



RESEARCH

PERCEIVED RESEARCH NEEDS IN SOUTHEAST ALASKA COMMUNITIES

A Report to the Juneau Economic Development Council
Research and Development Cluster Working Group
April 29, 2016

Authors

Jim Powell, University of Alaska
Southeast, Juneau

Thomas Ainsworth, NOAA National
Weather Service, Juneau

Lisa Busch, Sitka Science Center,
Sitka

Angie Eldred, Southeast Alaska
Watershed Coalition, Wrangell

Tabitha Williams, Juneau Economic
Development Council, Juneau

Technical Report 16-01



Executive Summary

Based on 42 responses from 18 of 33 communities in Southeast Alaska there are several findings regarding research areas that are of interest to communities.

- The top three community research interests are fisheries, alternative energy, and economy.
- Communities reported a lack of adequate research facilities, workforce, and accommodations.
- Communities specifically reported several research areas including: timber, alternative energy, agriculture, tourism, and the ferry systems.

Introduction

Led by University of Alaska Southeast, a short survey was conducted in Southeast Alaska to provide some insight into what types of research are being conducted in the Eastern Gulf of Alaska and what research could benefit communities in the region. The survey was intended to also strengthen awareness of community research needs and create baseline information for connecting researchers with community issues. This initial effort is also intended to create a mechanism for communication between local talent from Southeast communities and research institutions. The survey was initiated by the “Connect Research to Communities” initiative team (Community Research Group) formed by the R&D Cluster Working Group, organized under the Juneau Economic Development Council (JEDC) led Southeast Alaska Cluster Initiative (SCI). The SCI is an effort to enhance the competitiveness of business in key regional economic clusters – Ocean Products, Visitor Products, Renewable Energy, Mining Services and Supply, and Research & Development.

JEDC Cluster Working Groups: The Southeast Alaska Cluster Initiative uses a Cluster Working Group (CWG) process that brings private sector “industry clusters” together with federal, state and local agencies, university faculty, trade association representatives, economic development organizations, community leaders and other stakeholders to address economic development along a breadth of sectors. An “industry cluster” is a set of businesses, in the same or related field and located near one another, which are linked by service or supplier relationships, common customers and supporting institutions or other relationships. Industry CWG’s discuss their shared concerns and develop a set of initiatives with achievable goals to address these concerns. Initiative implementation teams are formed and led by a volunteer champion. JEDC expects these industry initiatives will lead to increased business development, jobs and regional prosperity. These initiatives call for resource deployment based on industry priorities in areas that include

regional workforce education through new programs at the University of Alaska, increased guided access to Forest Service lands with corresponding enhancement projects, and coordinated industry marketing.

Methods

In 2013, the Community Research Group designed a questionnaire for gathering information about research conducted in SE Alaska communities. The questionnaire was reviewed by volunteers in Wrangell Alaska for appropriate vocabulary and survey length. In May 2014, the survey was launched and distributed to one or more residents in all 33 communities in Southeast Alaska. Two iterations were conducted with follow-up phone calls to remind respondents to submit their surveys.

Survey Instrument: The questionnaire was distributed online using Survey Monkey. The survey was semi-structured including 15 open and closed questions. The questions focused on what research respondents were aware of around their community and what research they thought their community needed to support develop their community. Respondents were asked for their top five research needs and research gaps. The survey asked respondents to pinpoint what research would help support community and economic development. The survey responses were collected and analyzed using Survey Monkey to tabulate and aggregate responses for evaluation.

Participants: The process used for selecting individuals to be surveyed was largely opportunistic. The Community Research Group contacted individuals with known research connections to the community. Respondents typically were city employees, academic and non profit researchers, and private business owners. The goal was to have more than one participant from each community.

Results

Responses to the survey were received from 18 communities in Southeast Alaska that are listed below in Table 1. The most populous communities were included and forty two questionnaires were received. Participants provided their perspectives about current research they were aware of in their community and research they perceived as being needed for their respective communities. Participants also were asked to prioritize community research needs and community limitations to facilitate and host research projects.

