**SOUTH DAKOTA ACADEMY OF SCIENCE**

*For the Promotion of Science Teaching, Research and Service*

# [***http://www.sdaos.org***](http://www.sdaos.org)

# **CALL FOR PAPERS**

**102nd Annual Meeting**

**March 31-April 1, 2017**

**Dakota Wesleyan University**

**Mitchell, SD**

The 102nd Annual Meeting of the South Dakota Academy of Science will be held at the **Corrigan** **Science Center** at **Dakota Wesleyan University**, **March 31-April 1, 2017.**

The Annual Meeting will open on Friday morning with symposia that will continue throughout the day followed by the annual banquet. Contributed papers, and poster sessions are scheduled for Saturday. Papers and posters from South Dakota scientists and students in all areas of engineering, science and mathematics are welcome.

Currently a Fellows Symposium is being planned. The deadline for submission of other symposia, including titles, speakers, and contact persons, is **7 March 2017**.

Authors presenting papers and/or posters must submit their abstracts and *Proceedings Submission Form* **by March 7, 2017**. The author or one co-author must be a member of the South Dakota Academy of Science and register to present at the annual meeting paying all applicable fees and membership dues.

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**](http://sdaos.org)

**Tentative Meeting Schedule**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Thursday | March 30 | Friday | March 31 | Saturday | April 1 |
| 6:00 PM | Dinner | 8:00 AM | Registration | 8:00 AM | Paper Sessions |
| 7:00 PM | Executive Council | 9:00 AM | Symposia | 9:30 AM | Poster Session |
| (Dinner and meeting in Knox | | NOON | Lunch | 11:00 AM | Paper Sessions |
| Conference Room--Rollins | | 1:30 PM | Symposia | NOON | Luncheon |
| Campus Center--2nd floor) | | 4:00 PM | Mixer | 1:00 PM | Business Meeting |
|  |  | 6:00 PM | Banquet | 2:30 AM | Paper Sessions |
|  |  | 8:00 PM | Guest Lecture |  |  |

**Motel Accommodations**

A block of 15 rooms has been reserved at the Days Inn Mitchell, 1506 South Burr, Mitchell, SD, Phone: (605) 996-6208. They have agreed to accept state rates for state employees.

In addition, the following have agreed to accept state rates for state employees:

Ramada Inn – Mitchell, 1525 W. Havens Ave, Mitchell, SD, Phone: (605) 996-6501

Kelly Inn – Mitchell, 1010 Cabela Drive, Mitchell, South Dakota 57301, Phone: (605) 995-0500

Super 8 – Mitchell, 1700 S Burr St, Mitchell, SD 57301, Phone: (605)-996-9678

Others:

Hampton Inn – 1920 Highland Way, Phone 866-715-0006

AmericInn – 1421 South Burr, Phone 996-9700

Quality Inn – Exit 332 & I-90, Phone 996-1333

Holiday Inn Express – 810 East Spruce, Phone 292-9292

Motel 6 – 1309 South Ohlman, Phone 996-0530

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

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

1) Presenters must register for and attend the SDAS Meeting. Registration for the SDAS includes paying both SDAS dues and meeting registration fees.

2) Please use the Abstract Format Guidelines (below) to complete your abstract.

3) Send a completed *Proceedings Submission Form* (**in MS Word**) and your abstract (**in MS Word**) as attachments to an email to [**rotatina@dwu.edu**](mailto:rotatina@dwu.edu). **Do not send pdfs**.

**Deadline for abstract submissions is March 7, 2017.**

#### ABSTRACT FORMAT GUIDELINES

TITLE OF PAPER: Brief and descriptive.

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. Selchand\* S. R. Chipps**

USGS South Dakota Cooperative Fish & Wildlife Research Unit

Department of Wildlife and Fisheries Sciences

South Dakota State University

Brookings, SD 57007

Corresponding author email: steve.chipps@sdstate.edu

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**.

1) Presenters must register for and attend the SDAS Annual Meeting. Registration for the SDAS includes paying both SDAS dues and meeting registration fees.

|  |  |
| --- | --- |
| Abstract Title: |  |
| Authors (please indicate presenter with an \*, UG for undergraduates): |  |
| Corresponding Author:  (i.e., contact person, responsible for page charges ) |  |
| Affiliation:  Mailing Address: |  |
| Phone number:  Email:  Advisor’s Email: |  |

I/We plan to **present** (underline one): ORAL PRESENTATION POSTER (36” x 48”)

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, 2017**. Page charges will be $20- $25 per page, based on the number of pages in the final, galley proof. At least one author must be a member of the Academy.

**Poster Presentation Judging**

Undergraduate and graduate student posters may be entered into the Poster Presentation Judging. Monetary awards will be given to the top three posters.

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

**Oral Presentation Judging**

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.

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

**Inclusion of presentation in Symposium**

3) Do you wish to have this presentation included in the **SDAS Fellows Symposium**? YES NO

(Presenters are limited to Fellows of the SD Academy of Science)

4) If you wish to suggest a symposium topic, contact 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 **early bird** registration fee includes lunch and snacks) and are encouraged to become members of the Academy. All paper and poster presenters, and meeting attendees must register for the annual meeting and become members of the Academy, paying all applicable registration fees and membership dues.

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

**Registration Form**

**2017 South Dakota Academy of Science** **Annual Meeting**

**March 31-April 1, Dakota Wesleyan University**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

City/ State/Zip Code\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

Renewing Member ( ) Number of years a member \_\_\_\_ New Member ( )

Are you a past poster or oral presentation awardee? \_\_\_\_\_\_\_

Are you a 2017 Science Fair winner? \_\_\_\_\_

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 the host with counts for accommodations, meals, and the banquet.

|  |  |  |
| --- | --- | --- |
| **Early Bird registration:15 March deadline** | | |
|  | **Members** | **High School teachers, Students** |
| **Membership Dues\*** | $25 | $10 |
| **Meeting Registration Fee\*** | $60 | $10 |
| **(i**ncludes Fri. & Sat. light breakfast, breaks & lunch) |  |  |
| **Banquet (Friday, March 31)** | $25 | $25 |
| I will be in attendance for lunch on Friday (included in registration fee). \_\_\_\_yes \_\_\_\_\_no | | |
| I will be in attendance for lunch on Sat. (included in registration fee). \_\_\_\_yes \_\_\_\_\_no  Any dietary restrictions? What are they? | | |
| **Total** | $\_\_\_\_\_\_ | $\_\_\_\_\_\_ |
| **After 15 March 2017and Onsite Registration** | | |
|  | **Members** | **High School teachers, Students** |
| **Membership Dues\*** | $25 | $10 |
| **Meeting Registration Fee**\* | $95 | $10 |
| (Includes Fri. & Sat. light breakfast, snacks & lunch) |  |  |
| **Banquet (Friday, March 31)** | $45 | $25 |
| I will be in attendance for lunch on Friday (included in registration fee). \_\_\_\_yes \_\_\_\_\_no | | |
| I will be in attendance for lunch on Sat. (included in registration fee). \_\_\_\_yes \_\_\_\_\_no | | |
| Any dietary restrictions? What are they? | | |
| **Total** | $\_\_\_\_\_\_ | $\_\_\_\_\_\_ |

**\*Payment of Membership Dues and Meeting Registration Fee is required of all presenters and attendees.**

# 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 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