

Alaska RSI Hosts National Native Science Council

The first meeting of those nominated to serve on the National Native Science Education Advisory Council (NNSEAC) was held at the Chena Hot Springs Resort on April 15. The council is sponsored by the National Science Foundation through the Alaska Rural Systemic Initiative, one of four rural systemic initiatives in the United States.

The purpose of the NNSEAC will be to facilitate the exchange of ideas on Native science, math, engineering and technology education between the Alaska Rural Systemic Initiative and the other RSIs, tribal people, school and communities and the National Science Foundation (NSF). The council will attempt to ensure that:

 indigenous components of school curricula illustrate knowledge and

- concepts that take into consideration standards-based science, math, engineering and technology education:
- the cultural integrity of Native knowledge shared by traditional elders is respectfully maintained by the schools, faculty and students:
- the science, math, engineering and technology curriculum and content is rigorous, while the level of

by Dorothy M. Larson

- teaching is appropriate for the grade and age level of the student;
- appropriate alternative assessments are utilized to account for cultural differences in student learning styles, teaching methodologies and curricular materials;
- the systemic initiatives promote and encourage opportunities for culturally appropriate community and technological development;
- the council membership serves as role models and career resources for teachers and students.

The Alaska RSI is implementing a comprehensive and systemic approach to reform in indigenous settings. The emphasis is on the utilization of traditional knowledge, ways of knowing and world views in the educational process. This indigenous knowledge system is intended to complement the Western curriculum in a way that will reorient schools to build on the local cultural context, moving from a local to a global perspective. The council will assist in focusing attention on indigenous perspectives about scientific knowledge and formulating a Native science agenda which shifts the focus in schools from teaching

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We welcome your comments and suggestions and encourage you to submit them to:

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Newsletter Editor: Lolly Carpluk Layout & Design: Paula Elmes *about* the culture to teaching *in* the culture.

The council will provide an important link between local, state and national initiatives in the documentation and utilization of Native knowledge systems which will strengthen the experiences of Native students by

demonstrating the applicability of traditional knowledge in understanding the contemporary world.

The council is intended to serve in a review and advising capacity to assist NSF in the formulation of programs, research issues, standards and assessment systems that are sensitive and responsive to indigenous perspectives in the areas of math, science and technology.

The council is expected to meet twice a year, once in Alaska and once outside the state. The Alaska RSI has submitted names for approval to NSF for the membership which includes members from the Alaska Native community, from Canada, other rural systemic initiatives and other organizations involved in indigenous education. The Alaska RSI is excited about working with those individu-



AN/REC participants (1 to r) Alice Petrivelli, Walter Soboleff, Sally Kookesh and Clarence and Mildred Irrigoo.

als and organizations on the council.

AN/REC

The Alaska Native/Rural Education Consortium (AN/REC) met at the Chena Hot Springs Resort in April. Prior to the consortium meeting, the co-directors, regional coordinators, staff, memorandum of agreement participants and other NSF-funded projects met to discuss the status and progress of the Alaska RSI's implementation program that began in mid-September.

Alaska RSI staff held a day-long staff meeting to hear regional reports, co-directors reports and to receive computer training. Dr. Gerald Gipp, NSF program officer for the Alaska RSI, and Dr. Jane Stutsman, also of NSF, were in attendance for a portion of the consortium meeting. The NSF



Ray Barnhardt gives computer pointers to regional coordinators Barbara Liu and Andy Hope.

staff gave an overview of the work of NSF in the area of rural systemic reform. The meeting provided an opportunity to share the work of other RSIs and other NSF-funded projects occurring in the nation and the state. The members of the Alaska RSI staff and ANREC were very happy that the staff from NSF were able to attend our meeting. It provides a closer working relationship and personal knowledge

of what is happening at the level where the initiatives are being implemented and for us to learn more about national perspectives.

The consortium meeting highlighted the Athabascan region and featured some of the activities taking place in different locations and with the school districts who are participating with memorandum of agreements and the Interior-Aleutians

Campus. It was exciting to hear from elders and educators of the positive things happening as they relate to the initiative taking place this year in the Interior—Elders and Cultural Camps.

The attendance and participation of the consortium members, elders and participating MOAs plays a very key role in the success of the Alaska RSI.

Village Science: Two Reciprocal Approaches

by Alan Dick

There are two vantage points from which we can develop local science curriculum. It doesn't have to be a complex process. Anyone with a sense of curiosity and ability to explore can conduct an inquiry. Add to that the desire to share with others and the means to do it in writing, and there is a lesson or unit from which students can benefit.

The two vantage points are:

- > Start with a science concept from:
 - physical science
 - chemistry (matter and it's properties)
 - physics (Newton's three laws & different forms of energy)
 - · earth science
 - · life science

Identify the concepts you want to teach and see how they relate to village activities or events. As you go through daily activities, hold the concepts in your mind and see how they apply. Example: The concept of "surface area" identified in the cooling fins on a chain saw,

- the importance in snowshoe design, the reason for donut holes, the reason leaves fall from trees in autumn, the reason rabbits have big ears, etc.
- ➤ Start with a village activity or event and look for the science concepts involved. Example: Look for all the science involved in a dog sled: low friction runners, leverage of the bridle and handlebars, high friction surface for the musher to ride on, shock cord smoothing the forces on the dogs, grain and structure of the wood, etc.

