

Northern Dene Constellations as Worldview Projections with Case Studies from the Ahtna, Gwich'in, and Sahtúot'įnę

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Abstract. The sky is routinely overlooked in Northern Dene ethnology as a meaningful domain of linguistic and cultural knowledge. However, a decade of comparative ethnological research in Alaska and Canada has shown that Dene stellar knowledge is largely tied to sacred and covert knowledge systems. In this paper, we describe an Ahtna, Gwich'in, and Sahtúot'įnę constellation identified as the incarnated spirit of an ancient Traveler-Transformer figure who circled the world in Distant Time. Although this Traveler is widely known in mythology, his enigmatic transformation to the sky embodies a specialized domain of knowledge rooted in the traditional beliefs and practices of medicine people. This "Traveler" constellation is not only a world custodian and archetype of an idealized medicine person, but it is also a teacher, ally, gamekeeper, and the embodiment of the world. We identify variations of this constellation throughout the Northern Dene region.

Statement of the Problem

The sky and its contents offer a unique, but undervalued perspective of Northern Dene religion, cosmology, and systems of knowledge or worldviews. While Northern Dene ethnology has produced important research in these areas (see Goulet 1998; Guédon 2005; Helm 1994; Mills 1986; Nelson

1983; Ridington 1978, 1988; Rushforth 1992; Slobodin 1994), these studies have primarily focused on land-based knowledge, practices, and experiences. Although Northern Dene astronomical concepts occasionally appear in ethnographies (see, for example McClellan 1975:75–80; McClellan et al. 2007:77–80; McKennan 1959:110, 1965:73; Morice 1893:193–195; Nelson 1983:38–39; Osgood

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1937:174), the coverage of this knowledge is slim and generally wanting of developed interpretations, descriptions, and contextualization that situates linguistic and cultural knowledge of the sky in meaningful systems of knowing.

A tendency to overlook ways of knowing about the sky in Northern Dene ethnology is not for lack of attempts to explore cultural constructions of this domain. Rather, the field experiences of anthropologists have simply not inspired a focused and long-term approach for investigating the sky as a primary site of Northern Dene linguistic and cultural knowledge (cf. Cannon and Holton 2014:1). For instance, Robert McKennan states:

The astronomical knowledge of the Upper Tanana is extremely slight. Starlore plays no part in their mythology, and only a few stars and constellations are identified by name . . . Small as the astronomical knowledge of the Upper Tanana is, it apparently is no smaller than that of other Northern Athapaskan groups (McKennan 1959:110).

While McKennan's assessment of Northern Dene astronomical knowledge is supported by other scholars (Birket-Smith 1930:78; Nelson 1973:185), we will show that the sky and its contents embody sacred and covert ways of knowing not readily accessible with a direct or short-term approach. These systems of knowledge have particular salience to Dene cosmology, shamanism, and religious change.

A Note on Authorship

The remainder of this paper is written in the first person to clearly distinguish and contextualize the lead author's comparative research approach as an anthropologist and non-Native person independent of the coauthors who are indigenous bearers of these knowledge systems. The term "we" is therefore reserved to refer to the authors as a whole. Paul Herbert is an Alaskan Gwich'in elder who grew up at Shuman House and Chalkyitsik in Northeastern Alaska. He learned detailed Gwich'in astronomical knowledge from his great-grandmother, Belle Herbert (see Herbert and Pfisterer 1982), and he is a long-term contributor to this research. Charles Hubbard is an elder who grew up speaking Ahtna in Cantwell, Alaska. He was a hunting assistant to Evan Stickwan (his grandfather) and Jake Tansy. He also served as an Army Ranger and worked in several skilled fields. Wilson Justin is an Ahtna traditional-knowledge bearer born in Nabesna. Wilson has sought to remain grounded in his people's sacred story cycles as a core part of his ideology, and as a result, he is actively engaged in indigenous rights issues, celebrations, and teaching. Charlie Neye-lle is a Sahtúot'ınę elder from Délı̨nę, Northwest

Territories, who has a lifetime of experiences in the bush and is a treasured traditional-knowledge bearer and spiritual leader in his community. Each of these coauthors fundamentally shaped my understanding of Northern Dene astronomical knowledge and remain closely engaged with this research.

