

## **Supplementary material**

### **Testing otolith morphology for measuring marine fish biodiversity**

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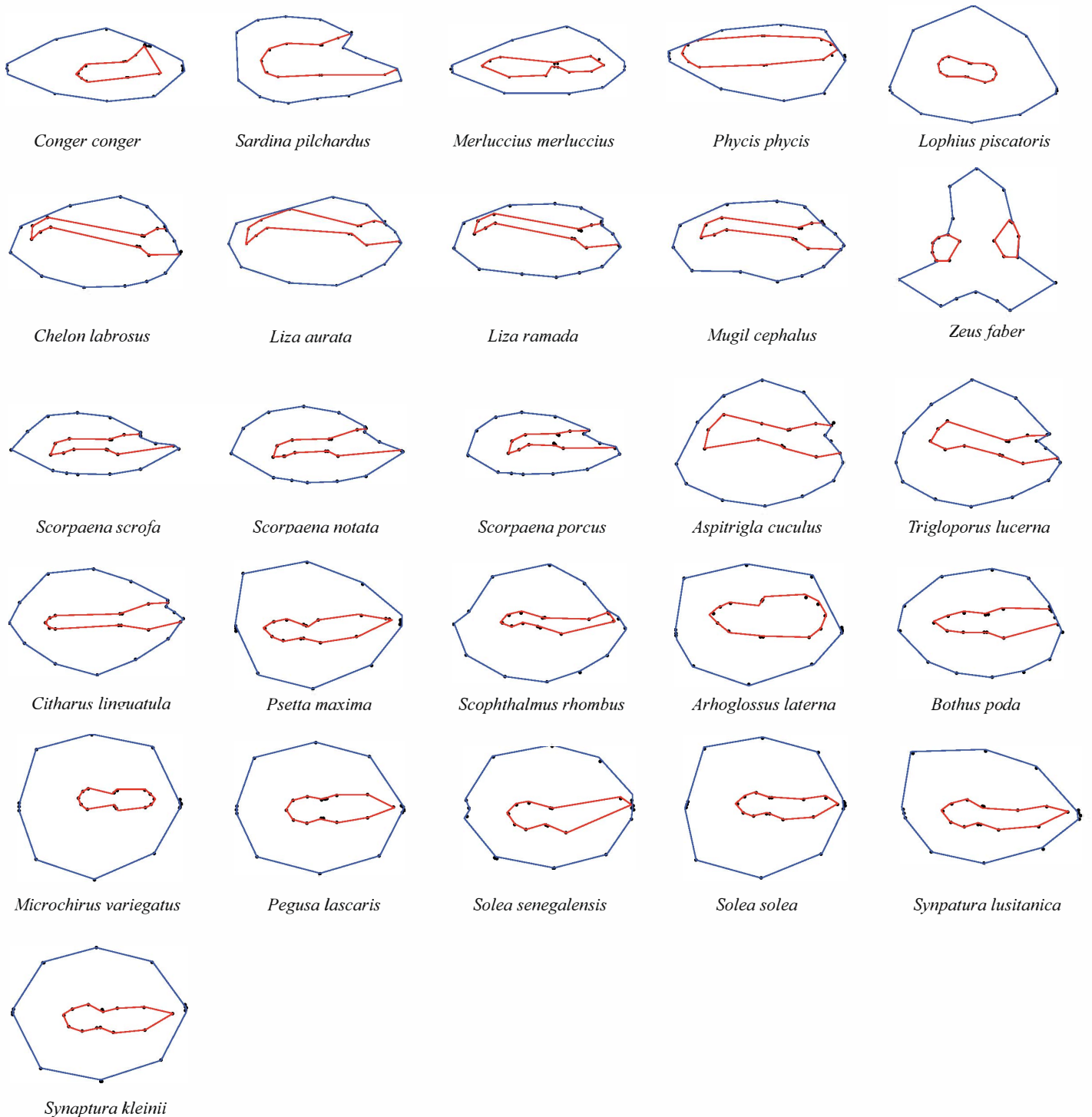
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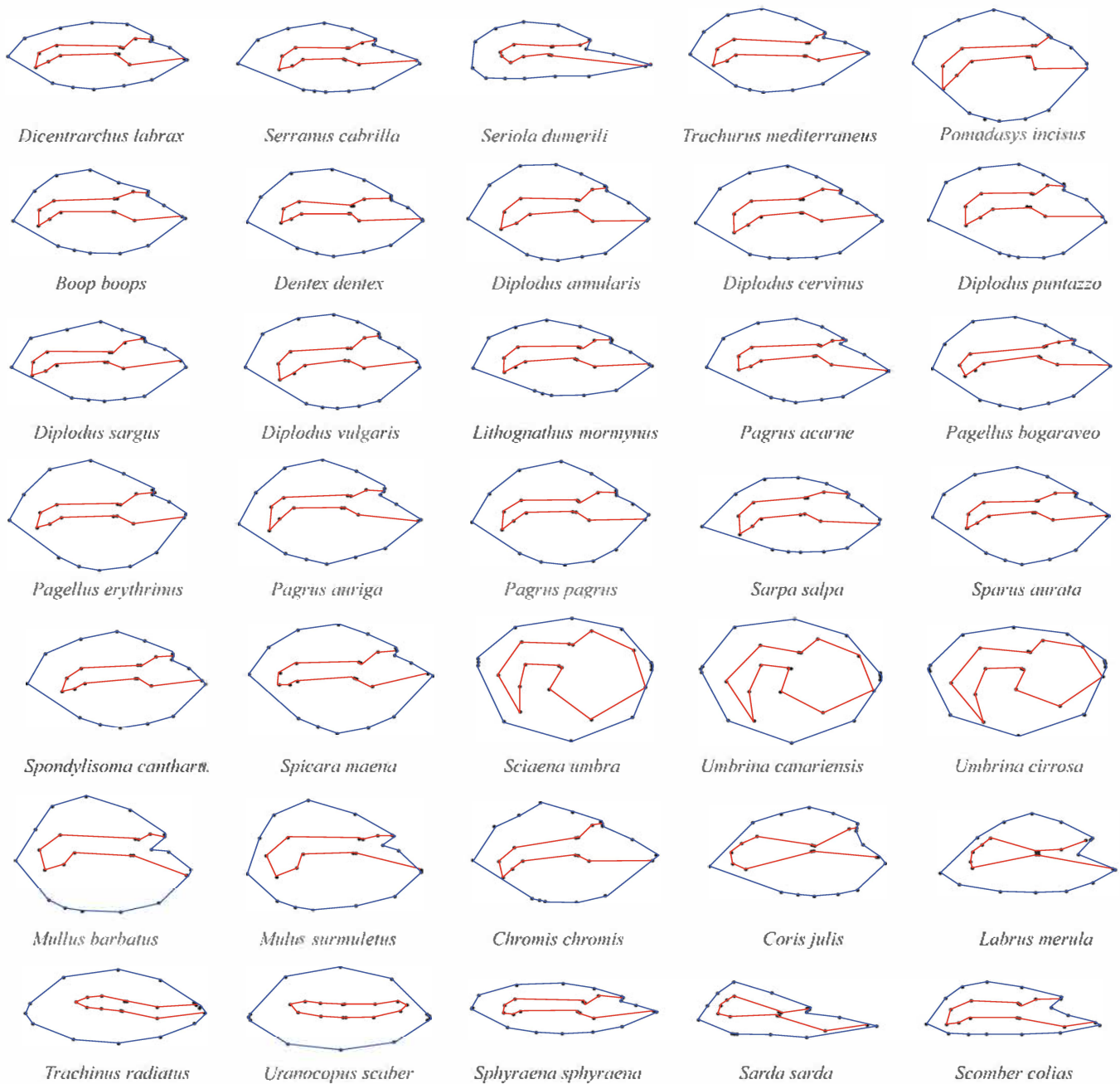
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**Fig. S1.** Consensus figures for species of Order Aguilliformes, Clupeiformes, Gadiformes, Lophiiformes, Zeiformes, Muguilliformes, Scorpaeniformes and Pleuronectiformes.



