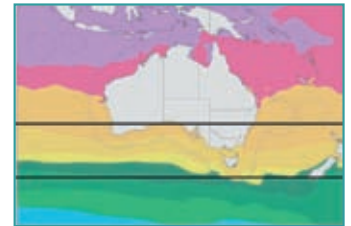


Water Mass 12

Northern Sub-Tropical Convergence

Description

Region 1b_12 between Tasmania and New Zealand is part of the Tasman Sea region; it is probably the core of the Tasman Sea. This water is formed and subducted in the Subtropical Convergence and is cooler and fresher than the water north of the Tasman Front. The north-eastward orientation of this water mass in the Tasman Sea suggests that its alignment is under the control of large-scale circulatory processes that deflect the water mass northward, under topographic steering forces, as it approaches New Zealand.



Indian Region and Central Region of 1b_12

The broad structure of this band of water mass is characterised by meanders that, by and large, appear to be influenced by the topography of southern Australia and Tasmania. A narrowing of the band as it approaches Cape Leeuwin is accompanied by increased energetics (see Level 3 map).

Likewise, as the water mass circulates around Tasmania, energetics increase to the south and east.

The Level 2 structure shows that the substructure consists of a southern band terminating in the mixed region surrounding Tasmania. Part of it continues into the Tasman Sea.

Water Mass 12	Mean	Min	Max	Std. Dev.
Temperature (°C)	13.59	10.06	19.67	1.44
Salinity	35.24	34.74	35.72	0.17
Oxygen (mm/l)	5.58	4.73	6.22	0.27
Nitrate (mg/l)	4.33	0.02	18.80	3.07
Silicate (mg/l)	2.71	0.27	14.17	1.42

Depth (m):	100
Latitude (°S):	-37.9
Longitude (°E):	127.5
Volume (km ³ /106):	1.95

...continued page 2

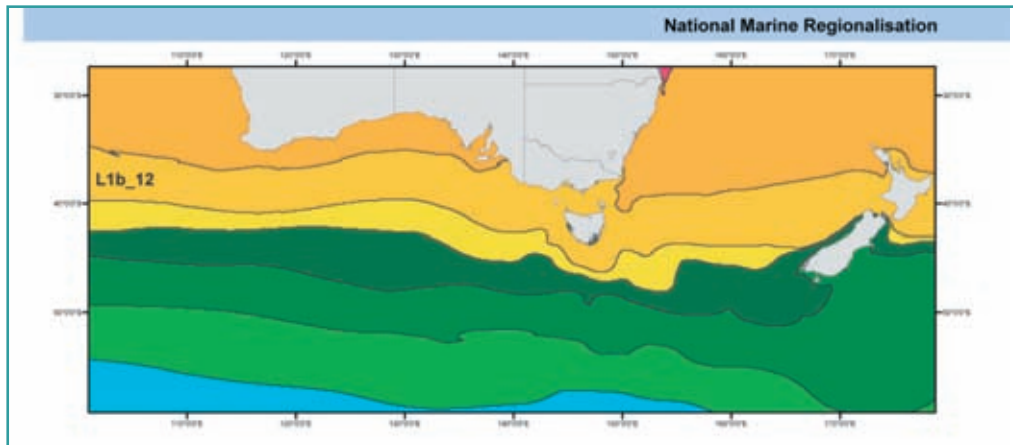
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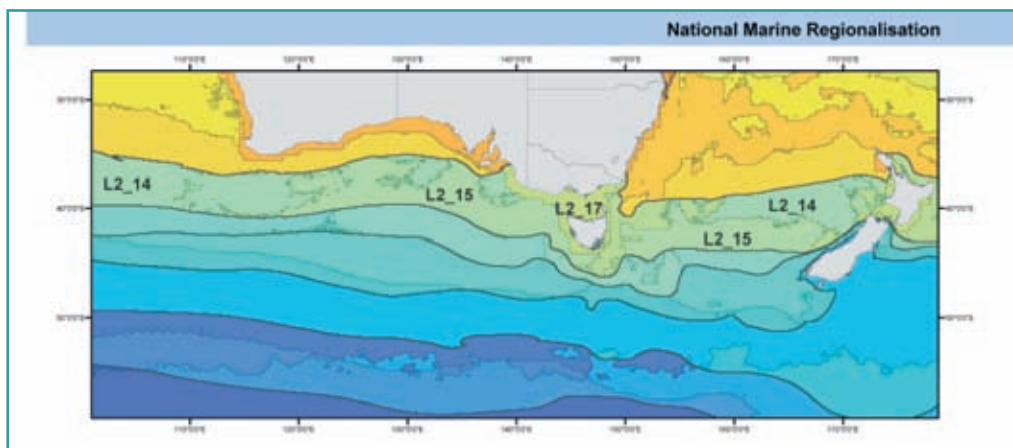


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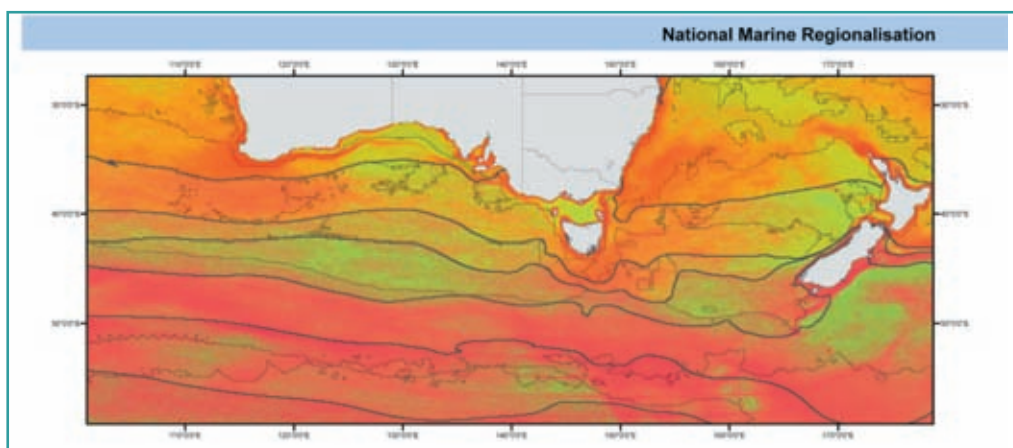




Level 1B



Level 2



Level 3

