

PROJECT INFORMATION

Lead Principal Investigator	Dennis O'Rourke
Institute	University of Utah, Department of Anthropology
Project Title / Grant #	Collaborative Research: IPY: Reconstruction of Human Genetic History Along the North Slope (0732846)
NSF Program and Manager	NSF\OD\OPP\ARC\ASSP, Dr. Anna Kerttula
CPS Project Manager	Steven Hastings and Faustine Mercer

LOGISTICS SUMMARY

For this IPY collaboration involving 0732846 (O'Rourke, U Utah, LEAD) and 0732857 (Hayes, Northwestern University), scientists will document geographic patterns of genetic variation in both prehistoric and modern human populations along the North Slope of Alaska; further, they will assess how the ancient residents of arctic Alaska are related to contemporary Inupiaq populations throughout the Arctic.

The researchers will study contemporary DNA collected from North Slope communities such as Barrow, Point Hope, Wainwright, Nuiqsut, Pt. Lay, Kaktovik, Anaktuvuk Pass, and Atqasuk, Alaska. Ancient DNA will be collected from the Nuvuk site near Barrow; in addition, the researchers will study Birnirk and Kugursugaruk skeletal remains in the Smithsonian Museum collection. The two PIs on this project will each focus on a component of the work: Hayes will conduct current DNA investigations, while O'Rourke will study the ancient material. The logistics will be somewhat independent one from the other: for the ancient work, O'Rourke will stay in Barrow, traveling daily between his base and the Nuvuk site; for the contemporary DNA work, Hayes will make multiple visits with a local high school student to Alaskan communities each summer, sometimes in the company of O'Rourke.

Field work will begin in February 2008 and continue seasonally through 2010.

In 2008, O'Rourke visited Barrow, basing there and traveling back and forth to the Nuvuk burial site. He used a laboratory in the BARC to extract/analyze the DNA. Meanwhile, Hayes collected DNA samples from study participants in Barrow and Atqasuk. In 2009, O'Rourke returned to Barrow in early June, working there on the Nuvuk burial site into mid-July. Hayes collected DNA samples from study participants in 2009 in Kaktovik and Nuiqsut.

In 2010, the O'Rourke team will arrive in early July and work on the Nuvuk burial site to the end of July with laboratory work continuing until the middle of August. The researchers will use ATVs and trucks to access research sites. With coordination assistance from Dr. Sheehan of BASC, Drs. Hayes and O'Rourke and possibly one other team member will visit Point Hope, Point Lay, Kaktovik and Anaktuvuk Pass, spending three days at each of the villages. They will present their work at each location, and, with facilitation by a local coordinator, collect DNA samples from study participants. As needed, the PI will arrange assistance from local students.

Within a year of the award's completion the PIs will archive sequence data in GenBank, and the population frequency data in ALFRED and dbSNP. All three open-access databases are commonly used as data repositories for genetic data. The scientists will remove identifying information prior to submitting the data.

From the 2009 summer season onward, CPS will work with BTS Professional Services (BTSPS) and other local organizations to provide lodging, meals, lab space, vehicles, travel between villages, and safety gear. BTSPS has engaged the Barrow Arctic Science Consortium to provide on-the-ground support in Barrow. The PI will work with BASC directly to arrange/pay for local and village high school student participant and community center rentals. Arrangement for all village activities and permits will be made through consultation and assistance from the BASC Senior Scientist, Glenn Sheehan. The PI will pay for all other costs associated with this project through the grant.

For the complete CPS online project record for this grant, including science objectives, go to:

http://www.polar.ch2m.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0732846

OUTSTANDING ACTIONS AND NOTES

Issue	Responsibility	Date Due	Date Completed/ Comment
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	Prior to fieldwork.	Completed
Researchers are responsible for all permits required to conduct fieldwork, though assistance is available. Contact Glenn Sheehan to initiate the permitting process.	PI	Varying in complexity, from 2 weeks to 6 months before arrival date	Completed
Researchers must initiate contact with all local and community organizations as appropriate to discuss and present their planned work (for example, whaling commission if research will occur during whaling season). Contact Glenn Sheehan for assistance in making these contacts.	PI	As early as possible before arrival date, at least 1 month ahead	Completed
Note: An on-site project POC must be identified if PI will not be part of field deployments	PI	Prior to deployment	Completed
Note: For long distance calls from Barrow, researchers should plan to bring phone cards or use their personal cell phone. Only certain cell phone suppliers work in Barrow (AT&T, ACS, GCI, Verizon. For more information, please contact your supplier).	Field Team Members		
Researchers need to make all housing and flight reservations for travel to villages as well as purchase food when required. Contact information for flights and housing for PO's and phone number can be obtained from Barrow Project Managers Faustine Mercer or Steve Hastings	Field Team Members	ASAP as rooms and flights in and to villages subject to availability	
Make housing reservation and select meal plan	Field Team Members	3 weeks before desired arrival date	
Note: For researchers selecting meal plan options 2 or 3: Cafeteria prices are \$53 per day for the Pay Up Front Plan (plan 2) and \$15 per day for the Hybrid Plan (plan 3). Hence, daily reimbursements for those researchers who have selected plan 2 will be \$53, and \$15 for those who have selected plan 3.	Field Team Members		
Keep boarding passes for meal reimbursements. Keep receipts for any other agreed-upon reimbursable expenses. Turn them in to Faustine Mercer (see contact info below) as soon as your fieldwork is complete.	Field Team Members	As soon as fieldwork is complete	
Please be prepared to participate in a teleconference with CPS, BTS and BASC to discuss in detail the logistic support expected by your project and make sure we have accurately identified your needs.	PI	3 weeks before desired arrival date	Completed

