

**Kwäday Dän Ts'ınchi Symposium Topics and Speakers**  
**April 25 – 26, 2008**

**Oral Presentations (Listed alphabetically by surname of lead author)**

**Authors:** Ron Chambers

**Paper Title:** Personal Insights into Tatshenshini-Alsek History and Archaeology, Living and Travelling in Glacier and Mountain Landscapes, and the Kwäday Dän Ts'ınchi Discovery

**Abstract:** A resident of Haines Junction, Yukon, Ron Chambers is a member of the Wolf Clan and a Champagne and Aishihik First Nations and Canadian citizen. At the time of the Kwäday Dän Ts'ınchi discovery, Ron was Deputy Chief of his First Nation. A well known wilderness guide and native history interpreter, with a varied work and professional background (including experiences with many archaeological projects), Ron shares his insights into the region's history, the challenges of living and travelling in the Tatshenshini-Alsek country, and the Long Ago Person Found discovery.

**Authors:** H. Kory Cooper, Kevin Telmer, Richard Hebda, Alexander Mackie

**Paper Title:** The Kwäday Dän Ts'ınchi Copper Bead

**Abstract:** A small copper bead found at the Kwäday Dän Ts'ınchi site was subjected to trace element analysis using Laser Ablation Microprobe with Inductively Coupled Plasma-Mass Spectrometry at the ICP-MS Facility, University of Victoria, to investigate its origins. The bead consists of almost pure native copper (i.e., 99+ % copper metal) and is not a smelted industrial product. Traces of silver and arsenic in the bead permit comparison of the copper to limited available data on native copper sources in the region. In conjunction with ethnohistorical and geological data the analysis provides insight into the potential source of the copper used to make the bead and its manufacture, use, and cultural importance. Understanding the source of the copper and its cultural context will help to shine light on the movements and other aspects of the life of the Kwäday Dän Ts'ınchi man.

**Authors:** Jim Cosgrove, Owen Beattie, Nicholas Panter, Kelly Sendall

**Paper Title:** Conservation and monitoring of the Kwäday Dän Ts'ınchi human remains during analysis

**Abstract:** When the Royal BC Museum was notified that the remains of Kwäday Dän Ts'ınchi would be coming to the museum's Class II biological containment facility for analysis, a protocol was adopted to maintain the stable state of the remains between sessions of examination. The museum's 30 m<sup>3</sup> walk-in freezer was emptied of existing specimens, cleaned and the Kwäday Dän Ts'ınchi remains, within the 1m<sup>3</sup> chest freezer, were placed inside. Provisions were made to ensure a stable relative humidity at 80%, temperature at -17°C, and precautionary measures against contamination of the remains and facility were taken such as a means of

back-up power, and monitoring of the temperature and humidity on data loggers. Bags of sterilized crushed ice from distilled water were stored in the freezer for emergency but also to aid in maintaining the desired relative humidity. The process and measures used to maintain and secure the remains during transfer from the site to the museum, and for the entire research term are presented.

**Authors:** James H. Dickson, Petra Mudie

**Paper Title:** In the Footsteps of Kwāday Dän Ts'ınchi – a Botanical Journey

**Abstract:** In August 2005, a botanical expedition was made from the glacier where Kwāday Dän Ts'ınchi was found, down to the Tatshenshini River. The members were Jim Dickson and Petra Mudie (scientists), Bill Hanlon (guide), Al Harvey (photographer), Frances Oles (CAFN Heritage representative) and Greg Ekland (Tatshenshini-Elsek Park representative). The objectives were twofold. 1. To inventory the flora, especially in the immediate vicinity of the site. We collected and identified 76 vascular plants, 46 mosses and lichens, and also microscopic algae (5 different genera) and minerals from water samples. This has helped us interpret the geographical origin of plant remains (pollen, seeds, leaves, mosses, lichens and algae) found with the body. 2. Camping near the site and walking to the Haines Highway over five days allowed interpretation the landscape and vegetation, and contemplation of possible routes Kwāday Dän Ts'ınchi may have taken up to the high mountain glacier where he died.

