

# Aquaculture Production Report 2018-2019



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*Aquaculture Production Report 2018-2019*

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**Table 1: Snapshot of Total Aquaculture Production for 2018/2019**

Grouping	Common Name	Scientific Name	Production (Kilograms)	Production (Dozens)	Average Price per Production Unit	Value (\$)
Crustaceans	Black Tiger Prawn	<i>Penaeus monodon</i>	164,272		\$20.54	\$3,374,786
	Yabby	<i>Cherax destructor</i>	3,395		\$33.97	\$115,344
	Yabby (bait)	<i>Cherax destructor</i>	6,846		\$52.91	\$362,207
<b>Subtotal</b>						<b>\$3,852,337</b>
Freshwater Fish	Barramundi	<i>Lates calcarifer</i>	64,052		\$13.82	\$885,123
	Golden Perch	<i>Macquaria ambigua</i>	814		\$17.07	\$13,896
	Murray Cod	<i>Maccullochella peelii</i>	360,457		\$17.74	\$6,396,014
	Rainbow Trout	<i>Oncorhynchus mykiss</i>	245,034		\$10.66	\$2,612,008
	Silver Perch	<i>Bidyanus bidyanus</i>	179,213		\$12.38	\$2,219,307
<b>Subtotal</b>						<b>\$12,126,348</b>
Hatchery	Hatchery Species**					\$4,610,185
<b>Subtotal</b>						<b>\$4,610,185</b>
Molluscs	Sydney Rock Oyster	<i>Saccostrea glomerata</i>		6,224,789		\$53,648,214
	Pacific Oyster	<i>Crassostrea gigas</i>		78,252		\$1,115,817
	Native Oyster	<i>Ostrea angasi</i>		3,715		\$46,510
	Oyster Spat***					\$3,882,393
<b>Subtotal</b>						<b>\$58,692,934</b>
Others*						\$1,118,823
<b>Total Value (\$)</b>						<b>\$80,400,627</b>

\* Not available for confidentiality reasons ( $\leq 5$  farms authorised to cultivate species). Species include: Australian Paratya (*Paratya australiensis*), Blue Mussel (*Mytilus galloprovincialis*), Brook Trout (*Salvelinus fontinalis*), Floodplain Mussel (*Velesunio ambiguus*), Moreton Bay Bug (*Thenus australiensis*), Mulloway (*Argyrosomus japonicus*), Pearl Oyster (*Pinctada imbricata*), Sea Lettuce (*Ulva lactuca*), Sydney Rock Oyster (*Saccostrea glomerata*; nursery cultivated) & Tube Worm (*Diopatra aciculata*).

