Supplement material to:

Tracking Marine Heatwaves in the Balearic Sea: Temperature Trends and the Role of Detection Methods

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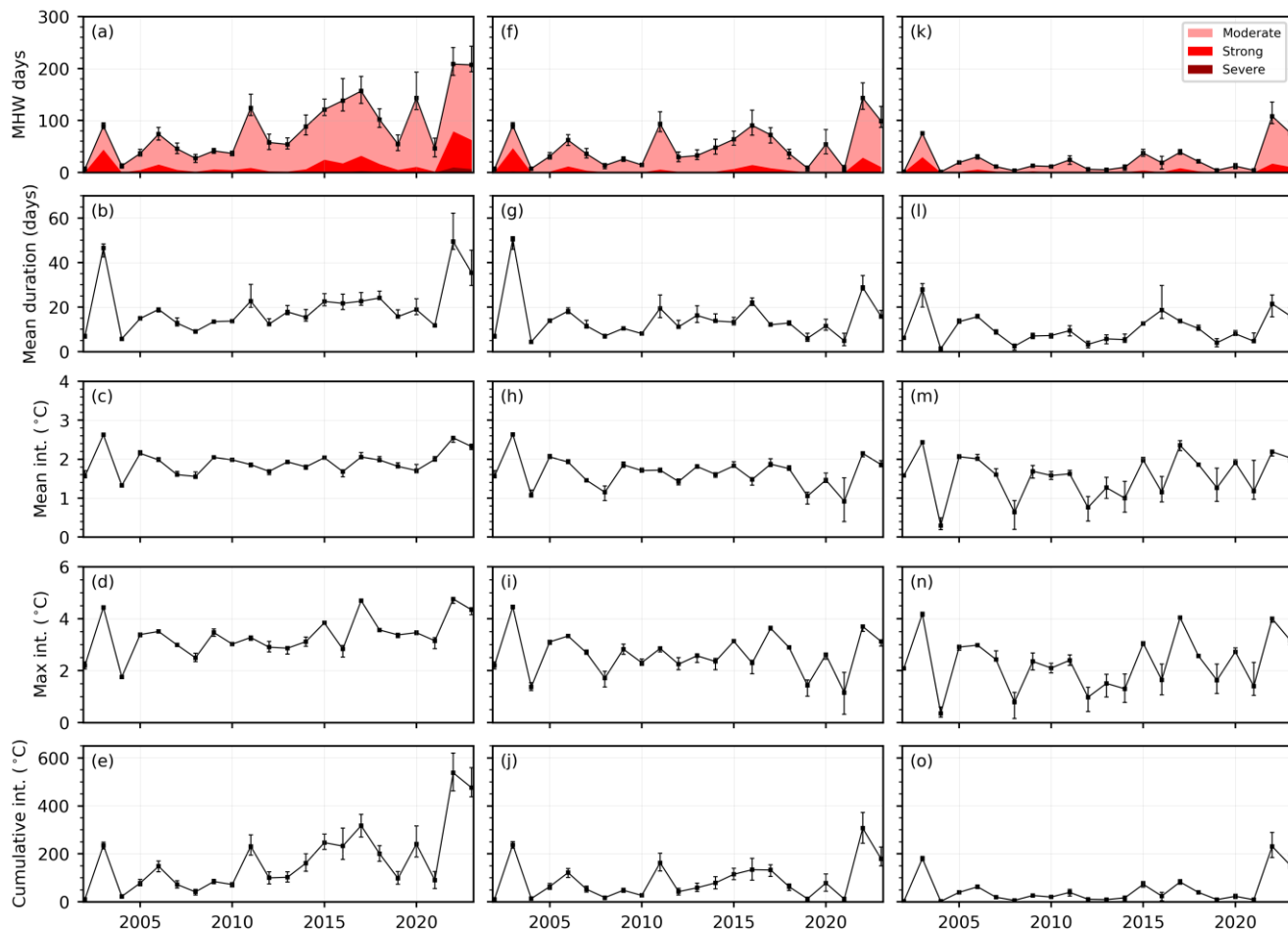
Figure S1: Spatially averaged metrics of MHWs detected in the Balearic Sea from 2002 to 2023 using (a-e) a fixed baseline, (f-j) a moving baseline and (k-o) detrended data. (a, f, k) Annual number of MHW days. The colours indicate the category of the MHW, with darker colours representing more intense MHWs. (b, g, l) Annual mean duration of the MHW events. (c, h, m) Annually averaged mean intensity of MHW events. (d, i, n) Annually averaged maximum intensity of MHW events. (e, j, o) Annually averaged cumulative intensity of MHW events.