**Authors:** Diana French, Ron Chambers

**Presentation type:** PAPER

**Paper or Poster Title:** Tatshenshini River at First Contact: Searching for the 19th Century Fishing Villages

**Abstract:** On the basis of community oral history, explorers' maps and anthropological sources, it is known that many 19th century aboriginal fishing villages were once located along the Tatshenshini River. It is quite possible that Kwāday Dän Ts'ınchi may have been traveling to one of these settlements. In 1993, six years before his discovery, Champagne and Aishihik First Nations undertook an archaeological survey of the river, in an attempt to relocate the former villages. Launching below the canyon, the survey team floated downstream on a pair of inflatable river rafts to the confluence of the Tatshenshini and Elsek Rivers. Ground investigations were carried out at reported site locations. Six archaeological sites were recorded, including two petroglyphs and one village, as well as a number of locations evidencing stone ax choppings. The survey demonstrated that Tatshenshini River archaeology is most challenging, and that only reluctantly is the valley going to yield archaeological stories of its human past.

**Authors:** Sheila Greer and Alexander Mackie

**Paper Title:** Annual Monitoring and Post-1999 Finds from the Kwāday Dän Ts'ınchi Site (IkVf-1) and Surrounding Area

**Abstract:** Since the original assessment and recovery efforts in 1999, the Kwāday Dän Ts'ınchi Site has been visited annually by a research team from Champagne and Aishihik First Nations. These monitoring visits, as well as the 2003 re-visit by the original

discoverers of the site, and the time spent in the area by project team members in 2005, have resulted in additional archaeological finds from the site and surrounding area. More human remains, specifically skeletal elements that were unaccounted for following the 1999 recovery, were found in the same general area of the original find. In the surrounding area a range of wooden artifacts have been recovered; the latter finds are not considered to be associated with the human remains. The various visits, and also an attempt to hike in to the project area by a group in 2001, have allowed for photographic documentation of the shrinking glacier in which the remains of the Long Ago Person Found had been preserved; they have also resulted in a better understanding of possible past travel routes leading to and from the area of the discovery site.

**Authors:** Sheila Greer and Frances Oles

**Paper Title:** Ethnographic and Ethnohistoric Overview of the Tatshenshini-Alsek Area

**Abstract:** This paper will provide an overview of the ethnohistory and ethnography of the Tatshenshini Alsek Park area, as known from archival and community oral history sources, and related anthropological works. Two key themes of the region's aboriginal cultural landscape - salmon and ice, will be explored. Although presently this part of the province has little permanent population, at one time a series of aboriginal villages existed along the Tatshenshini River, and trade and travel routes that connected the Pacific coast and the Yukon interior passed through the area. The region's bicultural (Southern Tutchone and Tlingit) status in times past will be discussed, as the ethnic changes of the 19th century are reviewed. A key force in the cultural shifts that took place appears to have been the trade in furs that was taking place along the adjacent northwest coast.

**Authors:** Bill Hanlon, Michael Roch, Warren Ward

**Paper Title:** Discovery of Kwäday Dän Ts'ınchi

**Abstract:** On August 14, 1999, three hunters (Bill Hanlon, Mike Roch, and Warren Ward) were pursuing Dall sheep deep in the Tatshenshini-Alsek Provincial Park when they came upon some wooden artifacts while skirting the margin of an ice field. After a brief search for other artifacts they noticed a suspicious sight on the edge of the glacier, which turned out to be clothing, tools and other personal belongings of an ancient person. Further investigation of the area revealed ancient human remains in a crevice a short distance away. Four days later the hunters reported their discovery to the appropriate authorities in Whitehorse. Thus began the story of Kwäday Dän Ts'ınchi. In August of 2003, Bill Hanlon and Mike Roch returned to the Tatshenshini to pay their respects to Kwäday Dän Ts'ınchi when they made a second unique discovery.

