

20th NORTH AMERICAN DIATOM SYMPOSIUM DETAILED PROGRAM

Thursday, September 24

7:15-8:15	Breakfast-Lakeview Lodge Conference Center
8:40-9:00	Opening remarks and welcome-Lakeview Lodge Conference Center, Peter van der Linden, Executive Director, Iowa Lakeside Laboratory and Jason McDuffie, Executive Director, Presbyterian Camp on Okoboji
9:00-10:00	Plenary Talk, Dr. David Jewson , University of Ulster: "Diatom ecology: Why do it?"
10:00-10:20	Coffee Break
10:20-12:00	Scientific Session I - Ecology (Oral Presentations) Co-moderators: Nathan J Smucker, R Keveren
10:20	Cooper, JT and Bergey, EA BIODIVERSITY AND ECOLOGY OF EPHEMERAL ROCK POOL DIATOMS IN SOUTHERN OKLAHOMA
10:40	Smith, ME and Manoylov, KM INFLUENCE OF AGRICULTURAL PRACTICES ON ALGAL COMMUNITY ON LAKE OCONEE, GEORGIA
11:00	Bach, NA and Pillsbury, RW THE EFFECTS OF DISTURBANCE AND NUTRIENT ADDITION ON A PERIPHYTON COMMUNITY DOMINATED BY <i>DIDYMOSPHENIA GEMINATA</i>
11:20	Munyon, JW and Gaiser, EE EFFECT OF PHOSPHORUS ON PERIPHYTON MAT STRUCTURE AND COMPOSITION USING EXPERIMENTAL MICROCOSMS
11:40	Anderson, NJ Pla, S, McGowan, S, Foy RH and Engstrom, DR THE ECOLOGICAL RESPONSE OF UPLAND LAKES IN IRELAND TO MULTIPLE STRESSORS: DIATOM PERSPECTIVES
12:00-1:00	Lunch
1:30-2:50	Scientific Session IIa-Paleolimnology (Oral Presentations) Co-moderators: Tisza Bell, Trisha L Spanbauer
1:30	Hobbs, WO , Fritz, SC, Stone, JR, Donovan, JJ, Almendinger, J, and Grimm, EC DIATOM RESPONSE TO GROUNDWATER FLUCTUATIONS IN A CLOSED-BASIN LAKE OVER THE LAST 8500 YRS
1:50	Scotese, K and Wolin, J A 30 LAKE DIATOM TP CALIBRATION SET FROM THE ERIE / ONTARIO DRIFT PLAIN ECOREGION
2:10	Westover, KS and Bigler, C A HIGH-RESOLUTION DIATOM-INFERRED CLIMATE RECONSTRUCTION FROM A DEEP ALPINE LAKE
2:30	Ramstack, JM , Shinneman, ALC, Edlund, MB, Juggins, S, and Williamson, J PALEOLIMNOLOGY OF SHALLOW LAKES: LIMITATIONS OF DIATOM-BASED TRANSFER FUNCTIONS AND A MULTI-PROXY APPROACH
2:50-3:10	Coffee Break
3:10-4:50	Scientific Session IIb-Systematics and Taxonomy (Oral Presentations) Co-moderators: Joshua Cooper, Josh G Stepanek
3:10	Hamsher, SE , Evans, K, Mann, DG, and Saunders, GW BARCODING DIATOMS: EXPLORING ALTERNATIVE MARKERS TO COI
3:30	Ashworth, MP , Ruck, EC, Romanovicz, DK, Lobban, CS, and Theriot, EC ULTRASTRUCTURE AND MOLECULAR EVIDENCE REVEAL ARAPHID PENNATE ANCESTRY FOR A ROUND, UNDESCRIBED TROPICAL DIATOM

