

Effects of fishing and climate variability on spatio-temporal dynamics of demersal chondrichthyans in the Río de la Plata, SW Atlantic

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Supplement. Additional information about the research cruises carried out in the AUCFZ by year and season; the chondrichthyan total catch by the Uruguayan fleet in the AUCFZ; the locations of geographic degree cells; the number of hauls carried out by the research vessels per degree cell; and the spatial distribution of the surface isotherms per season

Table S1. Years and seasons in which research cruises were conducted (ICS = inner continental shelf, OCS = outer continental shelf, N = North, S = South)

Year/Season	Autumn	Winter	Spring	Summer
1984	OCS	OCS	ICS / OCS	OCS
1985	OCS	ICS	OCS	ICS
1986				ICS
1987		ICS	OCS	
1988	OCS	OCS		ICS / OCS
1989		OCS		
1990				
1991	ICS	ICS	ICS	
1992			ICS	
1993			ICS	
1994	OCS	OCS	ICS	
1995	OCS	OCS	ICS	ICS
1996			OCS (N)	OCS (N)
1997			OCS (N)	OCS
1998				OCS
1999	OCS			
2000	OCS		OCS	
2001	ICS		ICS / OCS	OCS
2002			ICS	
2003			OCS(S)	
2004				
2005		ICS / OCS	OCS (N)	
2006	ICS / OCS	OCS(N)	ICS / OCS(N)	
2007	OCS		ICS / OCS(N)	ICS / OCS
2008	OCS		ICS / OCS(N)	
2009	ICS		OCS	OCS

Table S2. Total annual catches (t) of the 3 target species (*Merluccius hubbsi*, *Micropogias furnieri* and *Cynoscion guatucupa*) and of chondrichthyans (expressed as the percentage of the total catch of the target species) by the Uruguayan commercial fleet in the Argentine–Uruguayan Common Fishing Zone (AUCFZ) between 1996 and 2009 (data obtained from Comisión Técnico Mixta del Frente Marítimo; <http://ctfm.org>)

Year	Target species	Chondrichthyan species
1996	94990	4518 (5)
1997	88419	6336 (7)
1998	85842	2981 (3)
1999	54858	5165 (9)
2000	64675	3190 (5)
2001	64568	3193 (5)
2002	66580	4301 (6)
2003	69535	6085 (8)
2004	76934	4908 (6)
2005	72107	4057 (5)
2006	59368	2962 (5)
2007	49946	2979 (6)
2008	62565	2119 (3)
2009	53208	1817 (3)