**Authors:** Richard Hebda, James H. Dickson and Petra J. Mudie

**Paper Title:** Forensic Botany of the Kwāday Dān Ts'ınchi Ground Squirrel Robe

**Abstract:** Items of daily use are exposed to the environments visited by their owners and users, and those environments leave biological and physical traces. We recovered plant remains and used pollen and spore analysis of small samples of outside fur and scrapings of the inside of the Kwāday Dān Ts'ınchi ground squirrel robe to reveal where the robe and by inference where the Kwāday Dān Ts'ınchi man had traveled. The samples yielded a diversity of well preserved pollen grains especially those of herbaceous plants. Scrapings from the inside surface contained abundant beach asparagus pollen (*Salicornia perennis*) suggesting that the robe had been placed on the ground in the upper intertidal zone or used often in this environment. Pollen of cow parsnip (*Heracleum lanatum*) in the outside fur reveals that the robe, and presumably the person carrying it, was in direct contact with this plant of a range of environments including subalpine meadows. Charcoal on the inner surface suggests many hours spent near camp fires.

**Authors:** Kate Helwig, Tara Grant, Jane Sirois, Gregory Young, Jennifer Poulin and Valery Monahan

**Paper Title:** Examination and Analysis of the Kwaday Dan Ts'ınchi Hand Tool

**Abstract:** The Kwāday Dān Ts'ınchi hand tool is composed of a wooden handle with an iron blade lashed to one end with a thin hide strip. Scientific examination provided information about the materials used and their current state of preservation. The observed microscopical wood anatomy of the handle was consistent with Hemlock (*Tsuga* sp.). Although visual examination showed that the hide lashing had undergone some mechanical damage by freeze-thaw cycling, measurement of the shrinkage temperature using thermal microscopy indicated good chemical preservation of individual collagen fibres. X-radiography indicated that the iron blade is highly corroded; it is possible that no intact metal remains. No nickel was identified in the corroded metal using x-ray energy spectrometry, suggesting a non-meteoritic iron source. The corrosion products include goethite, siderite and vivianite. An organic piece wedged between the metal blade and the hide wrapping, thought to be a backing for the blade, was found to be collagenous, presumably raw hide.

**Authors:** Lawrence Joe and Frances Oles

**Paper Title:** Contemporary Management and Cultural Landscape of Tatshenshini-Alsek Park

**Abstract:** In 1993 Tatshenshini-Alsek Park was first declared a park by the province without consultation with the Champagne and Aishihik First Nations (CAFN). CAFN challenged the park's creation provincially, nationally and internationally. Without a treaty in BC to clarify the rights of its citizens, CAFN was concerned over loss of use and the ability to exercise their rights and benefits. The First Nation withdrew opposition to the World Heritage Site designation based on treaty commitments from the Premier. In 1996 CAFN negotiated a park co-management agreement that recognized their aboriginal harvesting and other rights. Today the park is one

of several in the province that is co-operatively managed by B.C. Parks and a First Nation. CAFN is contracted to operate and manage the nearly one million hectare park. We will present information on the relationships, the land and its rich history and the cultural and natural environment.

**Authors:** Ivan Kempson, William M. Skinner, Ronald Martin

**Paper Title:** Surface Mineralization on Kwäday Dän Ts'ınchi hair samples: A Confounding Factor in Interpretation of Metal Content.

**Abstract:** Scanning Electron Microscopy, Inductively Coupled Plasma Mass Spectroscopy and Time-of-Flight Secondary Ion Mass Spectrometry have been used to examine the mechanisms by which the metal content of human hair is altered by exposure to aqueous environments. The results using both modern hair and samples from 500 year old hair associated with glacier-entombed remains show that the metal content has been altered sufficiently such that the interpretation of the metal signature in terms of diet or disease is problematic.