Objective and Approach

The objective of this paper is to report on Northern Dene stellar knowledge with respect to religion, cosmology, and worldviews and explain how these ways of knowing integrate with a wider corpus of Dene anthropological literature. In a previous paper, Holton and I presented evidence of a newly documented whole-sky circumpolar constellation in Alaskan Gwich'in and posited that other large or whole-sky humanoid constellations "may extend across the entire span of Northern Dene languages and have great antiquity" (Cannon and Holton 2014:5). While I provide additional evidence in support of this hypothesis, my primary aim here is to investigate the identities of these humanoid figures and situate this body of stellar knowledge in a meaningful system of knowing that relates social processes and order to cosmological order.

For the last decade, I have conducted comparative ethnographic fieldwork with Northern Dene traditional-knowledge bearers from 11 ethnolinguistic groups between central-western Alaska and the eastern arm of Great Slave Lake, Northwest Territories. This comparative approach facilitates three main outcomes: 1) much-needed baseline documentation of Northern Dene astronomical knowledge, 2) a larger number of contributors who maintain this endangered linguistic and cultural knowledge, and 3) a basis for comparison across ethnolinguistics groups to better inform a historical perspective of Dene astronomical knowledge and practices.

Although this research is skewed towards Alaska and the Northwest Territories, snowball sampling, a nonprobability sampling method based on a participant-referral process (Bernard 2011:148–149), proved useful for connecting with participants and identifying research sites. Of approximately 60 participants, roughly three-quarters are elder traditional-knowledge bearers and Dene-first language speakers between the ages of 70–102 who spent much of their lives on the land pursuing subsistence activities. The remaining quarter of these participants are between the ages of 32–69 and come from diverse backgrounds.

Throughout this comparative ethnological study, my central research question asked: How do Northern Dene peoples perceive, conceptualize, and integrate the sky and its contents into

systems of knowledge, practices, and worldview? While I initially assumed this research would center on environmental knowledge and practices, my field experiences redirected my focus to questions concerning cosmology, shamanism, and religious change.

As I developed relationships with several key consultants, particularly in the Alaskan Gwich'in, Ahtna, and Upper Tanana regions, the role and significance of the sky to cosmology and religious complexes gradually came into focus. A combination of interviews, linguistic elicitation, and a long-term experience-based approach like that advocated for by Goulet (1998) has particularly contributed to my understanding of Dene astronomical knowledge, practices, and lifeways. Heuristic or experience-based knowledge is not only organic to traditional Dene ways of learning (Goulet 1998:192), but it has proven essential for passably investigating a Dene knowledge system largely understood and disseminated through covert modes of transmission. Moreover, a long-term experience-based method affords the requisite opportunities and experiences to become better socialized in Dene ways of knowing.

In this paper, I describe and interpret an enigmatic area of Northern Dene stellar knowledge as I have come to understand it in a comparative context. I begin with an interpretive sketch of the Ahtna constellation *Nek'eltaeni* to show how this whole-sky constellation integrates with a wider cosmology as the incarnation of an ancient Traveler-Transformer figure (hereafter referred to as the "Traveler") widely known throughout the North Dene region (Thompson 1990:140).¹ This ethnographic sketch briefly describes the Traveler's tenure on earth before departing to the sky as a guardian, teacher, ally, gamekeeper, and the embodiment of the world. This knowledge is rooted in the traditional beliefs and practices of medicine people, but it also has special salience to processes of syncretism and religious change.²

Next, I provide a comparison of *Nek'eltaeni* to the Alaskan Gwich'in whole-sky constellation *Yahdii* and the smaller Sahtúot'įnę constellation *Yíhda/Yámqréya* to show that the association between the Traveler and this constellation is, by no means, an isolated case. I round out this presentation of data by providing additional abbreviated summaries of humanoid constellations learned from consultants in other Northern Dene communities.

In the discussion, I situate this knowledge in a wider corpus of anthropological literature beginning with an overview of Northern Dene Traveler figures in mythology and then narrowing on the Traveler as a shamanic model initially developed by Ridington (1978) with subsequent variations described by Thompson (1990) and Guédon (2005).

Crucially, I interpret the Traveler's transformation to the sky as a meaningful extension of this model. I argue that Dene humanoid constellations are powerful projections of an indigenous Northern Dene cosmology and worldview. These went quiet and grew apart from popular culture, where they underwent reinterpretation and erosion with continuing changes to religious ideology. After identifying and discussing several important features and patterns of the Ahtna, Gwich'in, and Sahtúot'įnę constellations as shamanic models and indigenous projections of worldviews, I briefly comment on religious change with respect to stellar knowledge.

