

Aquaculture Production Report

2020-2021



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Aquaculture Production Report 2020 - 2021

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More information

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Table 1: Snapshot of Total Aquaculture Production for 2020/2021

Grouping	Common Name	Scientific Name	Production Kilograms	Production Dozens	Average Price per Kilogram	Value (\$)
Crustaceans	Black Tiger Prawn	<i>Penaeus monodon</i>	724,426		\$18.09	\$13,101,432
	Yabby	<i>Cherax destructor</i>	1,554		\$39.76	\$61,782
	Yabby (bait)	<i>Cherax destructor</i>	5,843		\$69.35	\$405,221
Subtotal						\$13,568,435
Freshwater Fish	Barramundi	<i>Lates calcarifer</i>	56,714		\$13.38	\$759,036
	Murray Cod	<i>Maccullochella peelii</i>	491,758		\$19.44	\$9,561,532
	Rainbow Trout	<i>Oncorhynchus mykiss</i>	287,230		\$11.25	\$3,232,052
	Silver Perch	<i>Bidyanus bidyanus</i>	134,098		\$15.60	\$2,091,649
Subtotal						\$15,644,269
Hatchery	Hatchery Species**					\$9,343,960
Subtotal						\$9,343,960
Molluscs	Sydney Rock Oyster	<i>Saccostrea glomerata</i>		5,368,601		\$49,066,458
	Pacific Oyster	<i>Crassostrea gigas</i>		246,271		\$3,529,647
	Native Oyster	<i>Ostrea angasi</i>		201		\$4,362
	Oyster Spat***					\$5,670,025
Subtotal						\$58,270,492
Others*						\$1,605,525
Total Value (\$)						\$98,432,681

* Not available for confidentiality reasons (≤ 5 permit holders authorised to cultivate species). Species include: Australian Paratya (*Paratya australiensis*), Blue Mussel (*Mytilus galloprovincialis*), Eel Tailed Catfish (*Tandanus tandanus*), Floodplain Mussel (*Velesunio ambiguus*), Golden Perch (*Macquaria ambigua*), Moreton Bay Bug (*Thenus australiensis*), Akoya Pearl (*Pinctada imbricata*), Sydney Rock Oyster (*Saccostrea glomerata*; nursery cultivated) and 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 2020/2021

Grouping	Common Name	Scientific Name	Production Kilograms	Average Price per Kilogram	Value (\$)
Crustaceans	Black Tiger Prawn	<i>Penaeus monodon</i>	724,426	\$18.09	\$13,101,432
	Yabby	<i>Cherax destructor</i>	1,554	\$39.76	\$61,782
	Yabby (bait)	<i>Cherax destructor</i>	5,843	\$69.35	\$405,221
Subtotal					\$13,568,435
Freshwater Fish	Barramundi	<i>Lates calcarifer</i>	56,714	\$13.38	\$759,036
	Murray Cod	<i>Maccullochella peelii</i>	491,758	\$19.44	\$9,561,532
	Rainbow Trout	<i>Oncorhynchus mykiss</i>	287,230	\$11.25	\$3,232,052
	Silver Perch	<i>Bidyanus bidyanus</i>	134,098	\$15.60	\$2,091,649
Subtotal					\$15,644,269
Others*					\$1,192,628
Total Value (\$)					\$30,405,332

* Not available for confidentiality reasons (≤ 5 permit holders authorised to cultivate species). Species include: Australian Paratya (*Paratya australiensis*), Eel Tailed Catfish (*Tandanus tandanus*), Floodplain Mussel (*Velesunio ambiguus*), Golden Perch (*Macquaria ambigua*), Moreton Bay Bug (*Thenus australiensis*), Sydney Rock Oyster (*Saccostrea glomerata*; nursery cultivated) and Tube Worm (*Diopatra aciculata*).