3:50	Kociolek, JP THREE NEW SPECIES OF THE DIATOM GENUS <i>GOMPHONEMA</i> EHRENBERG FROM INDIA AND PHYLOGENETIC RELATIONSHIPS OF THE FRESHWATER CYMBELLOID AND GOMPHONEMOID DIATOMS
4:10	Thomas, EW and Kociolek, JP NOT JUST CURVATA, ANYMORE – INTERESTING <i>RHOICOSPHENIA</i> GRUNOW OF CALIFORNIA, U.S.A.
4:30-6:00	Break
6:00-7:00	Dinner
7:30-9:00	Scientific Session III - Poster Presentations (<i>Lakeside Lab, MacBride Hall and Mahan Hall</i>)
9:00-	Evening Social- <i>Lakeside Lab, Dining Hall</i>

Friday, September 25

7:15-8:15	Breakfast
8:40-10:00	Scientific Session IVa-Lakeside Alumni (Oral Presentations) Co-moderators: Ruchi Bhattacharya, Nicholas Bach
8:40	Stoermer, EF A BRIEF HISTORY OF DIATOM STUDIES AT IOWA LAKESIDE LABORATORY
9:00	Nakov, T and Theriot, E PRELIMINARY MOLECULAR PHYLOGENY OF THE CYMBELLALES (BACILLARIOPHYCEAE)
9:20	Carrick, HJ , Price, KJ and Wagner, R PHOSPHORUS RETENTION IN STREAMS: APPLICATION OF AN IN SITU ENRICHMENT SYSTEM (ISES) TO ASSESS THE CONTRIBUTION OF BENTHIC BIOFILMS
9:40	Shinneman, ALC , Fritz, SC, Bennett, D, and Schmeider, J INFERRING LAKE DEPTH USING DIATOM ASSEMBLAGES IN THE SHALLOW, SEASONALLY VARIABLE LAKES OF THE NEBRASKA SAND HILLS (USA)
10:00-10:20	Coffee Break
10:20-11:40	Scientific Session IVb-Lakeside Alumni (Oral Presentations) Co-moderators: Set Ismael Castro, John Manier
10:20	Main, SP SOME INTERESTING DIATOMS FROM IOWA WETLAND MITIGATION SITES
10:40	Stone, JR , and Cohen, AS LATE-PLEISTOCENE DIATOM PALEOECOLOGY OF LAKE MALAWI: EVIDENCE OF EXTREME SHIFTS IN DEPTH AND MIXING REGIME
11:00	Hein, MK A POTENTIALLY NEW SPECIES OF <i>RHOICOSIGMA</i> FROM THE BAHAMAS
11:20	Smucker, NJ and Vis, ML DIATOM SUCCESSION IN ACID MINE DRAINAGE IMPACTED STREAMS: IMPLICATIONS FOR BIOFILM STRUCTURE AND FUNCTION
12:00-1:00	Lunch
1:30-2:50	Scientific Session Va - Celebration of CW Reimer (Oral Presentations) Moderator: Mark Edlund, A/V: Jay Munyon
1:30	Lowe, RL and Sherwood, AR DISTRIBUTION AND MORPHOLOGICAL VARIABILITY OF <i>COSMIONEIS</i> (BACILLARIOPHYCEAE) IN HAWAII
1:50	Gaiser, EE <i>MASTOGLOIA SMITHII</i> THWAITES EX WM. SMITH: A STRUCTURAL ENGINEER OF CALCAREOUS MATS IN KARSTIC SUBTROPICAL WETLANDS

