

Using High Frequency Sidescan Sonar to Map Shellfish Habitat and Estimate Populations on a Managed Oyster Reef: Preliminary Results

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Talk Outline

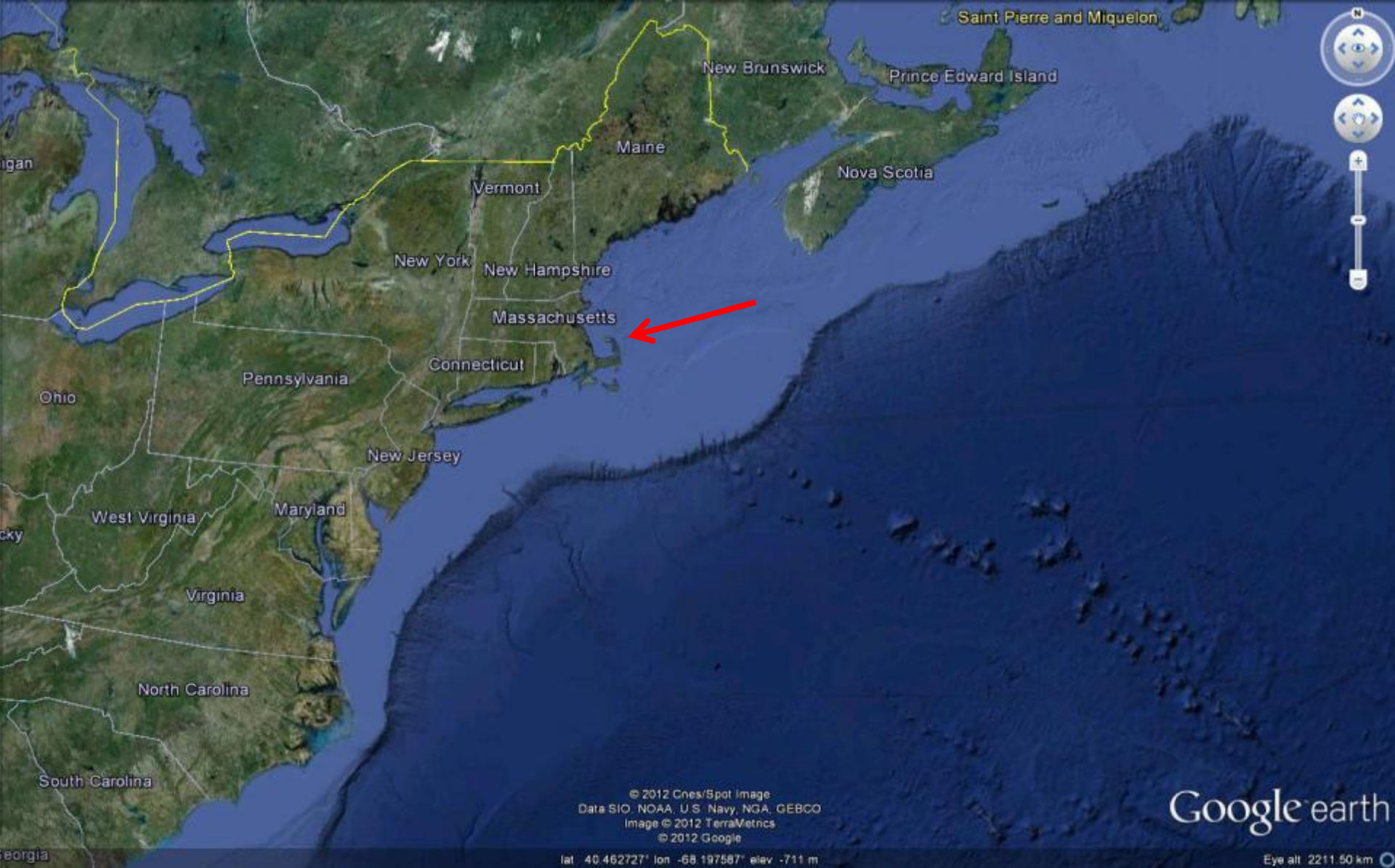
- Larger Project
 - Wellfleet Harbor Oyster Propagation Study
 - Using Sidescan Sonar to Measure Universal Metrics
- Brief intro: Acoustic Data and Sidescan Sonar
- Preliminary Results and next Steps



Project Goals

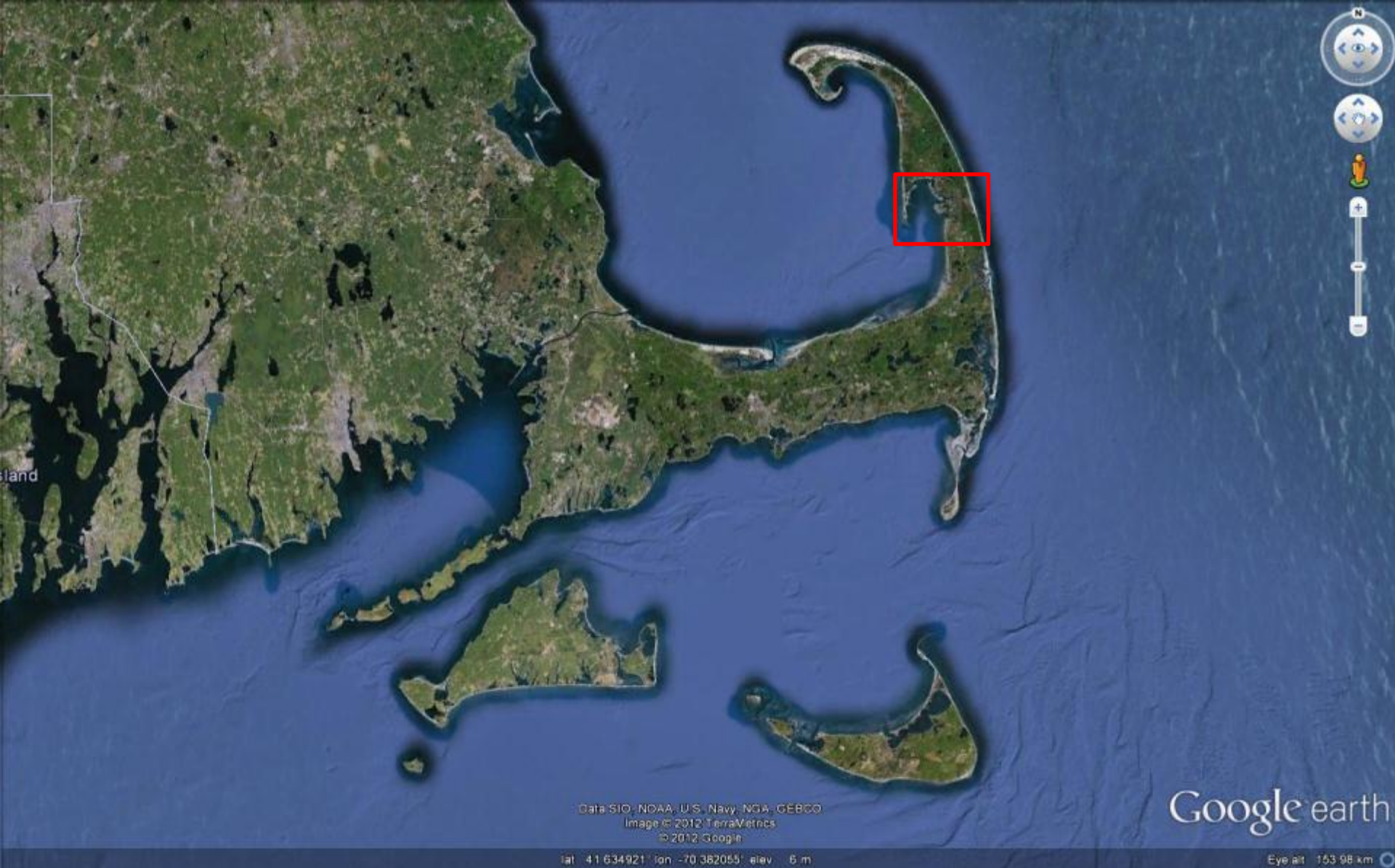
- Establish Universal Metrics using sidescan sonar data ground validated with sampling (quadrats)
 - Reef Area
 - Reef Height
 - Oyster Density and Recruitment





