Bulletin No. 50 April 2015

COMMERCIAL FISHERIES PRODUCTION BULLETIN

WESTERN ROCK LOBSTER FISHERY – 2014 SEASON

FISHERY SEASON TO DATE

Month	Zone A	Zone B	Zone C	TOTAL
15-31 Jan 2014	232	276	431	939
Feb 2014	211	102	284	597
Mar 2014	175	188	462	825
Apr 2014	40	149	379	568
May 2014	123	327	397	847
Jun 2014	69	83	150	302
Jul 2014	41	89	119	249
Aug 2014	64	96	115	275
Sep 2014	54	111	144	309
Oct 2014	44	36	32	112
Nov 2014	19	112	101	232
Dec 2014	16	338	219	573
1-14 Jan 2015	5	42	72	119
TOTAL (kg)	1,093	1,949	2,905	5,947

The 2014 season of the West Coast Rock Lobster Managed Fishery ended on the 14 January 2015, and the 2015 season commenced on the following day.

A preliminary estimate of month by month catch profile is provided above. Substantial changes to the monthly figures presented are not likely, based on the audits completed to date.

The 2014 season started off on a high note with very good catches in deep water. These high catches were taken generally throughout the fishery, however particularly in Zones A and B. The high catches were supported by a high beach price which of course was driven by demand from China leading up to Chinese New Year.

Following the end of the 'whites' run the fleet returned to the middle grounds where good catches were also taken, although nothing like the deep water catches. Catches in the near-shore fishery were only fair.

It is of course well known that the very good catches are the direct result of carryover stock from reduced fishing effort in previous seasons, together with yearly recruitment adding to the takeable stock. This has been further enhanced by a small fleet of 235 vessels, which results in a greater catch per vessel.

Anecdotal evidence from fishers also suggests that industry generally is enjoying the current Total Allowable Catch (TAC) system of management, which has resulted in a much more relaxed (and profitable) style of fishing, e.g. multiple day pulls and only fishing when the price is high.

In September and October 2014 the Independent Breeding Stock Survey (IBSS) was conducted at all sites except Kalbarri. This location was not sampled as no tenders were submitted. Hopefully we may get some interest in conducting this survey in Kalbarri in 2015.

The 2014 IBSS results have shown increased abundance at all sites except a small decrease at Dongara. The two most southern sites (Fremantle and Lancelin) have set new record levels, and Jurien was the second highest on record (highest was recorded in 2012). In the north, Dongara showed a small decline, although still well above historic levels. This slight drop at Dongara is not unexpected since the 2008 and 2009 poor settlements are starting to mature and enter the breeding stock in this region. Abrolhos has increased since 2013 and now sits at its equal second highest recorded level. This rise should be maintained as the 2010 settlement starts to enter the breeding stock in 2015. Big Bank increased slightly, but is still well down on 2011. There are some indications that we might see a further increase in 2015 after a relatively strong whites run.

Of interest, four years ago, Western Australia experienced a pulse of very warm seawater temperatures during the summer months (marine heatwave). In particular, this event had an impact on marine life both north and south of Kalbarri. For example the population of abalone on the shore reefs north of Kalbarri was wiped out, as was the demersal vegetation e.g. kelps and various algae in

the inshore areas. The scallop stocks at the Abrolhos have also been devastated in the last four years.

During the past four years, even with a reduction in the fleet in the area, the inshore areas have produced very little in the way of commercial rock lobster catches. Local rock lobster fishers blame the destruction of the marine vegetation for the low puerulus settlement and subsequent unsuitable habitat for rock lobsters.

Anecdotal evidence from a commercial octopus fisher suggests that octopus are present on the grounds in very large numbers.

THE CAPES, AUGUSTA/WINDY HARBOUR AREAS

The latter part of the 2014 season, extending into the start of the 2015 season, saw a dramatic increase in catches in the Augusta area. The two commercial rock lobster boats took excellent catches in deep water out from Augusta. One operator commented that we have not seen catches like this in ten years. These catches are either the result of rock lobsters moving into deep water from elsewhere e.g. shallow water or perhaps a movement from the Capes Area. The size of the rock lobsters caught just north of 34° 24′ (end of Zone C) were very similar to those taken in the Augusta area.

RESEARCH DATA

During the 2014 season approximately 70 boats, which amounted to 30% of those boats actually fishing kept and recorded research data on the bottom of the Catch Disposal Record (CDR) form. To those fishers who recorded research information, the Rock Lobster staff at the Hillarys Laboratories extend heartfelt thanks for their efforts.

