

Effects of Climate Change on the Habitat Suitability and Distribution of Endemic Freshwater Fish Species in Semi-arid Central Anatolian Ecoregion in Türkiye

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Supplementary Materials

Figure S1. Current and future distribution of *Anatolichthys anatoliae*, *Anatolichthys iconii*, *Capoeta pestai* and *Chondrostoma beysehirense* in the CAE. Colours show habitat suitability and the value of suitability increases in red areas.

Figure S2. Current and future distribution of *Oxyinoemacheilus nasreddini*, *Pseudophoxinus anatolicus*, *Pseudophoxinus crassus*, and *Squalius recurvirostris* in the CAE. Colours show habitat suitability and the value of suitability increases in red areas.

Table S1. Endemic fish fauna of the Central Anatolian Ecoregion and their IUCN conservation status.

Table S2. The environmental predictors used in the SDM with their variance inflation factors (VIF) after the exclusion of collinear variables

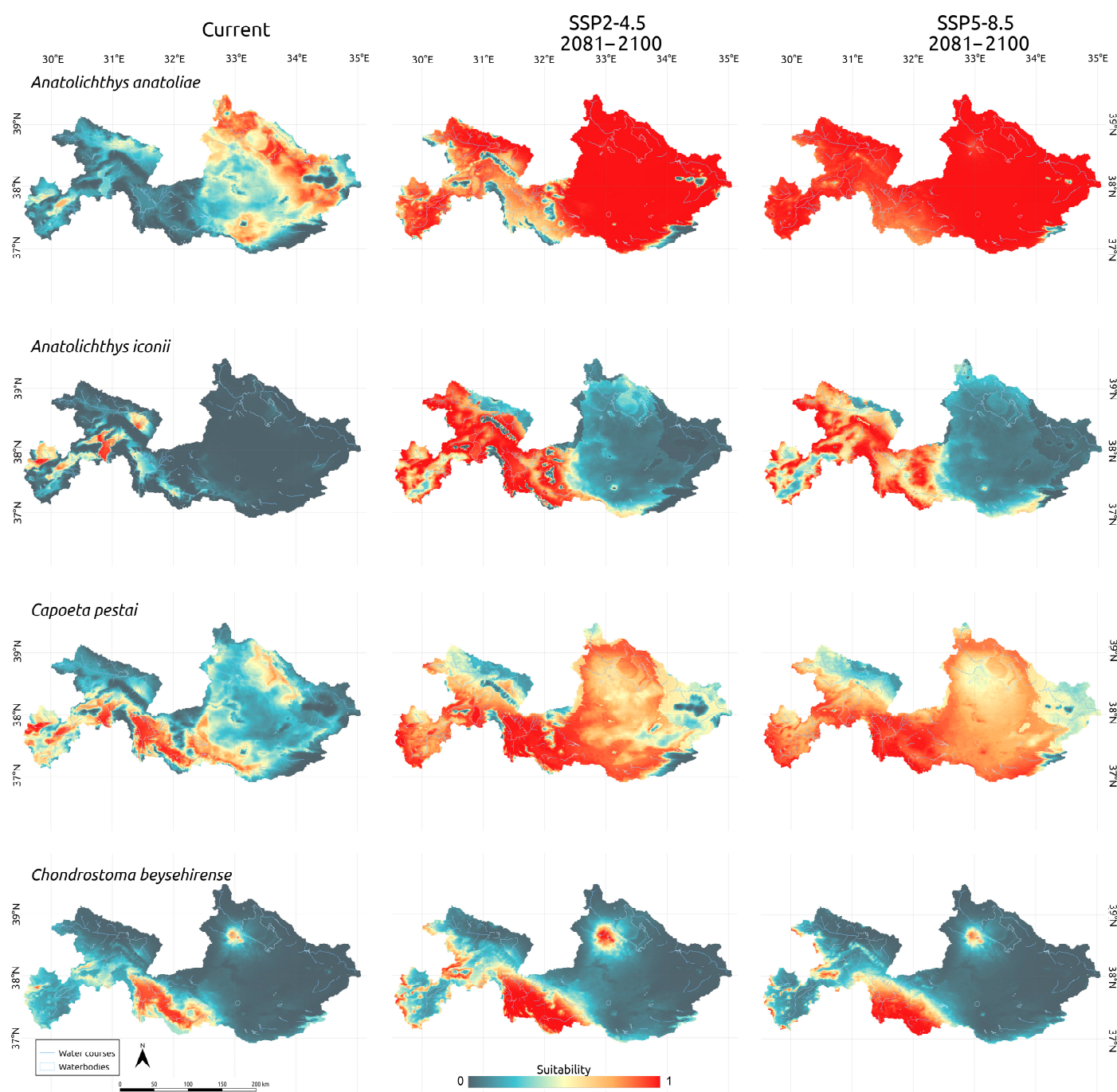


Figure S1. Current and future distribution of *Anatolichthys anatoliae*, *Anatolichthys iconii*, *Capoeta pestai* and *Chondrostoma beysehirense* in the CAE. Colours show habitat suitability and the value of suitability increases in red areas.