In viewing the local activity or events, the body of knowledge as well as process can either be: traditional, modern village and/or western. It might include:

- ➤ The activities of a season
- ➤ Aspect of life and survival:
 - travel
 - food gathering
 - building homes and shelters
 - entertainment
 - health concerns
- ➤ Technology, either traditional or adaptive.

The curriculum developer can start with the base they are most familiar with—either the formal scientific or the village perspective. It is amazing how the list grows over time. Ideas mature and come together.

Technology might be changing at a wild pace, but the same physical and spiritual laws and principles our great-grandparents worked with and against will influence our grandchildren in the same manner. There is comfort in that. We need to know those principles and work with them.

Summer Camps in the NANA Region

by Rachel Craig

Summer camps for children are created for any number of reasons. In the Northwest Alaska Native Association (NANA) region, it became important in helping the youth to develop positive self-esteem by learning how their forefathers lived and to be introduced to the culture that the forefathers developed in a land isolated from the rest of the world. When our grandparents' generation were growing up, they didn't give much thought to the way in which they were growing up because there were no other options. Their way of life was the only one they knew and they made the best of it. Dog teams were the mode of transportation, necessitating large stashes of dog food to make sure that these work dogs had enough to eat for good working health and survival. The dog's good health and survival ensured their owners' survival as well as making access to a variety of foods and resources possible.

In the late 1960s and early 1970s, there was a concerted effort in Alaska to affect land claims from the federal government. At the same time, our leadership was trying to upgrade the quality of life by making available government public housing for its citizens as well as water and sewer, electricity, telephones and television. Soon they found out that these improvements required payments and so available jobs became important in the lives of our citizens.

Somehow, in all this "busyness", a negative social malaise was developing in our society which the leadership was too busy to notice until it was upon us. For the first time in our history, we began to attend funerals quite regularly of young people who had committed suicide. Suicides had never been a part of our cultural history and we really didn't know how to react to them except with mixed emotions of horror, embarrassment and disbelief. Those of us who were

fortunate enough to hear the elders tell stories understood that a long life was a gift from the Creator for living according to the advice of the elders. Somewhere along the way there were barriers preventing our children from hearing the stories told to us by our elders.

Some of these reasons were educational policies by the federal government others were results of that policy—where the parents didn't know enough of the cultural stories to pass them on to the next generation, or the parents one-sided knowledge as a result of their education trying very hard to succeed in the Western cultural world that they read and heard about. Whatever the real reason, we were rudely and shockingly awakened to our responsibilities to bring some kind of balance to our lives.

The subsequent community meetings that ensued saw the listing of our cultural values that our elders say we

should never forget. The list included knowledge of language, sharing, respect for others, cooperation, respect for elders, love for children, hard work, knowledge of family tree, avoid conflict, respect for nature, spirituality, humor, family roles, hunter success, domestic skills, humility and responsibility to tribe. In other meetings, our elders said we should include thankfulness, honesty and treat everyone the same. These cultural values help us to get along with our neighbors anywhere in the world, not to mention being blessed to live a long life

After some group discussion, there were some tasks that we decided to take on to give a better cultural balance to our educational experience. First, we traveled to all of the villages to see if elders agree that the cultural values that we came up with were as their forefathers had taught them. The challenge of the village meeting was to see if the community would create an elders' council that the community could come to for consultation on any subject they wished to discuss with the elders. This elders' council advice would be the basis upon which decisions would be made affecting our community life.

Other decisions that were made were that we would have five "Inupiaq Days" in all of the village schools on those months when no major community activity was planned. This meant that in September, October, January, February and April the village grandmothers and grandfathers would be the instructors of the day in the regular school classrooms on the traditional Inupiaq culture. We found that this exercise instilled pride in the students when their own grandmothers and grandfathers were instructing the class, that there was less vandalism in

the village, less truancy in school and the grade point averages shot upward. In bigger schools like Kotzebue, three Inupiaq Days are planned to service the whole school in that month—grades K-2, 3-6 and 7-12. The Inupiaq Days are planned and geared to the education level of the students and both certified instructors and students learn what to them is "new material." Because of the school policies, most of the instruction is academic and this brings us to the role of the summer camps in our children's lives.

Manillag Association had a summer camp project that some of our youth attended. After the community meetings, the regional elders (made up of the presidents of the village elders' councils) advised us with the assistance of the NANA Corporation that the northern part of the Kobuk River Delta would be an excellent place for a camp since it was not encumbered with Native allotments. that the site was high enough to escape inundation from spring flooding and that berry picking, fishing and hunting were accessible. There was enough flat construction area to put in a central cooking/dining/meeting building, and to erect some log cabins for the camp staff and tents for camping children.

This was in the days of the oil boom and the legislature of the State of Alaska was very receptive and help-

ful to us. The Alaska Humanities Forum funded our proposals until they felt that we were not adding anything new and that they could not keep funding the camp indefinitely. Since the public sources dried up, we have been holding fund raisers (sock hops, biathlons, etc.) and the NANA Corporation and the Northwest Arctic Borough have subsidized the operations. All of our staff of elder instructors are volunteers, receiving per diem and travel to and from the camp. The other volunteers are paid by their employers while they assist at the camp, and some are parents who just want to help in the worthwhile project. The only paid employees we have at the camp are the cooks.