**Fig. S2.** Consensus figures for species of Order Perciformes.

**Table S1. Checklist of fishes and number of sagittae otoliths (*n*) used for the geometric morphological analysis**

A, Sandy-rocky 20 m; B, sandy 20 m; C, artificial reef-sandy 15–19 m

Order	Family	Species	Abbreviation	<i>n</i>	Assemblage
Anguilliformes	Congridae	<i>Conger conger</i>	Ccon	6	C
Clupeiformes	Clupeidae	<i>Sardina pilchardus</i>	Spil	9	A
Gadiformes	Merlucciidae	<i>Merluccius merluccius</i>	Mmer	12	B, C
	Phycidae	<i>Phycis phycis</i>	Pphy	11	C
Lophiiformes	Lophiidae	<i>Lophius piscatorius</i>	Lpis	9	B, C
Mugiliformes	Mugilidae	<i>Chelon labrosus</i>	Clab	10	C
		<i>Liza aurata</i>	Laur	12	C
		<i>Liza ramada</i>	Lram	8	C
		<i>Mugil cephalus</i>	Mcep	8	C
Perciformes	Carangidae	<i>Seriola dumerili</i>	Sdum	5	A, B, C
		<i>Trachurus mediterraneus</i>	Tmed	8	A, B
	Centracanthidae	<i>Spicara maena</i>	Smae	5	A
	Haemulidae	<i>Pomadasys incisus</i>	Pinc	10	C
	Labridae	<i>Coris julis</i>	Cjus	7	C
		<i>Labrus merula</i>	Lmer	7	C
	Moronidae	<i>Dicentrarchus labrax</i>	Dlab	7	A, B, C
	Mullidae	<i>Mullus barbatus</i>	Mbar	9	A, C
		<i>Mullus surmuletus</i>	Msur	6	A, B, C
	Pomacentridae	<i>Chromis chromis</i>	Ccrh	5	C
	Sciaenidae	<i>Sciaena umbra</i>	Sumn	7	B, C
		<i>Umbrina canariensis</i>	Ucan	4	B, C
		<i>Umbrina cirrosa</i>	Ucir	6	C
	Scombridae	<i>Sarda sarda</i>	Ssar	7	B
		<i>Scomber scombrus</i>	Scom	7	A
	Serranidae	<i>Serranus cabrilla</i>	Scab	6	C
	Sparidae	<i>Boops boops</i>	Bbop	8	A, C
		<i>Dentex dentex</i>	Dden	9	B, C
		<i>Diplodus annularis</i>	Dann	9	C
		<i>Diplodus cervinus</i>	Dcer	5	C
<i>Diplodus puntazzo</i>		Dpun	5	B	
	<i>Diplodus sargus</i>	Dsar	12	B, C	