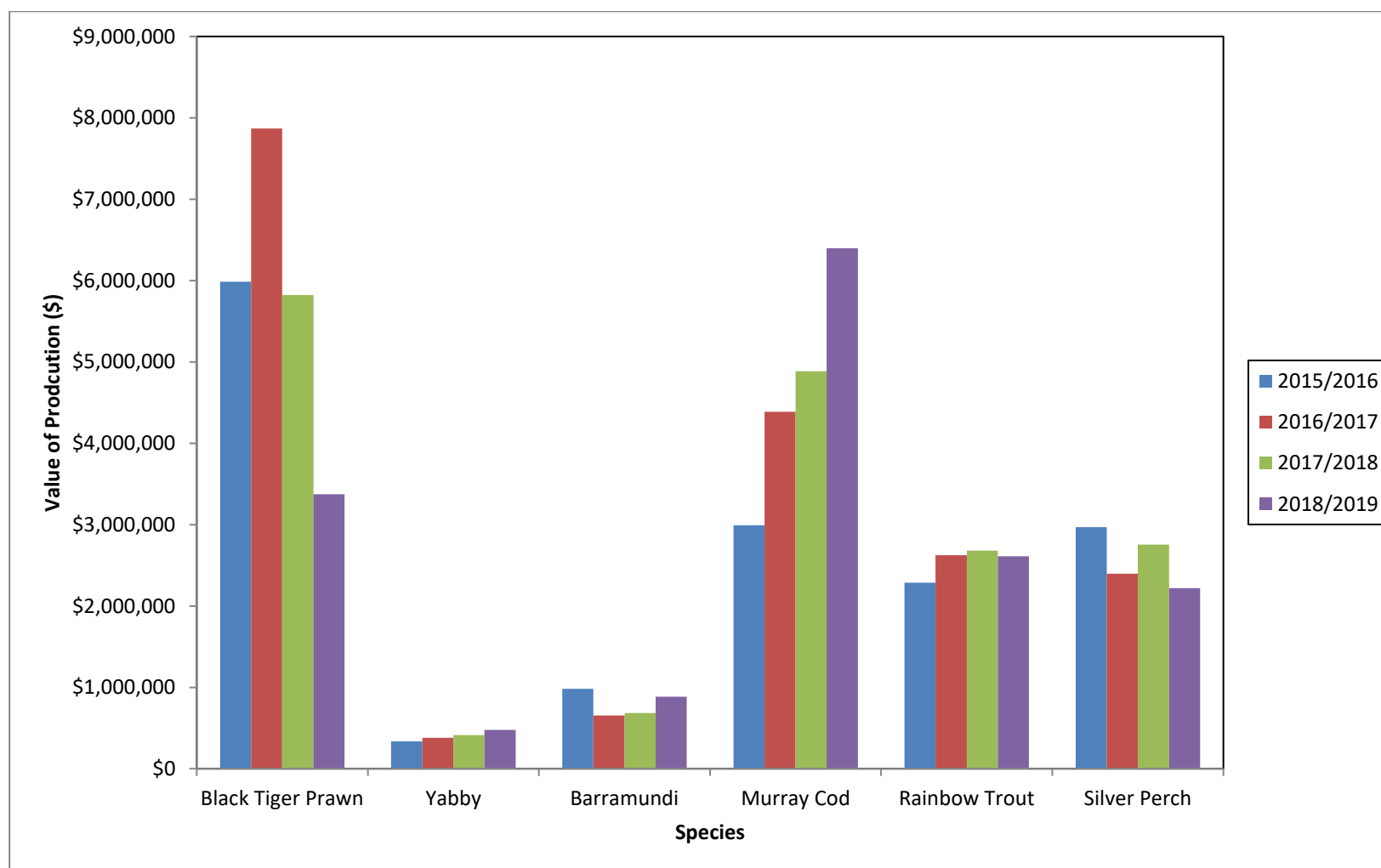
\*\* Refer to Table 3 of the Report. \*\*\* Refer to Table 7 of the Report.



**Table 2: Fish, Crustacean and Mollusc Production 2018/19**

Grouping	Common Name	Scientific Name	Production (kg)	Average Price per Production Unit	Value (\$)
Crustaceans	Black Tiger Prawn	<i>Penaeus monodon</i>	164,272	\$20.54	\$3,374,786
	Yabby	<i>Cherax destructor</i>	3,395	\$33.97	\$115,344
	Yabby (bait)	<i>Cherax destructor</i>	6,846	\$52.91	\$362,207
<b>Subtotal</b>					<b>\$3,852,337</b>
Freshwater Fish	Barramundi	<i>Lates calcarifer</i>	64,052	\$13.82	\$885,123
	Golden Perch	<i>Macquaria ambigua</i>	814	\$17.07	\$13,896
	Murray Cod	<i>Maccullochella peelii</i>	360,457	\$17.74	\$6,396,014
	Rainbow Trout	<i>Oncorhynchus mykiss</i>	245,034	\$10.66	\$2,612,008
	Silver Perch	<i>Bidyanus bidyanus</i>	179,213	\$12.38	\$2,219,307
<b>Subtotal</b>					<b>\$12,126,348</b>
Others*					\$647,910
<b>Total Value (\$)</b>					<b>\$16,626,595</b>

\* Not available for confidentiality reasons ( $\leq 5$  farms authorised to cultivate species). Species include: Australian Paratya (*Paratya australiensis*), Brook Trout (*Salvelinus fontinalis*), Floodplain Mussel (*Velesunio ambiguus*), Moreton Bay Bug (*Thenus australiensis*), Mulloway (*Argyrosomus japonicus*), Sydney Rock Oyster (*Saccostrea glomerata*; nursery cultivated) & Tube Worm (*Diopatra aciculata*).