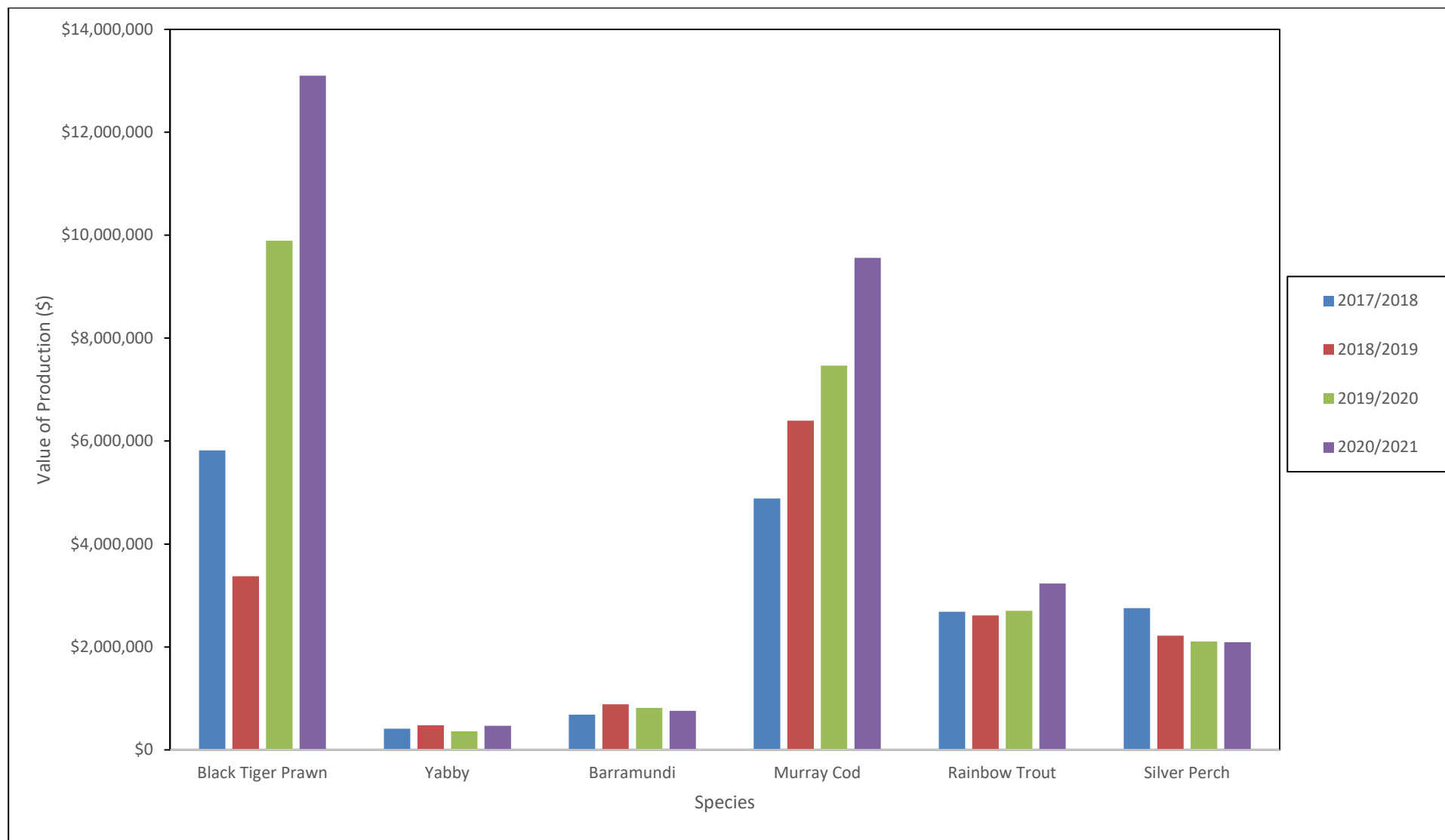
Figure A: Comparison of Land Based Aquaculture Production by Species and Year