Orientation of the staff before the beginning of the camping session is very helpful to help set the stage for the overall objectives of the camp experience for the children. The camp director has a daily meeting with the staff every evening to plan for the next day. A camp nurse or tribal doctor is essential for any eventuality leading to the well-being of the children. The first day at camp the campers get a big dose of orientation for the week and expectations of the staff for their behavior and hoped for agromplishments. Working at camp with many children is a lot of work but there is a lot of satisfaction when the hoped-for objectives are met.

In addition to Camp Sivunnlugvik (a place for planning), the Upper Kobuk people have also established a summer camp which they call Ilisagvik (a place for learning). They are planning a dedication ceremony of the new camp soon, at which time the facility will be turned over to them. The Kotzebue Elders' Council is also sponsoring a seal hunting camp which will be set up at Riley Wreck (Kanilik, its traditional place name.) I imagine this will be for the older young people including some young married people who never had a chance to learn to hunt seal because their parents were too busy working when they were raising their children. In addition to seal hunting, the camp site abounds with whitefish, berries and greens. We hope that they will use pulling dogs to fetch water and haul firewood in their boats. This is an excellent way to keep costs down and learn selfsufficiency.

These sites were chosen by the elders because they felt that the young people could learn Inupiaq values by living in the traditional way. The elders give the youth an opportunity to learn how to become self-sufficient while practicing how to be a good neighbor: keeping busy working and listening to the elders, always getting ready for tomorrow, for next week, for next month, for next season, for next year.

This is how we think the summer camps can be beneficial for the lives of our families.

Rachel Craig
P. O. Box 1110
Kotzebue, AK 99752

Best Wishes Rachel!

Rachel Craig will be retiring in July and moving with her husband to the state of Washington. However, all is not lost, Rachel plans to stay involved in Native issues pertaining to Alaska. As Rachel says, "Airfares from Seattle to Anchorage are friendlier than from Kotzebue to Anchorage anyway."

We'll miss you Rachel and best wishes on your retirement!

NANA Region Update

by Robert Mulluk, Jr.

was recently transferred from Selawik schools to the Bilingual department in Kotzebue. With my remaining time for the school year I have been assigned to help Elmer Jackson, the Inupiaq regional coordinator.

Recently Ruthie Sampson and I visited Elmer at Kiana and drew up a plan for the remainder of the year. Getting involved with this program has given me incentive to visit each

returning principal before school is out and pass on some information about the Alaska Rural Systemic Initiative and the American Indian Science and Engineering Society (AISES).

The Trained Hunter

All the training you received Too young to even try Fear of the wilderness Haunt you to try your skills.

Many trips you slept Maturity and interest open one eye Involvement and trust got both First caribou too proud to stop now.

Knowledge of culture is of part Gunner at the age of seven Used all ammo but got more Uncle Joe's expertise to the bulls eye.

Training is every season of the year Each animal has its killing season The real training comes when you're alone No one to tell you the way or how.

You soon applied all you've got Moose, muskrats, caribou, lynx, and more The animal instinct is source of survival But the hunter must out smart.

Now you journey with no fear Confidence is your trade mark Success is your hunting trips At last you are a trained hunter!

— "Aqpik" Robert Mulluk, Jr.

During the first week of April, Oscar Kawagley and Claudette Bradley-Kawagley visited Kotzebue. They made a presentation at the Kotzebue Middle/High school with an excellent turnout. They also had an opportunity to visit the Kotzebue Elementary Inupiaq Day where they watched students have an Inupiaq spelling bee and students learning how to retrieve seal or *ugruk* (bearded seal). Many other activities were happening, but with their tight schedule, we went to each classroom for only a few minutes.

The Northwest Alaska Native Association (NANA) region has approximately four summer camps for students to learn cultural knowledge during the summer months. The upper Kobuk Inupiat have an Ilisagvik Camp which teaches students of the Upper Kobuk about the subsistence lifestyle and hunting and fishing techniques. The Kutvak camp at Selawik is named after a good friend and mentor. The camp teaches how lifestyles in that area are important and the first step in survival are learning their cultural background. Kiana also has a camp which does not have an official name but it is referred to as the Elders' Camp. I heard it was once called Elmer's Camp. The main camp in the region is Camp Sivu located on the Melvin Channel which is a tributary of the Kobuk River. This is a larger camp, has a bigger turnout and usually goes on for about a month. Students learn to set nets, cut fish, proper gun safety, preserving food, boat safety and many other interesting topics. The NANA region is already involved with educating students the importance of cultural pride and self-esteem. Knowing yourself and culture will give you a positive and high expectation of yourself.



Dog Point Fish Camp

og Point Fish Camp is sponsored by North American Traditional Indian Values Enrichment (NATIVE), a non-profit 501(c)3 umbrella organization that also sponsors workshops and educational field trips for local children ages six to sixteen. The year round fish camp began in 1988 as a way to renew our Native Alaskan lifestyle, philosophy and to teach respect for our environment and each other.

The staff are all volunteers. We don't want money to interfere with who, what and how we teach. Everyone is there because they care. Grandparents and elders make guest appearances to share language, old legends and personal experiences. Uncles and aunts teach hunting and gathering skills. Specialists are loaned

from the Southeast Alaska Regional Health Corporation, Alaska Marine Safety Education Association and Sitka Sportsman's Association to teach water, boat and hunter safety. Parents are encouraged to participate as much as they can. Teachers become students and students become teachers.

by Roby Littlefield

One of our goals is for the children to experience the everyday life of our elders of long ago. The children learn to eat Native foods, work hard, enjoy being outdoors in all weather, develop problem-solving skills and respect themselves, each other and elders.

