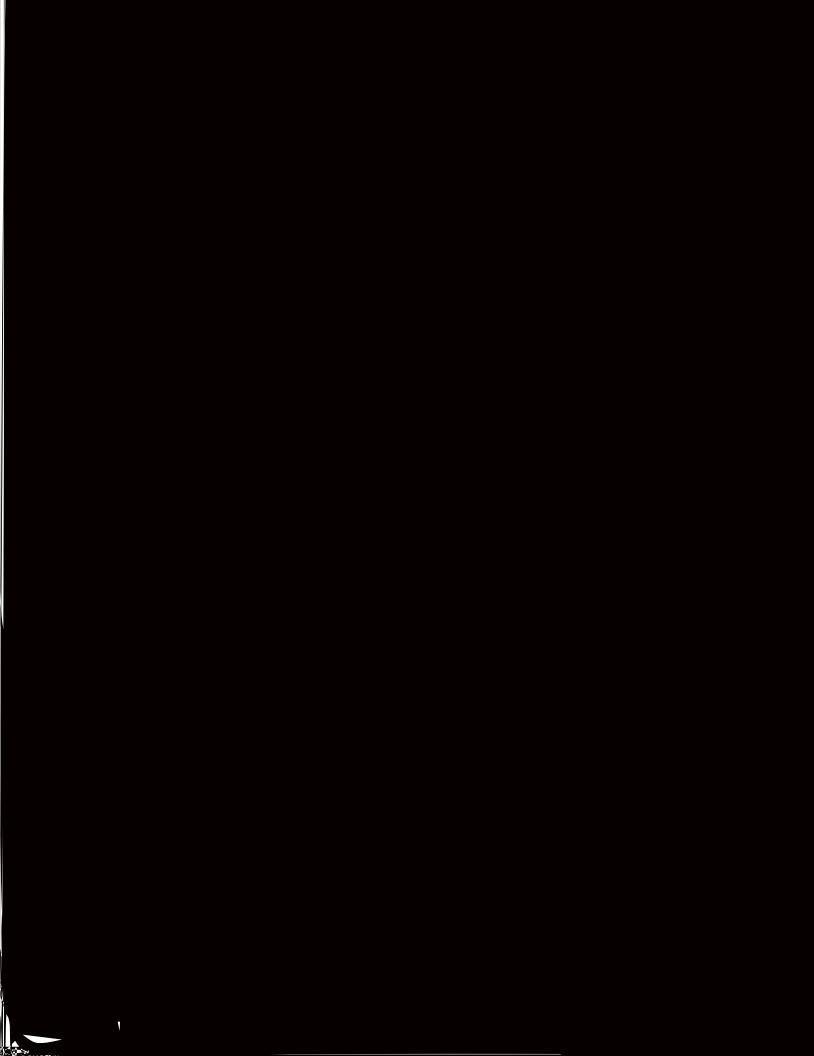


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# University of Alaska Fairbanks Undergraduate Research and Scholarly Activity (URSA) Major Accomplishments

#### 1. URSA Administration

- a. BarbaraTaylor, UAF Department of Biology and Wildlife, changed from a-Itiatle URSA Director to quartetime URSA CoDirector; Trent Sutton, UAF Fisheries Division, became a quartertime URSA CoDirector effective 01 January 2015.
- Kate Pendleton replaced Elizabe elknap as the fullime URSA Coordinator effective 01 January 2015.
- c. The URSA Advisory Board was expanded to include the following UAF faculty: Cam Carlson, Wendy Croskey, Chefig Chen, Nicole Cundiff, Patrick Druckenmiller, Greg Finstad, Alexandra Fit, Alex Hirsch, Kara Hoover, Ute Kaden, Sunwoo Kim, Mike Nakoneczny, Sarah Stanley, and Xiangdong Zhang.
- d. The URSA Innovative Technology and Equipment (ITE) Review Panel was created and consisted of the following individuals: Alexandra Fitts (VREvost) Mary Kreta (staff), Andrew Seitz and Sarah Stanley (faculty), Stacy Vega and Todd Jacobus (graduate students and Lachlan Gillispie (undergraduate student).

2.

students seeking advice with respect to identifying research opportunities and/or mentors are frequent in the URSA office (weekly at a minimum and daily in the weeks at the beginning of a semester and around an URSA application deadlate). URSA has not tracked or followed up with these ad hoc advisees because they do not all apply for funding and, as a result, are not entered into the database.