Table 3: Commercial Hatchery Production 2020/2021

Grouping	Common Name	Scientific Name	Production (individuals)	Average Price per Production Unit	Value (\$)
Aquarium Species	Aquarium Species		**	**	\$654,916
Subtotal					\$654,916
Freshwater Fish	Australian Bass	<i>Macquaria novemaculeata</i>	762,874	\$0.93	\$705,966
	Eel Tailed Catfish	<i>Tandanus tandanus</i>	11,071	\$2.50	\$27,695
	Golden Perch	<i>Macquaria ambigua</i>	4,485,644	\$0.45	\$2,028,963
	Murray Cod	<i>Maccullochella peelii</i>	3,555,064	\$0.60	\$2,128,002
	Rainbow Trout	<i>Oncorhynchus mykiss</i>	69,500	\$0.90	\$62,608
	Silver Perch	<i>Bidyanus Bidyanus</i>	667,850	\$0.54	\$359,425
Marine Fish	Mulloway	<i>Agyrosomus japonicus</i>	2,090,000	\$1.20	\$2,508,000
Subtotal					\$7,820,659
Others*					\$868,385
Total Value (\$)					\$9,343,960

* Not available for confidentiality reasons (≤ 5 hatcheries authorised to cultivate species). Species include: Akoya (Oyster) (*Pinctada imbricata*), Black Tiger Prawn (*Penaeus monodon*), Dusky Flathead (*Platycephalus fuscus*), Estuary Perch (*Macquaria colonorum*), Floodplain Mussel (*Velesunio ambiguus*), Lamington Urchin (*Tripneustes gratilla*), Sydney Rock Oyster (Diploid) (*Saccostrea glomerata*), Sydney Rock Oyster (Triploid) (*Saccostrea glomerata*) and Trout Cod (*Maccullochella macquariensis*).

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

Table 4: Sydney Rock Oyster and Pacific Oyster Production by Estuary and Grade 2020/2021**

Estuary	Species	Large Dozens	Large Value (\$)	Medium Dozens	Medium Value (\$)	Small Dozens	Small Value (\$)	Total Dozens	Total Value (\$)
Nambucca River	Sydney Rock Oyster	12,115	\$140,897	32,121	\$301,616	63,697	\$442,694	107,933	\$885,208
Macleay River	Sydney Rock Oyster	958	\$11,142	1,374	\$12,902	1,385	\$9,626	3,717	\$33,669
Hastings River	Sydney Rock Oyster	48,611	\$565,346	100,277	\$941,601	58,524	\$406,742	207,412	\$1,913,689
Camden Haven	Sydney Rock Oyster	36,300	\$422,169	46,765	\$439,123	71,073	\$493,957	154,138	\$1,355,250
Manning River	Sydney Rock Oyster	12,483	\$145,177	21,974	\$206,336	18,960	\$131,772	53,417	\$483,285
Wallis Lake	Sydney Rock Oyster	172,497	\$2,006,140	425,806	\$3,998,318	498,282	\$3,463,060	1,096,585	\$9,467,518
Port Stephens	Sydney Rock Oyster	334,531	\$3,890,596	308,514	\$2,896,946	273,687	\$1,902,125	916,732	\$8,689,667
	Pacific Oyster (Diploid)	1,915	\$20,759	2,452	\$22,730	4,460	\$33,896	8,827	\$77,385
Brisbane Water	Sydney Rock Oyster	20,836	\$242,323	55,490	\$521,051	69,486	\$482,928	145,812	\$1,246,301
Hawkesbury River	Sydney Rock Oyster	35,226	\$409,678	18,859	\$177,086	8,991	\$62,487	63,076	\$649,252
	Pacific Oyster (Triploid)	14,873	\$265,186	9,464	\$139,121	1,328	\$15,724	25,665	\$420,030
Crookhaven River	Sydney Rock Oyster	31,350	\$364,601	84,492	\$793,380	65,186	\$453,043	181,028	\$1,611,023
	Pacific Oyster (Triploid)	5,577	\$99,438	3,565	\$52,406	860	\$10,182	10,002	\$162,026
Clyde River	Sydney Rock Oyster	100,381	\$1,167,431	216,026	\$2,028,484	120,578	\$838,017	436,985	\$4,033,932
	Pacific Oyster (Triploid)	45,009	\$802,510	63,909	\$939,462	83,402	\$987,480	192,320	\$2,729,452