**Figure A: Comparison of Land Based Aquaculture Production by Species and Year**

**Table 3: Commercial Hatchery Production 2018/2019**

Grouping	Common Name	Scientific Name	Production (individuals)	Average Price per Production Unit	Value (\$)
<b>Aquarium Species</b>	Aquarium Species		**	**	\$79,731
	Koi Carp	<i>Cyprinus carpio</i>	150,800	\$0.94	\$142,000
<b>Subtotal</b>					<b>\$221,731</b>
<b>Freshwater Fish</b>	Australian Bass	<i>Macquaria novemaculeata</i>	645,575	\$0.65	\$417,790
	Eel Tailed Catfish	<i>Tandanus tandanus</i>	7,559	\$1.97	\$14,912
	Golden Perch	<i>Macquaria ambigua</i>	4,040,949	\$0.37	\$1,496,014
	Murray Cod	<i>Maccullochella peelii</i>	3,888,570	\$0.44	\$1,708,525
	Rainbow Trout	<i>Oncorhynchus mykiss</i>	91,900	\$0.23	\$21,531
	Silver Perch	<i>Bidyanus bidyanus</i>	508,600	\$0.38	\$195,439
<b>Subtotal</b>					<b>\$3,854,211</b>
<b>Others*</b>					\$534,243
<b>Total Value (\$)</b>					<b>\$4,610,185</b>

\* Not available for confidentiality reasons ( $\leq 5$  hatcheries authorised to cultivate species). Species include: Black Tiger Prawn (*Penaeus monodon*), Brown Trout (*Salmo trutta*), Estuary Perch (*Macquaria colonorum*), Floodplain Mussel (*Velesunio ambiguus*), Trout Cod (*Maccullochella macquariensis*) and Yellowtail Kingfish (*Seriola lalandi*).

\*\* Quantity and average price not recorded due to range of species.

**Table 4: Sydney Rock Oyster & Pacific Oyster\*\* Production by Estuary and Grade 2018/2019**

Estuary	Species	Large Grade Dozens	Large Grade Value (\$)	Medium Grade Dozens	Medium Grade Value (\$)	Small Grade Dozens	Small Grade Value (\$)	Total Dozens	Total Value (\$)
Nambucca River	Sydney Rock Oyster	10,276	\$114,577	17,936	\$160,168	17,068	\$113,332	45,280	\$388,077
Macleay River	Sydney Rock Oyster	7,698	\$85,833	67,615	\$603,802	27,283	\$181,159	102,596	\$870,794
Hastings River	Sydney Rock Oyster	39,041	\$435,307	153,268	\$1,368,683	96,021	\$637,579	288,330	\$2,441,570
Camden Haven	Sydney Rock Oyster	66,468	\$741,118	111,661	\$997,133	221,576	\$1,471,265	399,705	\$3,209,516
Manning River	Sydney Rock Oyster	34,423	\$383,816	31,578	\$281,992	59,672	\$396,222	125,673	\$1,062,030
Wallis Lake	Sydney Rock Oyster	305,262	\$3,403,671	623,358	\$5,566,587	624,975	\$4,149,834	1,553,595	\$13,120,092
Port Stephens	Sydney Rock Oyster	412,115	\$4,595,082	314,531	\$2,808,762	270,491	\$1,796,060	997,137	\$9,199,904
	Pacific Oyster	1,941	\$22,205	2,589	\$25,916	3,294	\$28,987	7,824	\$77,108
Brisbane Water	Sydney Rock Oyster	14,595	\$162,734	36,002	\$321,498	107,000	\$710,480	157,597	\$1,194,712
Hawkesbury River	Sydney Rock Oyster	14,833	\$165,388	11,580	\$103,409	11,954	\$79,375	38,367	\$348,172
	Pacific Oyster	5,840	\$105,120	9,200	\$129,628	7,224	\$78,380	22,264	\$313,128
Crookhaven River	Sydney Rock Oyster	44,007	\$490,678	124,226	\$1,109,338	95,306	\$632,832	263,539	\$2,232,848
	Pacific Oyster	1,819	\$32,742	1,088	\$15,330	685	\$7,432	3,592	\$55,504
Clyde River	Sydney Rock Oyster	88,106	\$982,382	234,534	\$2,094,389	265,626	\$1,763,757	588,266	\$4,840,527
	Pacific Oyster	10,810	\$194,580	19,327	\$272,317	4,500	\$48,825	34,637	\$515,722
Tuross Lake	Sydney Rock Oyster	32,984	\$367,772	38,969	\$347,993	15,324	\$101,751	87,277	\$817,516
Wagonga Inlet	Sydney Rock Oyster	66,105	\$737,071	102,871	\$918,638	105,477	\$700,367	274,453	\$2,356,076
Wapengo Lake	Sydney Rock Oyster	44,872	\$500,323	87,730	\$783,429	63,467	\$421,421	196,069	\$1,705,173
Merimbula Lake	Sydney Rock Oyster	139,699	\$1,557,644	276,154	\$2,466,055	153,177	\$1,017,095	569,030	\$5,040,794
Pambula River	Sydney Rock Oyster	65,527	\$730,626	142,271	\$1,270,480	56,968	\$378,268	264,766	\$2,379,374

