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Title	Freshwater
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Data and Resources

URL	https://canwin-datahub.ad.umanitoba.ca/data/dataset/51d3a499-75bd-4662-97e3-0d31d9fcb8dc/resource/913f0783-1d97-4e18-b087-554732049a23/download/basu_igs2019.pdf
Name	An optical assessment of the nelson/hayes river plume dispersion extent in hudson bay (canada)
Description	The Nelson/Hayes River (NHR), located in the southwestern edge of the Hudson Bay (HB) (Canada) (Fig. 1) contributed approximately 47% of the mean annual discharge of the western HB during the period 1964-2013 (Déry et al, 2016). This voluminous freshwater input controls the ocean processes in the south western to southern HB. Moreover hydroelectric regulation of the Nelson River has modified the discharge resulting in an increased winter discharge and flattened summer hydrograph . This called for a need to investigate the revised seasonal signals of the river runoff in a spatio-temporal scale. Ocean color remote sensing approach provides a convenient way to study the mixed layer processes within the photic depth limit (Wozniak et al, 2010). This study has attempted to detect the NHR plume dispersion limit using color dissolved organic matter (CDOM) as the ocean color proxy for terrestrial discharge, (Fichot et al, 2013).
Format	PDF
Resource Category	documents

URL	https://canwin-datahub.ad.umanitoba.ca/data/dataset/51d3a499-75bd-4662-97e3-0d31d9fcb8dc/resource/aeb6b641-7a8e-40f4-abb4-509905234bc9/download/dalman_igs2019.pdf
Name	Response of biological communities to a seasonal freshwater gradient in southwestern Hudson Bay, Canada
Description	The aim of this study is to examine the role of regulated rivers on bottom ice algal communities and phytoplankton by investigating the following objectives along a salinity gradient: 1. Examine the influence of the river plume on ice algal and phytoplankton production from the estuary to the marine system 2. Examine the variability in ice algal biomass and nutrient availability 3. Investigate the influence of the river output on taxonomic composition.
Format	PDF
Resource Category	documents

URL	https://canwin-datahub.ad.umanitoba.ca/data/dataset/51d3a499-75bd-4662-97e3-0d31d9fcb8dc/resource/dd21f17a-61f3-47fc-82fa-1f3478ffc565/download/harasyn_igs2019.pdf
Name	Sediments and sea ice deformation: UAV observations of sea ice topography evolution throughout the melt season
Description	**Motivation** - Sediments are hypothesized to enhance the rate of sea ice surface melt by decreasing surface albedo - Enhanced surface melt influences the sea ice surface topography/roughness, as well as increasing surface wetness - As a result, sediment presence on the ice surface could impact both optical and radiometric satellite-borne measurements (through changes in albedo and surface wetness, respectively)
Format	PDF
Resource Category	documents

URL	https://canwin-datahub.ad.umanitoba.ca/data/dataset/51d3a499-75bd-4662-97e3-0d31d9fcb8dc/resource/52a5859f-0bdd-4e8b-890c-7deea173f460/download/petrusevich_igs2019.pdf
Name	Impact of ice covers on diel vertical migration of zooplankton in the Arctic marine environment
Description	Diel vertical migration (DVM) of zooplanktonis a process of synchronized movement of the organisms from the mesopelagic zone up to the epipelagic zone at night and returning back during the day. DVM is considered to be the largest synchronized diel movement of biomasson the planet. It also acts as a biological pump in transferring organic carbon from the surface of the ocean to depth.
Format	PDF
Resource Category	documents

URL	https://canwin-datahub.ad.umanitoba.ca/data/dataset/51d3a499-75bd-4662-97e3-0d31d9fcb8dc/resource/d08f67a1-bad9-4081-9fb7-4ce0f7162195/download/lee_arcticchange_2020.pdf
Name	Nutrient inputs from subarctic rivers into the Hudson Bay system

