

SBI Phase II – 2006 PI Meeting 25-28 February, 2006



**Courtyard by Marriott Kauai at Waipouli Beach
Kauai, Hawaii U.S.A**

**Sponsored by the U.S. National Science Foundation
Arctic System Science Program, SBI Project Office**

SBI PHASE II PRINCIPAL INVESTIGATORS (PI) MEETING

February 25-28, 2006

Kauai Courtyard by Marriott, Kauai at Waipouli Beach
4-484 Kuhio Highway, Kapaa, HI 96746; Ph. 808-440-2356

The **goal** of the 2006 Western Arctic Shelf-Basin Interactions (SBI) Phase II PI meeting is to update the SBI project participants on: 1) the SBI Phase II results to date and synthesis activities in our final year, 2) discuss synthesis activities within ARCSS and SBI Phase III planning, 3) plan for publications and presentations on the SBI project results, and 4) international collaboration related to SBI goals via SBE, ICARP II, IPY (iAOOS, SEARCH), etc.

AGENDA

Saturday, 25 February: *Chart Room:* registration (6-7 pm) and dinner 7-9 pm
(SBI AC at own table)

Sunday, 26 February: *Paddle Room (meeting room)*

0630-0830 Breakfast Buffet in *Voyager Grille Restaurant*

0700-0800 Registration in *Paddle Room*

0830-0845 Opening statements (Grebmeier) *Paddle Room*

0845-1000 Session One-SBI PI updates new findings/synthesis ideas (Rapporteur: Lou Codispoti)

- SBI Perspectives on Western Arctic Sea Ice Cover in Transformation (Hajo Eicken)
- Pacific Ventilation of the Arctic Ocean's Lower Halocline by Upwelling and Diapycnal Mixing over the Continental Margin (Woodgate, Aagaard, Swift, Falkner, Smethie, Weingartner)
- Diagnosing an Upwelling Event in the Western Arctic Boundary Current: Cross-Stream Fluxes of Mass and Properties (Bob Pickart)
- The Western Arctic Shelf-Basin Interactions and Their Role in Regional Climate Change - A Modeling Perspective (Wieslaw Maslowski)
- Air-sea CO₂ Fluxes and the Continental Shelf Carbon Pump in the Chukchi Sea (Nick Bates)
- Discussion

1000-1030 Break

1030-1200 Session Two-SBI updates new findings/synthesis ideas (Rapporteur: Lee Cooper)

- Gradients of Sea Ice Algal Biomass and Productivity from the Shelf to the Deep Sea in the SBI Region (Gradinger/Eicken)
- Hydrographic Habitats and the Distribution of Copepods on the Chukchi and Beaufort Shelves (Sharon Smith)

- Short Circuit of the Microbial Loop on the Chukchi/Beaufort Shelves (Ron Benner)
- Arctic Denitrification (Al Devol)
- Sediment Nutrient Efflux and Carbon Cycling in the Western Amerasian Arctic (Jackie Grebmeier)
- Spatial and Temporal Differences in Food Web Structure on Arctic Shelves (Ken Dunton)
- Discussion

1200-1330 Lunch-*Voyager Grille Restaurant*

1330-1500 Session Three- ARCSS Synthesis Activities and SBI (presentation and discussion)
(Rapporteur: Terry Whitledge)

- 1330-1400: ARCSS and Synthesis SASS: An overview of Synthesis of Arctic System Science (Don Perovich)
- 1400-1430: Kelly Falkner: Fresh Water Integration (FWI)
- 1430-1445: Lee Cooper: PARTNERS and SBI
- 1445-1500: Open discussion

1500-1530 Break

1530-1700 Session Four: Continuation of ARCSS Synthesis Activities and SBI (Rapporteur: Knut Aagaard)

- 1530-1600: Study of Northern Alaska Coastal System (SNACS; Carin Ashjian)
- 1600-1700: Community input to SBI Phase III planning and discussion period; overnight assignment for group: synthesis ideas and themes for breakout groups; bring ideas Monday am (Grebmeier)

1830-2030 *Dinner Luau* (hotel on-site location)

Monday, 22 March 2005

0630-0830 Breakfast Buffet in *Voyager Grille Restaurant*

0830-0835 Meeting updates (Jackie Grebmeier) *Paddle Room*

0835-1000 Session Five Data Management/Data policy issues, end of Phase II Dec. 2006, need data submissions for Phase III efforts (Rapporteur: Ken Dunton)

- Greg Stossmeister: SBI Data Archive Status; Data Management and Policy Update
- Jim Moore: Update in SBI Data Holdings and Next Steps
- Jim Moore/Jackie Grebmeier: SBI Phase II Data Synthesis Workshop: plan workshop submission for March 2006 ARCSS AO
- Open discussion

