

University of Alaska Fairbanks
School of Fisheries & Ocean Sciences

RASMUSON FISHERIES EXCELLENCE COMMITTEE

September 17, 2008
Rasmuson Foundation Conference Room
Anchorage, Alaska



**University of Alaska Fairbanks
School of Fisheries and Ocean Sciences**

Rasmuson Fisheries Excellence Committee

September 17, 2008 – 1:00 p.m. to 5:00 p.m.

Rasmuson Foundation Conference Room
Wells Fargo Building, 4th Floor
301 W. Northern Lights Boulevard, Anchorage

AGENDA

1. Welcome and Introductions – Ed Rasmuson, Chairman, Rasmuson Foundation
2. Comments from the University of Alaska Fairbanks
 - Welcome - Denis Wiesenburg, SFOS Dean
 - Vision for the Program – Brian Rogers, UAF Interim Chancellor
3. Goals for the initiative and progress to date comparison – Trent Sutton
 - Accreditation of the B.A. degree in Fisheries
 - New faculty hires
 - Enrollment
 - Facilities
 - Partnerships with other campuses
4. Comments by FEC members on program status and plans
5. Year to Date Financial Report – Trent Sutton
6. Internship Program – Status and Plans – Trent Sutton
7. Recruiting Plan Report and Discussion –Trent Sutton
8. Opportunities for Invited Guests to Discuss Alaska Initiatives
 - National Fish and Wildlife Foundation – Krystyna Wolniakowski (confirmed)
9. Determination of best dates for 2009 meetings
10. Adjourn at 5:00 p.m.

Agenda Item #3

Charting a New Course for Fisheries Undergraduates in Alaska: Second-Year Update

Presentation by Trent Sutton

UAS Fisheries Technology Regional Coordination Meeting, August 20, 2008

Memo by Ginny Eckert

Undergraduate Student Demographics

Charting a New Course for Fisheries Undergraduates in Alaska: Second-Year Update

Trent M. Sutton

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Outline

1. Curricula Development and Enhancement
2. Enhancement and Engagement of Faculty
3. Student Recruitment and Retention
4. Refurbish and Equip Teaching Facilities

Curriculum Development and Enhancement

- Degree Program Curricula
 - Implement revised B.S. in Fisheries Science, new B.A. in Fisheries, and new Minor in Fisheries: Sept 2008
 - Make revisions to curricula based on strengths and course offerings developed by new faculty hires: Oct 2008
 - Submit a Seafood Technology Science program option for the UG curricula to Faculty Senate: Oct 2008
 - Conduct exit interviews of UG graduates to generate feedback for making program improvements: Dec 2008 & May 2009

Curriculum Development and Enhancement

- Undergraduate Course Offerings
 - Offer new UG courses: Fisheries Techniques (FISH 315), Fish Ecology (FISH 425), Experiential Learning (FISH 290/490), Intro. to Fish. Econ. and Markets (Econ A294): Sept 2008
 - Offer UG courses with significant revisions: Intro. to Fish. (FISH 101), FW and Marine Fishes of AK (FISH 288), Ichthyology (FISH 427), Fish. Mgt (FISH 487); Sept 2008
 - Develop UG courses in the areas of expertise of new faculty that fill needs in BS and BA curricula: Jan 2009
 - Develop a forum for co-teaching FISH 101 between the Fairbanks and Juneau campuses: Jan 2009

Curriculum Development and Enhancement

- Experiential Learning Requirement
 - Conduct a survey of past and current employers of UG student interns to obtain feedback on their experience with our students and the internship program: Sept 2008
 - Develop UG seminar on research and professional development: Jan 2009
 - Host UG research and experiential learning symposium: May 2009
 - Expand contacts and formalize relationships with UG student employers for internships throughout AK and NA: June 2009

Enhancement and Engagement of Faculty

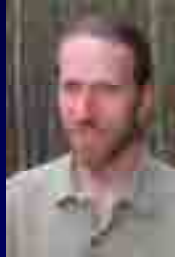
- Welcome and mentor four new Rasmuson faculty (Aug 2008):
 - Human Dimensions of Fisheries Management
 - Courtney Carothers
 - Physiological Ecology
 - Andrew Seitz
 - Oceanography
 - Peter Winsor
 - Shellfish Biology
 - Ginny Eckert



Enhancement and Engagement of Faculty

- Welcome and mentor three additional faculty members (Aug 2008):

- Ichthyology and Curator of Fishes
 - Andres Lopez
- Fisheries Biometrics
 - Franz Mueter
- Marine Mammalogy
 - Larissa Dehn
- Oceanography
 - Harper Simmons



Enhancement and Engagement of Faculty

- Develop MOAs and offer courses to support the 2 + 2 program at the three primary UA campuses and possibly other UA campuses as well: Sept 2008
- Recruit four graduate teaching assistants to support the new UG curricula and curriculum enhancements: Sept 2008

Student Recruitment and Retention

- Provide information packets to UAF MAP agents to facilitate the recruitment process: Sept 2008
- Award recruitment and retention scholarships for UG fisheries students: Sept 2008–May 2009
- Complete the following SFOS recruitment deliverables (Sept 2008 – May 2009):
 - Update the UG fisheries brochure and poster
 - Develop a series of nationwide electronic mailings
 - Reorganize SFOS website content for prospective students
 - Ensure that all recruitment documents and the webpage list the location options for student enrollment in the fisheries program
 - Cross list UAF fisheries courses in the UAS course catalog

Student Recruitment and Retention

- Attend ANSEP/AISES campus meetings; identify AK Native students in the fisheries program not involved with ANSEP and refer them to H. Schroeder, T. Clausen, and F. Chythlook: Sept 2008–May 2009
- Participate with UAF admissions coordinators in events such as UA Scholars receptions, Natural Resources, Fisheries, & Sciences Career Day, and UAF InsideOut/ UAF Major Mania: Sept 2008–May 2009
- Develop and implement outreach activities/displays at the following events/locations: Tanana Valley Fair, Alaska State High School Science Symposium, SFOS tours for elementary schools, Fairbanks Outdoor Days, and Alaska Oceans Festival: July 2008–June 2009

Student Recruitment and Retention

- Develop independent study research projects with local high school students and recruit students through the AFS Hutton Junior Fishery Biologist program: Oct 2008-Feb 2009
- Conduct classroom visits at minimum of 30 AK high schools located geographically broadly throughout the state, with an emphasis on coastal communities; send informational brochures to those high schools that do not attend: Nov 2008-Feb 2009
- Develop an active subcommittee within the UAF student subsection of AFS that focuses on recruitment of high school and college students into the fisheries program: Sept 2008-April 2009

Refurbish and Equip Teaching Facilities

- Completion of UG student computer laboratory (Fairbanks campus): Aug 2008
- Phase I of the UG Fisheries Teaching Laboratory Complex in Arctic Health Research Building (Fairbanks campus) remodeled, furnished, and equipped: Aug 2008
- Lena Point facility (Juneau campus) completed: Sept 2008
- Installation of distance-delivery equipment, delivery and installment of research and teaching equipment at Lena Point facility (Juneau campus): Dec 2008

Performance Measures (YR 2)

- Revision of the B.S. in Fisheries Science, B.A. in Fisheries, and Minor in Fisheries degree options
- Provide a total of fifteen experiential learning internships and have all positions filled by fisheries UG students
- Host an UG research and experiential learning symposium and an UG seminar on research and professional development
- Have five UG students enroll in the 2 + 2 program option at UA campuses
- Offer an annual workshop to educate SFOS faculty on cutting-edge distance-learning techniques

Performance Measures (YR 2)

- Have a combined enrollment for the B.S. in Fisheries Science and B.A. in Fisheries degree programs of 30 students, with 10 of these students Alaska Native/Rural Alaskan
- Increase the UG student graduation rate to 75% and the number of graduates to 6 students for the 2008-2009 academic year
- Utilize new teaching laboratories for UG fisheries courses as follows: computer lab (3 courses), Arctic Health Research Building Teaching Lab Complex (3 classes), Lena Point facility (4 classes)
- Offer 5 courses via distance delivery utilizing new video conference equipment
- All new faculty must identify a research focal area(s), write and submit a minimum of two proposals, and submit for publication one to two manuscripts to peer-reviewed periodicals

Performance Measures (Overall)

- New and Revised Curricula at Bachelor's Level
 - B.A. in Fisheries Approved by Board of Regents (July 2008)
 - Minor in Fisheries approved by Faculty Senate (July 2008)
 - Revisions to B.S. in Fisheries approved by Faculty Senate (July 2008)
- Student Enrollment for B.A. and B.S. Degrees
 - UG enrollment increase from present 25 to 50 in Academic Year (AY) 2009 and to 100 in AY 2012
 - Alaska Native/Rural Alaskan enrollment from present 1 - 5 to 10 - 15 in AY 2009
 - Graduate enrollment increase from present 60 to 70 in AY 2009 and to 75 in AY 2012

Performance Measures (Overall)

- BS/BA Graduates
 - From 2 to 6 per year in AY 2009
 - Increase to 20 per year in AY 2012
 - Maintain 20 graduates per year for program years 5 to 20

<u>Year</u>	<u>Graduates</u>	<u>Student Enrolled</u>
Year 1	2	25
Year 3	6	50
Year 5	20	100
Year 10	20	100
Year 20	20	100

Performance Measures (Overall)

- M.S./Ph.D. Graduates
 - From 5 - 10 per year to 6 - 12 in AY 2009 and to 8 - 15 in AY 2012
- Research Activity in Fisheries/Fisheries Oceanography
 - From \$1.5M currently to \$3.0M research expenditures per year by AY 2012

Performance Measures (Overall)

- Outcomes Assessment
- Student Advising
- Monitoring and Evaluating Alumni
- Program Sustainability

Summary

- Curricula Development and Enhancement
- Enhancement and Engagement of Faculty
- Student Recruitment and Retention
- Refurbish and Equip Teaching Facilities



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MEMO

TO: Bill Smoker, Director Fisheries Division
Trent Sutton, Undergraduate Fisheries Coordinator
FROM: Ginny Eckert
DATE: September 9, 2008
SUBJECT: UAS Fisheries Technology Regional Coordination Meeting, August 20, 2008

I attended the UAS Fisheries Technology program regional coordination meeting on August 20, 2008. Karen Schmitt led the meeting. The meeting began with a brief description of the Fisheries Technology AAS curriculum. Kate Sullivan has begun to explore articulation agreements with Fisheries programs throughout the Pacific Northwest. In particular, Kate is working with Trent Sutton to identify how students in the Associate of Applied Science (AAS) degree could move into the BS in Fisheries or the new BA in Fisheries at UAF. This process has made it clear that the AAS degree was not created as a feeder for Bachelor's programs. Karen Schmitt suggested that the Fisheries Technology program work to develop an Associate of Science (AS), which would be specifically designed to serve as a feeder for Bachelor's programs in Fisheries. I suggested that this new degree would help to facilitate having a 2+2 program for Fisheries students to attend UAS for 2 years, attain an AS degree, then transition to the UAF Fisheries Bachelor's degree programs in Juneau or Fairbanks. This approach provides UAS with credit for the dependence on UAS for the core courses (general education courses) in Juneau. Karen Schmitt asked for volunteers for a subcommittee that could work on this new curriculum. Suggestions for the committee included Kate Sullivan, Trent Sutton, Nicola Hillgruber and Ginny Eckert, with Karen Schmitt and Bill Smoker working together at the Dean/Director level.