I conclude that the sky and its contents provide a rich, but undervalued perspective of Northern Dene cosmology and worldview. Although many studies concern processes of religious change among the Northern Dene (see, for example, Goulet 1998; Helm 1994; Ridington 1978; Znamenski 2003), this paper demonstrates a new approach to better understand the basis from which some of these changes have occurred and continue to occur. Indigenous Northern Dene astronomical knowledge is richly developed, although largely tied to an enigmatic shamanic complex known by few remaining traditional-knowledge bearers. In addition, this paper establishes wider relationships between social order and cosmic order that inextricably links earth and sky in a unified Northern Dene cosmology and worldview. Finally, I discuss the broader impacts of this research and suggest future directions.

It is necessary to acknowledge here that the decision to publish the following traditional knowledge was jointly reached by contributors, facilitators, and stakeholders in recognition that the need to preserve and foster this information now outweighs losing it to obscurity. This paper was not only vetted by the primary contributors, but they also took an active role in the editing process, choosing at times to omit or include various elements associated with these ways of knowing. Three participating Dene First Nations and a Tribal Consortium of 42 Dene communities in interior Alaska have provided letters of support for this comparative research on Dene astronomical knowledge more broadly.

A Sketch of the Ahtna Constellation, *Nek'eltaeni*

An Ahtna *dyenen* ("medicine person") either grew into his or her spiritual gifts over time or learned through training, which usually began at a young age and centered on shadowing a senior family member gifted in these ways of knowing. For a male, this training continued until early

adolescence when he was prescribed an extended form of the vision quest to test and combat his fears and to “learn to speak to the animals.” One consultant explained that while preparing for the vision quest, the novitiate or *uk’eze c’eyaanan* (“he/she eats alongside him”) observed the sky, waiting to commence his journey until a morning star (Altair or Venus) called *son’ kadghildzak’* (“star moves up”) appeared in a cloudless sky for three consecutive days. If this occurred, the novitiate departed on the morning after the third appearance to seek power through visions (*u’ehni’ dulzeni*) and encounters with the nonhuman world. Ahtna *dyenen* utilized *son’ kadghildzak’* throughout their careers to determine the correct time to travel during trance or an out-of-body experience known as *sden teyaasen* (“he walks separately”). Because the spirit of a deceased person is thought to rise with the sun, concentrating on the morning star at dawn also assisted the *dyenen*’s soul to rise from his own body for travel during trance. However, this star is also regarded more broadly in Ahtna culture as a general source of luck (cf. Kari [ed.] 1986:27–28) and is utilized to determine the timing of hunting activities at dawn.

Aside from *son’ kadghildzak’*, some consultants describe Ahtna constellations as prophecies that appeared in the sky around the beginning of time to tell the Dene of the major events or epochs that will occur throughout world’s history. The whole-sky constellation, *Nek’eltaeni* (“that which moves over us”), was the first prophecy and spiritual being to appear among the stars. However, before *Nek’eltaeni* went to the sky, he was the culture hero and Traveler figure known as *Yabaaghe Tezyaann* (“the one who walked around the edge of the sky/world”) who was sent to earth among dangerous beings. The name of this Traveler is also called *Netseh Telyaanen* (“the one who leads us ahead”), or *Ciil Hwya* (“smart young man”) depending on the Ahtna dialect.

As a young man, *Yabaaghe Tezyaann* began a solo journey around the world to transform an archaic animal people into humans and the distinct animal species present today. He removed a common language formerly spoken by all things and established peace and order on earth to make it a safer and more useful place for humans to live. In the words of one elder, “He went ahead of us to pave the way,” and “he is the keeper of all knowledge.” The Traveler not only eradicated and transformed dangerous monster-like beings on earth, but he also made agreements with his transformed subjects, which established a core of taboos, protocols, and laws that shaped Northern Dene lifeways and attitudes towards nature.