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Table S1. Spatially averaged MHW days and annually averaged mean duration of MHWs detected in the Balearic Sea between 2002 and 2023 using a fixed baseline, moving baseline and detrended data.

Year	MHW days				Mean duration (days)		
	Fixed	Moving	Detrended		Fixed	Moving	Detrended
2002	6.79	6.79	1.47		6.78	6.78	6.12
2003	89.673	90.34	75.37		46.57	50.47	27.88
2004	12.73	7.42	1.09		5.75	4.35	1.24
2005	36.63	31.03	19.19		14.86	13.83	13.44
2006	73.86	62.04	30.47		18.95	18.20	15.72
2007	45.46	35.88	11.20		12.81	11.53	8.59
2008	27.38	13.47	3.39		9.04	7.01	2.42
2009	41.55	25.64	12.83		13.48	10.42	6.99
2010	36.71	14.53	11.49		13.70	8.06	7.21
2011	124.28	93.55	24.25		22.68	19.42	9.40
2012	57.61	29.39	6.11		12.34	11.11	3.25
2013	54.08	32.52	5.13		17.83	16.27	5.75
2014	88.16	47.80	10.09		15.42	13.76	5.39
2015	121.12	63.72	37.45		22.55	13.28	12.65
2016	138.29	90.60	18.76		21.70	22.06	18.65
2017	156.65	72.29	39.01		22.65	12.06	13.64
2018	101.84	36.43	21.10		24.10	12.85	10.36
2019	54.38	8.55	4.07		15.71	5.99	3.97
2020	143.17	54.22	12.14		18.87	11.54	7.98
2021	46.17	7.91	4.24		11.75	4.84	4.7
2022	208.57	143.44	108.25		49.45	28.79	21.47
2023	207.13	98.86	75.74		35.36	15.75	15.92

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Table S2. Spatially averaged annual mean, maximum and cumulative intensity of MHWs detected in the Balearic Sea between 2002 and 2023 using a fixed baseline, moving baseline and detrended data.

Year	Mean intensity (°C)			Maximum intensity (°C)			Cumulative intensity (°C)		
	Fixed	Moving	Detr.	Fixed	Moving	Detr.	Fixed	Moving	Detr.
2002	1.56	1.56	1.58	2.20	2.20	2.09	10.29	10.29	2.26
2003	2.62	2.64	2.44	4.44	4.46	4.19	235.29	238.02	180.49
2004	1.33	1.08	0.29	1.75	1.37	0.36	22.46	13.26	1.79
2005	2.15	2.06	2.06	3.39	3.11	2.91	77.95	63.11	39.38
2006	1.98	1.93	2.01	3.51	3.33	2.98	148.01	121.40	62.66
2007	1.60	1.46	1.61	2.99	2.69	2.43	72.41	52.43	18.82
2008	1.56	1.15	0.64	2.50	1.71	0.79	41.36	17.42	5.78
2009	2.05	1.86	1.69	3.47	2.83	2.36	84.47	48.02	26.12
2010	1.98	1.71	1.58	3.02	2.31	2.10	71.83	26.51	19.70
2011	1.86	1.72	1.62	3.28	2.85	2.40	231.26	162.60	39.23
2012	1.69	1.43	0.76	2.90	2.25	0.98	99.71	58.40	9.10
2013	1.93	1.81	1.27	2.87	2.57	1.51	102.26	58.40	16.37
2014	1.80	1.61	1.00	3.12	2.35	1.30	161.07	78.54	16.37
2015	2.04	1.83	1.97	3.84	3.13	3.05	246.85	114.54	72.78
2016	1.68	1.48	1.16	2.83	2.29	1.64	232.43	133.70	24.01
2017	2.06	1.87	2.35	4.69	3.63	4.04	317.47	132.34	82.50
2018	1.98	1.76	1.86	3.57	2.90	2.56	200.48	63.20	39.05
2019	1.81	1.05	1.26	3.38	1.43	1.63	97.54	12.48	8.98
2020	1.71	1.47	1.91	3.46	2.62	2.73	240.86	78.11	22.65
2021	1.99	0.92	1.18	3.15	1.16	1.40	90.03	11.21	8.47
2022	2.55	2.15	2.19	4.76	3.70	4.00	537.75	306.83	231.10
2023	2.32	1.86	2.03	4.34	3.13	3.16	475.61	178.90	150.89