**Authors:** Alexander Mackie, Grant Hughes and Sheila Greer

**Paper Title:** The Kwäday Dän Ts'ınchi Project – a Successful Collaboration

**Abstract:** In this paper we discuss how the project unfolded in 1999. We concentrate on the foundations that were set for a successful collaboration between the Champagne and Aishihik First Nations, BC Archaeology Branch, Royal BC Museum and scientists. We discuss the process of planning for and implementing the recovery of the remains, as well as the negotiations that took place to establish an appropriate level of study of same, as well as an overall management framework for the project. The resulting formalized co-management agreement has guided all project efforts, and as the project unfolded, each of the parties took on different roles and areas of management responsibility, albeit within the agreed-upon framework of decision-making by consensus and respectful communication between the parties. The BC Archaeology Branch and the Royal BC Museum led the development and management of research agreements for scientists working with the human remains, with all research proposals undergoing ethics reviews. The Royal BC Museum also handled the study of the robe, which had specialized conservation needs. CAFN has had responsibility for consultation with neighbouring First Nations and Tribes, to obtain their input on how to proceed with disposition of the human remains and artifacts. The First Nation has also been the lead for the study of artifacts remaining in Yukon, and responsibility for facilitating the organization of cultural ceremonies held in honor of the Long Ago Person Found.

**Authors:** Kjerstin Mackie

**Paper Title:** Analysis, Documentation and Conservation of the Kwäday Dän Ts'ınchi Robe

**Abstract:** The clothing described in this paper was brought to the Royal British Columbia Museum in September 1999, where facilities and expertise were used to conserve, analyze and record information. Conservation of the robe fragments was guided by the interest in extracting and recording information, in addition to preserving the remains of the robe. Sediments, plant materials and fish remains found on the robe, and samples of fur, and sinew were collected and studied by other researchers presenting at this Symposium. Once cleaned and recorded, study of the fragments revealed that the garment had been a rectangular robe made of approximately 95 ground squirrel pelts stitched with sinew. Two ties are looped through a strip of thicker leather sewn to one edge of the rectangle. Unevenly stitched patches indicate the robe was repaired during its' life history. Robes in contemporary collections show similarities between them and the Kwäday Dän Ts'ınchi robe.

**Authors:** Valery Monahan

**Paper Title:** Conservation of the Kwäday Dan Ts'ınchi Woven Hat and Wooden Artifacts

**Abstract:** After the discovery of the Kwäday Dän Ts'ınchi human remains and artifacts, the finds were divided. CAFN retained responsibility for the care and study of the woven hat, the wooden artifacts and the hand tool, which went to the Government of Yukon Heritage Branch in Whitehorse for conservation and storage. The hat and one wooden artifact received active treatment, other wooden artifacts were “freezer-dried” and the hand tool was kept frozen for future analysis. The long-term goals of conservation have been to make the artifacts safely available for CAFN community activities and to facilitate research. Conservation activities have included sampling, investigative cleaning and consultation in support of hat research, preparation of wood identification samples and artifact transport to community events, including one across an international border.

**Authors:** Maria V. Monsalve, Elaine Humphrey, David Walker

**Paper Title:** DNA and Cellular component analysis in Kwäday Dän Ts'ınchi remains: Use of tissue preservation to predict DNA retrieval and detect presence of microorganisms

**Abstract:** To determine the state of preservation of the Kwäday Dän Ts'ınchi remains we utilized biochemical techniques to quantify nitrogen and carbon in the collagen of soft and hard tissues. A good state of preservation was indicated, so we proceeded to extract DNA. Analysis of mtDNA indicated that these remains belong to the haplogroup A, one of the major Native American mtDNA haplogroups. Sequence analysis indicated that the remains share a mtDNA lineage previously identified in North American, Central and South American native populations. We furthermore explored preservation of cellular structure as a predictor for retrieval of DNA. Analysis of cellular components in hard and soft tissues indicated that a good state of preservation was associated with

successful retrieval of mtDNA. We were able to identify cellular structures that apparently were micro-organisms. The presence of only small number of micro-organisms in each sample analysed by electron microscopy may indicate that the remains were frozen quickly.

