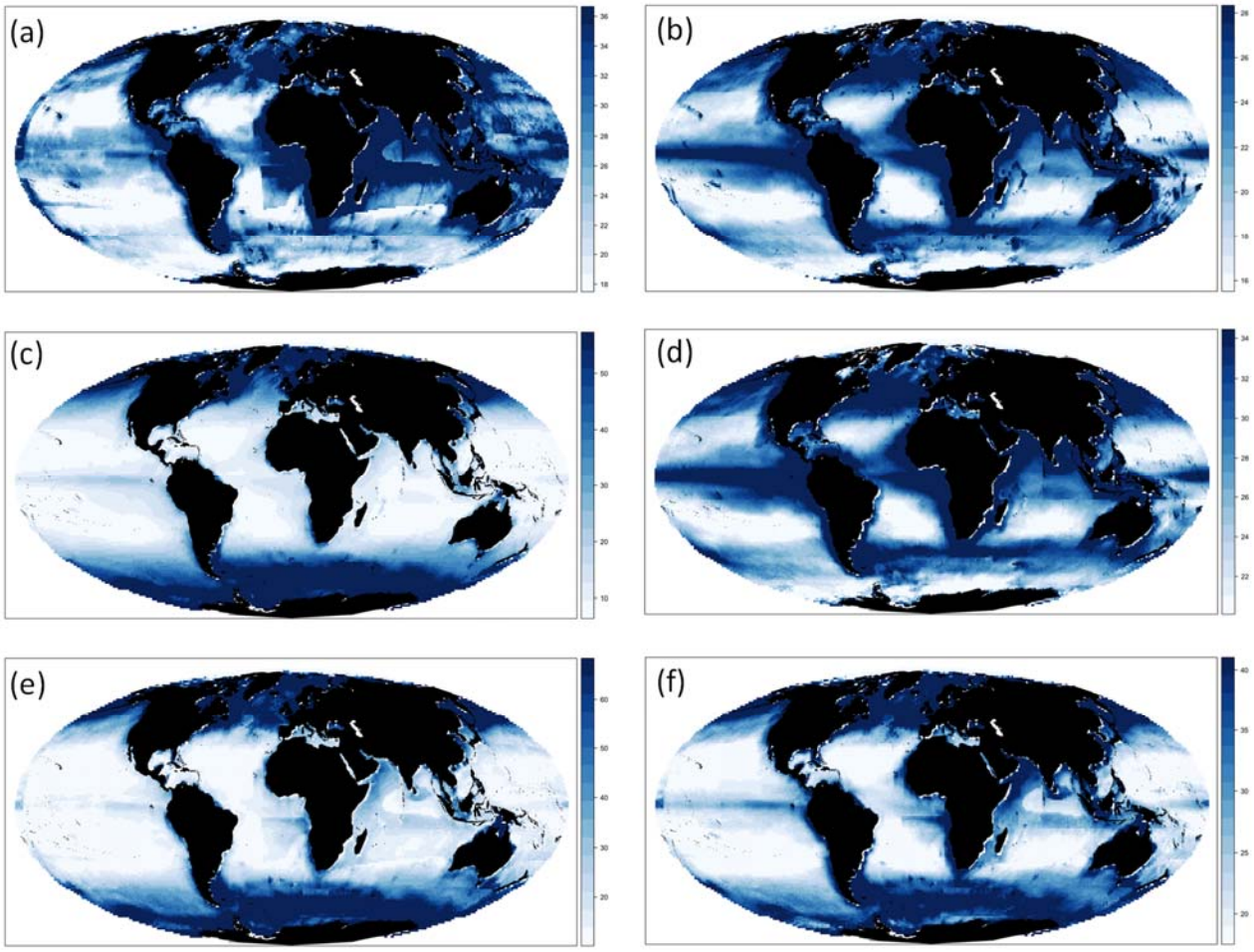
Supplementary Figure 5. Climate-change scenarios from IPSL-CMA5-LR and contrasting emission pathways (RCPs 2.6, 4.5, 6.0 and 8.5) for historical (1950-2005) and future (2006-2100) periods.



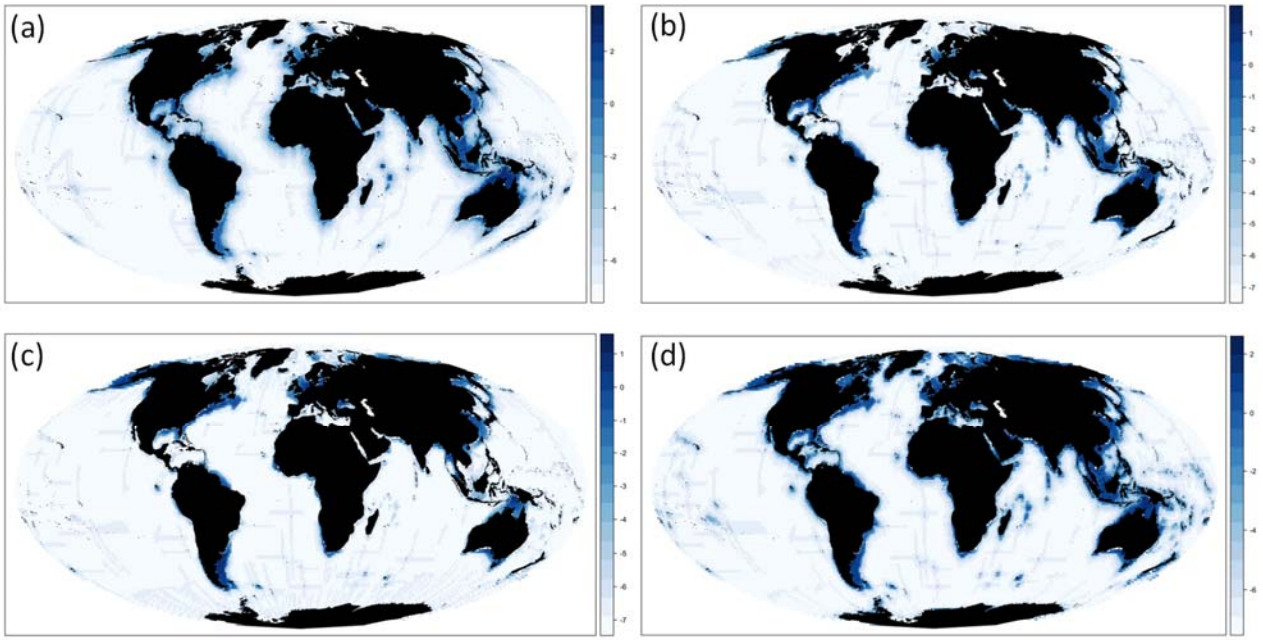
Supplementary Figure 6. Experiment 1 (Ecological configurations, Table 1 - main body) – Relative temporal change (%) of Biomass of commercial species (Bcom) under the different ecological configurations.