1000-1030 Break

- 1030-1200 Session Six- SBI Phase II and III Synthesis and Modeling (Rapporteur: Grebmeier)
- 1030-1045: General charge to breakout working groups for discussion to identify key SBI Phase II findings, future needs for SBI Phase II synthesis and items to move SBI Phase III and ARCSS-type Arctic system synthesis goals forward; identify who will participate, self choose chair/note taker.
 - Note: the SBI AC members (in parentheses below) have been asked to participate in various working groups to be the initial leads for the working groups. However, the working groups should then decide amongst themselves who the lead and note taker should be for presenting results back to the plenary group and writing the summary of the discussions.
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 - 1045-1200: Move into SBI Breakout working groups: draft ideas, modify in plenary and break out rest of morning
 - WG1: Ice, physics and modeling (AC: Maslowski, Pickart)
 - WG2: Hydrography, tracers (AC: Codispoti, Whitledge,)
 - WG3: Carbon transformation and flux (AC: Harvey)
 - WG4: Lower/higher trophic production (AC: Campbell, Kelly)
 - WG5: Benthos and sediment tracers (AC: Barry, Grebmeier)
- 1200-1330 Lunch *Voyager Grille Restaurant*
- 1300-1500 Session Seven: variable
- Continue breakout group discussions, prep. for afternoon plenary
- 1500-1530 Break
- 1530-1700 Session Eight: Plenary, with 5-10 minute reports and discussions each breakout group: 1530-1615 (Rapporteur: Rodger Harvey)
- WG1: Ice, physics and modeling
 - WG2: Hydrography, tracers
 - WG3: Carbon transformation and flux
 - WG4: Lower/higher trophic production
 - WG5: Benthos and sediment tracers
 - **final break out group summaries due to SBI AC reps by noon on Tuesday at end of meeting**
- 1615-1700: Discuss potential themes for SBI Phase III
- 1730-1900 Final Reception-*Poolside*
- 1915-2130 Dinner Buffet-*Chart Room*
- Tuesday, 28 February 2006**
- 0630-0830 Breakfast Buffet in *Voyager Grille Restaurant*

- 0830-1000 SBI Phase III Synthesis, ICARP2, IPY coordination (Rapporteur: Wieslaw Maslowski)
- Jackie Grebmeier: Summary of proposed SBI Phase III Objectives within ARCSS through open community input and Mon. discussions; status of IPY planning efforts and coordination, IASC, SEARCH, ISAC; SBE (AOSB), ICARP2, IPY (iAOOS), ASSW06 (Germany) and ASSW07 (USA)
 - Informal updates of ArcOD (Grading) and NPRB workshop (Whitledge)
- 1000-1030 Break
- 1030-1200 Open Discussion (Rapporteur: Jackie Grebmeier)
- Another Special issue Deep-Sea Research?/papers/timetable (Jackie Grebmeier and Rodger Harvey)
 - 4th SBI Pan-Arctic Meeting, September 26-30, 2006 confirmed for Gdansk, Poland; co-sponsored by the SBI PO and the Polish Institute of Oceanology-IPY SBE theme (key note overview talks, posters, open participation) (Grebmeier/Maslowski)
 - Future SBI meetings?
 - Discussion and meeting wrap-up, meeting adjourns
- 1230-1400 Lunch *Voyager Grille Restaurant* (SBI AC Lunch meeting, own table)

TABLE FOR ORAL PRESENTATIONS AND POSTERS

PARTICIPANT (LEAD AUTHOR)	ABSTRACT TITLES FOR ORAL PRESENTATIONS AND POSTERS
Ashjian, Carin	Study of Northern Alaska Coastal System
Bates, Nick	Air-sea CO ₂ fluxes and the Continental Shelf Carbon Pump in the Chukchi Sea
Benner, Ron	Short Circuit of the Microbial Loop on the Chukchi/Beaufort Shelves
Devol, Allan	Arctic Denitrification
Dunton, Ken	Spatial and Temporal Differences in Food Web Structure on Arctic Shelves
Eicken, Hajo	SBI Perspectives on Western Arctic Sea Ice Cover in Transformation
Gradinger, Rolf	Gradients of Sea Ice Algal Biomass and Productivity from the Shelf to the Deep Sea in the SBI Region (Gradinger/Eicken)
Grebmeier, Jackie	Sediment Nutrient Efflux and Carbon Cycling in the Western Amerasian Arctic
Maslowski, Wieslaw	The Western Arctic Shelf-Basin Interactions and Their Role in Regional Climate Change – A Modeling Perspective
Maslowski, Wieslaw	Impacts of Circulation Variability in the Western Arctic Ocean
Mathis, Jeremy	Eddy Transport of Organic Carbon and Nutrients from the Chukchi Shelf: Impact on the Upper Halocline of the Western Arctic Ocean
Moran, Brad	Seasonal and Interannual Changes in POC Export and Deposition in the Chukchi Sea
Lalande, Catherine	Export fluxes of Biogenic matter in the Presence and Absence of Sea Ice Cover in the Chukchi Sea
Perovich, Don	ARCSS and Synthesis SASS: An overview of Synthesis of Arctic System Science
Pickart, Bob	Diagnosing an Upwelling Event in the Western Arctic Boundary Current: Cross-stream Fluxes of Mass and Properties
Pickart, Bob	Upwelling in the Western Arctic Boundary Current North of Alaska
Pirtle-Levy, Rebecca	A Shelf to Basin Examination of Sampling Technique and Food Supply of Arctic Benthic Macrofauna
Smith, Sharon	Hydrographic Habitats and the Distribution of Copepods on the Chukchi and Beaufort Shelves
Stockwell, Dean	Size Composition and EPS Production of Phytoplankton in the Chukchi and Beaufort Seas, Baseline Data for the Western Arctic Shelf-Basin Interactions (SBI) Program
Woodgate, Rebecca	Pacific Ventilation of the Arctic Ocean's Lower Halocline by Upwelling and Diapycnal Mixing over the Continental Margin

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