ORAL PRESENTATIONS SCHEDULE

WEDNESDAY MAY 6TH , 2026

7TH INTERNATIONAL SCLEROCHRONOLOGY CONFERENCE 2026

TIME	PRESENTER	TITLE
8:30 8:45	WELCOMING REMARKS	
9:00 9:15	**Elizabeth Harper**	**KEYNOTE: BIOMINERALIZATION & KINETICS** ***Microstructure matters!***
9:30	Iris Arndt	Active ion transport drives daily elemental cycles in tridacna shells: Insights from culturing experiments
9:45	Mahiro Yumiba	Evaluating vital effects on stable oxygen isotope ratio of biogenic carbonates and its coupling with trace element concentrations
10:00	Theresa Kutzner	Otolith mineralogy in *Labeobarbus aeneus* (*Cyprinidae*) and implications for bulk and sclerochronological $\delta^{13}C$ and $\delta^{18}O$ interpretations of asterisci and lapilli
10:15	Karin Limburg	Where do those elements go in a fish's body, before ending up in otoliths? A speculation with some evidence
10:30	COFFEE BREAK	
10:45	Uwe Brand	Brachiopods: a sclerochronological enigma
11:00 11:15	**Sujata Murty**	**KEYNOTE: PALEOCLIMATES & PALEOENVIRONMENTS** ***Drivers of Indo-Pacific Oceanic Exchange: Insights from Corals and Ocean Models***
11:30	Logan Brenner	Well-replicated coral Ba/Ca records in the Gulf of Chiriquí, Panama reconstruct river discharge with implications for recording global climate teleconnections
11:45	Lauren T. Toth (ONLINE)	Centennial-scale influence of thermal variability on coral growth for a subtropical reef in the southwest Florida Keys
12:00 12:15 12:30 12:45 13:00	LUNCH	
13:15	Zeyang Sun	Submarine groundwater discharge into the Plio-Pleistocene Florida Platform suggested by clumped isotope sclerochronology
13:30	Lucas Gomes	Testing the environmental drivers of extinction on the Plio-Pleistocene Florida Platform with clumped isotope (Δ^{47}) and trace elemental (Ba/Ca) sclerochronology
13:45	Brendan Oerlemans	Towards the limits of short-lived extreme weather event recognition in mollusc shells
14:00	Alan Wanamaker	Geochemical signatures in the long-lived marine bivalve *Arctica islandica* show intense warming in the down east coastal region of the Gulf of Maine
14:15	David P. Gillikin	Seasonal climate variability in Coastal North Carolina during the Roman Warm Period
14:30	Martin W. Miles	Four centuries of the Arctic–Atlantic climate reversals from sclerochronology and historical records
14:45	COFFEE BREAK	
15:00 15:15	**Nina M. Whitney**	**KEYNOTE: PALEOCLIMATES & PALEOENVIRONMENTS** ***Utilizing a network of Arctica islandica records and model simulations to investigate past regional ocean dynamics in the rapidly warming western North Atlantic***
15:30	Shiono Miki	Paleoclimate variability recorded in shells of Stimpson's hard clam, *Mercenaria stimpsoni*, the longest-lived bivalve in Northwestern Pacific Ocean
15:45	Leila Rose Fischer	Three millennia of northeast Pacific sea surface temperatures from growth increments of the long-lived bivalve, Pacific geoduck
16:00	Nanyu Zhao (ONLINE)	Prehistoric shifts in tropical cyclone season in the South China sea: evidence from daily resolution records of giant clam shells
16:15	Chengcheng Liu	Testing the seasonal hypothesis of Holocene temperature conundrum by the first monthly-resolved SST record
16:30	Xiulan Zong	Evaluating species-specific performance of land snail shell $\delta^{18}O$ as a seasonal hydroclimate proxy
16:45 17:00 17:15 17:30 17:45 18:00	END OF DAY	

