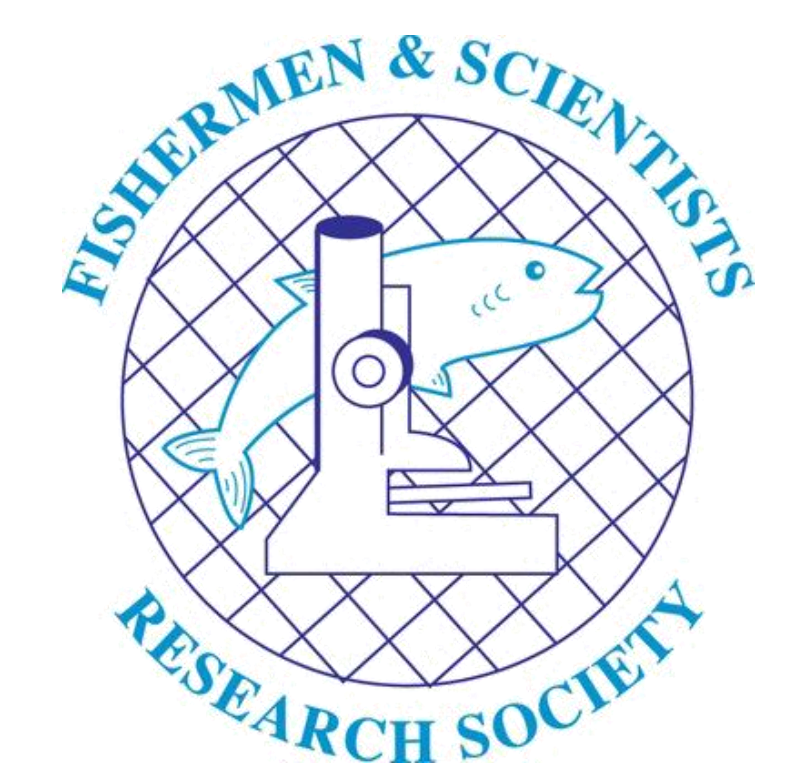


# Lobster Settlement Collector Project

## Update with 2015 Results



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**Introduction:** Since 2007, the collaborative lobster collector project between DFO and the FSRS has been using passive collectors (wire mesh lined cages filled with rocks) to sample young-of-year (YOY) lobster ("settlers"). Collectors can be used to provide annual estimates of lobster settlement, as well as an index of abundance of juvenile lobsters.