The meeting then proceeded to with a discussion of regional partnerships, with Mt. Edgecumbe High, Sitka High, the Sitka Sound Science Center, and Ocean's Alaska. MOUs are in development for several of these, and the Ocean's Alaska MOU was signed this summer. Karen Schmitt, Kate Sullivan and Bill Smoker are involved with the Sitka Sound Science Center, and there is interest in teaching courses at their hatchery.

The meeting concluded with a short discussion of ANSEP and how Fisheries students may or may not be integrated into that program. The AK Marine Science and Fisheries Career Coalition may be a potential source to help recruit students into all UA Fisheries degrees.

I will distribute official minutes from the meeting, if they become available. My recollection of attendees included Karen Schmitt, Cathy LeCompte, Wendy Girard, Kate Sullivan, Jeff Johnston, and myself. Bill Smoker arrived part-way through the meeting. There were several other individuals present, but I do not recall their names.

**University of Alaska Fairbanks
School of Fisheries and Ocean Sciences
Undergraduate Student Demographics
September 10, 2008**

1. Number of Enrolled Fisheries Undergraduates (32)
 - a. Alaskan Students (30; 94%)
 - b. Non-Alaskan (2; 6%; both from Montana)

2. Number of Alaska Native and Rural Alaskan Students (9; 28%)
 - a. Alaska Native Students (7; 22%)
 1. Alaska Aleut (1)
 2. Yupik (3)
 3. Athabaskan (1)
 4. Tlingit (1)
 5. Inupiaq (1)
 - b. Rural Alaskan Students (2; 6%)
 1. Hoonah (1)
 2. Dutch Harbor (1)

3. Number of Enrolled Students by Area
 - a. Southwest (5; 16%)
 - b. Southcentral (8; 25%)
 - c. Southeast (3; 9%)
 - d. North (1; 3%)
 - e. Interior (13; 41%)
 - f. Outside (2; 6%)

4. Enrolled Students by Gender
 - a. Females (11; 35%)
 - b. Males (21; 65%)

Agenda Item #5

Year to Date Financial Report



Tier 2 Financial Report

Organization Name: University of Alaska Fairbanks
Project Title: Charting a new course for undergraduate fisheries in Alaska
Report Period: November 2006 through September 2008

On no more than two additional pages, provide a narrative answering the following:

- Describe the status of your project: include the progress you have made on your project since the grant was awarded or since your last submitted progress report.
- If there is a delay (or acceleration) in implementation, indicate the reasons, and describe the new timeline for completing your project.
- If this grant was awarded with conditions, please submit the Certification of Meeting Grant Conditions to describe the progress to date in meeting them (form included with this document).

Provide a financial accounting of your project following the instructions described below. Attach additional pages if needed.

- Column A: List the components of the project budget on which your Rasmuson Foundation award was based, including any approved budget amendments. (Example: computer, printer, etc)
- Column B: List the dollar amount budgeted in your application for each component.
- Column C: List actual expenses (if any) incurred in the project since the grant award date, by component.
- Column D: Allocate any Rasmuson grant funds received to date to the budget components.
- Column E: Allocate other funding source funds received to date (other than the Rasmuson grant) to the budget components.
- Column F: List other funding source by name to the budget components. **Attach additional page if needed.**

Column A Project component	Column B Component budget	Column C Actual expenses	Column D Rasmuson grant	Column E Other fund Source \$	Column F Name of Other fund source
Salaries	1,271,211	493,988.39		644,517	UAF Match
Fringe Benefits	561,780	240,321.79		302,242	UAF Match
Travel	245,088	135,847.00		8,890	UAF Match
Contractual Services	150,500	67,136.90			
Commodities	280,778	287,949.11		15,000	UAF Match
Equipment	798,771	152,132.90			
Student Aid	114,792	3,287		8,771	UAF Match
Other	77,080	1,841.07		20,580	UAF Match
Building Modifications	500,000	500,000		500,000	UAF Match
TOTAL	4,000,000	1,882,503.16	2,500,000	1,500,000	

Agenda Item #6

Internship Program—Status and Plans



Undergraduate Experiential Learning Program



Amanda Rosenberger, Experiential Learning Coordinator

School of Fisheries and Ocean Sciences
Fisheries Division



Overall Accomplishments

- 13 students employed Spring/Summer 2008
 - Biology and Fisheries
 - Student intern for Feb Board of Fish Meeting
 - Commercial Fishing Vessel
 - UAF laboratories (Rosenberger, Sutton, IMS)
 - ADFG
 - University of Montana (SAURON project)
 - Bristol Bay Native Corporation
 - Tanana Chiefs Conference
- 3 independent studies with internships

Individual Accomplishments

"This summer I had the opportunity to spread my "fins" ... Through my Partners Fishery Internship at TCC I have been very fortunate to network with Agency personnel at both the State and Federal levels and faculty at UAF which have provided me additional opportunities."



Accomplishments

- PCCRC-Funded Experiential Learning Symposium
 - 1 faculty; 3 student speakers
- Student participation in AFS meeting
 - Travel support for two students to AFS in Ottawa (PCCRC)
- Continuation of employer networking and support for student internships (43 individual contacts)
- FISH 290, 490, and 499 offered year-round

Upcoming Accomplishments

- PCCRC
 - Three funded laboratory positions/semester
- Spring Professional Development Workshops
 - Resume/C.V. & cover letter writing
 - Interview & on-the-job etiquette
- Survey & Feedback from Employers

Agenda Item #7

Recruiting Plan Report and Discussion

Katie Murra
SFOS Recruitment and Retention Coordinator
FY09 Recruitment Plan – Undergraduate Fisheries
Presented to the Fisheries Excellence Committee – September 17, 2008

Key to employee abbreviations:

RRC = Recruitment and Retention Coordinator – Katie Murra
UFC = Undergraduate Fisheries Coordinator – Dr. Trent Sutton
ELC = Experiential Learning Coordinator – Dr. Amanda Rosenberger
MAP = Marine Advisory Program Agents
PIO = Public Information Officer – Carin Stephens
Dean = SFOS Dean – Dr. Denis Wiesenburg
Faculty = SFOS faculty

Summary

The UAF School of Fisheries and Ocean Sciences (SFOS) proposed recruitment plan for FY09 includes a multi-faceted approach to informing and attracting prospective undergraduate students. The objective of the recruitment plan is to outline strategies as well as planned and potential recruiting efforts that will attract students and increase enrollment in our undergraduate fisheries degree programs. The \$5 million dollar grant from the Rasmuson Foundation and matching funds from the University to expand UAF's undergraduate fisheries program have demonstrated tremendous support and awareness of the need to educate and graduate more fisheries students to fill the demand for fisheries professionals in the state of Alaska. The broad scope of the UAF SFOS undergraduate fisheries programs (B.A., B.S., minor in Fisheries) will appeal to a wide range of potential students, and our graduates will be prepared to work in Alaska and beyond.

Current Enrollment Fall 2008:

- 30 baccalaureate students
- 2 minor students
- 23% baccalaureate students AK Native
- ~55% baccalaureate retention rate (year to year)
- ~30% baccalaureate graduation rate
- Fall 08 application snapshot
 - 20 applications (up 25.0% from 2007), 14 admitted (up 55.6% from 2007), 13 enrolled (up 160.0% from 2007)

Enrollment Management Goals Fall 2012:

- 100 baccalaureate students
- 20% baccalaureate students AK Native
- 75% baccalaureate retention rate
- 75% baccalaureate graduation rate

Recruitment Strategies:

1. We will expand awareness of academic and research opportunities through school visits, college fairs, and outreach opportunities.

a. School Visits (RRC, faculty, PIO, MAP)

High school visits will be scheduled in both the fall and the spring semesters, preferably in science classes, to speak with students about education and scholarship opportunities available in fisheries. Classroom visits will allow for a presentation and interaction with students, teachers, and career/guidance counselors.

- i. Fairbanks North Star Borough (include Salcha, Delta Junction, Healy, Nenana, etc.)
- ii. Anchorage/MatSu (include Anchorage, Wasilla, Palmer, etc.)
- iii. Kenai Peninsula (include Soldotna, Kenai, Homer, Seward, etc.)
- iv. Southeast (include Juneau, Sitka, Petersburg, Ketchikan, etc.)
- v. Rural Areas (include Barrow, Dillingham, MAP agent locations, etc.)

b. College Fairs (RRC, faculty)

Attending organized college fairs provides an opportunity to disseminate information about UAF SFOS fisheries programs to a large number of students, teachers, guidance counselors, and parents, in a relatively short amount of time. The UAF admissions counselors also attend several college fairs and they give fisheries program information to interested students. Because we have two students from Montana and one from Colorado enrolling in our B.S. Fisheries program in FY09, attending college fairs in these geographic locations could prove to be particularly beneficial.

- i. Montana College Fairs (Butte, Helena, Missoula, Hamilton, Polson, Kalispell)
- ii. Colorado College Fairs (Colorado Springs, Ft. Collins, Louisville, Denver, Englewood)
- iii. Anchorage College Fair
- iv. Fairbanks College Fair

c. Outreach Fairs (faculty, PIO, RRC)

Outreach fairs are a great opportunity to interact with members of local communities. Outreach fairs that are focused on fisheries and marine science prove to be particularly rewarding since we are able to share information about our programs in fisheries and marine science with interested members of the community, agencies, and industry. During these events we rarely directly recruit students to our programs, but educating the community about our programs can lead to indirect recruitment through word of mouth and community presence.

- i. Kodiak ComFish
- ii. Tanana Valley Fair
- iii. Palmer State Fair

d. Outreach Events (RRC, PIO, faculty)

Outreach events where SFOS has the opportunity to interact with k-12 students provide a way to help students develop an interest in fisheries and marine science education and career pathways. Events such as NOSB and ASHSSS where we

are working directly with bright high school students who are interested in science could be great avenues to recruiting for our programs.

- i. National Ocean Sciences Tsunami Bowl
- ii. Alaska State High School Science Symposium
- iii. Fairbanks Outdoor Days

2. We will work with the University and interested agencies and industry to develop a statewide network of contacts who can act as fisheries recruiters and who can help us create tangible fisheries/marine science career pathways.