Table 1. Communities Responding to Survey

1. Sitka	11. Petersburg
2. Elfin Cove	12. Kasaan
3. Yakutat	13. Port Alexander
4. Haines	14. Gustavus
5. Skagway	15. Yakutat
6. Juneau	16. Thorne Bay
7. Kake	17. Pelican
8. Angoon	18. Wrangell
9. Hyder	
10. Craig	

The individuals responding to the survey represented several different organizations with the highest percentage (21%) working for local government and the lowest (3%) working for state government. Table 2 shows the major types of organizations that participants represented and the number of respondents from each organization.

Table 2. Organizations Represented in the Survey

Organization	Number of respondents
Municipal employee	8
Non Profit Organization	7
Federal	5
Business	5
Tribal	5
State	4
Education/Academic	4
Other	4

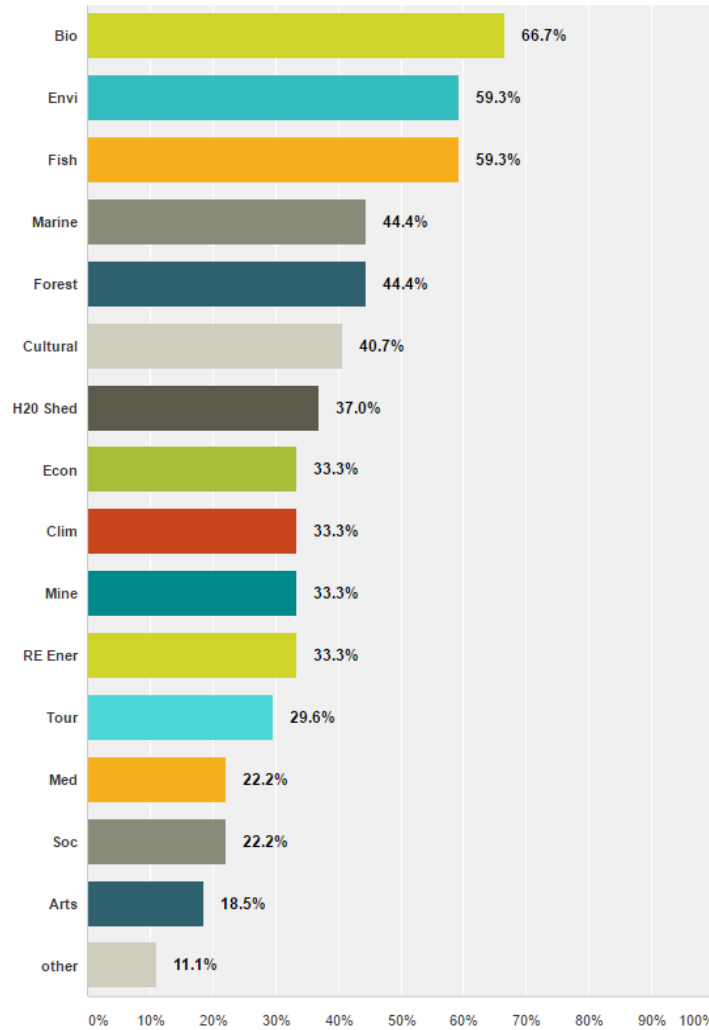
Findings

Based on the survey results, three major findings are reported below. First, respondents ranked 15 types of research they were aware of in their communities. Second, the types of research are listed that would benefit their community the most, and last the degree of capacity their community has to support or conduct research is discussed.

Types of Research in Southeast: Respondents were asked to identify the types of ongoing research they were aware of in their community. They were provided with a list of 15 areas to choose from and an “other” category. The most frequent areas of research occurring in their

communities were reported as: Biological (67%), Environmental (59%) and Fisheries (59%), as shown on Table 3 below.