Description	Little information exists concerning the riverine supply of inorganic nutrients and its consequences on primary production in the Hudson Bay system (HB), a large subarctic inland sea that is impacted by rapid climate change and anthropogenic disturbance. In order to provide a reference point by which future changes can be evaluated, we estimated fluxes of nitrate (N), phosphate (P) and silicate (Si) using contemporary and historical nutrient data in conjunction with discharge rates generated by 3 different global climate models. Several key points can be highlighted. Firstly, the N:P and Si:N molar ratios of river nutrient fluxes exhibit large contrasts between different sectors of HB, which is attributed to variable geological settings in the watersheds. Generally, low N:P and high Si:N ratios imply that river waters are characterized by a severe deficit of nitrate with respect to the needs of primary producers. Secondly, seasonality in nutrient concentrations and ratios were apparent in the sampled rivers at different times of years. While the regulation of river flow in the Nelson and La Grande rivers had no discernible impact on nutrient concentrations and ratios, it clearly shifted nutrient transports toward the winter when biological activity in the estuaries is reduced. Thirdly, the southwestern rivers made the largest contributions of each nutrient flux to the total annual nutrient deliveries, with the modest contributions from the south and east rivers, and with the lowest contributions from the northwestern rivers. Finally, the combined nitrate input by all rivers was nearly two orders of magnitude (ca. 2.0 × 10^10 g N) lower than the estimated vertical re-supply of nitrate to the surface during winter in offshore waters of HB (ca. 1.2 × 10^12 g N). The potential contribution of river nutrients to new primary production is therefore small at HB scale but can be significant locally.
Format	PDF
Resource Category	documents

URL	https://canwin-datahub.ad.umanitoba.ca/data/dataset/51d3a499-75bd-4662-97e3-0d31d9fcb8dc/resource/8048394d-a741-4091-bab1-98ac0fe2d2b2/download/ridenour_natasha.pptx
Name	Hudson Strait Inflow: Structure and Variability
Description	**Goals** - Present the first year-round observations of the Hudson Strait inflow - Determine Hudson Strait inflow source waters - Estimate Hudson Strait inflow pathways within the Hudson Bay Complex
Format	PPTX
Resource Category	documents

URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/2020-10-27-tefs-arcticchange-2020-presentation.mp4
Name	A.Tefs- Arctic Change 2020
Description	Freshwater and BaySys: Hydrology, climate change, anthropogenic water use, and model uncertainty at the continental scale.
Format	MP4
Resource Category	supplemental

URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/arcticchange_mar39_alessia_guzzi.mp4
Name	A. Guzzi- Arctic Change 2020
Description	The Influence of freshwater on nutrient conditions for primary production in the coastal waters of northeast James Bay.
Format	MP4
Resource Category	supplemental

URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/mar39_jennifer_bruneau.mp4
Name	J.Bruneau- Arctic Change 2020
Description	The Ice Factory of Hudson Bay: Spatiotemporal Variability of the Polynya in Northwestern Hudson Bay
Format	
Resource Category	supplemental

URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/mar39_laura_dalman.mp4
Name	L.Dalman- Arctic Change 2020
Description	Microalgal response to a seasonal freshwater input in southwestern Hudson Bay
Format	MP4
Resource Category	supplemental

URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/mar39_loic_jacquemot.mp4
Name	L. Jacquemot- Arctic Change 2020
Description	Structure of Mircobial Communities During ice-opening in the Hudson Bay
Format	MP4
Resource Category	supplemental
URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/mar39_madison_harasyn.mp4
Name	M. Harasyn- Arctic Change 2020
Description	Highly deformed sediment-laden sea ice in southern Hudson Bay: Findings from the 2018 BaySys expedition
Format	MP4
Resource Category	supplemental
URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/mar39_mohamed_ahmed.mp4
Name	M. Ahmed- Arctic Change 2020
Description	Spatiotemporal variability of surface water pCO2 during the ice melt season in Hudson Bay, Canada
Format	MP4
Resource Category	supplemental
URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/mar39_yarisbel_garcia-quintana.mp4
Name	Y. Garcia-Quintana- Arctic Change 2020
Description	On the impact of climate change and river regulation on the Hudson Bay Complex's ocean properties and dynamics
Format	MP4
Resource Category	supplemental
URL	https://canwinerddap.ad.umanitoba.ca/erddap/files/BaySys_Presentations_Videos_e069_a387_5eb5/mar45_lucas_barbedo_de_freitas.mp4
Name	L. Barbedo de Freitas- Arctic Change 2020
Description	Atmospheric Forcings and Photo-Acclimation of phytoplankton fail blooms in the Hudson Bay.
Format	MP4
Resource Category	supplemental