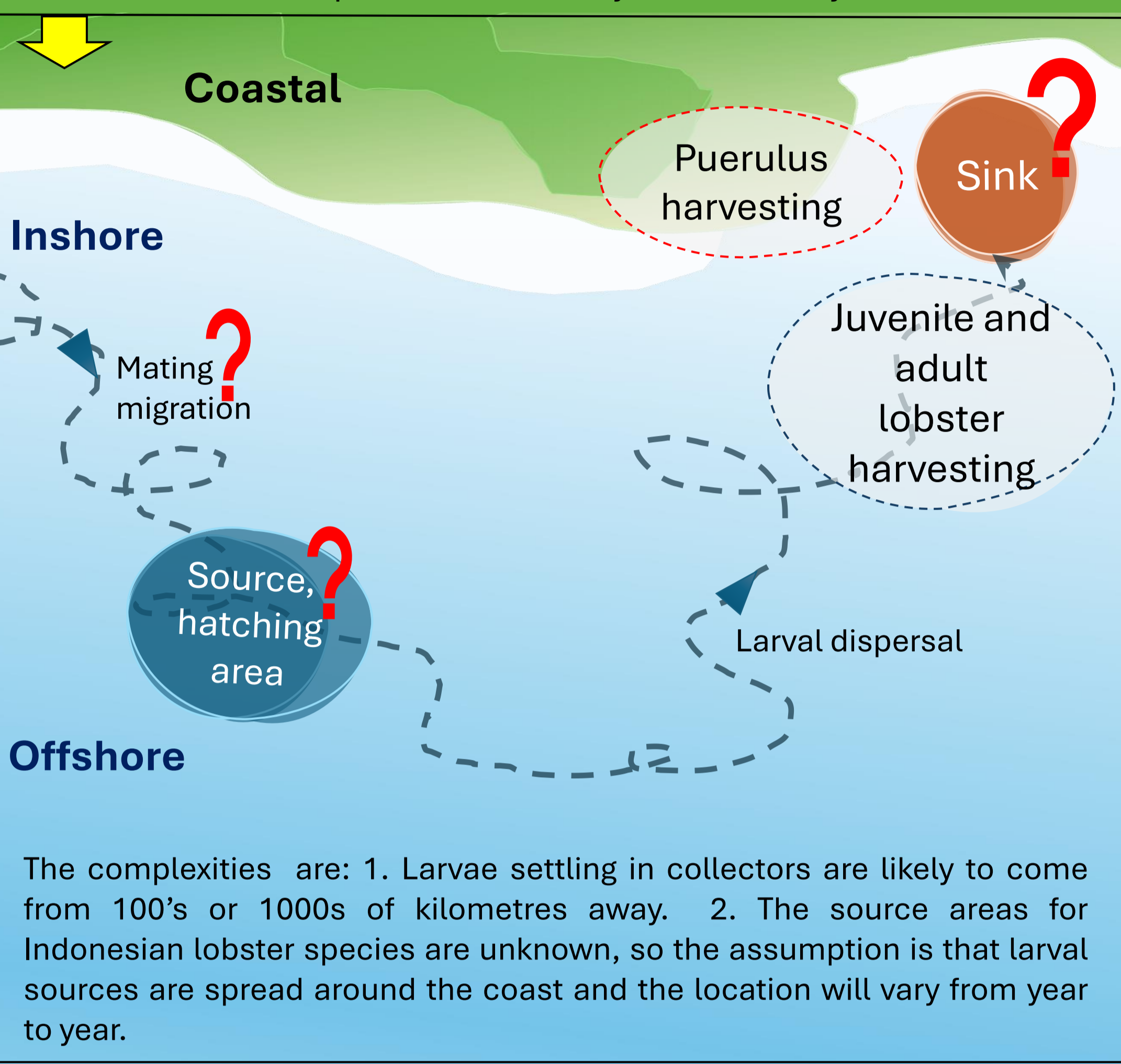


The Impact of Commercial Puerulus Harvest on Adjacent Lobster Fisheries in Indonesia