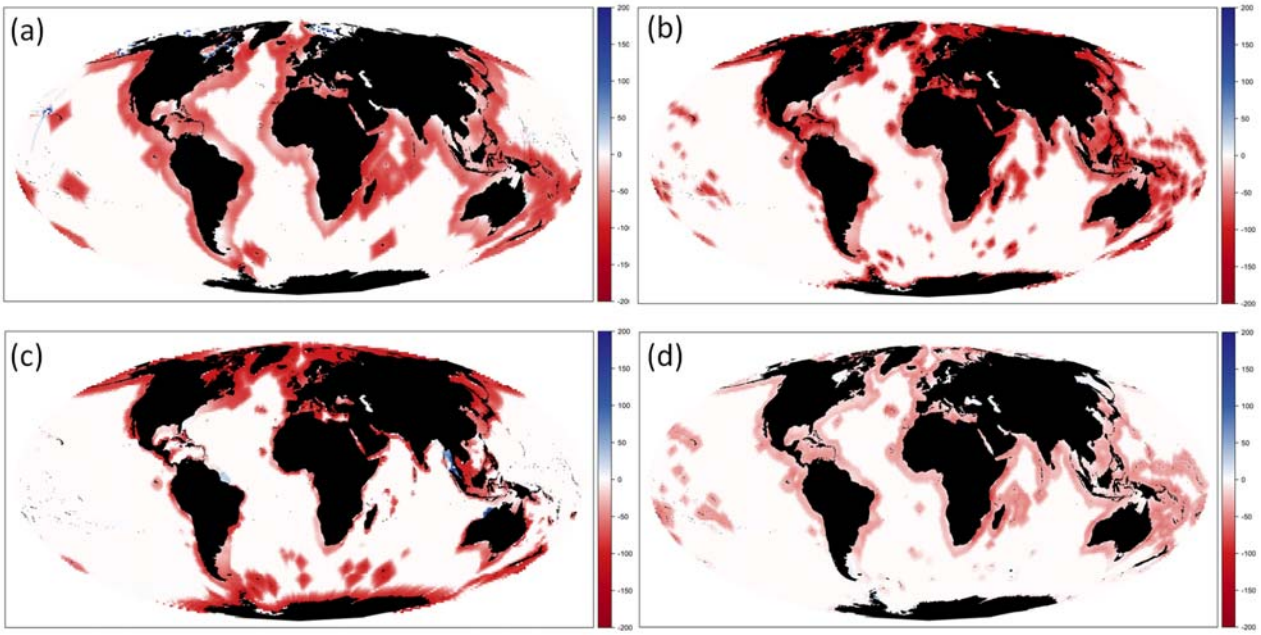
Supplementary Figure 7. Experiment 1 (Ecological configurations, Table 1-main body) – Spatial changes of Total Consumers Biomass (TCB) in 2001-2005 under (a) E-Base, (b) E-Env, (c) E-Met, (d) E-Nr, (e) E-All, and (f) mean of a-e. For visualization purposes, maps plot values between the first and third quantile.



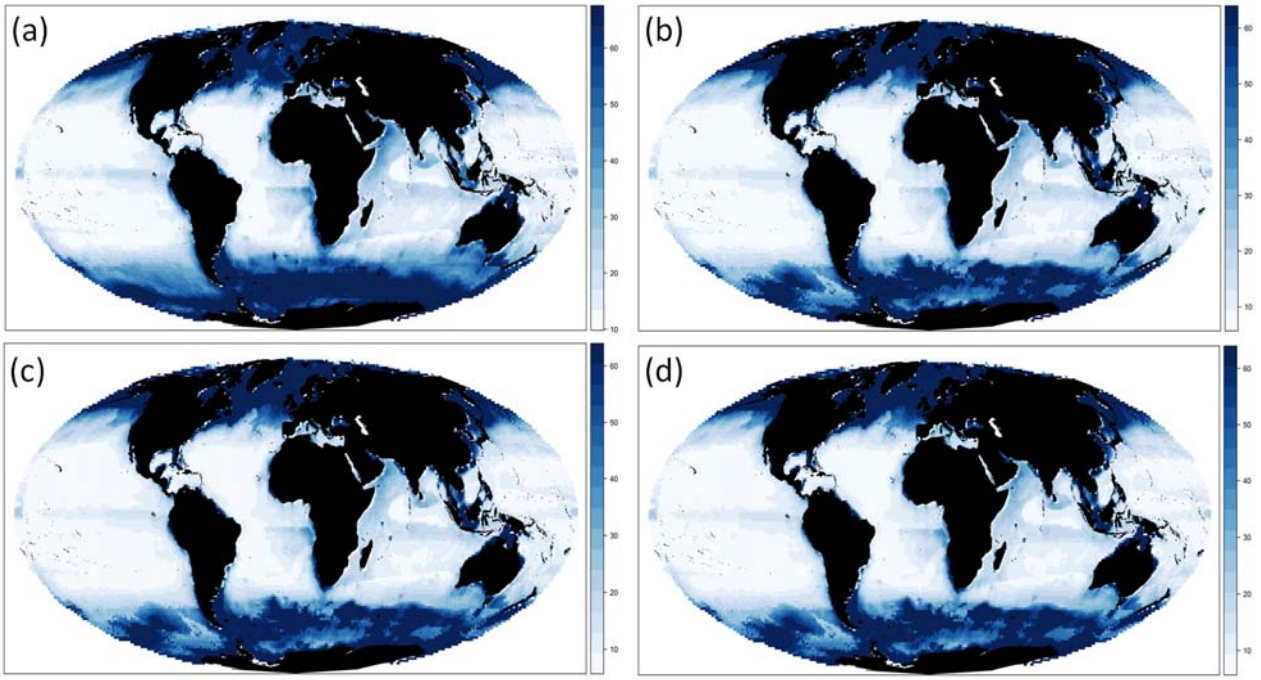
Supplementary Figure 8. Experiment 1 (Ecological configurations, Table 1-main body) – Spatial biomass (log10) distribution of "Large reef fish" group in 2100 under (a) E-Base, (b) E-Env, (c) E-Met, and (d) E-Nr.