- a. UAF admissions (RRC, UAF)
We will coordinate all travel and high school visits with the UAF admissions department to convey the message that we are one University. We will educate the UAF admissions counselors about our academic programs and opportunities/scholarships within our fisheries program so they are well-informed. We will attend the monthly UAF recruiting meetings and work with UAF staff to promote our program.
- b. UAF College of Rural and Community Development (RRC, UFC)
We will identify a point of contact at each of the UAF CRCRD campuses with whom we will communicate updates and new opportunities in our program, and who in turn, might inform us of potential students in rural areas.
- c. UAF Rural Student Services (RRC, UFC, ELC, faculty)
In addition to attending weekly ANSEP/AISES meetings, we will work with UAF Rural Student Services and inform them of opportunities for internships and scholarships within our fisheries program. We will supply them with our program brochures to take with them when they visit rural communities. We will work with them to advise our rural and Alaska Native students and will attend their social functions that celebrate Alaska Native culture.
- d. Pathways in Fisheries and Marine Science (RRC, UFC, ELC, MAP, faculty)
We will work with Paula Cullenberg (MAP) and the Pathways working group to collaborate and develop tangible pathways in Fisheries and Marine Science careers, specifically targeting rural and Alaska Native students. We will attend the annual Pathways meeting and develop an integral role in ensuring a University presence in fisheries-based community programs.
- e. ANSEP (UFC, Dean)
We currently have a financial partnership with the Alaska Native Science and Engineering Program (\$50,000 per year to their program for five years), and will continue to build a collaborative working relationship with their program. We will meet with the ANSEP biological sciences summer bridging students to inform them of opportunities in our fisheries program, and will continue to attend bi-weekly ANSEP student meetings on the UAF campus during the academic year. We will award up to two ANSEP fisheries scholarships (\$6500 per year) to AK Native students who participate in the ANSEP program.
- f. RAHI (RRC, UFC, faculty)
We will work to increase our presence and participation in the Rural Alaska Honors Institute. Each summer, 50-60 rural and Alaska Native students come to the UAF campus for over a month to take college level courses and many are

inspired to continue on the path of higher education. We will show our support at their graduation ceremony and send all graduates a congratulatory letter.

g. SFOS MAP agents (RRC, MAP)

We have Marine Advisory Program agents in Bethel, Cordova, Juneau, Ketchikan, Kodiak, Nome, Petersburg, and Unalaska. We will be hiring an agent in Dillingham in the near future. We will educate MAP agents on our fisheries programs and supply them with brochures to give out in their communities. We will create a presentation they can give to high school science classes that shows educational opportunities that are available to students. We will encourage MAP agents to attend local career and community events to further promote our undergraduate fisheries programs. We will work with and support MAP agents who are interested in teaching our fisheries curricula courses in their communities.

- i. Ensure MAP agents are familiar with UAF/SFOS recruiting strategies, kept abreast of program developments, supplied with scholarship and financial aid information, provided with SFOS alumni contacts, and kept informed on PSA's and other advertising initiatives within their regions.

h. ADF&G, USFWS, CDQs, industry (RRC, UFC, ELC)

We will work with state, federal, private, and Alaska Native groups to educate them on the changes that have taken place within our fisheries programs. We will identify a point of contact within each of the agencies and organizations. We will encourage their involvement in our fisheries internship program. We will work with their summer camp and internship program coordinators and supply them with brochures and information packets to give to their students.

3. We will expand awareness of academic and research opportunities through print and online materials.

a. SFOS website redesign (RRC, PIO, UFC)

We will redesign the SFOS "prospective student" website to ensure it is simple and easy to navigate, and provides accurate and up-to-date information on our programs.

b. Poster/flier for undergraduate programs to high schools, community colleges, agencies, industry (RRC, PIO, Dean)

We will redesign the SFOS undergraduate programs flier to include information on the B.A. fisheries program. We will send posters and fliers to AK high schools, market-segment high schools and community colleges, AK agencies (ADF&G, etc.), and industry (seafood processors, etc.).

c. Courses advertised on campus, VCON courses advertised at UAS, UAA (RRC, faculty)

We will work with UAF fisheries program faculty to ensure fisheries courses are adequately advertised on UAF, UAA, and UAS campuses.

d. Ads in local newspapers/newsletters, campus newspapers, industry journals (RRC, PIO)

We will work with local newspapers, UAF, UAA, UAS campus newspapers, and industry journals and periodicals to advertise and promote our undergraduate fisheries program. Story highlights on local students in our fisheries program

should be sent to local newspapers and newsletters. United Fishermen of Alaska, Marine Conservation Alliance, and other newsletters are an opportunity for low-cost visibility.

- e. Ads on Public radio/Campus radio (RRC, PIO)
We will work with local public radio and campus radio stations to advertise and promote our undergraduate fisheries program.
 - f. Targeted emails using Hobsons (RRC, PIO, UAF)
We will work with UAF admissions to develop a series of emails that will be sent to a nationwide audience of prospective students.
- 4. We will solidify and promote the “2+2” option.**
- a. Develop “2+2” degree plan worksheet handouts. (RRC, PIO)
 - b. Ensure UAF, UAF CRCD, UAS, UAA, and UAA community college admissions staff, advisors, and faculty are aware of the “2+2” UAF fisheries program. (RRC, UFC, Dean, MAP, faculty)
 - c. Develop and design publications and advertising campaign to highlight the “2+2” fisheries program. (RRC, PIO)
- 5. We will build stronger relationships with regional high schools such as Galena, Nenana, and Mt. Edgecumbe.**
- a. Visit regional high schools to develop working relationships with administrators, counselors, and teachers. (RRC)
 - b. Encourage regional high school students to get involved with fisheries research projects to spark their interest (i.e. AFS Hutton program, ASHSSS, etc.) (RRC, UFC, ELC)
- 6. We will work to develop and provide meaningful scholarship opportunities.**
- a. Work with fisheries agencies and organizations to provide University credit for summer internships/employment in fisheries. (ELC)
 - b. Provide undergraduate research opportunities with scholarships, encourage student attendance at scientific meetings, and presentations at scientific meetings and in local communities. (UFC, ELC, faculty, RRC)
 - c. Develop exchange or sister-school opportunities within the fisheries program. (UFC, Dean)
 - d. More effectively communicate existing scholarship programs such as Winn Brindle, Kenai River Sportfishing, NOAA Hollings, etc. (RRC, PIO)
- 7. We will work to build relationships with high school teachers and counselors.**
- a. Contact high school teachers and counselors before the beginning of the academic semesters to establish communication and make arrangements to fit into their lesson plans. (RRC)
 - b. Prepare a fisheries lesson plan that can be delivered during classroom recruiting visits that will fit into high school science curricula and make the visit academically worthwhile for the teacher and students. (RRC, UFC, faculty)
 - c. If high schools are limited to information tables during lunch, bring interactive fisheries display items that will pull students to the table. (RRC)

- d. Ask teachers or counselors to nominate students who they feel would be good candidates for fisheries scholarships. (RRC)
- 8. We will include fisheries program information in scheduled ADF&G fishing license mailings.**
- a. Using an “age” and “Alaska resident” sort, send fisheries program information with license distributions to individuals who registered for fishing licenses using the online fishing and hunting license form (assistance from ADF&G). (RRC, faculty)
 - b. Using an “age” sort, send fisheries program information with commercial fishing crew license distributions (assistance from CFEC division of ADF&G). (RRC, faculty)
- 9. We will use our fisheries alumni to help us recruit for our programs.**
- a. Involve our recent fisheries alumni in recruiting events and use them as ambassadors of our fisheries program. (RRC, PIO)
 - b. Inform alumni of changes and developments in our fisheries program and encourage them to keep in touch with us. (RRC, PIO)
- 10. We will work with existing programs (i.e. ASRA) and develop a School of Fisheries and Ocean Sciences high school internship program and continue to apply for yearly project funding through the American Fisheries Society Hutton Junior Fisheries Biology Program.**
- a. SFOS high school internship program (UFC, ELC)
 - b. ASRA program (faculty, RRC)
 - c. ASHSS program (faculty)
 - d. AFS Hutton program (faculty)
- 11. We will develop a UAF-integrated SFOS undergraduate communication plan to respond to information requests, contact and encourage prospective students through the application to enrollment process.**
- a. See communication plan (RRC, UAF).

UAF SFOS Fisheries Recruiting Roundtable

July 15, 2008

Final Report

Prepared by Katie Murra and Denis Wiesenburg

School of Fisheries and Ocean Sciences

University of Alaska Fairbanks



UAF SFOS Fisheries Recruiting Roundtable

Introduction

With funding from the Rasmuson Foundation, the University of Alaska Fairbanks (UAF) School of Fisheries and Ocean Sciences (SFOS) has begun an initiative to expand opportunities for undergraduate education in fisheries within the University of Alaska system. The vision for this new initiative is that the University of Alaska Fairbanks will be the university of choice for training and educating the fisheries and marine resource experts needed to sustain and grow Alaska's vital fishing and seafood industries. As one of the premier fisheries and ocean sciences programs in the nation, the UAF School of Fisheries and Ocean Sciences will educate the professionals necessary to guarantee the sustainability of Alaska's vast and healthy marine and freshwater resources. Our goal is to educate Alaskans in Alaska to study, manage, and utilize Alaska's robust fisheries.

The expansion of opportunities for fisheries students includes improvement of the current B.S. degree in fisheries and the implementation of a new B.A. degree in fisheries. The new B.A. degree (approved by the UA Board of Regents on June 19, 2008) includes experiential learning such as internships, multidisciplinary classes, broad geographic availability, and partnerships with public agencies, the fishing and seafood industry, nonprofit organizations, non-governmental organizations, and other related groups. Information on the degree expansion can be found on the web at <http://www.sfos.uaf.edu/fisheries/>.

An expanded student recruiting and retention effort is being undertaken to make the new and expanded program known to potential students throughout Alaska. To gain additional ideas for student recruiting, a half-day meeting was held in Anchorage and hosted by UAF SFOS. The purpose of the meeting was to "Suggest additional and better methods of recruiting undergraduates to the Fisheries degree programs at the University of Alaska Fairbanks." During the meeting, the participants reviewed the current SFOS recruiting plan (Appendix A), learned how the Alaska Native Science and Engineering Program (ANSEP) recruits rural and Alaska Native students, heard how each of the three University of Alaska campuses focused their recruiting efforts, and gathered new ideas for more effectively recruiting undergraduates into the

available fisheries degrees. The goal of the meeting was to provide at least ten new ideas to be further developed into the UAF SFOS Recruiting Plan.