We serve twenty-five to thirty-five students at each of the three summer programs. Both Native and non-native children are welcome. There is no charge to the students but donations of any kind are greatly appreciated. For more information on Dog Point Fish Camp, contact Roby Littlefield at (907) 747-6866.

Congrats to Dolly Garza!

ongratulations to Dolores A. Garza who graduated May 25, 1996 from the University of Delaware with a Doctorate of Philosophy in Marine Policy. Dolly's dissertation topic was *Policy Options for Managing Alaska's Herring Resources*.

Dolly was recently selected to serve on the National Native Science and Education Advisory Council.

Good work Dolly!

Pribilof Stewardship Camp 1996

by Aquilina Bourdukofsky and Poppy Benson

The Pribilof Stewardship Camp began in 1992 as a two-week day camp on St. Paul and St. George islands. By 1995, the camp had expanded to a four-week camp on St. George and seven weeks on St. Paul including several overnight camping trips. About forty children participated on each island. Camp is set to begin its fifth season June 24 on St. Paul and July 8 on St. George.

The camps are the result of a challenge cost share agreement between the U.S. Fish and Wildlife Service, the Pribilof School District, the cities of St. Paul and St. George, Tanaq Corporation, Tanadĝusix Corporation, the traditional councils of St. Paul and St. George and the Nature Conservancy. A committee with representatives from these organizations provides direction and fundraising for the camps.

The goal of the camp is to "bring together Western science and Aleut traditional knowledge and experience and to help young people understand, appreciate and practice stewardship."

Camp activities are focused on seabirds, fur seals and the Aleut culture. On St. Paul Island, the Stewardship Program has expanded to include year-round activities including beach cleanups, baidar restoration, Aleut arts and crafts and elder and teen programs.

For more information contact the Pribilof Stewardship program director, Aquilina Bourdukofsky at the Tanadĝusix Corporation at (907) 546-2312 or for St. George Island, contact Georgia Kashavarof at the St. George Island Traditional Council (907) 859-2205.

Cross-Cultural Orientation at Old Minto Camp

by Ray Barnhardt, Robert Charlie and Bill Pfisterer

For the past seven summers UAF Summer Sessions, in conjunction with the Cultural Heritage and Education Institute of the village of Minto, has been offering an opportunity for students in selected summer courses to spend a week at the Old Minto Cultural Camp on the Tanana River under the tutelage of the local Athabascan elders. The program is designed for teachers and others new to Alaska who enroll in the Cross-Cultural Orientation Program (X-COP) course, as well as for students entering the UAF graduate programs in cross-cultural education. This year, the camp will be extended and will include additional activities associated with the Alaska Rural Systemic Initiative.

Participants in the Old Minto Cultural Camp are taken thirty miles down the Tanana River from Nenana by river boat to the site of the former village of Minto, which was vacated around 1970 when the new village of Minto was constructed near the Tolovana River on the north end of Minto Flats. The people from Minto set up the Cultural Heritage and Education Institute as a non-profit entity, with Robert Charlie as director, to help them regain control over the old site and put it to use for educational purposes. In addition to the UAF Cultural Camp, the site has been used by the Minto Elders to provide summer and winter cultural heritage programs for the young people of Minto as well as for other groups from as far away as New York. The Tanana Chiefs' Conference has been using Old Minto as the site for a very successful alcohol and drug recovery camp as well. Despite state restrictions on the use of the site, participants in the various Old Minto programs, including the UAF students, have been able to restore several of the old buildings, clean up the cemeteries, clear two campsites and construct a fishwheel, a smoke house, drying racks, outhouses,

kitchen facilities, a well, etc.

Participants in the X-COP program spend five days at the camp, arriving in time for lunch on Monday and then spending the remainder of the first day making camp, including collecting spruce boughs for the tents and eating area, bringing in water and firewood and helping with the many chores that go with living at a fish camp. Except for a few basic safety rules that are made explicit upon arrival, everything at the camp for the remainder of the week is learned through participation in the on-going life of the people serving as our hosts and teachers. Volunteer work crews are assembled for the various projects and activities that are always underway, with the elders providing guidance and teaching by example. Many small clusters of people—young and old, Native and non-Native, experts and novices—can be seen throughout the camp busily working, visiting, showing, doing, listening and learning. Teachers become students and students become teachers. At the end of the day, people gather to sing, dance, joke, tell stories and play games. The last evening, a potlatch is held with special foods prepared by the

camp participants and served in a traditional format followed with speeches relating the events of the week, to life and history of the area and the people of Minto. By the time the boats head back upriver to Nenana on Friday, everyone has become a part of Old Minto and the people whose ancestors are buried there. It's an experience for which there is no textbook equivalent. What is learned cannot be internalized vicariously but is embedded in the learning experience itself, though not everyone comes away having learned the same thing. In fact, one of the strengths of the camp is that participants come away having learned something different and unique to (and about) themselves.