Yabaaghe Tezyaann circled the world like the sun, beginning in the east and then traveling to the west. At the end of his journey, *Yabaaghe*

Tezyaann was an old man who had gained significant medicine power after having “worked with all the animals,” beings, and “forces of nature.” *Yabaaghe Tezyaann* died in old age after completing his epic journey around the world as the first *dyenen* and the first person to go on a vision quest. His spirit subsequently manifests in the sky as the whole-sky constellation *Nek’eltaeni*: a large man-animal or therianthrope figure comprised of at least 18 asterisms named using body-part terms (Table 1). In addition, *Nek’eltaeni* holds a walking stick/weapon (*utets’*). The Milky Way, or *utene*, is his trail. The representation of *Nek’eltaeni* as a humanoid or shapeshifter not only indexes ancient time when humans and animals were one, but it also attests to his significant medicine power and embodiment of all things. His wife, *U’aa Uk’etayaa’* (“his wife will walk after him”), is the early dawn light described as *yaat’aay hwnidzaex* (“the sky is soft”) following *Nek’eltaeni* on his Milky Way trail.

Not all consultants agree that the whole-sky constellation is *Nek’eltaeni* himself. Rather, some describe it as an iconic representation of his image placed in the sky to remind the Ahtna of their ancient laws and the work that he did to make the world safer and more useful for humans. Nonetheless, “a doorway located at the center of the Milky Way” leads to an unseen realm above the stars where *Nek’eltaeni* continues to reside and watch over earth as a protector, world custodian, gamekeeper, and centering force and distributor of knowledge and medicine power. Crucially, Charles Hubbard of Cantwell explained that people not exposed to *dyenen* ways of knowing do not know that *Nek’eltaeni*’s identity is that of *Netseh Telyaanen* (aka *Yabaaghe Tezyaann* or *Ciil Hwya*).

Learning about *Nek’eltaeni* and discovering his image in the stars was once among the more important spiritual experiences in traditional Ahtna religious life. The names and positions of the stars in *Nek’eltaeni* were not explicitly taught or shared. Instead, a *dyenen* introduced this potential. He told people to “believe” in *Nek’eltaeni* and that his latent image would appear in the stars for a *c’ini’ de’aaenen* (“one using the mind”). One consultant explained:

He’s [*Nek’eltaeni*] in the sky, and only you can find it. No one else could find it for you. And it has to be just the perfect time in your life, or you’re doing something good for you to find it.

In other words, the personal discovery of this constellation is a coveted religious experience where belief, humility, and a spiritual awareness of oneself come together to “incarnate” (to make visible or real) *Nek’eltaeni* in the stars. After this constellation is known through personal

Table 1. Identification of asterism in the Ahtna constellation *Nek’eltaeni*. Stars are identified by Bayer or else Flamsteed designations, when necessary, followed by common name in parenthesis.

Asterism	Translation	Stars
uce’	his tail	Big Dipper (within Ursa Major)
tl’aghests’en ula’	his left hand	o Leo (Subra), α Leo (Regulus)
kuzuun ts’ene ula’	his right hand	two unidentified stars in Cassiopeia
tl’aghests’en uts’ene’	his left leg	ψ UMa, ν UMa (Alula Borealis), ξ UMa (Alula Australis)
kuzuun ts’ene uts’ene’	his right leg	λ Dra (Giasar), κ Dra, β UMi (Kochab), γ UMi (Pherkad), ζ Dra (Aldhibah)
tl’aghests’en udzaghe’	his left ear	α Gem (Castor), β Gem (Pollux)
kuzuun ts’ene udzaghe’	his right ear	α Aur (Capella), β Aur (Menkalinan)
bentsiis	his nose	Messier object 45 (Pleiades)
unaegge’	his eyes	ι Aur (Hassaleh), β Tau (Alnath)
utsaadle’	his abdomen	15 Lyn, o UMa (Muscida), h UMa (Alhaud IV), 36 UMa, θ UMa (Alhaud V), ι UMa (Talitha), κ UMa, (Alkaphrah), 31 Lyn (Alsciaukat)
tl’aghests’en uke’	his left foot	the combined stars in his left heel and toes (see below)
uketatl’	his heel (of left foot)	β Leo (Denebola)
ukelaghose’	his toes (of left foot)	δ Leo (Zosma), θ Leo (Chertan)
kuzuun ts’ene uke’	his right foot	β Dra (Rastaban), γ Dra (Eltanin)
tl’aghests’en uggaan’	his left arm	31 Lyn (Alsciaukat), κ Leo (Al Minlear), λ Leo (Alterf)
kuzuun ts’ene uggaan’	his right arm	δ Aur, 2 Lyn, β Cam, α Cam, HIP17884, ε Cas (Segin)
udzedze’	his kidney	unidentified star near the cup of the Big Dipper
uciz’aani	his heart	27 Lyn
utedze’	his walking stick	β Cnc (Tarf), ε Hya (Ashlesha), ζ Hya (Minazal V), α Cnc, (Acubens), 31 Leo, ρ Leo, σ Leo, β Vir (Zavijava)
ughaele’	his backpack	β UMa (Merak), ψ UMa, μ UMa (Tania Australis), α Lyn, 31 Lyn (Alsciaukat)
utene	his trail	Milky Way Galaxy
denae ce’e tene	big man’s trail	Milky Way Galaxy (variation)
Ciil Hwya yates ghilyaa	Smart Boy stepped over the sky	Milky Way Galaxy (variation)