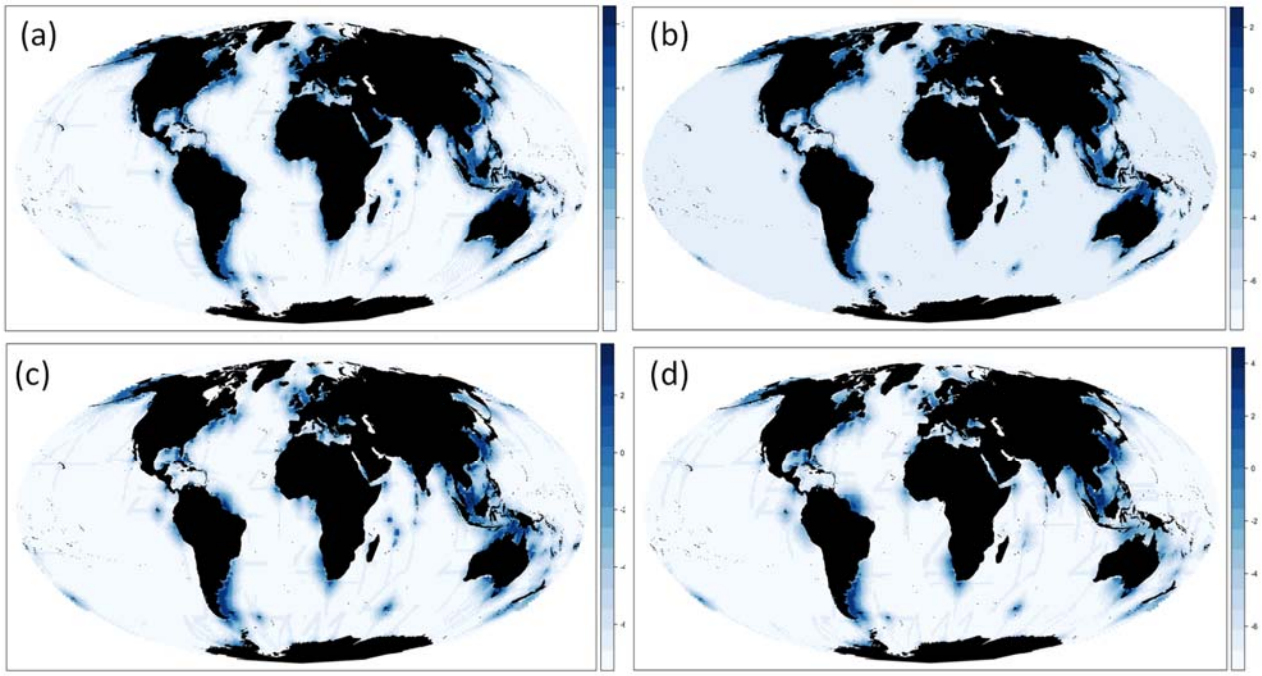
Supplementary Figure 9. Experiment 1 (Ecological configurations, Table 1-main body) – Relative spatial change (%) of "Large reef fish" group biomass between 1970 and 2100 under (a) E-Base, (b) E-Env, (c) E-Met, and (d) E-Nr.



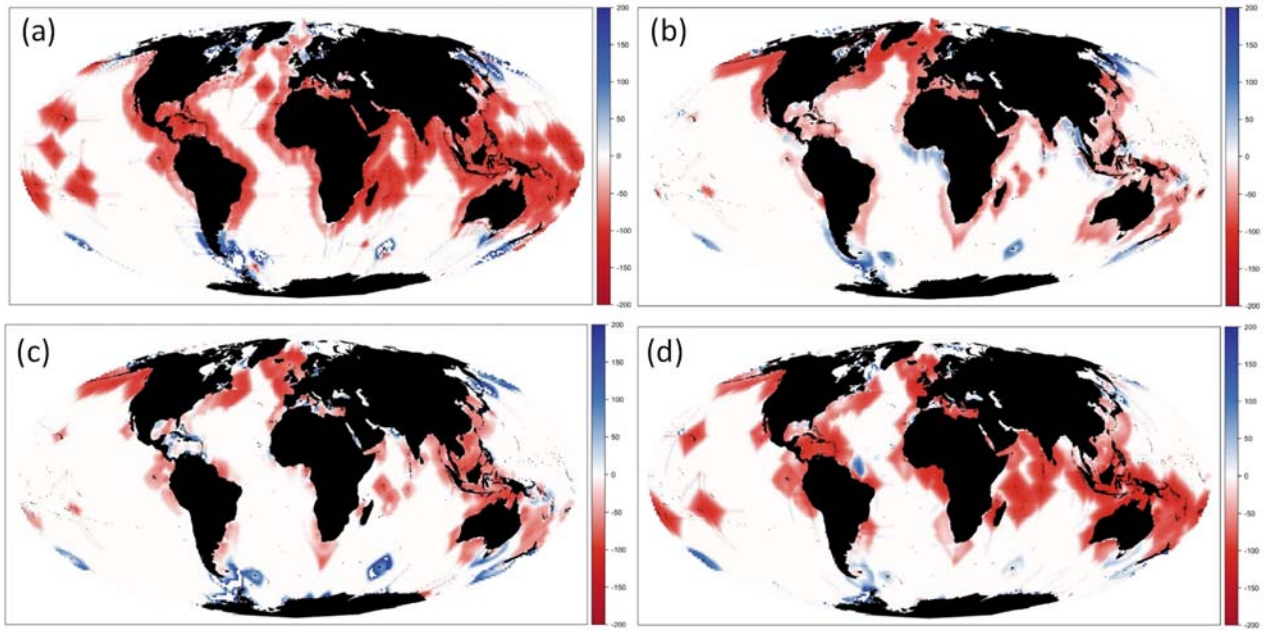
Supplementary Figure 10. Experiment 2 (Climate impacts, Table 1-main body) – Spatial distribution of Total Consumers Biomass (TCB) by sub-regional oceans in 1973-1975: (a) GFDL RCP2.6; (b) GFDL RCP8.5, (c) IPSL RCP2.6, and (d) IPSL RCP8.5. For visualization purposes, maps plot values between the first and third quantile.



