

**National Sea Grant American Lobster Initiative  
Regional Research and Outreach Summit**

*February 6-7, 2023  
Holiday Inn by the Bay  
Portland, Maine*

**Monday, February 6, 2023:**

- Registration table open – 8:00 am
- Welcome, Oxford/Somerset Room – 9:00-9:25 am
  - Alison Krepp, National Sea Grant Office
  - Remarks by Senator Susan Collins (pre-recorded) and Representative Chellie Pingree (in-person)
  - Dr. Amalia Harrington, Maine Sea Grant
- Morning sessions – 9:30-10:45 am
  - Cumberland Room: Evaluating American lobster stock dynamics under changes to life history & management regulations
    - Dr. Yong Chen, Stony Brook University
    - Dr. Cameron Hodgdon, Stony Brook University
  - Kennebec Room: Open discussion
  - Lincoln Room: Larval lobsters/early life history stages – Part 1: Influence of environmental change on early development of lobsters & maternal effects
    - Dr. Brittany Jellison, University of New Hampshire, & Dr. Jason Goldstein, Wells NERR – *Introduction to the session*
    - Dr. Benjamin Gutzler, Wells NERR – *Investigating egg clutch size across the Gulf of Maine*
    - Dr. Brittany Jellison, University of New Hampshire – *The effect of multiple stressors on reproductive success, embryogenesis, and emerging larvae of the American lobster*
    - Sarah Koshak\*, Virginia Institute of Marine Science – *The shifting bacterial community of the American lobster (*Homarus americanus*) during early life history stages*
    - Alex Ascher\*, University of Maine – *Maternal size-effects on embryonic and larval lobster*
    - Dr. Carolyn Tepolt, Woods Hole Oceanographic Institution – *Variability in heat tolerance in Stage I lobster larvae among families and regions*
- *Break – 10:45-11:00 am*
- Continue morning sessions 11:00-12:15 pm
  - Cumberland Room: Evaluating American lobster stock dynamics under changes to life history & management regulations – *Continued*
  - Kennebec Room: Open discussion
  - Lincoln Room: Larval lobsters/early life history stages – Part 2: Trophic interactions in the pelagic food web
    - Dr. Rick Wahle, University of Maine – *Introduction to the session*
    - Dr. Burton Shank, NOAA/NEFSC – *Lobster larval and settlement dynamics: correlations and connections to basin-scale oceanographic processes*
    - Joshua Carloni, New Hampshire Fish and Game – *Diverging phenology of larvae and their potential zooplankton prey in a warming ocean*
    - Maura Niemisto, Bigelow Laboratory for Ocean Sciences, & Brendan Kellogg\*, BLOS/Southern Maine Community College – *Depth wise associations of zooplankton with lobster larvae*
    - Alex Ascher\*, University of Maine – *Lobster larval diet study: utilizing mixed methodologies*



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- Evie Layland\*, University of Maine – *Ontogeny of prey preference and functional response of larval lobster (Homarus americanus)*
- *Lunch – 12:15-1:15 pm, Connecticut/Rhode Island Room*
- Afternoon sessions 1:15-2:45 pm
  - Cumberland Room: Evaluating American lobster stock dynamics under changes to life history & management regulations – *Continued*
  - Kennebec Room: Open discussion
  - Lincoln Room: Larval lobsters/early life history stages – Part 3: Environmental drivers of behavior & distribution
    - Dr. Jason Goldstein & Dr. Benjamin Gutzler, Wells NERR – *Introduction to the session*
    - Dr. Steve Jury, Saint Joseph's College of Maine – *Behavioral thermoregulation of ovigerous American lobsters (Homarus americanus)*
    - Dr. Jason Goldstein, Wells NERR – *Warming GoM waters and their impact on postlarval swimming activity*
    - Dr. Jesús Pineda, Woods Hole Oceanographic Institution – *Concentration and condition of American lobster postlarvae in convergences*
    - Dr. Eric Annis, Hood College – *Larval thermal tolerance and implications for distribution and settlement*
    - Caroline Benfer\*, Hood College – *Broad-scale distribution of lobster larvae and potential prey in the Gulf of Maine and Georges Bank*
- *Break 2:45-3:00 pm*
- Continue afternoon sessions 3:00-4:15 pm
  - Cumberland Room: Evaluating American lobster stock dynamics under changes to life history & management regulations – *Continued*
  - Kennebec Room: Open discussion
  - Lincoln Room: Larval lobsters/early life history stages – Part 4: Monitoring, modeling, & forecasting
    - Dr. Damian Brady, University of Maine – *Introduction to the session*
    - Dr. Andrew Goode, University of Maine – *Climate effects on reproduction and larval distributions of the American lobster*
    - Kristyn Kleman, University of Maine – *The American Lobster Settlement Index (ALSI): cross border collaboration and forecasting*
    - Declan McCormick\*, University of Rhode Island – *Early life history of American lobsters in coastal southern New England waters*
    - Everett Rzeszowski\*, University of Maine – *Tracking exchange between offshore GOM regions via tagging*
- *Break/set-up 4:15-5:00 pm*
- *Poster/networking session – 5:00-7:00 pm, Connecticut/Rhode Island Room*

