

THE FAUNAL COMMUNITIES ASSOCIATED WITH *SARGASSUM HORNERI*



Credit: Jack Engle

Stephanie Saccardi

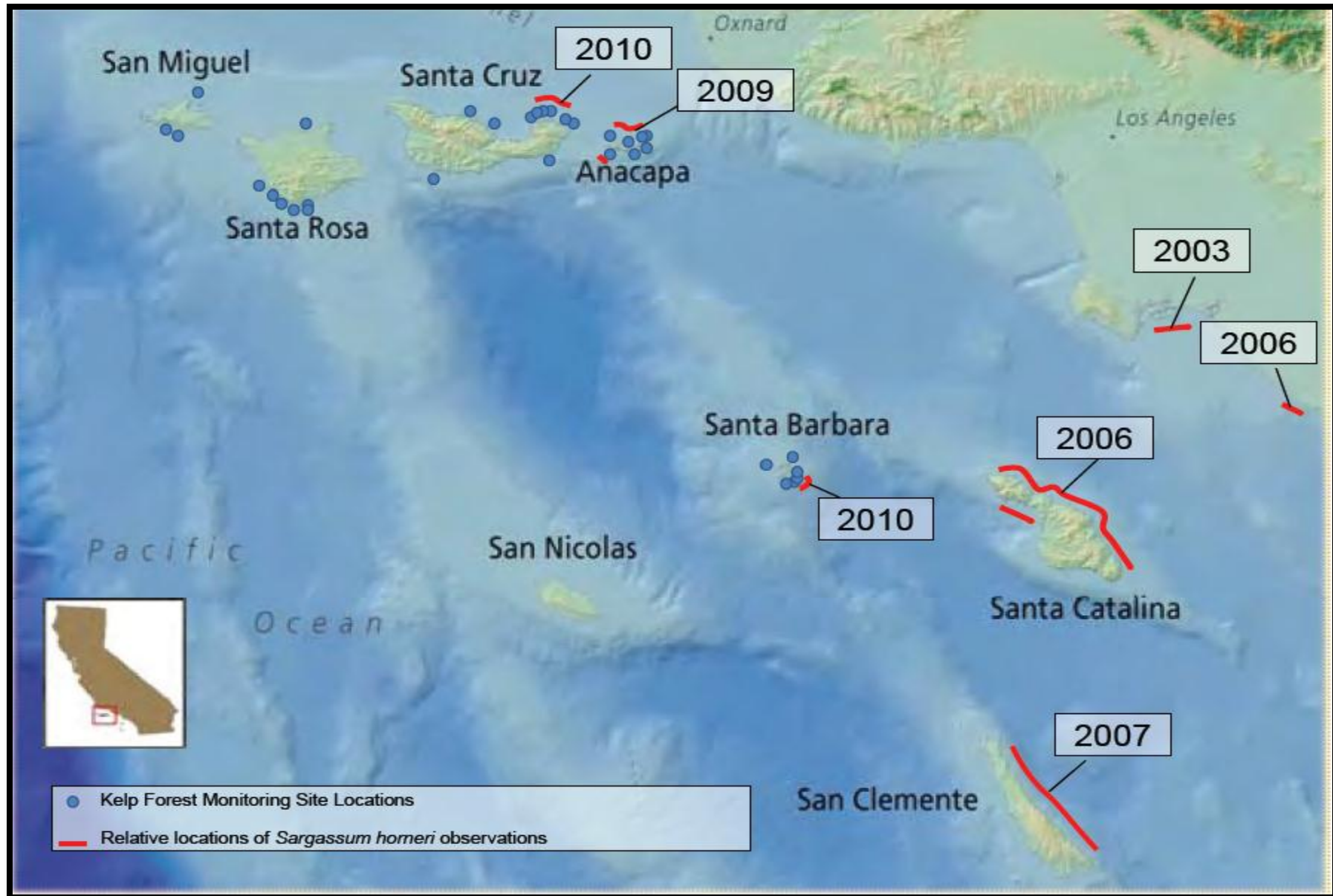
Santa Barbara City College
Biological Sciences