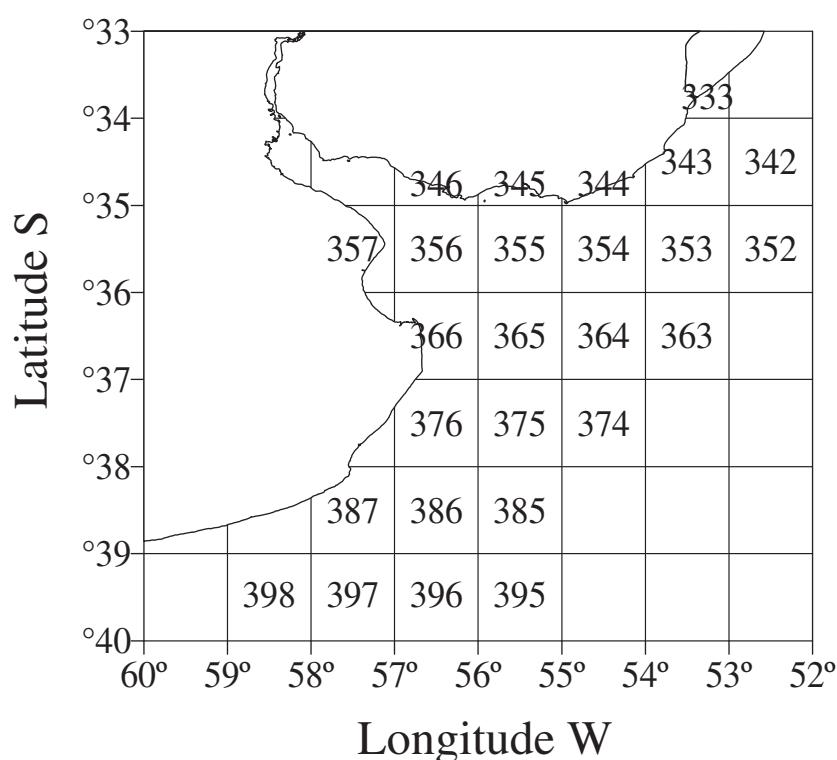


Fig. S1. Spatial location of geographic degree cells in the Argentinean–Uruguayan Common Fishing Zone

