

2017 VIMS-Industry Cooperative Surveys

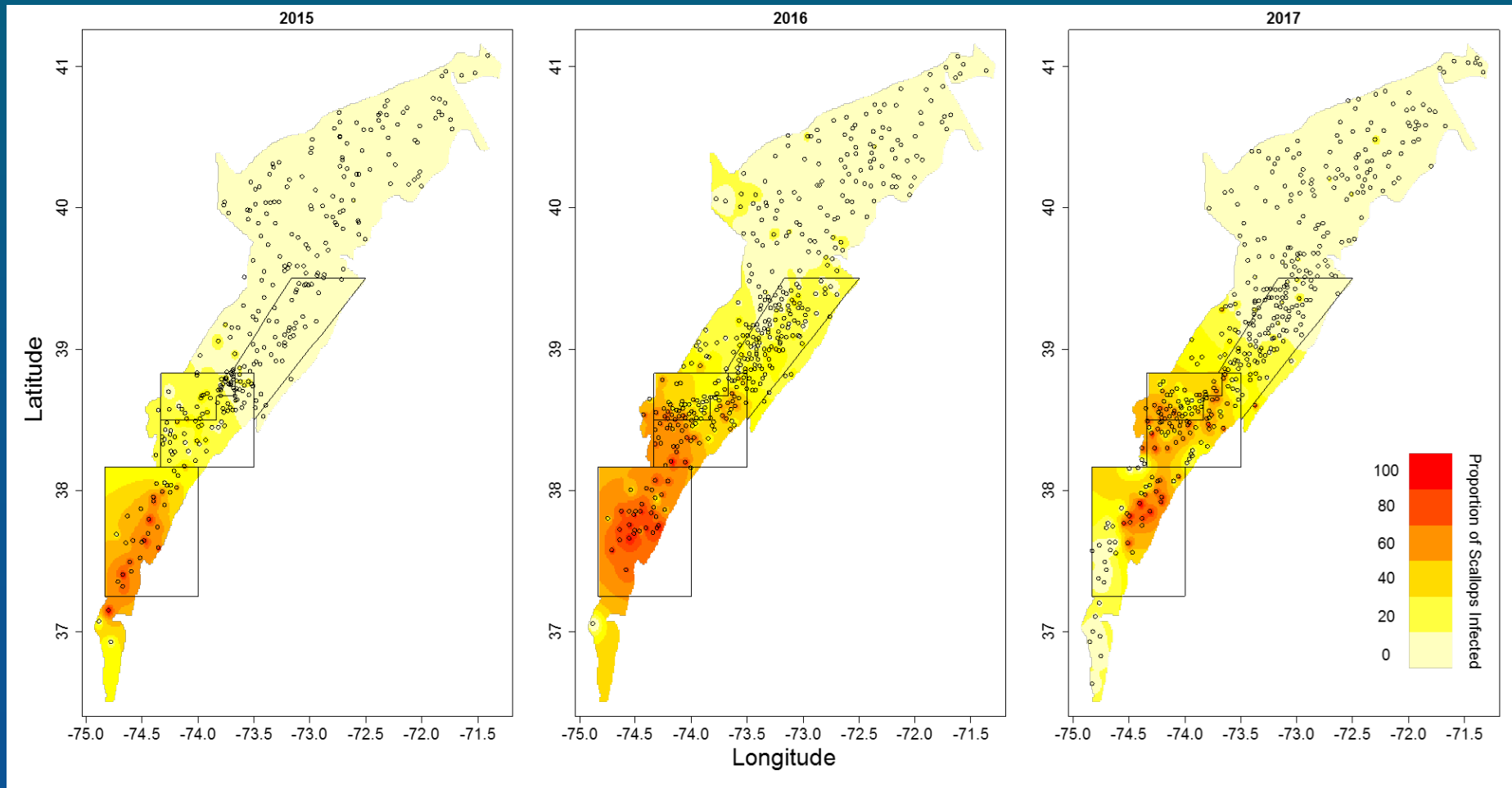
Nematode Observations

- For the 2017 surveys, VIMS continued an expanded biological sampling protocol to capture the spatial extent of the parasite as well as the prevalence and intensity of infected scallops.
- Sampled 15 animals at every station that had scallops.
 - Histological and genetic samples.
 - Gross observation of the number of nematodes present in an infected scallop.
 - Gross observation of the number of infected animals.