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Research Network



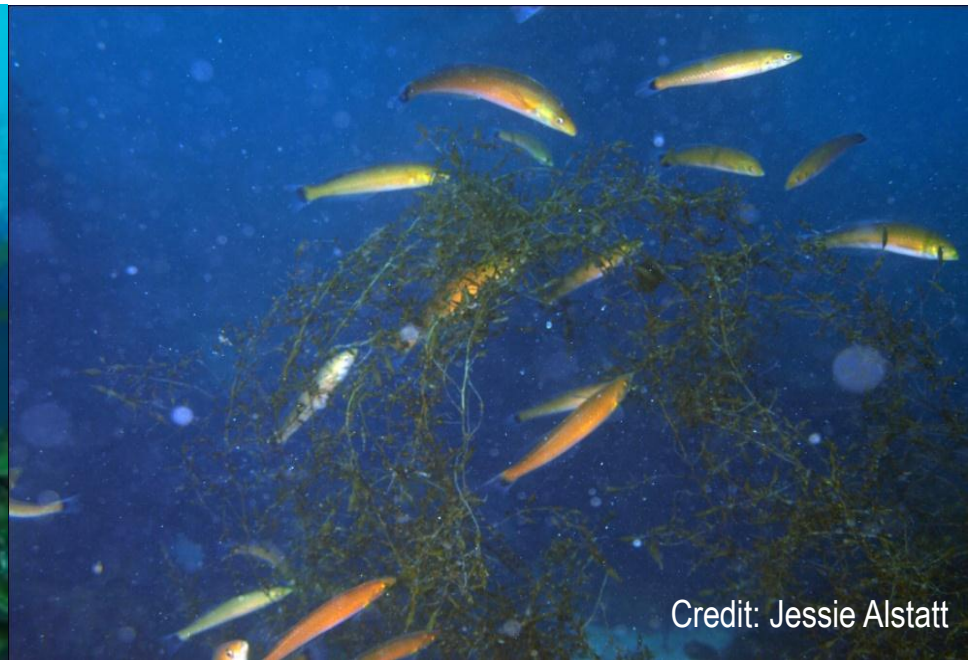
Timeline of *Sargassum horneri* invasion in Southern California



Credit: David J. Kushner

Why care about invasive species?

Invasive species may cause harm to the environments they populate.



They can outcompete native species for food or resources...

...and change the structure of food webs

Threatened biodiversity?

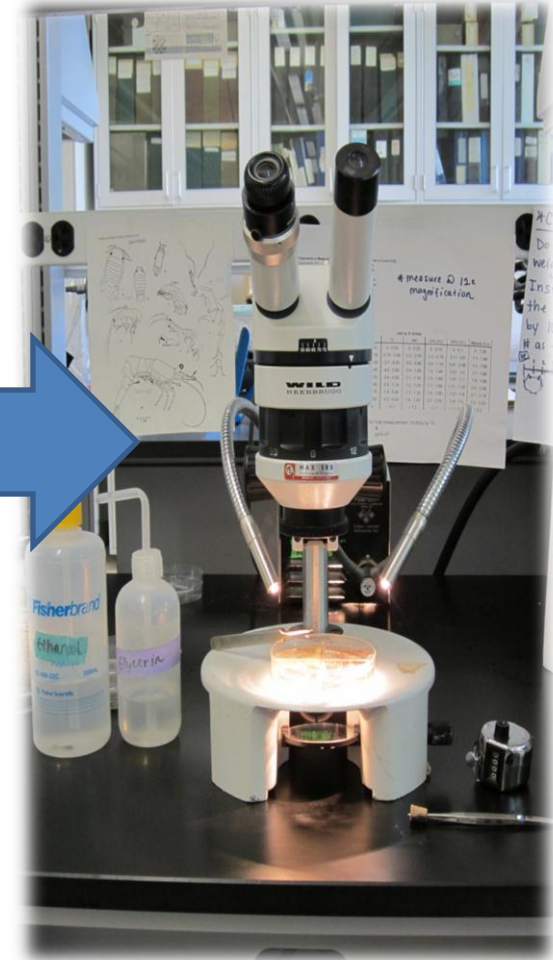
Objectives:

1. Determine abundance and variety of organisms colonizing on *Sargassum horneri*



2. Compare the communities found on *Sargassum horneri* to those on native kelps

Observing the microfauna on *Sargassum horneri*



Lindsay collects samples of *Sargassum*

Samples are sieved and placed in a sorting dish

Invertebrates are sorted, counted, and measured



50X

Class Ophiuroidea
Brittle star



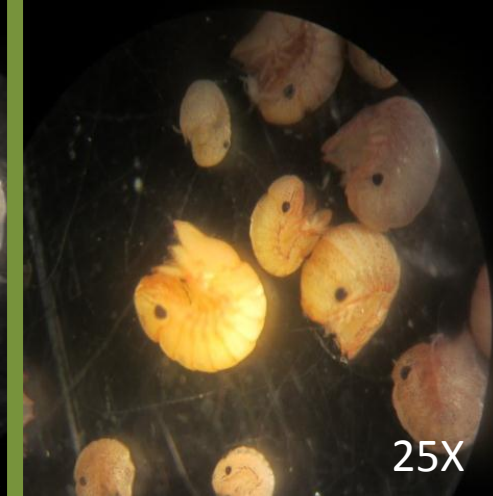
50X

Class Polychaeta
Worm



25X

Suborder Gammaridea
Gammarid



25X

Family Sphaeromatidae
Isopod

Suborder Caprellidea
Caprellid



25X

Order Decapoda
Shrimp



25X

Family Idoteidae
Isopod



6.25 mm

25X

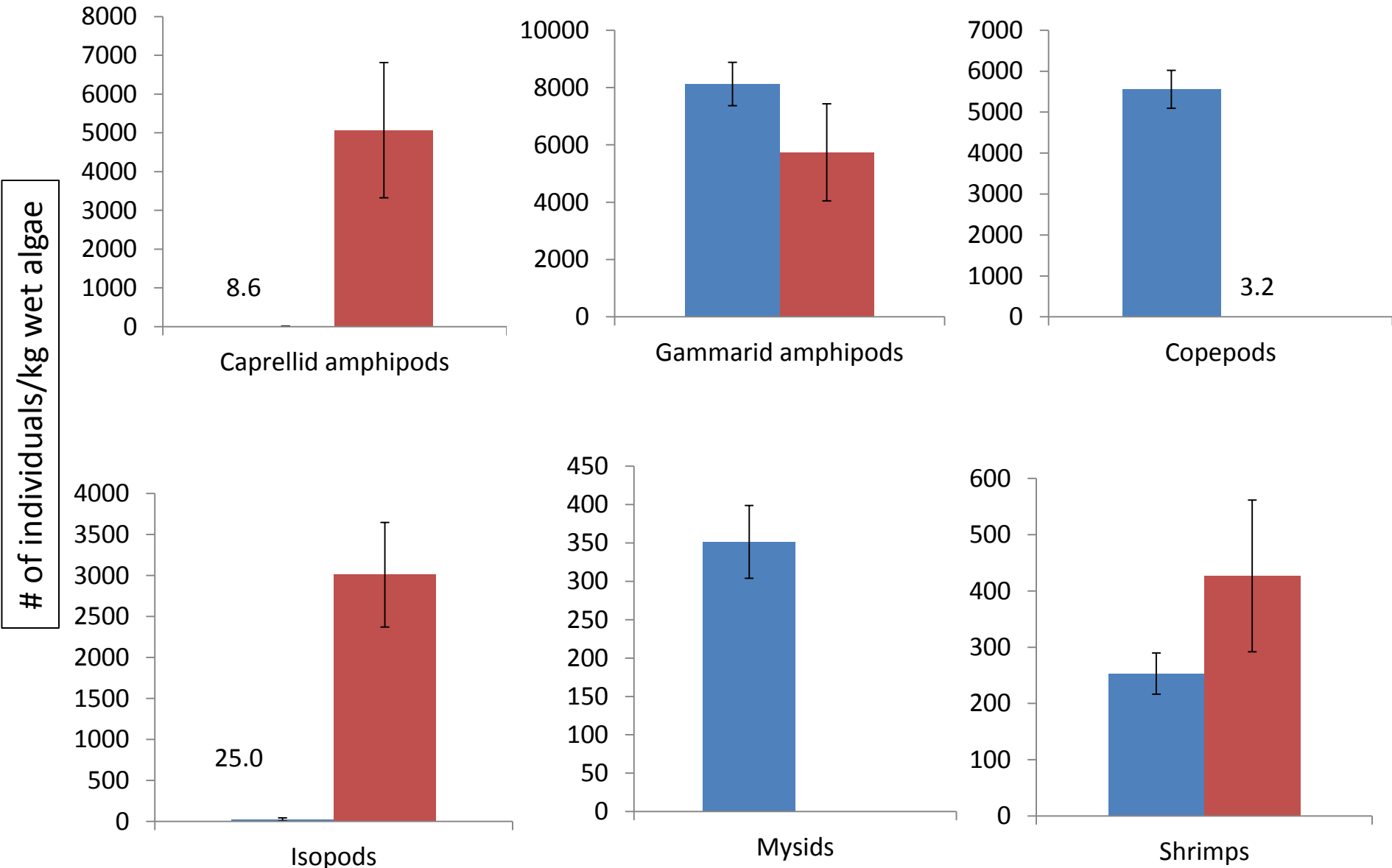
Class Gastropoda
Snails



3.125 mm

50X

Assemblage of invertebrates differs among *Macrocystis pyrifera* and *Sargassum horneri*



Two different habitats to choose from:

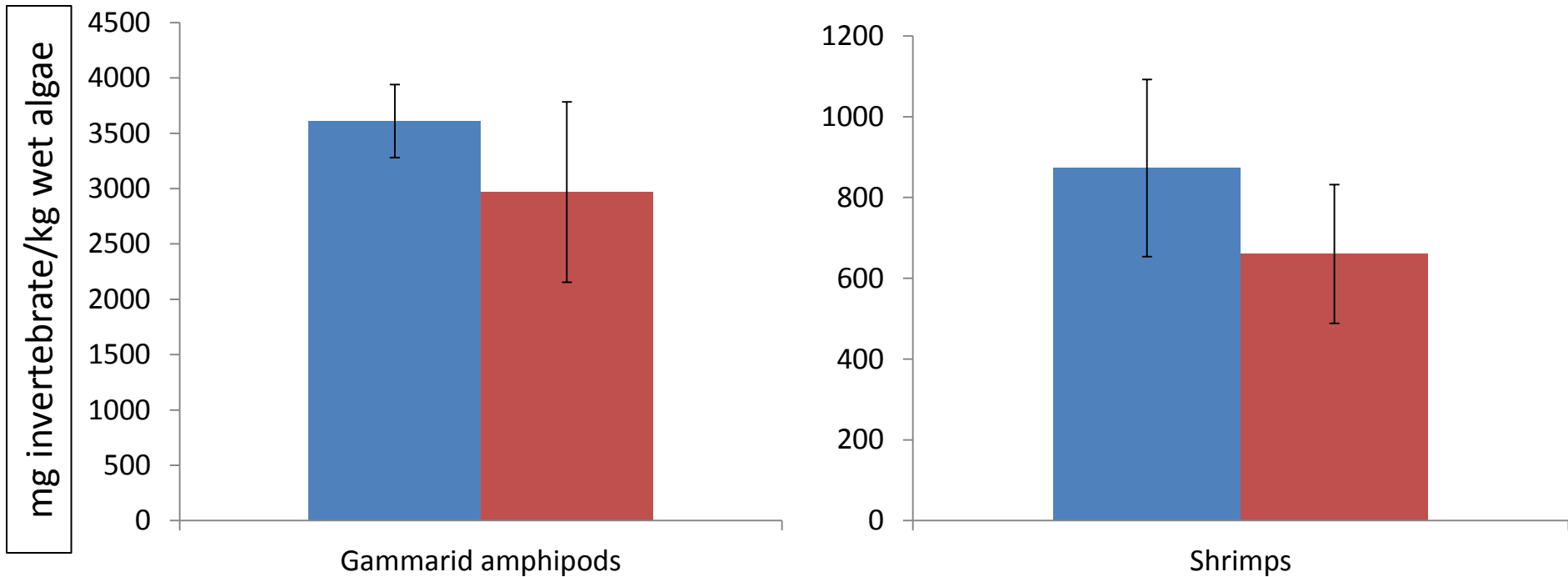


Macrocystis pyrifera: morphologically simple

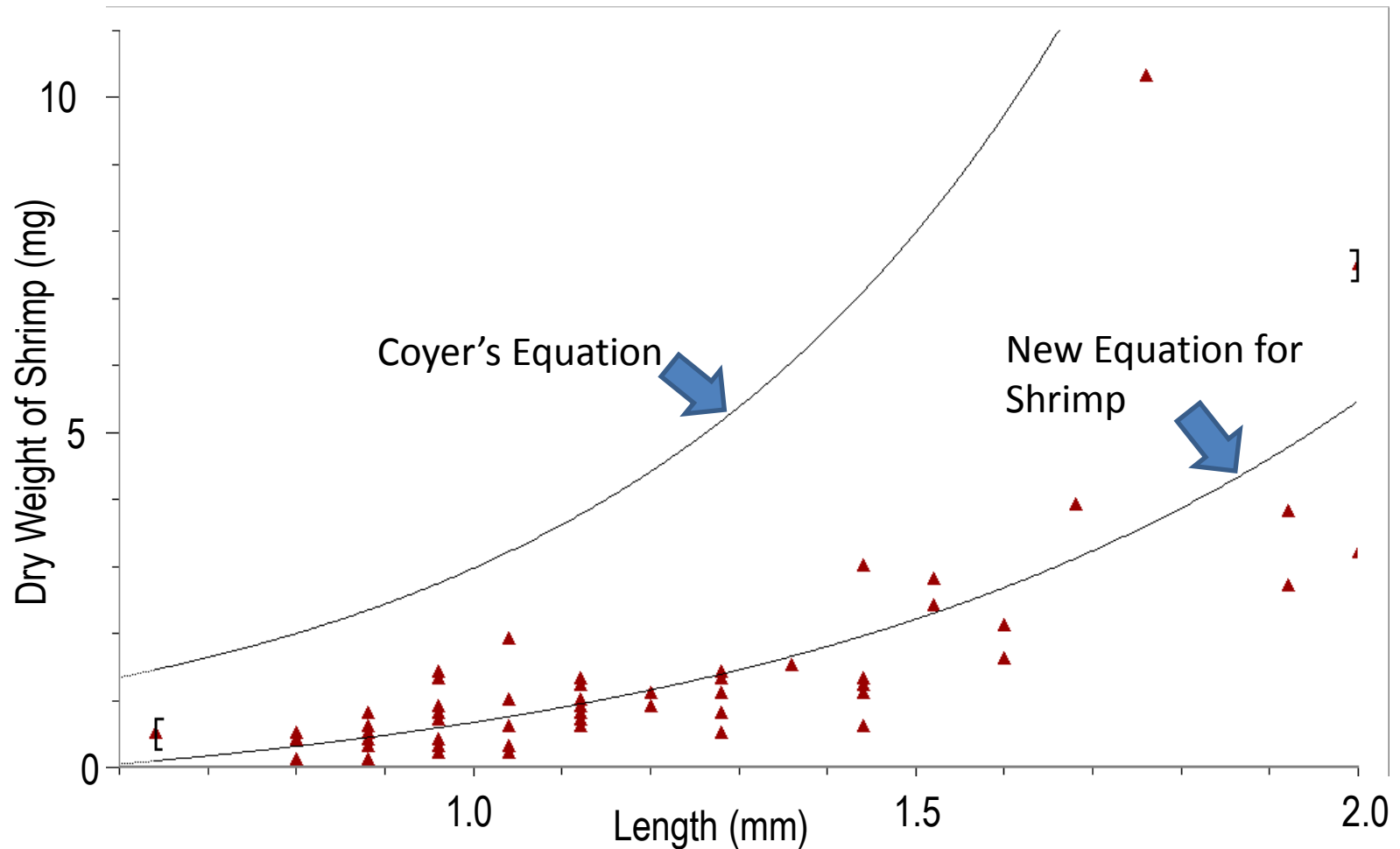


Sargassum horneri: a more complexly structured habitat for invertebrates

Invertebrate biomass is comparable between *Macrocystis pyrifera* and *Sargassum horneri*