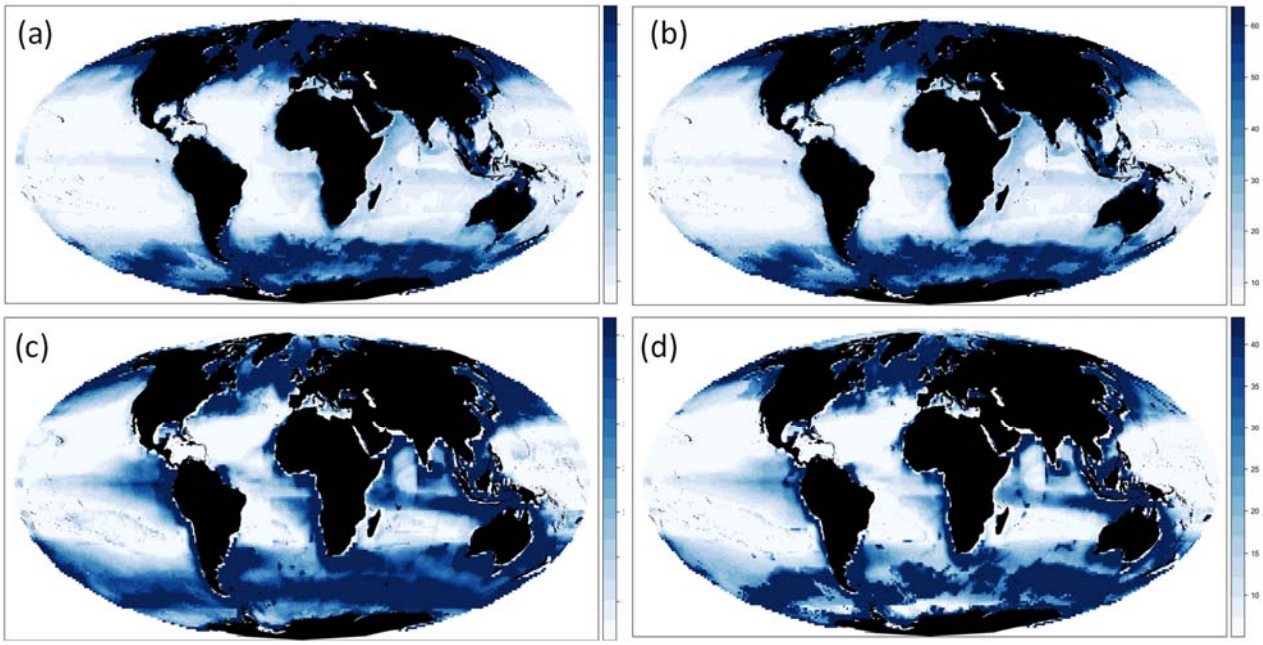
Supplementary Figure 11. Experiment 2 (Climate impacts, Table 1 - main body) – Spatial biomass (log10) distribution of "Large reef fish" in 1973-1975 obtained under (a) GFDL RCP2.6; (b) GFDL RCP8.5, (c) IPSL RCP2.6, and (d) IPSL RCP8.5.



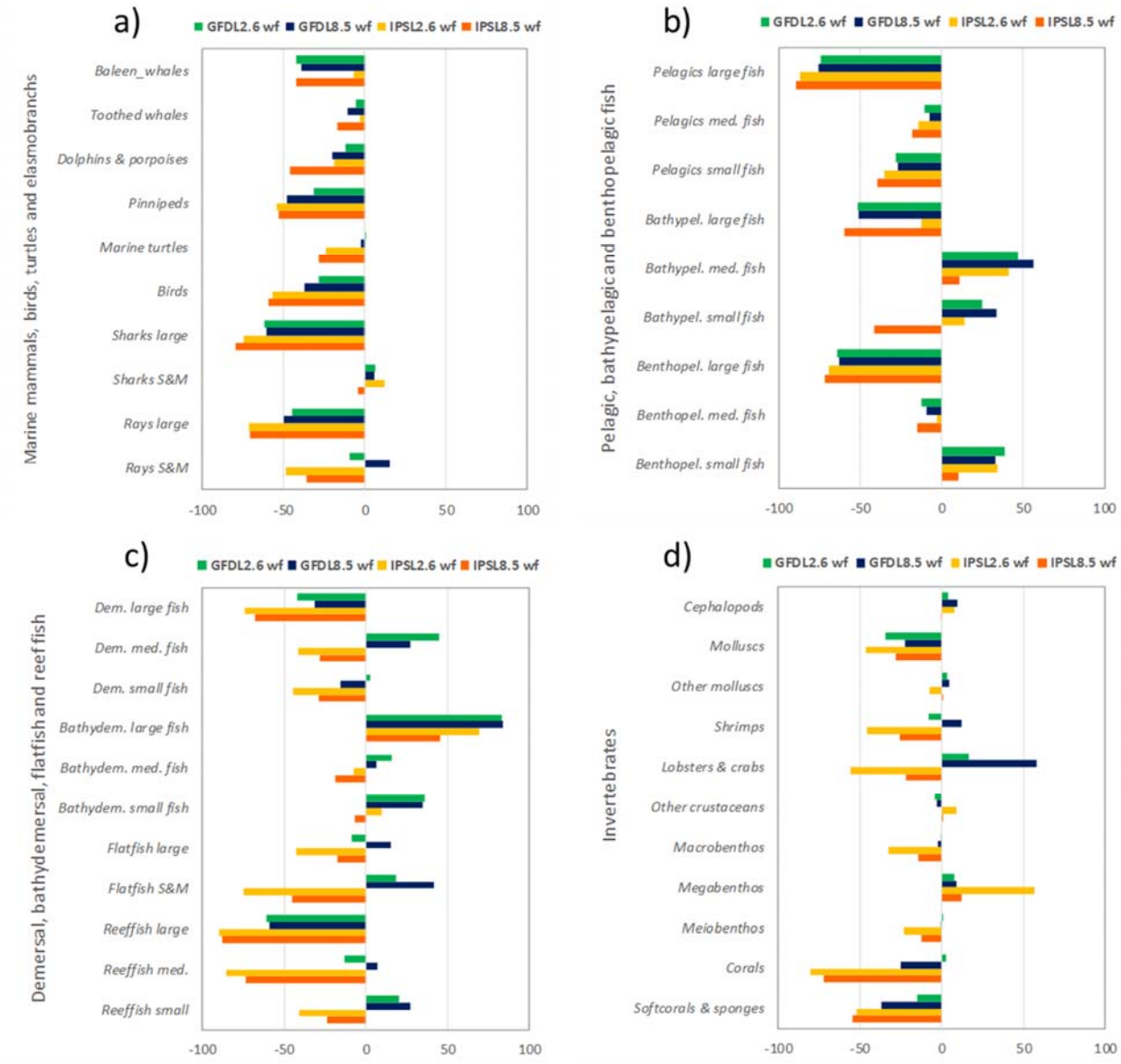
Supplementary Figure 12. Experiment 2 (Climate impacts, Table 1 - main body) – Relative spatial change (%) of "Large reef fish" group biomass between 1970 and 2100 under (a) GFDL RCP2.6; (b) GFDL RCP8.5, (c) IPSL RCP2.6, and (d) IPSL RCP8.5.