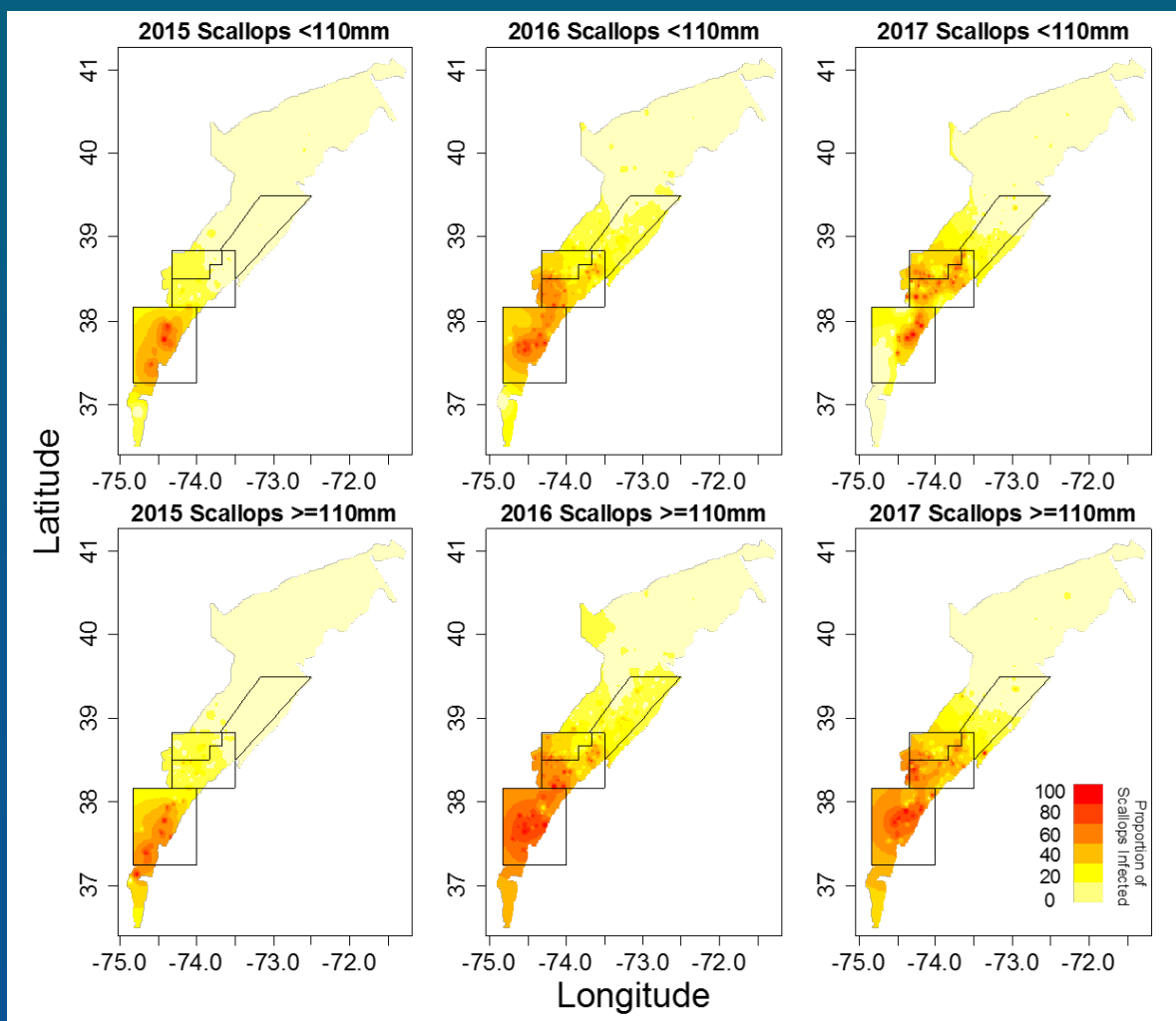
2017 VIMS-Industry Cooperative Surveys Nematode Prevalence

Spatial distribution of the prevalence of the parasite in sampled scallops by year