Please be prepared to attend an orientation with CPS/BTS and a BASC in brief upon arrival	Field Team Members	Upon arrival	
Research group is responsible for the retrograde of all grant-owned equipment from lab spaces and storage areas at end of grant period.	PI	Before leaving Barrow	
Decide on dates for visits to villages and inform CPS	PI	ASAP	

FIELD TEAM INFORMATION

Name	Location	Date In	Date Out	Email
Hayes, Geoffrey	Kaktovik	TBD	TBD	ghayes@northwestern.edu
	Point Hope	TBD	TBD	
	Point Lay	TBD	TBD	
	Anaktuvuk Pass	TBD	TBD	
	Barrow	TBD	TBD	
O'Rourke, Dennis	Kaktovik	TBD	TBD	orourke@anthro.utah.edu
	Point Hope	TBD	TBD	
	Point Lay	TBD	TBD	
	Anaktuvuk Pass	TBD	TBD	
	Barrow	07/07/10	TBD	
Raff, Jennifer	Barrow	07/07/10	07/24/10	jennifer.raff@anthro.utah.edu

ALLOCATIONS AND SERVICES

The below tables describe the NSF-approved support scope for your project. Your support will be managed to these allocation levels. Requests to exceed this scope will require NSF approval. The Scope Management Policy is available here: <http://www.arcticscience.org/pdf/BarrowScopePolicy.pdf>

Housing & Meals

Support	Description	Unit	Allocation	Comment
Barrow	Meals and lodging	Days	60	
Anaktuvuk Pass	Meals and lodging	Days	9	Will need to pay for meals and get reimbursed as Numanuit Corp Hotel does not provide meals
Point Lay	Meals and lodging	Days	9	Will stay at the Cully Camp
Point Hope	Meals and lodging	Days	9	Will need to pay for meals and get reimbursed (Bring food) as the Whalers Inn does not provide meals
Kaktovik	Meals and lodging	Days	9	Will stay at the Marsh Creek Inn

All team members should familiarize themselves with the Housing / Reservations Policy and the Meals policy at their earliest convenience. The complete policies can be found online at:

- <http://www.arcticscience.org/pdf/barrowreservationhousingpolicy.pdf>
- <http://www.arcticscience.org/pdf/barrowmealpolicy.pdf>

Make housing reservations and select a meal plan at least 3 weeks prior to your arrival date. The reservations form is available here:

<http://spreadsheets.google.com/viewform?hl=en&formkey=cDcxU2ZhNmI0dy1mZ0FYQnNhLTiiUIE6MA..>

Confirmed reservations can be viewed here:

<http://spreadsheets.google.com/pub?key=p71Sfa6itw-fgAXBsa-9bRQ>

Lab Space

Support	Description	Unit	Allocation	Request	Comment
L-132, Laboratory	Lab space for DNA work	Days	0	45	Lab space is reserved for DNA work to ensure no contamination, in lease but not specifically allocated for project in 2010 (was used in 2009 and similar use in 2010)

Vehicles

Support	Description	Unit	Allocation	Request	Comment
Barrow	Truck rental	Days	30		
Barrow	ATV rental	Days	60		
Anaktuvuk Pass	Transportation/truck, other	Days	3		Village Coordinator will provide as needed
Point Lay	Transportation/truck, other	Days	3		Village Coordinator will provide as needed
Point Hope	Transportation/truck, other	Days	3		Village Coordinator will provide as needed
Kaktovik	Transportation/truck, other	Days	3		Village Coordinator will provide as needed

Information Technology

Support	Description	Unit	Allocation	Request	Comment
Standard connectivity	Email, Internet, printing, copying, etc.	Lot	0	1	Requesting standard connectivity

Guides, coordinators, and community participants

Support	Description	Unit	Allocation	Request	Comment
Anaktuvuk Pass	Village Coordinator	Each	1		Set up meeting hall and visit
Point Lay	Village Coordinator	Each	1		Set up meeting hall and visit
Point Hope	Village Coordinator	Each	1		Set up meeting hall and visit
Kaktovik	Village Coordinator	Each	1		Set up meeting hall and visit

Other Services

Support	Description	Unit	Allocation	Request	Comment
Flights	Anaktuvuk Pas	Each	3		Researcher makes own reservation, contact Project Managers Steve Hastings or Faustine Mercer for PO#
Flights	Point Hope	Each	3		See above
Flights	Point Lay	Each	3		See above
Flights	Kaktovik	Each	3		See above

For expense reimbursements please contact Faustine Mercer. See Project Contact Information, below.

