# TABLE OF CONTENTS

Combined Minutes of the 103rd Annual Meeting of the South Dakota Academy of Science ................................................................................................................................. 1

**Complete Senior Research Papers**

Submitted for Presentation at the 103rd Annual Meeting of the South Dakota Academy of Science

- Evaluation of a Decoy-only Public Goose Hunting Opportunity in Central South Dakota: The Role of Harvest Success on Hunter Satisfaction. Larry Gigliotti .................................................................................................................. 23
- Evaluation of Internet Surveys for Conducting Statewide Angler Surveys in South Dakota. Kjetil Henderson and Larry Gigliotti ................................................................. 35
- Comparison of Two Alfalfa Fertilizers Used for Walleye Fingerling Production in Lined Ponds. Matthew J. Ward ................................................................. 51
- *Boreus coloradensis* Byers (Mecoptera: Boreidae), A Species and Family New to the Black Hills and South Dakota. Paul J. Johnson .................................................................................................................. 61
- New Occurrences of Byrrhidae (Coleoptera) and Bryophagy in the Black Hills Ecosystem, South Dakota and Wyoming. Paul J. Johnson ................................................................. 67
- A Report of Two Species of *Bothriochloa* (Poaceae) New to South Dakota. Mark Gabel and Jordan Purintun .................................................................................................................. 77
- Identifying and Characterizing Salt-Tolerant Alfalfa (*Medicago sativa* subsp. *falcata*) Germplasm. Katelin E. Frerichs and Lan Xu .................................................................................................................. 93
- Impacts of Strategic Grazing and Fire on Soil Seed Bank Heterogeneity in Mixed Grass Prairie. Kassidy Weathers, Lan Xu, and Patricia S. Johnson .................................................................................................................. 105
- Isolation of Potential Photosynthetic N$_2$-Fixing Microbes from Topsoil of Native Grasslands in South Dakota. Nanfang Wang, Shengni Tian, Liping Gu, Lan Xu, Yeyan Qiu, Trevor Van Den Top, Jose L. Gonzalez-Hernandez, Michael Hildreth, Shaoshan Li, and Ruanbao Zhou .................................................................................................................. 117
- Investigating Bacterial Communities in a Warm, Alkaline Pool in the Sanford Underground Research Facility Using Culture-based and Culture-independent Methods. Taylor Liu and David J. Bergmann .................................................................................................................. 127
- Identification of Water-Related Cis-Regulatory Elements in Tomatoes. Gabriel Carlisle, Seasson Vitiello, and Steven L. Matzner .................................................................................................................. 143
- Tritium and Carbon-14 in the Madison Limestone Aquifer. Perry H. Rahn .................................................................................................................. 153
- Refinements of the Late Miocene Fort Rock Formation in South-central Oregon, the McKay Formation in Northern Oregon, and the Timing of the *Prosomys* Intercontinental Dispersal Event. James E. Martin, Jennifer E. Hargrave, and Kristin L. Ball .................................................................................................................. 165
New Material of Amynodontidae (Perissodactyla) from Badlands National Park and Its Implications on the Whitneyan-Arikareean Transition.
Ed Welsh, Darrin Pagnac, and Clint A. Boyd ................................................................. 181

The Next One Hundred Years of the SDAS: We Have a Sound History;
Will We Have a Sound Future? Nels H. Granholm ................................................. 199

Design and Implementation of Observational Laboratory Components for Introductory Astronomy at Augustana University. K. Miller and N. Grau .................. 209

Small Mammal Abundance on the Standing Rock and Lake Traverse Indian Reservations in North and South Dakota. Michael P. Gutzmer, Kurt Tooley, Madeline S. Franks, Christopher J. Shank, Seth M. Gutzmer, Wyatt P. Gutzmer, Jeffrey C. Kelly, Alvah Quinn, and Anthony T. Byrne ........................................................................................................... 223

Abstracts of Senior Research Papers Submitted for Presentation at the 103rd Annual Meeting of the South Dakota Academy of Science

Social Values Regarding Ecosystem Services and Land Use in the Western Corn Belt. M. Carnes and M. Jarchow ................................................................. 232

Electrochemical Reduction of Aromatic Nitro Compounds: Strategies for LC-EC Analysis of Sanger Tagged Analytes. Miththira Balasingam, Paulina Guerrero, Dong Wang, John Becker, Haoran Sun, and Miles Koppang ...... 233

The Effects of BPA on Xenopus laevis. M. J. Ristau and A. M. Kiesow ......................... 234

Simulation of Neutrino Detection and Background Rejection for a Heavy Liquid Scintillator in a Space Environment. R. McTaggart ........................................... 235

Quantitative Analysis of Quantum Dots by X-ray Fluorescence. Hope E. Maunders, Alissa J. Runia, Alexander L. Tietz, and Duane E. Weisshaar .................................................................................................................. 236