**Authors:** Petra Mudie, James H. Dickson, Richard Hebda, F.C. Thomas

**Paper Title:** Environmental Scanning Electron Microscopy - a modern tool for unlocking ancient secrets about the last journey of Kwäday Dän Ts'ınchi

**Abstract:** Our study of Kwäday Dän Ts'ınchi provides a unique glimpse of the food he ate and the water he drank during the last days and hours of his final journey across the Samuel Glacier. We used an Environmental Scanning Electron Microscope (ESEM) to study the pollen, microscopic plant and animal remains in food samples from his stomach and intestine. This ESEM enabled us to identify pollen grains to the level of plant species and to distinguish between inland and coastal varieties. We also used an electronic probe in the ESEM to analyse the mineral composition of silt grains in the samples. Our results show that Kwäday Dän Ts'ınchi made his last journey in late summer, and he ate a varied diet of meat, seafood, beach asparagus (Su'kadzi) and berries. The carbonate mineralogy of the silt grains also suggest he traveled to the glacier up the Chilkat River basin, not the Tatshenshini-Alsek basin.

**Authors:** Frances Oles, Lawrence Joe

**Paper Title:** Consultation With Our Neighbours and Cultural Ceremonies In Honor of the Long Ago Person Found

**Abstract:** From the initial reporting of the Kwäday Dän Ts'ınchi discovery, Champagne and Aishihik First Nations (CAFN) government has viewed its role as a stewardship one, acting collectively on behalf of its citizens as well as those of its neighbouring First Nations and Tribes. In this presentation we will review the various consultation efforts that were held with our neighbours in adjacent southeast Alaska, northwestern British Columbia and Yukon, including the regional meeting held in May 2001, where representatives of indigenous governments from the surrounding area met together in Haines Junction, Yukon. We will review the role of these indigenous governments as well as their citizens, in both making decisions about the future of Kwäday Dän Ts'ınchi, as well as honoring the Long Ago Person Found. The latter include hosting a funeral service and a blessing of the artifacts in the summer of 2001, and in the fall of that same year, a Tlingit cultural ceremony referred to as a Forty Day Party. A Memorial (or headstone Potlatch), which according to Southern Tutchone tradition represents the end of the period of grieving, is being discussed for the summer of 2008.

**Authors:** Frances Oles, Sheila Greer and Kjerstin Mackie

**Paper Title:** The Gopher Robe/Blanket Project: Bringing An Old Art Form Brought Back to Life

**Abstract:** The Kwäday Dän Ts'inci robe made of gopher (arctic ground squirrel, or säl in the Southern Tutchone language) skins, prompted the Champagne and Aishihik First Nations (CAFN) Heritage Program to learn more about this known traditional fur medium. Most CAFN Southern Tutchone Elders who are aged 75 or older recalled items made of gopher skins as being common household items when they were children. Gopher blankets were used as bed-covers, travel bedding, the robes as ceremonial garments, and clothing was made from gopher skins. Gopher blankets/robes were also produced for trade with neighbouring peoples; archival photographs show them to be ubiquitous items among the late 19th century Tlingit of southeast Alaska. While harvesting gophers is not as much a part of everyday Southern Tutchone life today as it was even 30 years ago, the species continues to be an important dietary source for our people, especially valued for its fat content. We initiated the gopher blanket project to learn more about this aspect of our culture, and to pass on knowledge of how to harvest, tan and sew the skins of this species which is so common in our homelands, and a cherished tradition in Southern Tutchone culture.

**Authors:** Mike Richards, Lorna Corr, Sheila Greer, Alexander Mackie, Richard Evershed, John Southon, Owen Beattie

**Paper Title:** Radiocarbon dating and dietary stable isotope analysis of Kwäday Dän Ts'inci

**Abstract:** We will present the results of AMS radiocarbon dating and isotopic analysis of Kwäday Dän Ts'inci as well as AMS dates from a number of associated artifacts. The isotopic analysis indicated that Kwäday Dän Ts'inci had a strongly marine diet, which was unexpected due to the find location; however, hair and bone cholesterol isotopic values showed a dietary shift to terrestrial foods in the year before death. The dating evidence was not straightforward, but we conclude that Kwäday Dän Ts'inci dates to between 1670 and 1850 cal AD.