### 4. Student Tracking and Project Cataloging

- a. The URSA database currently has 2,35AF undergraduates that have been involved in research since the URSA database was created in 2012.
- b. The 20132014 UAF accreditation repostated that 41% of UAF undergraduate students have participated in an academic research experience over the obtheir baccalaureate studies. Further, the 1,352 students in the URSA database support that quantification of undergraduate student participation in research. Not included in the accreditation documents and not yet included in the URSA database undergraduate students who are employed as research assistants. URSA has been working with UAF Human Resources and the UAF Office of Planning, Analysis, and Institutional Research (PAIR) to identify a means to include such students in the database.
- c. An online version of Research Day has been created within the Institutional Repository, which is a joint effort of URSA and Library Sciences Staff. https://scholarworks.alaska.edu/.
- d. Gary Hagestead in the Office of PAIR continues to work on streamline not observed to be populating the URSA database to allow for more detailed and comprehensive tracking and reporting of undergraduate student research and creative scholarly activities.

#### 5. Curriculum Development

- a. URSA (Undergraduate Research and Scholarly Atribitation Scholarly Atribitation AY20145
  - i. URSA 192 Introduction to Research and Scholarly Activity at UAF (Instructor: Barbara Taylor; Enrollment: 7 students)
  - ii. URSA 195 RAHI Research (Instructor: Lawrence Duffy; Enrollment: 8 students)
  - iii. URSA 388 Undergraduate Resetaemd Creative Scholarship I (Instructor: Barbara Taylor; Enrollment: 1 student)
  - iv. URSA 488 Undergraduate Research and Creative Scholarship II (Instructor: Barbara Taylor; Enrollment: 3 students)
  - v. URSA 492 Undergraduate Research and Scholarly Actinity inar(Instructor: Barbara Taylor; Enrollment: 2 students)
- b. MRAP (Museum Research Apprentice Program) courses offered in AY23014
  - i. MRAP 288 Museum Research Apprenticeship I (Instructors: Kevin Winker, Andres Lopez, Patrick Druckenmiller, and Derek Sikes; Enreim 11 students)
  - ii. MRAP 488 Museum Research Apprenticeship II (Instructor: Andres Lopez; Enrollment: 3 students)
- c. FYE (FirstYear Experience) courses offered in AY201154
  - i. Banned! Challenges to Intellectual Freedom (Instructor: Karen Jensen; Enrollment: 15 students)
  - ii. Whodunit: Detectives on Stage (Instructor: Brian Cook; Enrollment: 11 students)
  - iii. Introduction to Undergraduate Research and Scholarly Activity (Instructor: Barbara Taylor; Enrollment: 23 students)

### 8. UAF Research Events

- a. UAF Research Showcase
  - i. During the Fall 2014 and Spring 2015 semesters, URSA sponsored the UAF Research Showcase with weekly seminars from UAF researchers at Schaible Hall. This seminar series was available not only to UAF students, staff, and faculty, but to the greater Fairbanks community as well. Presentations are also available on the URSA website.
  - ii. Fall 2014 Semester Presenters and Presentations

| Date         | Presenter  | Presentation Title   |  |  |
|--------------|--|--|--|--|
| 10 September | Kris Hundertmark                                       | Caribou, Moose & Climate Change: Who Wins? Who Loses                       |  |  |
| 17 September | R. Eric Collins  | Life on Ice: Microbial Evolution in the Cryosphere                         |  |  |
| 24 September | Pat Pitney   | Olympic Torch to the North Pole  |  |  |
| 01 October   | Amy Vinlove  | Building a Better Teacher for Alaska                                       |  |  |
| 09 October   | Joshua Reuther   | Prehistoric Landscapes and Human Alaska                                    |  |  |
| 15 October   | Hajo Eicken  | Alaska Sea Ice: Hazards and Uses   |  |  |
| 22 October   | Jim Brashear   | Wood Ash to Glass: The History, The Science and The Aesthetic              |  |  |
| 29 October   | Mike Harris, Andrea<br>Ferrante, & Andrej<br>Podlutsky | Biology of Vampires  |  |  |
| 05 November  | Billy Connor   | Reducing Fugitive Dust from Roadways in Alaska                             |  |  |
| 12 November  | Alice Rogoff   | The Importance of the Arctic and the Mae'd Role in Communicating its Value |  |  |
| 03 December  | Lara HorstmanrDehn                                     | Tooth Walkers & Swimming Cows: Marine Mammal Resear in Alaska              |  |  |

## iii. Spring 2015 Semester Presenters and Presentations

| Date        | Presenter       | Presentation Title                                      |
|-------------|-----------------|---|
| 21 January  | Mike Castellini | To the Ends of the Earth: Three Decades of Antarctic    |
|             |                 | Expeditions   |
| 28 January  | Eyal Saiet      | Using Unmanned Aerial Systems to Study Alaska'sirenment |
| 04 February |                 |   |

|          |              | Conservation and Management                                |  |  |
|----------|--------------|--|--|--|
| 08 April | Pat Holloway | UAF Peony Research: A New Hizzutltural Industry for Alaska |  |  |
| 15 April | Cam Carlson  | Arctic Security  |  |  |
| 22 April | John Smelter | The Art of Observation: Linking Science and Art            |  |  |