We are of course grateful for whatever research data that industry can provide, however, 30% (approx. 70 boats) is somewhat low and naturally we would like more fishers to provide information which would result in a more statistically significant data base. To this end, if you are *not* keeping research data, we would ask you to seriously consider!

Please 'have a go' and if you would like to discuss the program, amongst other things, please feel free to drop into the Laboratories at Hillarys (tea and/or coffee free) or simply phone on 92030111 and speak with either Mark Rossbach or Eric Barker.

The percentage of skippers that return logbook information each year has declined from about 40% in the mid to late 1990s to as low as 25% in 2005. Since this low point we have made a slow but progressive increase (apart from 2010), where last year we almost

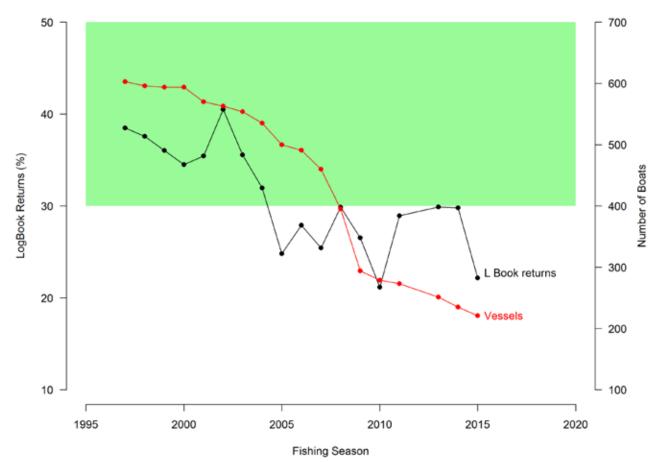


Figure 1: The number of boats operating in a fishing season (red) and percentage completing research information (black).

made it back into our target region of 30% (the green zone). So far in the current season Logbook returns have been quite low at only 22%. Over the same period we have seen a progressive decline in vessel numbers, especially during the "crunch years" of 2008 and 2009 when the 70% effort reductions were introduced. It is interesting that since quota began (2010 onwards) we have continued to see a similar rate of decline in vessel numbers as to prior to the effort reduction.

Please, if you haven't been filling out the logbook data this season, please start so we can again enjoy the dizzy heights of over 30%. Especially important information includes the numbers of lobsters you high-grade each time you fish.

PUERULUS SETTLEMENT

To date the puerulus settlement during the current 2014/15 collection season (May 2014 to April 2015) has shown a very similar pattern to all settlements since 2006. The new pattern of settlement has a very poor August – October period relative to the pre 2006 period, with most settlement now occurring in December and January each year. As this pattern has now occurred for nine consecutive years it seems fair to assume that it may represent a new long-term pattern.

Settlement in the southern sites Warnbro, Alkimos, Lancelin and Jurien are below their pre 2006 "historical" averages but similar to or just above where they have been over the past nine years. In the northern areas of Port Gregory, Dongara and Abrolhos sites are also below their historical average but well above (almost double) the average levels experienced since 2006.

The resultant recruitment from this settlement (2014/15) will be seen first in the catches of 2018 season.

The latest puerulus settlement information for 2014/15 is available on the Department of Fisheries web site (see address below), to enable all WRL stakeholders to access the latest information in a timely manner. This information will be updated within ten days of the team returning from the field. The puerulus collections are carried out five days either side of the full moon.

http://www.fish.wa.gov.au/Species/Rock-Lobster/Lobster-Management/Pages/Puerulus-Settlement-Index.aspx

SOI UPDATED TROPICAL PACIFIC OCEAN CURRENTLY ENSO-NEUTRAL

The tropical Pacific Ocean has eased away from the borderline El Niño observed during late 2014. Overall, the tropical Pacific region remains neutral.

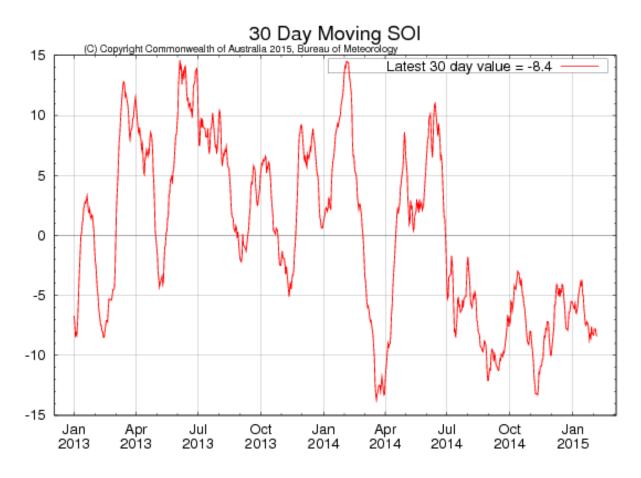


Figure 2: Southern Oscillation Index since Jan 2013 until Feb 2015 (data supplied by the Australian Government-Bureau of Meteorology).

