

**Table S1**

a)

	Riou			Palazzu	
	5 m (2004-2006)	20 m (2003-2006)	40 m (2000-2006)	20m (2004-2007)	40 m (2004-2007)
Mean T (°C)	20.3±0.6	18.3±0.4	15.7±0.3	21.0±0.6	16.4±1.2
Mean CV	17.7±0.6	16.3±2.2	12.1±2.3	9.1±2.4	7.7±0.9
Min	13.7	13.5	13.0	14.2	13.2
Max	26.5	25.4	23.6	25.9	23.0
% >20	60.7±4.7	33.9±8.6	5.6±4.1	68.1±17.1	3.1±4.4
% >24	15.6±6.7	1.0±1.5	0	3.8±5.6	0

Table S1 a) Mean temperature conditions from July 1st to September 30th: mean, coefficient of variation (CV) and percentage of time with temperature higher or equal to 20 and 24 °C at 5, 20 and 40 m depth at Riou and 20 and 40 m depth at Palazzu. Means were computed over the summer periods of 2004 to 2006 for Riou 5 m, 2003 to 2006 for Riou 20 m, 2000-2006 for Riou 40m and 2004-2007 for both depths at Palazzu. This table was constructed based on the analysis of high-resolution temperature time series published in Bensoussan *et al.* (2010).

	Riou 5 m (2006)
Mean T (°C)	20.9±3.6
Min	13.7
Max	28.6
% >20	65.7
% >24	19.8

Table S1 b) Mean and maximum temperature values and percentage of time with temperature higher or equal to 20 and 24°C at 5 m depth for the 2006 summer at Riou. The temperatures of 24 °C were proposed by Torrents *et al.* (2008) as upper thermal threshold for *Corallium rubrum*. This table was constructed based on the analysis of high-resolution temperature time series published in Bensoussan *et al.* (2010).

#### REFERENCES:

Bensoussan, N., Romano, J.C., Harmelin, J.G. and Garrabou, J. 2010. High resolution characterization of northwest Mediterranean coastal waters thermal regimes: to better understand responses of benthic communities to climate change. *Estuar. Coast. Shelf S.* 87: 431-441.

Torrents, O., Tambutté, E., Caminiti, N. and Garrabou, J. 2008. Upper thermal thresholds of shallow vs. deep populations of the precious Mediterranean red coral *Corallium rubrum* (L.): Assessing the potential effects of warming in the NW Mediterranean. *J. Exp. Mar. Biol. Ecol.* 357: 7-19.