Table 3. Observations of Research Conducted in SE Alaska Communities



Community Beneficial Research: Respondents were asked what research their community would benefit from the most. The top three most frequent responses were: Renewable Energy (71%), Fisheries (71%), and Economic (57%). Table 4 below shows the percentages and number of respondents for each of the 15 areas of research that are perceived as benefiting from more research.

Table 4. Research Perceived as Beneficial in SE Alaska

Perceived areas Benefiting research –	Responses (%) and number of responses
Fisheries	71 % (15)
Renewable Energy	71 % (15)
Economic	57 % (12)
Medical or human health related	48 % (10)
Climate change	43 % (9)
Tourism-related research	43 % (9)
Social	38 % (8)
Environmental	38 % (8)
Watershed	38 % (8)
Biological (wildlife, botanical, etc)	33 % (7)
Cultural/Anthropological	33 % (7)
Forestry	19 % (4)
Marine Species	19 % (4)
Mining	19 % (4)
Arts & Culture	19 % (4)
Other	5 % (1)

Community Capacity for Research Another area of potential interest pertains to the perceived capacity for communities to be able to conduct research. Participants in the survey were provided five categories to choose from and an “other” category. As shown in Table 5, almost sixty percent of the respondents perceive a lack of adequate research facilities and fifty percent perceived a lack of accommodations for researchers. Responses to five levels of capacity for community research are listed below with percentages and numbers of responses.

Table 5. Community Levels of Capacity to Conduct Research

Levels of Capacity	Responses
Fully capable and conducting research	18% (4)
Lacking adequate research facilities	59% (13)
Lacking adequate workforce (employees, researchers, volunteers, interns, etc)	41% (9)
Lacking adequate accommodations for potential researchers	50% (11)
Require more support services (restaurants, entertainment, etc)	27% (6)
Other (please specify)	23% (5)

Specific Research Suggestions

Several research areas were suggested by the respondents and reported in the comments and briefly described below with direct quotes from respondents.

Timber

The timber industry in Southeast was a major component of its economy up to the 1990s and now has changed after lumber mills closed in Ketchikan and Sitka. Several respondents suggested studies should occur for changing the industry.

“Study ways to expand Southeast Alaska’s timber industry through lower-volume and more widely dispersed harvests (primarily but not exclusively of younger growth) that supply small local mills with wood that can be used regionally to stimulate economic growth within the region without compromising the needs and interests of other industries (recreation, tourism and fishing), as contrasted with a few large firms primarily cutting massive volumes of old growth using primarily labor imported from outside and shipping the logs to Asia for milling, which mainly profits the largest timber firms, provides little more than economic crumbs within the region, and destroys habitat and scenic values, thus disrupting tourism, fishing, hunting, and outdoor recreation.” Survey respondent

Climate Change

A few respondents suggested that more research be conducted about the effects of climate change in Southeast Alaska.

“Not enough research on climate change, what Southeast can expect, and how local industries can and should 1) avoid contributing to it and 2) respond to and prepare for it.” Survey Respondent

Ferry System

A comprehensive study was suggested for improving and understanding the effects of the Ferry System in Southeast Alaska.

“Do a comprehensive study of ferry systems in other parts of the world to understand opportunities and means for improving service in Southeast Alaska.”

Survey Respondent

Tourism

“I would be interested to know how tourism effects communities in Southeast Alaska, culturally, environmentally, and economically. I feel like tourist traffic is increasing, yet the infrastructures of small communities are not necessarily prepared to support this.”

Survey Respondent

Agriculture

Perhaps a surprising area of concern is respondents’ interest in more agricultural research. With food security and local gardening prominent in the news, there was an interest in providing more food through mariculture and cultivation in communities across the region. A few comments suggest that there should be studies about the viability of commercial and home gardening.

“We need more agriculture, research could lead to finding crops or methods to grow crops to support the community. Alaska's oceans are rich with sea life, our communities only commercially use a hand full of species. Research should be directed to determine the possible other commercial industries.”