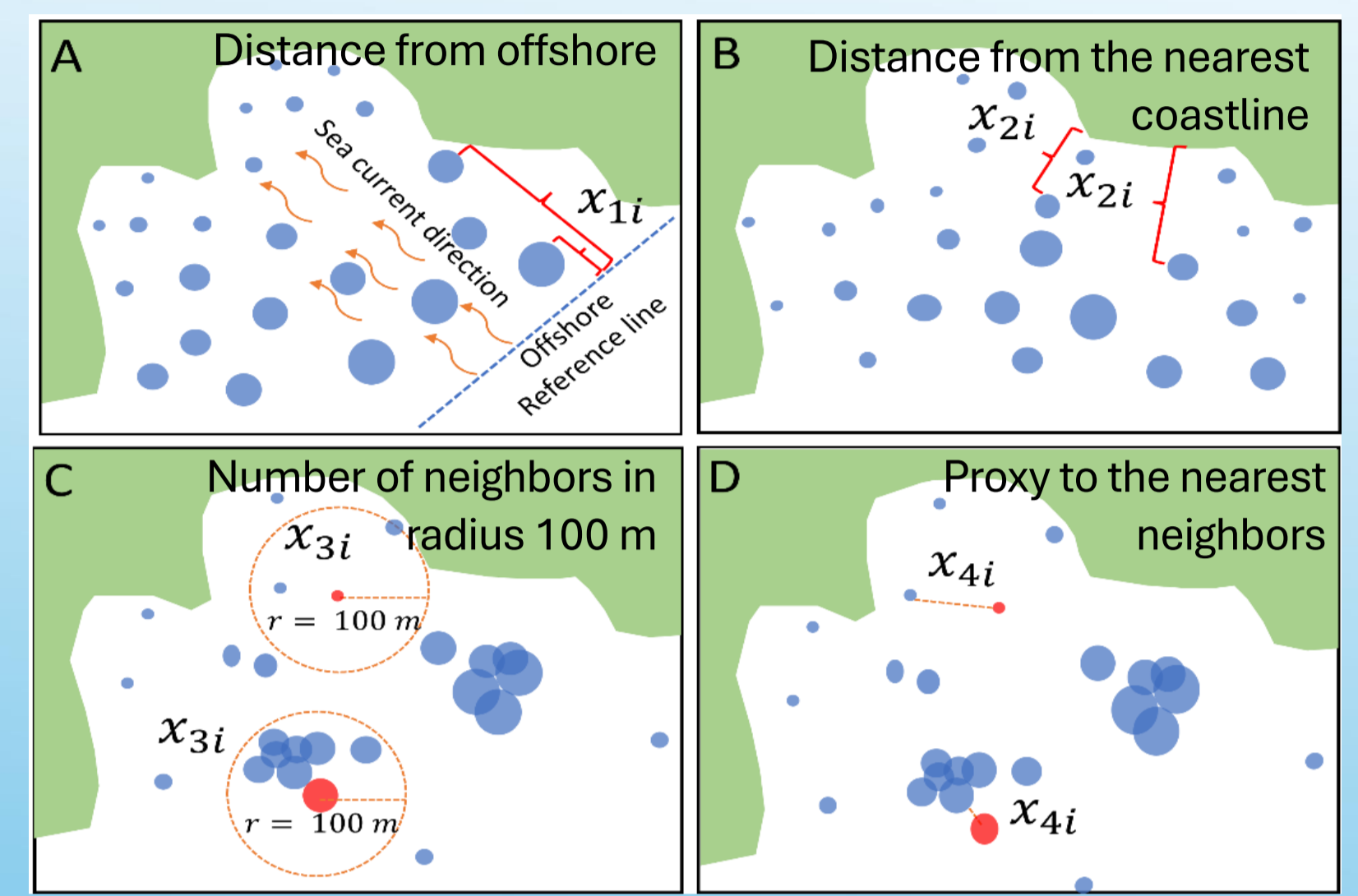
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1 Lobster has a cryptic lifecycle, especially during its long larval dispersal, where the connectivity between the source (hatching site) and the sink (post-larval stage settles) remains unknown in Indonesia, although commercial puerulus fishing is thriving. With such limited information, investigating the impact of puerulus harvesting on the recruits in the sink area is more plausible to do to help the sustainability of this fishery.