MEMORIAL UNIVERSITY

ORAL PRESENTATIONS SCHEDULE

THURSDAY MAY 7TH , 2026

7TH INTERNATIONAL SCLEROCHRONOLOGY CONFERENCE 2026

TIME	PRESENTER	TITLE
8:30	**WELCOMING REMARKS**	
8:45	**Niels de Winter**	**KEYNOTE: PROXY DEVELOPMENT & OPTIMIZATION**
9:00		***Sclerochronology as a tool for high-resolution climate reconstructions***
9:15	Lukas Fröhlich	Extracting sub-annual geochemical information from bivalve shells – an approach to optimize sclerochronological methods on the example of the long-lived bivalve *Arctica islandica*
9:30	Mahsa Alidoostsalimi	ENSO interannual variability in the Great Barrier Reef recorded by marine gastropod shells
9:45	Sílvia Pérez-Mayol	Quantifying trace elements in cephalopod beaks: A rigorous analytical strategy for LA-ICP/MS
10:00	Bohao Dong	Investigating seawater-shell relationships using tank experiments with living *Tridacna* to inform palaeoenvironmental reconstructions
10:15	Alexandra Fazekas-Németh	Absolutely dated *Glycymeris* increment $\Delta^{14}C$ records reveal post-bomb ventillation processes in the Subtropical East Atlantic
10:30	**COFFEE BREAK**	
10:45	Qian Huang	Investigating the limits of amino acid nitrogen bivalve shells for biogeochemical and ecological reconstruction isotope composition in (sub-) fossil
11:00	Xizhi Huang	Compound-specific amino acids $\delta^{15}N$ values in mollusc shells: Extraction of intra-crystalline amino acids and evaluation as a proxy for palaeoenvironmental nitrogen baseline
11:15	Niklas Hausmann	The ups and downs of elemental analyses on mollusc shells
11:30	Christoph J. Gey	Applying QGIS to manage data in sclerochronology
11:45	Bernd R. Schöne	Equilibrium oxygen isotope fractionation and empirical paleothermometry equations: Critical assessment
12:00		
12:15		
12:30	**LUNCH**	
12:45		
13:00		
13:15	Haotian Yang	Potential interspecific differences in the indirect effect of light intensity on the sub-daily shell Sr/Ca and Mg/Ca ratios of two Tridacna species
13:30	**James Scourse**	**KEYNOTE: IMPACTS ON ECOSYSTEMS & POLLUTION**
13:45		**Ecosystem and biodiversity reconstructions from molluscan bivalve sclerochronologies**
14:00	Ethan L. Grossman	Temperature, discharge, and mussel growth during the last 150 years in the Brazos River, TX – A clumped isotope study
14:15	Andrew Graham	A 250+ year highly-resolved record of Hg in *Arctica islandica* shells from the Gulf of Maine
14:30	Maria Hussain	A lifetime of listening: mining related environmental contamination in fish otoliths across trophic levels
14:45	Matthew Mason	Sclerochronological evidence for recent benthic marine warming in the English Channel
15:00	**COFFEE BREAK**	
15:15	Michael Cornish	Wavelet analyses reveal the scales of SST-driven synchrony in Pismo clam (*Tivela stultorum*) shell growth chronologies across their full latitudinal range
15:30	Max Castorani	Climate variability, not ecosystem state, drives long-term growth in seagrass-dwelling clams (*Mercenaria mercenaria*)
15:45	Jingzhuo Wang (ONLINE)	Assessing Environmental Stresses in Bivalve *Mercenaria mercenaria* from Tokyo Bay, Japan Using Shell Stable Isotope Records and Automated Growth Chronology Reconstruction
16:00	Ching-Tsun Chang (ONLINE)	Baleen Plates as High-Resolution Archives for Reconstructing Long-Term Nutrient Utilization in Large Vertebrates
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17:00	**EXTENDED BREAK BEFORE POSTER SESSION**	
17:15		
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18:00	**POSTER SESSION (UNTIL 20:30)**	

