

Supplementary material

Assessment of fish vulnerability to climate change in the Yellow Sea and Bohai Sea

*Yunlong Chen^{A,B}, Xiujuan Shan^{A,B,E}, Ning Wang^C, Xianshi Jin^{A,B}, Lisha Guan^{A,B}, Harry Gorfine^D,
Tao Yang^{A,B} and Fangqun Dai^{A,B}*

^AYellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences,
Qingdao, 266071, PR China.

^BFunction Laboratory for Marine Fisheries Science and Food Production Processes,
Pilot National Laboratory for Marine Science and Technology (Qingdao),
Qingdao, 266100, PR China.

^CGlobal Ocean Fleet, Pilot National Laboratory for Marine Science and Technology (Qingdao),
Qingdao, 266100, PR China.

^DSchool of Biosciences, The University of Melbourne, Parkville, Vic. 3010, Australia.

^ECorresponding author. Email: shanxj@ysfri.ac.cn

Table S1. Fish species among the top 95% cumulative percentage of the total catch (kg h⁻¹) in the Bohai Sea and the Yellow Sea

Percentages of crustaceans and cephalopods were not listed in the table

Species	Scientific name	Weight percentage in total catch (%)	Cumulative percentage in total catch (%)	Cumulative percentage in total fish (%)
Tanaka's snailfish	<i>Liparis tanakae</i>	14.51	14.51	20.75
Small yellow croaker	<i>Larimichthys polyactis</i>	12.19	26.70	38.16
Japanese anchovy	<i>Engraulis japonicus</i>	10.77	37.47	53.56
Anglerfish	<i>Lophius litulon</i>	6.00	43.47	62.14
Largehead hairtail	<i>Trichiurus lepturus</i>	4.03	47.50	67.90
Pacific cod	<i>Gadus macrocephalus</i>	4.01	51.51	73.63
Bombay duck	<i>Harpadon nehereus</i>	2.09	53.60	76.61
Bluefin gurnard	<i>Chelidonichthys kumu</i>	1.17	54.77	78.29
Pacific rudderfish	<i>Psenopsis anomala</i>	1.07	55.85	79.82
Miiuy croaker	<i>Miichthys miiuy</i>	1.05	56.90	81.32
Silver pomfret	<i>Pampus argenteus</i>	0.95	57.85	82.69
Japanese jack mackerel	<i>Trachurus japonicus</i>	0.89	58.74	83.96
Scaly hairfin anchovy	<i>Setipinna taty</i>	0.86	59.61	85.19
Plaice	<i>Cleisthenes herzensteini</i>	0.74	60.35	86.26
Blackgill croaker	<i>Collichthys niveatus</i>	0.72	61.07	87.29
Spotted velvetfish	<i>Erisphex pottii</i>	0.65	61.73	88.23
Pinkgray goby	<i>Amblychaeturichthys hexanema</i>	0.52	62.25	88.97
Branded goby	<i>Chaeturichthys stigmatias</i>	0.49	62.74	89.67
Glowbelly	<i>Acropoma japonicum</i>	0.47	63.21	90.35
Eelpout	<i>Zoarces elongatus</i>	0.41	63.62	90.94
Whitespotted conger	<i>Conger myriaster</i>	0.41	64.03	91.52
Japanese scad	<i>Decapterus maruadsi</i>	0.39	64.42	92.08
Indian perch	<i>Jaydia lineata</i>	0.38	64.80	92.62

Species	Scientific name	Weight percentage in total catch (%)	Cumulative percentage in total catch (%)	Cumulative percentage in total fish (%)
Osbeck's grenadier anchovy	<i>Coilia mystus</i>	0.32	65.12	93.07
Smallhead hairtail	<i>Eupleurogrammus muticus</i>	0.29	65.41	93.49
Spearnose grenadier	<i>Coelorinchus multispinulosus</i>	0.26	65.67	93.86
Japanese Spanish mackerel	<i>Scomberomorus niphonius</i>	0.25	65.92	94.22
Daggertooth pike conger	<i>Muraenesox cinereus</i>	0.25	66.18	94.58
Armoured cusk	<i>Hoplobrotula armata</i>	0.25	66.42	94.93
Sea raven	<i>Hemitripterus villosus</i>	0.19	66.61	95.21
Chub mackerel	<i>Scomber japonicus</i>	0.18	66.80	95.47