Estuary	Species	Large Dozens	Large Value (\$)	Medium Dozens	Medium Value (\$)	Small Dozens	Small Value (\$)	Total Dozens	Total Value (\$)
Tuross Lake	Sydney Rock Oyster	30,635	\$356,285	36,694	\$344,557	24,476	\$170,108	91,805	\$870,950
Wagonga Inlet	Sydney Rock Oyster	81,879	\$952,253	174,502	\$1,638,574	28,081	\$195,163	284,462	\$2,785,990
Bermagui River	Sydney Rock Oyster	150	\$1,745	7,882	\$74,012	327	\$2,273	8,359	\$78,029
Wapengo Lake	Sydney Rock Oyster	54,303	\$631,544	65,130	\$611,571	44,307	\$307,934	163,740	\$1,551,048
Merimbula Lake	Sydney Rock Oyster	143,260	\$1,666,114	510,375	\$4,792,421	219,417	\$1,524,948	873,052	\$7,983,483
Pambula River	Sydney Rock Oyster	51,937	\$604,027	118,656	\$1,114,180	85,290	\$592,766	255,883	\$2,310,973
Wonboyn River	Sydney Rock Oyster	42,626	\$495,740	37,110	\$348,463	29,514	\$205,122	109,250	\$1,049,326
Others*	Sydney Rock Oyster	68,480	\$796,422	103,129	\$968,381	43,606	\$303,062	215,215	\$2,067,865
	Pacific Oyster (Triploid)	2,226	\$39,690	5,402	\$79,409	1,829	\$21,655	9,457	\$140,754
Total		1,348,158	\$16,097,212	2,449,968	\$23,442,131	1,816,746	\$13,056,763	5,614,872	\$52,596,105

* Not available for confidentiality reasons (≤ 5 current permit holders in the estuary). Estuaries include: Bega River, Bellinger River, Botany Bay, Moruya River, Nelson Lagoon, Patonga Creek, Richmond River, Shoalhaven River, Tweed River, Wallaga Lake and Wooli Wooli River.

** Includes Diploid and Triploid Pacific Oyster Production.

Table 5: Sydney Rock Oyster Production – 2018/19, 2019/20, 2020/21 by Estuary and Grade

Estuary	Large dozens 2018/19	Large dozens 2019/20	Large dozens 2020/21	Medium dozens 2018/19	Medium dozens 2019/20	Medium dozens 2020/21	Small dozens 2018/19	Small dozens 2019/20	Small dozens 2020/21	Total dozens 2018/19	Total dozens 2019/20	Total dozens 2020/21
Nambucca River	10,276	12,442	12,115	17,936	30,798	32,121	17,068	39,086	63,697	45,280	82,326	107,933
Macleay River	7,698	6,749	958	67,615	39,068	1,374	27,283	11,224	1,385	102,596	57,041	3,717
Hastings River	39,041	34,760	48,611	153,268	118,966	100,277	96,021	81,429	58,524	288,330	235,155	207,412
Camden Haven	66,468	59,497	36,300	111,661	68,173	46,765	221,576	104,380	71,073	399,705	232,050	154,138
Manning River	34,423	14,903	12,483	31,578	19,825	21,974	59,672	31,686	18,960	125,673	66,414	53,417
Wallis Lake	305,262	329,970	172,497	623,358	428,078	425,806	624,975	483,502	498,282	1,553,595	1,241,550	1,096,585
Port Stephens	412,115	479,404	334,531	314,531	292,532	308,514	270,491	248,461	273,687	997,137	1,020,397	916,732
Brisbane Water	14,595	10,322	20,836	36,002	41,453	55,490	107,000	75,688	69,486	157,597	127,463	145,812
Hawkesbury River	14,833	46,436	35,226	11,580	52,879	18,859	11,954	60,385	8,991	38,367	159,700	63,076
Crookhaven River	44,007	31,496	31,350	124,226	44,282	84,492	95,306	45,340	65,186	263,539	121,118	181,028
Clyde River	88,106	82,187	100,381	234,534	239,728	216,026	265,626	161,849	120,578	588,266	483,764	436,985
Tuross Lake	32,984	34,022	30,635	38,969	38,584	36,694	15,324	16,546	24,476	87,277	89,152	91,805