experience and discovery, the individual retains access to *Nek’eltaeni* as a spiritual guide, teacher, and helper. The incarnation of *Nek’eltaeni* is akin to obtaining this world custodian as an ally and model to live by. The individualized nature of this experience is not all that dissimilar to the Christian concept of “finding God.” Charles Hubbard explained:

Religion was taught one on one. It wasn’t a whole congregation. It was taught one on one, and it went right along with nature, you know. If you didn’t respect the world, you didn’t respect *Nek’eltaeni*; see. And so that was the religion. . . . You know, we

want to be good people. You know, *nen’ daaghe ses ’sdelts’ii, son’ daaghe ses ’sdelts’ii*. We live [in health] by the earth, and we live [in health] by the stars.

In addition, Ahtna people spoke or prayed to *Nek’eltaeni*. Those who “knew” a dim star corresponding to his heart established a particularly strong connection to him. Charles Hubbard used the phrase *uciz’aani dighnaat* (“his heart shines”) to refer to this star as “the point of your life.” As Charles explained, *Nek’eltaeni*’s heart “shines” because it embodies all that he worked with and transformed for the benefit of humanity, which

he projects back to the universe through his heart or soul. Discovering his heart affirms that one is leading a life consistent with his teachings, and it reflects an awareness of the place where the spirit or soul came from and where it will return after following his Milky Way trail. However, speaking openly about *Nek'eltaeni* is 'engii ("taboo/prohibited") except under the right circumstances and only in moderation, given that the world is imbued with observant spiritual beings, perhaps better characterized as "other-than-human-persons." Also, personal names are avoided when addressing another person or thing of respect or status. Lena Charley of Chistochina explained:

Nek'eltaeni, we call him. They used to pray too, like [in] Native language. They always say we can't call too much; *Nek'eltaeni*. Like us, everything, we had to be careful.

According to the prophetic interpretation, after *Nek'eltaeni* went to the sky, the Dene gradually forgot his ancient teachings and resorted to conflict, violence, and war. In response, *Nek'eltaeni* sent the *Dastnaey Ggaay* ("little people who are ahead") to earth as a second wave of "messengers" to remind the Dene of the work he did to transform the world for the benefit of humans. Although these other-than-human persons provided the Ahtna with sacred language and songs, they were mistreated and returned to the sky without accomplishing their task. This prophecy and group of messengers is depicted as the Pleiades, or else as a broad assemblage of stars "randomly sprinkled through the sky."

Although the Pleiades is also identified as *Nekel'taeni's* nose (*bentsiis*), this asterism appears in autumn just prior to the traditional storytelling season when the land freezes over, and the attentiveness of other-than-human persons is somewhat allayed or muted in temporary dormancy. The appearance of the Pleiades in autumn signifies the return of the *Dastnaey Ggaay* to hear the ancient stories told from about October through December.³ This is also the appropriate time to recount the *Yabaaghe Tezyaann* cycle as told in nightly installments over the span of about two weeks.

The third constellation and prophecy that *Nek'eltaeni* placed in the sky has only been identified in English as the "White-Winged Man," which prophesied the arrival of non-Natives in the Ahtna settlement area. The "white wings" are interpreted as the pages of books, or else as the sails of the first ships to arrive in Alaska. This constellation prophesied a period of continued conflict and turmoil during the tenure of non-Natives in Alaska. Throughout this epoch, humanity does not closely adhere to the ancient laws, taboos, and protocols established by *Nek'eltaeni*, and the world continues in disharmony.