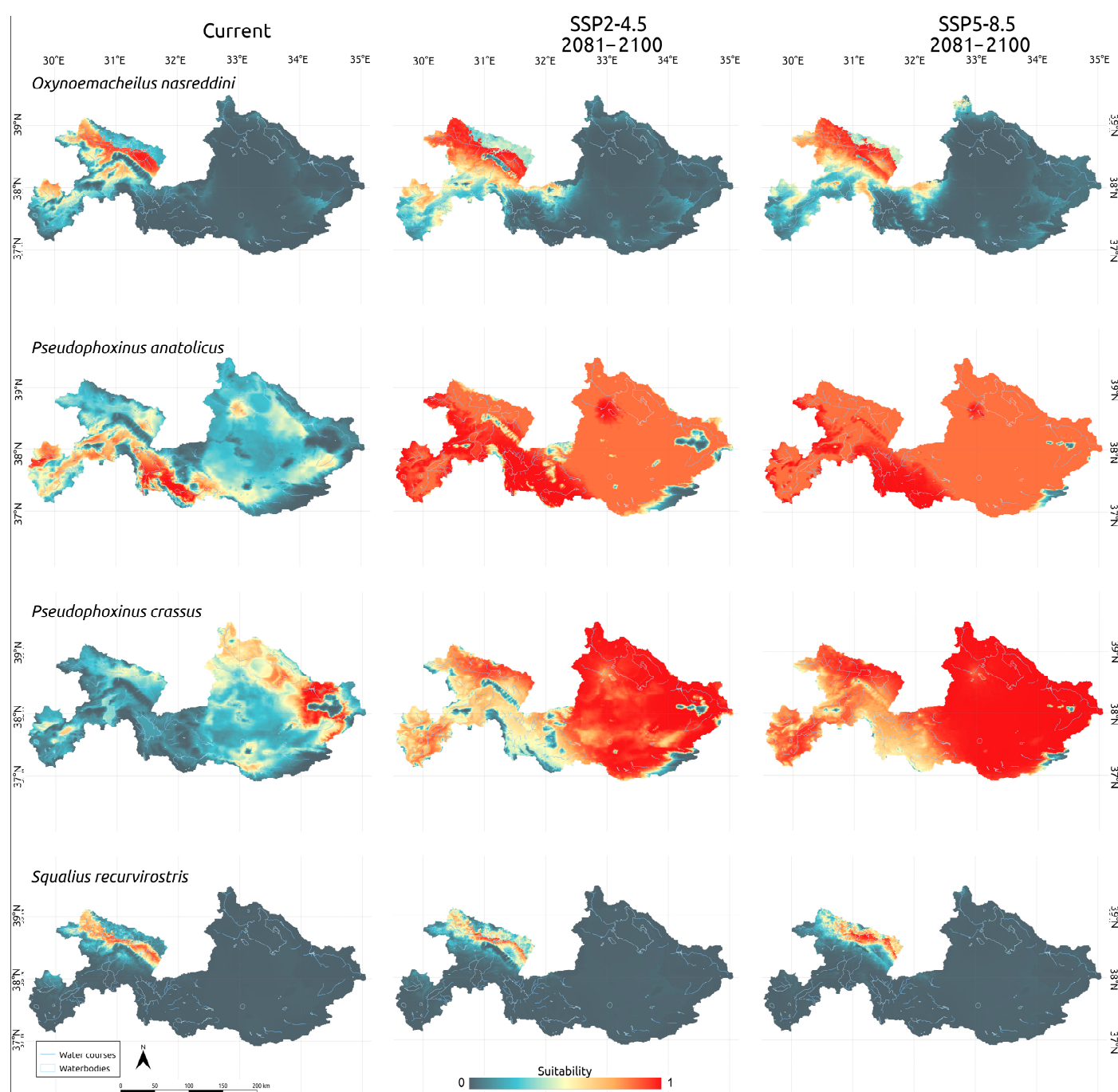


Figure S2. Current and future distribution of *Oxynoemacheilus nasreddini*, *Pseudophoxinus anatolicus*, *Pseudophoxinus crassus*, and *Squalius recurvirostris* in the CAE. Colours show habitat suitability and the value of suitability increases in red areas.

Table S1. Endemic fish fauna of the Central Anatolian Ecoregion [28,29,32,37,41,44,46–53,85–91,104–111], and their IUCN conservation status [80].