The Old Minto Camp experience (which occurs during the middle week of a three-week course) contributes enormously to the level of learning that is achieved in a relatively short period of time. Part of the reason for this is that students come back to class during the third week with a common experience against which to bounce their ideas and build new levels of understanding. More significantly, however, students are able to immerse themselves in a new cultural environment in a non-threatening and guided fashion that allows them to set aside their own predispositions long enough to begin to see the world through other peoples' eyes. For this, most of the credit needs to go to the elders of Minto, who have mastered the art of making themselves accessible to others, and to Robert and Kathy Charlie, who make it all happen.

The greatest challenge when we return to campus is to provide ways for students to carry over what they have learned at Old Minto to their future practice as educators, while at the same time helping them to recognize the limitations and dangers of over-extending their sense of expertise on the basis of the small bits of insights they may have acquired on the banks of the Tanana. By taking the teachers to a camp environment for an educational experience of their own, we hope to encourage them to consider ways to use cultural camps and elders' expertise in their own teaching. Teachers, school districts and communities throughout the state have sponsored camps for a wide variety of purposes (as the articles in this issue of the SOP newsletter illustrate).

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Camp participants gather in a circle to listen to Robert Charlie on potlatch day.

Students' Fall and Winter Hunting and Gathering

In March I brought seven boys out beaver trapping. The first day I showed them how to pitch a wall tent and lay spruce boughs on the ground to keep dry and warm. On the second day we put in thirty-eight beaver sets. The ice was at least forty-eight inches thick so the boys worked real hard. We didn't catch any beaver the first time we looked at the sets, however, on our second trip out we picked seven beaver and two otters. The boys skinned the animals and divided the beaver meat among themselves. Another job well done.

Students Fall & Spring Activities

Every September for the past four years I've been bringing the high school boys from the Andrew K. Demoski School moose hunting. This past fall I brought the entire high school—boys and girls. It was a real nice trip and a learning experience on how to deal with thirtysix students going in three or four different directions.

On our second day out a bull moose came out on the sand bar across from the camp; the older boys crossed over with the boat and shot it. They returned to camp and brought the rest of the younger

by Maurice McGinty

boys over and showed them how to skin, butcher and hang the meat the way I've been showing them for the past three years.

Later the girls went up on a small hill behind the camp and picked cranberries with Tammy, a teacher who helped me chaperone the girls. While the girls picked berries, the boys tried their luck fishing for sheefish; we did catch a couple.

After we returned to Nulato the students held a potlatch for the community with the moose meat. They made fish ice cream with the sheefish and used the cranberries in the ice cream.

I am extremely proud of these students and I can only hope their parents and guardians feel the same way. •

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but in many instances the camps are treated as a supplementary experience, rather than as an integral part of the school curriculum. We hope that graduates of Old Minto will lead the way in making cultural camps and elders the classrooms and teachers of the future in rural Alaska, which is also why "Elders and Cultural Camps" is one of the five major initiatives that will be implemented through the Alaska Rural Systemic Initiative in each cultural region over the next five years.

Additional Resources

Along with the examples of cultural camps described in this newsletter, the following are additional resources that are available for anyone interested in implementing a camp

or involving elders in their own school or community. Copies of these resource items can be requested from the Alaska Native Knowledge Network at the cost of reproduction.

ANHRDP. (1980). "The Drum: Gaalee'ya 'Bear Child' Camp." Anchorage: Alaska Native Human Resource Development Program.

Carter, P. (1995). "Camping for the Spirit: A Directory and Resource Guide for Camps that Teach Subsistence Skills and Values." Anchorage: Alaska Department of Fish and Game.

Grubis, S., & Ommituk, C. (1992). "Elders in Residence: The Point Hope Partnership." Juneau: Alaska Staff Development Network

Henley, T. (1989). "Rediscovery: Ancient Ways—New Directions." Vancouver, B.C.: Western Canada Wilderness Committee



Drying fish show the elders' expertise in filleting salmon.

Waahyi, J., & George, M. (1994). "Knowing Something Different: The Savoonga Subsistence Science Project." Savoonga: Savoonga IRA Council.

Western Alaska Natural Science Camp

by Lorrie Beck

Since 1992, the Western Alaska Natural Science Camp has provided students of the Yukon-Kuskokwim Delta an opportunity to learn about the wonders of natural science by blending traditional Yup'ik knowledge with Western science techniques. Goals of the camp include educating Western Alaska students about traditional values, knowledge and skills and about scientific knowledge and skills relating to the natural world around them so they may become well informed decision-makers about the environmental resources of their region in the future.

The U.S. Fish and Wildlife Service received a \$20,000 grant in 1992 to fund the first camp. As partners, the Alaska Department of Fish & Game, Association of Village Council Presidents, Calista Corporation,

Kuskokwim Campus, University of Alaska Fairbanks and the National Audubon Society contributed monies and in-kind services (materials, labor, equipment and facilities) to match this grant. In 1993, the Kuskokwim Campus and the University of Alaska Fairbanks received a three-year grant from the National Science Foundation (NSF) which provided \$45,000 annually through the summer of 1995. This enabled us to expand the camp and provide opportunities for thirty students to attend one of two sessions during July.

The staff of the camp has evolved over the years to include a camp director, camp cook, and five staff teaching assistants. During each camp session, numerous guest speakers from the cooperating agencies visit the camp and make presentations. Elders and tradition bearers visit the camp sessions and make presentations on their knowledge of traditional Yup'ik

natural resource management techniques and values.