The fourth and final prophecy warns that if *Nek'eltaeni's* teachings are eschewed, then an ancient Dene enemy will return from the sky to initiate world destruction. This final prophecy and being is referred to with the circumlocution, *Nec'aadze' Teltaen* ("he leans away from us") and is described as a tiger-like being and remnant monster (*ggux*) that the Traveler was not able to control or transform during his journey around the world. To keep it away from humans, *Nek'eltaeni* rolled it into the sky where the two continue to circle each other as seen in the apparent rotation of stars about Polaris or *son' dilteyi* ("star is strong"). The proper name and identity of this being in the stars is tightly held or lost knowledge enmeshed in malevolent consequences as the antithesis of *Nek'eltaeni*.

The present epoch is a sort of liminal period between the third and fourth prophecies described above. The fourth epoch is prophesied to begin when perennial snow disappears from Alaska's tallest mountains, when it no longer cools down at night, and when the world turns back to grasslands, which is the habitat of the ancient enemy. Consultants observe climate change and social problems with concern to the onset of this final period. However, the potential to alter this course pervades as a viable option that encourages a healthy life steeped in traditional values to allay this terminal epoch. These four prophecies and epochs are said to repeat in a perpetual cycle of world destruction and rebirth.⁴

In any case, traditional-knowledge bearers feel that the most dramatic changes to the world are yet to come. Constellations and other-than-human persons embodied in the sky, and its contents are acutely perceptive to words and actions, which have high stakes as there is always someone or something observing and listening. Talking about the stars is akin to talking about a powerful *dyenen*. It also encroaches on the responsibilities of a *dyenen* to deliberate with other-than-human persons and to interpret these sacred auguries. Moreover, casual or extended conversations about the stars can betray one's own relationship to *Nek'eltaeni*. For these reasons, Northern Dene astronomical knowledge is largely understood and disseminated through abbreviated discussions and other covert modes of transmission, such as drawing pictures, learning through experience, talking about this knowledge only during certain types of weather or seasons, through belief, and even writing.

Today, this way of knowing is kept in the memories of a few traditional-knowledge bearers across several communities who have independently maintained it as family-based knowledge passed down hereditarily through at least five known generations. Some variation

exists. For example, one especially informed traditional-knowledge bearer knows *Nek'eltaeni* as described above, but without the second and third prophecies. In addition, as late as the 1950s, several consultants were still receiving traditional instruction in *dyenen* ways of knowing without completing their training, suggesting strong cultural conservatism in parts of Alaska.

Although Ahtna astronomical knowledge is at risk of being lost, it is well remembered by those few traditional-knowledge bearers who maintain it. Regarding the specialized nature of Ahtna stellar knowledge, Wilson Justin of Nabesna explained:

... The medicine people were the night people. They were in charge of the night skies. Their job was to ensure that the sacredness of the symbols in the stuff that *Nek'eltaeni* left to guide us was not interpreted to the benefit of any one person or group. So, they made it off-limits to people. Only the medicine man kept the interpretations in their rank and file. That's why you run into the issue of why there's so much fuzziness, whereas I come directly out of a medicine-man family. I'm supposed to know this stuff. I don't, but I'm supposed to.

A Sketch of the Alaskan Gwich'in Constellation, *Yahdii*

Nek'eltaeni and the Alaskan Gwich'in whole-sky constellation, *Yahdii* ("he sits in his house"), are close analogs in representation and cosmological and spiritual value.⁵ For instance, *Yahdii* began his tenure on earth as the ancient Traveler, *Ch'iteehàakwaii* ("he started out paddling among things"), who commenced his journey paddling after inventing the birchbark canoe. Along his journey, *Ch'iteehàakwaii* transformed dangerous animals into their present forms while simultaneously altering the landscape. Among his numerous deeds and adventures, he traveled with the famous giant *Zhee Choo* ("big sky") and directed the muskrat to dive for earth during a great primordial flood. Like other Northern Dene peoples, the Traveler's exploits, in conjunction with those of his Distant Time (*deenaadq̃i*) associates, is pervasive to Gwich'in attitudes and perceptions towards nature and the world more broadly. Ancient events and transformations not only explain the physical appearance of the world and its inhabitants, but they also edify and give meaning to behavior, character, and relational aspects, particularly those between humans and animals. In this regard, the Traveler is a cosmogonic personage.