Neutral El Niño—Southern Oscillation (ENSO) indicators include central to eastern Pacific sea surface temperatures, temperatures beneath the sea surface and cloudiness near the Date Line. The Southern Oscillation Index (SOI) has returned to near to threshold values, but this is primarily due to tropical weather activity near Tahiti rather than a broadscale climate signal. The SOI is often affected by weather phenomena during this time of the year.

The late summer to early autumn period is the time of year when ENSO events naturally decay. Forecasting beyond this time is therefore difficult, and some caution should be exercised. International models surveyed by the Bureau indicate that tropical Pacific sea surface temperatures are likely to remain within the neutral range for at least the next three months.

REPORTING TAGGED LOBSTERS

The Department has recently launched a new iphone app to aid in the return of tagged animals, including lobsters. This app is designed to make the whole process of submitting your tag recapture far easier. The app is call FishTagWA and can be downloaded from the app store. Just Google FishTagWA or type "https://itunes.apple.com/au/app/fishtagwa/id785910062?mt=8" into your browser.

Using FishTagWA to report tagged fish is easy – simply Create Report and follow the instructions such as:

- Take a photo that shows the tag in the animal/fish.
- Date The current date automatically appears but can be changed
- Tag number So we can identify the animal/fish
- Breeding status (rock lobster and crabs only) We need to know what stage of the breeding cycle the tagged animal is at. The Species screen will assist you in identifying this information if you are unsure.
- Fish/animal released or retained To let us know if you release the fish/animal back to the water or if you kept it
- Size This will help us work out how much the animal/fish has grown since it was released. Guides are provided to show you how to accurately measure a rock lobster, crab and fish
- Location This provides us with information as to how far the animal/fish has moved since it was released. You can either use your current location, or, if you move away from where you caught the fish/animal, please record the position of where

it was caught. Your fishing details will remain confidential.

We are also asking you provide your contact details. Your details will enable us to report back to you about how far the animal/fish has moved and how much it has grown.



In addition to the new FishTagWA app – lobster tag recaptures can also be reported online using an easy to use web form at https://lobsterapp.shinyapps.io/App 3/

CASH PRIZES FOR TAGGED LOBSTERS

After moving to a quota-based Fishery with its associated increased levels of high-grading, it is important to develop some baseline information on lobster biomass and exploitation rates. Therefore, the Department of Fisheries and the Western Rock Lobster Council have just started a large tagging project with support from the Fisheries Research and Development Corporation (FRDC).

Over 10,000 lobsters have already been tagged since September 2014 and the aim is to have at least 20,000 lobsters tagged over the next two years. The reporting of tag recaptures will help researchers assess the impact of high-grading and determine exploitation rates as well as many other important factors such as lobster growth, mortality and movement, which will all aid in the continued sustainability of lobster stocks.

In addition to a "Scratch-n-Win" ticket all tags returned between October 2014 and May 2017 will go in the running for a number of annual cash prizes. These prizes will consist of twenty \$100 and one \$3000 prize. These will be drawn by the WRLC just prior to their annual Coastal Tour meetings in June of 2015, 2016 and 2017. Prizes will be advertised on the Department of Fisheries and WRLC websites as well as on the Coastal Tour. For further information contact Dr Matt Pember (matthew.pember@fish.wa.gov.au).

INTERESTING LOBSTER MOVEMENTS

Records for the longest lobster movements so far this year go to "Lindsey" and "Lydia" (tags A7017 & A8957), these non-setose whites (80 & 86mm) were both released in 20 fathoms off Fremantle in December. Each averaged movements of more than 5km per day with "Lindsey" turning up in 95 fathoms off Dongara in mid-February and "Lydia" being caught a week later west of the Abrolhos, having travelled almost 400km.

In contrast, "Old Launa" (91664) a 126mm berried female was recently recaptured off Fremantle less than

1km from where she was originally tagged over 18 years previously. Over that time she had only grown around 14mm, being already 112mm back in 1996.

While not quite as impressive, "Linda" (A4908) has already given two fishers a chance to win \$3000. This 77mm non-setose female was originally tagged in October 2014 in 8 fathoms off Lancelin. She was picked up 50km to the north-west in 40 fathoms on the 19th of Jan and then moved another 80km north to be caught and released on the 5th of February, this time in B zone. Interesting to see where she turns up next!

