



**Short Form**  
**Academic Initiative Program**  
**Advancement, Development & Focus**

The intent of the following questions is to guide the development of new academic initiatives for FY02 and beyond. The form concerns basic program and budget information for the purposes of idea development and focus. Following review and approval by SAC, the Long Form must be submitted to become eligible for funding. Please go to the [Scheduling Page](#) to view submission timelines. For capital requests associated with academic or base initiatives, both the appropriate capital request and initiative forms must be submitted.

Please download the document and e-mail the completed form to the following addresses: (to be added soon).

MAU & Campus: UAF Fairbanks & Juneau

Program: Fisheries Conservation Biology Initiative Area: Natural Resources

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### **I – Program Description**

1. Provide a brief description of the program in the space provided below.

We propose to develop a new multidisciplinary academic minor program, Marine/Fisheries Conservation Biology, a program coordinated in SFOS/Fisheries but serving students in several departments, schools and campuses. Our budgetary request is for faculty salary, travel, commodity, and equipment support.

Conservation Biology has emerged a prominent academic discipline in the past two decades, bringing together several disciplines of biology and other sciences to develop the necessary science and technology for the protection and maintenance of species and the environments they live in the changing ecosystems of the earth (paraphrased from the Goals and Objectives of the Society for Conservation Biology). It is a multidisciplinary science requiring not only pure and applied biological scientists (population biologists and natural resource managers) but also specialists in human factors (sociologists, anthropologists, economists, etc.; see for example the textbook by G.K. Meffe and C.R. Carroll, Principles of Conservation Biology, Sinauer, 1994). Two schools of philosophical thought have come to predominate in the field, one concerned with the problems of establishing appropriate preserves and refuges where species and their environments are protected from interactions with humans and another concerned with establishing sustainable practices of using



biological resources (see for example J.B. Callicott and others, *Current normative concepts in conservation*, Conservation Biology Vol 13:22-35, 1999). Fisheries Science historically has been largely concerned with developing sustainable use practices with learning how to harvest fish resources in a way that ensures their continuing productivity. Fisheries Science has contributed significantly to the development of the new discipline of Conservation Biology and is itself now being significantly shaped by the thinking of conservation biologists, particularly those of the second philosophical school.

The strategic goals of the UAF SFOS Strategic Plan (implemented in 1997) direct and structure this proposal. They are acquisition and dissemination of basic and applied knowledge, education in aquatic sciences, response to needs of resource users, leadership in conservation and development of aquatic/marine resources, and informing the public. Progress toward each of these goals will be furthered by this proposed program.

This initiative will move the Fisheries Division of SFOS toward the goals expressed in its Accreditation Self Study (May 15, 2000), in particular to enhance its faculty to fill the unmet demand for graduates qualified in fisheries science and conservation, to complement the existing expertise of its faculty, and to direct incrementally more of its effort toward instruction.

We propose to build on existing expertise in the UAF Fisheries Division and in other parts of SFOS, UAF, and other MAU s to develop a program of Marine (Fisheries) Conservation Biology . An early objective will be the development of a multidisciplinary survey course to be available to upper division and graduate students in diverse majors (and diverse locations in the University system) including Fisheries, Marine Biology, Biology, Natural Resource Management, Anthropology, etc. A subsequent objective will be the specification of a recognized Minor Course of Study that could be incorporated into the degree programs of students in those majors, a Minor supervised by a multidisciplinary committee of participating faculty from several schools departments, and campuses.

Participants in the development of the program will include members of SFOS (specialists in the population biology and ecology of different fishes, mammals, crustaceans, mollusks; in resource management sciences, population dynamics and stock assessment; in human factors of fishery resource management). Participants will include members of other UAF schools (SLARM s Resource Economists), members of other MAU s (e.g. UAS s Marine Biologists, UAA s Ethnographer Anthropologists).



2. To what state need (local regional or statewide) does this program respond? Be specific: Cite data and studies as appropriate. (E.g., for employment preparation – what types and numbers of employment opportunities exist for program graduates? What is the need for continuing education? E.g., for research – what industries or agencies will benefit, and how?)

Alaska's economy depends in large measure on its marine fisheries resources (the harvests of salmon, pollock, halibut, crab, etc. are worth billions and employ tens of thousands, while harvests of salmon, seals, whales etc. are central to the sustenance of Alaska's many cultures and societies.) Profoundly difficult problems threatening the continued, sustainable, uses of these resources (how can pollock be harvested without harming the endangered Steller Sea Lion, how can salmon be produced and harvested in one region of Alaska without diminishing the productivity of ecosystems in another region, etc.) Solutions to these problems are the purpose of the science of conservation biology.

3. Where will the program be delivered and how? Are there needs in other areas of the state?

The program will be delivered statewide through the SFOS and other participating organizations.



- 4 . Within the UA system, why is your unit best suited to deliver this program?  
In addition, if you know of comparable programs offered in Alaska, please list them and explain both the differences and similarities with the proposed program. (Include programs within the UA system, other Alaska Educational Institutions, or outside institutions offering programs within Alaska.)

SFOS/Fisheries Division is best suited to coordinate a program in Marine/Fisheries Conservation Biology because its present mission is closely allied to the central sciences of conservation biology, population biology and resource management.



## II – Partnerships

1. List state, industry and other partners involved in the program and the nature of their involvement (funding, planning, sponsorship, etc.).

Immediate partners in the planning of this program include members of UAF SFOS Fisheries Division, UAF SLARM Department of Resources Management, UAA Department of Anthropology, and UAS Biology Department. Students and faculty involved in this new program would immediately benefit from such extramural endowments and partners as the Rasmuson Foundation, the Pollock Foundation, the Brindle Endowment. They would expand existing partnerships with extramural public agencies (Ak Department of Fish & Game, US Fish and Wildlife Service, US Nat'l Marine Fisheries Service, Non Profit Corporations, etc.)



