

**SOUTH DAKOTA ACADEMY OF SCIENCE**  
*For the Promotion of Science Teaching, Research and Service*  
<http://www.sdaos.org>

**SECOND CALL FOR PAPERS**  
**100<sup>th</sup> Anniversary Meeting**  
**April 10-11, 2015**  
**Cedar Shore Resort and Conference Center**  
**Oacoma, SD**

The 100<sup>th</sup> Annual Meeting of the South Dakota Academy of Science will be held at the **Cedar Shore Resort and Conference Center, April 10-11, 2015.**

The Annual Meeting will open on Friday morning with symposia. The banquet on Friday evening will honor Fellows of the Academy and be followed by a keynote address about the history of the Academy by Dr. Michael Mullin, Professor of History at Augustana College. His address is entitled "Science in the Service of the State."

Symposia, contributed papers, and poster sessions are scheduled for Friday and Saturday. Papers and posters from South Dakota scientists and students in all areas of engineering, science and mathematics are welcome.

Currently a physics symposium "100 Years of Physics in South Dakota: The Current Legacy" is being planned. The deadline for submission of other symposia, including titles, speakers, and contact persons, is **1 March 2015.**

Authors presenting papers and/or posters must submit their abstracts and *Proceedings Submission Form* by **March 1, 2015.** The author or one co-author must be a member of the South Dakota Academy of Science.

To pre-register, please download, complete and mail the *Pre-Registration Form* (see below). Early bird registration ends 15 March. For additional information, including membership, visit the SDAS Web Site at <http://sdaos.org>

Tentative Program Schedule-at-a-Glance

<b>Friday April 10</b>		<b>Saturday April 11</b>	
7 am – 5 pm	REGISTRATION	7:30 am--3 pm	REGISTRATION
9am--Noon	PHYSICS SYMPOSIUM	8 am--Noon	CONTRIBUTED PAPER SESSIONS
Noon--1:30 pm	EXECUTIVE COMMITTEE MEETING	Noon--1:30 pm	LUNCHEON & BUSINESS MEETING
1 pm--6 pm	PHYSICS SYMPOSIUM	1:30 pm--5 pm	CONTRIBUTED PAPER SESSIONS
4:30 pm--6 pm	POSTER SESSION		
6:30pm--9 pm	MIXER, BANQUET, KEYNOTE		

**Motel Accomodation**

Cedar Shore Resort and Conference Center—605-734-6376

For other motels and state rates see <http://www.state.sd.us/boa/staterates.htm>

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## **TO SUBMIT AN ABSTRACT ( of a contributed paper or poster)**

- 1) Please use the Abstract Format Guidelines (below) to complete your abstract.
- 2) Send a completed *Proceedings Submission Form* and your abstract (in MS Word) as attachments to an email to [rotatina@dwu.edu](mailto:rotatina@dwu.edu).

**Deadline for abstract submissions is March 1, 2015.**

### **ABSTRACT FORMAT GUIDELINES**

**TITLE OF PAPER:** Brief, descriptive title of your presentation.

**NAME, ADDRESS, AND AFFILIATION OF AUTHOR(S):**

1. If there are multiple authors, designate the presenter with an ‘\*’. The corresponding author is the person to contact for questions, revisions, page charges, invoices, etc.
2. Indicate any undergraduate presenters with a ‘UG’ behind their name and an ‘\*’.

**ABSTRACT:**

1. Approximately 250 words or less, single-spaced.
2. Written for as general an audience as possible with a statement of purpose for the project and a brief description of methods and results.
3. An abstract is a report of research results; thus, it should be written in past tense.

### **Example Abstract**

## **THE COST OF CAPTURING PREY: MEASURING LARGEMOUTH BASS FORAGING ACTIVITY USING GLYCOLYTIC ENZYMES (LACTATE DEHYDROGENASE)**

**T. M. Selch\*and S. R. Chipps**

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Department of Wildlife and Fisheries Sciences  
South Dakota State University  
Brookings, SD 57007

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### **ABSTRACT**

We used muscle-derived lactate dehydrogenase (LDH) to measure effects of prey size on anaerobic foraging activity by largemouth bass (*Micropterus salmoides*). Largemouth bass (240 to 303 mm total length, TL) were fed bluegill (*Lepomis macrochirus*) prey (33 to 85 mm TL) in laboratory feeding trials (760 L tanks). Prey selectivity experiments showed that small bluegills with a prey-to-predator length ratio (P:PR) < 0.20 were strongly preferred (> 85%) over larger (P:PR > 0.25) individuals. Largemouth bass activity, as indexed by LDH, increased with increasing bluegill length and was 24% higher in bass feeding on large (P:PR = 0.30) compared to small (P:PR = 0.13) prey. Moreover, bioenergetics modeling revealed that food consumption was appreciably underestimated (29 to 33%) for largemouth bass foraging on large bluegills (P:PR = 0.25 and 0.30), implying that activity costs vary with prey size, consistent with LDH measurements. These findings highlight the importance of prey size on foraging costs by piscivores and the difficulties of accounting for activity level in bioenergetics models.