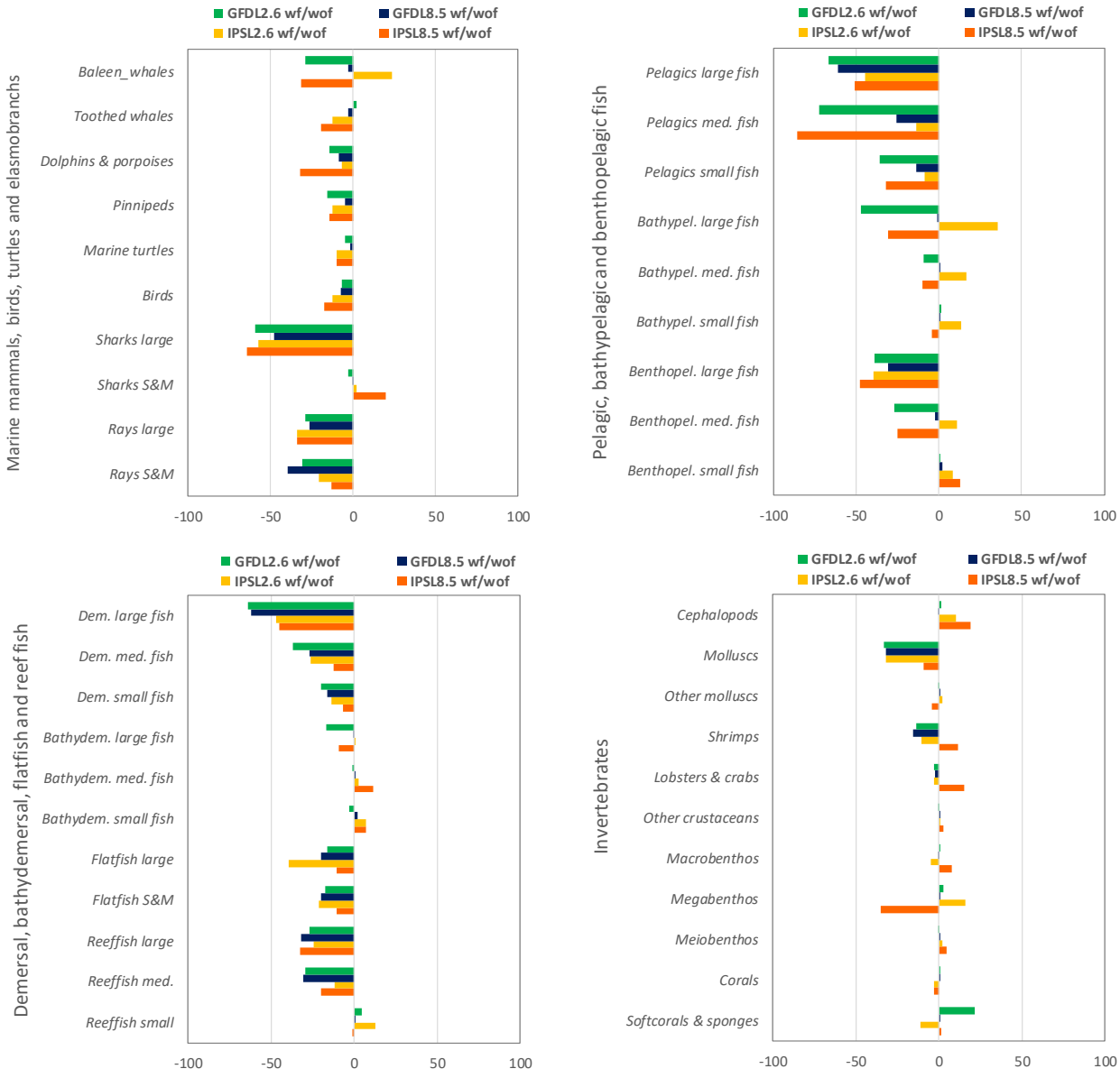
Supplementary Figure 13. Experiment 3 (Climate & fishing impacts, Table 1 - main body) – Spatial distribution of Total Consumers Biomass (TCB) by sub-regional oceans in 1973-1975: (a) GFDL RCP2.6; (b) GFDL RCP8.5, (c) IPSL RCP2.6, and (d) IPSL RCP8.5. For visualization purposes, maps plot values between the first and third quantile.



Supplementary Figure 14. Experiment 3 (Climate impacts and fishing impacts, Table 1 - main body) – Relative temporal biomass change (%) between 1970 and 2100 by species groupings: a) Marine mammals, seabirds, marine turtles and elasmobranches, (b) Pelagic, bathypelagic and benthopelagic fish, (c) Demersal, bathydemersal, flatfish and reef fish, and (d) Invertebrates.



Supplementary Figure 15. Experiment 3 (Climate and fishing impacts, Table 1 - main body) – Relative temporal biomass change (%) between 1970 and 2100 by species groupings: (a) Marine mammals, seabirds, marine turtles and elasmobranches, (b) Pelagic, bathypelagic and benthopelagic fish, (c) Demersal, bathydemersal, flatfish and reef fish, and (d) Invertebrates.