Like the Ahtna Traveler, *Ch'iteehàakwaii* began his journey in the east on the Upper Porcupine River and continued down the Yukon River, approximately traveling in a westward direction. Although the fate of *Ch'iteehàakwaii* is unresolved

in elders' stories as a paddler lost in the Yukon Delta or ocean, traditional-knowledge bearers who have specialized knowledge of the stars affirm that he or his spirit (*vanky'aa*) went to the sky as the massive constellation *Yahdii*.

Yahdii spans greater than 143 degrees across the sky and is comprised of at least 16 asterisms named using Gwich'in body-part terms (cf. Cannon and Holton 2014:2–3).⁶ *Yahdii* also wears a single-strapped bag (*va'q̃h̃tsùu*) on his left side and holds a walking stick/spear/medicine staff (*vatõo*) in his left hand.⁷ The Milky Way (*vataji*) is his snow-packed trail that circles the world (Table 2; Fig. 1). *Yahdii* is crouched on all fours over Earth in a protective position analogous to imagining the sky as a large inverted bowl. The low-altitude asterisms near the horizon (head, hands, feet, and cane) are considered closest to earth, while the stars in the center of the sky (body, heart, and tail) are the farthest away. Late January through March present ideal times to observe this whole-sky constellation as *Yahdii* is directly centered in Alaska's evening sky. In autumn, *Yahdii's* left side is partially hidden below the evening horizon, becoming more centered toward the morning. The apparent rotation of stars through the sky is referred to as *Yahdii ahaa* ("Yahdii is walking") or *Yahdii geelee nideekhaa* ("Yahdii travels over the span"). These phrases are descriptive of the Traveler's transmogrified journey in the sky as *Yahdii*. The stars comprising *Yahdii* are nearly identical to the Ahtna constellation, *Nek'eltaeni*.

Although consultants discuss the identity of *Yahdii* with brevity and discretion, he is regarded as a friend, ally, teacher, and the embodiment of all knowledge, beings, and forces of nature. As such, he is also a gamekeeper, distributor of medicine power, and "the caretaker of the world." *Yahdii's* image in the stars depicts the ancient Traveler transforming into one of his animal helpers. Although *Yahdii* has a human body with an animal head and tail, the specific type of animal to which these features correspond is deeply personal and unshared knowledge that aligns with an individual's primary animal helper, or ally, acquired through dreams (*gininlyaa*) or the vision quest. Despite minor conceptual differences specific to individuals, the actual stars corresponding to *Yahdii* are well-corroborated by several traditional-knowledge bearers.

Acquiring personal knowledge about *Yahdii* is equated with the process of gaining knowledge and power as a *dazhan* ("medicine person") in emulation of the Traveler on earth and in the sky. Specifically, a "spiritual person" prescribes a *dazhan* novitiate a special form of vision quest comprised of five or six increasingly difficult phases to test and combat his fears. Through these experiences

Table 2. Identification of asterisms in the Gwich'in constellation *Yahdii*. Stars are identified by Bayer or else Flamsteed designations, when necessary, followed by common name in parenthesis. This Table is expanded and revised from that reported in Cannon and Holton (2014:3).

Asterism	Translation	Stars
vitsì'	his tail	The Big Dipper
tł'qhts'ąjį vanlì'	his left hand	ο Leo (Subra), α Leo (Regulus)
shreets'ąjį vanlì'	his right hand	γ And (Almaak), β Tri
tł'qhts'ąjį vatth'àn	his left leg	a general region of stars
shreets'ąjį vatth'àn	his right leg	a general region of stars
tł'qhts'ąjį vidzèe	his left ear	α Gem (Castor), β Gem (Pollux)
shreets'ąjį vidzèe	his right ear	α Aur (Capella), β Aur (Menkalinan)
vanch'àl or vantsjh	his snout or his nose	Messier object 45 (Pleiades)
vindee	his eyes	ι Aur (Hassaleh), β Tau (Alnath)
vikì'	his head	all the stars comprising the ears, eyes, and snout
vizhin	his body	15 Lyn, ο UMa (Muscida), h UMa (Alhaid IV), 36 UMa, θ UMa (Alhaid V), ι UMa (Talitha), κ UMa, (Alkaphrah), 31 Lyn (Alsciaukat)
tł'qhts'ąjį vakwàì'	his left foot	α Boo (Arcturus), η Boo (Muphrid)
shreets'ąjį vakwàì'	his right foot	α Cyg (Deneb), γ Cyg (Sadr)
tł'qhts'ąjį vigin	his left arm	a general region of stars
shreets'ąjį vigin	his right arm	a general region of stars
vidrii	his heart	27 Lyn
vatòo	his cane	the stars in the top of the cane are η Leo, γ Leo (Algieba), ζ Leo (Adhafera), μ Leo (Rasalas), ε Leo. The stars in the bottom of the cane are all the stars between ο Leo (Subra) and α Hya (Alphard)
va'qhtsùu	his bag	X UMa (Taiyangshou), ψ UMa, μ UMa (Tania Australis), λ UMa (Tania Borealis)
vatajį	his trail	Milky Way Galaxy
są' gwat'an taji	trail of stars	Milky Way Galaxy (variation)