Meeting Participants

The meeting participants came from the UAF School of Fisheries and Ocean Sciences, Alaska Department of Fish and Game (ADF&G), the UAA ANSEP program, UAA admissions office, UAS admissions office, UAF admissions office, NOAA Fisheries, and several community-based Marine Advisory Program (MAP) agents. The list of participants is given below.

- 1) Denis Wiesenburg (SFOS)
- 2) Katie Murra (SFOS)
- 3) Debbie Hart (ADF&G)
- 4) Michele Yatchmeneff (UAA – ANSEP)
- 5) Matt Calhoun (UAA – ANSEP)
- 6) Mike Rearden (UAA – ANSEP)
- 7) Peggy Byers (UAA admissions)
- 8) Joe Nelson (UAS admissions)
- 9) Lael Oldmixon (UAF admissions)
- 10) Jessica Bennett (UAF Admissions)
- 11) Steven Davis (NOAA)
- 12) Reid Brewer (Unalaska MAP agent)
- 13) Torie Baker (Cordova MAP Agent)
- 14) Sunny Rice (Petersburg MAP Agent) – by telephone

The participants contributed to a lively discussion that produced some new ideas for student recruiting. Having recruiters from all three campuses allowed proposed ideas to be rapidly considered in terms of what had worked in other areas and activities that had not be successful in other programs.

Comments on these ideas should be sent to Katie Murra, SFOS Recruitment and Retention Coordinator by e-mail to murra@sfos.uaf.edu or by phone at 907-474-6786.

Recruiting Ideas from the July 15, 2008 Workshop

1. Use a team approach to recruiting (incorporating community).

A team approach would make a fisheries education and career “real” for the students. They would hear from people who have had experience with our program or with a career in fisheries, or from people in their communities who they respect and trust.

- a. The team for a high school visit could include the recruiter, a current fisheries student, a fisheries professional in the community, a community elder, or community leader who can collectively speak to potential students about academic and career opportunities in fisheries, and the community need for fisheries professionals.

2. Focus on multiple groups/audiences of potential fisheries students and coordinate recruiting efforts appropriately and timely.

Several markets of potential students exist for our fisheries programs. Traditional first-time freshmen should be targeted in classroom visits during the academic year and through coordination with summer programs. Fishermen (license holders ages 15-18; 19-25) and seasonal fisheries employees (18+) should be targeted at the end of their seasons with mailings or debriefings.

- a. High School students – classroom visits during academic year
- b. Summer internship programs (high school students outside of the classroom) – fisheries program information/fliers given to internship coordinators to disseminate, possible recruiting visits to camps
- c. Fishermen – flier or postcard sent to fishermen at the end of the fishing season
- d. Seasonal fisheries employees – possible “debriefing” session at end of summer to explain educational and career pathways and opportunities

3. Build relationships with high school teachers and counselors.

Building good working relationships with high school teachers and counselors will create advocates for our fisheries programs throughout the state. Acknowledging inspirational teachers will encourage them to continue their great efforts.

- a. Contact high school teachers and counselors before the beginning of the academic year to establish communication and make arrangements to fit into their lesson plans.
- b. Prepare a fisheries lesson plan that can be delivered during classroom recruiting visits that will fit into high school science curricula and make the visit academically worthwhile for the teacher and students.
- c. If high school visits are limited to information tables during lunch, bring interactive fisheries display that will pull students to the table.

- d. Begin a program of honoring inspirational teachers/mentors through a student nomination and award program.

4. Leverage state and federal opportunities.

Our fisheries program will benefit from formal internship agreements with state and federal agencies. Highlighting concrete internship opportunities will appeal to prospective students and create a secure and stable educational path.

- a. Develop a MOU for fisheries for the internship program with state and federal agencies to ensure formal agreement of partnership.
- b. Develop an “internship involvement” proposal packet to deliver to state and federal agencies.

5. Create and widely distribute an undergraduate fisheries poster/flier.

A poster and flier to highlight our fisheries programs will generate interest and help spread the word about the changes and new opportunities in the undergraduate fisheries program.

- a. Hang an undergraduate fisheries poster in every ADF&G office, all seafood processing plants, CDQ headquarters, MAP offices, etc.
- b. Have undergraduate fliers and information available for interested students.

6. Include fisheries program information in scheduled ADF&G fishing license mailings.

People who apply for Alaska fishing licenses on line receive their licenses by mail. Including an insert flier about fisheries educational opportunities in scheduled ADF&G license mailings will provide information to people who already have an interest in fisheries. This effort would reach an interested audience with the only cost being printing the inserts.

- a. Using an “age” and “Alaska resident” sort, send fisheries program information with license distributions to individuals who registered for fishing licenses using the online fishing and hunting license form (assistance from ADF&G)
- b. Using an “age” sort, send fisheries program information with commercial fishing crew license distributions (assistance from CFEC division of ADF&G)

7. Produce several “fisheries programs updates” post cards to be sent to broad groups.

Repeat mailings of a variety of informational “teaser” postcards will help keep our programs in the minds of our alumni, stakeholders, and other targeted audiences.

- a. SFOS newsletter mailing list
- b. High Schools

8. Encourage total involvement of Marine Advisory Program (MAP) agents in recruiting for fisheries programs.

MAP agents are trusted coastal community members who can be a great asset in disseminating information on our undergraduate fisheries programs.

- a. Ensure MAP agents are familiar with UAF/SFOS recruiting strategies, kept abreast of program developments, supplied with scholarship and financial aid information, provided with SFOS alumni contacts, and kept informed on PSA's and other advertising initiatives within their regions.
- b. MAP agents should provide more outreach and education in local schools.
- c. MAP agents are a valuable link to coastal communities and fisheries recruiting efforts in these communities should be filtered through and implemented by MAP agents.

9. Use our fisheries alumni to help us recruit for our program.

Many of the current state and federal fisheries biologists in Alaska are alumni of our fisheries programs at UAF. We need to reunite with them and keep close connections with our young alumni so they will gladly serve as advocates for our program.

- a. Involve our young fisheries alumni in recruiting events and use them as ambassadors of our fisheries program.
- b. Inform alumni of changes in our fisheries program and encourage them to keep in touch with us.

10. Piggyback on UA Scholar recruiting efforts.

To help with retention, UA scholars and other high-achieving students should be targeted with fisheries scholarships and internships or summer programs. Asking teachers to nominate students will make them feel honored and help to develop a good relationship with them.

- a. Offer fisheries scholarships or internships to UA Scholars
- b. Offer fisheries scholarships or internships to high achieving students who did not receive the UA Scholars award (teacher nominated)

11. More effectively advertise and communicate fisheries scholarship and loan opportunities.

Prospective students must be made aware of the scholarship opportunities available for students studying fisheries. This information should be available in a brochure, flier, and/or the SFOS website.

- a. Promote Winn Brindle loan forgiveness program, Kenai River Sportfishing Association, and other scholarships on the SFOS website

- b. Prepare a fisheries scholarship brochure

12. Obtain an idea of what kind of financial assistance students need to join our program.

Gathering information on what financial hurdles might prevent a student from attending UAF will help focus efforts on how to provide scholarships that have great value to the students.

- a. Use a focus group of current students or UA Scholars
- b. Many students will find a housing scholarship or travel scholarship most valuable.

13. Local publicity.

Local communities should be made aware of the opportunities available in our undergraduate fisheries programs through trusted and existing news and information sources. In rural communities, many people receive all of their news from the radio often while they are fishing. Distribution of information by public radio in addition to the print media was considered a more viable option than by printed material alone.

- a. Fish Radio – In rural communities, most people get their information from radio.
- b. Public radio – radio program sponsorship with a tagline on the fisheries program, for example: “This program is brought to you by the University of Alaska Fairbanks, now offering student an opportunity to earn a Bachelor of Arts degree in Fisheries; Contact the University of Alaska at 907-474-7210 for more information.”
- c. Local newspaper ads might be less effective and more expensive, but could be a benefit and goodwill gesture to local communities
- d. Story highlights on local students who are in our fisheries program should be sent to local newspapers and newsletters.
 - i. Press releases highlighting local students can have a positive impact, especially in rural papers, and with parents.
- e. United Fishermen of Alaska, Marine Conservation Alliance, and other newsletters are an opportunity for low-cost visibility.
- f. Create a monthly profile of one of our students.

14. Tap into programs like the UAF Alaska Summer Research Academy (ASRA) and others to recruit students who are already interested in science.

Collaborating with existing science programs and camps will allow us to work with and attract students who already have an interest in science and who are looking for a hands-on experience to further explore fisheries.

- a. Work to develop a fisheries unit within ASRA
- b. Continue to develop involvement in the Alaska State High School Science Symposium (ASHSSS)

- c. Continue to generate interest in the National Ocean Sciences Bowl competition and work with NOSB coaches to recruit participants.

15. Improve the communication line with ANSEP to find Alaska Native and rural students interested in fisheries and sciences.

Many Alaska Native and Rural students have (and will) participate in the ANSEP Pre-College and Summer Bridging programs. It is imperative that we communicate with ANSEP to share names of students we encounter who have an interest in fisheries/natural resources/biology and wildlife, and interested students should be directed to coordinators of ANSEP and UAF fisheries programs, accordingly.

- a. Attend ANSEP meetings on UAF campus.
- b. Ensure names of AK Native/Rural students who we meet that are interested in Fisheries/Biology/Natural Resources are shared between UAF Fisheries and ANSEP.

16. Find local champions to help with recruiting in coastal communities.

We should work to develop a trusted relationship with local community leaders to act as liaisons and advocates for our fisheries programs.

- a. Work with village leaders, elders, and well-known community members to spread information about our fisheries programs and summer opportunities.

17. Sponsor or have a presence at the high school state basketball tournament, or other activities that rural high school students are passionate about.

Show students that fisheries is a great career path, we have outstanding fisheries degree programs, and that fisheries is FUN. We need to make it “real” for the students.

18. Update the SFOS prospective student website.

The current design of the SFOS website makes it somewhat confusing for prospective students to find information about our undergraduate degree programs. Revising the prospective student site to be straight-forward, simple, and up-to-date will be critical in our recruiting efforts.

- a. Possible models for our prospective student site include Old Dominion (<http://admissions.odu.edu/home.php>) and UAA (<http://www.uaa.alaska.edu/futurestudents/index.cfm>).
- b. To keep the website current, additional SFOS personnel will be needed to manage updates and design.
- c. Incorporating MySpace, Facebook, YouTube, or itunes will appeal to the generation of students we are targeting.

APPENDIX A

SFOS Recruiting and Retention Plan - DRAFT

By Katie Murra

SFOS Recruitment and Retention Coordinator

SFOS Recruitment Philosophy

Our goal in the UAF School of Fisheries and Ocean Sciences undergraduate fisheries programs is to attract highly-capable students who will be educated in Alaska, and ideally will remain in Alaska to manage Alaska's fisheries resources. We will employ a multi-faceted approach to recruiting students that will involve classroom visits, high school internships and field experiences, mailings, electronic mailings, college fairs, and outreach.