Estuary	Large dozens 2018/19	Large dozens 2019/20	Large dozens 2020/21	Medium dozens 2018/19	Medium dozens 2019/20	Medium dozens 2020/21	Small dozens 2018/19	Small dozens 2019/20	Small dozens 2020/21	Total dozens 2018/19	Total dozens 2019/20	Total dozens 2020/21
Wagonga Inlet	66,105	117,048	81,879	102,871	97,063	174,502	105,477	118,858	28,081	274,453	332,969	284,462
Bermagui River			150			7,882			327			8,359
Wapengo Lake	44,872	33,396	54,303	87,730	71,772	65,130	63,467	53,208	44,307	196,069	158,376	163,740
Merimbula Lake	139,699	201,273	143,260	276,154	318,764	510,375	153,177	189,358	219,417	569,030	709,395	873,052
Pambula River	65,527	58,736	51,937	142,271	135,429	118,656	56,968	79,073	85,290	264,766	273,238	255,883
Wonboyn River	36,780	34,318	42,626	52,237	38,103	37,110	33,199	30,689	29,514	122,216	103,110	109,250
Others*	37,812	29,928	68,480	74,918	50,090	103,129	38,163	39,904	43,606	150,893	119,922	215,215
Total	1,460,603	1,616,887	1,278,558	2,501,439	2,125,587	2,365,176	2,262,747	1,870,666	1,724,867	6,224,789	5,613,140	5,368,601

* Not available for confidentiality reasons (≤ 5 current permit holders in the estuary). Estuaries include: Bega River, Bellinger River, Botany Bay, Moruya River, Nelson Lagoon, Patonga Creek, Richmond River, Shoalhaven River, Tweed River, Wallaga Lake and Wooli Wooli River.

Table 6: Pacific Oyster Production - 2018/19, 2019/20, 2020/21 by Estuary and Grade**

Estuary	Large dozens 2018/19	Large dozens 2019/20	Large dozens 2020/21	Medium dozens 2018/19	Medium dozens 2019/20	Medium dozens 2020/21	Small dozens 2018/19	Small dozens 2019/20	Small dozens 2020/21	Total dozen 2018/19	Total dozen 2019/20	Total dozen 2020/21
Port Stephens	1,941	7,701	1,915	2,589	5,252	2,452	3,294	1,399	4,460	7,824	14,352	8,827
Brisbane Water	0	132	0	0	700	0	0	1,275	0	0	2,107	0
Hawkesbury River	5,840	11,900	14,873	9,200	14,760	9,464	7,224	2,730	1,328	22,264	29,390	25,665
Crookhaven River	1,819	2,628	5,577	1,088	4,762	3,565	685	2,046	860	3,592	9,436	10,002
Clyde River	10,810	78,236	45,009	19,327	33,600	63,909	4,500	8,280	83,402	34,637	120,116	192,320
Others*	5,035	3,511	2,226	3,259	4,600	5,402	1,641	6,394	1,829	9,935	14,505	9,457
Total	25,445	104,108	69,600	35,463	63,674	84,792	17,344	22,124	91,879	78,252	189,906	246,271

* Not available for confidentiality reasons (≤ 5 current permit holders in the estuary). Estuaries include: Botany Bay, Patonga Creek and Shoalhaven River.