### III - Program Expectations & Accountability

	FY02	FY03	FY04	FY05	FY06
1. Total Student Headcount in Program	40	40	42	46	50

2. How should the success of this program be measured? Provide a minimum of three expectations for program performance and means for assessment, including some quantifiable measures.

Success of this program should be measured by the development in FY02 of a new upper division survey course in Marine/Fisheries Conservation Biology, and enrollment of 20 students in annual offerings by FY 06. Success of this program should be measured by graduation of students in several disciplines with earned minors in Marine/Fisheries Conservation Biology, by production of research results by a faculty specialist in conservation biology, by devotion of service to sustainable development of Alaskan and national biological resources.



#### IV – Program Resources

1. Briefly describe the FTE need for faculty and the responsibilities they would have. Describe which positions are new and which are for existing faculty. For existing faculty, please describe the adjustments to be made to accommodate the new program.

Eight months faculty support for development of survey course in FY 02 (2 months each in Fisheries, Anthropology, Marine Biology, Natural Resources Management), Four months faculty support in succeeding years for teaching the course and participating in administering the Academic Minor. This extra support will be required because the course will require extra effort it will be offered across departments, campuses, and locations-- and by new techniques of distance delivery. This additional support will be required because existing faculty will have to devote effort to new instruction, effort that is presently devoted to research supported extramurally, or to other tasks.

One new faculty member (SFOS Fisheries Division) specializing in conservation biology. Responsible for developing teaching, research, and service in Marine/Fisheries Conservation Biology

Required adjustments to existing programs will include revisions and augmentations of degree requirements, collaborations among faculty.



2. Describe the facilities required for the program. If existing facilities are to be used, explain the impact on programs currently using this space. If new or modified facilities are required, please include both the annual operating cost estimates in the budget detail below. For capital requests associated with this academic initiative, the appropriate capital request form must also be submitted.

Limited facilities for fisheries science teaching and research at UAF have been a major constraint on productivity since the inception of SFOS during the restructuring of the UA system in 1987 and have been identified as a major impediment by the accreditation society in each succeeding visit. Whether in Fairbanks or at the Juneau Center, fisheries faculty have not had adequate classrooms or laboratories. SFOS is now working toward development of a new facility for the Juneau Center to be co-located with the new US NMFS research laboratory. Costs are not part of this proposal. The new faculty member will share with present faculty the challenge of developing a productive teaching and research program without adequate facilities until new facilities are available, anticipated in FY 05.

Teaching the new survey course in fisheries conservation biology will use existing technology base of UA, i.e. UACN, Alaska 3, Videoconference network. These systems have accessible facilities and bandwidth for the new course.

3. Describe the equipment and technology needs for program delivery (instructional, laboratory, equipment, distance delivery). Could the program be offered elsewhere or are there limitations to delivery outside the campus of origin?

Development and presentation of a multidisciplinary survey course accessible to students on different campuses will require distance delivery technology, particularly equipment for digitization and transmission of illustrative material (computers, scanners, cameras, projectors, printers, etc.) The research of a new faculty member specialist in conservation biology will require new laboratory equipment depending on the particular specialty of the new member.

The program will not be limited to a campus of origin but will be offered statewide.



4. Budget

EXPENDITURES		FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
71000	Salaries & Benefits	56k	112k	112k	112k	112k	112k
72000	Travel	10k	10k	5k	5k	5k	5k
73000	Contractual Services		3k	3k	3k	3k	3k
74000	Commodities	5k	5k	5k	5k	5k	5k
75000	Equipment	25k	75k				
75025	Land/Buildings						
78000	Miscellaneous	5k	5k	5k	5k	5k	5k
<b>Total Expenditures</b>		101k	217k	127k	127k	127k	127k

REVENUES		FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
General Fund							
10030	GF – Match						
10040	GF – State Appropriation						
10250	Science & Technology						
10370	GF – MH Trust						
SubTotal General Fund							
Non General Fund							
10020	Federal Receipts						
10070	Intra-Agency Receipts						
10100	Interest Income						
10150	Auxiliary Receipts						
10380	Student Tuition & Fees						
10390	Indirect Cost Recovery						
10480	UA Receipts						
10610	CIP						
Sub Total Non General Fund							
<b>Total Revenue</b>							

POSITION COUNTS		FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
Full Time							
	Executive						
	Staff						
	United Academics	2/3	1+ 2/3	1+ 2/3	1+ 2/3	1+ 2/3	1+ 2/3
	ACCFT						
	CEA						
<b>Total Full Time Positions</b>							
Part Time							
	Staff						
	United Academics						
	ACCFT						
	CEA						
<b>Total Part Time Positions</b>							

Filename: Fish Conservation Biology Short Form.doc  
Directory: C:\WINDOWS\Desktop\sfos fish div  
Template: C:\WINDOWS\Application Data\Microsoft\Templates\Normal.dot  
Title: Initiative Funding Distribution Criteria Form  
Subject:  
Author: Dave Veazey  
Keywords:  
Comments:  
Creation Date: 10/9/00 4:56 PM  
Change Number: 24  
Last Saved On: 10/13/00 4:16 PM  
Last Saved By: Bill Smoker  
Total Editing Time: 217 Minutes  
Last Printed On: 11/9/00 12:54 PM  
As of Last Complete Printing  
Number of Pages: 9  
Number of Words: 1,934 (approx.)  
Number of Characters: 11,027 (approx.)