Outcomes of BS/BA/minor in fisheries

- A **Bachelor of Science (B.S.)** degree in Fisheries Science prepares students for careers studying the biology and ecology of fishes, managing fish stocks, and conducting research.
- A **Bachelor of Arts (B.A.)** degree in Fisheries prepares students for careers as business leaders, policy-makers, seafood marketers, rural community leaders, and managers.
- A **minor** in Fisheries will give students who are majoring in other areas (Wildlife Biology, Natural Resources Management, Business, Marketing, etc.) a solid introductory background in fisheries.

FY08 Recruitment Overview

I visited high schools in Fairbanks, Delta Junction, North Pole, Healy, Anchorage, Wasilla, Palmer, Eagle River, Chugiak, Soldotna, and Kenai. MAP agents visited schools in Unalaska, Nome, and Cordova. I had several classroom visits and found students in science classes and career development classes to be the most interested and receptive to our programs. I found students to be extremely interested in summer opportunities, scholarships, and employment. Congratulatory letters were sent to RAHI graduates and Hutton Scholars, but so far have generated no replies for more information. I attended the annual "Pathways to Fisheries and Marine Science" conference. I attended the UAF Inside Out campus preview day and UAF Major Mania. I attended the AFS and FFA national meetings, and both the regional and national NOSB competitions.

FY09 Recruitment Overview

I will continue AK high school classroom visits and try to expand my travel to include SE and NW Alaska. Lunch visits and most career counseling center visits (except Chugiak HS) were

poorly attended in FY08 and will be avoided if possible. I will attend the annual MAP meeting to encourage agents to visit classes in their communities. I will attend college fairs in Montana, Colorado, Anchorage, and Fairbanks. I will attend the regional NOSB competition. I will attend the annual “Pathways to Fisheries and Marine Science” conference. I will attend UAF Inside Out and Major Mania. I will send SFOS fisheries posters to Alaska high schools, community colleges, ADF&G, seafood industries (and more) to post. We will update and revise our SFOS website. I will work with UAF admissions to implement an SFOS recruiting communication plan. I will communicate with UAF admissions, UAF colleges (including rural campuses) and UAF Rural Student Services to ensure they are aware of our fisheries programs. I will attend several outreach and community events to share information about SFOS fisheries programs with the public.

SFOS Fisheries Recruitment Strategies

- Classroom visits (preferably science)
- Scholarships
- ANSEP
- Internships/HS research or field experience (KNA, BBEDC, ASRA, RAHI, Partners, SFOS, Hutton, etc.)
- College fairs
- Letters/postcards/emails
- Contact with HS principals, counselors, teachers
- Newspaper/radio/magazine ads
- HS group activities (NOSB, FFA, ASHSS, etc.)
- Outreach fairs (Tanana Valley, Palmer, Kodiak ComFish, etc.)

SFOS Fisheries Recruitment Challenges

- History of fisheries program – weak
- Specific, focused degree programs
- Career in fisheries not an obvious choice for HS students
- Current fishing industry financial woes and poor fish returns
- Disgruntled current fisheries employees
- Challenging curriculum
- Mistrust of fisheries managers in villages (idea of fisheries management disliked)
- Job prospects/outcomes/need not well advertised
- AK – currently small pool of students with fisheries interest
- No clear employment ladder for fisheries degrees
- SFOS undergraduate fisheries is a small program (three full time faculty, one ¼ time faculty, one adjunct faculty, one recruiter)

Katie Murra
SFOS Recruitment and Retention Coordinator
FY09 Recruitment Plan – Undergraduate Fisheries
Recruitment Roundtable July 15, 2008

Key to employee abbreviations:

RRC = Recruitment and Retention Coordinator – Katie Murra
UFC = Undergraduate Fisheries Coordinator – Dr. Trent Sutton
ELC = Experiential Learning Coordinator – Dr. Amanda Rosenberger
MAP = Marine Advisory Program Agents
PIO = Public Information Officer – Carin Stephens
Dean = SFOS Dean – Dr. Denis Wiesenburg
Faculty = SFOS faculty

Summary

The UAF School of Fisheries and Ocean Sciences (SFOS) proposed recruitment plan for FY09 includes a multi-faceted approach to informing and attracting prospective undergraduate students. The objective of the recruitment plan is to outline strategies as well as planned and potential recruiting efforts that will attract students and increase enrollment in our undergraduate fisheries degree programs. The \$5 million dollar grant from the Rasmuson Foundation and matching funds from the University to expand UAF's undergraduate fisheries program have demonstrated tremendous support and awareness of the need to educate and graduate more fisheries students to fill the demand for fisheries professionals in the state of Alaska. The broad scope of the UAF SFOS undergraduate fisheries programs (B.A., B.S., minor in Fisheries) will appeal to a wide range of potential students, and our graduates will be prepared to work in Alaska and beyond.

Current Enrollment Fall 2008:

- 29 baccalaureate students
- 17% baccalaureate students AK Native
- ~55% baccalaureate retention rate (year to year)
- ~30% baccalaureate graduation rate
- Fall 08 application snapshot
 - 18 applications (up 63.6% from 2007), 17 admitted (up 120.0% from 2007), 11 enrolled (up 275.0% from 2007)

Enrollment Management Goals Fall 2012:

- 100 baccalaureate students
- 20% baccalaureate students AK Native
- 75% baccalaureate retention rate
- 75% baccalaureate graduation rate

Recruitment Strategies:

- 1. We will expand awareness of academic and research opportunities through school visits, college fairs, and outreach opportunities.**
 - a. School Visits (RRC, faculty, PIO, MAP)

High school visits will be scheduled in both the fall and the spring semesters, preferably in science classes, to speak with students about education and scholarship opportunities available in fisheries. Classroom visits will allow for a presentation and interaction with students, teachers, and career/guidance counselors.

- i. Fairbanks North Star Borough (include Salcha, Delta Junction, Healy, Nenana, etc.)
- ii. Anchorage/MatSu (including Anchorage, Wasilla, Palmer, etc.)
- iii. Kenai Peninsula (include Soldotna, Kenai, Homer, Seward, etc.)
- iv. Southeast (include Juneau, Sitka, Petersburg, Ketchikan, etc.)
- v. Rural Areas (include Barrow, Dillingham, MAP agent locations, etc.)

b. College Fairs (RRC, faculty)

Attending organized college fairs provides an opportunity to disseminate information about UAF SFOS fisheries programs to a large number of students, teachers, guidance counselors, and parents, in a relatively short amount of time. The UAF admissions counselors also attend several college fairs and they give fisheries program information to interested students. Because we have two students from Montana and one from Colorado enrolling in our B.S. Fisheries program in FY09, attending college fairs in these geographic locations could prove to be particularly beneficial.

- i. Montana College Fairs (Butte, Helena, Missoula, Hamilton, Polson, Kalispell)
- ii. Colorado College Fairs (Colorado Springs, Ft. Collins, Louisville, Denver, Englewood)
- iii. Anchorage College Fair
- iv. Fairbanks College Fair

c. Outreach Fairs (faculty, PIO, RRC)

Outreach fairs are a great opportunity to interact with members of local communities. Outreach fairs that are focused on fisheries and marine science prove to be particularly rewarding since we are able to share information about our programs in fisheries and marine science with interested members of the community, agencies, and industry. During these events we rarely directly recruit students to our programs, but educating the community about our programs can lead to indirect recruitment through word of mouth and community presence.

- i. Kodiak ComFish
- ii. Juneau – World Oceans Day?
- iii. Anchorage Oceans Festival?
- iv. Sitka Whalefest?
- v. Tanana Valley Fair
- vi. Palmer State Fair

d. Outreach Events (RRC, PIO, faculty)

Outreach events where SFOS has the opportunity to interact with k-12 students provide a way to help students develop an interest in fisheries and marine science education and career pathways. Events such as NOSB and ASHSSS where we are working directly with bright high school students who are interested in science could be great avenues to recruiting for our programs.

- i. National Ocean Sciences Tsunami Bowl
- ii. Alaska State High School Science Symposium
- iii. Fairbanks Outdoor Days
- iv. Tanana Middle School Career Day?

2. We will work with the University and interested agencies and industry to spread the word about our undergraduate programs and create tangible fisheries/marine science pathways.

- a. UAF admissions (RRC, UAF)
We will coordinate all travel and high school visits with the UAF admissions department to convey the message that we are one University. We will educate the UAF admissions counselors about our academic programs and opportunities/scholarships within our fisheries program so they are well-informed. We will attend the monthly UAF recruiting meetings and work with UAF staff to promote our program.
- b. UAF Rural Student Services (RRC, UFC, ELC, faculty)
In addition to attending weekly ANSEP/AISES meetings, we will work with UAF Rural Student Services and inform them of opportunities for internships and scholarships within our fisheries program. We will supply them with our program brochures to take with them when they visit rural communities. We will work with them to advise our rural and Alaska Native students and will attend their social functions that celebrate Alaska Native culture.
- c. Pathways in Fisheries and Marine Science (RRC, UFC, ELC, MAP, faculty)
We will work with Paula Cullenberg (MAP) and the Pathways working group to collaborate and develop tangible pathways in Fisheries and Marine Science careers, specifically targeting rural and Alaska Native students. We will attend the annual Pathways meeting and develop an integral role in ensuring a University presence in fisheries-based community programs.
- d. ANSEP (UFC, Dean)
We currently have a financial partnership with the Alaska Native Science and Engineering Program (\$50,000 per year to their program for five years), and will continue to build a collaborative working relationship with their program. We will meet with the ANSEP biological sciences summer bridging students to inform them of opportunities in our fisheries program, and will continue to attend bi-weekly ANSEP student meetings on the UAF campus during the academic year. We will award up to two ANSEP fisheries scholarships (\$6500 per year) to AK Native students who participate in the ANSEP program.
- e. RAHI (RRC, UFC, faculty)
We will work to increase our presence and participation in the Rural Alaska Honors Institute. Each summer, 50-60 rural and Alaska Native students come to the UAF campus for over a month to take college level courses and many are inspired to continue on the path of higher education. We will show our support at their graduation ceremony and send all graduates a congratulatory letter.
- f. SFOS MAP agents (RRC, MAP)
We have Marine Advisory Program agents in Bethel, Cordova, Juneau, Ketchikan, Kodiak, Nome, Petersburg, and Unalaska. We will be hiring an agent

in Dillingham in the near future. We will educate MAP agents on our fisheries programs and supply them with brochures to give out in their communities. We will create a presentation they can give to high school science classes that shows educational opportunities that are available to students. We will encourage MAP agents to attend local career and community events to further promote our undergraduate fisheries programs. We will work with and support MAP agents who are interested in teaching our fisheries curricula courses in their communities.