Permits

Support	Description	Unit	Allocation	Request	Comment
NSB permit		Ea.	1	1	Obtained by BASC Senior Scientist based on information provided by researchers

PROJECT CONTACT INFORMATION

Research Team

Role	Name	Email	Phone / Fax
Project POC	Dennis O'Rourke	orourke at anthro.utah.edu	T:801.581.7454 F:801.581.6252
Collaborator	Geoffrey Hayes	ghayes at northwestern.edu	T:312.503.4141 F:312.908.9032
Principal Investigator	Dennis O'Rourke	orourke at anthro.utah.edu	T:801.581.7454 F:801.581.6252
Post Doc	Jennifer Raff	jennifer.raff at anthro.utah.edu	T:801.581.7496

BTSPS/BASC/CPS Team Members

Contact for	Name	Email	Primary Phone(s)
New science requests, scope changes to existing requests - CPS	Steve Hastings	steve at polarfield.com	907.852.0904 (v) 907.388.0565 (c)
Expense reimbursements, BTS and BASC liaison - CPS	Faustine Mercer	faustine at polarfield.com	907.852.0904 (v) 907.750.1772 (c)
Barrow on the ground representative - BTSPS	Russell Snyder	Russell.Snyder at ukpik.com	907.855.0374 (c)
Lodging and lab assignments - BASC	Bryan Thomas	bryan.thomas at arcticscience.org	907.852.0903 (v) 907.367.3797 (c)
Station Management, Vehicles, Field Equipment, Temporary Labor - BASC	Lewis Brower	lewis.brower at arcticscience.org	907.852.0905 (v) 907.367.3813 (c)
IT Support - BASC	Brad Heaston	brad.heaston at arcticscience.org	907.852.0902 (v) 907.367.3836 (c)
Chief Scientist; Permitting and Local Community coordination - BASC	Glenn Sheehan	basc at arcticscience.org	907.852.4881 (v) 907.367.3815 (c)

Offices

Barrow/CPS	Barrow/BASC	BTSPS	Fairbanks/CPS	Denver/CPS
CH2M HILL Polar Services 360 NARL St. Room L-203 Box 947 Barrow, AK 99723	BASC 360 NARL St. Room L-206 Box 577 Barrow, AK 99723 T:907.852.4881 F:907.852.4882	615 E. 82 nd Ave. Suite 300 Anchorage, AK 99518 T:907.273.1817	CH2M HILL Polar Services Alaska Office 2325 King Rd. Fairbanks, AK 99709 T:907.455.4214 F:907.455.4126	CH2M HILL Polar Services Western Office 8110 Shaffer Pkwy Suite150 Littleton, CO 80127 T:303.984.1450 F 303.984.1445

Hotels and Flights

Anaktuvuk Pass	Point Lay	Point Hope	Kaktovik	ERA Aviation
Nunamiut Corp. Hotel PO Box 21009 Anaktuvuk Pass, AK 99721 T:907.661.3026 F:907.661.3025	Cully Camp PO Box 59089 Point Lay, AK 99759 T:907.833.2035 F:907.833.2036	Whalers Inn PO Box 89 Point Hope, AK 99766 T:907.368.3000 F:907.931.7857	Marsh Creek Inn 901 Hula Hula Avenue Kaktovik, AK 99747 T:907.640.5500 F:907.640.5505	4700 Old International Airport Rd. Anchorage, AK 99502 T:800.866.8394 F:907.266.8384

RISK ASSESSMENT

See Appendix for Risk Factors and Mitigation.

CRITICAL SUCCESS FACTORS

During the planning stages for your project, your CPS PMs will work with you to identify the most crucial factors that must be in place upon your arrival. These factors will be documented in the below table. We track these factors in order to measure the success of CPS' support. Examples might be the availability of the helicopter or condition of camp gear.

Factors
- Hotels are aware that meals and lodging will be charged to CPS account.
- Any room arrangements or village coordination related to scheduling a meeting room is provided for if researchers need assistance.

GOVERNMENT AND PERFORMANCE REPORTING ACT OF 1993 (GPRA)

NSF/OPP requires your help in complying with the Government Performance and Reporting Act of 1993 (GPRA). One measure of CPS' performance is a "facility-performance metric" which counts the number of productive days your project has in the field while relying on CPS facilities or support. Please keep track of any "lost days" and report these to us at the end of the season.

APPENDIX

RISK FACTORS and MITIGATION

Factor	Mitigation and Control
Bears	<ul style="list-style-type: none"> -Hire Native guides (Provide clear expectations/procedure) -Install bear fence. Designate a fence monitor to check daily. -Carry radios to alert others to bear in area. -Develop a plan for bear in or near camp -Keep a clean camp -Participate in bear safety training -Carry bear spray -Use bear Containers
ATV Travel	<ul style="list-style-type: none"> -Participate in ATV training -Use appropriate PPE (Personal Protection Equipment)/Helmets