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Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2012 TerraMetrics
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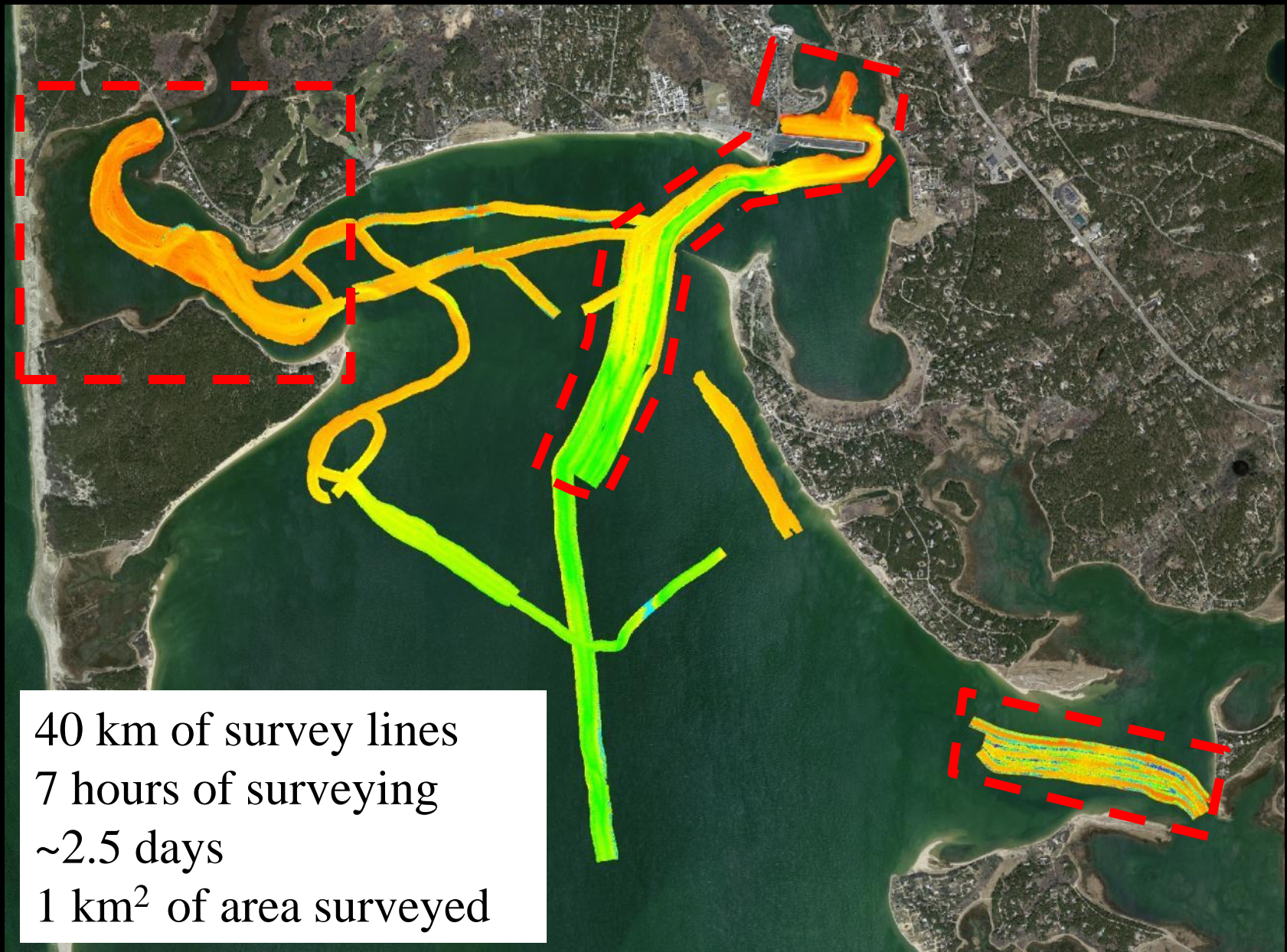
lat: 41.634921° lon: -70.382055° elev: 6 m

Google earth

Eye alt: 153.98 km

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60 cm cu Proptagathodus like bill valve



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Cape Cod Times/Merrily Cassidy

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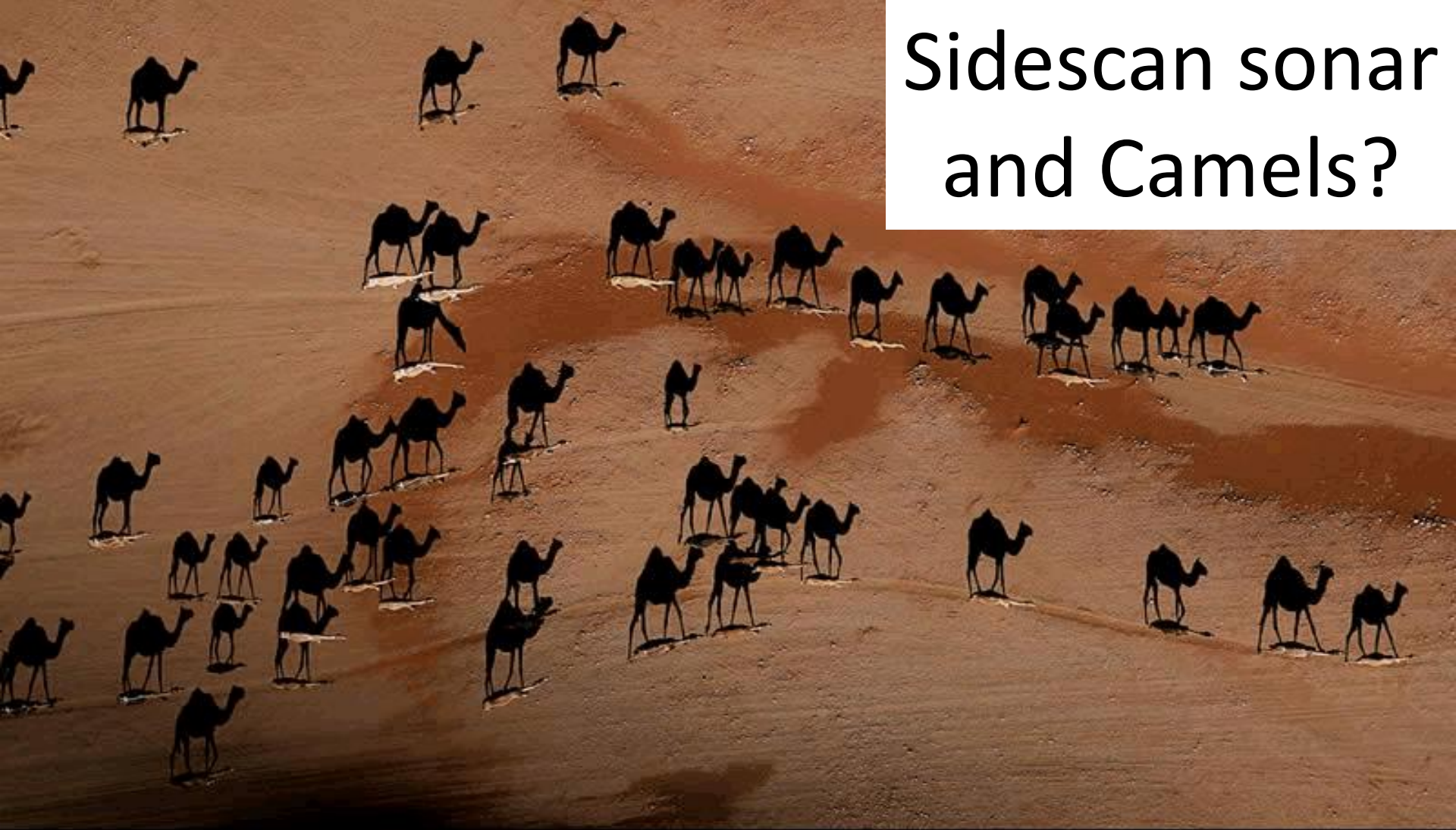




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Sidescan sonar and Camels?



Fotoğraf: George Steinmetz

© 2005 National Geographic Society. Her hakkı saklıdır.