- i. Career fairs
 - ii. Local community events
 - iii. Courses
- g. ADF&G, USFWS, CDQs, industry (RRC, UFC, ELC)
We will work with state, federal, private, and Alaska Native groups to educate them on the changes that have taken place within our fisheries programs. We will encourage their involvement in our fisheries internship program. We will work with their summer camp and internship program coordinators and supply them with brochures and information packets to give to their students.

3. We will expand awareness of academic and research opportunities through print and online materials.

- a. SFOS website redesign (RRC, PIO, UFC)
We will redesign the SFOS “prospective student” website to ensure it is simple and easy to navigate, and provides accurate and up-to-date information on our programs.
- b. Poster/flier for undergraduate programs to high schools, community colleges, agencies, industry (RRC, PIO, Dean)
We will redesign the SFOS undergraduate programs flier to include information on the B.A. fisheries program. We will send posters and fliers to AK high schools, market-segment high schools and community colleges, AK agencies (ADF&G, etc.), and industry (seafood processors, etc.).
- c. Courses advertised on campus, VCON courses advertised at UAS, UAA (RRC, faculty)
We will work with UAF fisheries program faculty to ensure fisheries courses are adequately advertised on UAF, UAA, and UAS campuses.
- d. Ads in local newspapers/newsletters, campus newspapers, industry journals (RRC, PIO)
We will work with local newspapers, UAF, UAA, UAS campus newspapers, and industry journals and periodicals to advertise and promote our undergraduate fisheries program.
- e. Ads on Public radio/Campus radio (RRC, PIO)
We will work with local public radio and campus radio stations to advertise and promote our undergraduate fisheries program.
- f. Targeted emails using Hobsons (RRC, PIO, UAF)
We will work with UAF admissions to develop a series of emails that will be sent to a nationwide audience of prospective students.

- 4. We will develop a UAF-integrated SFOS undergraduate communication plan to respond to information requests, contact and encourage prospective students through the application to enrollment process.**
 - a. See communication plan (RRC, UAF)

- 5. We will develop a School of Fisheries and Ocean Sciences high school internship program and continue to apply for yearly project funding through the American Fisheries Society Hutton Junior Fisheries Biology Program.**
 - a. SFOS high school internship program (UFC, ELC)
 - b. ASHSS program (faculty)
 - c. AFS Hutton program (faculty)

FY09 Recruitment/Retention Budget

Advertisements	Newspapers, Radio	1000
Publications	UG poster/flier, postcards, bookmarks	4000
Incidentals	Office supplies, postage, business cards, shipping, etc.	3000
Recruiting Events	Promotional items, registration, brochures	2000
Outreach Events	NOSB, etc	1000
Retention Events	Socials, NRFS, AFS	1500
Total Other		12500

TRAVEL

Location	Purpose	Date	# days	# travelers	Airfare	Car	Hotel	Per Diem	Shipping	Incidentals	
Anchorage, AK	ANSEP summer bridge meeting	7/14/2008	1	1	x	x	x	x	x	x	0
Anchorage, AK	USFWS Intern Day	8/15/2008	1	1	300	200		50			550
Palmer, AK	UAF booth state fair		3	1		500	300	150			950
Southeast AK (Juneau, Sitka, Petersburg, Ketchikan)	HS visits (Hutton, UAF internships/scholarships)	9/15/2008	7	1	900	300	900	350			2450
Montana (Butte, Helena, Missoula, Hamilton, Polson, Kalispell)	College Fairs	9/22/2008	7	1	1200	500	700	350			2750
Colorado (Colorado Springs, Ft. Collins, Louisville, Denver, Englewood)	College Fairs	9/29/2008	7	1	x	500	700	350			1550
Anchorage, AK	College Fair	10/6/2008	2	1	x	200	300	100			600
Kodiak, AK	HS visit (or ComFish?)	10/23/08 or 3/19/09	3	1	600	x	200	150			950
Anchorage, AK	AK AFS meeting/ANC HS visits	10/27/2008	4	1	x	400	600	200			1200
Anchorage, AK	HS visits	1/26/2009	5	1	300	500	750	250			1800
Kenai Peninsula (Soldotna, Kenai, Seward, Homer)	HS visits/NOSB Tsunami	2/2/2009	7	1	x	500	1050	350			1900
Dillingham, AK	Beaver Festival/Career Fair	3/9/2008	3	1	600	100	450	150			1300
Barrow, AK/Wainwright, AK	HS visits/Career Fair	4/15/2008	3	1	800	100	450	150			1500
										Total Travel	17500

TOTAL 30000

UAF School of Fisheries and Ocean Sciences – B.S. Fisheries 2 + 2

UAF Requirement	Credits	UAA equivalent	Credits	UAS equivalent	Credits
ENGL F111x	3	ENGL 111	3	ENGL 111	3
ENGL F211x/F213x	3	ENGL 211, 212, 213, 214, 311, 312, 414	3	ENGL 211, 212	3
ENGL F200x	3	ENGL 201, 202	3	ENGL 221, 227	3
COMM F131x/F141x	3	COMM 111, 235, 237 or 241	3	COMM 111, 235, 237, 241	3
HIST F100x	3	ANTH 101, 200, 202, 250; BA 151; ECON 201, 202; ENVI 201; GEOG 101; HIST 101, 102, 121, 122, 131, 132, 341; HS 220; HUMS 106; INTL 301; JPC 101; JUST 110, 330; PARL 101; PS 101, 102, 311, 351; PSY 111, 150; SOC 101, 201, 202, 222, 342, 351; SWK 106, 243; WS 200	3	ANTH 101, 202, 211; ECON 201, 202; GEOG 101; GOVT 101, 102, 230, 251; HIST 105, 106, 131, 132; PSY 101, 250; SOC 101, 201	3
ANTH/SOC F100x	3		3		3
ECON F100x	3		3		3
ART/MUS/THR F200x Or HUM 201x Or ANS 202x	3	ART 160, 261, 262, 367; DNCE 170; JPC 367; MUS 121, 221, 222; THR 111, 311, 312, 411, 412	3	ART/MUS/THR 100; ART 160, 261, 262; MUS 123; THR 211, 212	3
LS F100x/F101x	1	LS 101, 111	1	LS 110, 111	1
ECON F200x/F235x	3	ECON 210 (for ECON F235x)	3	(Distance Option)	
STAT F200	3	STAT 252, 273	3	STAT 273	3
MATH F200x/F272x	4/3	MATH 200 (for MATH F200x)	4	MATH 200 (for MATH F200x)	4
CHEM F105x	4	CHEM 105, And CHEM 105L	3 1	CHEM 105	4
CHEM F106x	4	CHEM 106, And CHEM 106L	3 1	CHEM 106	4
BIOL F115x	4	BIOL 115	4	BIOL 105	4
BIOL F116x	4	BIOL 116	4	BIOL 106	4
PHYS F103x	4	PHYS 123, And PHYS 123L	3 1	PHYS 103	4
MSL F111x	4	BIOL 178, And BIOL 179	3 1	(Distance Option)	
FISH F101 (VCON)	3	FISH F101 (VCON)	3	FISH F101 (VCON)	3
FISH F288 (VCON)	3	FISH F288 (VCON)	3	FISH F288 (VCON)	3

UAF School of Fisheries and Ocean Sciences – B.A. Fisheries 2+2

UAF Requirement	Credits	UAA equivalent	Credits	UAS equivalent	Credits
ENGL F111x	3	ENGL 111	3	ENGL 111	3
ENGL F211x/F213x	3	ENGL 211, 212, 213, 214, 311, 312, 414	3	ENGL 211, 212	3
ENGL F200x	3	ENGL 201, 202	3	ENGL 221, 227	3
COMM F131x/F141x	3	COMM 111, 235, 237 or 241	3	COMM 111, 235, 237, 241	3
HIST F100x	3	ANTH 101, 200, 202, 250; BA 151; ECON 201, 202; ENVI 201; GEOG 101; HIST 101, 102, 121, 122, 131, 132, 341; HS 220; HUMS 106; INTL 301; JPC 101; JUST 110, 330; PARL 101; PS 101, 102, 311, 351; PSY 111, 150; SOC 101, 201, 202, 222, 342, 351; SWK 106, 243; WS 200	3	ANTH 101, 202, 211; ECON 201, 202; GEOG 101; GOVT 101, 102, 230, 251; HIST 105, 106, 131, 132; PSY 101, 250; SOC 101, 201	3
ANTH/SOC F100x	3		3		3
ECON F100x	3		3		3
ART/MUS/THR F200x, HUM 201x, ANS 202x	3	ART 160, 261, 262, 367; DNCE 170; JPC 367; MUS 121, 221, 222; THR 111, 311, 312, 411, 412	3	ART/MUS/THR 100; ART 160, 261, 262; MUS 123; THR 211, 212	3
LS F100x/F101x	1	LS 101, 111	1	LS 110, 111	1
AIS F101	3	CIS 105	3	(Distance Option)	
RD F200	3	To be determined		To be determined	
ECON F200x/F235x	3	ECON 210 (for ECON F235x)	3	(Distance Option)	
STAT F200	3	STAT 252, 273	3	STAT 273	3
ACCT F261	3	ACCT 201	3	ACCT 201	3
ACCT F262	3	ACCT 202	3	ACCT 202	3
MATH F103x, F107x, F161x, F200x, F201x, F202x, F262x, F272x	3-4	MATH 103, 107, 172, 270, 200, 201, 202, 272	4	MATH 107, 200, 201 (more)	4
MATH/STAT/CS elective	3-4	MATH/STAT/CS elective	3-4	MATH/STAT/CS elective	3-4
NAT SCI CORE I	4	BIOL 115 (many more)	4	BIOL 105 (many more)	4
NAT SCI CORE II	4	BIOL 116 (many more)	4	BIOL 106 (many more)	4
MSL F111x	4	BIOL 178, And BIOL 179	3 1	(Distance Option)	
FISH F101 (VCON)	3	FISH F101 (VCON)	3	FISH F101 (VCON)	3
FISH F261 (VCON)	3	FISH F261 (VCON)	3	FISH F261 (VCON)	3
FISH F288 (VCON)	3	FISH F288 (VCON)	3	FISH F288 (VCON)	3

Charting a New Course for Fisheries Undergraduates in Alaska

University of Alaska Fairbanks

School of Fisheries and Ocean Sciences (SFOS)

(excerpts from the proposal submitted to the Rasmuson Foundation November 4, 2006)

Recognizing that Alaska's resources and its fishing and seafood industries are some of the healthiest in the world and that both our geographic size and professional opportunities are vast and diverse, the UAF School of fisheries and Ocean Sciences proposes to lift all of its programs, through teaching, service and research, to a new level of excellence. This elevation will be driven by enhancement of its academic programs, which include undergraduate and graduate degrees.