Estuary	Species	Large Grade Dozens	Large Grade Value (\$)	Medium Grade Dozens	Medium Grade Value (\$)	Small Grade Dozens	Small Grade Value (\$)	Total Dozens	Total Value (\$)
Wonboyn River	Sydney Rock Oyster	36,780	\$410,097	52,237	\$466,476	33,199	\$220,441	122,216	\$1,097,015
Others*	Sydney Rock Oyster	37,812	\$421,604	74,918	\$669,018	38,163	\$253,402	150,893	\$1,344,024
	Pacific Oyster	5,035	\$90,630	3,259	\$45,919	1,641	\$17,805	9,935	\$154,354
<b>Total</b>		<b>1,486,048</b>	<b>\$16,731,000</b>	<b>2,536,960</b>	<b>\$22,826,960</b>	<b>2,280,091</b>	<b>\$15,206,069</b>	<b>6,303,041</b>	<b>\$54,764,030</b>

\* Not available for confidentiality reasons ( $\leq 5$  current permit holders in the estuary). Others include: Bellinger River, Bermagui River, Botany Bay, Clarence River, Nelson Lagoon, Patonga Creek, Richmond River, Shoalhaven River, Tweed River, Wooli Wooli River and Wapengo Lake (Pacific Oyster only).

\*\* Includes Diploid and Triploid Pacific Oyster Production.



**Table 5: Sydney Rock Oyster Production – 2015/16, 2016/17, 2017/18 & 2018/19 by Estuary and Grade**

Estuary	Large Grade 2015/16	Large Grade 2016/17	Large Grade 2017/18	Large Grade 2018/19	Medium Grade 2015/16	Medium Grade 2016/17	Medium Grade 2017/18	Medium Grade 2018/19	Small Grade 2015/16	Small Grade 2016/17	Small Grade 2017/18	Small Grade 2018/19	Total Dozens 2015/16	Total Dozens 2016/17	Total Dozens 2017/18	Total Dozens 2018/19
Nambucca River	16,112	14,982	12,939	10,276	33,093	26,658	24,876	17,936	54,047	35,160	17,700	17,068	103,252	76,800	55,515	45,280
Macleay River	7,628	3,142	7,250	7,698	14,332	14,794	44,596	67,615	14,345	21,740	26,139	27,283	36,305	39,676	77,985	102,596
Hastings River	58,414	98,684	32,053	39,041	122,156	128,374	97,096	153,268	118,929	51,388	83,480	96,021	299,499	278,446	212,629	288,330
Camden Haven	47,941	50,381	69,918	66,468	51,417	67,970	121,168	111,661	170,118	207,015	165,940	221,576	269,476	325,366	357,026	399,705
Manning River	23,669	17,276	25,922	34,423	65,154	35,061	28,542	31,578	51,609	37,281	56,872	59,672	140,432	89,618	111,336	125,673
Wallis Lake	218,715	236,609	277,961	305,262	490,031	481,692	537,901	623,358	842,330	748,424	709,207	624,975	1,551,076	1,466,725	1,525,069	1,553,595
Port Stephens	317,894	376,721	452,167	412,115	215,739	236,863	296,983	314,531	236,110	201,762	241,028	270,491	769,743	815,346	990,178	997,137
Brisbane Water	700	20,111	12,983	14,595	14,170	47,845	41,957	36,002	51,789	87,770	91,139	107,000	66,659	155,726	146,079	157,597
Hawkesbury River	27,736	10,787	7,481	14,833	11,112	24,713	13,317	11,580	16,258	14,126	10,504	11,954	55,106	49,626	31,302	38,367
Crookhaven River	37,695	47,797	47,838	44,007	96,624	157,525	170,009	124,226	58,752	57,723	141,374	95,306	193,071	263,045	359,221	263,539
Clyde River	80,416	66,939	78,644	88,106	186,784	142,506	249,232	234,534	161,210	132,482	162,216	265,626	428,410	341,927	490,092	588,266
Tuross Lake	18,377	37,117	32,426	32,984	23,445	33,537	42,891	38,969	5,678	24,322	22,249	15,324	47,500	94,976	97,566	87,277
Wagonga Inlet	37,872	52,937	42,503	66,105	73,577	75,219	78,295	102,871	120,084	139,450	154,839	105,477	231,533	267,606	275,637	274,453