Dev Develer

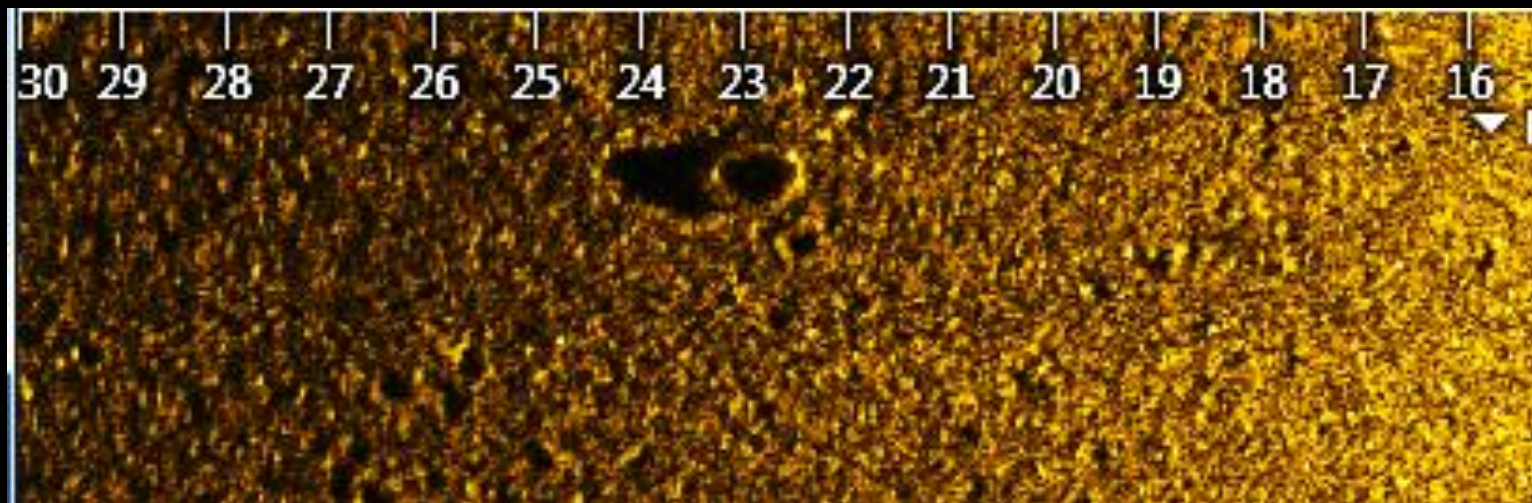
National Geographic Türkiye, Şubat 2005

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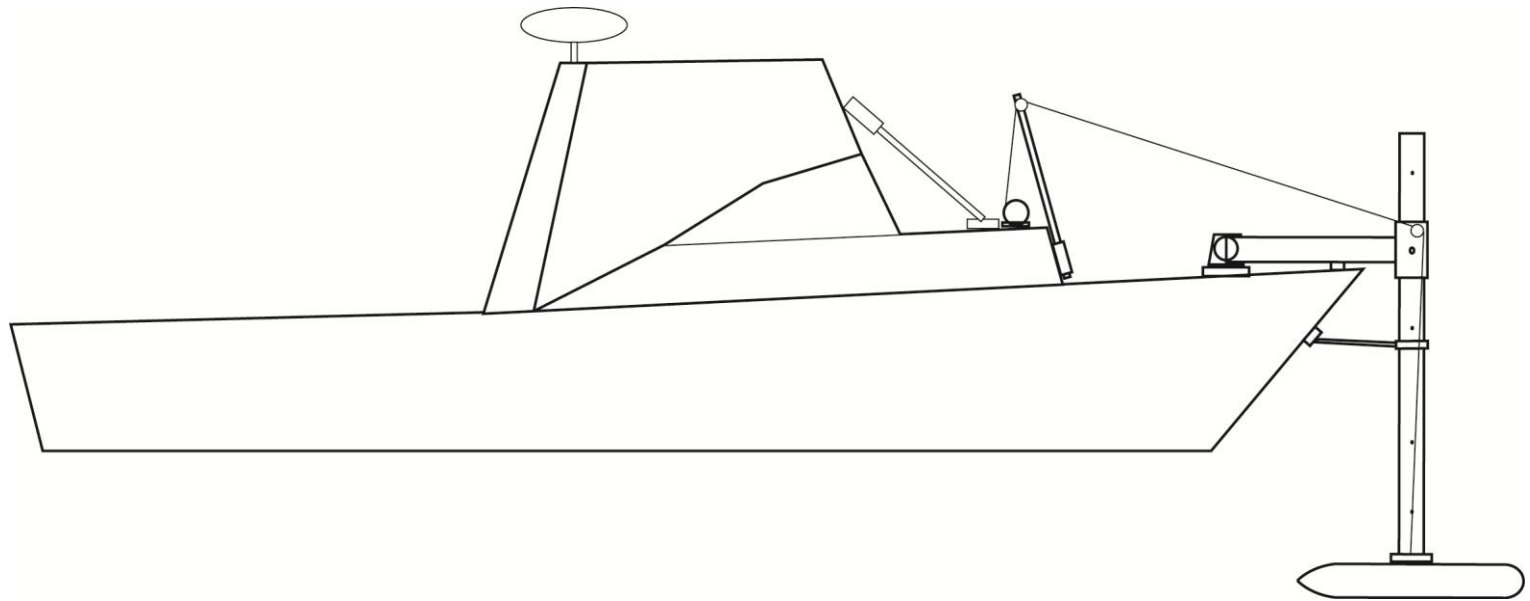
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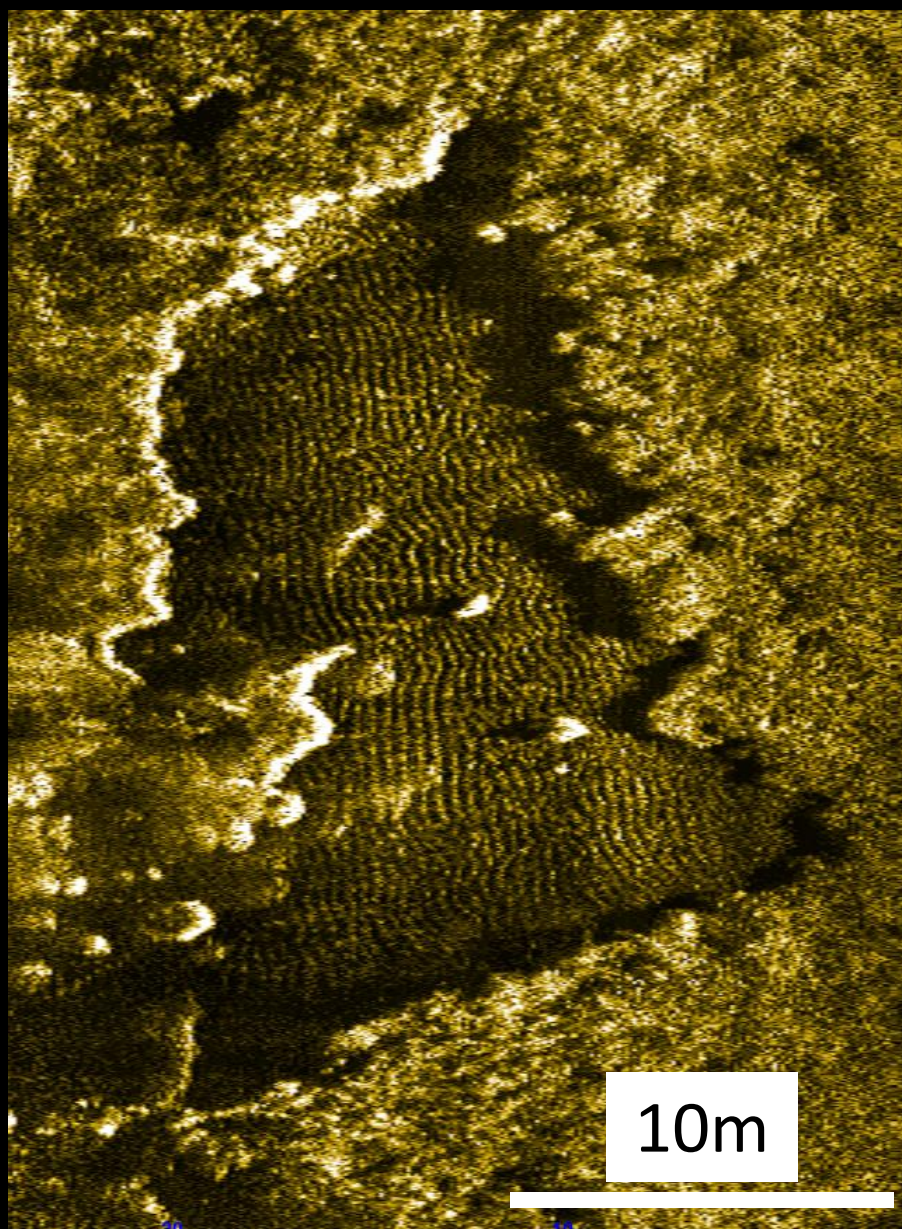
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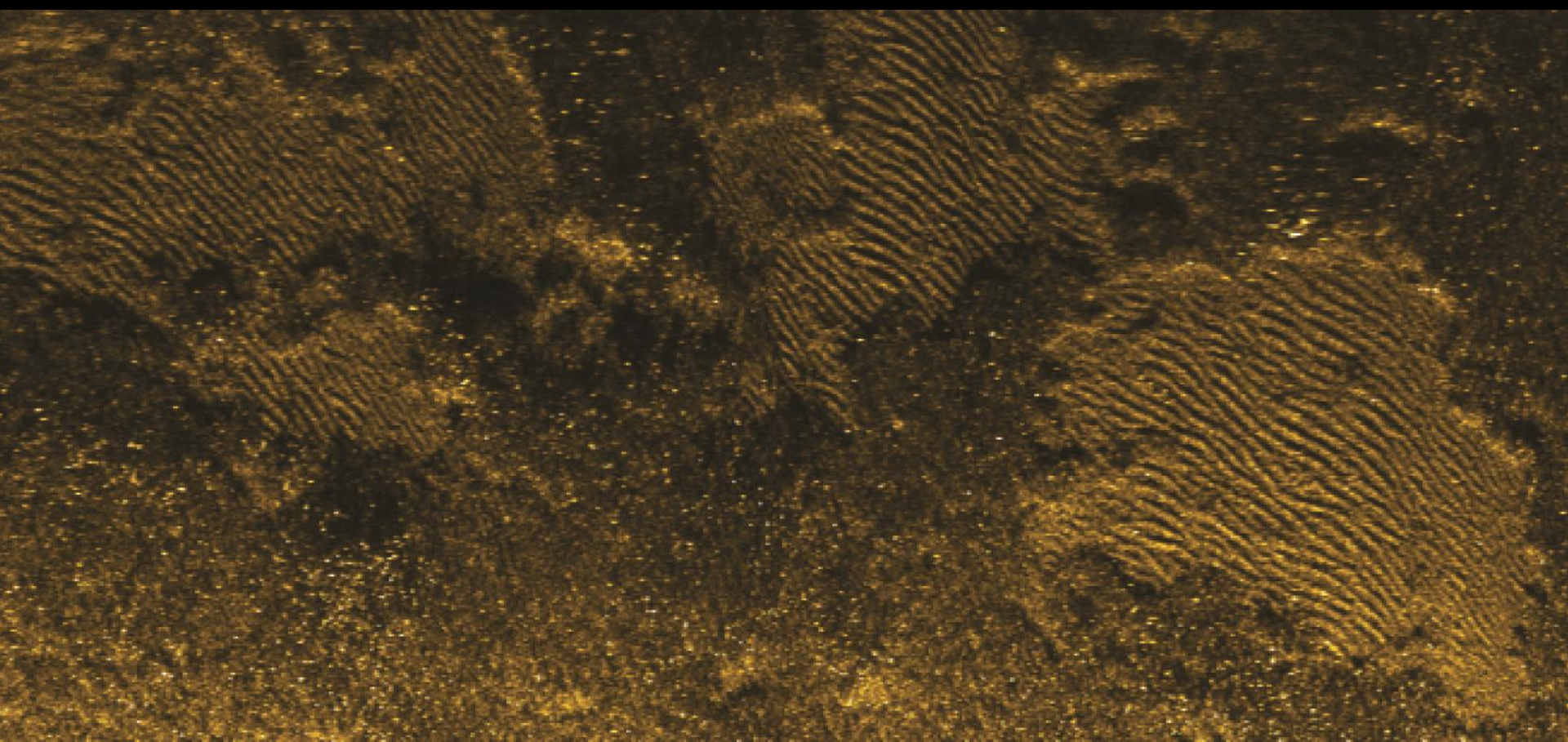
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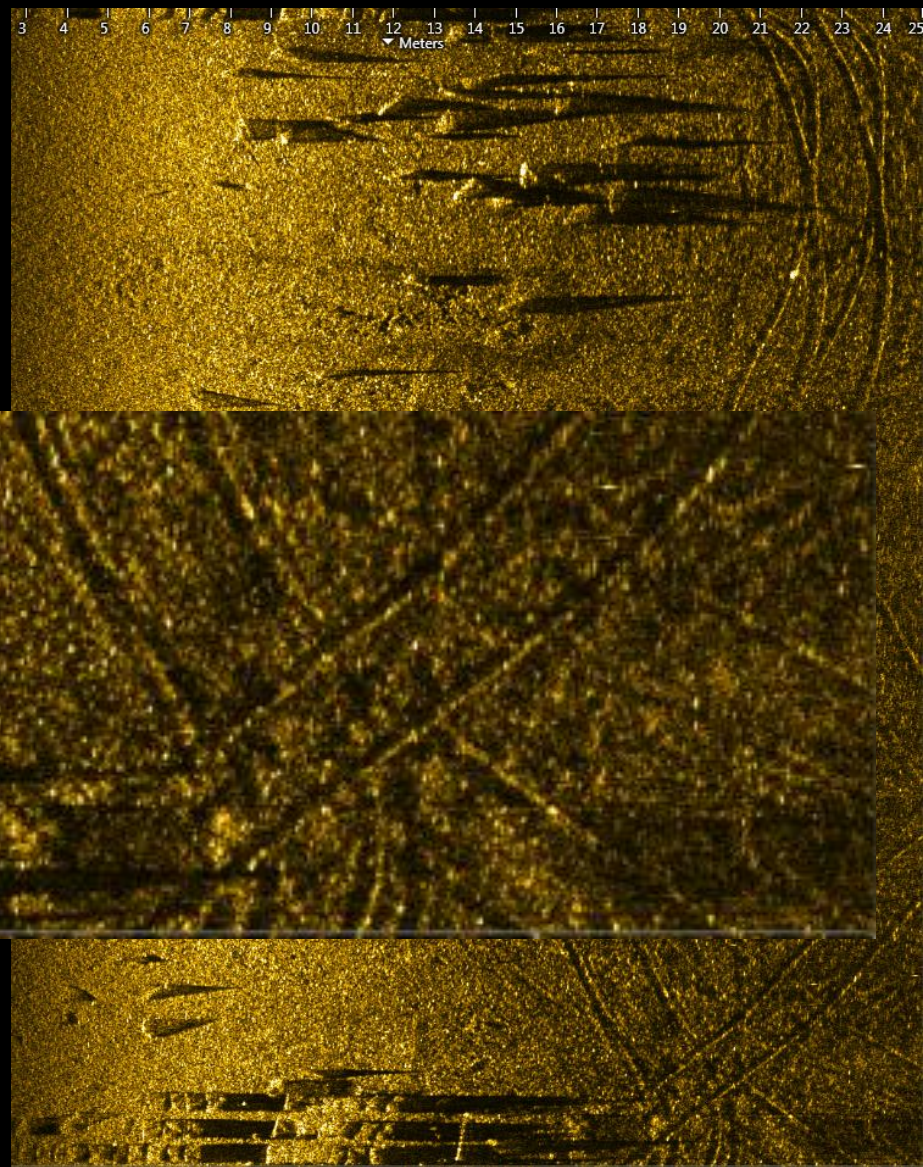