Survey Respondent

Alternative Energy and Non-tourism Development

Below are five selected responses about alternative energy and non-tourism development.

“Community composting/municipal composting of fish wastes, and power generation from them.”

“Affordable, realistic renewable energy would resolve a continual theme that negatively impacts families throughout the villages. Housing codes are not followed in southeast Alaska and supplies and materials overhead influences villagers not to follow “best practices.”

“Alternative energy and non-tourism related development, especially in small communities.”

“The amount of economic resources lost to companies outside the local area and what can be done to minimize the impact of these loses.”

Survey Respondents

Discussion and Conclusion

This study provides several findings that increase our understanding of research needs from the perspective of 18 of 33 communities in Southeast Alaska. Major types of research were identified and several comments provided additional insight into areas that researchers may consider for future research projects. Comparing the perceived need for research and occurrence of research emerged as an interesting contrast. The need and perceived occurrence of fisheries research was consistent between the responses. This may suggest that researchers are responding to the need or perhaps the communities desire an increase in research. Because commercial, sport and subsistence fisheries is a major economic and cultural driver in Southeast Alaska, it comes as no surprise that people living close to the water are in tune with western science research on fisheries.

Fisheries and alternative energy were the top interests in research among fifteen other research areas. These rankings provide insight into community research priorities. Regarding the capacity for conducting research, a perceived lack of adequate research facilities, and trained workforce and accommodations for potential researchers ranked high. Respondents provided specific comments in five areas that they suggested needed further studies. Those areas include: timber, alternative energy, agriculture, tourism, and the ferry systems. Although a small sample size, the community perspective focus of this study may add to our understanding and information and research needs in Southeast Alaska.

Appendix

Copy of Questionnaire

Community Research Projects and Needs Assessment Survey

Introduction:

A new collaboration among industry and other groups for strengthening economic development in Southeast Alaska is being coordinated by the Juneau Economic Development Council. This approach is called cluster based planning. The survey below is intended to provide information about research needs that support communities and business. Please see the Project Description at the end of this survey for more information.

You are invited to participate in this survey to share your community's current research initiatives and relationship with the regional research community. The survey has 14 questions and should take approximately 15 minutes to complete.

***1. Participation: Your participation in this project is completely voluntary. The results of the survey will be shared publicly, but your name will remain anonymous. While we are hoping to expand the awareness of research activities and networks as part of this effort, please indicate whether Juneau Economic Development Council may share your contact information with others interested in scientific research in Southeast Alaska.**

- Yes, you may share my contact information
- No, please do not share my contact information

2. Please provide the following:

Name:	<input type="text"/>
Company:	<input type="text"/>
Address:	<input type="text"/>
Address 2:	<input type="text"/>
City/Town:	<input type="text"/>
ZIP:	<input type="text"/>
Email Address:	<input type="text"/>
Phone Number:	<input type="text"/>

Community Research Projects and Needs Assessment Survey

3. What type of organization do you work for?

- Federal
- State
- Municipality
- Nonprofit
- Business
- Education/Academic/Research
- Tribal organization
- Other (please specify)

4. Please describe what research means to you, and how it relates to your community.

5. What type of research is currently being done in your community that you are aware of?

- | | |
|--|---|
| <input type="checkbox"/> Medical or human health related | <input type="checkbox"/> Marine Species |
| <input type="checkbox"/> Biological (wildlife, botanical, etc) | <input type="checkbox"/> Fisheries |
| <input type="checkbox"/> Economic | <input type="checkbox"/> Cultural/Anthropological |
| <input type="checkbox"/> Social | <input type="checkbox"/> Mining |
| <input type="checkbox"/> Environmental | <input type="checkbox"/> Renewable Energy |
| <input type="checkbox"/> Climate change | <input type="checkbox"/> Tourism-related research |
| <input type="checkbox"/> Watershed | <input type="checkbox"/> Arts & Culture |
| <input type="checkbox"/> Forestry | |
| <input type="checkbox"/> Other (please specify) | |