Tuesday, February 7, 2023:

- Plenary – Lobster research in support of management objectives, Oxford/Somerset Room – 8:30-9:40 am
  - Speakers:
    - Carl Wilson, Director, Bureau of Marine Science, Maine Department of Marine Resources
    - Jessica Waller, Director, Division of Biological Monitoring & Assessment, Maine Department of Marine Resources



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at the University of Maine

- Dr. Heather Glon, Marine Resource Scientist III, Lobster Research Biologist, Maine Department of Marine Resources
- Panelists:
  - Kathleen Reardon, Marine Resources Scientist III, Lobster Fishery Biologist, Maine Department of Marine Resources
  - Jeff Kipp, Senior Stock Assessment Scientist, Atlantic States Marine Fisheries Commission
  - Joshua Carloni, Biologist, Lobster Research and Monitoring, New Hampshire Fish and Game
  - Dr. Burton Shank, Research Fishery Biologist, Northeast Fisheries Science Center
  - Kim McKown, New York State Department of Environmental Conservation (retired)
  - Colleen Bouffard, Connecticut Department of Energy & Environmental Protection
- Remarks by Senator Angus King (in-person) – 9:40-9:45 am
- *Break – 9:45-10:00 am*
- Morning sessions – 10:00-11:15 am
  - Cumberland Room: Evaluating American lobster stock dynamics under changes to life history & management regulations – *Continued*
  - Kennebec Room: Open discussion
  - Lincoln Room: Food web dynamics/range expanding species
    - Presenters:
      - Dr. Marissa McMahan, Manomet, & Helen Cheng\*, Northeastern University – *Investigating the ecological impacts of range-expanding species to the American lobster fishery using collaborative surveys, fisher observations, and predator-prey experiments*
      - Rebecca Peters, Maine Department of Marine Resources - *"Who's eating juvenile lobsters?": An evaluation of lobster predation in the Gulf of Maine using stomach content analysis*
    - Additional panelists:
      - Dr. Conor McManus, Rhode Island Department of Environmental Management
      - Dr. Gabriela Bradt, New Hampshire Sea Grant
      - Dr. Jason Goldstein, Wells NERR
      - Dr. David Johnson, Virginia Institute of Marine Science
  - Continue morning sessions 11:15-12:30 pm
    - Cumberland Room: Evaluating American lobster stock dynamics under changes to life history & management regulations – *Continued*
    - Kennebec Room: Open discussion
    - Lincoln Room: Alternative baits in the lobster fishery
      - Presenters – *Alternative bait development and future visioning in the New England lobster fishery*
        - Dr. Jynessa Dutka-Gianelli, Gloucester Marine Station and the University of Massachusetts Amherst
        - Bart DiFiore\*, University of California, Santa Barbara
        - Rachael Hamilton\*, University of Massachusetts Boston
      - Additional panelists:
        - Dr. Steve Jury, Saint Joseph's College of Maine
        - Dr. Gabriela Bradt, New Hampshire Sea Grant
        - Ann Molloy, Neptune's Harvest
        - Dr. Marissa McMahan, Manomet
    - *Lunch – 12:30-1:30 pm, Connecticut/Rhode Island Room*