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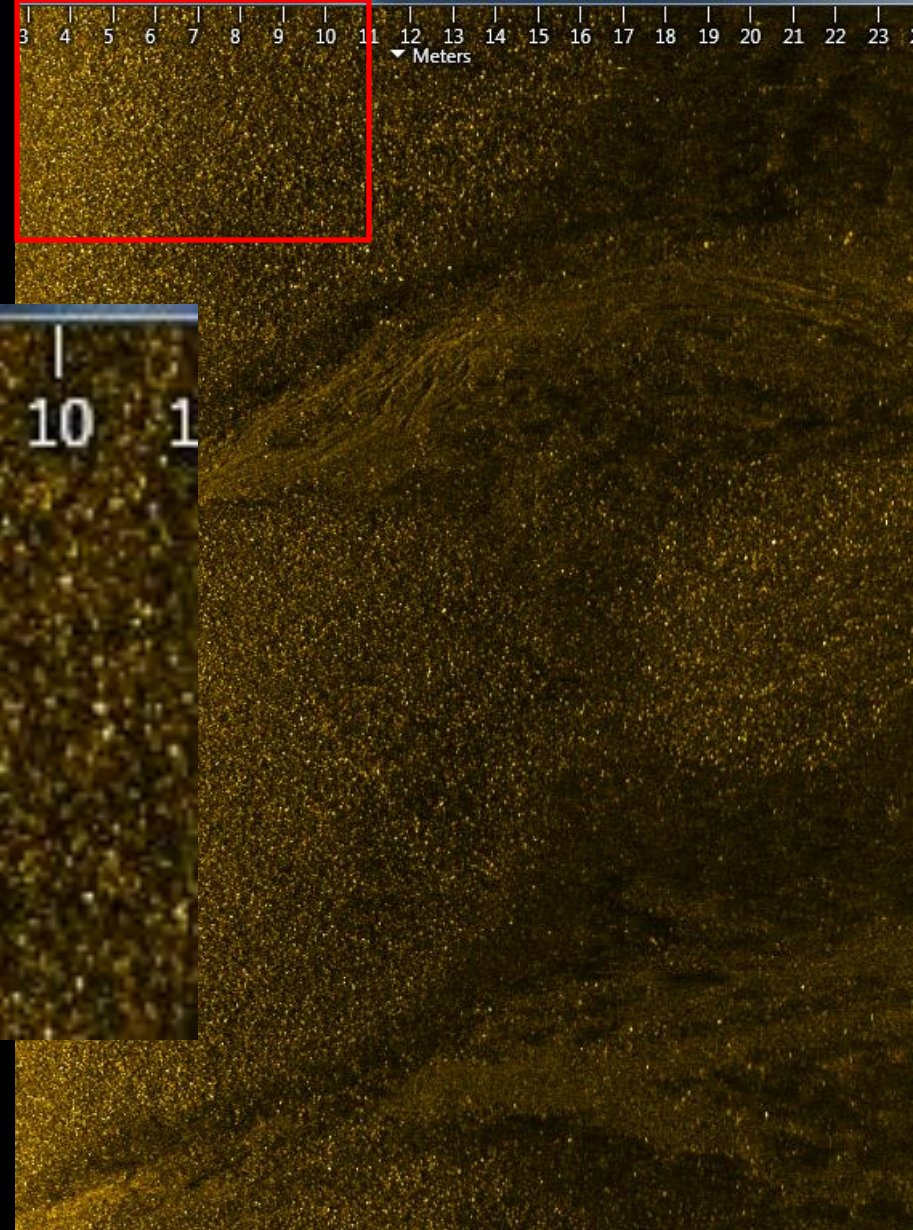
Intertidal Aquaculture Areas