D. Supplementary Tables

Supplementary Table 1. Functional groups of EcoOcean v2 model: response functions applied to each group and contributions to aggregated ecological indicators based on FishMIP initiative (Tittensor, *et al.* 2018): Total System Biomass (TSB), Total Consumers Biomass (TCB), Biomass of commercial species (Bcom), Biomass of organisms > 10 cm (B10), and Biomass of organisms > 30 cm (B30).

		a) Response functions		b) Aggregated indicators				
	Species groups	Depth	SST	TSB	TCB	B > 10cm	B > 30cm	Bcom
1	Baleen whales	x	x	x	x	x	x	
2	Toothed whales	x	x	x	x	x	x	
3	Dolphins porpoises	x	x	x	x	x	x	
4	Pinnipeds	x	x	x	x	x	x	
5	Birds	x	x	x	x	x	x	
6	Marine turtles			x	x	x	x	
7	Pelagics large fish	x	x	x	x	x	x	x
8	Pelagics medium fish	x	x	x	x	x	x	x
9	Pelagics small fish	x	x	x	x	x		x
10	Pelagics large fish young			x	x			
11	Bathypelagics large fish	x	x	x	x	x	x	x
12	Bathypelagics medium fish	x	x	x	x	x	x	x
13	Bathypelagics small fish	x	x	x	x	x		x
14	Benthopelagics large fish	x	x	x	x	x	x	x
15	Benthopelagics medium fish	x	x	x	x	x	x	x
16	Benthopelagics small fish	x	x	x	x	x		x
17	Demersals large fish	x	x	x	x	x	x	x
18	Demersals medium fish	x	x	x	x	x	x	x
19	Demersals small fish	x	x	x	x	x		x
20	Bathydemersals large fish	x	x	x	x	x	x	x
21	Bathydemersals medium fish	x	x	x	x	x	x	
22	Bathydemersals small fish	x	x	x	x	x		
23	Reeffish large	x	x	x	x	x	x	x
24	Reeffish medium	x	x	x	x	x	x	x
25	Reeffish small	x	x	x	x	x		x
26	Flatfish large	x	x	x	x	x	x	x
27	Flatfish small medium	x	x	x	x	x	x	x
28	Sharks large	x	x	x	x	x	x	x
29	Sharks small medium	x	x	x	x	x	x	x
30	Rays large	x	x	x	x	x	x	x
31	Rays small medium	x	x	x	x	x	x	x
32	Cephalopods	x	x	x	x	x		x
33	Molluscs (exploitable)	x	x	x	x			x

34	Other molluscs	x	x	x	x			
35	Lobsters & crabs	x	x	x	x	x		x
36	Shrimps	x	x	x	x			x
37	Other crustaceans			x	x			
38	Meiobenthos			x	x			
39	Macrobenthos	x		x	x			
40	Megabenthos	x		x	x			
41	Corals	x	x	x	x			
42	Softcorals & sponges	x	x	x	x			
43	Microzooplankton (nsmz)			x	x			
44	Mesozooplankton (nmdz)			x	x			
45	Large zoop krill (nlgz)	x	x	x	x			
46	Jellyfish	x	x	x	x			
47	Phytoplankton large (nlgp)			x				
48	Phytoplankton small (nsmp)			x				
49	Benthic plants	x	x	x				
50	Diazotrophs (ndi)			x				
51	Bacteria (nbact)			x	x			
52	Detritus (ndet)							

Supplementary Table 2. Experiment 2 (Climate impacts, Table 1 - main body) – Temporal relative change of Total Consumers Biomass (TCB %) between 1970 and 2100 by sub-regional oceans (Figure 6-main body).

	Change (%)2100 vs 1970			
	C-GFDL2.6	**C-GFDL8.5**	**C-IPSL2.6**	**C-IPSL8.5**
Arctic Ocean	3.1	3.5	22.9	-6.9
North Atlantic	0.2	-1.6	-7.1	-33.9
Central Atlantic, Med	0.5	4.9	-10.2	-3.2
South Atlantic	1.1	3.5	-31.1	-2.7
North Pacific	3.3	5.7	-19.3	-11.0
Indian Ocean	-0.4	-1.4	-25.1	-19.7
Central Pacific	3.7	9.3	-51.3	-19.6
South Pacific	1.4	4.4	3.1	3.4
Antarctic Atlantic	4.2	3.4	44.5	29.8
Antarctic Indian	3.2	5.2	15.8	5.1
Antarctic Pacific	2.5	3.7	25.7	17.8

Supplementary Table 3. Experiment 2 (Climate impacts, Table 1 - main body) – Relative change between 1970s and 2100s of (a) Total System Biomass (%), (b) Biomass of commercial species, (c), Biomass of organisms > 10 cm (B10), and (d) Biomass of organisms > 30 cm (B30).

(a) Total System Biomass	Change (%)			
	GFDL2.6	**GFDL8.5**	**IPSL2.6**	**IPSL8.5**
Global	1.6	1.7	-26.5	-11.0
Arctic Ocean	2.5	2.7	-18.8	-4.8
North Atlantic	0.0	-2.5	-22.9	-30.7
Central Atlantic, Med	0.7	3.3	-35.9	-6.4
South Atlantic	0.6	2.1	-41.9	-3.5
North Pacific	2.7	4.0	-33.8	-12.0
Indian Ocean	-0.3	-1.8	-39.0	-19.4
Central Pacific	2.2	3.4	-60.4	-23.4
South Pacific	0.9	3.2	-18.4	0.9
Antarctic Atlantic	3.7	3.0	29.1	27.6
Antarctic Indian	2.8	4.6	4.4	6.2
Antarctic Pacific	2.2	3.2	15.2	16.3

(b) Biomass of commercial species	Change (%)			
	GFDL2.6	**GFDL8.5**	**IPSL2.6**	**IPSL8.5**
Global	7.9	10.4	-12.8	-21.8
Arctic Ocean	14.1	14.0	18.7	-0.6
North Atlantic	4.8	3.7	-7.0	-28.1
Central Atlantic, Med	4.2	13.6	0.7	-23.0
South Atlantic	4.4	10.2	-32.5	-9.9
North Pacific	6.7	12.2	-25.5	-37.8
Indian Ocean	0.7	0.8	-20.5	-16.5
Central Pacific	11.1	13.2	-37.5	-47.3
South Pacific	5.7	13.0	2.8	0.2
Antarctic Atlantic	15.0	7.1	35.9	23.1
Antarctic Indian	12.1	18.1	30.9	-2.8
Antarctic Pacific	9.2	12.9	11.3	17.8

(c) Biomass of org. > 10 cm	Change (%)			
	GFDL2.6	**GFDL8.5**	**IPSL2.6**	**IPSL8.5**
Global	7.7	10.2	-12.7	-21.6
Arctic Ocean	13.6	12.5	18.3	-1.4
North Atlantic	4.7	3.2	-7.5	-28.8
Central Atlantic, Med	4.0	13.0	0.4	-23.2