MEMORIAL UNIVERSITY

ORAL PRESENTATIONS SCHEDULE

FRIDAY MAY 8TH , 2026

7TH INTERNATIONAL SCLEROCHRONOLOGY CONFERENCE 2026

TIME	PRESENTER	TITLE
8:30	WELCOMING REMARKS	
8:45	Natasha Leclerc	Retracing food web shifts in Burrard Inlet (səlilwət, British Columbia, Canada) since industrialization with archaeological and modern clam (*Saxidomus gigantea and Leukomea staminea*) shell collections: A phytoplankton dynamics proxy evaluation
9:00	Anna-Cae Fuller	Investigating invader responses: Thermal niche insights from oxygen isotope sclerochronology of *P. maculata*
9:15	Vincent Raoult	KEYNOTE: Fisheries Ecology, Management & Conservation
9:30		*Soft skeletons, tough sclerochronology? Elasmobranch tissues for historical data*
9:45	Evan Edinger	Growth rates and carbonate production in two Northwest Atlantic calcareous large gorgonian octocorals
10:00	Wilder Greenman	Decadal variability in surface nutrient export recorded by deep-water corals in the Northwest Atlantic
10:15	Khady Diop (ONLINE)	Growth patterns and microchemical composition of the bloody cockle (*Senilia senilis*) shell along the gradient of the Sine-Saloum inverse estuary
10:30	COFFEE BREAK	
10:45	Philip Jacobson	Assessing individual variation in habitat use of European eel along a unique salinity gradient using otolith microchemistry
11:00	Sanja Matić-Skoko	The microchemistry of European eel otoliths from different habitats in the Neretva estuary (Croatia) predicts/showed habitat variability due to anthropogenic activities
11:15	Tracey Loewen	Brackish water use of Burbot (*Lota Lota*) in the Western Canadian Arctic
11:30	Cerys Condran (ONLINE)	Age validation of Patagonian toothfish
11:45	Walter Rogers	Validation of annual growth zone formation in gray triggerfish *Balistes capriscus* dorsal spines, vertebrae, and otoliths
12:00		
12:15		
12:30	LUNCH	
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15:15		
15:30	EXCURSION TO MANUEL'S RIVER HIKE	
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18:00		

MEMORIAL UNIVERSITY

ORAL PRESENTATIONS SCHEDULE

SATURDAY MAY 9TH , 2026

7TH INTERNATIONAL SCLEROCHRONOLOGY CONFERENCE 2026

TIME	PRESENTER	TITLE
8:30	**WELCOMING REMARKS**	
8:45	Steven E. Campana	Can otolith growth increments be used to reveal the age of sexual maturation in fish?
9:00	Lisa Spotowitz	Unlocking archival otoliths: Developing a non-invasive method to analyze museum otoliths for historical life-history reconstructions
9:15	Armagan Sabetian (ONLINE)	Unravelling baselines through time-series analysis of otolith chemistry
9:30	**Gaia Crippa**	**KEYNOTE: SCLEROCHRONOLOGY IN DEEP TIME**
9:45		***Shells through time: challenges and opportunities of the fossil bivalve archive***
10:00	Kirstin Brink	Chronology of colour banding in a Cretaceous-aged marine reptile tooth
10:15	Manja Hethke	Modern-like Asian monsoon in South China during the late Oligocene
10:30	**Coffee Break**	
10:45	Thomas Lechner	Sclerochronology of freshwater pearl mussels (*Margaritifera (pseudunio) flabellata*) from the early late Miocene hominid locality Hammerschmiede, Bavaria, Southern Germany
11:00	Andrew Johnson (ONLINE)	Intraformational changes in marine climate, water isotopic composition and bivalve community from combined $\delta^{18}O$ and Δ^{47} analysis of late Cenozoic shells from the UK and USA
11:15	Ennie Schulze	Seasonal variability during the Gelasian-Calabrian transition recorded by sclerochronological stable isotopes in lacustrine gastropods (Kos, Greece, Eastern Mediterranean)
11:30	Linda Ivany	Faster life histories for *Arctica islandica* during mid-Pliocene warmth in Iceland
11:45	Ellie Nelson	Advances in amino acid geochronology of bivalve shells: A complementary technique for sclerochronology
12:00		
12:15		
12:30	**LUNCH**	
12:45		
13:00		
13:15	Zheng Fang	Tidal cycles echoed in oyster shell micro-growth increments: A method to calibrate seasonal paleotemperature reconstructions
13:30	**Asier García-Escárzaga**	**KEYNOTE: ARCHAEOLOGY**
13:45		***Sclerochronology in archaeology: Inferring seasonality of mollusc collection and past climate conditions***
14:00	Sadie Louise Weber (ONLINE)	Fluvial Sambaquis of Southwestern Amazonia: Indicators of Middle to Late Holocene climate dynamics
14:15	Julien Thébault	Fortnightly-resolved reconstruction of West African monsoon variability over the last two millennia from *Senilia senilis* shell middens
14:30	Chloe Stringer	Investigating shell-matrix deposits at the Neolithic site of Ginnerup (Denmark): Insights from zooarchaeological and sclerochronological analyses on mollusc remains
14:45	**COFFEE BREAK**	
15:00	Jean-François Cudennec	Remarkable single-fishing event reveals exceptionally cold winter conditions during the Atlantic/Subboreal transition in Brittany, France
15:15	Amy Prendergast	A high-resolution stable isotope record of Holocene palaeoclimate and seasonality in the central Mediterranean
15:30	C. Fred T. Andrus	Exploring European flat oyster (*Ostrea edulis*) for season of capture analysis
15:45	Melita Peharda	Sclerochronological analysis of mussel shells from a Neolithic near-coastal cave site in the eastern Adriatic Sea
16:00	Meghan Burchell	The exploitation of the bivalve *Cerastoderma glaucum* in Hellenistic Epetion, Eastern Adriatic coast
16:15	**AWARDS ANNOUNCEMENT**	
16:30	**CLOSING REMARKS**	
16:45		
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17:15	**END OF DAY**	
17:30		
17:45		
18:00		