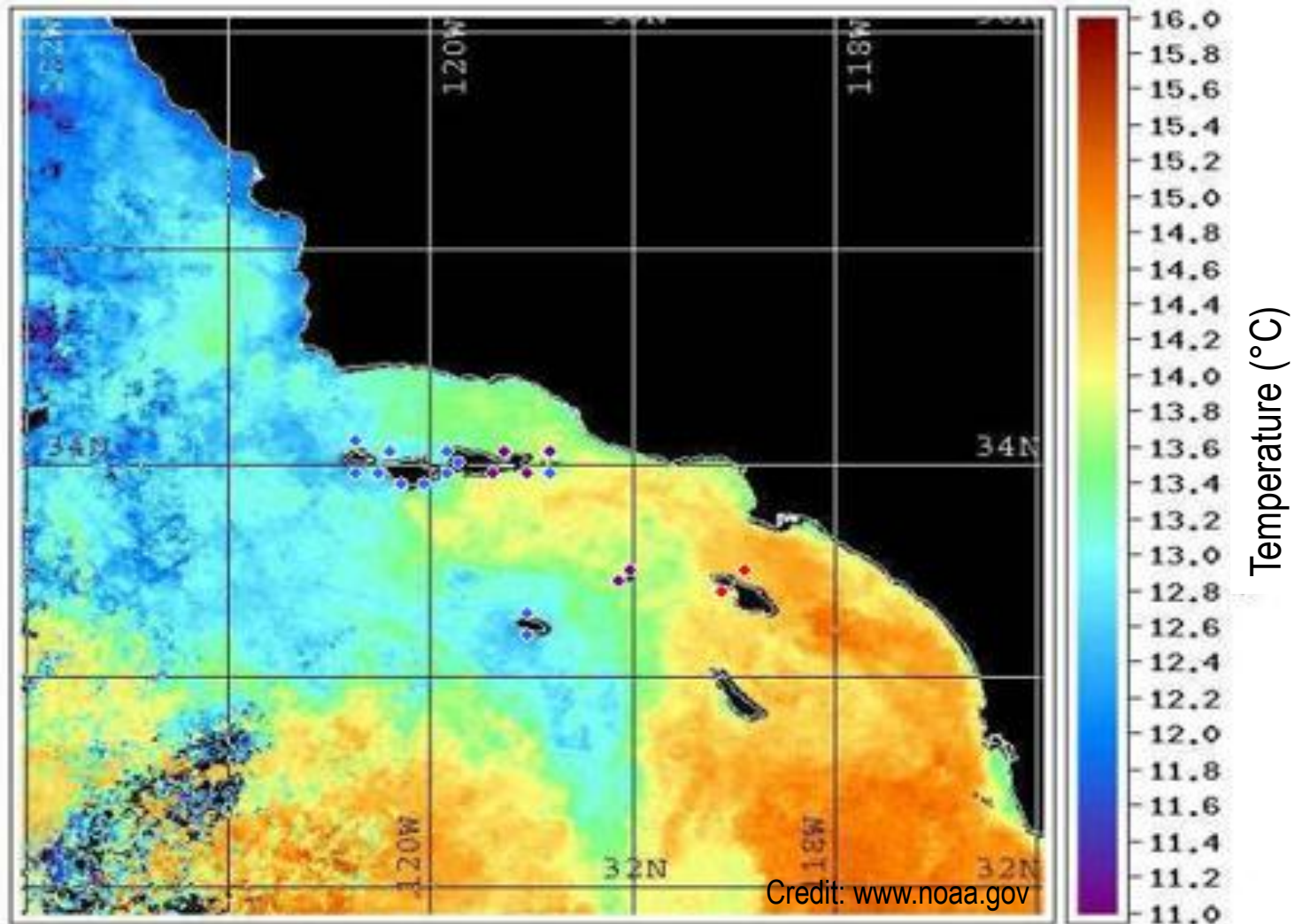


Challenge: Redefining a new length-weight relationship



Future Directions

Sample all locations where *Sargassum horneri* has spread



Acknowledgements

- SBC LTER



- MCR LTER



- INSET



- NSF