South Atlantic	4.3	10.1	-31.6	-9.8
North Pacific	6.6	12.1	-24.9	-37.4
Indian Ocean	0.7	1.0	-20.6	-16.7
Central Pacific	10.7	12.9	-36.6	-46.7
South Pacific	5.5	12.6	2.0	-0.6
Antarctic Atlantic	14.9	7.1	33.3	22.8
Antarctic Indian	11.9	17.7	30.0	-2.4
Antarctic Pacific	9.1	12.7	11.6	17.7

(d) Biomass of org. > 30 cm	Change (%)			
	GFDL2.6	**GFDL8.5**	**IPSL2.6**	**IPSL8.5**
Global	21.0	24.3	-12.5	7.5
Arctic Ocean	27.9	26.6	-3.0	2.8
North Atlantic	11.2	8.5	-10.4	-26.3
Central Atlantic, Med	1.3	15.8	2.4	17.8
South Atlantic	3.4	8.6	-20.6	7.7
North Pacific	4.3	14.3	-19.4	27.3
Indian Ocean	-1.0	-1.6	-13.3	-12.4
Central Pacific	5.9	18.9	-36.7	-0.8
South Pacific	6.3	10.2	-1.1	21.6
Antarctic Atlantic	45.4	50.8	20.6	31.7
Antarctic Indian	49.0	48.6	39.8	22.6
Antarctic Pacific	40.7	40.9	-0.4	32.9

Supplementary Table 4. Experiment 2 (Climate impacts, Table 1 - main body) – Relative biomass change (%) between 1970 and 2100 by species groupings: (a) Marine mammals, seabirds, marine turtles and elasmobranches, (b) Pelagic, bathypelagic and benthopelagic fish, (c) Demersal, bathydemersal, flatfish and reef fish, and (d) Invertebrates.

Groups	GFDL2.6	GFDL8.5	IPSL2.6	IPSL8.5
Marine mammals, birds and turtles				
Baleen whales	-13.2	-36.4	-30.2	-10.7
Toothed whales	-7.6	-7.3	9.5	2.6
Dolphins & porpoises	2.8	-11.6	-12.5	-13.8
Pinnipeds	-15.6	-43.0	-41.5	-38.6
Marine turtles	5.7	-0.9	-14.1	-18.5
Birds	-21.7	-29.9	-44.2	-41.7
Elasmobranchs				
Sharks large	-2.3	-12.8	-17.1	-14.9
Sharks S&M	9.3	6.5	9.7	-23.7
Rays large	-15.8	-23.3	-37.5	-36.6
Rays S&M	21.9	55.1	-28.4	-22.6
Fin fish				
Pelagics large fish	-7.1	-14.5	-42.3	-38.0
Pelagics med. fish	61.7	18.7	-0.8	67.7
Pelagics small fish	7.3	-13.4	-26.8	-7.3
Bathypel. large fish	-4.2	-49.8	-47.7	-29.0
Bathypel. med. fish	56.1	56.0	24.7	21.0
Bathypel. small fish	23.6	33.1	0.7	-36.9
Benthopel. large fish	-25.2	-32.4	-29.7	-24.3
Benthopel. med. fish	14.1	-7.0	-13.9	10.0
Benthopel. small fish	37.7	31.2	25.9	-2.7
Dem. large fish	21.5	30.8	-27.3	-22.6
Dem. med. fish	81.4	54.4	-15.3	-15.8
Dem. small fish	22.6	0.3	-30.9	-21.9
Bathydem. large fish	100.0	83.8	69.0	54.4
Bathydem. med. fish	17.0	5.8	-10.1	-30.1
Bathydem. small fish	39.2	32.9	2.3	-14.3
Flatfish large	7.6	35.3	-3.4	-7.0
Flatfish S&M	36.4	61.3	-53.2	-34.2
Reeffish large	-33.9	-27.3	-65.7	-55.7
Reeffish med.	16.1	37.8	-73.4	-53.7
Reeffish small	15.2	26.7	-53.6	-22.5
Invertebrates				
Cephalopods	2.8	9.6	-2.6	-19.8
Molluscs	-1.4	9.1	-14.7	-19.2
Other molluscs	3.9	4.2	-9.2	5.4
Shrimps	6.0	27.5	-35.2	-37.4

Lobsters & crabs	19.4	60.4	-53.0	-37.3
Other crustaceans	-3.5	-3.3	8.9	-1.9
Macrobenthos	-1.2	-1.9	-28.0	-21.8
Megabenthos	5.2	8.4	40.8	46.9
Meiobenthos	0.5	-0.6	-25.2	-17.0
Corals	2.0	-24.8	-77.1	-69.1
Softcorals & sponges	-36.7	-36.9	-41.2	-55.9

Supplementary Table 5. Experiment 2 (Climate impacts) and 3 (Climate and fishing impacts) (Table 1 - main body) – Relative change (%) of ecological indicators between 1970 and 2100. TSB: Total System Biomass, TCB: Total Consumers Biomass, Bcom: Biomass of commercial species, B10: Biomass of organisms > 10 cm, B30: Biomass of organisms > 30 cm.

	Change (%) 2100 vs 1970							
	GFDL2.6		**GFDL8.5**		**IPSL2.6**		**IPSL8.5**	
	woF	**wF**	**woF**	**wF**	**woF**	**wF**	**woF**	**wF**
TSB	1.6	0.1	1.7	-1.1	-5.9	-3.6	-11.0	-15.6
TCB	2.1	0.3	3.0	-0.2	-9.6	-6.5	-10.2	-15.9
Bcom	7.9	5.3	10.4	9.0	-12.8	-6.7	-21.8	-25.6
B10	7.7	5.1	10.2	8.5	-12.7	-6.5	-21.6	-25.8
B30	21.0	-3.5	24.3	-1.5	-12.5	-14.0	7.5	-18.5

woF: without fishing; wF: with fishing.

Supplementary Table 6. Experiment 2 (Climate impacts) and 3 (Climate and fishing impacts) (Table 1 - main body) – Relative change (%) of Total Consumers Biomass (TCB) between 1970 and 2100 by sub-regional ocean.