Estuary	Large Grade 2015/16	Large Grade 2016/17	Large Grade 2017/18	Large Grade 2018/19	Medium Grade 2015/16	Medium Grade 2016/17	Medium Grade 2017/18	Medium Grade 2018/19	Small Grade 2015/16	Small Grade 2016/17	Small Grade 2017/18	Small Grade 2018/19	Total Dozens 2015/16	Total Dozens 2016/17	Total Dozens 2017/18	Total Dozens 2018/19
Wapengo Lake	23,714	31,615	44,740	44,872	44,415	76,639	87,263	87,730	41,234	33,966	67,864	63,467	109,363	142,220	199,867	196,069
Merimbula Lake	113,202	94,347	140,841	139,699	191,865	238,348	277,605	276,154	123,983	203,400	124,411	153,177	429,050	536,095	542,857	569,030
Pambula River	54,866	60,136	70,308	65,527	131,045	111,201	135,126	142,271	50,261	75,174	75,512	56,968	236,172	246,511	280,946	264,766
Wonboyn River	31,470	42,712	38,079	36,780	53,129	44,772	37,646	52,237	34,616	39,863	33,149	33,199	119,215	127,347	108,874	122,216
Others*	78,777	75,391	40,672	37,812	59,222	59,091	39,342	74,918	50,058	66,328	46,908	38,163	188,057	200,810	126,922	150,893
<b>Total</b>	<b>1,195,198</b>	<b>1,337,684</b>	<b>1,434,725</b>	<b>1,460,603</b>	<b>1,877,310</b>	<b>2,002,808</b>	<b>2,323,845</b>	<b>2,501,439</b>	<b>2,201,411</b>	<b>2,177,374</b>	<b>2,230,531</b>	<b>2,262,747</b>	<b>5,273,919</b>	<b>5,517,866</b>	<b>5,989,101</b>	<b>6,224,789</b>

\* Not available for confidentiality reasons ( $\leq 5$  current permit holders in the estuary). Others include: Bellinger River, Bermagui River, Botany Bay, Clarence River, Nelson Lagoon, Patonga Creek, Richmond River, Shoalhaven River, Tweed River and Wooli Wooli River.

**Table 6: Pacific Oyster Production\*\* - 2015/2016, 2016/2017, 2017/2018 & 2018/19 by Estuary and Grade**

Estuary	Large Grade 2015/16	Large Grade 2016/17	Large Grade 2017/18	Large Grade 2018/19	Med Grade 2015/16	Med Grade 2016/17	Med Grade 2017/18	Med Grade 2018/19	Small Grade 2015/16	Small Grade 2016/17	Small Grade 2017/18	Small Grade 2018/19	Total Dozens 2015/16	Total Dozens 2016/17	Total Dozens 2017/18	Total Dozens 2018/19
Port Stephens	32,100	8,853	13,905	1,941	44,875	8,008	15,197	2,589	21,279	12,238	16,288	3,294	98,254	29,099	45,390	7,824
Hawkesbury River	1,000	3,373	5,694	5,840	3,675	0	5,918	9,200	70	0	3,880	7,224	4,745	3,373	15,492	22,264
Crookhaven River	53,617	11,924	10,765	1,819	56,611	20,776	2,488	1,088	24,946	3,258	2,225	685	135,174	35,958	15,478	3,592
Clyde River	140,388	164,649	56,748	10,810	49,051	18,064	10,443	19,327	8,896	7,377	1,405	4,500	198,335	190,090	68,596	34,637
Others*	14,470	20,633	15,622	5,035	11,683	5,976	5,830	3,259	5,633	2,230	1,800	1,641	31,786	28,839	23,252	9,935
<b>Total</b>	<b>241,575</b>	<b>209,432</b>	<b>102,734</b>	<b>25,445</b>	<b>165,895</b>	<b>52,824</b>	<b>39,876</b>	<b>35,463</b>	<b>60,824</b>	<b>25,103</b>	<b>25,598</b>	<b>17,344</b>	<b>468,294</b>	<b>287,359</b>	<b>168,208</b>	<b>78,252</b>