**Authors:** Dan Straathof, Owen Beattie

**Paper Title:** A Review, Discussion, and Interpretation of the Physical Remains of Kwäday Dän Ts'inci

**Abstract:** In August, 1999, frozen, partly decomposed, incomplete human remains and associated artifacts were recovered from a glacier in Tatshenshini-Elsek Park in British Columbia, Canada. Carbon-dating revealed that death likely occurred at least 150 years before present. The mostly fleshed torso and thighs were separated across the lower abdomen, consistent with postmortem separation in the ice. The left tibia and proximal fibula, several hand and foot bones, the scalp hair mass, and disarticulated skull bones were recovered separately. The examination identifies the individual as a male approximately 17 – 22 years of age at death. Adipocere formation was extensive, but overall external soft tissue detail was remarkable. Skeletal elements were soft and pliable. Thoracic and abdominal organs were present, including heart, lungs, liver, and gastrointestinal tract, and intestinal contents were abundant;

however, retroperitoneal organs were not recognizable due to decomposition. There were perimortem (possibly postmortem) fractures of the left parietal and left fibula. The cause of death remains undetermined, though the evidence for some reasonable scenarios (e.g. exposure, accident) will be presented and discussed.

**Authors:** Chief Diane Strand

**Paper Title:** Kēts'ädän

**Abstract:** In her welcome address, Chief Strand will invite Symposium participants to join a shared path of learning (k?ts'ädän = we're learning) about the Long Ago Person Found, as the results of scientific studies are presented along with information on the cultural context within which this discovery and subsequent investigations have occurred. Kwäday Dän Ts'inchi has brought challenges to her community, along with opportunities for learning and improved awareness of Southern Tutchone and Tlingit traditions and values.

**Authors:** Chief Diane Strand, Karen Mooder and Sheila Greer

**Paper title:** The Kwäday Dän Ts'inchi Community DNA Study - The Search For Living Relatives

**Abstract:** Following the 1999 discovery and recovery of the Kwäday Dän Ts'inchi human remains, Champagne and Aishihik First Nations received a proposal for research to try to identify, through DNA analysis, living relatives of the Long Ago Person Found. This research was recognized by the First Nation as a priority because of the hope that it could answer an important question - who should have responsibility for taking care of the young man's remains, which is a fundamental concern in their cultural traditions. Mitochondrial DNA analysis was also seen as appropriate since the Champagne and Aishihik people, as well as neighbouring tribes and First Nations, are clan (or moiety) based matrilineal societies. Initiated in 2000, the Community DNA study saw 240 citizens/members of Tribes and First Nations from the surrounding Yukon, northwest British Columbia and southeast Alaska region coming forward to provide samples of their own DNA. These were sequenced and then compared to the sequence obtained from the Kwäday Dän Ts'inchi individual. The project encountered funding difficulties, innumerable delays and a change in analytical labs, but matching sequences were found, and a pool of living relatives has been identified.

**Authors:** Treena Swanston, Harry G. Deneer, Ernie Walker

**Paper Title:** The discovery of *Mycobacterium tuberculosis* complex DNA in tissues associated with Kwäday Dän Ts'inchi

**Abstract:** *Mycobacterium tuberculosis* complex DNA (123 bp region in the IS6110 insertion sequence) was found to be associated with the lung tissue of Kwäday Dän Ts'inchi. Preliminary results indicate that *Mycobacterium tuberculosis* complex DNA was also located in a mediastinal lymph node, a sample of the myocardium, the small intestine and the liver. Contamination is a known concern in ancient DNA research, and standard procedures, including the use of negative controls, were used to ensure the accuracy of the

results. In addition, a second laboratory independently confirmed the discovery of mycobacterial DNA in the lung tissue. This finding of *Mycobacterium tuberculosis* complex DNA was unexpected, because a pathological and histological examination of the tissues failed to find evidence that the individual was ill. This leads to the hypothesis that the individual had a latent tuberculosis infection.

