

FISHERIES — WESTERN ROCK LOBSTERS

1614. Mr D.J. Kelly to the minister representing the Minister for Fisheries:

I refer to the *Western Rock Lobster Low Puerulus Risk Assessment* report produced following the two day workshop of 1 and 2 April 2009, held at the Western Australian Fisheries and Marine Research Laboratories Hillarys, which states that low puerulus settlement numbers during the 2006–2007 season were due to environmental factors at all settlement sites. In relation to this I ask, are these environmental factors in question an anomaly, or can they be reasonably explained by normal environmental cycles?

**Mr T.R. Buswell replied:**

The puerulus settlement in 2006/07 was the first of seven years of below-average settlement (2006/07 to 2012/13) with the settlement in 2008/09 the lowest recorded in the 40 years of monitoring. The low settlement in 2006/07 was mainly due to a weak Leeuwin Current in that year and these conditions have historically produced low settlement. However, the Leeuwin Current could not explain subsequent low settlement. Therefore, this issue has been the subject of intensive research by scientists from the Department of Fisheries in collaboration with CSIRO. Since 2008, they have been examining what factors may have negatively affected the complex 12-month spawning and larval phase that occurs prior to the settlement of puerulus.

This research has already been successful in identifying that the period of low puerulus settlements coincided with an earlier start to the spawning cycle (possibly due to warmer water temperatures) and reduced numbers of winter storms. Consistent with these environmental factors being associated with periods of low settlement, the return to more typical environmental conditions experienced during the 2012/13 spawning and larval season, for the first time in eight years the resultant pattern of puerulus settlement in the current settlement season (2013/14) has resulted in the best settlement in over ten years.

The long-term trends for climate in the lower west coast of Western Australia are that average water temperatures are likely to increase and winter storms decline. It is therefore important that the timing of the spawning cycle, the level of puerulus settlement and other environmental conditions that may influence the juvenile life stages of the western rock lobster are closely monitored.