Breakout Sessions- DESCEND-2-Action:

- **Polar ocean environments in a changing world**
  - Moderator -Chris German
  - Cochair: Catherine Walker
- **Our new and evolving understanding of seamounts and seamount processes**
  - Moderator – Amy Baco-Taylor
  - Co-chair Kirsten Meyer
- **Interdisciplinary understanding of fracture zone environments**
  - Moderator – Nick Hayman
  - Co-chair –Justin Estep
- **Advancing understanding of global fluxes of gases from the seafloor**
  - Moderator – George Luther
  - Co-chair Adam Skarke
- **The temporal and spatial scales of the processes that link the seafloor, water column and atmosphere**
  - Trish Gregg
  - Co-chair Oliver Ashford

  - https://www.unols.org/sites/default/files/201712desap_14.pdf

- **What are the significance and societal impacts of these goals?**
- **What is needed to accomplish goals?**
  - Global-scale cataloging, ” Cold, dark, far away, not one environment”
  - Multiple-vehicle ops to cover more ground in the same amount of time (e.g., fleets of AUVs)
  - optical nodes, acoustic nodes, AUV docking stations, “smart” AUVs
  - Adaptive arrays. Sensors
  - Deep-learning computing for data analysis and prediction, machine-learning imaging software
  - eDNA
- **What new (interdisciplinary) opportunities could emerge?**
- **What potential challenges could be encountered?**
  - Global distribution
  - Sampling limitations

What is next needed?

- More community input?
- Workshops?
- NSF ‘Big Ideas”