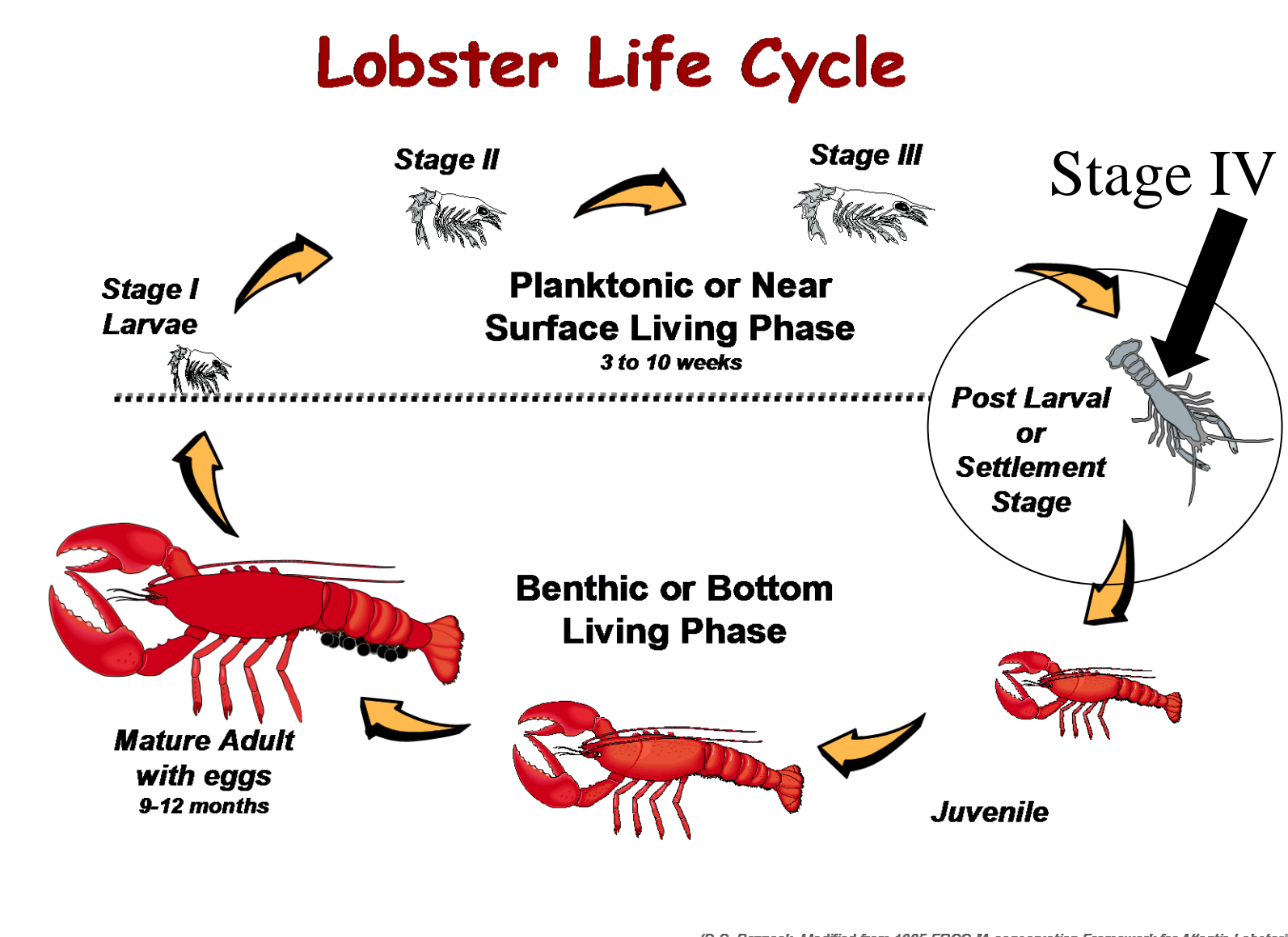
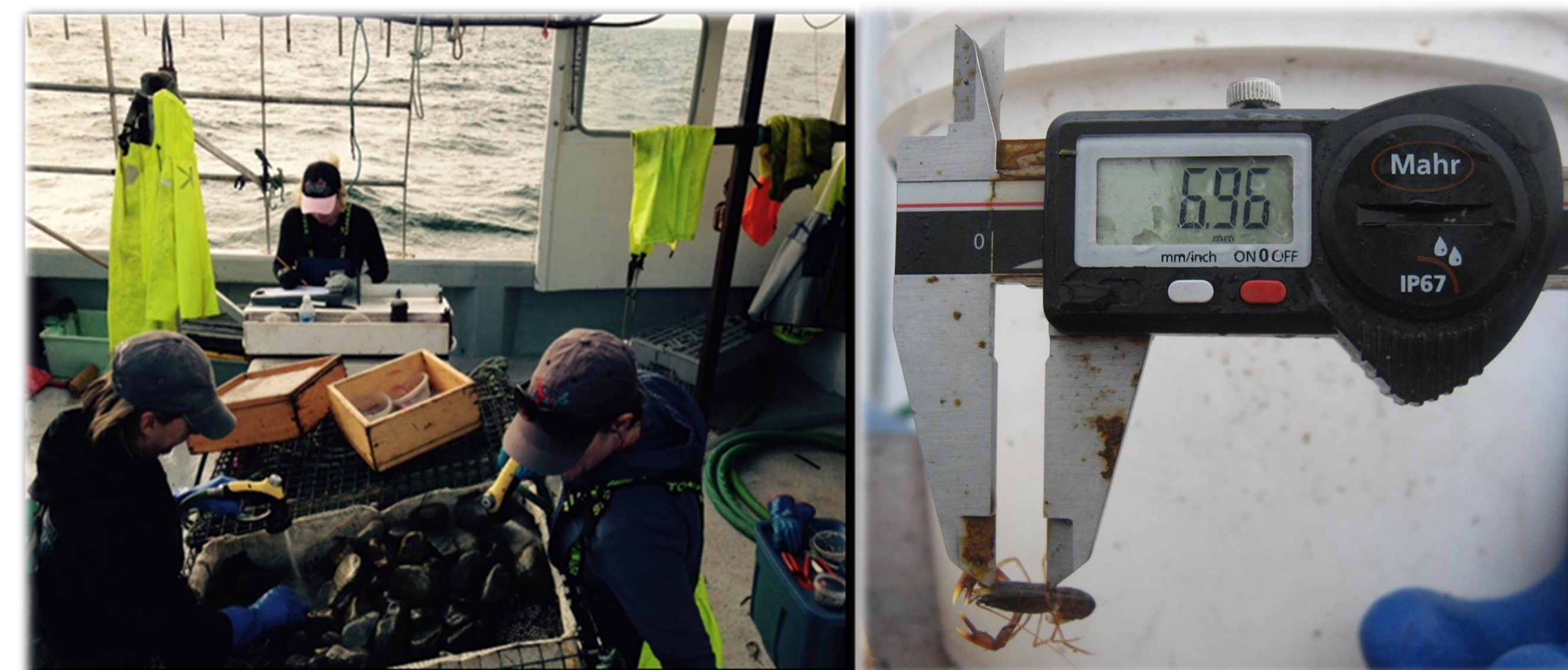