MEMORIAL UNIVERSITY

POSTER PRESENTATIONS

THURSDAY MAY 7TH , 2026, 16:30 – 18:00 NST

7TH INTERNATIONAL SCLEROCHRONOLOGY CONFERENCE 2026

PRESENTER	TITLE
BIOMINERAZITION & KINETICS	
Bohao Dong	Visualising and quantifying Mg/Ca and Sr/Ca heterogeneity in the isochronous growth increments of bivalve shells (*Tridacna*)
Montserrat Ramón Herrero	Disentangling the shell of the gastropod *Bolinus brandaris*: Inner structure and implications for the growth process
PALEOCLIMATES & PALEOENVIRONMENTS	
Gozde Degirmen	Stable oxygen ($\delta^{18}O$) and carbon ($\delta^{13}C$) isotope analysis of Late Cretaceous Oyster shells from Mooreville Chalk in the southern Western Interior Seaway (WIS) : Preliminary Paleoenvironmental Interpretations
Erin Kim	Observing Mio-Pliocene Gulf Stream Variability Using Δ^{47}-derived $\delta^{18}O$water Values and $\delta^{18}O$ Sclerochronology
Eric Waters	Investigating reproductive changes of Chione over a regional extinction using isotope and Ba/Ca sclerochronology
Bernd R. Schöne	Shells of *Littorina littorea* (*Gastropoda*) provide an archive for palaeoclimate and seasonal shellfish collection practices – an example from Orkney
Blake DePhillips	Reconstructing past marine climate variability in the Central Gulf of Maine (Isle au Haut) from growth increments and oxygen isotopes of the marine bivalve *Arctica islandica*
Carin Andersson	Constraining Arctic-Atlantic sea-ice variability using coralline algae archives: Insights from Svalbard
David Reynolds	Evaluating annually resolved marine variability in the North Sea over the last 500 years
David Reynolds	A multi-proxy evaluation of the spatiotemporal stability of the North Atlantic cold blob over the last five centuries
Alex Quizon	Late Pleistocene Atlantic Coastal Plain paleoclimate and paleoceanography reconstructions via molluscan traditional stable and 'clumped' isotope sclerochronology
Catherine Layfield	Exploring rhodolith growth habit variations in the Gulf of Mexico
Garrett Braniecki	Comparing low- and mid-latitude seasonal amplitudes using clumped isotopes as recorded in Plio-Pleistocene *Mercenaria* spp.
Tamara Trofimova	Evaluating annually resolved marine variability in the North Sea over the last 500 years
Diana Thatcher	Master shell chronology and multi-proxy geochemical records illustrate oceanographic variability in the mid-Atlantic Region (USA) since 1800 CE
Tessa Giacoppo	Deep-water gorgonian corals reveal decadal-scale variability in the composition of export productivity in the rapidly warming Northwest Atlantic margin
PROXY DEVELOPMENT & OPTIMIZATION	
Yunhan Fang	Validating sampling and data-processing methods in high-resolution carbonate clumped isotope (Δ47) sclerochronology using Mercenaria mercenaria for reconstructing paleoseasonality
Alan Wanamaker	Sclerochronology on YouTube: Providing learning opportunities, broadening early career engagement, and developing community
Sudakshina Sinha	Assessment of Subantarctic crustose coralline algae as marine climate archives
Jacob P. Warner	*Helisoma (Planorbella) trivolvis*: A potential paleoclimate and paleo-weather archive for North America
Hunter Hughes	The TimeWarp Package: Obtaining robust geochemical timeseries from laser ablation mass spectrometry for paleoclimate applications
Lena Yuesha Li	Unlocking rhodoliths as paleoceanographic archives
Amanda Hauser	Evaluating SIMS-based oxygen isotopes from P. Generosa (geoducks) to monitor climate variability in the Northeast Pacific
Minoli Dias	Assessment of the coralline alga, *Clathromorphum compactum*, for proxy reconstruction of primary productivity and glacier runoff in Starnes Fjord, Nunavut, Canada
Iza Pawlowski	Multi-site evaluation for the potential of lithium as a proxy in the coralline alga *Clathromorphum compactum* for high-latitude sea surface paleotemperature archiving
David Reynolds	Establishing a modular high-precision micro-sampling system
Daniel Thomas Vigelius	Simulating shell diagenesis: An In vitro approach
Madelyn Mette	Combined analysis of oyster shell carbon and oxygen isotope geochemistry along a salinity gradient in Tampa Bay, Florida
Barbara de Moura Neves	Trace element variations in sea pens (*Cnidaria: Octocorallia*): Potential indicators of environmental change
Natasha Leclerc	Reconstructing historical sub-annual primary producer dynamics in coastal Baffin Bay with high-resolution sclerochronology