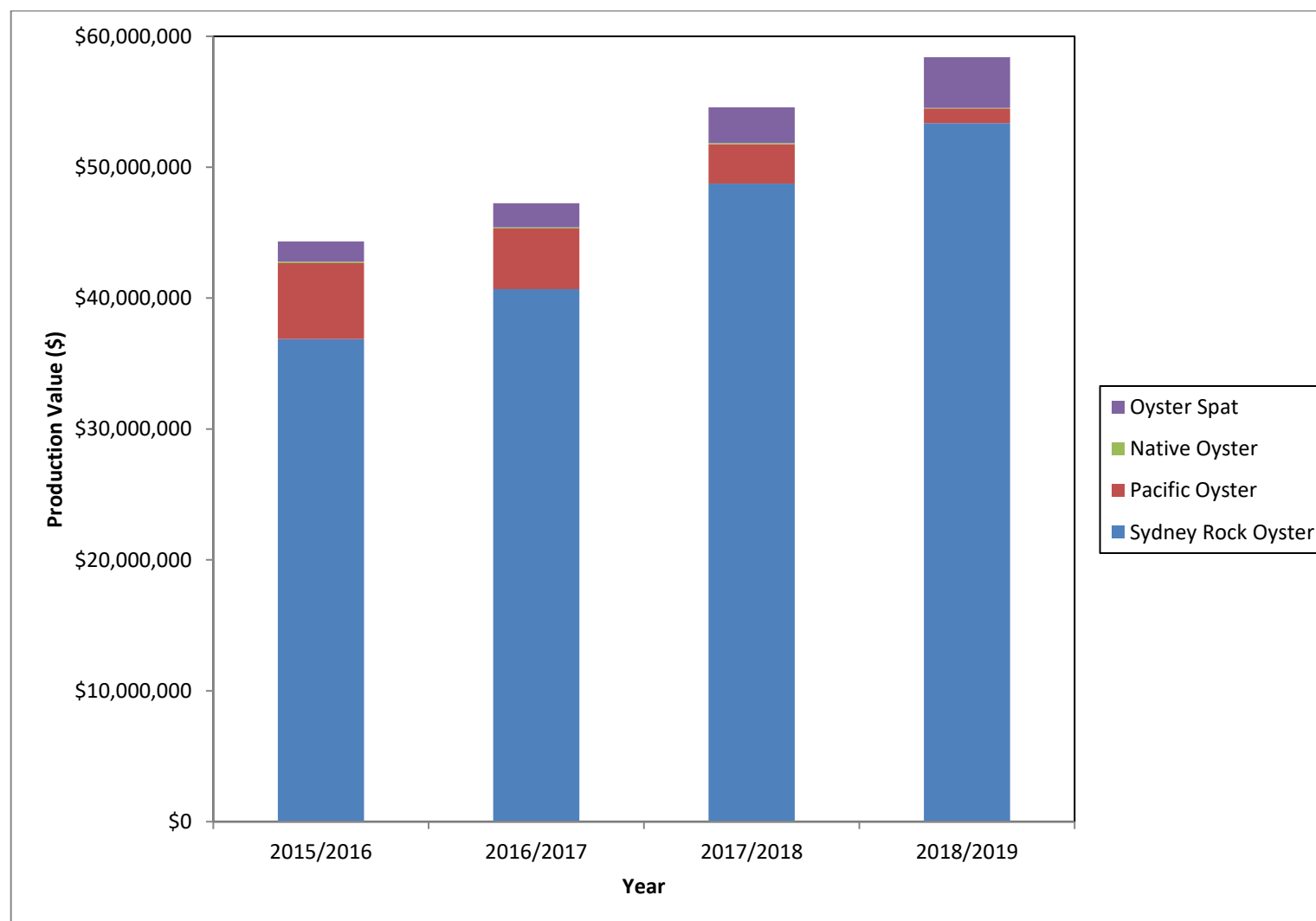
\* Not available for confidentiality reasons ( $\leq 5$  current permit holders in the estuary). Others include: Patonga Creek and Wapengo Lake.

\*\* Includes Diploid & Triploid Pacific Oyster production.