- Afternoon sessions 1:30-2:45 pm
  - Cumberland Room: Lobster Institute Updates
    - Christina Cash, Lobster Institute, University of Maine – *US-Canada Lobster Town Meeting Review*
    - Dr. Rick Wahle, Lobster Institute, University of Maine – *New NSF-supported Arctic Impacts Initiative*
  - Kennebec Room: Open discussion
  - Lincoln Room: Social-ecological coupling in the lobster industry
    - Presenters:
      - Dr. Jonathan Grabowski, Northeastern University – *Introduction to session and The American lobster fishery's observations and perceptions of range-expanding species*
      - Dr. Theresa Burnham, University of Maine – *Building sentinel indicators of socioeconomic resilience in Maine's American lobster fishery*
      - Dr. Kanae Tokunaga, Gulf of Maine Research Institute, and Dr. Alexa Dayton, Maine Center for Coastal Fisheries – *Economic diversity of Maine's American lobster fishery*
    - Additional panelists:
      - Jennie Rheuban, Woods Hole Oceanographic Institution Sea Grant
      - Alison Krepp, NOAA/National Sea Grant Office
      - Joelle Kilchenmann\*, University of Maine
- Continue afternoon sessions: 2:45-4:00 pm
  - Cumberland Room: ME DMR lobster monitoring programs
    - Kathleen Reardon, Maine Department of Marine Resources – *DMR Lobster Monitoring Programs (Sea Sampling and Ventless Trap Survey)*
    - Robert Russell, Maine Department of Marine Resources – *DMR Settlement Survey*
    - Dr. Heather Glon, Maine Department of Marine Resources – *DMR Lobster Research Lab & DMR Larval survey*
    - Rebecca Peters, Maine Department of Marine Resources – *Maine-New Hampshire Inshore Trawl Survey*
    - Jessica Waller, Maine Department of Marine Resources – *Division of Biological Monitoring and Assessment research initiatives and coordination*
  - Kennebec Room: Open discussion
  - Lincoln Room: Lessons learned from southern New England
    - Nancy Balcom, Connecticut Sea Grant, and Antoinette Clemetson, New York Sea Grant – *Introduction to session*
    - Colleen Bouffard, Connecticut Department of Energy & Environmental Protection – *Trends from Connecticut and the Long Island Sound*
    - Dr. Conor McManus, Rhode Island Department of Environmental Management – *SNE lobster population, commercial fishery, young-of-year statuses*
    - Kim McKown, New York State Department of Environmental Conservation (retired) – *NYS and ASMFC updates*
    - Dr. Katherine Maltby, Gulf of Maine Research Institute – *Exploring social resilience in the southern New England lobster fishery: lessons learnt and future opportunities*
- Break – 4:00-4:15 pm
- Group debrief on next steps for the ALI, Oxford/Somerset Room – 4:15-5:00 pm
  - Dr. Amalia Harrington, Maine Sea Grant,
  - Dr. Gabriela Bradt, New Hampshire Sea Grant
  - Jennie Rheuban, Woods Hole Oceanographic Institution Sea Grant



List of poster titles and presenters:

1. *Assessing predator prey interactions and distributional patterns of larval Homarus americanus with zooplankton in the Gulf of Maine and Georges Bank stock area, **Caroline Benfer\****, Hood College
2. *Communicating ALI research projects, **Simonne Dodge\****, University of Miami
3. *Alternative bait development and future visioning in the New England lobster fishery, **Dr. Jynessa Dutka-Gianelli***, Gloucester Marine Station and the University of Massachusetts Amherst
4. *Lobster bait project: current development of optimized carrageenan-based bait, **Dr. Jynessa Dutka-Gianelli***, Gloucester Marine State and the University of Massachusetts Amherst
5. *An analysis of seasonality in the Maine lobster fishery, **Emily Fitting\****, University of Maine
6. *Updates to spatial dynamics of Maine lobster landings in a changing coastal system, **Jaeheon Kim\****, University of Maine
7. *The bacterial community composition of the American lobster (Homarus americanus) embryo at early and late-stage embryogenesis, **J. Sarah Joshak\****, Virginia Institute of Marine Science
8. *Lobster fishing and wellbeing: understanding social outcomes in Maine and Nova Scotia, **Tracy MacKeracher\****, University of Maine and Dalhousie University
9. *The NNA (Navigating the New Arctic) Lobster Network: rapid Arctic change and its implications for fishing communities of the western North Atlantic, **Dr. Richard Wahle***, University of Maine

\* Indicates student presenter



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