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Nematode Prevalence

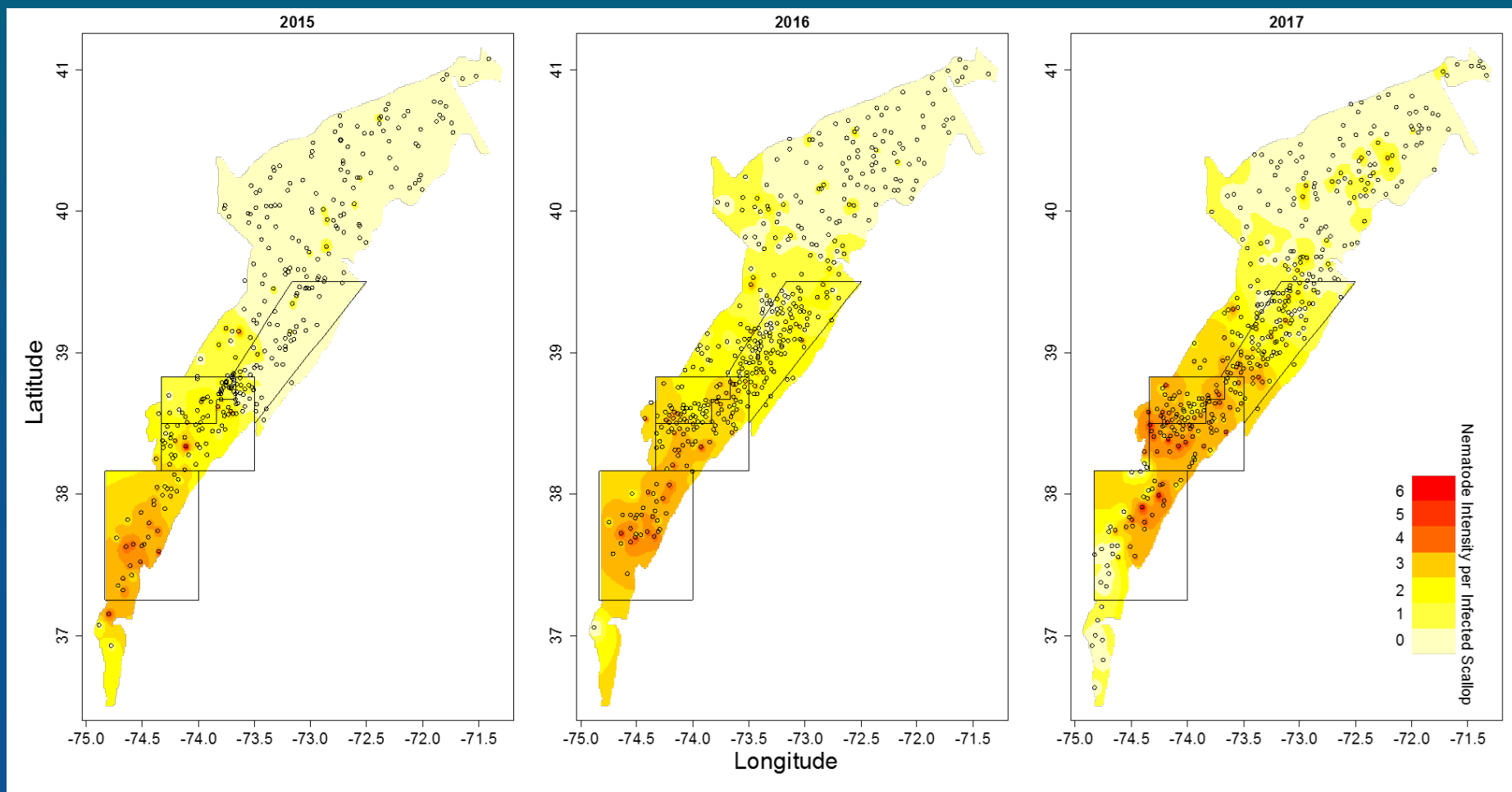


- Spatial distribution of the prevalence of the parasite in sampled scallops by year and size class
- Smaller sizes appear to be less infected over time
- The spatial extent of infections in larger scallops has contracted in 2017 compared to 2016, but the extent still covers the majority of the southern range.