** Includes diploid and triploid Pacific Oyster production.

Table 7: Oyster Spat Production* by Spat Source for 2020/21

Original source of spat	Large spat (\$)	Medium spat (\$)	Small spat (\$)	Total value (\$)
Hatchery stock	\$34,240	\$549,040	\$421,166	\$1,004,446
Wild caught stock	\$3,425,946	\$557,331	\$682,302	\$4,665,579
Total	\$3,460,186	\$1,106,371	\$1,103,468	\$5,670,025

* Includes figures for Sydney Rock Oyster and Pacific Oyster (triploid).

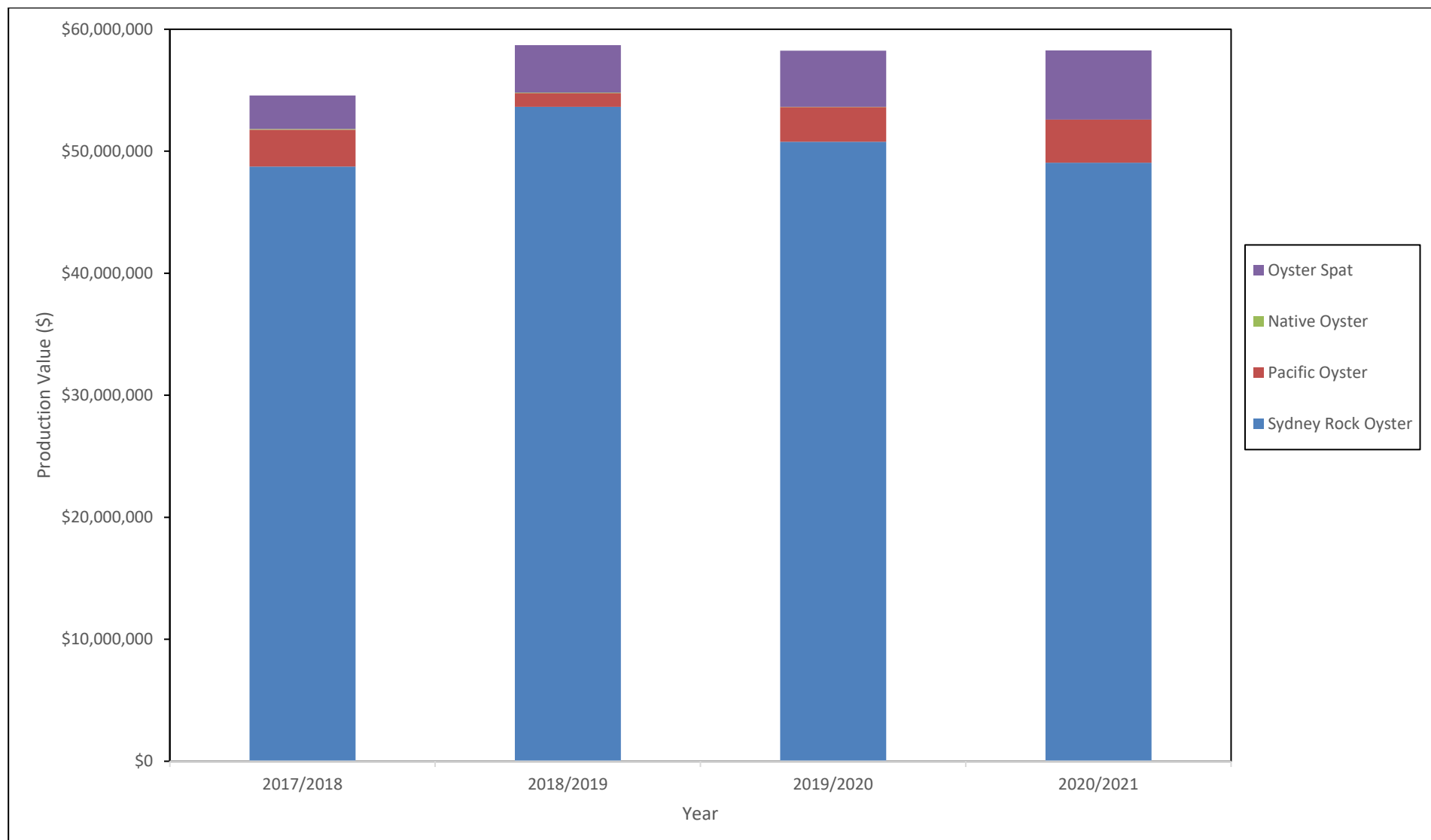
Figure B: Comparison of Oyster Aquaculture Production by Species and Year