MEMORIAL UNIVERSITY

POSTER PRESENTATIONS

THURSDAY MAY 7TH , 2026, 16:30 – 18:00 NST

7TH INTERNATIONAL SCLEROCHRONOLOGY CONFERENCE 2026

PRESENTER	TITLE
IMPACTS ON ECOSYSTEMS & POLLUTION	
Maya Smith	Nitrogen isotopic records from modern and archaeological freshwater mussels in the Florida Everglades
Ashlee Vachon	The perks of opercula: Sclerochronological comparison of trace element composition in otoliths and opercula
Megan MacKinnon	The North Eastern Oyster: An isotopic study of oyster populations extended beyond their species range on the island of Newfoundland, Canada
FISHERIES ECOLOGY, MANAGEMENT & CONSERVATION	
Philip Jacobson	Making the invisible visible without preparation – using Micro-XRF for non-destructive analyzes of element composition and distribution of biological samples
Mišo Pavičić	Tracing adult *Sparus aurata* to nursery origins using elemental otolith fingerprints
Krista Greeley	Growth ring morphology, axial and radial growth rates in six species of Northwest Atlantic sea pens (*Cnidaria: Octocorallia*)
Melita Peharda	Isotopic records from the Variegated Scallop, *Mimachlamys varia*
Sílvia Pérez-Mayol	Disentangling the growth of *Bolinus brandaris* (*Gastropoda: Muricidae*) by means of an experimental calcein sequential
Logen Mikal Flem	Unvalidated age and longevity estimates lead to uncertainty of the true extinction risks of Chondrichthyans
SCLEROCHRONOLOGY IN DEEP TIME	
Yitao Huang	Tracing Late Cretaceous paleoclimate in the Mississippi Embayment through isotopic records from rudists
ARCHAEOLOGY	
Amy Prendergast	Sclerochronology partnership research with Aboriginal and Torres Strait Islander communities to aid Indigenous-led management of Sea Country
Freya Cordell	Growth analysis of *Saxidomus gigantea* as a proxy for seasonal sea ice extent
Sarah Kuehn	Increasing precision in SST reconstruction in British Columbia, Canada, using $\delta^{18}O$ and Sr/Ca of marine bivalves from archaeological sites
Chia-Cheng (Jason) Ku	Reconstructing seasonal upwelling and indigenous resource use using high-resolution pipi shells (*Plebidonax deltoides*)

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