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Areas of Natural Oyster Growth



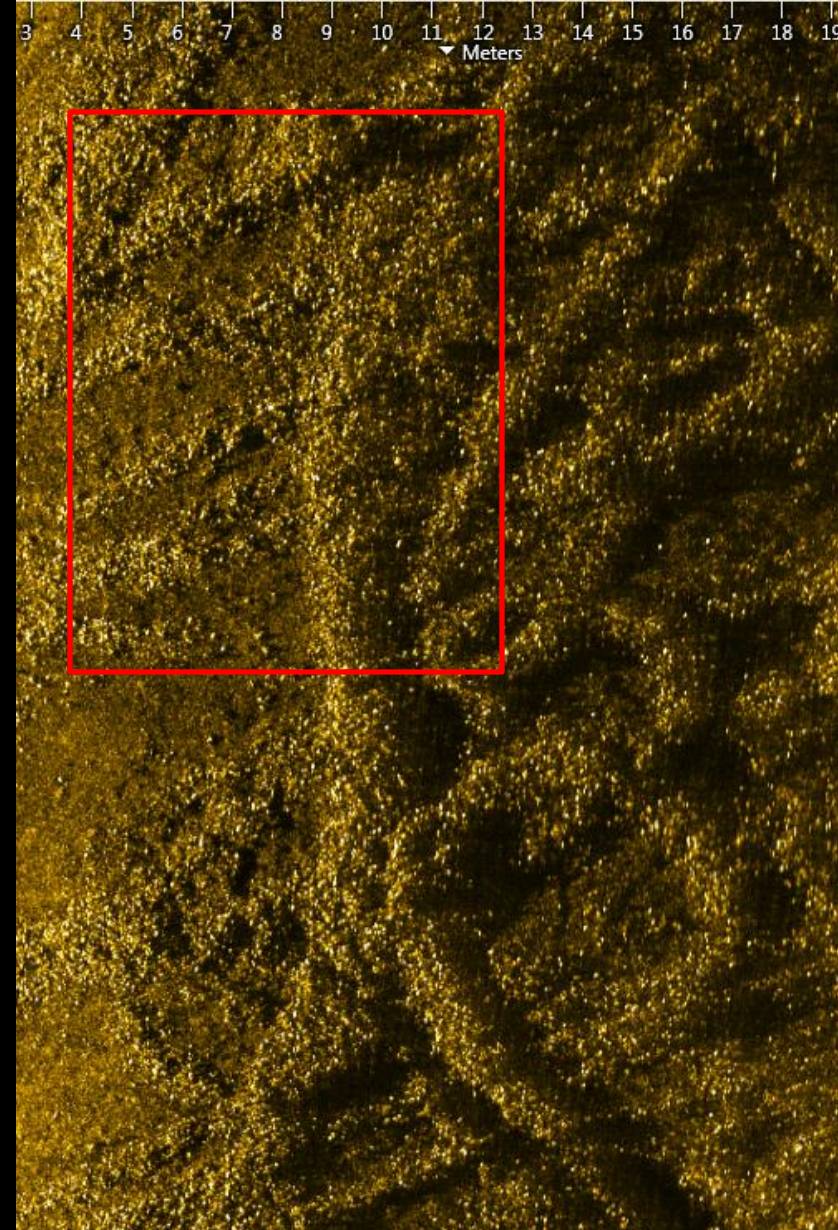
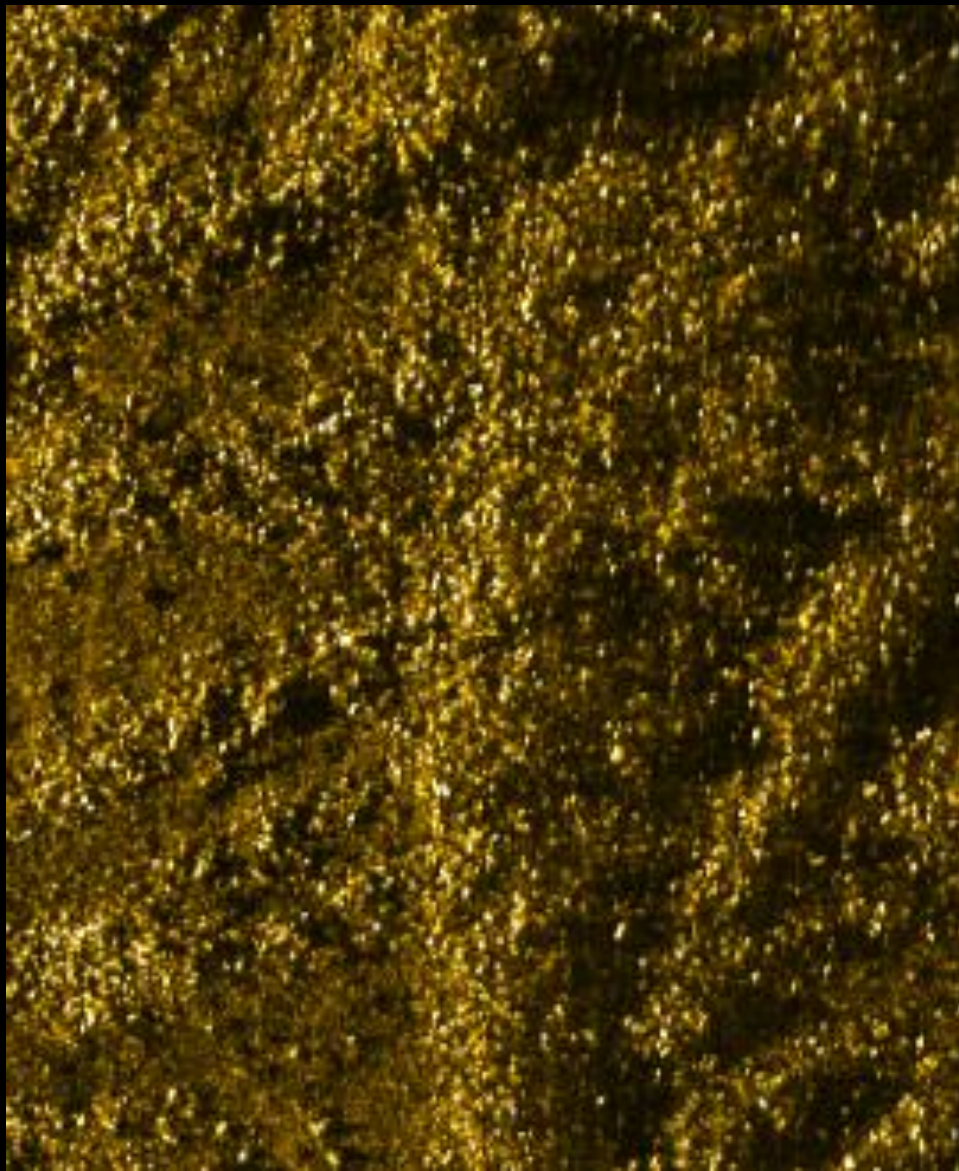
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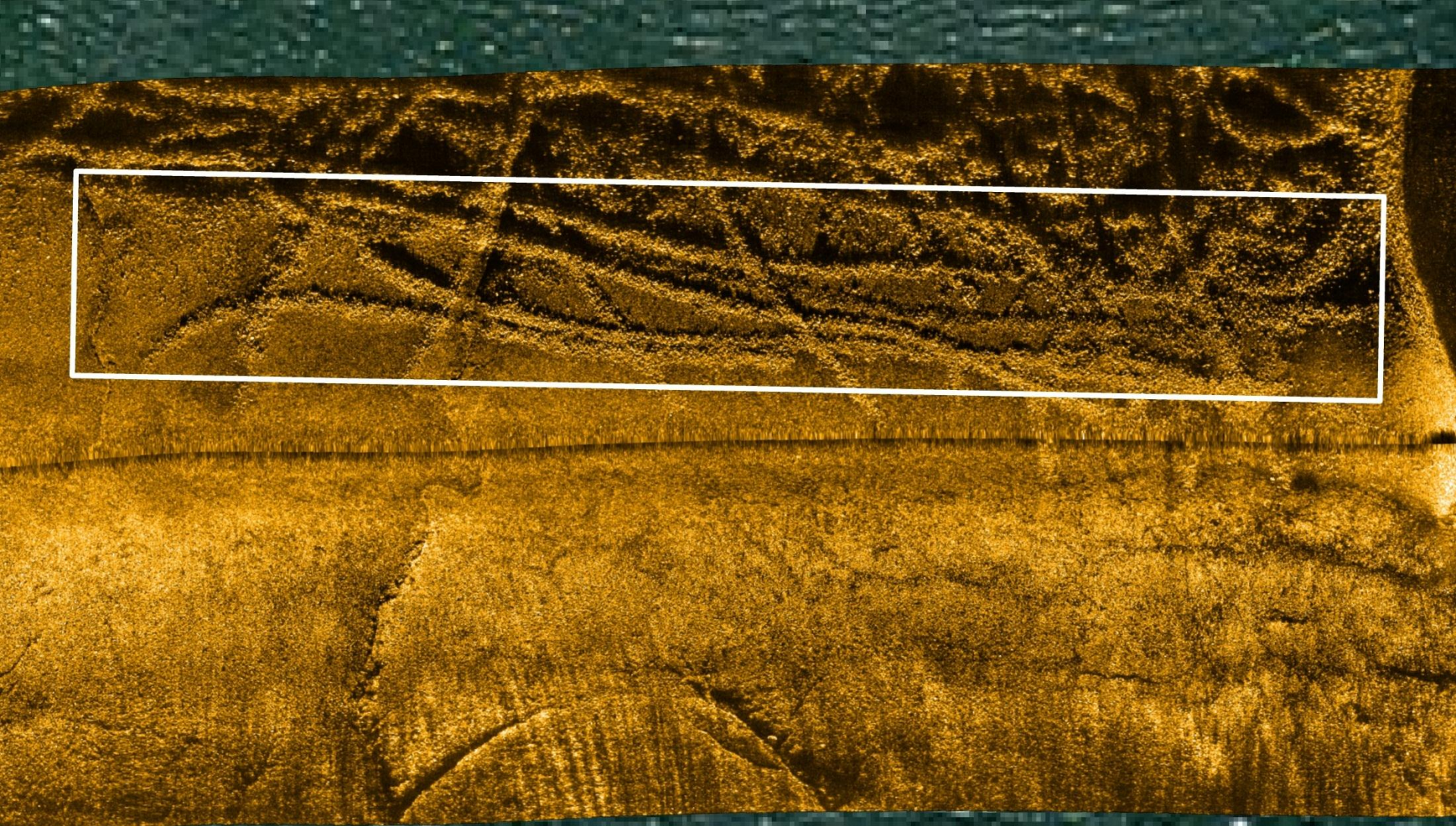
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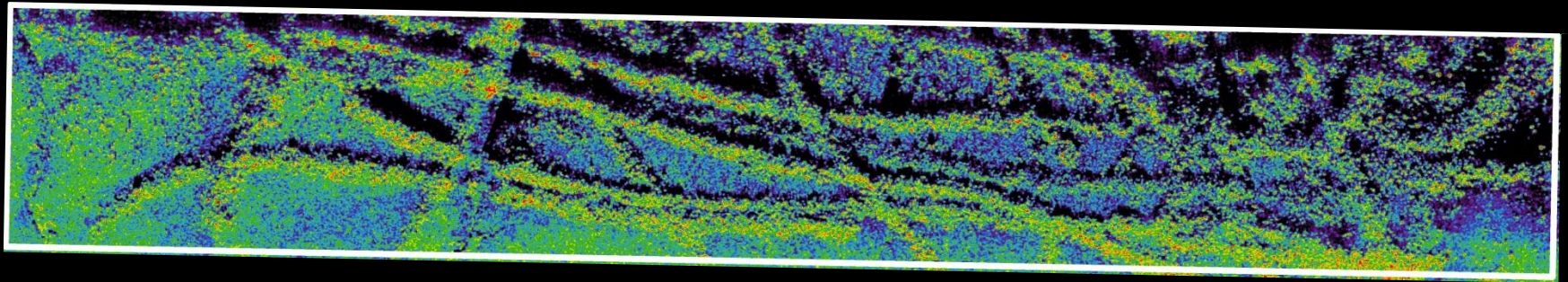