EARLY 2015 SEASON REPORT* - WEST AUSTRALIAN LOBSTER INDUSTRY

In a similar repeat to a year earlier, quota catches were largely completed well in advance of the season end resulting in far higher average prices over the traditionally lower prices whites period.

With continuing high prices and record percentages directed to Live markets, there was very little even available for Christmas and New Year markets

Major Processor Reported Western Rock Lobster Commercial Production (Full Year) By INPUT LIVE WEIGHT										
	2009									
	Jan 1 – Dec 31 Jan 1 – Dec 31 Jan 1 – Dec 31 Jan 1 – Jan 14 Jan 15 – Jan 14 Jan 15 – Jar									
Whole Cooked	1,494,444	1,097,879	639,639	346,191	314,233	187,855				
Whole Raw	336,050	371,690	93,700	100,330	49,860	26,060				
Raw Tails	1,178,337	569,265	339,798	216,704	240,280	169,725				
Live	3,677,482	3,145,103	3,335,930	4,338,198	4,566,519	5,148,333				
Total	6,686,313	5,183,937	4,409,067	5,001,423	5,170,893	5,531,973				

*NOTE: Where needed, season data has been combined to obtain Full Year production

Australia Export Statistics								
	Frozen Lobster (all types)							
		Calendar Year: 2012 -	- 2014					
Importing Country (top 4)	Unit		Quantity					
		2012	2013	2014				
Total World	KG	542,190	402,640	329,768				
United States	KG	208,137	182,337	136,216				
Taiwan	KG	51,626	42,689	102,895				
Japan	KG	202,991	148,463	65,199				
Hong Kong / China	KG	52,543	19,894	17,866				

Australia Export Statistics								
	Live Lobster (all types)							
		Calendar Year: 2012 -	- 2014					
Importing Country (Top 7)	Unit		Quantity					
		2012	2013	2014				
Total World	KG	6,556,170	7,264,385	7,948,832				
Vietnam	KG	1,257,041	5,192,212	7,023,418				
Hong Kong	KG	4,756,057	1,815,463	804,012				
Japan	KG	195,639	105,701	42,899				
China	KG	167,854	69,669	32,811				
Singapore	KG	21,370	23,249	19,634				
Malaysia	KG	20,903	14,249	11,774				
United Arab Emirates	KG	9,286	6,374	5,482				
Source of Data: Australian Bur	Source of Data: Australian Bureau of Statistics							

Japan

The Japanese lobster market in 2014 continued to fall to new lows with not only the lowest imports from Australia, but the lowest total imports for all lobster species.

As the Japanese Yen moved to 120 against the US Dollar, importers almost completely forgot about trying to replace the WA Lobster and other similar sized lobsters above 400g. Instead the focus was almost entirely on the much smaller African and alike species, as well as the very cheap American/Canadian *Homarus* (Clawed) lobsters.

Even demand for the lobster head byproducts was noticed as drying up as they looked to replace with substantially cheaper species.

	Japan Import Statistics (By Arrival Month)									
	Frozen Spiny Lobster (kgs)									
Country of Origin	2007	2008	2009	2010	2011	2012	2013	2014		
(Top 12)										
Philippines	105,103	125,882	82,208	101,259	99,125	105,206	87,285	95,055		
Indonesia	394,992	119,013	54,154	79,236	39,560	134,380	145,691	20,524		
India	373,690	151,446	230,816	277,280	291,080	153,670	181,070	123,300		
USA	113,600	60,930	48,100	96,497	94,267	87,670	41,372	24,477		
Cuba	326,612	227,912	386,306	298,858	301,500	208,928	224,837	222,525		
Brazil	36,299	126,447	50,846	57,253	91,376	100,272	158,913	71,276		
France	310,520	283,560	218,910	394,935	333,780	314,550	306,470	263,170		
Tristan	104,998	54,900	101,130	120,490	65,000	175,456	157,962	79,073		
Madagascar	186,745	101,123	77,200	128,700	141,810	104,546	135,545	116,417		
Namibia	159,950	218,270	158,950	54,480	180,190	124,380	167,420	152,140		
South Africa	618,225	274,520	272,020	265,438	303,708	253,675	189,859	210,802		
Australia	643,440	687,217	450,108	271,888	256,573	159,839	122,318	56,006		
Total World	3,573,626	2,494,689	2,175,073	2,201,712	2,225,524	1,983,089	1,937,586	1,451,867		

Taiwan

Shipments to Taiwan continued for only a handful of WA whole cooked products both by air and sea, however with consumers continuing to turn away, there was very little demand to be met.