The Current Status of the Black Hills State University Herbarium. Grace Kostel, Tara Ramsey, Justin Ramsey and Mark Gabel ................................................................. 237

Identifying Environmental Risk Factors and Predicting the Risk and of Human West Nile Virus in South Dakota. A. Hess, J. K. Davis, and M. C. Wimberly .................................................................................................................. 238

Engineering Escherichia coli W to Produce Fragrant Linalool Using Beet Juice as the Sole Carbon Source. Matthew McKillop, Nanfang Wang, Liping Gu, William Gibbons, Ewumbua Monono, Dennis Wiesenborn, and Ruanbao Zhou .................................................................................................................. 239

A Habitat Condition Index for Streams in the Northern Glaciated Plains Ecoregion of Eastern South Dakota. Jesse Wilkens and Anine Rosse ......................................................... 240

Stoichiometric Homeostasis in Two Native and Two Invasive South Dakota Grasses. Joshua T. Harvey and A. Joshua Leffler .................................................................................................................. 241

Assessing Kinetics of Anthracene Conversion to Anthraquinone Under Clay Mineral and Temperature Regimes Relevant to the Primordial Earth. H. L. Juntunen, B. K. Pitts, V. A. Swenson, P. Videau, and M. O. Gaylor (14-44) .................................................................................................................. 242

Using Hyperchem and Gromacs Modeling Software to Investigate the Behavior of a Plausible Prebiotic Reduced Phospholipid Derived from Meteoritic Schreibersite. L. J. Leinen, V. A. Swenson,
Assessing the Utility of Commercial Pressure Cookers as Autoclaves.
V. A. Swenson, M. O. Gaylor, B. Ushijima, N. M. Videau, and P. Videau ...... 244
Conversion of Phenolic Monomers from the Alkali Lignin Using Subcritical Water and Catalyst. Balawanthrao Jadhav, Ranen Roy, and Douglas E. Raynie................................................................. 245
A PCR Sequencing Technique to Identify Species and Genotypes of \textit{Haemonchus} from Mixed Trichostrongyle Egg DNA Recovered from Livestock Fecal Samples. P. Khanal, J. B. McKenzie, P. S. Heliso, and M. B. Hildreth ........................................................................................................... 246
Effects of Anti-epileptic Drugs on \textit{Danio rerio} Development.
P. Homayounpour and A. M. Kiesow ........................................................................ 247
The Swarms of Summer: Grasshopper Abundance and Diversity in South Dakota. Erica Anderson, Adam Varenhorst, Philip Rozeboom, Patrick Wagner, Amanda Bachmann and Billy Fuller................................. 248
About Scientific Education and the Human Culture. B. A. Shmagin................. 249
“Magnetic Linear Dichroism” in Angle-resolved Photoemission Spectroscopy of (Ga,Mn)As. Hari Chapagain and Rafal Oszwaldowski ........ 251
Drought and Grazing Resistance of Perennial Grasses Mediated Through Belowground Bud Bank. Surendra Bam, Jacqueline P. Ott, Jack L. Butler, and Lan Xu ........................................................................................................... 253
Identification of Cell Surface Sugars in N\textsubscript{2}-fixing Cyanobacterium \textit{Cyanothece} ATCC 51142 Using Fluorescein Labeled Lectins. James Young, Michael Hildreth and Ruanbao Zhou .................................................................................................................. 254
Visualization and Collection of Latent Fingerprints from Human Skin. Quinn Koenen and Tamara K. Pease................................................................. 255
Printed Conductive and Resistive Wire Antennas. Thomas P. Montoya and Thomas M. Wallace................................................................. 256
N\textsubscript{2}-Fixing Cyanobacteria Harnessed for Biosolar Production of Nitrofertilizer. Shengni Tian, Huilan Zhu, Liping Gu, and Ruanbao Zhou...... 257
Inheritance of Seed Coat Color in Red Clover Using Half-sib Families. Sharon Folk and Arvid Boe................................................................. 258
Seed Set and Seed-Insect Interactions in Natural and Cultivated Populations of Purple Prairie Clover. Arvid Boe, Paul J. Johnson, and Abigail P. Martens .............................................................................................................. 259
Research Papers and Posters
Submitted for Presentation at the 103rd Annual Meeting of the South Dakota Academy of Science and Published by Title Only

Structure and Magnetism of NiFeMnGa₅Sn₅₋ₓ (x = 0, 0.25, 0.5, 0.75, 1) Heusler Alloys. Jace Waybright¹, Lee Halbritter¹, Hanyang Qian¹,², Bishnu Dahal¹, Pavel Lukashev³, Yung Huh¹, and Parashu Kharel¹.¹ Department of Physics, South Dakota State University, Brookings, South Dakota 57007; ²School of Materials Science and Engineering, Changzhou University, Changzhou, China; ³Department of Physics, University of Northern Iowa, Cedar Falls, IA 50614