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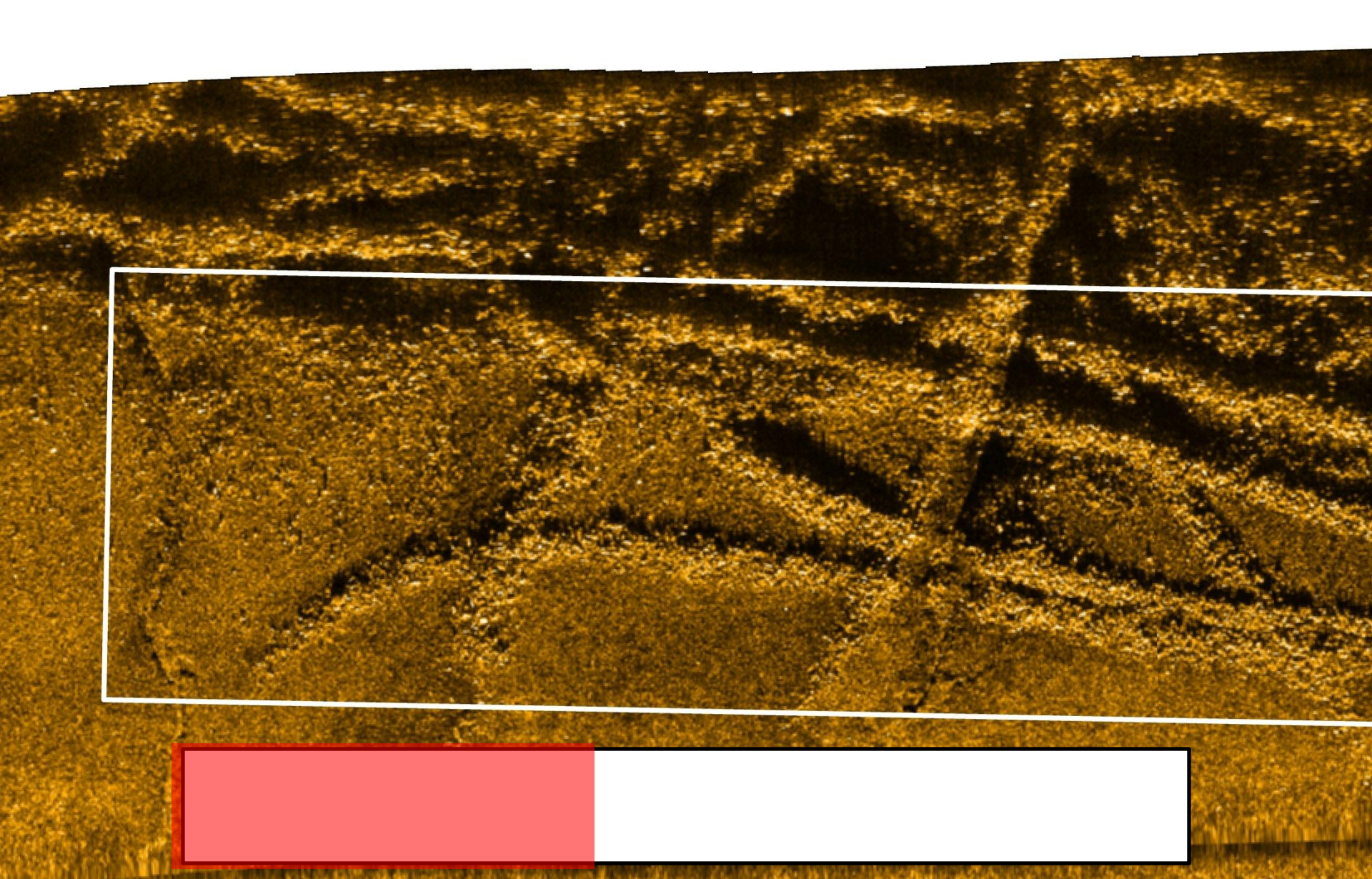
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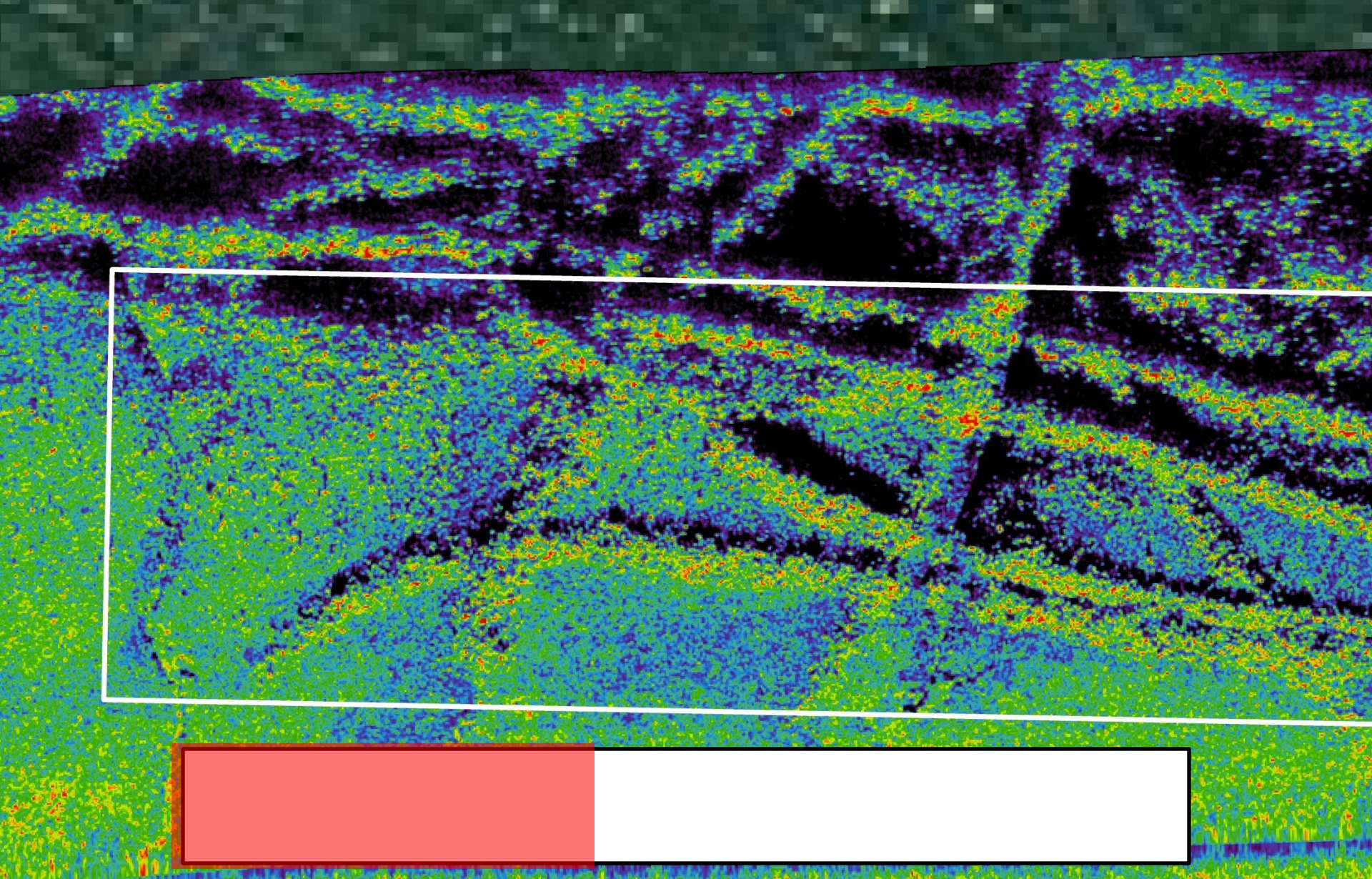
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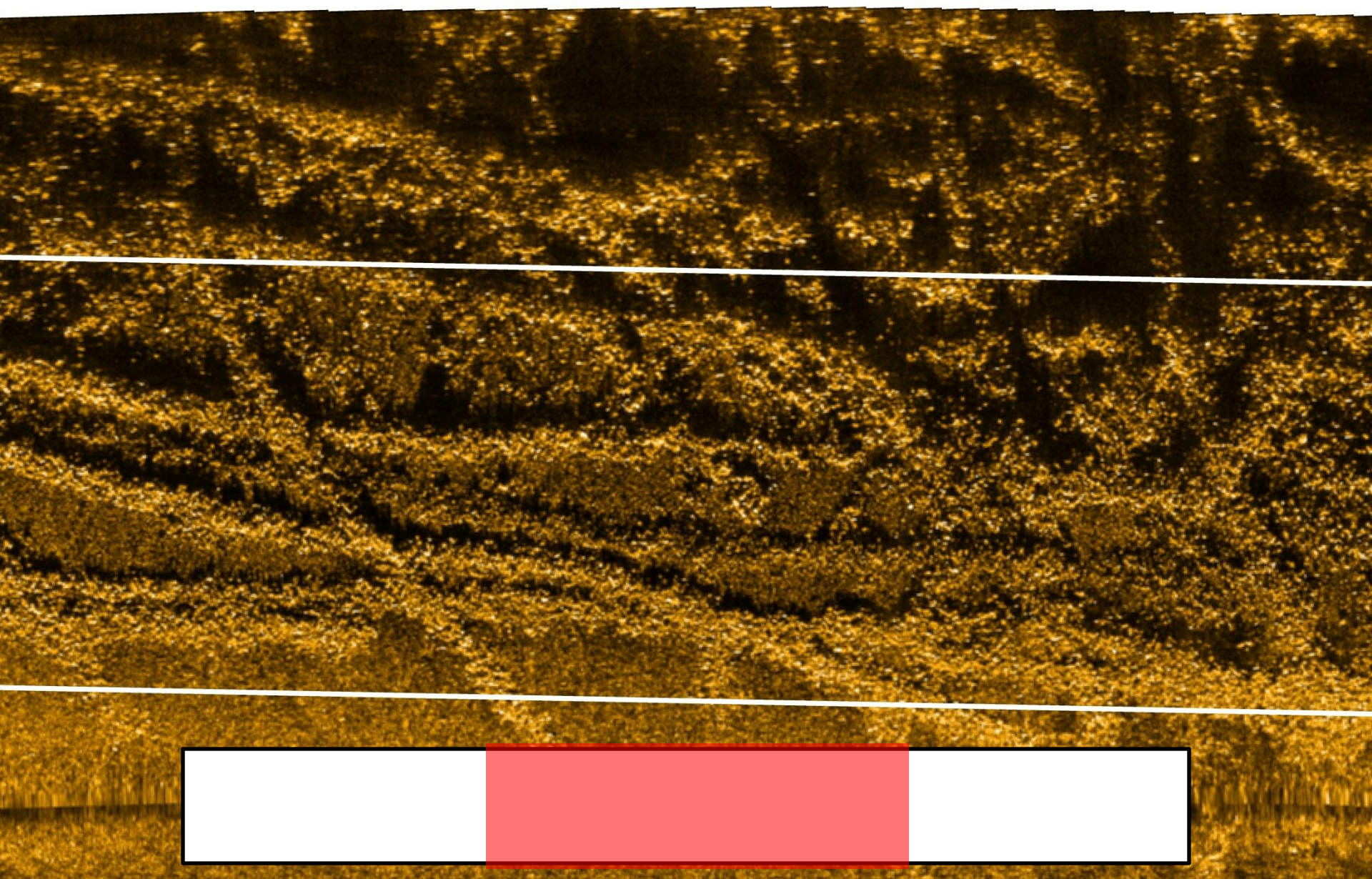