**Authors:** Peter M. Troffe, Donga Yang, Al von Finster, Camilla Speller

**Paper Title:** Identification of Salmon from the Kwāday Dän Ts'ınchi site

**Abstract:** The fish skin and scale remains associated with Kwāday Dän Ts'ınchi appear to have originated from an adult anadromous salmon, aged four years. Initial identification was conducted through a comparison of the ancient scales to scales removed from museum specimens and dichotomous keys from the literature. Further analysis was conducted through a multivariate analysis measuring discrete and continuous characters on 116 scales found distributed throughout the Kwāday Dän Ts'ınchi remains. The scale morphology most closely resembled those of Chum salmon (*Oncorhynchus keta*). Ancient DNA techniques were applied to three pieces of salmon tissue for the purposes of species identification. Mitochondrial DNA was recovered from two of the three samples, with sequences matching most closely with sockeye salmon (*Oncorhynchus nerka*). The scales varied in size and shape, but the arrangement of internal characters suggest they all originated from a single specimen. The salmon was likely captured in a fishery located at or near the Alaskan coast.

**Authors:** Dongya Yang, Camilla Speller, Kjerstin Mackie, Alexander Mackie

**Paper Title:** Ancient DNA analysis of the Kwāday Dän Ts'ınchi robe and sewn bag

**Abstract:** Ancient DNA techniques were applied to pelt and sinew samples from the robe and sewn bag associated with the Kwāday Dän Ts'ınchi remains. DNA was successfully extracted from samples of leather thongs, hair and skin from the pelts, as well as sinew from the stitching. Several animal species were identified, including arctic ground squirrel (*Spermophilus parryii*) and American beaver (*Castor canadensis*), confirming the species of animals pelts used in the construction of the robe and bag, respectively. Cervid DNA was also recovered from the sinew stitching of the robe and bag, providing insight into how the textiles were constructed and repaired. The DNA evidence may also reveal valuable information on the geographic origins of the animals, providing insights on ancient hunting or trading practices

### **Poster Presentations (Listed alphabetically by surname of lead author)**

**Authors:** B.C. Parks & Champagne and Aishihik First Nations

**Poster Title:** Tatshenshini-Elsek Park Welcome Sign

**Abstract:** This poster introduces Tatshenshini-Elsek Park, situated in the far northwest corner of the British Columbia. The Park, which covers approximately 8.5 million hectares, was established in 1993 as a protected area within the British Columbia Park system. The following year it was designated a World Heritage Site by the United Nations, and in 1996, through the Tatshenshini-Elsek Park Management Agreement, it became the first co-managed protected areas in the province, collaboratively managed by the BC Parks and Champagne and Aishihik First Nations (CAFN). While the Haines Road forms the eastern boundary, there are no roads into the park, which is known for its wilderness character, glacier cloaked mountain peaks, grizzly bears, unusual plant communities, and the magnificent Tatshenshini-Elsek river system, the most northerly of the great west coast salmon rivers.

**Authors:** Kathryn Bernick, Sheila Greer, Valery Monahan, Frances Oles

**Poster Title:** Exploring the Kwäday Dän Ts'ınchi Hat

**Abstract:** A flattened basketry hat made of split spruce root was found near the Kwäday Dän Ts'ınchi human remains. Originally it was shaped like a truncated cone, with a nearly flat top and straight flaring sides. Techniques of manufacture such as details of the twined weave and the brim finish identify it as Tlingit in style, an every day rather than ceremonial hat. Features include a headband (which corresponds to hat/head size), a chin strap made of animal skin, and stitched repairs. Remnants of red ochre are found on both the interior and exterior hat surfaces. The hat has inspired workshops directed towards re-introducing traditional spruce root weaving in regional aboriginal communities. Workshop participants, as well those involved in the analysis and care of the hat, recognize the skill of the person who created the hat and are encouraged to see the spruce root basketry tradition revived.