Figure 1. Lobster Life Cycle



**Methods:** Collectors have been deployed in five regions along the coast of Nova Scotia (**Map and Table 1**), in June and July, at water depths ranging from 3 to 40 metres. Temperatures were also recorded in each region, using VEMCO data loggers. Collectors were set in singles or in trawls, either with surface buoys (False Bay, Whitehead) or without (other sites). All collectors were hauled from mid-October to early November, using a commercial hauler, winch and boom.



**Results and Discussion:** The 2015 results with collectors numbers for all sites are shown in Table 1. In most years, the highest settlement numbers have been in the southwestern areas. Settlement was low in several southwestern sites from 2011 to 2013. These areas saw a large increase in 2014 that was not seen in the eastern areas. In 2015, settlement was down in all areas. Settlement appears to be episodic in several of the sampling areas. Average bottom water temperatures for the 2015 project sites are shown in Fig 2.



Table 1. Collector results for 2015.

Region	Site	Number of collectors	Count		Number per m <sup>2</sup>	
			Settlers (<13 mm CL)	Lobsters (≥ 13 mm CL)	Settlers (<13 mm CL)	Lobsters (≥ 13 mm CL)
False Bay	West (deep)	25	0	19	0	1.36
	West (shallow)	25	0	18	0	1.29
	<b>Total</b>	<b>50</b>	<b>0</b>	<b>37</b>	<b>0.00</b>	<b>1.32</b>
Whitehead	Whitehead	49	0	7	0.00	0.26
	<b>Total</b>	<b>49</b>	<b>0</b>	<b>7</b>	<b>0.00</b>	<b>0.26</b>
Lobster Bay	Abbotts	25	0	15	0	1.07
	Harbour Island	25	0	15	0	1.07
	Canoe Island	25	7	21	.5	1.5
	French Point	15	2	8	.24	.95
	Gooseberry Island	15	1	9	.12	1.07
	John's Island	30	0	27	0	1.61
	Lears Island	18	2	18	.2	1.79
	Lobster Island	14	0	7	0	.89
St. Mary's Bay	<b>Total</b>	<b>142</b>	<b>12</b>	<b>105</b>	<b>.15</b>	<b>1.32</b>
	Big Shoal	21	3	12	.26	1.02
	Cherry Valley	20	14	20	1.25	1.79
	McCormick's	18	4	12	.40	1.19
	Skinny Shoal	20	9	21	.8	1.88
All Areas	<b>Total</b>	<b>79</b>	<b>30</b>	<b>65</b>	<b>.68</b>	<b>1.47</b>
	<b>Total</b>	<b>320</b>	<b>42</b>	<b>214</b>		

