ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON FISHERIES
March 5, 2019
11:05 a.m.

MEMBERS PRESENT

Representative Louise Stutes, Chair
Representative Bryce Edgmon
Representative Chuck Kopp
Representative Jonathan Kreiss-Tomkins
Representative Geran Tarr
Representative Sarah Vance

MEMBERS ABSENT

Representative Lance Pruitt

COMMITTEE CALENDAR

PRESENTATION(S): UNIVERSITY OF ALASKA FAIRBANKS

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

S. BRADLEY MORAN, PhD, Dean
College of Fisheries and Ocean Sciences (CFOS)
University of Alaska Fairbanks (UAF)
University of Alaska
Fairbanks, Alaska
POSITION STATEMENT: Co-provided a PowerPoint presentation entitled, "UAF College of Fisheries and Ocean Sciences: Building Alaska's Blue Economy," dated 3/4/19.

MILO ADKISON, PhD, Chair
Department of Fisheries
Juneau Center
College of Fisheries and Ocean Sciences (CFOS)
University of Alaska Fairbanks (UAF)
University of Alaska
Juneau, Alaska

POSITION STATEMENT: Co-provided a PowerPoint presentation entitled, "UAF College of Fisheries and Ocean Sciences: Building Alaska's Blue Economy," dated 3/4/19.

ACTION NARRATIVE

11:05:30 AM

[Due to recording difficulties from 11:05 a.m. to 11:07 a.m. the following was reconstructed from the secretary's log notes.]

CHAIR LOUISE STUTES called the House Special Committee on Fisheries meeting to order at 11:05 a.m. Representatives Edgmon, Kopp, Tarr, Vance, and Stutes were present at the call to order. Representative Kreiss-Tomkins arrived as the meeting was in progress.

PRESENTATION(S): UNIVERSITY OF ALASKA FAIRBANKS

11:07:22 AM

CHAIR STUTES announced that the only order of business would be a presentation by the College of Fisheries and Ocean Sciences, University of Alaska Fairbanks.

11:07:35 AM

S. BRADLEY MORAN, PhD, Dean, College of Fisheries and Ocean Sciences (CFOS), University of Alaska Fairbanks (UAF), provided a PowerPoint presentation entitled, "UAF College of Fisheries and Ocean Sciences: Building Alaska's Blue Economy." Dr. Moran said the main message he seeks to convey is the value of the college and the return on investment (ROI) provided by the college to the state and its fisheries. In fact, the theme of the presentation, Building Alaska's Blue Economy, represents an opportunity to diversify the state's economy. The College of Fisheries and Ocean Science (CFOS) is the largest combined research and academic unit in Alaska with 12 locations and many partnerships statewide, nationally, and internationally. He pointed out in fiscal year 2018 (FY 18) $46 million in expenditures for the college were leveraged from $5.9 million in general funds, which equals an 8:1 ROI. Further, $22.8 million in research expenditures were almost entirely federally funded; as well in FY 18, $11 million was budgeted for the operation of the research vessel (R/V) Sikuliaq (slide 2).

DR. MORAN reviewed slide 3 which listed research and economic drivers of the "blue economy" including the Alaska Sea Grant Program, a partnership with the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, various institutes, and the R/V Sikuliaq, all of which enable CFOS to fulfil its mission to the state. Slide 4 illustrated that CFOS partners with a large cooperative of industry - consisting of the Pollock Conservation Cooperative Research Center and four at-sea processors - which is the largest philanthropic donor to the University of Alaska (UA), contributing $16 million through 2019, and that also supports the Ted Stevens Distinguished Chair in Marine Policy, CFOS. Further partnerships that leverage federal funds are the Alaska Sea Grant partnership in the amount of $1.5 million annually and Bureau of Ocean Energy Management, Department of the Interior, funding to the Coastal Marine Institute in the amount of $1 million (slide 5). These funds go to support coastal communities, research, particularly students and presentations, to advance knowledge that is very focused on fisheries, marine biology, and ocean science.