Camp brochures and application packages are sent to schools in the Lower Kuskokwim, Lower Yukon, Yupiit, Kuspuk, Kashunamiut and St. Mary's school districts. Students thirteen to sixteen years of age are eligible to apply. Applicants are rated on the letters of recommendations required from a science/math teacher and village elder/leader plus their level of interest as exhibited on the application form. A numerical rating system is used when evaluating applications, however, we select students based on diverse village representation as well as high scores. In past years, we have received over 100 applications for the thirty positions, so competition is keen.

Through our cooperative agreement, we have developed a good working relationship and have continually been successful in recruiting students for the camp. To date, over 100 students from the Yukon-Kuskokwim Delta have attended one of the two ten-day sessions we offer during July. Guest speakers provide agency specific presentations, which outline skills and education students will need to obtain careers within that agency. Hands-on activities are also conducted that reinforce the skills needed for various jobs. For example, students $examine\ rocks, pan\ for\ gold\ and\ study$ geologic maps during Calista's "Geology Day".

We have had Alaska Native people serve on the science camp planning committee since the camp's inception. They've represented AVCP (fisheries, biologist/natural resources biologists), Calista Corporation (geologist), Kuskokwim Campus, UAF Resource Apprentice Program for Students (RAPS—student mentors) and U.S. Fish & Wildlife Service (Native Contact Representative/Refuge Information Technicians).

AISES Corner (American Indian Science & Engineering Society)

by Claudette Bradley-Kawagley

The spring semester has ended for University of Alaska Fairbanks. This brings another successful semester for the UAF AISES chapter to a close.

The students have elected new officers for the coming academic year:

President: Mark Blair, graduate student in anthropology, from Kotzebue/Detroit

Vice President: Sasha Atuk, junior in mechanical engineering, from Fairbanks

Secretary: Kim Ivie, junior in education, from Fairbanks

Treasurer: Ambrose Towarak, junior in civil engineering, from Unalakleet

AISES students ended the year with two interesting guest speakers. Pierre Deviche, Professor of Wildlife Biology at UAF, spoke on song birds and how they learn the songs through imitation and practice, much like humans learning songs. Dave Gilliam, Professor at University of Northern Colorado, spoke on risk factors with Fetal Alcohol Syndrome.

UAF AISES students are preparing a fall fundraiser (for travel money) to attend the AISES National Conference in Salt Lake City, Utah, November 14-17, 1996. Region I includes AISES chapters in Montana, Idaho, Washington, Wyoming, Oregon, Canada and Alaska. Region I AISES Conference '96 occurred at the University of Washington, March 28-31. March 6, 7 and 8, 1997, Region I AISES Conference '97 will be at the University of Alaska Anchorage concurrently with the Alaska Native Foundation (ANF) Festival.

During the first week of April Claudette Bradley-Kawagley traveled to Kotzebue, Nome and Unalakleet to talk with school district administrators, math and science teachers and students about AISES and the benefits for AISES chapters in schools K–12. Students are never too young to join AISES and learn about mathematics, science and their relationship to Native people and the future self-sufficiency of Native people.

Oscar Kawagley attended the meetings and spoke of the importance of students developing village science application projects for an Inupiaq science fair to be held early winter 1996. The Alaska Rural Systemic Initiative will sponsor an Inupiaq science fair for the students of North Slope, Northwest Arctic, Bering Straits and Nome public school districts.

Oscar and I want to thank Bernadette Alvanna-Stimpfle and Elmer Jackson as well as the school district administrators and teachers for arranging meetings and making it possible to achieve our goals.

Fourteen students at Ilisagvik College, Barrow, Alaska, have started an AISES chapter. Students have elected officers:

President: Daniel Lum Vice President: Aaron Cook Secretary: Felton Sarren Treasurer: Daniel Wright

Tenstudents attended the AISES Region I Conference '96 at the University of Washington. The conference gave students inspiration and ideas for operating the AISES chapter at Ilisagvik. Congratulations, Ilisagvik College, on your new AISES chapter!

Aleut Regional Report

First of all I would like to thank the staff, Dorothy M. Larson, Oscar Kawagley, Ray Barnhardt and all the regional coordinators for welcoming me on board to the Alaska Rural Systemic Initiative project.

Life is amazing at times. I was thinking back to the time when I first heard about this job. I wasn't aware that it was being advertised until I went to the Bilingual/Multicultural Conference in Anchorage in February of this year. I have been on the job full-time, since April 1. Since then I have made contacts with the school districts, tribal councils and village corporations familiarizing them with the program in rural Alaska villages. Most recently we had a staff and consortium meeting in Chena Hot Springs, April 12-14. This was a valuable experience for me since it gave me direction as to where to go from here. A lot of the questions that I had on the project were answered at that meeting.

There have been a lot of activities going on in the Aleut Region this month. I followed up on the MOAs with interested organizations that I contacted. I am looking forward to working with this program and people involved. What I am really interested in doing this time around is the collection of Indigenous knowledge from elders in villages where that kind of information is still obtainable.

I had a chance to attend one of the Federal Subsistence Board meetings on April 30, 1996. The board was meeting with chairs or representatives of all ten subsistence regional advisory councils in Anchorage. There they deliberated over proposed changes to the taking of the wildlife on federal public lands such as seasons and bag limits, customary and traditional determinations, etc. At this

particular meeting the board, which relies on the Western biologists in making their determination, instead listened to one of the Chairs testify on behalf of his region and was successful in convincing the board to look at by Moses (Qagidax) Dirks indigenous knowledge as well as local knowledge as an integral part of the process.