2:10	VanLandingham, SI ALLEGED UNCONFORMITY AT THE HUEYATLACO ARCHAEOLOGICAL SITE (PUEBLA, MEXICO) ADVOCATED BY THE CENTER FOR THE STUDY OF THE FIRST AMERICANS IS NEGATED BY 37 LINES OF DIATOM CORRELATION
2:30	Potapova, M SERVING THE COMMUNITY OF DIATOMISTS: DR. REIMER'S LEGACY AT THE ANSP DIATOM HERBARIUM
2:50-3:10	Coffee Break
3:10-4:50	Scientific Session Vb - Celebration of CW Reimer (Oral Presentations) Co-moderators: Mary Ellen Benson, Ashley Sanders
3:10	Theriot, EC , Ashworth, MP, Jansen, RK, Nakov, T, and Ruck, EC THE DIATOM PHYLOGENY: STATUS AND PROSPECTS
3:30	Garrison, PJ , LaLiberte, GD, and Ewart, B THE IMPORTANCE OF WATER LEVEL CHANGES AND SHORELINE DEVELOPMENT IN THE EUTROPHICATION OF A SEEPAGE LAKE
3:50	Bixby, RJ and Zeek, EC A SIMPLE METHOD FOR CALCULATING VALVE CURVATURE
4:10	Stevenson, RJ HOW CAN DIATOMS BE USED TO ASSESS ECOSYSTEM SERVICES?
4:30	Manoylov, KM , Morales, EA, and Bahls, L FOUR NEW ARAPHID DIATOMS (BACILLARIOPHYTA) FROM RIVERS IN NORTH AMERICA
4:50-6:00	Break
6:00-9:00	Reimer Celebration Dinner and Social
9:00	NADS Auction- <i>Lakeside Lab, Mahan Hall</i>

Saturday, September 26

7:15-8:15	Breakfast
8:40-10:20	Scientific Session VIb-Marine Environments & Education (Oral Presentations) Co-moderators: Lisa Kunza, Sylvia Seulbe Lee
8:40	Burr, KL , Litton, GM, and Brunell, MS DIATOMS OF THE GENUS <i>THALASSIOSIRA</i> FROM THE TIDAL SAN JOAQUIN RIVER, STOCKTON, CALIFORNIA USA
9:00	Warnock, J and Scherer, R REFINING MARINE DIATOM PALEOPRODUCTIVITY ESTIMATES FOR THE SOUTHERN OCEAN
9:20	Wachnicka, A , Gaiser, E, and Collins, L L EARNING FROM FOSSIL DIATOM RECORDS ABOUT PAST ENVIRONMENTAL CONDITIONS IN TWO SUBTROPICAL SOUTH FLORIDA ESTUARIES
9:40	Julius, M , Mayama, S, Katoh, K, Ohmori, H, Seino, S, Osaki, H, H, Hoffer, J, Lingle, K, Conroy, K, Lee, JH, Cheong, C, Lobo, EA, Witkowski, A, Srivibool, R, Muangphra, P, Jahn, R, and Kulikovskiy, M SIMRIVER AN INTERNATIONAL EDUCATIONAL TOOL EXPANDING UNDERSTANDING OF AQUATIC ECOSYSTEMS AND ENHANCING APPRECIATION OF DIATOMS
10:00	Card, VM DIATOM DIVERSITY AS A POLLUTION INDICATOR: AN INQUIRY-BASED LAB ACTIVITY FOR UNDERGRADUATE ECOLOGY COURSES
10:20-10:40	Coffee Break
10:40-11:40	Plenary Talk, Dr. I. Gebeshuber , University Kebangsaan Malaysia: "Learning from diatoms: Biomimetic Approaches"
12:00-1:00	Lunch