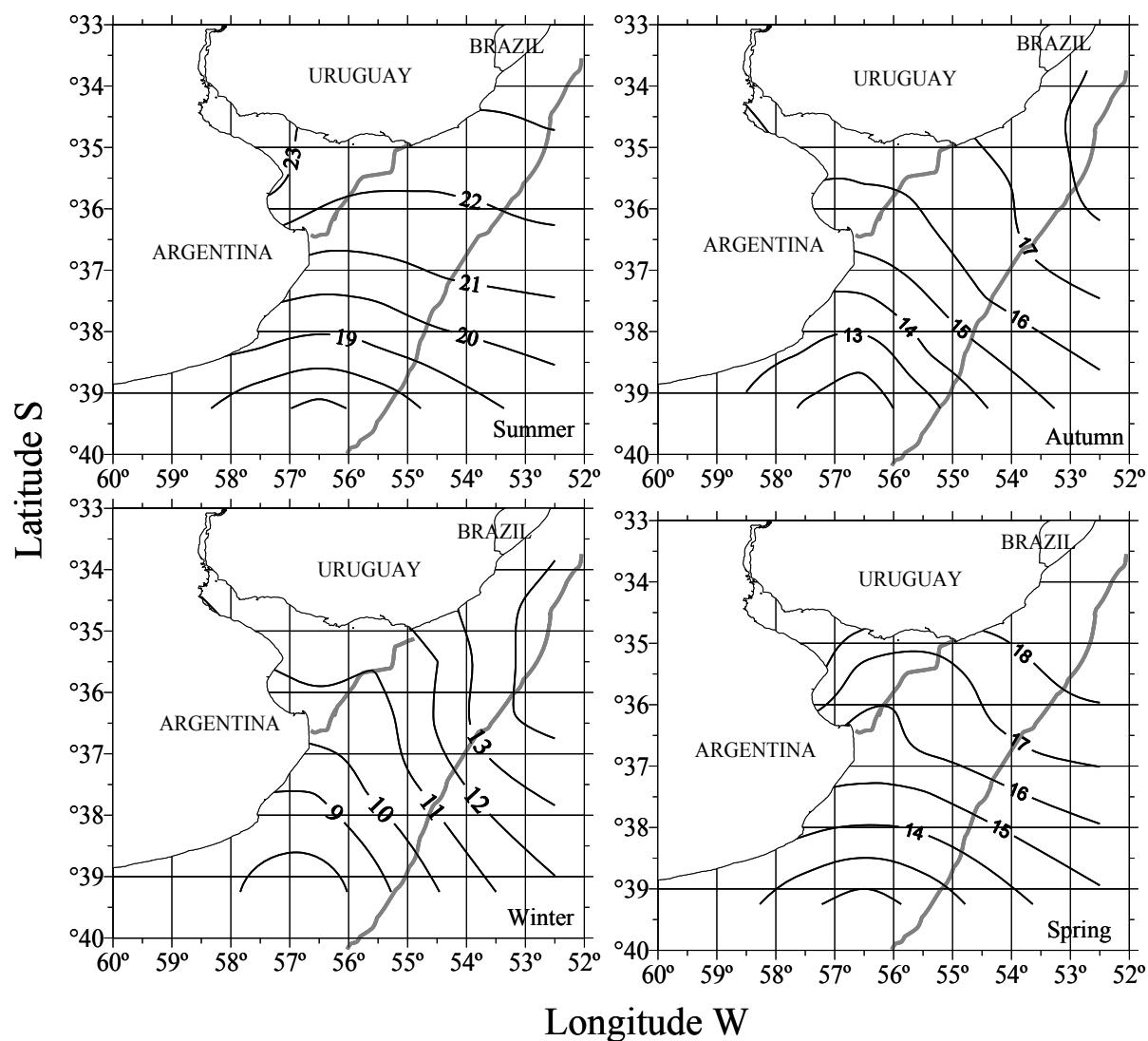


Fig. S2. Average surface isotherms by season in the study area. Gray lines indicate the locations of the marine fronts (taken from Acha et al. 2004)

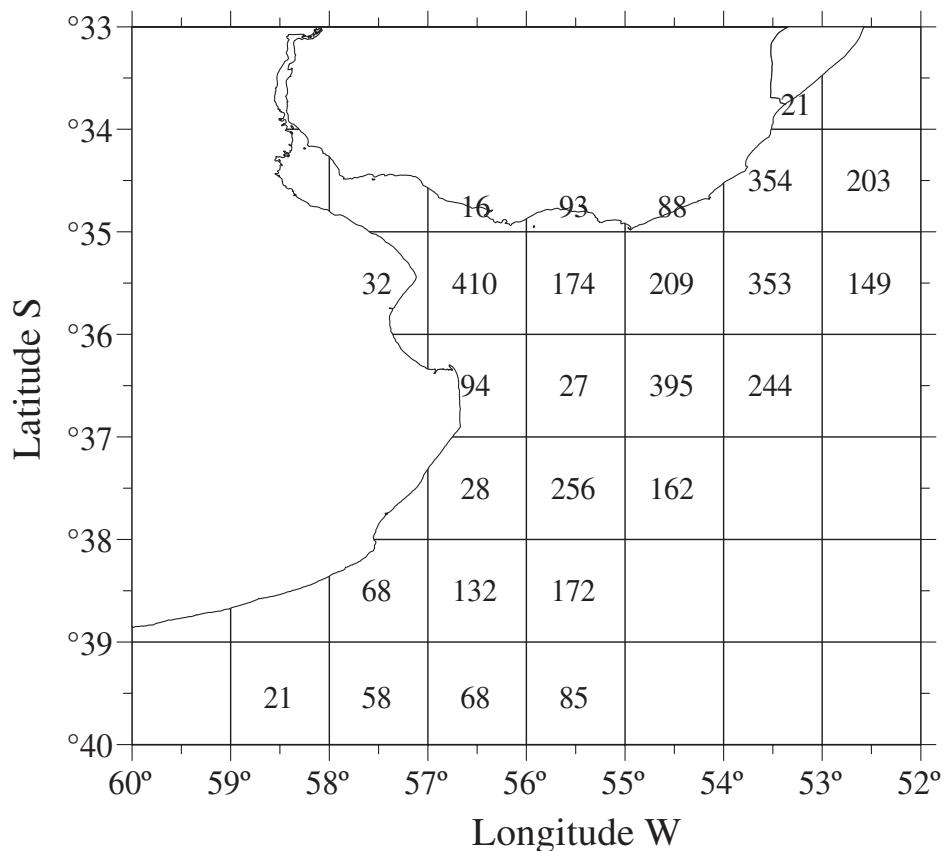


Fig. S3. Total hauls by geographic degree cells carried out by research vessel in the Argentinean–Uruguayan Common Fishing Zone for the study period