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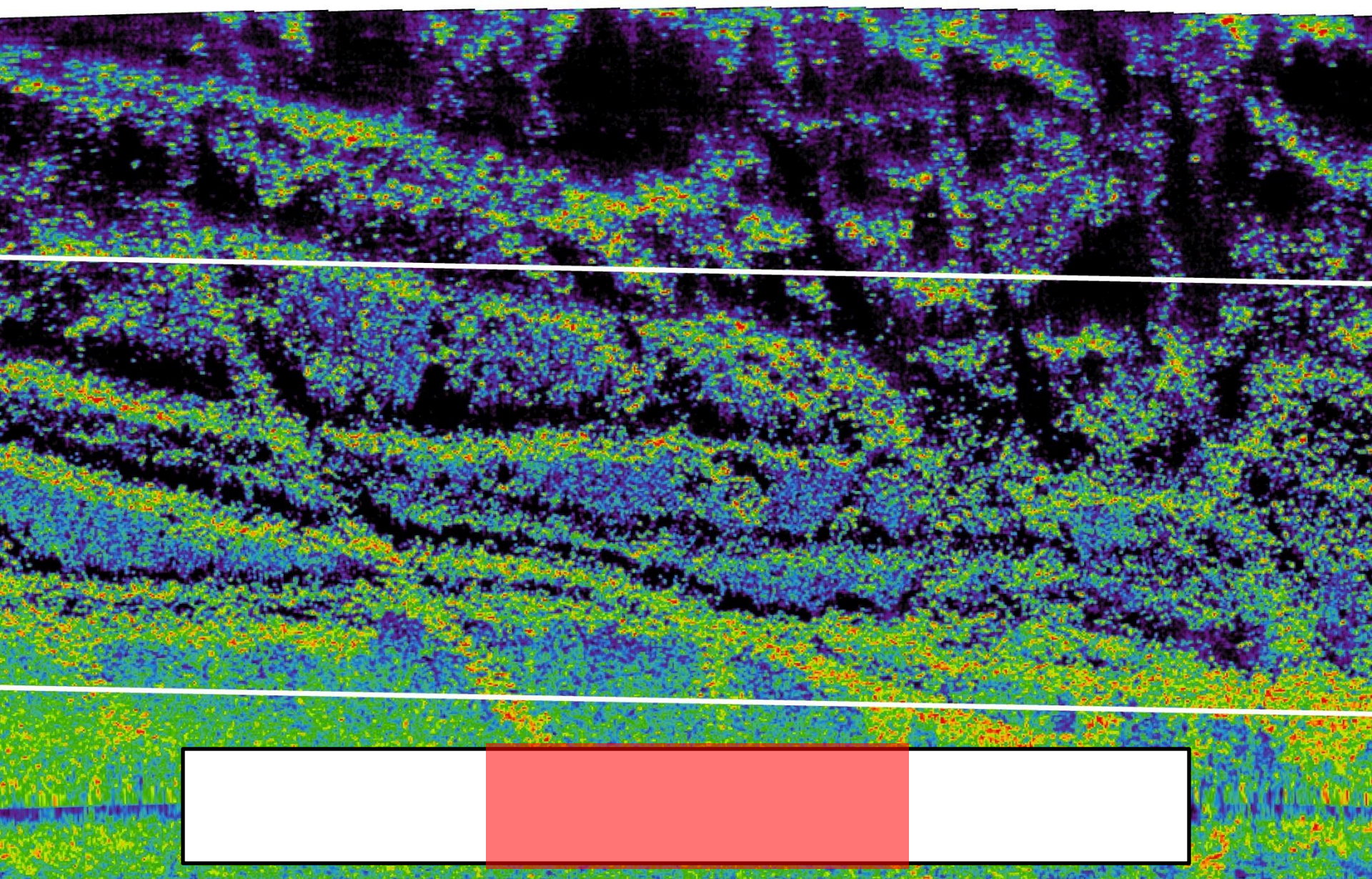
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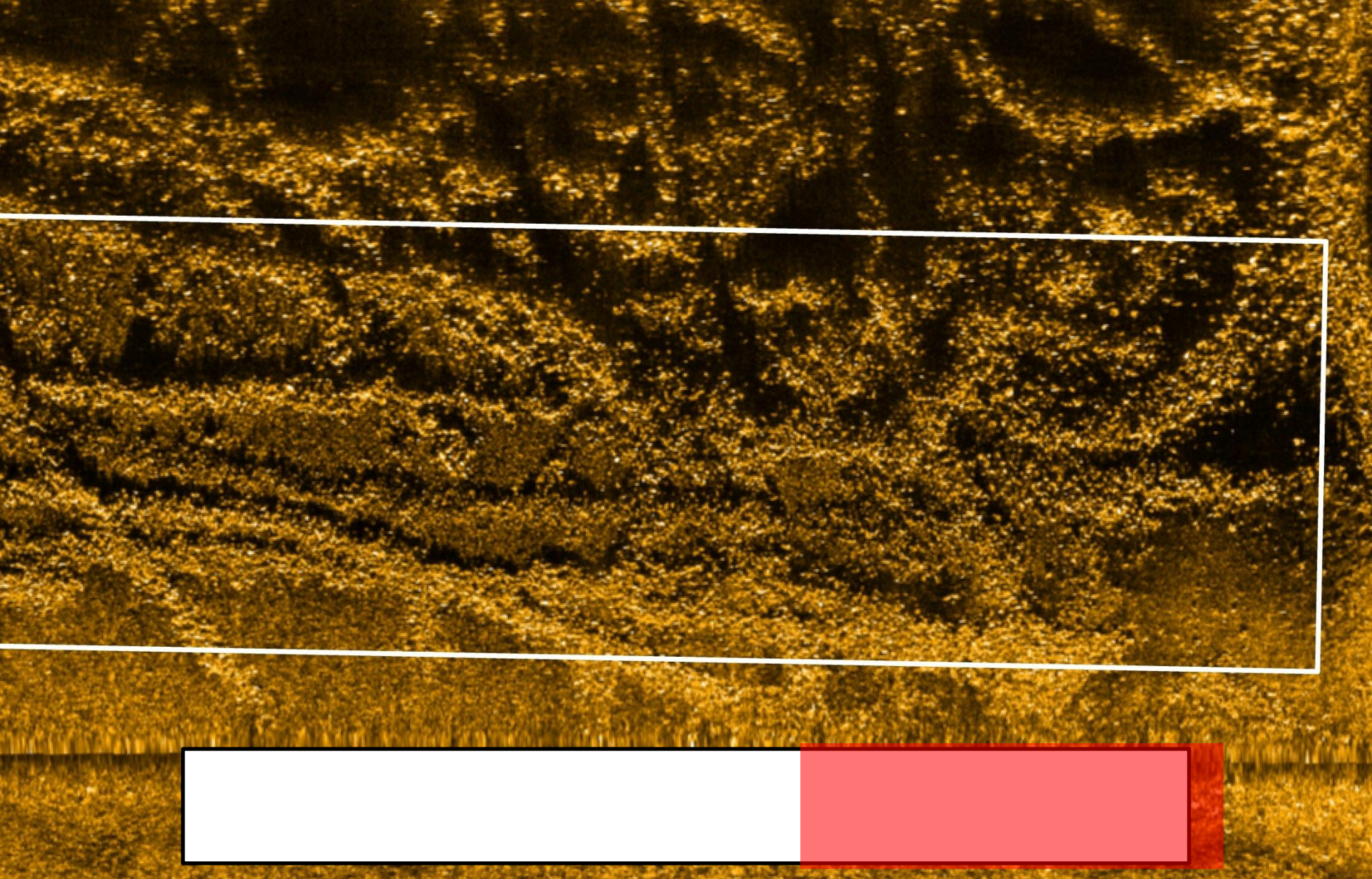
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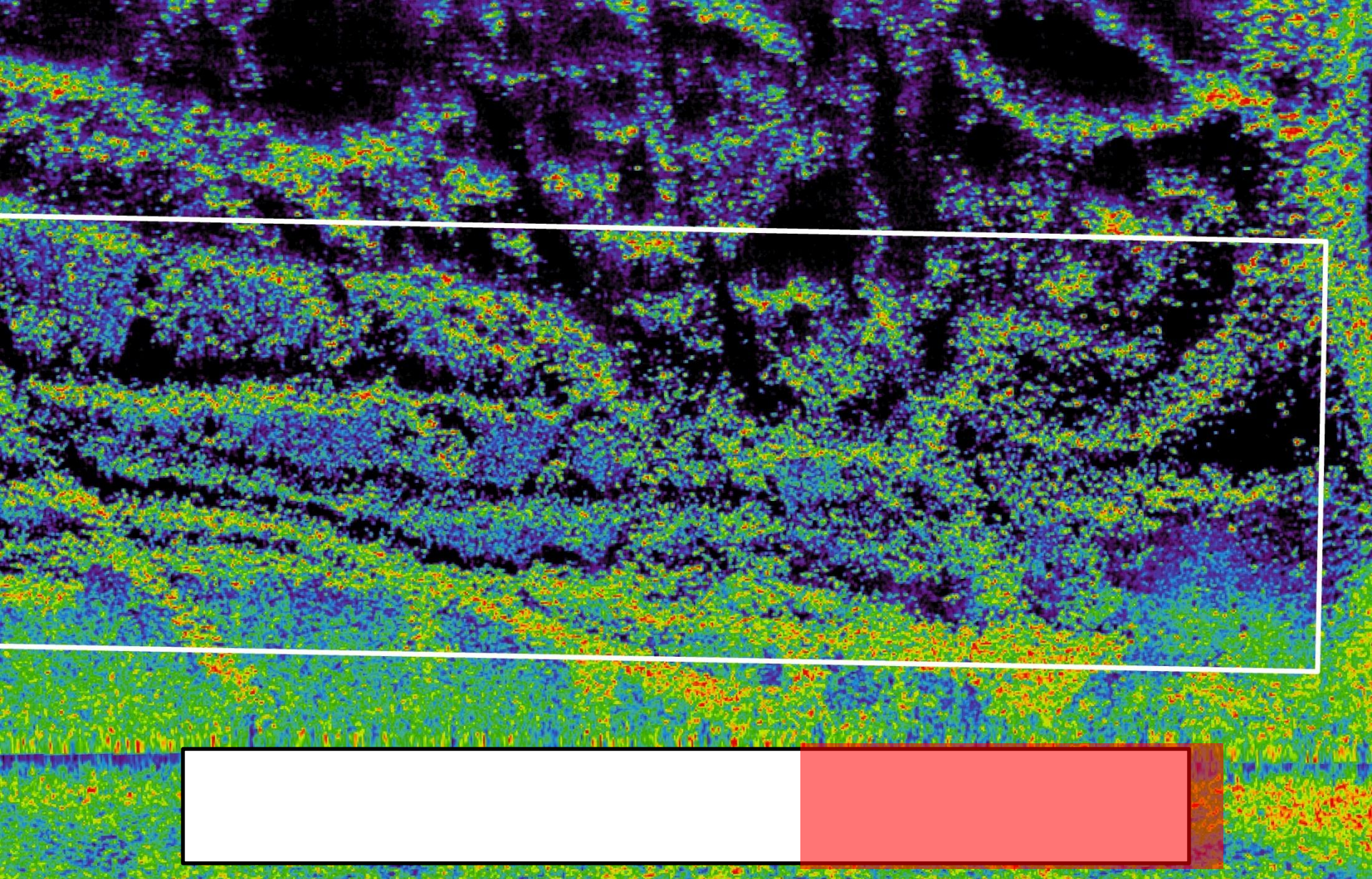
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Initial Findings and Next Steps

- Establish quantitative relationship b/tw oysters in life position and sidescan sonar data
- Ground validate
 - Reef Area
 - Reef Height
 - Oyster Density and Recruitment
- Spring Sonar and Ground Validation Surveys



Acknowledgements

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