1:30-2:50	Scientific Session VIIa - Nanotechnology and New Methods (Oral Presentations) Co-moderators: Teofil Nakov, Amanda Pappas
1:30	Nelson, H , Ellis, S, and Poulton, NJ AUTOMATIC DETECTION, IDENTIFICATION, AND CLASSIFICATION OF PLANKTON USING A CONTINUOUS IMAGING PARTICLE ANALYZER (FLOWCAM)
1:50	Tiffany, MA , Nagy, SS, and Gordon, R THE BUCKLING OF DIATOM VALVES
2:10	Stepanek, JG , Janisch, R, and Julius, ML FROM MICRO TO MACRO: DETERMINING HYDRODYNAMIC PROPERTIES OF STALK FORMING DIATOMS
2:30	Pillsbury, RW and Stevenson, RJ THE RESPONSE OF DIATOMS TO AGRICULTURAL WATERSHEDS OF RIVERS FROM THE UNITED STATES
2:50-3:10	Coffee Break
3:10-4:30	Scientific Session VIIb-Monitoring (Oral Presentations) Co-moderators: Evan Thomas, Jonathan P Warnock
3:10	Reavie, E CONSEQUENCES OF TAXONOMIC DISCORD IN A GREAT LAKES MONITORING PROGRAM
3:30	Kireta, AR , Reavie, ED, Sgro, GV, Angradi, TR, Jicha, TM, Bolgrien, DW, and Hill, BH DIATOM INDICATORS OF DISTURBANCE IN U.S. GREAT RIVERS
3:50	Charles, DF DOCUMENTATION OF UNDESCRIBED DIATOM TAXA IN SURVEY AND MONITORING PROGRAMS
4:10	Sgro, GV , Reavie, ED, Kireta, AR, Angradi, TR, Jicha, TM, Bolgrien, DW, and Hill, BH COMPARISON OF DIATOM-BASED INDICES OF WATER QUALITY FOR MID-CONTINENT (USA) GREAT RIVERS
4:30-6:00	Scum Run- <i>Lakeside Lab, meet at Dining Hall for start</i>
6:00-7:00	Dinner
7:30-8:45	Workshop - Diatoms in education; education in diatoms (Organizer: V. Card)
7:30-8:45	Workshop - Working towards taxonomic consistency (Organizer: S. Spaulding)
9:00	Business Meeting

Sunday, September 27

7:30-8:30	Breakfast
9:00	Collecting Trips - Meet in Lakeside Lab Parking Lot
12:00	Departures

POSTER SESSION, Thursday, September 24

7:30-9:00 Scientific Session III - Poster Presentations - Lakeside Lab, MacBride Hall
(Posters P-1 thru P-18) and Mahan Hall (Posters P-19 thru P-38)

- P-1 Barinova, S and Tavassi, M CONTINENTAL ISRAEL DIATOM ALGAE GEOGRAPHIC DISTRIBUTION
- P-2 Bell, T and McKnight, D A SHIFT IN DIATOM SPECIES REGIME DUE TO INCREASED PHOSPHORUS ASSOCIATED WITH THE THAW OF ALPINE PERMAFROST
- P-3 Beyene, A, and Triest, L FRESHWATER POLLUTION AND DIATOM COMMUNITIES IN THE UPPER AWASH CATCHMENT, ETHIOPIA
- P-4 Bhattacharya, R, Hausmann, S, Hubeny, B, Boss, S, Black, J, and Brown, E PAST FLOOD RECONSTRUCTION FROM LOWER WHITE RIVER, ARKANSAS USING DIATOMS AND SEDIMENT GEOCHEMISTRY AS PROXIES
- P-5 Benson, ME FIRST OCCURRENCES IN A HIGHLY DIVERSE LATE EOCENE FRESHWATER DIATOM FLORA FROM THE FLORISSANT FORMATION, CENTRAL COLORADO, USA
- P-6 Black, JL, Hausmann, S, Pienitz, R, Salonen, V, St-Onge, G, Bouchard, M, Cunningham, L, Francus, P, and Lamothe, M THE "CRYSTAL EYE OF NUNAVIK" (PINGUALUIT CRATER LAKE): DIATOM INFERRED PALEOENVIRONMENTAL RECORD FOR THREE PREVIOUS INTERGLACIAL PERIODS
- P-7 Carboni, CA and Slate, JE TWO NEW PROPOSED *DIPLONEIS* AND *SYNEDRA* TAXA FROM THE EVERGRADES
- P-8 Carra, M and Card, VM EVOLUTIONARY THEORY AND DIFFERENTIAL RATES OF SEXUAL REPRODUCTION IN DIATOMS
- P-9 Castro, SI and Wolfe, AP HAVE ATMOSPHERIC EMISSIONS PRODUCED FROM THE EXTRACTION OF THE ATHABASCA OIL SANDS AFFECTED CANADIAN SHIELD LAKES?
- P-10 Edlund, MB and Brant, LA *EUNOTIA CHARLIE-REIMERI*, A NEW *EUNOTIA* WITH AMPHOROID FRUSTULE SYMMETRY
- P-11 Edlund, MB, Umbanhowar, CE and Ochiagha, C LINKAGES AMONG LANDSCAPE, WATER QUALITY, AND PLANKTONIC DIATOM COMMUNITIES IN THE CANADIAN LOWER ARCTIC
- P-12 Edlund, MB DIATOMS IN PHILATELY: POSTAGE STAMPS DEPICTING DIATOMS
- P-13 Siver PA, Wolfe AP and Edlund, MB EOCENE NONMARINE DIATOMS FROM NORTHERN CANADA
- P-14 Eilers, RB and Manoylova, KM THE DIATOM ERA - ENVIRONMENTAL RESPONSIBILITY THROUGH AWARENESS, ATTITUDE, AND ACTION
- P-15 Furey, PC, Lowe, RL, and Johansen, JR NEW *EUNOTIA* EHRENBERG TAXA FROM THE GREAT SMOKY MOUNTAINS NATIONAL PARK
- P-16 Geyer, KM, Weilbacher, ME, and Manoylov, KM RESPONSE OF ALGAL COMMUNITY