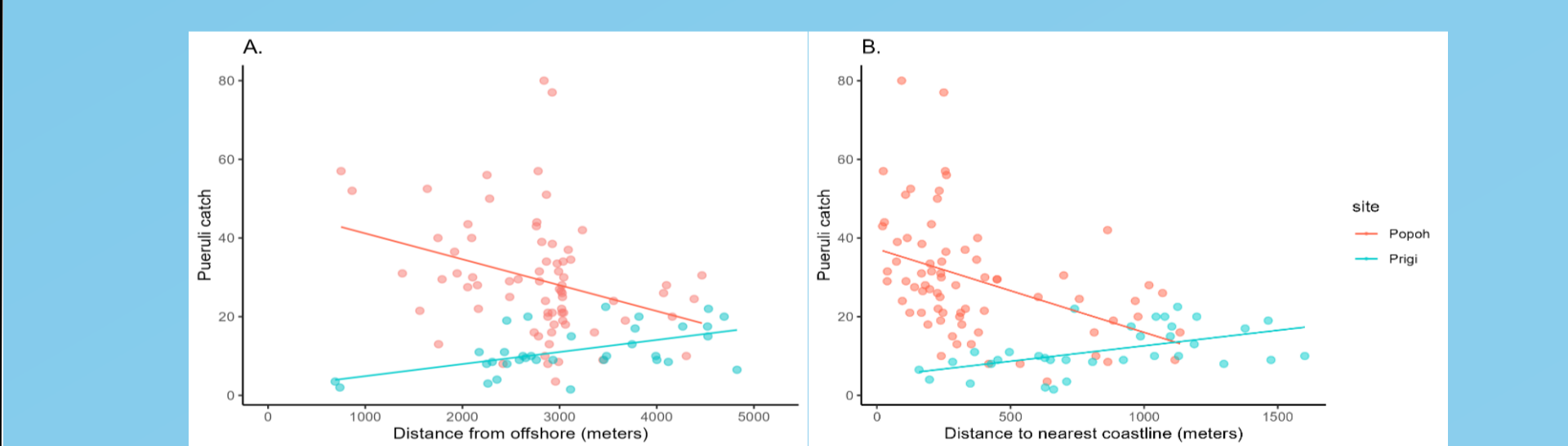


2 On a fine scale, an important question is to ask is if a commercial puerulus collector effectively filtering the pueruli that are moving shoreward? The effectiveness of puerulus collectors in removing all the pueruli from the water preventing them from getting to the shore, is referred to as the **filtering effect**. Here is how we assessed the filtering effect:



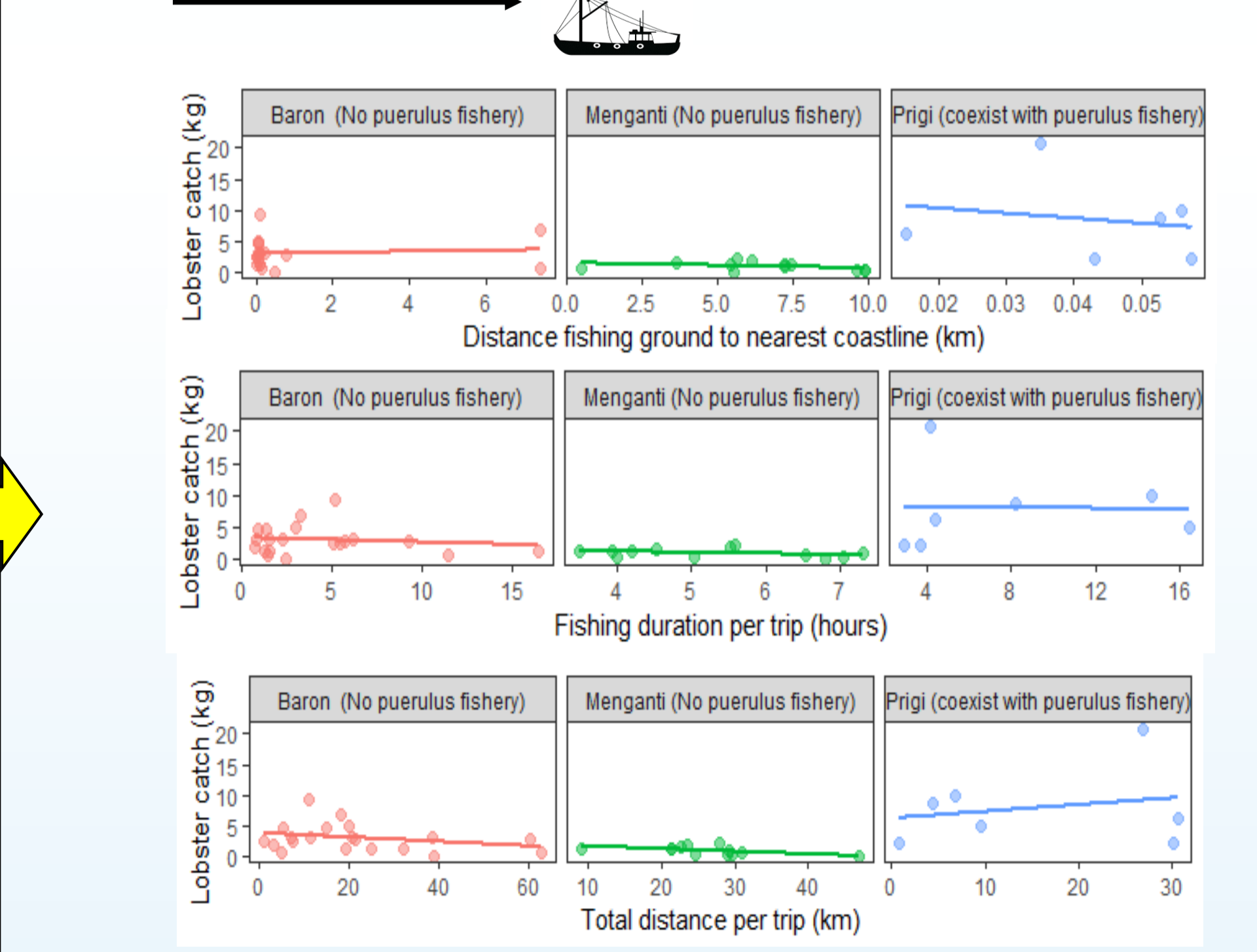
Spatial-autoregressive (SAR) modelling

Site	SAR	P-value	Coefficient	Estimate	Std Error	Z value	P-value
Popoh Bay	1		Intercept	4.18E+01	1.04E+01	4.02E+00	5.78E-05*
		0.504	Distance from offshore	-6.73E-03	2.59E-03	-2.60E+00	9.28E-03*
			Number of neighbours	2.90E-01	1.89E-01	1.53E+00	1.25E-01
Prigi Bay	2	0.282	Distance to coastline	-2.09E-02	6.49E-03	-3.23E+00	1.24E-03*
			Intercept	3.67E+01	7.47E+00	4.91E+00	8.96E-07*
			Distance from offshore	4.86E-03	1.01E-03	4.82E+00	1.42E-06*
Prigi Bay	1		Intercept	-3.15E-01	2.47E+00	-1.28E-01	8.98E-01
		0.104	Distance to coastline	9.22E-03	2.04E-03	4.52E+00	6.10E-06*
			Number of neighbours	-1.17E-01	7.17E-01	-1.63E-01	8.71E-01
Prigi Bay	2		Intercept	2.34E+00	2.67E+00	8.79E-01	3.79E-01
		0.247	Distance from offshore	3.90E-03	1.09E-03	3.58E+00	3.42E-04*
			Prox. nearest neighbour	-1.21E-02	4.95E-03	-2.44E+00	1.45E-02*