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Nematode Intensity

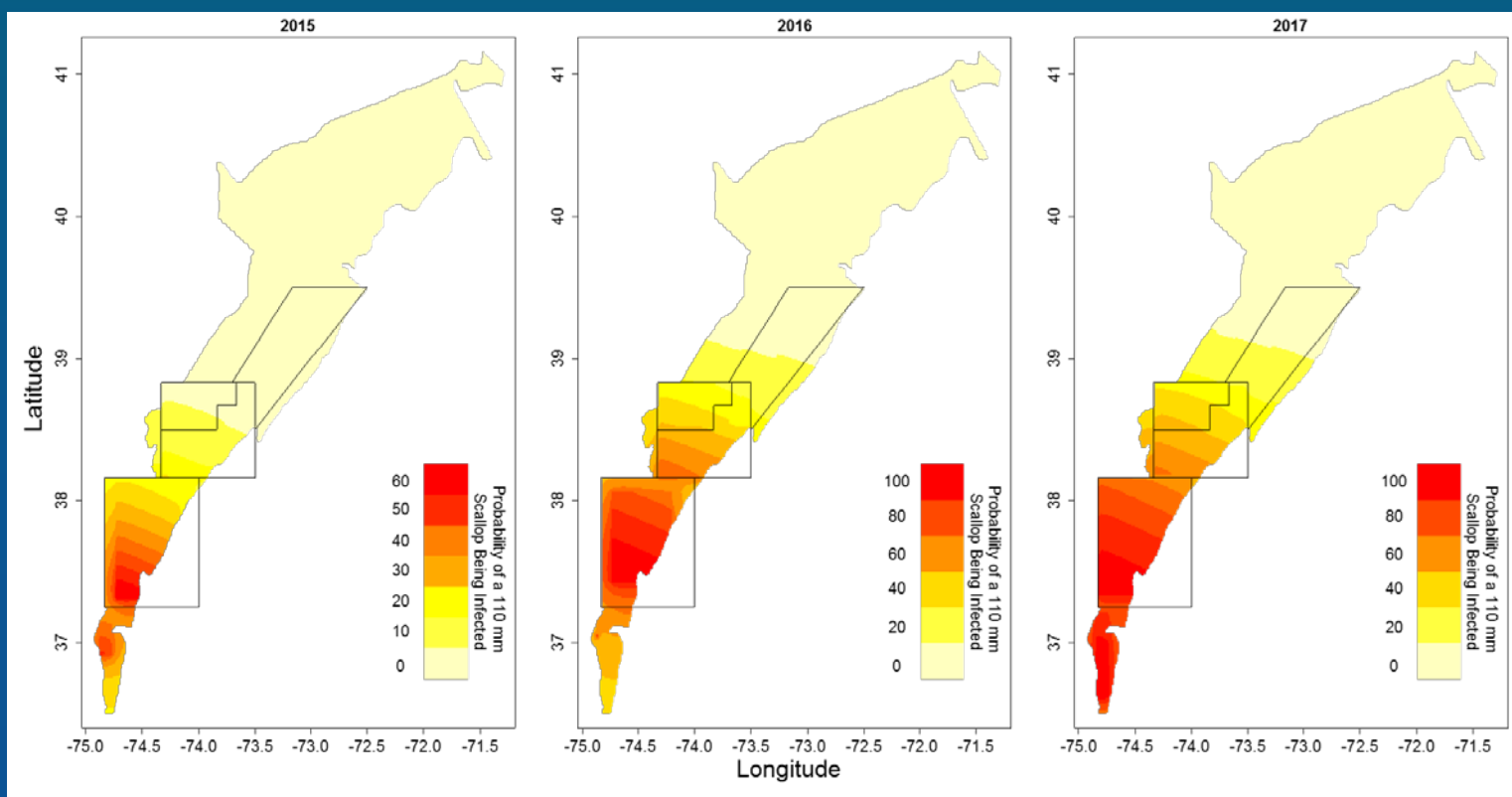
Spatial distribution of the mean number of nematodes per infected scallop



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GAMM for Nematode Presence

- GAMM was developed to predict the probability of a scallop being infected with nematodes.
- Significant predictor variables included year, tensor product of latitude & longitude, SAMS area & shell height.



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