Species	Basin	Conservation Status
<i>Alburnus akili</i> Battalgil 1942	KCB	EX
<i>Alburnus escherichii</i> Steindachner 1897	ARB	LC
<i>Anatolichthys anatoliae</i> (Leidenfrost 1912)	KCB	NT
<i>Anatolichthys fontinalis</i> (Akşiray 1948)	BB	NE
<i>Anatolichthys iconii</i> (Akşiray 1948)	KCB	NE
<i>Anatolichthys meridionalis</i> (Akşiray 1948)	BB	NE
<i>Anatolichthys saldae</i> (Akşiray 1955)	BB	NE
<i>Anatolichthys sureyanus</i> (Neu 1937)	BB	EN
<i>Anatolichthys transgrediens</i> (Ermin 1946)	BB	CR
<i>Capoeta pestai</i> (Pietschmann 1933)	KCB	EN
<i>Chondrostoma beysehirense</i> Bogutskaya 1997	KCB	EN
<i>Cobitis battalgilae</i> Băcescu 1962	KCB	EN
<i>Cobitis bilseli</i> Battalgil 1942	KCB	EN
<i>Cobitis phrygica</i> Battalgil 1944	BB	EN
<i>Egirdira nigra</i> (Kosswig & Geldiay 1952)	EB	EN
<i>Garra kemali</i> (Hankó 1925)	KCB	EN
<i>Gobio gymnotethus</i> Ladiges 1960	KCB	CR
<i>Gobio hettitorum</i> Ladiges 1960	KCB	CR
<i>Gobio insuayanus</i> Ladiges 1960	KCB	CR
<i>Gobio intermedius</i> Battalgil 1944	ARB	EN
<i>Gobio microlepidotus</i> Battalgil 1942	KCB	VU
<i>Oxynoemacheilus anatolicus</i> Erk'akan, Özeren & Nalbant 2008	BB	EN
<i>Oxynoemacheilus eregliensis</i> (Bănărescu & Nalbant 1978)	KCB	VU
<i>Oxynoemacheilus nasreddini</i> Yoğurtçuoğlu, Kaya & Freyhof 2021	ARB	NE
<i>Paraphanius similis</i> (Akşiray 1948)	KCB	NE
<i>Pseudophoxinus anatolicus</i> (Hankó 1925)	KCB	EN
<i>Pseudophoxinus battalgilae</i> Bogutskaya 1997	KCB	LC
<i>Pseudophoxinus burduricus</i> Küçük, Gülle, Güçlü, Çiftçi & Erdoğan 2013	BB	EN
<i>Pseudophoxinus caralis</i> (Battalgil 1942)	KCB	NE
<i>Pseudophoxinus crassus</i> (Ladiges 1960)	KCB	EN
<i>Pseudophoxinus handlirschi</i> (Pietschmann 1933)	EB	EX
<i>Pseudophoxinus hittitorum</i> Freyhof & Özuluğ 2010	KCB	EN
<i>Pseudophoxinus iconii</i> Küçük, Gülle & Güçlü 2016	KCB	NE
<i>Pseudophoxinus mehmeti</i> Ekmekçi, Atalay, Yoğurtçuoğlu, Turan & Küçük 2015	BB	NE
<i>Pseudophoxinus ninae</i> Freyhof & Özuluğ 2006	BB	CR
<i>Seminemacheilus dursunavsari</i> Çiçek, 2020	KCB	NE
<i>Seminemacheilus ekmekciae</i> Yoğurtçuoğlu, Kaya, Geiger & Freyhof 2020	KCB	NE
<i>Seminemacheilus ispartensis</i> Erk'akan, Nalbant & Özeren 2007	EB	VU
<i>Seminemacheilus lendlii</i> (Hankó, 1925)	KCB	VU
<i>Squalius anatolicus</i> (Bogutskaya, 1997)	KCB	LC
<i>Squalius cappadocicus</i> Özuluğ & Freyhof 2011	KCB	CR
<i>Squalius recurvirostris</i> Özuluğ & Freyhof 2011	ARB	VU
<i>Turcichondrostoma fahirae</i> (Ladiges 1960)	BB	EN

ARB: Akarçay River Basin; BB: Burdur Basin; EB: Eğirdir Basin; KCB: Konya Closed Basin; CR, critically endangered; EN, endangered; EX: Extinct; VU, vulnerable; NT, near threatened; LC, least concern; NE, not evaluated based on the IUCN Red List.

Table S2. The environmental predictors used in the SDM with their variance inflation factors (VIF) after the exclusion of collinear variables

Variables	VIF
Bio_1	1.40
Bio_3	1.61
Bio_4	1.51
Bio_8	1.75
Bio_12	2.06
Bio_15	1.52