Imports of whole frozen from the Caribbean increased over 2014 and by Chinese New Year (CNY) 2015, almost all importers were reported to be overstocked and losing money.

Live demand from Taiwan for Australian lobster was negligible.

Hong Kong/China

The year of the horse as expected saw almost the entire catch of Australia (all species) being directed to China with ever higher average return prices and volumes.

Impacts from Government crackdowns on excessive spending by state officials was barely noted in the WA industry.

Major live market destinations continued to surge and look for new lobster options. As new entrants such as Florida started to reach maximum capacity and others already at near maximum, significant efforts then refocussed on the North American *Homarus* lobsters which soon reached fever volumes.

Whilst entry issues into China remain stable, the outlook for WA lobster pricing into the China market appears to have even greater capacity, even with so many new competitors.

Reported WA LIVE LOBSTER Commercial Production (Full Year)								
By INPUT LIVE WEIGHT								
LIVE	2009 2010 2011 2012 2013 2014							
EXPORTS	Jan 1 –	Jan 1 –	Jan 1 –	Jan 1 –	Jan 15 –	Jan 15 –		
	Dec 31 Dec 31 Dec 31 Jan 14 Jan 14 Jan 14							
% of catch	55.00%	60.67%	75.66%	86.74%	88.31%	93.07%		

^{*}NOTE: Where needed, season data has been combined to obtain Full Year production

USA

Inventory of WA tails for the US market continues to fall with ever reducing production of frozen products.

Selling levels over 2014 remained steady between low and mid \$30's (US\$ per pound), which on some sizes (6-8oz and 12-16oz) continued to find very low market interest.

	Reported WA Lobster Commercial Production of LOBSTER TAILS								
	(Jan – April) By INPUT LIVE WEIGHT								
SIZE	2009	2010	2011	2012	2013	2014			
SIZE	Jan 1 – Dec 31	Jan 1 – Dec 31	Jan 1 – Dec 31	Jan 1 – Jan 14	Jan 15 – Jan 14	Jan 15 – Jan 14			
A	69,586	32,373	26,421	9,284	11,915	14,396			
В	523,575	215,095	90,152	53,046	64,019	65,663			
C	291,949	153,100	69,913	41,981	44,603	30,757			
D	216,697	112,426	93,183	53,374	42,096	29,233			
Е	44,513	30,241	32,108	24,570	34,234	14,885			
F	15,202	15,962	15,270	16,986	20,394	7,409			
G	12,169	9,365	8,490	13,040	19,125	6,086			
Н	4,647	702	4,262	4,424	3,895	1,297			
Total	1,178,337	569,265	339,919	216,704	240,280	169,725			

*NOTE: Where needed, season data has been combined to obtain Full Year production

United States Import - Frozen Lobster									
Calendar Year: 2011 – 2014									
Country	Quantity								
Country	2011	2012	2013	2014					
Nicaragua	1,818,040	1,644,292	1,669,497	1,620,535					
Brazil	2,216,248	1,449,995	1,659,393	1,622,371					
Bahamas	1,387,517	1,782,408	1,473,864	1,228,083					
Honduras	1,658,578	1,698,365	1,425,566	1,285,636					
South Africa	282,372	199,284	362,588	362,742					
Spain	219,735	193,092	341,437	65,764					
Dominican Republic	332,276	328,871	260,814	181,653					
Australia	333,501	186,860	205,741	178,281					
Belize	235,763	195,822	182,904	200,286					
St. Helena	121,281	117,945	142,039	137,889					
Jamaica	63,314	96,485	108,200	101,381					
United Arab Emirates	74,070	28,620	107,081	46,621					
Panama	108,347	103,707	105,979	76,469					
Colombia	128,665	112,267	96,292	89,222					
Sri Lanka	0	68,236	72,029	10,198					
New Zealand	23,285	17,953	58,287	79,097					
Turks & Caicos Islands	46,719	30,378	25,474	32,848					
Papua New Guinea	28,917	24,018	24,676	14,322					
Ecuador	16,408	19,470	23,899	7,448					
Total World Supply to USA	9,893,450	8,856,680	9,192,180	8,220,614					

Source of Data: U.S. Department of Commerce, Bureau of Census

NOTE: DATA DOES NOT INCLUDE CLAWED SPECIES (Homarus sp.)

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Except where acknowledged, the information in this bulletin has been supplied by the FISHERIES RESEARCH DIVISION of the DEPARTMENT OF FISHERIES (WA). Contact Mr Eric Barker or Mr Mark Rossbach T: (08) 9203 0111 F: (08) 9203 0199.