As regional coordinators, I feel at this point we could have a big impact in the documentation of indigenous knowledge so that it can be integrated together with Western science.

I am looking forward to working with each and every one of you. If you need anything please call or e-mail me.

Southeast Regional Report

by Andy Hope

Imet with Sitka community representatives on May 3 to discuss possible development of a tribal archive at the Sheldon Jackson College (SJC) Library, which is a consortium library (University of Alaska Southeast-SJC). The basis for the library would be an inventory of Native audio and video tapes catalogued by Jana Garcia in 1993. Meeting participants requested a workshop on archival management and development be conducted by Bill Schneider of the UAF Rasmuson Library, Evelyn Bonner of Sheldon Jackson Library and Jana Garcia, an independent archive consultant. The group requested that the workshop take place prior to fall 1996. The Sitka archive will serve as a regional educational resource once it is established.

Oscar Kawagley and I met with representatives of the Chatham and Sitka School Districts the week of May 6. We also met with community leaders in Sitka and Angoon. The Southeast Elders' Council will meet in Juneau on June 7. Council members are: Arnold Booth (Metlakatla), Chair; Charles Natkong (Hydaburg); Gil Truit (Sitka); Lydia George (Angoon); Joe Hotch (Klukwan) and Isabella Brady

(Sitka). The elders' council will also serve as guest lecturers for a summer Teacher Academy multicultural course taking place in Juneau from June 3–7.

The Southeast Native Educators group will organize in Juneau on June 5. This group will be modeled on similar Native teacher groups in Dillingham, Bethel and Fairbanks.

Athabascan Region Summer Events

s warmer weather, longer days and the bugs arrive, it's time to think about outdoor activities for the whole family, summer students, community and other populations that enjoy the great outdoors. Whether it will be a one-, five- or ten-day outing.

Put your dream of camping into a reality. Reach for that paper and pencil to make your list of things to bring out camping while you are keeping in mind how much room you will have in the boat, car or plane to carry all that stuff.

First things first, ask who is planning to go. Okay, now second, think of the camping skills they would have to offer either as a good fish cutter, an operator of the net or fish wheel, a river navigator who could find a good "eddy" to use for the net, a crafts

person who uses what nature has provided to use as tools, wood by-products, skin sewer, hunter and gatherer, user of medicinal plants or berries, a storyteller/historian who remembers the old days on how it use to be or how it became a popular campsite, who the ancestors were, one(s) who seem to "keep vigil over the site," the spirits of past generations, etc.

Make a list of how much food will be needed and what is already provided by nature: fish, meat, ducks, etc.

<->

by Amy Van Hatten

Check for what staples are in the house or at your neighbor's. (Leave behind the junk food, ear phones with CD players and the like.) The list is endless and each of us have different needs. After all, the goal is for everyone to have a relaxed and a very memorable time at camp.

I know! Think of what you will need in terms of the ABCs of camping, for example, A is for ax, B is for boat, C is for cutting knives, D is for drying racks and F is for fun!

Camping out in Alaska has a rich history. It was a way of survival. A way of life. It was our ancestor's traverse ways that made this country what it is today. Camping was born out of the traditions of the past. Enjoy that time together!

Youth Survivor's Camp

by Kimberly Carlo, Native Village of Fort Yukon

Youth Survivors' Camp, six miles out of Fort Yukon, is a camp for youth that is open all summer long. The grand opening will be on June 16, 1996, Father's Day. Our whole community is welcome to come and enjoy the camp and utilize it. We hire a camp manager to take care of the camp. This year the youth are going to select who the camp manager will be. They will go over the applications and make their selection since they will be at the camp with them all summer.

We try to hold an annual youth conference and have been successful in this for the past three years. Last summer we were working with the Council of Athabascan Tribal Governments (CATG) for a fish-counting project. The youth were employed by the project; they also built a fish wheel!

All youth are welcome to go to the camp and most do. Youth under the age of eight have to be accompanied by a parent, but eight years and up are welcome to stay at the camp as long as they want.

For summer projects, they check the fish net and wheel and cut and dry the fish. They also learn how to live out in the woods and off the land.

We plan to have several projects this summer and employ one youth to be a youth mentor to teach their peers and younger youth how to survive in the woods.

Inupiaq Regional Report

by Elmer Jackson

n April 25, Ruthie Sampson, Bilingual/Bicultural Coordinator and Robert Mulluk, Jr. came to Kiana to meet with me to make plans for the Northwest Arctic Native Association (NANA) Region. Robert (Bob) has plans to visit principals at their school sites to inform them about the Alaska RSI project. He has already made trips to some school sites. My task was to call the KOTZ radio station in Kotzebue to make arrangements for the Live Morning Talk Show and taping a segment for Northwest Perspective.

On April 29, Sue McHenry from the UAF Rural Student Services met with high school seniors who are planning to attend the university in the fall. Our plan was to also talk about American Indian Science and Engineering Society (AISES), but due to time constraints and her flight not arriving on schedule, we were unable to. I met with teachers Tom Cyrus and Ms. Kennedy and made plans to talk to students about AISES. We met with the students on May 3rd.