- b. Research Day
  i. Research Day was held on 28 April 2015; a total of 81 posters were presented by UAF undergradate students at the event.
  ii. DeanOs Choice Awards (\$250 per school/college) were given for each college or school; the awardees and their poster titleol;

- d. Tiffany Green (CNSM Geosciences) presented her work at the 2014 West Antarctic Ice Sheet (WIS) Divide Core Meeting San Diego, California.
- e. Dakota Emery (INDS Department of General Studies) studied geographic variability in the drug Ospice. O He wrote an article about this topic for the Fairbanks Daily/Nitewshat was published on 15 June 2015. <a href="http://www.newsminer.com/science\_and\_technology/ea&archetakesforensielook-at-spice/article-6cb0c5263fc-11e588df-13f6b401a1b7.html">http://www.newsminer.com/science\_and\_technology/ea&archetakesforensielook-at-spice/article-6cb0c5263fc-11e588df-13f6b401a1b7.html</a>
- f. Julia Taylor (CLA- Journalism and Broadcasting) traveled to Nena

# University of Alaska Fairbanks Undergraduate Research and Scholarly Activity (URSA) AY 2015-16 Challenges and Goals

- 1. Raise the profile of undergraduate research and scholarly activitat UAF. A fundamental aspect of URSAÕs mission is to ensure that UAF students, faculty, and staff are aware of the opportunities available for undergraduate aeste and creative scholarly activities. To accomplish this important goal, there will be increased efforts to promote URSA funding opportunities via email (e.g., directed emails to each college/schoolsplantsored communications such as The Cornerstostestegically placed announcements on campus, presence and participation in UAF events (e.g., Inside Out, New Student Orientation, We Are CLA, UA Scholars night, etc.), periodic, directed communications with the Deans of the various colleges/schools, resion to the URSA website, attendance and participation in UA and UAF administrative meetings (e.g., Board of Regentsovost Counciletc.), and completion of an annual report each year.
- 2. Improve student tracking and project cataloging URSA-sponsored nonURSA-sponsored research. URSA must obtain and make available accurate numbers of students and mentors engaged in undergraduate research and creative scholarship. Obtaining comprehensive data is a challenge, especially for those students who aggedin research and creative scholarship by virtue of holding a position as a student research assistant. The URSA Coordinator is working with Ian Olson and Gary Hagestead with the Office of PAIR to develop a student research participation management to facilitate the collection of these data. It is also important to track those projects that are funded by URSA, funded by other units, or not funded at all, and to provide this information to the UAF Chancellor, administrators in the UAF ProvostÕs Offe, and the Deans of the various UAF colleges/schools for informational purposes. Further, student projects in research and creative scholarship are diverse in discipline, which

- 4. Continue to work with PAIR and HR to improve tracking of student participation in undergraduate research and scholarly activity.
- 5. Increase the national profile of undergraduate research UAF. To accomplish this goal, send 12 students to represent UAF at Posters on the Hill in Washington, D. Carlme lally in April. Sam Herreid represented URSA in 2015.
- 6. Create aHandbook for Mentoring Undergraduate Researchthat is UAF-specific and a true resource for faculty mentors.
- 7. Enhance and streamlineResearch Day which will be held on 26 April 2016. Bed on feedback from the 2015 even Research Day hould be shortened in duration and the awards ceremony speeded up to maintain engagement of all participants and attendees. The UAF administration, as well as local members of the UA Board of Regents described early during the fall 2015 semester save the date for the 2016 Research So that they can attend the event.
- 8. Continue to

Table 1. The number of RSA applications (tudent project, student travel, mentoring, and ITE combine), awards, and awarded dollar amounts each college/school for AY204145. The dollar amount awarded also includes awards to students for Research Day poster presentations.

| College/School | Number of Applications | Number of Awards | Dollar Amount Awarded |
|----------------|------------------------|------------------|-----------------------|
| CEM            | 33                     | 12               | \$33,942              |
| CLA            | 99                     | 21               | \$44,881              |
| CNSM           | 129                    | 44               | \$176,175             |
| SFOS           | 13                     | 8                | \$31,218              |
| CRCD           | 7                      | 4                | \$15,088              |
| SOE            | 5                      | 4                | \$18,224              |
| SNRE           | 7                      | 1                | \$250                 |
| Total          | 293                    | 94               | \$319,779             |

Table 3. The number of URSA applications (AP), awards (Aw), and dollar amount awarded (DA) for each