Table 8: Total Oyster Production by Permit Holder for 2020/21

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*	53	49	95	28	12	11	248
Percentage of Permit Holders	21%	20%	38%	11%	5%	4%	100%
Quantity Produced (dozens)		107,000	2,660,150	799,857	675,578	1,372,488	5,615,073
Percentage of Production (dozens)		2%	47%	14%	12%	24%	100%
Total Value (\$)		\$1,069,301	\$25,138,902	\$7,591,682	\$6,330,272	\$12,470,311	\$52,600,467

* Does not include the Class A permit holders who did not submit a production return for 2020/2021. Does not include oyster spat production.

Table 9: Average Farm Gate Price for 2020/21 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	\$11.63	\$10.84	\$17.83	\$25
Medium	\$9.39	\$9.27	\$14.70	\$12
Small	\$6.95	\$7.60	\$11.84	No sales

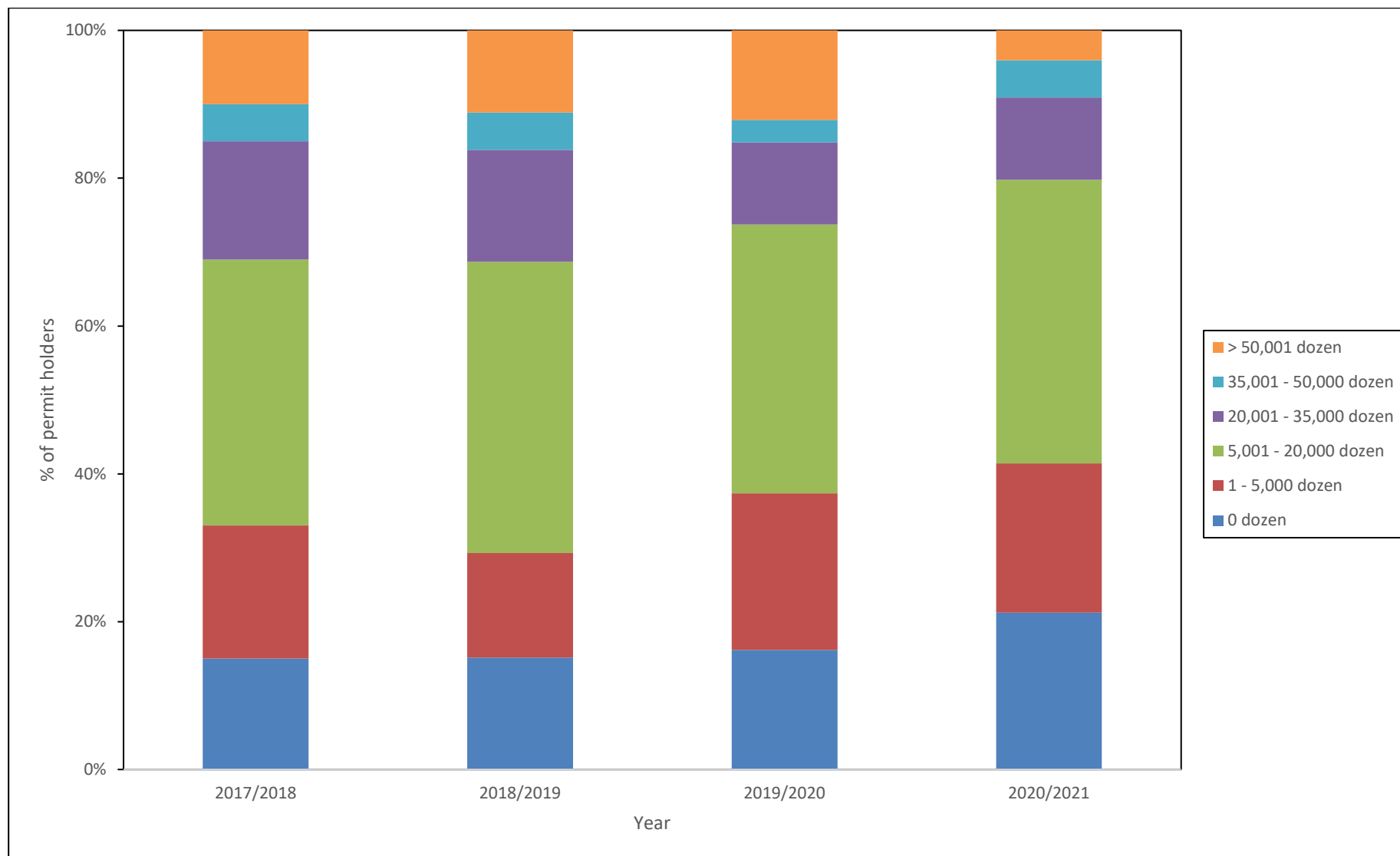
Figure C: Percentage of Class A Permit Holders by Production Group