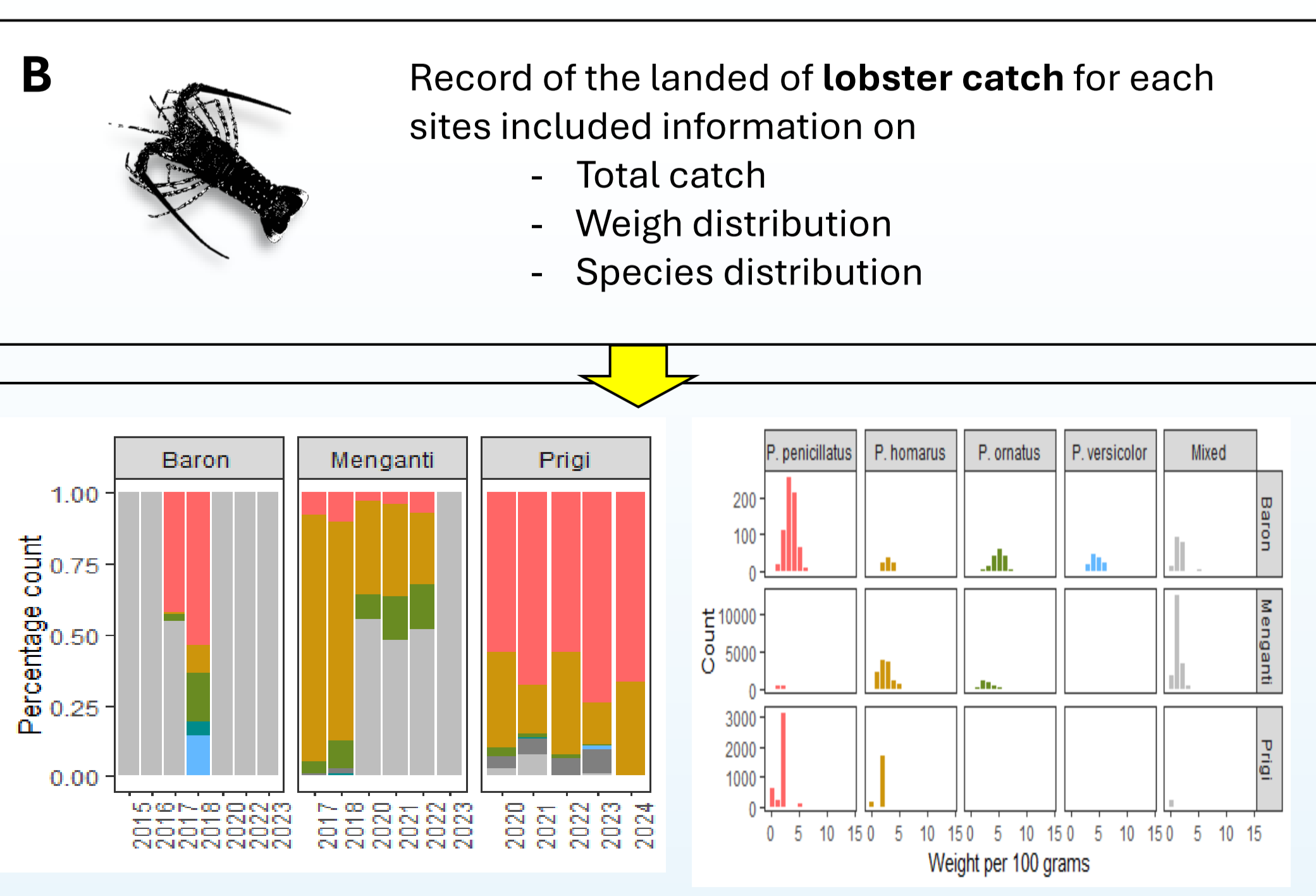
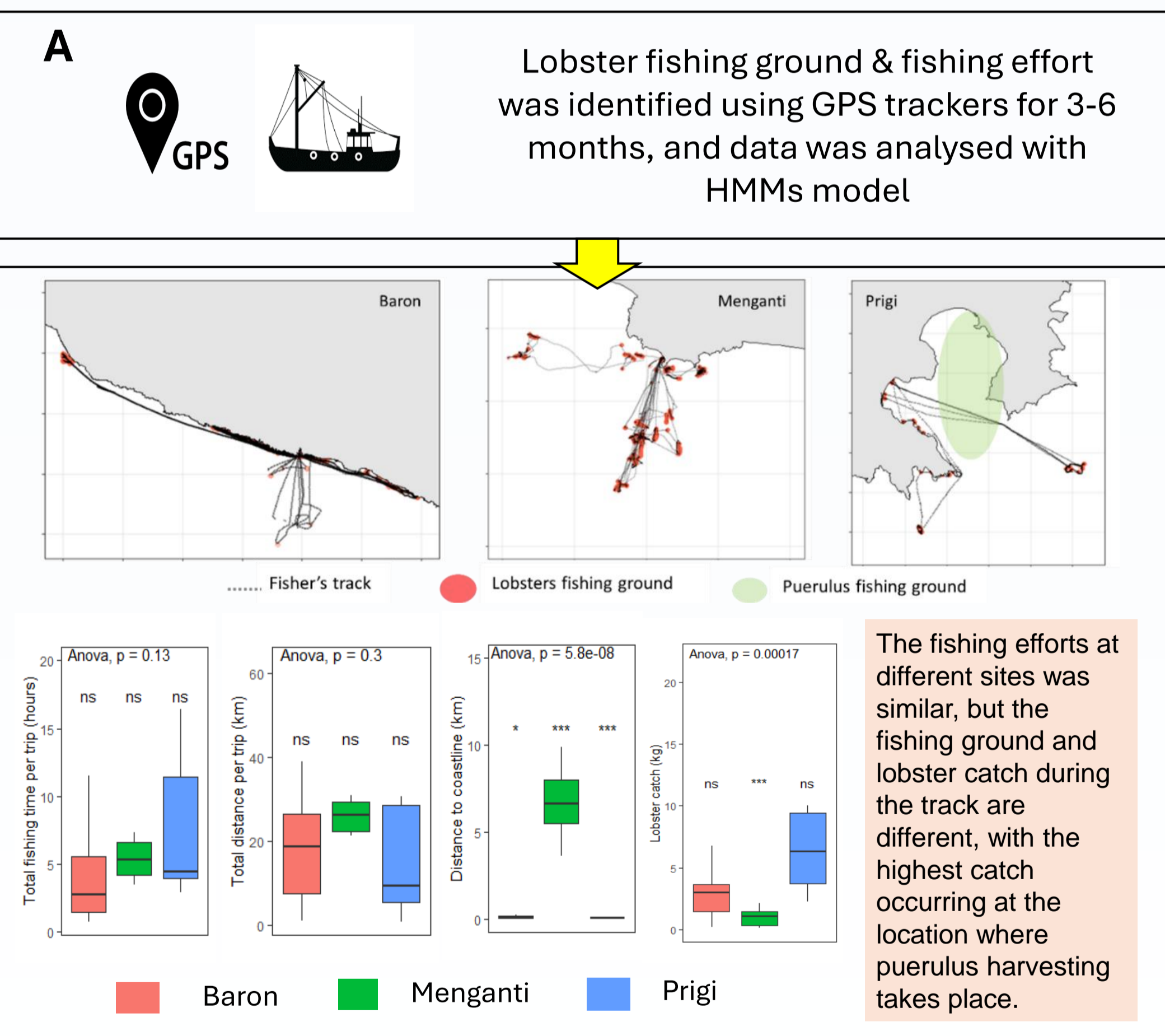
There's **NO EVIDENCE** of filtering effect, indicating that puerulus continued to migrate shoreward.

No significant correlation between the lobster fishing effort and the lobster catch, indicating that the puerulus fishing in Prigi has no impact on the lobster catch, even when compared to other sites without puerulus fishing.



If there is no evidence of a filtering effect, next important question -> **Is puerulus harvesting affecting lobster fishery?**

3



4 From this study, there is no evidence to suggest that puerulus harvesting is decreasing the puerulus settlement on the shore (i.e. no filtering effect) and there is no evidence that lobster fishing is impacted by puerulus fishing in the research area.



Please scan if you have some opinion. We keen to hear your feedback about this poster !!