

2019 *Astrangia* Research Workshop Program
Schedule At A Glance

Wednesday, May 29

8:00 – 9:00	Breakfast/Check-In
9:00 – 9:30	Welcome/Introductions
9:30 – 10:15	Introduction and Inspiration: History of <i>Astrangia</i> Science
10:15 – 11:15	Research Session I – Community Ecology
11:15 - 12:15	Poster Session
12:15 – 1:30	Lunch (Upper Dining Commons, RWU)
1:30 – 3:30	Research Session II – Genetic and Genomic Insights
3:30 - 3:45	Coffee Break
3:45 - 5:15	Research Session III - Microbiome
5:30 – 6:00	RWU Oyster Sampling (RWU Docks)
6:00 – 7:00	Dinner (Upper Dining Commons, RWU)
7:30 – 10:00	Sunset Porch Party (Portsmouth, RI)

Thursday, May 30

8:00 – 9:00	Breakfast
9:00 – 10:45	Research Session IV – Resilience Ecology
10:45 - 11:30	Research Session V: <i>Astrangia</i> Spawning & Early Life Cycle
11:30 – 1:00	Working Lunch & Small Breakout Groups: Education and Outreach
1:00 - 2:00	Education/Outreach Consensus Discussion
2:00 – 4:00	Looking to the Future: Questions Remaining
4:00	Workshop Wrap-Up

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Wednesday, May 29

- 8:00 – 9:00 **Breakfast/Check-In**
- 9:00 – 9:30 **Welcome/Introductions**
- 9:30 – 10:15 **Introduction and Inspiration:**
Sean Grace - “History of *Astrangia* Science”
- 10:15 – 11:15 **Research Session I: Community Ecology**
Moderator: Koty Sharp
Gabriella DiPreta - “Increasing prey availability with a cost-effective light rack inhibits quiescence and dormancy in the temperate scleractinian coral *Astrangia poculata*” (*lightning talk*)

Sean Grace - “Shallow subtidal community changes in Southern New England; future challenges for temperate corals”

Sean Grace - “Current Projects in the Grace Lab” (*lightning talk*)

Caroline Fleming - “Building a dynamic energy budget for *A. poculata*: modeling and parameterizing facultative symbioses”
- 11:15 - 12:15 **Poster Session**

Gabriella DiPreta - “Successional state of benthic communities in temperate coral dominated habitats in Rhode Island”

Sean Grace - “*Arbacia punctulata* aquaculture, a possible control for the rise of turf macroalgae”

Tyler Harman - “Symbiosis and immunology of the Northern Star Coral from future climate change impacts”

Whitney Leach - “The impacts of wavelength on gene expression and behavior in the sea anemone *Nematostella vectensis*”

Wolfgang Trumbauer - “Preliminary analysis of tissue heavy metal accumulation in *Astrangia poculata*”

Nicole Woosley - “That’s *Astrangia* thing to eat! Temperate coral predators in Connecticut”
- 12:15 – 1:30 **Lunch** (Upper Dining Commons, RWU)

1:30 – 3:30

Research Session II: Genetic and Genomic Insights

Moderator: Sean Grace

Kate Stankiewicz - “A strange genome: assembly and annotation of the *Astrangia poculata* genome”

Hanny Rivera - “What does it take to stay together? Uncovering symbiosis gene networks in a facultatively symbiotic coral”

Anna Gauthier - “Using *Astrangia poculata* as a model for novel lipid A challenges: exploring hypotheses of conserved response” (*lightning talk*)

Todd LaJeunesse - “The *Astrangia*–*Breviolum* mutualism: a potential case study in processes of local adaptation and speciation in eukaryotic microbes”

Maureen McEnery - “The role of cyclic AMP (cAMP) in coral cell-signaling pathways: in silico identification of cAMP discriminators, transducers, and amplifiers”

Remi Ketchum - “Population genetics and outlier analysis in a sea urchin from the world’s warmest reefs”

Hannah Aichelman - “Outlier loci drive population structure of *Astrangia poculata* across the Mid-Atlantic United States”

3:30 - 3:45

Coffee Break

3:45 - 5:15

Research Session III: Microbiome

Moderator: Randi Rotjan

Adam Reitzel - “Diversity and Responses of the Sea Anemone *Nematostella vectensis* to a Diverse Microbial Community”

Allison Kerwin - “Changes in bacterial gene expression during *Cassiopeia xamachana* strobilation”

Nate Zaccardi - “Investigation of antibacterial activity in the *Astrangia poculata* microbiome”

Rachel Howard - “Investigating the plastisphere: the role of plastic-associated microbes on microbead ingestion by the coral *Astrangia poculata*”

Allie Klein - “Localizing key bacterial members of the *Astrangia poculata* microbiome and monitoring changes in prokaryotic diversity in response to thermal stress” (*lightning talk*)

5:30 – 6:00

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Research Session IV: Resilience Ecology

Moderator: Sean Grace

Daniel Wuitchik “Genomic basis of convergent phenotypic responses to thermal extremes in a temperate coral”

Andrea Chan “An algal symbiont (*Breviolum psygmophilum*) responds more strongly to chronic high temperatures than its facultatively symbiotic coral host (*Astrangia poculata*)”

Hannah Reich “Iron availability dictates the response of coral symbionts to thermal stress”

Randi Rotjan “Autotrophy and heterotrophy tradeoffs in the foraging activity of a facultatively symbiotic coral, *Astrangia poculata*”

Laura DiRoberts “Nitrogen cycling in the temperate northern star coral, *Astrangia poculata*: distinguishing autotrophic from heterotrophic nutrient contributions”

Isabela Trumble “Testing polyp interconnectivity in *Astrangia poculata* temperate corals” (*lightning talk*)

10:45 - 11:30

Research Session V: *Astrangia* Spawning & Early Life Cycle

Moderator: Randi Rotjan

Koty Sharp - “*Astrangia poculata* spawning and settlement: a progress report”

Justin McAlister - “Marine invertebrate life histories: biological models for changing ocean environments”

11:30 – 1:00

Working Lunch & Breakout Groups: Education and Outreach/Media

Outreach/Media: Randi Rotjan & Caroline Fleming, session leaders

Education/Curriculum: Rachel Wright & Nicola Kriefall, session leaders

1:00 - 2:00

Education & Outreach Consensus Discussion

Moderator: Koty Sharp

2:00 – 4:00

Looking to the Future: Questions Remaining

Moderators: Sean Grace, Randi Rotjan, Koty Sharp

4:00

Workshop Wrap-Up