Table 10: Average Farm Gate Price by Estuary and Species

Estuary*	Species	Large Grade	Medium Grade	Small Grade
Nambucca River	Sydney Rock Oyster	\$13.60	\$11.60	\$9.20
Macleay River	Sydney Rock Oyster	\$10.00	\$8.00	\$6.25
Hastings River	Sydney Rock Oyster	\$11.37	\$9.38	\$7.04
Camden Haven	Sydney Rock Oyster	\$11.05	\$9.05	\$7.00
Manning River	Sydney Rock Oyster	\$11.17	\$8.95	\$6.19
Wallis Lake	Sydney Rock Oyster	\$10.99	\$8.60	\$6.20
Port Stephens	Sydney Rock Oyster	\$11.00	\$8.80	\$6.38
Port Stephens	Pacific Oyster (Diploid)	\$10.84	\$9.27	\$7.60
Brisbane Water	Sydney Rock Oyster	\$15.00	\$12.00	\$8.00
Hawkesbury River	Sydney Rock Oyster	\$12.00	\$9.64	\$7.67
Hawkesbury River	Pacific Oyster (Triploid)	\$17.17	\$13.50	\$10.67
Crookhaven River	Sydney Rock Oyster	\$11.68	\$11.10	\$6.61
Crookhaven River	Pacific Oyster (Triploid)	\$15.13	\$14.50	\$13.89
Clyde River	Sydney Rock Oyster	\$13.74	\$10.00	\$7.84
Clyde River	Pacific Oyster (Triploid)	\$19.57	\$15.08	\$11.76
Tuross Lake	Sydney Rock Oyster	\$10.83	\$8.56	\$6.88
Wagonga Inlet	Sydney Rock Oyster	\$11.10	\$8.72	\$6.42
Bermagui River	Sydney Rock Oyster	\$11.00	\$8.00	\$5.00
Wapengo Lake	Sydney Rock Oyster	\$11.61	\$9.29	\$7.04
Merimbula Lake	Sydney Rock Oyster	\$11.53	\$9.34	\$7.48
Pambula River	Sydney Rock Oyster	\$10.67	\$8.67	\$6.73
Wonboyn River	Sydney Rock Oyster	\$11.05	\$9.02	\$6.74

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

Table 11: Size Grades for Sydney Rock Oyster and Pacific Oyster

Grade	Sydney Rock Oyster	Pacific Oyster
Large	> 70mm total length or > 50g whole weight	> 85mm total length or > 70g whole weight
Medium	55 - 70mm total length or 30 - 50g whole weight	70 - 85mm total length or 35 - 70g whole weight
Small	< 55mm total length or < 30g whole weight	< 70mm total length or < 35g whole weight