11:12:46 AM

DR. MORAN said the applied side CFOS's work is the building of innovation and the commercialization of a blue economy (slide 6). He said the company Blue Evolution has been leasing space at the CFOS facility in Kodiak for the last few years. In this collaboration Blue Evolution is processing kelp for market. Industry has begun a new effort, the Blue Pipeline Incubator, which is completely funded externally by industry and particularly the town of Seward. It is designed as an industry business incubator for ocean business and workforce development, it is active work and space is being leased from CFOS in Seward. The U.S. Department of Energy has a program called Macroalgae Research Inspiring Novel Energy Resources (MARINER) through the Advanced Research Projects Agency - Energy (ARPA-E), a project on sugar kelp that Senator Lisa Murkowski was out front on. It is a collaboration with many institutes and organizations in the Lower 48 and is led by CFOS and the University of Alaska Southeast (UAS). Another example of collaboration is the development of pet treats from fish skins for commercialization that is being done at the CFOS Kodiak facility.

11:14:27 AM

DR. MORAN drew attention to the additional specific facilities, faculty, and active research in mariculture listed on slide 7. He pointed out that Kodiak is a seafood research and development

facility and there are other research locations. He said mariculture is being worked on actively in several locations. Dr. Moran turned attention to the R/V Sikuliaq, the only ice-capable research vessel in the U.S. academic fleet. R/V Sikuliaq is owned by the National Science Foundation (NSF) and operated since March 2014 by CFOS with operating funds from NSF; CFOS renewed its $33 million cooperative agreement to continue vessel operations through 2023. He stressed the vessel is entirely operated by federal funds, including funding for certain shoreside staff, and is the largest research asset operated by UAF in the state. In 2023 under federal mandate, the R/V Sikuliaq operating funds award will be open for competitive bidding and CFOS seeks to expand its shoreside facilities in Seward to demonstrate to NSF its commitment to the vessel.

11:17:28 AM

CO-CHAIR STUTES inquired as to UAF's competitors in its bid to operate the R/V Sikuliaq.

DR. MORAN replied there was no open competition for the current 2018-2023 award, but in 2023 the award will be subject to an open competition. He surmised there will be interest in the vessel from many institutions such as the University of Washington, Scripps Institution of Oceanography, the University of California at San Diego, and Woods Hole Oceanographic Institution.

11:18:22 AM

DR. MORAN continued his presentation. He said that currently the R/V Sikuliaq is used by CFOS to support the Northern Gulf of Alaska Long-term Ecosystem Research (NGA LTER) program - one of four long-term research studies - which garners $2.5 million in research and ship time annually. Similar LTER programs are highly sought in order to understand the ecosystems that support commercial fisheries in the northern Gulf of Alaska (slide 9). Another aspect to building Alaska's blue economy is the European Union (EU) Arctic Research Icebreaker Consortium, which includes the R/V Sikuliaq, and that receives funding from EU for ship days at sea in support of joint research activities (slide 10). Dr. Moran provided statistics on Alaska's commercial, sport, and subsistence fisheries and noted CFOS graduate students work in industry and in [ADFG] in support of commercial and inland fisheries, and he gave two examples (slide 11). He pointed out 47 percent of the CFOS faculty are women, and 70 percent of the

students are women. Finally, he informed the committee CFOS, through the School of Management, is offering a new online program, UAF Blue MBA, that is unique in the nation and is a fully accredited MBA program to address fisheries management, ocean technology, and business solutions for the changing Arctic (slide 12).

11:23:25 AM

CO-CHAIR STUTES asked for additional information about the Alaska Sea Grant program.

DR. MORAN explained the [National Sea Grant College Program Act] requires a 50 percent match of federal funds, thus NOAA's contribution of $1.5 million annually to UAF must be matched by a minimum of $800,000; in fact, UAF pays about $1.2 million in support of the program.

REPRESENTATIVE VANCE questioned who would gain financially by operating the R/V Sikuliaq.

DR. MORAN said CFOS receives about $12 million annually to operate the vessel and the indirect cost recovery (ICR) is almost $1 million to the college; in FY 18, CFOS has accumulated about $2.6 million in ICR which is used to pay for college operations. He observed any entity would want to operate the vessel because of the ICR benefits to the entity. Furthermore, operating big facilities such as the R/V Sikuliaq are highly desired to leverage state investment and support a larger mission.

REPRESENTATIVE VANCE asked whether CFOS conducts research on fisheries that would indicate a 10-year ROI from Alaska's fisheries resources. For example, if the fisheries resources diminish, what the impact of that loss would be to the economy, subsistence, and personal use.