We propose a major new development, an undergraduate curriculum designed to broadly prepare students for participation in the fishing industry and community, a new Bachelor of Arts (B.A.) degree in fisheries. Our present B.S. in fisheries, which prepares students for careers in fishery harvest management and research, will be revised and strengthened by this process and we expect our vibrant M.S. and Ph.D. degree programs to be commensurately strengthened as well.

This new B.A. degree program will be characterized by experiential learning, classes from several academic disciplines, broad geographic availability to students from across Alaska, and partnerships with government agencies, fishing and seafood industry representatives and other related groups. This new Bachelor of Arts and the elevation of our existing Bachelor of Science will be based on the following principles:

- **Experiential learning**
 - hands-on field experiences in formal courses
 - internship experience (required)
 - undergraduate research opportunities
 - capstone course or project (under discussion)

- **Multidisciplinary classes**
 - fisheries management
 - fisheries economics
 - the seafood business
 - subsistence in Alaska
 - traditional and ecological knowledge
 - fishing dependent community social science
 - Alaska's fishing industry
 - ecosystem-based fisheries management

- **Broad geographic availability for all Alaskans**
 - distance delivered courses
 - first two years at any UA site (3 MAUs as well as rural campuses)
 - linking other programs, including a certificate, Associate of Arts, or other programs when possible with the undergraduate degree

- minor in fisheries available to other degree majors
 - partnership with the Alaska Native Science and Engineering Program (ANSEP) to support rural and Alaska Native students
 - **Partnerships with public agencies, the fishing and seafood industry, non-profit organizations, non-governmental organizations, and other related groups**
 - Scholarships
 - Internship opportunities
 - Classes developed in response to projected employment needs
 - Classes with speakers drawn from the seafood industry and regulatory agencies
-

We will:

- 1. Develop and enhance curricula**
 - 2. Expand faculty and increase engagement and involvement of current faculty**
 - 3. Recruit and retain students, especially Alaska Native and rural Alaskan students**
 - a. Appoint a Recruitment and Retention Coordinator to execute our Recruiting Plan.
 - b. Appoint a counselor and execute our Counseling Plan (e.g. ANSEP). See Appendix G for signed letter from ANSEP Executive Director Herb Schroeder to SFOS Dean Wiesenburg.
 - c. Improve faculty advising and mentorship activities.
 - 4. Renew and develop infrastructure and physical facilities**
 - 5. Link oceanography and fisheries through ocean observing**
-

Joint Declaration

“The University of Alaska Fairbanks (UAF) fisheries degree programs have always benefited from a strong, mutually-beneficial relationship with the University of Alaska Southeast (UAS). Our joint faculty arrangements have been extremely successful in delivering graduate education in Southeast Alaska. The expansion of the undergraduate fisheries program planned by UAF has significant benefits to UAS including the return of undergraduate fisheries students to Juneau. UAS faculty will work with UAF faculty in the development of the new curriculum to assure that the new fisheries curriculum and its courses can be coordinated with current and planned UAS courses in fisheries and other sciences. We agree that our two faculties working collaboratively can deliver a more effective fisheries program than either one individually. Therefore, we agree to expand our collaboration between the UAS and UAF faculty in the planning and implementation of this new program to achieve the best result for Alaska.

We are jointly and fully committed to implementing this new fisheries initiative.”

Signed: Steve Jones, UAF Chancellor and John Pugh, UAS Chancellor

Dated: August 25, 2006

The Fisheries program will build upon strengths of our existing program by offering undergraduates the option of studying in either Juneau or Fairbanks for a portion of their B.A. or B.S. degree. This “two-plus-two” program provides flexibility to Alaska’s students and allows them to take advantage of the diverse opportunities in both communities.

The two-plus-two program allows lower-division students to complete their preparatory work (freshman and sophomore years) at any MAU (UAA, UAS or UAF) and complete their upper-division work in Fairbanks or in Juneau. In Fairbanks, faculty and the fisheries community specialize in interior, freshwater fisheries, while Juneau faculty and the fisheries community focus on marine and coastal fisheries.

We value the two-plus-two model because it allows student the opportunity to fully participate in the scientific communities of both locations. Students can not only take more diverse courses, but will also interact with a greater diversity of faculty members, who in turn represent a broad range of interests. This model is an essential feature of our plan to develop a new B.A. curriculum and to enhance our existing B.S. program.

Most importantly, students have the opportunity to conduct research in two different scientific communities. A vital component of these students’ undergraduate careers at SFOS will be their active role as researchers. In the two-plus-two model, students will be able to work in university laboratories at UAF or UAS, while also having an opportunity to work in the laboratories of various fisheries agencies.

The long collaborative relationship between UAS and SFOS Fisheries will only grow with this model. Our fisheries faculty and UAS faculty cross-teach courses, enjoy joint appointments, and regularly join together on collaborative projects. The two-plus-two program will allow us to further expand this relationship and we are confident that it will be highly effective. UAS has entered into formal agreements specifying similar arrangements with other academic programs at other MAUs and we expect to be able to execute such an agreement with them as we continue to development of our undergraduate B.S. and B.A. programs. The existing cooperative relationship with SFOS Fisheries, UAS Biology and UAS Fisheries Technology is an example of such a successful partnership. As a model, we will use the UAS agreement with UAA’s nursing program that UAS chancellor John Pugh has provided us as an example. That continuing agreement makes UAS a “Partner Campus” to UAA to facilitate the delivery of the nursing education program.

Performance Measures

New and revised Curricula at Bachelor’s Level

- B.A. in Fisheries approved by Board of Regents July 2008
- Minor in Fisheries approved by Faculty Senate July 2008
- Revisions to B.S. in Fisheries approved by Faculty Senate July 2008

Student Enrollment for B.A. and B.S. Degrees

- Undergraduate enrollment increase from present 25 to 50 in Academic Year (AY) 2009 and to 100 in AY 2012

- Alaska Native/Rural Alaskan enrollment from present 1-5 to 10-15 in AY 2009

B.S./B.A. Graduates

- From 2 to 6 per year in AY 2009
- Increase to 20 per year in AY 2012
- Maintain 20 graduates per year for program years 5 to 20

Recruiting and Retaining Alaska Native and Rural Alaskans into Fisheries

A significant effort will be made to recruit Alaska Natives and rural Alaskans into our program. Our Marine Advisory Program faculty have recently completed a study to determine the barriers that have prevented more Alaska Natives from pursuing fisheries academic programs. The report by Paula Cullenberg and Dolly Garza will be published in September 2006. Their work is funded by the National Oceanic and Atmospheric Administration (NOAA) who has committed to working to provide ocean-related educational opportunities to minorities. The five recommendations included in Cullenberg and Garza's draft report are:

1. Stakeholders, universities and colleges, and employers should work together to support K-12 outreach programs and opportunities which encourage students to consider fisheries or marine science careers.
2. Training programs for fisheries technicians should be available statewide and recognized and encouraged by employers as a means to support recruitment into jobs. A one year certificate and two year associate's program in fisheries/marine sciences should be available statewide. Course work should be offered through a mix of distance education classes, and hands-on lab and field work and should be linked both to employment as technicians and to related B.S. degrees.
3. The School of Fisheries and Ocean Sciences (SFOS) at UAF should partner with the Alaska Native Science and Engineering Program (ANSEP) and/or other internship/scholarship models which provide pre-college programs, high school-to-university bridging programs, scholarships, tutoring, mentoring, and internships. Other University of Alaska and college programs that support Alaska Natives and rural Alaskans in science and math should be used by SFOS as recruiting opportunities.
4. Natural resource agencies, Alaska Native organizations, tribal groups and other potential employers should target Alaska Native and rural Alaskan students by developing paid summer internships, funding scholarships and when possible, mentoring secondary and university students.
5. Outreach and information about opportunities should be developed and shared by all those interested in increasing the number of Alaska Natives and rural Alaskans in fisheries and marine science.

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Attendees

1. Kyle Belleque (Bristol Bay Economic Development Corporation)
2. Pat Brown (UAS Arts and Sciences)
3. Kevin Bruce (Marketing)
4. Candice Cheshire (Coastal Villages Region Fund)
5. Paula Cullenberg (AK Sea Grant Marine Advisory Program)
6. John Hilsinger (ADF&G)
7. Dawson Hoover (Coastal Villages Region Fund)
8. Diane Kaplan (Rasmuson Foundation)
9. Jon Kurland (NOAA) – by phone
10. Katie Murra (UAF SFOS)
11. Kris Norosz (Petersburg Fisheries)
12. Chris Oliver (North Pacific Fishery Management Council)
13. Mary Pete (UAF Kuskokwim)
14. John Pugh (UAS Chancellor) – by phone
15. Brian Rogers (UAF Interim Chancellor) – by phone
16. Herb Schroeder (UAA ANSEP)
17. Bill Smoker (UAF SFOS)
18. Carin Stephens (UAF SFOS) – by phone
19. Deborah Vo (Yukon Delta Fisheries Development Association)
20. Mike Walsh (Foraker Group)
21. Denise Wartes (UAF RAHI)
22. Denis Wiesenburg (UAF SFOS)

What do we mean by Recruitment and Retention?

Recruitment

- Attracting new students
- Inspiring and connecting prospective students to the field and careers
- Casting a big net to get the word out (locally and outside of Alaska) – getting students to the university
- Bringing students into the program, and into the profession
- Replacing/filling the slots of people in the field who are retiring or moving on
- Having students both enroll and commit
 - Holding on to students
 - Making sure incoming students have the capacity – the money, the education, the community and university support

Retention

- Holding on to students
 - For many students, the first and second semester are critical
 - Making sure they know “it does get easier”
- Making sure students are academically ready for the program

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- Start early (elementary) building excitement about fish/fisheries
- Building responsibility and ownership for their own education
- Involving alumni beyond the degree
- Changing the employer picture – understanding what employers are looking for, and what constitutes employability (reach out to FEC)
- Funding and financial ability to stay in school
- Building a cohort community (using RAHI, ANSEP and indigenous teaching program as examples)

The Core Purpose of the Initiative

Educate and Inspire Alaskans, in Alaska, to study, manage and utilize Alaska's robust fisheries.