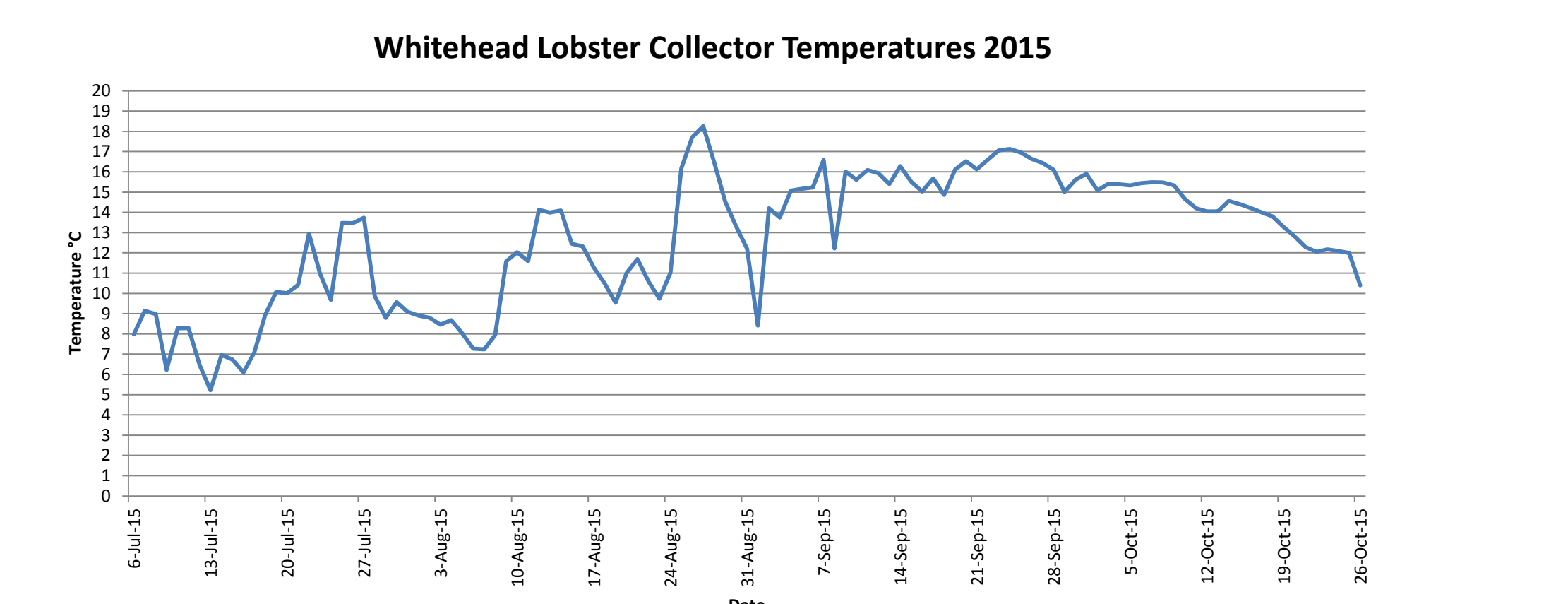
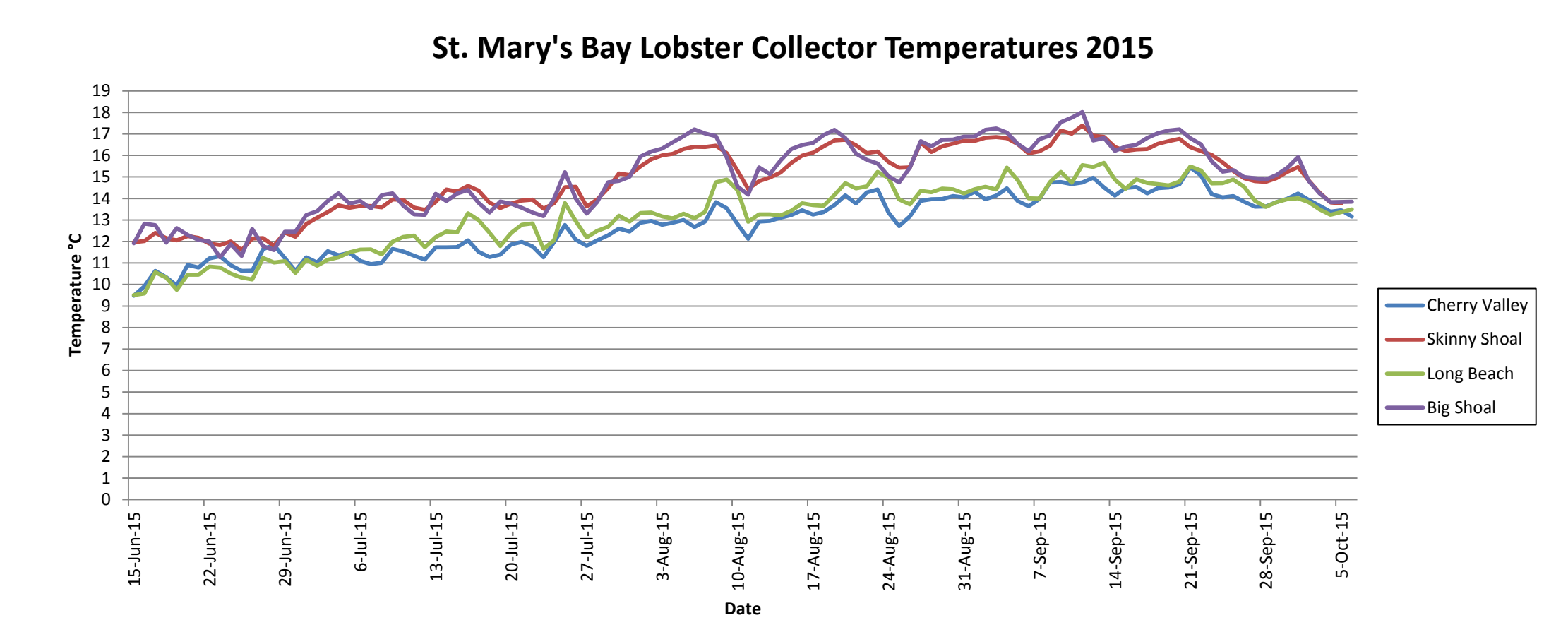
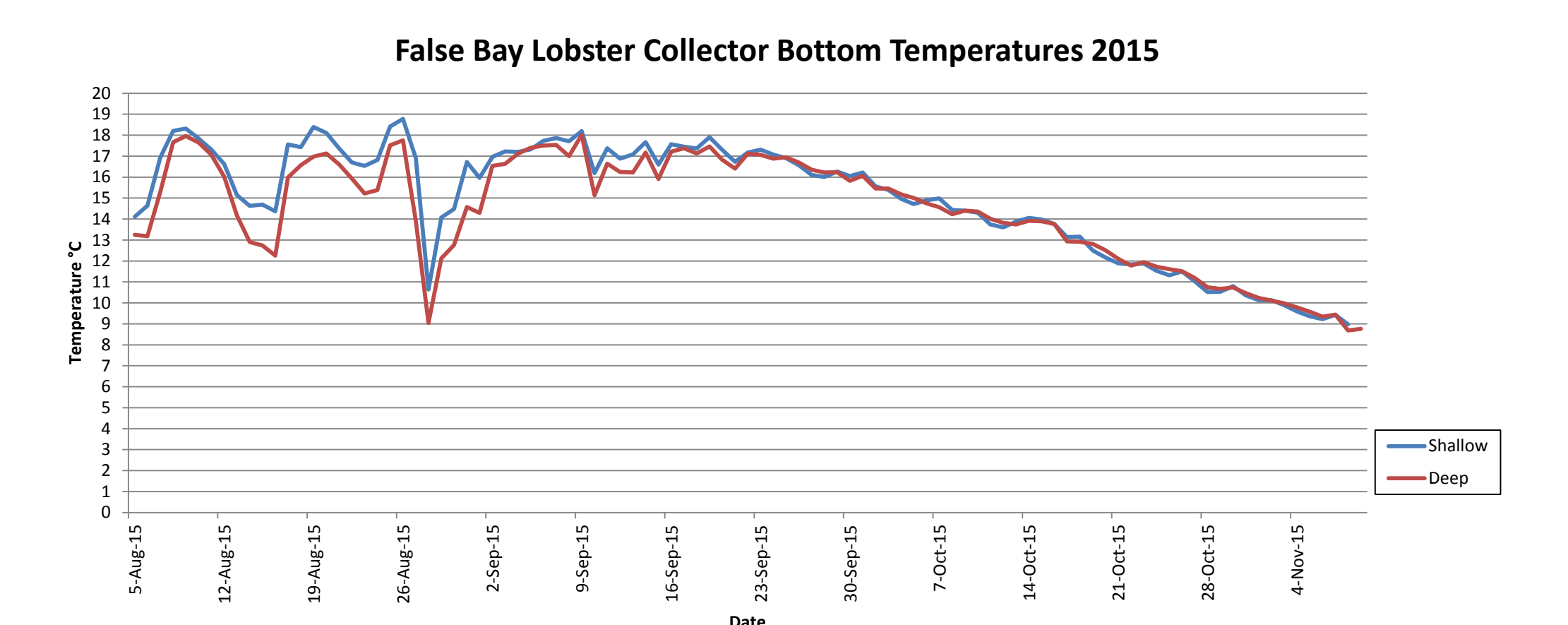