TO ANTHROPOGENICALLY-INDUCED TEMPERATURE DIFFERENCES IN LAKE SINCLAIR, BALDWIN COUNTY, GEORGIA *ORAL PRESENTATION*

- P-17 Keveren, R, Hausmann, S, Kaufman, DS, Black, JL, and Dixon, JC
RECONSTRUCTION OF PALEOLIMNOLOGICAL CHANGES THROUGH THE HOLOCENE: DIATOM BIOSTRATIGRAPHY OF GREYLING LAKE, CHUGACH RANGE, SOUTH-CENTRAL ALASKA
- P-18 Kocielek, JP, Graeff, C, and Thomas, E A DESCRIPTION OF THE FRUSTULAR MORPHOLOGY OF *FRUSTULIA CREUZBERGENSIS* (KRASSKE) HUSTEDT, WITH COMMENTS ON ITS SYSTEMATIC POSITION
- P-19 Kocielek, JP, Laslandes, B, Bennett, D, Thomas, E, Brady, M, and Graeff, C DIATOMS OF THE UNITED STATES. I. TAXONOMY, ULTRASTRUCTURE AND DESCRIPTIONS OF FIFTY NEW SPECIES AND OTHER RARELY REPORTED TAXA FROM LAKE SEDIMENTS IN THE WESTERN U.S.A
- P-20 Kocielek, JP, Lowe, RL, and Sherwood, AR NEW SPECIES OF THE DIATOM GENUS *GOMPHONEMA* EHRENBERG (BACILLARIOPHYCEAE) FROM HAWAII
- P-21 Kunza, LA, Pool, JR, Andrejic, J, Castro, SI, Inthongkaew, S, Jovanovska, E, Kohler, TJ, Main, SP, Manier, JT, Nakov, T, Purkey, MK, and Spaulding, SA *NEIDIUM* PFITZER FROM THE REIMER DIATOM HERBARIUM
- P-22 LaLiberte, GD, and Garrison, PJ USING LAKE HISTORIES IN NATURAL RESOURCE MANAGEMENT: RECONSTRUCTION OF NUTRIENT LEVELS, SECCHI DEPTH, AND ALGAL BLOOM HISTORIES IN BIG ROUND LAKE, WISCONSIN, USA
- P-23 Lee, SS, Rosi-Marshall, EJ, Peterson, CG, Kennedy, TA, Kampman, JR, and Wellard, HA EFFECTS OF TEMPERATURE AND VELOCITY FLUCTUATIONS ON DIATOM COMMUNITY COMPOSITION IN STREAMS
- P-24 Manier, JT, Castro, SI, Inthongkaew, Kohler, TJ, Kunza, LA, Pool, JR, Purkey, MK, and Spaulding, SA NOTES ON IOWA DIATOMS: COMPARISON OF THE MORPHOLOGICAL RANGE OF MODERN POPULATIONS WITH SPECIMENS IN THE REIMER DIATOM HERBARIUM
- P-25 Menicucci, AJ and Noble, PJ ELEVATION OF A VARIETY OF TETRACYCLUS LANCEA TO THE SPECIES LEVEL FROM THE QUINCY DIATOMITE, CENTRAL WASHINGTON, USA
- P-26 Miranda, ALB and Kocielek, JP TAXONOMY AND ULTRASTRUCTURE OF SEVERAL DIATOM SPECIES FROM CARAJÁS NATION FOREST, PARÁ STATE, BRASIL
- P-27 Noble, PJ, Chandra, S, and Kreamer, DK VARIATIONS IN THE VERTICAL DIATOM DISTRIBUTION IN A DEEP NEAR-OLIGOTROPHIC ALPINE LAKE DURING THE ONSET OF STRATIFICATION, FALLEN LEAF LAKE, CALIFORNIA
- P-28 Ognjanova-Rumenova, N, Manoylov, KM, and Stevenson, RJ CHANGES IN CENTRIC DIATOM COMMUNITIES FROM TOP AND BOTTOM SEDIMENTS IN 24 MICHIGAN LAKES, USA
- P-29 Ozbay, G, Coyne, K, Pappas, A, Lee, K, Reining, B, and Ko, A EVALUATION OF BENTHIC DIATOMS AS WATER QUALITY INDICATORS IN THE BLACKBIRD CREEK WATERSHED, DELAWARE
- P-30 Purkey, M, Noble, PJ, Smith, SB, Karlin, RE, and Menicucci, AJ DIATOM RESPONSE TO THE TSOYOWATA ASHFALL IN FALLEN LEAF LAKE, CALIFORNIA