**Authors:** Champagne and Aishihik First Nations

**Poster Title:** Traditional Stories of Individuals Who Became Lost on Glaciers

**Abstract:** The southern Yukon and adjacent northern B.C. and southeast Alaska homeland of the Southern Tutchone and Tlingit is a mountainous landscape, featuring many glaciers. The oral history of both peoples includes information on many individuals who almost or actually lost their lives while crossing these potentially dangerous frozen landscapes. This poster presentation features extracts of traditional stories from both published and unpublished sources which include content on the theme of glacier travel, and therefore content that may be potentially relevant to understanding the Kwäday Dän Ts'ınchi story.

**Authors:** James H. Dickson

**Poster Title:** What Mosses tell Us about Ancient Glacier Bodies

**Abstract:** About 25 species of mosses have been recovered, as more or less tiny fragments, from the ice around the body, from the clothes and other items and from the intestines. Five of these mosses have not been found growing around the site now. The

poster concentrates on two in particular: Sphagnum (Bogmosses) and Fontinalis (Water Mosses) because they are of especial interest for Kwäday Dän Ts'ınchi's because they are potential clues for his last journey and route and for his ethnobotany

**Authors:** Sheila Greer, Valery Monahan and Frances Oles

**Poster Title:** Wooden Artifacts from the Kwäday Dän Ts'ınchi Site and Surrounding Area

**Abstract:** Over the course of the eight years since the Kwäday Dän Ts'ınchi discovery was made, various wooden artifacts have been found in the site area. The provenience of these pieces, as well as their quantity (somewhere between 20 and 25 items, depending on how the count is done) suggests that almost all are not directly associated with the Long Ago Person Found, but have resulted from other past uses of this area. Most pieces are made of woods which are native to the coastal rainforest biotic zone. While the artifact status of some of these pieces is based solely upon their being found in this treeless landscape, others are clearly modified pieces made for a specific purpose, and which initial evidence, including insights from First Nations Elders, suggests may be unique to this biogeographic and cultural area. Nonetheless, a lack of information on technological items made of wood that were traditionally made by the region's aboriginal peoples, limits our ability to identify the function and purpose of some of the objects that are clearly artifacts.

**Authors:** Bruce J. Leighton, Gail Anderson, John Webster, Niki Hobischak, Mike Petrik

**Poster Title:** Parasitology and Entomology of Kwäday Dän Ts'ınchi

**Abstract:** Skin, tissues, gut contents and rinsate from the hair of Kwäday Dän Ts'ınchi were examined for parasites and insects that could provide information on diet and health. Macerated skin from the left axilla was examined for the itch mite *Sarcoptes scabiei*. Tissues from the diaphragm and intercostal muscle were examined for trichinosis and the gut contents searched for parasite eggs and cysts. Plant and insect fragments were found in the rinsate from the hair. The only evidence of parasitic infection was the eggs of the fish tapeworm *Diphyllobothrium* sp. which were found in large numbers in the small intestine and in smaller numbers in the descending colon and rectum. The presence of these eggs indicate that raw or undercooked fish were a part of the diet. A number of fish species could have been the source.

**Authors:** Treena Swanston, Monique Haakensen, Harry G. Deneer, Ernie Walker

**Poster Title:** *Helicobacter pylori* DNA amplified from the stomach tissue of Kwäday Dän Ts'ınchi

**Abstract:** *Helicobacter pylori* is a gram negative, helical bacterium located in the stomach of an estimated 50% of the world's population. After it was first isolated in 1984, it has since been recognized as the primary cause of gastric ulcers and gastritis. Polymorphisms and sequence variation in the DNA of *Helicobacter pylori* indicate strain differences that correlate with different populations. Numerous studies have attempted to use these differences as a way of determining ancient population migration patterns.

By PCR analysis, we have demonstrated the presence of *Helicobacter pylori* DNA in the stomach tissue of Kwáday Dän Ts'ínchi. We also present a preliminary assessment of the connection between *H. pylori* DNA sequence variation and possible population migration.