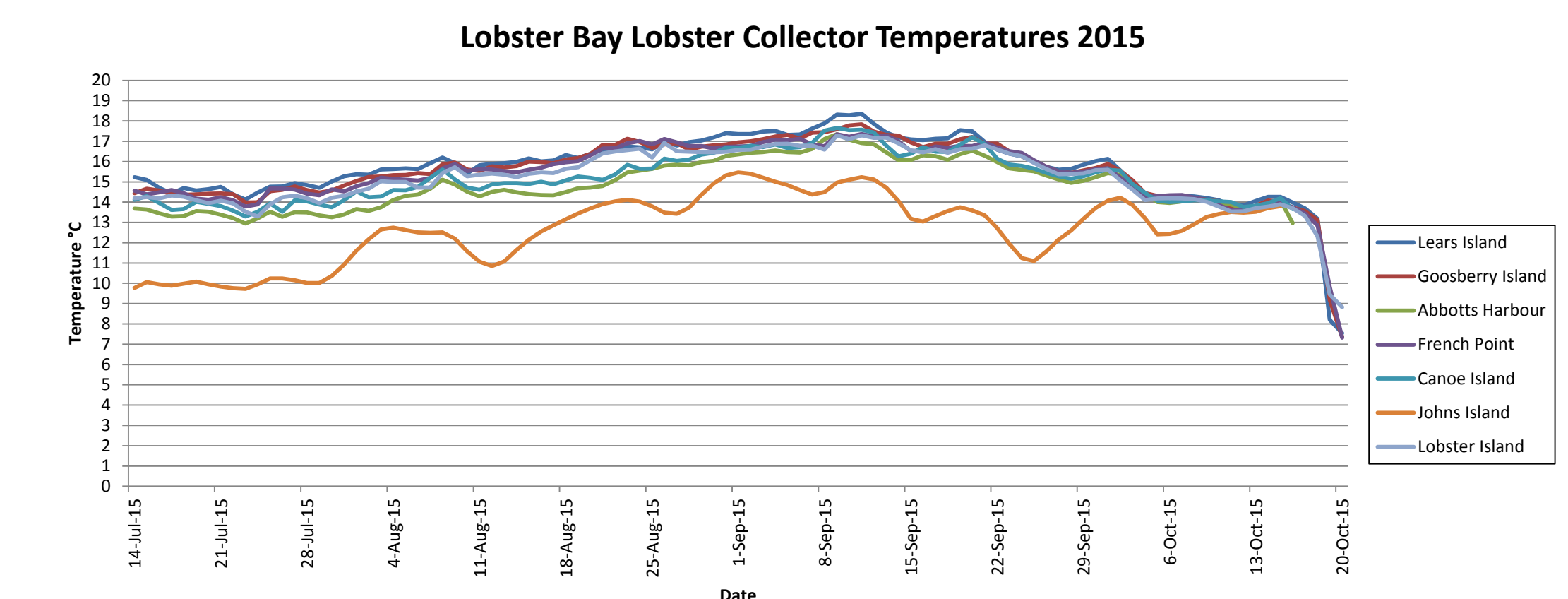


Fig 2. Average bottom water temperature graphs are shown above for project sites in 2015.



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