11:27:16 AM

DR. MORAN advised CFOS is a resource for state agencies and for those who manage fisheries inland and offshore. For many years, faculty members have been instrumental in setting policy management by the North Pacific Fishery Management Council [established by the Magnuson-Stevens Fishery Conservation and Management Act of 1967], and he opined the North Pacific fishery is managed as well or better than any in the world. He remarked:

> If that were all to go away, ... we would have serious challenges in managing those fisheries. ... We are a resource, for that, for that purpose.

REPRESENTATIVE KOPP commended CFOS and the critical research it does to sustain Alaska's fisheries. He observed over the past five to six years UAF has developed an exemplary partnership with NSF which, along with the operation of the R/V Sikuliaq, are significant successes.

11:30:29 AM

MILO ADKISON, PhD, Chair, Department of Fisheries, Juneau Center, CFOS, UAF, pointed out most of the research referred to in the presentation is done through graduate student theses and dissertations; subsequent to the completion of their research, many students go to work at ADFG and federal agencies. In response to Representative Vance's earlier question, he advised faculty are studying the economic implications of potential downturns in [fisheries] on subsistence issues and on rural communities. Slide 13 illustrated an example of industry-funded research in the Beaufort Sea on fish communities, bioenergetics, and growth, which is valuable to the oil and gas industry in support of impact analysis. Slide 14 illustrated an example of research in the problem of economic losses to longline commercial fisheries due to depredation by whales; graduate students are conducting research on stock assessment and on methods to deter this behavior. Slide 15 illustrated research into trends in the size of Pacific halibut and the effects of changes in fisheries yield that may be permanent or environmentally driven.

DR. ADKISON turned to slide 16 which illustrated analyses of the Tanner crab limit which suggested the existing size limit may not be optimal for the fishery. He said analyses are reviewed by students and faculty. Faculty also serve on numerous advisory committees where they also review and guide research, such as the North Pacific Research Council's Scientific and Statistical Committee, as well as numerous advisory groups for the Alaska Department of Fish and Game (ADF&G) to help guide and review the department's research. Dr. Adkison said slide 17 illustrated a study that looked at the fate of Douglas Island Pink and Chum (DIPAC) Hatchery's chum salmon releases during the first couple of weeks after leaving the hatchery and the fry resided in the near-shore waters. The study looked at what was eating them and what the impact was. The size of the fish at

release was looked at and whether size makes a difference in how vulnerable they were to predation.

11:35:00 AM

DR. ADKISON continued to slide 18 on fishery management research into the decline of Chinook salmon returns. Although survival of salmon cohorts is usually determined early in life, research at sea revealed a sudden increase in temperature that may indicate predation of salmon by salmon shark. Another student study on the effects of hatchery fish on wild stocks found hatchery fish may not be as successful at reproducing than wild fish; in fact, about one-half of the hatchery fish died before releasing their eggs.

DR. MORAN closed the presentation, noting that both UAA and UAS conduct fisheries research, such as research on shark cartilage with biomedical applications, including knee meniscus and combat injuries with veterans. He said CFOS programs include fisheries economists and policymakers throughout the UA system (slide 19). The Alaska Sea Grant program at UAS interacts with the CFOS undergraduate joint program and there is the MARINER program on kelp.

11:38:56 AM

REPRESENTATIVE EDGMON asked whether the aforementioned improvements to shoreside facilities for the R/V Sikuliaq would need to be funded through the state's capital budget.

DR. MORAN replied that CFOS's current strategy is to seek funding from NSF for replacement of the pier and warehouse facilities. The NSF has a call for proposals around mid-scale research infrastructure and CFOS is putting in a proposal for roughly $40 million to that call for replacement of the pier and warehouse facilities. He noted that Senator Lisa Murkowski and Senator Dan Sullivan just successfully got a U.S. Department of Defense appropriation for a new icebreaker and four cutters plus shoreside support. He offered his understanding that $31 million was allocated to Seward and $22 million to Kodiak. University leadership is looking into whether there might be some funding synergy for the civilian side in this. He clarified that renewal of the operating agreement in 2023 is not contingent upon improved shoreside facilities; the agreement is based upon the track record of successful operation of the vessel. There are shoreside facilities, but they need to be improved.

11:42:26 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 11:42 a.m.