Editorial
Volume 11:4, 2022

Journal of Telecommunication System and Management

ISSN: 2167-0919

Open Access

Dynamical Background and System Overview Communication

Groover Steve*

Department of Telecommunications, University School of Technology, USA

Editorial

The eastern Bering Sea's (EBS) seasonal cycle of sea-ice advance and retreat pushes the ice hundreds of kilometres across the large continental shelf and has a significant impact on the ecosystem of these waters. In the winter, the southern Bering Sea is covered in ice due to a combination of latitude, geology, winds, and ocean currents. A high level of marine production that is essential to both sea life and people occurs in the spring and summer as a result of retreating ice, longer daylight hours, and nutrient-rich ocean water. The intense springtime production surge, along with more intermittent production in the summer and early fall, supplies the energy that drives the intricate food web and, in turn, feeds roughly half of the annual commercial fish landings in the USA. In 2007, the North Pacific Research Board (NPRB) and the National Science Foundation (NSF) formed an innovative cooperation to sponsor an ecosystem-scale project to investigate how a changing climate and changing sea-ice conditions affect the EBS ecosystem, from physics and mathematics perspectives. chemistry to bring creatures from lower trophic levels, like plankton, to people. The "Bering Sea Project" combined two significant research initiatives: both the NPRB-funded Bering Sea Integrated Ecosystem Research Program (BSIERP) and the NSF-funded Bering Ecosystem Study (BEST), and was supported by significant in-kind donations from the National Oceanic and Atmospheric Administration (NOAA) and further donations from many organisations, institutes, and colleges. Participants in the Bering Sea Project have concentrated on discussion, collaboration, data analysis, and publications since the final full-project conference in early 2014 [1-3].

As a result, approximately 200 peer-reviewed Bering Sea Project papers have been published to date across a wide range of journals. This expanding collection of publications comprises 76 pieces from the three previous Deep-Sea Research II special issues on the Bering Sea Project: volumes 65–70 from 2012, volume 94 from 2013, and volume 109 from 2014. These special issues assist project integration and synthesis by giving peer-reviewed findings a place to be shared with a large audience. We are happy to present this collection of papers in the fourth and final Bering Sea Project special issue on behalf of all participants and supporters. The first two special issues featured papers that highlighted novel insights into the EBS ecosystem, with a particular emphasis on how trophic levels and specific species will be impacted by change. Papers in those issues evaluated the implications for the future of the Bering Sea ecosystem and put recent data in historical perspective. They addressed one or more of the central programme hypotheses that served as a foundation for continuing synthesis processes and guided the entire field programme: Physical forces, such as temperature, have an impact on food availability; Ocean conditions shape trophic interactions through bottom-up processes; Ecosystem controls are dynamic; Location matters; and Commercial and subsistence fisheries reflect climate aimed to expand our knowledge of the ecosystem as an integrated whole and how it might respond to climatic changes. It continued to examine the central hypotheses and placed more emphasis on mid-level synthetic processes. In keeping with the Bering Sea Project's explicit treatment of humans as a component of the EBS ecosystem, the third issue also included a collection of papers centred on the linkages between marine ecosystems and local human communities and other stakeholders.

With a continued emphasis on information synthesis across greater ranges of fields and the inclusion of new collaborative author teams, this fourth and final special issue carries on that evolution. The numerous model-based research directions within the project are also discussed in this issue. The following sentences offer information on To capture the variety of factors influencing the northward flow of waters to the Bering Strait, large data sets were needed. Their analyses were based on information gathered over a 20-year period from physical moorings, drifters observed by satellites, and Using shipboard hydrographic transects, comprehensive maps of the flow patterns on the eastern shelf can be created. After that, data and these estimates were blended to produce annual estimates of flow routes and velocity for the area, sets of sea ice and wind fields are used. According to the findings, large horizontal spatial Scales and low bathymetric relief support the orderly, but rather weak (0.1 Sv) transfer.

Winds had a significant impact on However, seasonal changes in direction, ice, and varying bottom topography made surface flow fields unpredictable and difficult to predict. Other factors played a role used three global climate simulations to predict future trends in temperature over the EBS shelf. Their research used the Intergovernmental Panel on Climate Change Fourth Assessment (AR4) as physical forcing to drive a regional model that included both physical and biological elements of the Bering Sea. They found considerable variation among the three simulations, but each downscaled projection indicated a warming of 1–2°C between 2010 and 2040 on the Bering Sea shelf. In a forecast to at least 2040, Hermann et al. found that the magnitude of presently-observed interannual variability of bottom temperatures and ice cover is expected to be maintained, but with a steadily increasing probability of warm years with less ice on the southern shelf. Overall, their modeling work indicates a trend toward warmer ocean temperatures, and reduced ice in the south Eastern Bering Sea, but continued ice cover in the north Eastern Bering Sea. Hermann and colleagues also attempted to determine which factors were responsible for the modeled increases in temperature. Sensitivity analyses suggest both increasing air temperature and northward wind as primary drivers of future increases in water-column temperatures [4,5].

References

1. Boudko, Svetlana, Peder Aursand and Habtamu Abie. “Evolutionary Game for Confidentiality in IoT-Enabled Smart Grids.” *J Telecommun Syst Manage* 11 (2020): 582.

2. Yadav, Pranay, Alok Upadhyay, V. B. Surya Prasath, Zakir Ali and Bharat Bhooshan Khare et al. “Evolution of wireless communications with 3G, 4G, 5G, and next generation technologies in India.” *J Telecommun Syst Manage* 709 (2021): 355-359.

3. Siljak, Harui, Irene Macaluso, and Nicola Marchetti. “Artificial Intelligence for Dynamical Systems in Wireless Communications: Modeling for the Future.” *J Telecommun Syst Manage* 7 (2021): 13-33.

4. Panwar, Nisha, Shantanu Sharma and Awadhesh Kumar Singh. “A survey on 5G: The next generation of mobile communication." *J Telecommun Syst Manage* 18 (2016): 64-84.

5. Zheng, Pai, Zuoxu Wang and Chun-Hsien Chen. “Industrial smart product-service

***Address for Correspondence:** Groover Steve, Department of Telecommunications, University School of Technology, USA, E-mail: groovste@emline.org*

Date of Submission: 04 April, 2022, Manuscript No. jtsm-22-71543; **Editor assigned:** 05 April, 2022, Pre QC No. P-71543 **Reviewed:** 18 April, 2022, QC No. Q-71543; **Revised:** 21 April, 2022, Manuscript No. R-71543; **Published:** 29 April, 2022, DOI: 10.37421/-2167-0919.2022.11.322

systems solution design via hybrid concerns." *J Telecommun Syst Manage* 83 (2019) 187-192.

How to cite this article: Steve, Groover. "Dynamical Background and System Overview Communication." J Telecommun Syst Manage 11 (2022): 322.