**Table 7: Oyster Spat Production\* by Spat Source for 2018/2019**

Type of Cultivation	Large Spat (\$)	Medium Spat (\$)	Small Spat (\$)	Total Value (\$)
Hatchery Nursery Stock	\$122,276	\$314,745	\$410,567	\$847,588
Wild Caught Stock	\$1,831,388	\$926,374	\$277,043	\$3,034,805
<b>Total</b>	<b>\$1,953,664</b>	<b>\$1,241,119</b>	<b>\$687,610</b>	<b>\$3,882,393</b>

\* Includes figures for Sydney Rock Oyster only.

**Figure B: Comparison of Oyster Aquaculture Production by Species and Year**

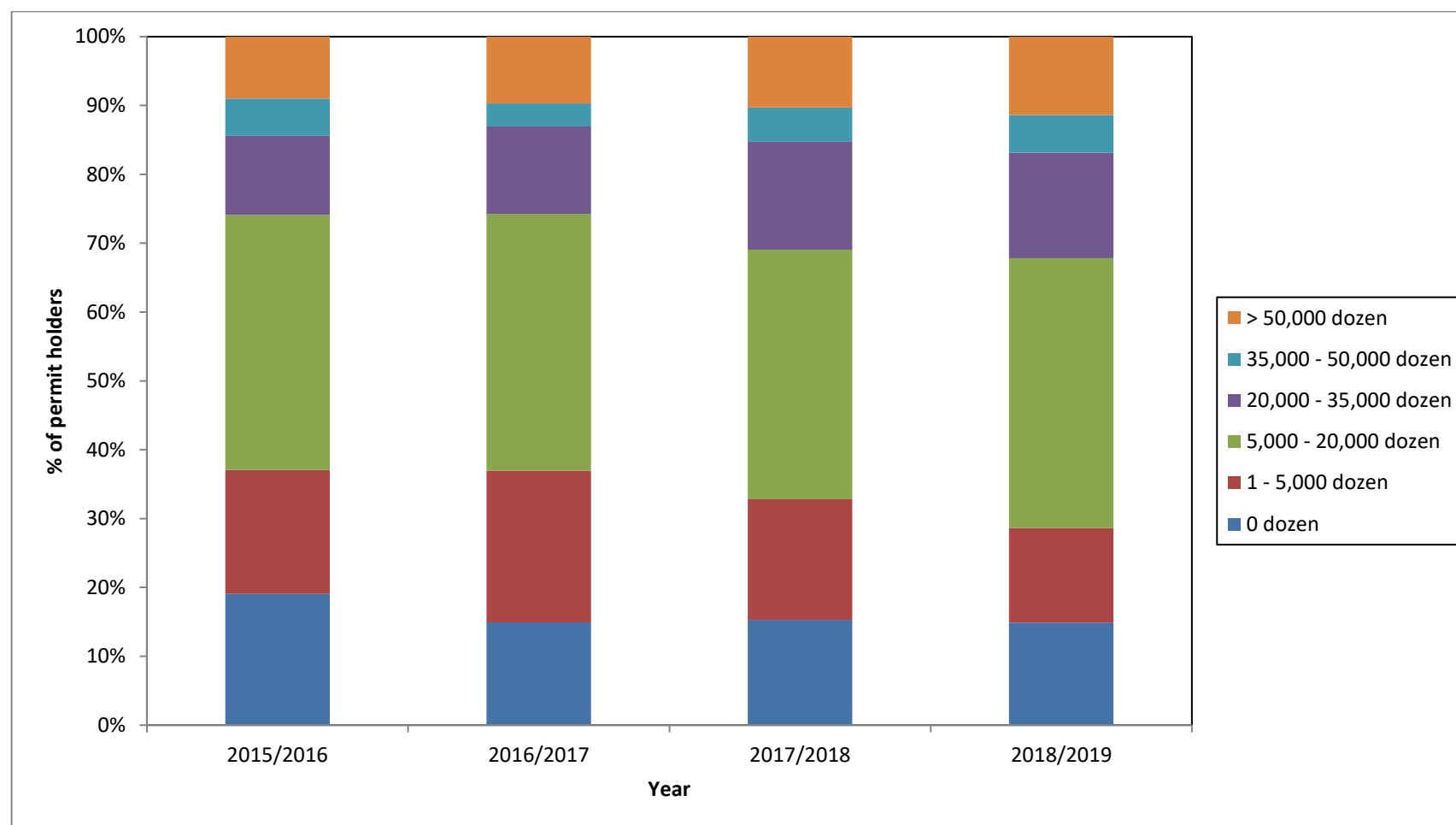
**Table 8: Total Oyster Production by Permit Holder for 2018/2019**