I attended the Northwest Arctic Borough School District (NWABSD) bilingual/bicultural curriculum meeting on May 5 & 6. I gave an update on the Alaska RSI project. The curriculum committee reviewed the draft of the philosophy statement for the Inupiaq language and curriculum. The committee also worked on the assessment of Inupiaq language and culture instruction.

I made plans to attend the village Project WILD facilitator training, that will be held in Palmer May 30–31. I feel that I will benefit from this facilitator training, especially obtaining information for village science.

I've written to Dr. Paul Reichardt, Dean of the College of Natural Sciences, UAF to make plans for the Scientists-in-Residence Program to get started next fall when school begins. If there are other scientists or teachers who would like to be involved in the program, please contact me by writing or faxing a message to me at (907) 475-2180.

There are probably many of you who have interesting and exciting lesson plans in the natural sciences. I would like to see a collection of plans that involves your students with hands-on activities that may occur during Inupiaq Days at the schools or at the cultural camps. Village science involves teachers and students to study and learn the Inupiat values. When we go fishing or huntinganything that involves our environment, the students are studying science. Please include the Inupiat words in your plans. If we gather lesson plans that involve the natural sciences, teachers can share them with their students.

Let me close with one goal: To collect lesson plans in the natural sciences for the purpose of sharing with teachers and students in all schools. *Taikuu.*

ARSI Contacts

The ARSI Regional Coordinators are located in five regions within the state of Alaska. They are listed below to help you identify the correct contact.

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by Barbara Liu

Yup'ik/Cup'ik Regional Report

regional elders' meetings. Clearly, as

*ama-i!*Summer greetings to all our readers. As I write to you from my region, the geese have arrived on their way to nesting grounds along the coast. Smelt and salmon will hit the main rivers en route to spawning grounds as well. The fish remind me of a bird watching lesson I learned from an elder. Hundreds of western sandpipers flying above the water right after break-up means the smelt have hit the rivers.

In working with the project the past several months, I have stressed the need to provide Yup'ik/Cup'ik elders ample time and place to share their knowledge. Needless to say, our state's Native elders are the last living scholars of this knowledge Alaska RSI endeavors to capture.

The past few months I've attended state and regional meetings and lis-

tened to plans and opportunities in education geared for our children. There are two general thoughts voiced at regional meet-

ings by elders that I challenge all of us to address. The first translated statement is from a male representative from Kwigillingok who said, "You there, in a position to make decisions, are empty of elders knowledge; so am I and we have very few elders left who are full of that knowledge." At another meeting, the following translated statement was eloquently voiced by an elderly Kwethluk woman in her eighties, "It seems you're late in including elders in the school. You should have started including elders a long time ago." These statements amplify what our Athabaskan region coordinator reported in our last newsletter (Sharing our Pathways, vol. 1 issue 2, April 1996) calling it an emergency to utilize our resources while

we can. Is it not time to place respectable elders in the forefront and pay them the respect that they deserve? Recently one bilingual director for a school district put it very well regarding indigenous knowledge: "We have to treat elders knowledge equivalent to Ph.Ds."

If and when we act on this now budgeting time for elderly men and

"It seems you're late in including elders in the school. You should have started including elders a long time ago."

> women in the school setting—I believe our dying native languages have a chance for survival. Alaska Native language research from the 1970s indicates language loss continues as a serious threat and now it's too late to revive the Eyak language. First the land and now the language, but I believe we can fight the battle and win with the language. Elders must have a place in the system especially with the Yup'ik, Inupiaq and Athabaskan language immersion schools on the rise. Some of the key people that can make it work effectively are grandparents and parents who speak the language. Additionally, the Alaska RSI project must address education reform prioritizing the use of Alaska Native languages in

we continue to allow the English language to dominate everything, we will never connect and grow with our elders "doctorate" knowledge. Finally, the first Yup'ik immersion

classes began in Bethel this past school year since the planning stages began nearly nine years ago. It started out with a couple of concerned teachers and parents who felt Bethel's bilingual program should improve. Loddie Jones, who now teaches one of the immersion classes, and myself were on a Yup'ik/Cup'ik-only talk show at the KYUK radio station. It was truly heartwarming as calls flooded supporting our endeavor. With the help of a young anthropologist doing research and presenting data to people who make decisions and many more parents who came out in support, Yup'ik immersion is now in motion. Workshops on it sure energized the state's bilingual conference in Anchorage this past winter. One conference participant I know put it this way, "That was the best workshop I went to in a long time." Well, in closing I want to say quyana to all those who make a difference with or without language immersion, especially to grandparents and parents for their patience and all the support you give outside the school setting. Wishing everyone a safe and constructive summer.

Upcoming Summer Camps in the Interior

- ♦ "Spirit Days" in an Anchorage park, June 13–15.
- ♦ Elders & Cultural Camp in old Minto, July 1–10.
- Academy of Elders/Native Teachers Camp at old Minto, July 27-August 7.
- ◆ Tanacross Spirit/Survival Camp, July 22–25 at Mansfield.
- 4-H Youth Cultural Camps will be held in the Tanana Chiefs Region. TCC/IRHA rural communities may contact TCC 4-H department for inquiries on camps for 1996 or 1997.
- ► Earthquest II, June 18–27 at Central for rural students throughout Alaska in grades 10–12.

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