Allocating at-sea catch

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We were asked to provide proportions for allocating catch in the at-sea sector to individual states.

The catcher-processor sector is straightforward because all vessels are based out of Washington (though they can catch fish in Oregon). The Mothership sector is more complicated because although the mothership vessels themselves are all based out of Washington, the catcher vessels that deliver to them are based out of Washington and Oregon. All catcher-processor catch is allocated to Washington, there are two methods for allocating mothership sector catch:

1.) Method 1: Allocate mothership catch by ratio of landings weight by home port of catcher vessels

2.) Method 2: Allocate mothership catch by ratio of total value (catcher vessel ex-vessel revenue + mothership production value)

# METHOD 1: Mothership catch allocated to state based on the home port of catcher vessels landings to motherships.

Total catch (lbs) and proportions by sector.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEAR | CATCHER PROCESSOR | MOTHERSHIP | propMS | propCP |
| 2014 | 227,880,895 | 136,608,689 | 0.37 | 0.63 |
| 2015 | 151,655,456 | 60,907,906 | 0.29 | 0.71 |
| 2016 | 241,068,833 | 142,657,707 | 0.37 | 0.63 |
| 2017 | 304,619,319 | 145,299,922 | 0.32 | 0.68 |
| 2018 | 258,137,320 | 146,211,003 | 0.36 | 0.64 |

Total catch (lbs) and proportions by homeport state for mothership sector.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEAR | OR | WA | propWA | propOR |
| 2014 | 59,552,788 | 77,055,902 | 0.56 | 0.44 |
| 2015 | 38,232,183 | 22,675,723 | 0.37 | 0.63 |
| 2016 | 68,335,609 | 74,322,097 | 0.52 | 0.48 |
| 2017 | 67,460,041 | 77,839,881 | 0.54 | 0.46 |
| 2018 | 64,775,898 | 81,435,106 | 0.56 | 0.44 |

METHOD 1: Total catch (lbs) and proportions by state (MS catch allocated by catcher vessel homeport) for entire at-sea sector (catcher processors and mothership).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEAR | OR | WA | propWA | propOR |
| 2014 | 59,552,788 | 304,936,797 | 0.84 | 0.16 |
| 2015 | 38,232,183 | 174,331,179 | 0.82 | 0.18 |
| 2016 | 68,335,609 | 315,390,930 | 0.82 | 0.18 |
| 2017 | 67,460,041 | 382,459,199 | 0.85 | 0.15 |
| 2018 | 64,775,898 | 339,572,426 | 0.84 | 0.16 |

# METHOD 2: Mothership catch allocated to state based ex-vessel revenue of catcher vessels and production value of mothership vessels

Total ex-vessel revenue for catcher vessels and production value for mothership vessels (2018 $) and proportions by homeport state for mothership sector

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEAR | WA | OR | MOTHERSHIP | propMS |
| 2016 | 5,696,727 | 4,984,241 | 43,066,674 | 0.80 |
| 2014 | 7,595,842 | 4,936,886 | 46,383,608 | 0.79 |
| 2018 | 6,558,239 | 5,597,637 | 47,098,461 | 0.79 |
| 2017 | 6,045,858 | 5,508,012 | 43,526,043 | 0.79 |
| 2015 | 1,990,811 | 3,571,405 | 20,267,726 | 0.78 |

Total ex-vessel revenue/production value for mothership sector ( $) and proportions by homeport state for catcher vessels and all allocated to Washington for motherships

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEAR | OR | WA | propWA | propOR |
| 2014 | 4,936,886 | 53,979,450 | 0.92 | 0.08 |
| 2015 | 3,571,405 | 22,258,537 | 0.86 | 0.14 |
| 2016 | 4,984,241 | 48,763,401 | 0.91 | 0.09 |
| 2017 | 5,508,012 | 49,571,901 | 0.90 | 0.10 |
| 2018 | 5,597,637 | 53,656,700 | 0.91 | 0.09 |

METHOD 2: Total catch (lbs) and proportions by state (MS catch allocated by value) for entire at-sea sector (catcher processors and mothership).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| YEAR | WA | OR | WAprop | ORprop |
| 2014 | 353,042,478 | 11,447,106 | 0.97 | 0.03 |
| 2015 | 204,141,864 | 8,421,498 | 0.96 | 0.04 |
| 2016 | 370,497,301 | 13,229,239 | 0.97 | 0.03 |
| 2017 | 435,389,194 | 14,530,047 | 0.97 | 0.03 |
| 2018 | 390,536,066 | 13,812,257 | 0.97 | 0.03 |