Production Range	Nil Production	1 - 5,000 Dozen	5,001 - 20,000 Dozen	20,001 - 35,000 Dozen	35,001 - 50,000 Dozen	> 50,001 Dozen	Total
Number of Permit Holders*	38	35	100	39	14	29	255
Percentage of Permit Holders	15%	14%	39%	15%	5%	11%	100%
Quantity Produced (dozens)	0	74,000	1,184,002	1,021,492	571,032	3,427,430	6,277,956
Percentage of Production (dozens)	0%	1%	19%	16%	9%	55%	100%
<b>Total Value (\$)</b>	<b>\$0</b>	<b>\$710,791</b>	<b>\$10,688,418</b>	<b>\$9,075,425</b>	<b>\$4,827,667</b>	<b>\$29,229,041</b>	<b>\$54,531,341</b>

\* Does not include the Class A permit holders who did not submit a production return for 2016/2017. Does not include oyster spat production.

**Table 9: Average Reported Farm Gate Price for 2018/2019 by Species and Grade**

Grade	Sydney Rock Oyster <i>average price per dozen</i>	Pacific Oyster <i>average price per dozen</i>	Triploid Pacific Oyster <i>average price per dozen</i>	Native Oyster <i>average price per dozen</i>
Large	\$11.15	\$11.44	\$18.00	\$20.00
Medium	\$8.93	\$10.01	\$14.09	\$12.13
Small	\$6.64	\$8.80	\$10.85	\$12.00

**Figure C: Percentage of Class A Permit Holders by Production Group**



**Table 10: Average Farm Gate Price by Estuary & Species**

Estuary*	Species	Large Grade	Medium Grade	Small Grade
Nambucca River	Sydney Rock Oyster	\$12.67	\$10.00	\$7.83
Macleay River	Sydney Rock Oyster	\$11.13	\$9.07	\$6.20
Hastings River	Sydney Rock Oyster	\$10.62	\$8.67	\$6.62
Camden Haven	Sydney Rock Oyster	\$11.96	\$9.40	\$6.93
Manning River	Sydney Rock Oyster	\$10.26	\$8.10	\$5.87
Wallis Lake	Sydney Rock Oyster	\$10.41	\$8.25	\$5.84
Port Stephens	Sydney Rock Oyster	\$10.54	\$8.56	\$6.22
	Pacific Oyster (Diploid)	\$11.44	\$10.01	\$8.80
Brisbane Water	Sydney Rock Oyster	\$13.00	\$10.75	\$7.57
Hawkesbury River	Sydney Rock Oyster	\$10.80	\$8.63	\$6.75
	Pacific Oyster (Triploid)	\$15.00	\$12.00	\$9.67
Crookhaven River	Sydney Rock Oyster	\$10.15	\$9.02	\$6.24
	Pacific Oyster (Triploid)	\$14.33	\$13.00	\$10.17
Clyde River	Sydney Rock Oyster	\$13.06	\$9.53	\$7.24
	Pacific Oyster (Triploid)	\$20.43	\$14.56	\$11.83
Tuross Lake	Sydney Rock Oyster	\$11.04	\$8.75	\$6.67
Wagonga Inlet	Sydney Rock Oyster	\$10.43	\$8.58	\$6.37
Wapengo Lake	Sydney Rock Oyster	\$11.93	\$9.23	\$7.10
Merimbula Lake	Sydney Rock Oyster	\$10.85	\$8.66	\$6.58
Pambula River	Sydney Rock Oyster	\$10.86	\$8.65	\$6.85
Wonboyn River	Sydney Rock Oyster	\$10.94	\$8.75	\$6.75

\* Average farm gate price not recorded for estuaries with ≤ 5 permit holders.

**Size grade**

Sydney Rock Oyster

Large Grade (> 70mm total length or > 50g whole weight)  
 Medium Grade (55 - 70mm total length or 30 - 50g whole weight)  
 Small Grade (< 55mm total length or < 30g whole weight)

Pacific Oyster

Large Grade (> 85mm total length or > 70g whole weight)  
 Medium Grade (70 - 85mm total length or 35 - 70g whole weight)  
 Small Grade (< 70mm total length or < 35g whole weight)