## Proceedings Submission Form

Please complete one form for EACH submission and email it as an attachment to **rotatina@dwu.edu**.

Abstract Title:	
Authors (please indicate presenter with an *, UG for undergraduates):	
<u>Corresponding Author:</u> (i.e., contact person)	
Affiliation: Mailing Address:	
Phone number: Email: Advisor's Email:	

I/We plan to **present** (underline one):      ORAL PRESENTATION      POSTER

Undergraduate student posters may be entered into the AAAS Poster Presentation Judging. The two best poster presenters are awarded a one year subscription to *Science*.

Do you wish to have your poster judged as part of the **AAAS Poster Presentation Judging**? YES    NO

Undergraduate and graduate student oral presentations may be entered into the Oral Presentation Judging. Monetary awards will be given to the top three oral presentations.

Do you wish to have your presentation judged as part of the **Oral Presentation Judging**? YES    NO

\*Do you wish to have this presentation included in the **Physics Symposium**? YES    NO

For information about the Physics symposium contact Dr. Dongming Mei (Dongmingmei@usd.edu).

\*Do you wish to have this presentation included in the \_\_\_\_\_ **Symposium**? YES    NO

If you wish to put together another symposium, inform Robert Tatina (rotatina@dwu.edu.)

\* The local arrangements committee and the *Proceedings* editor will decide on acceptability of contributed papers. Subsequently, authors will be notified of acceptance. Symposium presenters must register for the meeting (\$60 registration fee includes lunch and snacks) and are encouraged to become members of the Academy.

I/We plan to **publish** (underline one):      TITLE ONLY      ABSTRACT ONLY      FULL PAPER

- If you plan to **publish** a full paper in the *Proceedings*, please follow the *Instructions for Authors* available at <http://sdaos.org>. The deadline for submission of full papers is July 15, 2015. Page charges will be \$20- \$25 per page, based on the number of pages in the final, galley proof.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Pre-Registration Form**  
**2015 South Dakota Academy of Science Annual Meeting**  
**April 10-11, Cedar Shore Resort and Conference Center**

Name \_\_\_\_\_

Institution/Agency \_\_\_\_\_ Department or Area \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone (business) (\_\_\_\_) \_\_\_\_\_ E-mail \_\_\_\_\_

Renewing Member (  ) New Member (  )

Please select (circle) membership category and \$\$ amounts below:

**Note: Fellows of the South Dakota Academy of Science are Life Members and Guests of the Academy. We request that Life Members fill out a registration form for the purposes of providing Cedar Shore with counts for accommodations, meals, and the banquet.**

<b>Early Bird registration: 15 March deadline</b>		
	<b>Members</b>	<b>High School teachers, Students</b>
<b>Membership dues*</b>	\$25	\$10
<b>Meeting Registration**</b>	<b>\$60</b>	\$10
**Includes Fri. & Sat. light breakfast, breaks & lunch		
<b>Banquet (Friday, April 10)</b>	\$25	\$25
<b>Total</b>	\$ _____	\$ _____
<b>After 15 March 2015 and Onsite Registration</b>		
	<b>Members</b>	<b>High School teachers, Students</b>
<b>Membership dues*</b>	\$25	\$10
<b>Meeting registration**</b>	<b>\$90</b>	\$10
** Includes Fri. & Sat. light breakfast, snacks & lunch		
<b>Banquet (Friday, April 10 )</b>	<b>\$35</b>	\$25
<b>Total</b>	\$ _____	\$ _____

\* Includes subscription to *Proceedings of the South Dakota Academy of Science*.

TOTAL AMOUNT ENCLOSED.....\$ \_\_\_\_\_

Paid: by Cash \_\_\_\_\_ by Check \_\_\_\_\_ Check No. \_\_\_\_\_ Rcd by: \_\_\_\_\_

**Forms received without accompanying payment will not be eligible for early bird discounts**

**To pre-register, send Pre-registration form and payment by US mail to:**

Dr. Jeff Palmer, Treasurer, South Dakota Academy of Science  
 College of Arts and Sciences-SC  
 Dakota State University, 820 N. Washington Ave.  
 Madison SD 57042