Describing the Core Purpose

- *Build a fisheries program of national and international prominence*
- *Recruit Rural and Alaska Native students into the program and into careers in fisheries; provide hope through educational and economic opportunity*
- *“Rural is not an afterthought”*
- *There is a fish component (the science) and a fisheries component (the harvesting)*
- *Build a community of learners*
- *Work to educate and ensure Alaska maintains a sustainable fishery*
- *Build a dynamic program: economics, marketing, policy management, research, subsistence, community sustainability, more*

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The Internal Strengths of the Initiatives

- The B.A. in Fisheries was developed and approved by the University Board of Regents, and is currently making its way through accreditation.
- The Minor in Fisheries was developed, approved, and is offered beginning Fall 2008.
 - Builds relevance to non-Fisheries majors, signals a dynamic interdisciplinary program
- SFOS successfully increased its University budget by an additional \$1 million per year that was allocated by the Governor and the Legislature to support SFOS fisheries expansion efforts.
- The internship component of the fisheries degree programs is becoming successful.
- Construction of new smart classrooms and remodeled lab space in Fairbanks and the new Lena Point facility in Juneau have improved SFOS educational facilities.
- The word is starting to get out about the expanded opportunities in fisheries, including the B.A. in Fisheries program.
- Enrollment and commitment is up (12 applicants committed to enrolling Fall 2008)
 - Restatement of original the "Five-Year Goals"
 - 100 students matriculating through the program by 2012
 - 25 new students enrolling each year (right now, 12 new)
 - 20 graduates per year (6 in 2008/09 academic year)
- The “2 + 2” option for the fisheries program is receiving much attention and will allow students to begin their fisheries degrees at any UA campus and finish as UAF students in either Fairbanks or Juneau.
- New SFOS faculty have been hired – six new faculty are on board now, with one more to come.
- The B.A. fisheries program is increasing the accessibility of fisheries management professions for many Alaskans.
- More conversations are occurring in rural Alaska about moving beyond catching and processing
 - The program is building awareness at the student level
- CDQ groups are becoming more interested in the SFOS fisheries expansion efforts.

The Internal Weaknesses of the Initiative

- Alumni have not historically been well-tracked.
 - Satisfied alumni are the best advocates (recruitment, internships, jobs, financial support)
 - Alumni can build excitement and inform program on what needs to be improved

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- Alumni can assist in partnership development/plugging into social networks
- UAF Rural Alaska Honors Institute (RAHI) is a good model for alumni tracking
- Lack of a productive relationship with UAF Career Services
 - Fisheries job opportunity announcements should be available to all students, including non-majors
 - Scholarships/Stipends attached to summer job opportunities to improve likelihood that students during the summer won't "choose to be a flagger instead".
 - A stipend/scholarship component should not necessarily be "free ride", but should include ownership component or reward for hard work.
 - For a scholarship program to work, SFOS must have an inventory of internship opportunities
 - "No internship should go unfilled"
 - Recognizing that not all internships are easy to fill – there is often a strong sense of responsibility on the part of students – and it must be a positive experience to build the long-term reputation of the program
 - Need strong partnership between and among faculty, students, and employers to make internship opportunities successful
- Lack of outreach effort to inform community partners about the fisheries minor
 - Outreach is geared toward students who will be fisheries majors, but should also reach out to community partners and students who are potential fisheries minors
 - Outreach can be done by FEC, MAP, CDQs in addition to SFOS.
- Rural campuses and communities may not know about the programs like they should or could
 - This is especially important for those rural students who start out at rural campuses (in the 2+2 Program)
- Internally not everyone who needs to know about the program does
 - Each rural campus should have an identified advisor
 - A local contact for the program on each campus
 - MAP agents
- There is no mechanism to have a consistent presence in rural schools
 - Not visits from the main campus people, but developing a partnership with the most stable people in the community
- Internally, curriculum development takes much longer than is readily acceptable to people from business
 - Builds frustration
- Lack of a mechanism for developing and engaging students in the primary grades
 - A "Farm System"

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- MAP Agents
- Scholarship clearinghouse should include every option available to SFOS students.
- Lack of willingness or curriculum development support for faculty to take part in distance delivery medium
 - The lab component makes it hard
 - MSL 111 “The Oceans” - being developed with lab component and will be offered Fall 2008
 - Lack of training in how to use the technology
- SFOS is not effectively leveraging the ANSEP connection
 - New ANSEP Chapter developing in Juneau
 - Fully integrate/engage into ANSEP

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External Challenges and Opportunities

- Teacher turnover statewide
 - Building more effective partnerships with UA teaching programs
 - Accessing the Teaching Grad program on the Juneau campus to build interest in teaching science and math
- “Teaching to the test” rather than creating science curriculum
- Engaging young minds early with STEM
 - Experiential learning camps
 - 6th grade Salmon Camp
 - High School Internships
- The ANSEP Model
 - We have programs in place, so SFOS does not have to re-invent wheels, but plug into existing opportunities and partnerships
 - There is a lot of other stuff happening that is repeatable – and that others are already doing
 - Institute a program similar to ANSEP Bridge Program, distance delivery and internships.
- Teacher attitudes that prevent rural kids from getting to the table
 - “Native kids can’t do it...”
 - Need to prepare kids to be successful before they get to college
 - Dispel myths through Master of Arts in Teaching (MAT) program
- Build stronger relationships with regional high schools, such as Galena, Nenana, and Mt. Edgecumbe
- Community partners
 - Not just SFOS going into communities, but tapping into existing networks and building new community networks to support recruitment and retention efforts
 - Build network of advocates like the Alaska Native Rural Youth in Media
 - Working with CDQ organizations
- Low and lowering compensation for state Fish and Game jobs
 - Leads to big turnover in F/G jobs (40 % vacancy rate)
 - F/G jobs aren’t in hub or rural communities
- Looking at the RAHI program
 - Alumni
 - RAHI program can create a theme of fish
 - Relying on family and communities for support
 - Not just the university

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Final Thoughts/Comments: What Needs to Happen ...

Kevin Bruce

- Recognize the different levels of marketing required – some is “wide net” while some must be “strategic,” more individualized
- Integrate “viral marketing” techniques, stronger web presence, interactive CD for school counselors and other non-traditional tools.

Dawson Hoover

- Getting the word out means more than just making presentations at high schools, but community meetings with elders, parents
- AFN Youth Conference
- Someone needs to believe in you, you need to believe in yourself, help every step of the way
- Facilitate trips to facilities (Lena Point) to build excitement among rural students

Candice Cheshire

- Rely less on traditional marketing, and instead reach out to commercial CDQ workers in plants, commercial fishers
- Support and plug into the existing community networks
- Provide meaningful scholarship opportunities; invest in students

Katie Murra

- Build more community contacts, rely less on SFOS direct outreach
- More effectively utilize MAP agents, rural campus advisors
- Nurture relationships with RAHI, ANSEP, ASRA, rural high schools, research

Herb Schroeder

- Make cool activities kids can do on computers that involve fish (tag a fish and track up the Yukon); auto-CAD, GIS
- Raise the bar in high schools in math and science
 - Build in a fisheries piece into the ANSEP pre-college component
 - Tablet tutoring, IM, whiteboards and chat tools
 - Peer tutoring to supplement online courses
 - Building computers, create fisheries software
- Building a more welcoming environment at the university level
- ANSEP program is soft-funded now – funding needs to be institutionalized
 - It cost \$4,400 per student now

John Hilsinger

- Fix the student intern program at ADF&G
- ADF&G can build the internship opportunities within Fish and Game

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- Create inspirational employee spotlight bios for newsletter
- Young Fishers Summit is a good opportunity to disseminate information
 - Inviting young people from across the state

Brian Rogers

- Ensure that a complete status report of SFOS progress is presented at the next Fisheries Excellence Committee meeting
- Identify action taken four weeks between meetings.

Deborah Vo

- Pay attention to grassroots efforts – getting young people excited early about math and science – and the possibility of going into fisheries is the job of local community leaders.
- CDQs need to excite locally.
- ANSEP computer programs are great, the Fish and Game Field Offices can provide opportunities for students to get involved and excited about science and fisheries (both subsistence and commercial).

Mary Pete

- Connecting with parents and influential community members is critical in using existing social networks
 - The key to success is building social relationships
 - Not just talking to potential students – talking to their parents too
- Boarding school experience can be helpful if parents are involved
- Incorporate culturally sensitive learning into the fisheries curriculum
 - Integrating Native culture into classes
 - Elder experts
 - Native language materials
- SFOS needs to connect more fully with “non-traditional” students
 - That through the 2 + 2 program “you can do this from where you live”
- Using a cohort-based model has proven to be most successful in rural campuses and with Native students
 - Especially the young men

Paula Cullenburg

- Take full advantage of the MAP Agents and program
- NMS Fisheries Careers Coalition
- Complete link between Ketchikan campus, field ecology course and 4-year program

Bill Smoker

- Improve the working mechanics of the “2 + 2” Program unified statewide

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Pat Brown

- Iron out the Minor for UAS students (now it is a UAF Major, which is an obstacle) and the Ketchikan program
- Tie in with emerging programs (e.g. environmental studies)
- Focus on achievable goals: reach extension agents and teachers who can link and inspire students

Kyle Belleque

- Develop a good statewide network of SFOS recruiters
- Build a “Farm System” of potential fisheries students
- Fisheries careers “need to stay in the community”

Jon Kurland

- Talk up the internship opportunities among NOAA staff

Denise Wartes

- Capitalize on RAHI’s successes
 - “We know the parents of our students”
 - Newsletter to parents
 - Tracking alumni
 - Reunion of cohorts
 - MySpace social networking
 - Banner
 - Working in close partnership with Rural Student Services, The Advising Center

Chris Oliver

- Broadening the curriculum – as FEC recommended – is critical
- SFOS becoming a nationally recognized program – we can’t lose sight of that – its still part of the mission
- Graduate students have access to nationally recognized experts, but that access does not get down to the undergraduate level
- Better articulating the 2 + 2 program
 - Getting the message out on TV, Internet, and updating website to make it more user-friendly
 - Endorse ANSEP’s “three second ideas”
- Linking SFOS programs more to the community and potential employers
 - Hold workshops and road shows with potential employers

Denis Wiesenburg

- To assure there is a broad spectrum of recruitment

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Kris Norosz

- Connect with students (rural campuses don't know about SFOS programs)
- 2+2 has to be advertised via public radio
- We'll improve our internship opportunities
- Build one-on-one relationships in addition to web-based connections
 - Help SFOS with mailing list
- Be sensitive to the needs of non-traditional students
 - Some boys are not ready at 18 – but they may be ready at 22
 - Talking to parents is important
- “We built this thing, now we have to sell it.”

Diane Kaplan

- Update brochures/materials to include 2+2 and UAS programs
- Nurture a welcoming environment at the University
- Build map of state and activate an implementation group
 - Lots of people at the table willing to help
 - SFOS can facilitate these helpers
- For the next Fisheries Excellence Committee meeting in September
 - Develop a Five-Year Plan that include goals, timelines and assigning tasks

Agenda Item #9

Determination of Best Dates for 2009 Meeting