	Change (%) 2100 vs 1970							
	GFDL2.6		GFDL8.5		IPSL2.6		IPSL8.5	
	woF	wF	woF	wF	woF	wF	woF	wF
Global	2.1	0.3	3.0	-0.2	-9.6	-6.5	-10.2	-15.9
Arctic Ocean	3.1	1.4	3.5	2.1	22.9	35.1	-6.9	4.8
North Atlantic	0.2	-1.6	-1.6	-3.7	-7.1	6.3	-33.9	-19.1
Central Atlantic, Med	0.5	-1.2	4.9	1.1	-10.2	-10.7	-3.2	-16.4
South Atlantic	1.1	-0.1	3.5	-0.7	-31.1	-30.5	-2.7	-14.4
North Pacific	3.3	3.3	5.7	3.2	-19.3	-22.9	-11.0	-21.0
Indian Ocean	-0.4	-1.7	-1.4	-3.5	-25.1	-25.7	-19.7	-19.2
Central Pacific	3.7	2.8	9.3	6.7	-51.3	-42.8	-19.6	-55.9
South Pacific	1.4	-0.1	4.4	-0.9	3.1	2.9	3.4	-7.8
Antarctic Atlantic	4.2	1.2	3.4	1.0	44.5	62.6	29.8	18.0
Antarctic Indian	3.2	1.0	5.2	2.6	15.8	27.1	5.1	6.4
Antarctic Pacific	2.5	0.4	3.7	-0.2	25.7	39.7	17.8	5.3

woF: without fishing; wF: with fishing.

Supplementary Table 7. Experiment 2 (Climate impacts, Table 1) and 3 (Climate and fishing impacts) (Table 1 - main body) – Relative biomass change (%) between 1970 and 2100 by species groupings: (a) Marine mammals, seabirds, marine turtles and elasmobranches, (b) Pelagic, bathypelagic and benthopelagic fish, (c) Demersal, bathydemersal, flatfish and reef fish, and (d) Invertebrates.

	GFDL2.6		GFDL8.5		IPSL2.6		IPSL8.5	
Groups	**woF**	**wF**	**woF**	**wF**	**woF**	**wF**	**woF**	**wF**
Marine mammals, birds and turtles								
Baleen whales	-13.2	-41.9	-36.4	-39.1	-30.2	-6.7	-10.7	-42.4
Toothed whales	-7.6	-5.4	-7.3	-10.3	9.5	-3.2	2.6	-16.8
Dolphins & porpoises	2.8	-11.6	-11.6	-20.2	-12.5	-19.1	-13.8	-45.9
Pinnipeds	-15.6	-31.1	-43.0	-48.1	-41.5	-54.2	-38.6	-52.8
Marine turtles	5.7	0.6	-0.9	-2.6	-14.1	-24.0	-18.5	-28.3
Birds	-21.7	-28.6	-29.9	-37.2	-44.2	-56.8	-41.7	-59.0
Elasmobranchs								
Sharks large	-2.3	-61.7	-12.8	-60.7	-17.1	-74.7	-14.9	-79.4
Sharks S&M	9.3	6.4	6.5	6.0	9.7	12.1	-23.7	-4.0
Rays large	-15.8	-44.5	-23.3	-49.6	-37.5	-71.3	-36.6	-70.8
Rays S&M	21.9	-9.2	55.1	15.4	-28.4	-48.8	-22.6	-35.9
Fin fish								
Pelagics large fish	-7.1	-74.1	-14.5	-75.3	-42.3	-87.2	-38.0	-89.2
Pelagics med. fish	61.7	-10.7	18.7	-7.2	-0.8	-14.5	67.7	-17.8
Pelagics small fish	7.3	-28.5	-13.4	-27.2	-26.8	-35.4	-7.3	-39.3
Bathypel. large fish	-4.2	-51.4	-49.8	-50.8	-47.7	-12.2	-29.0	-60.0
Bathypel. med. fish	56.1	47.1	56.0	56.4	24.7	41.2	21.0	10.9
Bathypel. small fish	23.6	24.8	33.1	33.3	0.7	14.4	-36.9	-41.2
Benthopel. large fish	-25.2	-64.4	-32.4	-63.0	-29.7	-69.5	-24.3	-72.1
Benthopel. med. fish	14.1	-12.7	-7.0	-9.1	-13.9	-3.1	10.0	-14.9
Benthopel. small fish	37.7	38.5	31.2	33.1	25.9	34.4	-2.7	10.3
Dem. large fish	21.5	-42.1	30.8	-31.1	-27.3	-74.3	-22.6	-67.5
Dem. med. fish	81.4	44.6	54.4	27.3	-15.3	-41.6	-15.8	-27.9
Dem. small fish	22.6	2.5	0.3	-15.8	-30.9	-44.6	-21.9	-29.0
Bathydem. large fish	100.0	83.3	83.8	83.7	69.0	69.5	54.4	45.3
Bathydem. med. fish	17.0	15.8	5.8	6.5	-10.1	-7.4	-30.1	-18.5
Bathydem. small fish	39.2	36.1	32.9	34.9	2.3	9.5	-14.3	-6.9
Flatfish large	7.6	-8.4	35.3	15.1	-3.4	-42.6	-7.0	-17.7
Flatfish S&M	36.4	18.7	61.3	41.6	-53.2	-74.5	-34.2	-45.1
Reeffish large	-33.9	-60.8	-27.3	-59.1	-65.7	-89.9	-55.7	-88.1
Reeffish med.	16.1	-13.1	37.8	7.3	-73.4	-85.3	-53.7	-73.5
Reeffish small	15.2	20.1	26.7	27.2	-53.6	-40.8	-22.5	-23.6
Invertebrates								
Cephalopods	2.8	4.0	9.6	9.5	-2.6	7.8	-19.8	-0.7
Molluscs	-1.4	-34.7	9.1	-22.5	-14.7	-46.6	-19.2	-28.3
Other molluscs	3.9	3.6	4.2	4.4	-9.2	-7.3	5.4	0.8
Shrimps	6.0	-7.7	27.5	12.0	-35.2	-45.6	-37.4	-25.9

Lobsters & crabs	19.4	16.6	60.4	58.0	-53.0	-56.1	-37.3	-22.0
Other crustaceans	-3.5	-4.1	-3.3	-3.3	8.9	9.2	-1.9	0.8
Macrobenthos	-1.2	-0.7	-1.9	-2.1	-28.0	-32.7	-21.8	-14.0
Megabenthos	5.2	7.9	8.4	9.2	40.8	57.0	46.9	11.9
Meiobenthos	0.5	0.1	-0.6	-0.5	-25.2	-23.2	-17.0	-12.2
Corals	2.0	2.6	-24.8	-24.7	-77.1	-80.1	-69.1	-72.3
Softcorals & sponges	-36.7	-15.1	-36.9	-36.9	-41.2	-52.3	-55.9	-54.4

woF: without fishing; wF: with fishing.

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