Preparation, Characterization and Magnetocaloric Effect of Laₙ₋ₓSrₓMnO₃ Nanoparticles. Bishnu Dahal¹, Megan M. Allyn², Ronald J. Tackett³, Yung Huh¹, and Parashu Kharel¹.¹ Department of Physics, South Dakota State University, Brookings, South Dakota 57007; ²Department of Chemistry and Biochemistry, Kettering University, Flint, MI 48504; ³Department of Physics, Kettering University, Flint, MI 48504

Synthesis and Characterization of Mn₂Sn₀.₅Ga₀.₅ (x = 0, 0.3, 0.5, 0.8) Alloys. Hanyang Qian¹,², Kyle Schroeder¹, Yung Huh¹, and Parashu Kharel¹.¹ Department of Physics, South Dakota State University, Brookings, South Dakota 57007; ²School of Materials Science and Engineering, Changzhou University, Changzhou, China.

Magnetic Anisotropy of NiCo₂O₄ Studied Using the Magneto-Optical Kerr Effect. Jace Waybright¹, Parashu Kharel¹, Corbyn Mellinger², Xiaozhe Zhang²,³, and Xiaoshan Xu².¹ Department of Physics, South Dakota State University, Brookings, SD, USA; ²Department of Physics and Astronomy, Nebraska Center for Materials and Nanoscience, University of Nebraska-Lincoln, Lincoln, NE, USA; ³School of Science, MOE Key Laboratory for Nonequilibrium Synthesis and Modulation of Condensed Matter, Xi’an Jiaotong University Xi’an 710049, China.

Experimental Investigation of a Prospective Magnetocaloric Material Ni₂MnIn. Carter Huber, Kyle Schroeder, Bishnu Dahal, Yung Huh, and Parashu Kharel. Department of Physics, South Dakota State University, Brookings, SD 57007.

Evolutionary Conservation of Disease Resistance Components Across Multiple Grass Species. Ethan J. Andersen and Madhav P. Nepal. Department of Biology and Microbiology, South Dakota State University, Brookings, SD 57007.

Evolution of Map Kinase Gene Families in Sunflower. Sarah Schweitzer¹, Alyssa Vachino¹, Surendra Neupane¹, Ruanbao Zhou¹, Anne Fennell¹, and Madhav Nepal¹.¹ Department of Biology & Microbiology, ²Department of Agronomy, Horticulture & Plant Science South Dakota State University, Brookings, SD, 57007.

Diversity of Disease Resistant Genes in Sunflower Genome. Surendra Neupane and Madhav P. Nepal. Department of Biology and Microbiology, South Dakota State University, Brookings, SD 57007.

Threats to Missouri River Biodiversity. David Swanson. Department of Biology & Missouri River Institute, University of South Dakota, Vermillion, SD 57069.


Impacts of Invasive Trees on Nesting Success of Breeding Birds in Missouri River Riparian Forests. Amanda Hegg, Geoffrey Gray-Lobe, Sebastian Ruiz, Jason Emmick, Mark Dixon, and David Swanson. *University of South Dakota, Department of Biology, University of South Dakota, Vermillion, SD 57069.*

Ensemble Modeling to Predict Virginia’s Warbler (*Oreothlypis virginiae*) Breeding Distribution at the Northeastern Periphery of Its Range. R. Goljani, M. D. Dixon, J. S. Palmer, and D. L. Swanson. *Department of Biology, University of South Dakota, Vermillion, SD 57069; College of Art & Science, Dakota State University, Science Center, Madison SD 57042.*

Distribution and Ecological Impact of Russian Olive (*Elaeagnus angustifolia*) in South Dakota. Peter M. Price and Lora B. Perkins. *Department of Natural Resource Management, South Dakota State University, Brookings, SD 57007.*

Plant Community Phenological Change Along Two Spatial Gradients in Western Alaska. A. Joshua Leffler, Kathy Kelsey, and Kaj Lynoe. *Department of Natural Resource Management, South Dakota State University, Brookings, SD 57007; University of Alaska Anchorage, Anchorage, AK 99508.*


Projected Sensitivity of the SuperCDMS SNOLAB Experiment. Thomas Binder and Joel Sander on behalf of SuperCDMS Collaboration. *University of South Dakota, Vermillion, SD 57069.*
South Dakota Working in STEM for Equity (SD-WISE): A System, Institutional, and Individual Level Approach to Policy Change. Cynthia Anderson¹, Joyce Eduful², Alyssa Kiesow³, Robin Miskimins⁴, Ashley Podhradsky⁵, Meredith Redlin⁶, Andrea Surovek⁶, and Elizabeth Tolman⁷. ¹Black Hills State University, Spearfish, SD; ²South Dakota State University, Brookings, SD; ³Northern State University, Aberdeen, SD; ⁴University of South Dakota, Vermillion, SD; ⁵Dakota State University, Madison, SD; ⁶South Dakota School of Mines and Technology, Rapid City, SD
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