6. Please describe the community-based or citizen science projects, programs, and/or initiatives currently underway in your community

Community Research Projects and Needs Assessment Survey

7. Please describe how research currently supports or is involved in these citizen science projects/programs/initiatives

8. Please describe how research could support or be relevant to these current citizen science projects/programs/ initiatives

9. Please list your community's top five priority research needs.

1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
5	<input type="text"/>

10. Please describe the research gaps or needs you perceive in Southeast Alaska

Community Research Projects and Needs Assessment Survey

11. Please list the pertinent Southeast Alaska community issues, needs, or topics that you feel would benefit most from focused, applied research

- Medical or human health related
- Biological (wildlife, botanical ,etc)
- Economic
- Social
- Environmental
- Climate change
- Watershed
- Forestry
- Marine Species
- Fisheries
- Cultural/Anthropological
- Mining
- Renewable Energy
- Tourism-related research
- Other (please specify)

12. Please list the types of research work or projects (if any) that you feel need more support, or need to be carried out in the region:

13. From whom do you request research to support the projects/programs/citizen science initiatives carried out in your community? Please list key individuals or organizations, including contact information if available:

Community Research Projects and Needs Assessment Survey

14. Please describe your community's capacity to support research:

- Fully capable and conducting research
- Lacking adequate research facilities
- Lacking adequate workforce (employees, researchers, volunteers, interns, etc)
- Lacking adequate accommodations for potential researchers
- Require more support services (restaurants, entertainment, etc)
- Other (please specify)

15. Please provide any additional comments about research.

Community Research Projects and Needs Assessment Survey

Project Description

The Juneau Economic Development Council has been provided the opportunity to bring a cluster-based planning approach to economic development in the Southeast Alaska region. Under a contract awarded by the USDA Forest Service, JEDC launched the Southeast Alaska Cluster Initiative to bring the private sector together with government agencies, university faculty, trade association representatives, community leaders and other stakeholders committed to addressing regional needs, concerns and opportunities on a partnership basis.

Since inception, JEDC has organized five industry cluster groups: Ocean Products, Visitor Products, Renewable Energy, Mining Services and Supplies, and Research and Development. The focus of activity for each cluster is the development and implementation of industry specific initiatives for increased business development, jobs and regional prosperity. Initiative implementation teams, each team led by a volunteer Champion, are composed of the private sector, federal, state and local agencies, university faculty, and other stakeholders active in the industry. The Research and Development Cluster has six action teams. Team 3, Connect Research to Communities, is working to strengthen awareness of and connection to regional research in rural Southeast Communities.

Connecting Research to Communities Action Initiative's goals are to:

- Support efforts to address the perceived lack of cataloged research projects currently being conducted in Southeast Alaska to strengthen community residents' and researchers' awareness, knowledge, needs, and relationship between community and research.
- Strengthen Southeast Alaska's research workforce pool of talent by building capacity in the region's remote and isolated rural communities to develop the place based and traditional knowledge inherent in residents of these communities that could serve as an invaluable base for a career in research of the region's natural environment.
- Open the lines of communication between rural Southeast communities and the region's research community.

This Action Initiative will work to achieve these objectives by creating a mechanism for communication between rural Southeast communities and research establishments.

The first step in creating a mechanism for communication between researchers and communities is to assess research projects currently underway in communities throughout the region, and to assess the current relationship between Southeast communities and regional researchers.

To complete this assessment, the Action Initiative Working Group has developed a brief survey to gather information on current community-based research in the region, as well as gauge key community stakeholders' perceptions of the strengths, needs, opportunities, and challenges that exist in the current relationship between communities and research.

Thank you for taking the time to complete this survey. Your thoughtful responses are critical to successfully building an effective link and mechanism for communication between Southeast Alaskan communities and regional research establishments.