- P-31 Ren, L and Potapova, M REPRESENTATIVES OF THE GENUS *PROSCHKINIA* FROM CHIHUAHUAN DESERT, NEW MEXICO
- P-32 Rens, JA, Thomas, EW, Lowe, RL, and Kociolek, JP TWO INTERESTING GOMPHONEMOID DIATOMS FROM PSEUDO-AERIAL HABITATS IN THE UPPER PENINSULA, MICHIGAN (U.S.A.)
- P-33 Rushforth, SJ, Edlund, MB, Spaulding, SA, and Stoermer, EF THE REIMER HERBARIUM AT IOWA LAKESIDE LABORATORY
- P-34 Sanders, AFP, Rines, JEB, and Wee, JL SOME *CHAETOCEROS* SPECIES FROM AN OLIGOHALINE, SUBTROPICAL ESTUARY
- P-35 Spanbauer, TL, Stone, JR, Saros, JE, and Fritz, SC *CYCLOTELLA* RESPONSE TO CLIMATE CHANGE DURING THE HOLOCENE: AN ANALYSIS OF THE DIATOM PALEOECOLOGY OF A PRISTINE ALPINE LAKE IN GLACIER NATIONAL PARK
- P-36 Stone, J and Westover, K THE DIATOM WIKI: AN ONLINE COMMUNITY RESOURCE
- P-37 Winter, D, Sjunneskog, C, and Chow, J NEAR-SHORE *THALASSIOSIRA* SPECIES FROM THE PLIOCENE SECTION OF THE ANDRILL AND-1B DRILLCORE, MCMURDO SOUND, ANTARCTICA
- P-38 Winter, D, Vander Meer, D, and Bollman, W DIATOM QUALITY ASSURANCE PROTOCOLS: METHODS, DIFFICULTIES AND SUGGESTIONS FOR IMPROVEMENT
- P-39 Zalack, JT, Wolin, JA, and Stevenson, RJ DEVELOPMENT OF A MULTIMETRIC LAKE DIATOM CONDITION INDEX FOR THE CONTINENTAL UNITED STATES