and challenges, a person gains power and becomes complete by recapturing and embodying all the beings of his former reincarnated self. Emerging from the final stages of this journey assumes an understanding of *Yahdii* and a relationship with him as a primary ally, helper, and teacher. In this respect, one traditional-knowledge bearer explained: "The higher the power, the more schooling you've had . . . *Yahdii* is like the highest power. By the time you know about *Yahdii*, you know a lot." The specific association of *Yahdii* with *zhan* ("medicine power/shamanism") is supported by another elder who explained:

The Big Dipper and other [stars], they talk about a lot of other things. But they don't talk about too

much. And they know it's probably a sacred thing and a lot of thing they [*dazhan nąjį*] don't tell us, you know.

The concept of "belief" as a requisite for discovering *Yahdii* applies to at least one particularly sacred star. My exposure to this star began early in my research when I made initial attempts to understand the enigmatic identity of *Yahdii*. In lieu of any verbal explanations, my primary consultant, Paul Herbert of Fort Yukon, directed me to look for an unspecified dim red star that "just certain people can see." He said:

There's one red star up there somewhere. I'm not telling you where, but there's a red star like that, you see that. OK, just certain people can see it.



Figure 1. Artistic depiction of the whole-sky Gwich'in constellation *Yahdii*, *Yeedak Gahaajil* (the lower star in *Yahdii*'s left foot and the two beside it), and *Zheet'an Dha'ajj* (below *Yahdii*'s right knee) as seen from Fort Yukon on November 15, 2018 at 07:30 local time. Zenith lies in the center of the circle. Artwork by Mareca Guthrie in consultation with Chris Cannon and Paul Herbert.

You see, so it's kind of a sacred thing. If you don't believe in it, you don't see it. And it's up there; go out there and look. Look for it. And if you see it, do tell me. . . . I could show you, but you wouldn't learn that way, so you've got some work to do.

Although I worked with Paul regularly, I did not perceive any significant progress towards understanding the identity of *Yahdii* until I had correctly located this dim “red star” three-and-a-half years later. My assigned task to find this star was not only a response to an overly frank question, but it also exemplifies a heuristic learning process designed to promote a stronger relationship to the sky and incite introspection, awareness, and curiosity about ourselves and the world around us. These experiences, combined with stories and many trips together on the land, better informed our discussions and provided the cultural frame to piece together the location of the enigmatic “red star” and the identity of *Yahdii*. After correctly identifying this star, I learned that it is called *vidri* or *Yahdii*'s heart. Like *Nek'eltaeni*'s heart, this star (27 Lyn)⁸ is *Yahdii*'s soul or spirit, which is the embodiment of all that he worked with while transforming the world. Discovering his heart reflects a spiritual awareness of oneself

and a relationship with *Yahdii* and the world as an ancient part of it.

In addition to *Yahdii*, a linear constellation of three morning stars called *Yeedak Gahaajil* (“they went up/rose”) appear in sequence on the northeast horizon from mid-October to early December.⁹ While these stars— δ Boo (Thiba), ϵ Boo (Izar), and α Boo (Arcturus)—are utilized to determine the timing of subsistence activities at dawn, they are also regarded as “three spirits” rising towards “heaven.” These spirits are returning to *Yahdii* along his Milky Way trail to remain in a place of afterlife (if “complete”), or else they continue on the soul's cyclical journey of reincarnation or *neh-dlijj* (“to be again”).

Although several other individual stars have names, such as Polaris or *Zheet'an Dha'ajj* (“[star] in the middle of the sky”), a third and final constellation is described as a dangerous tiger-like being who is always watching and listening from above to “lure you into his trap.” While the name and precise stars that correspond to this constellation are known, consultants prefer not to share this knowledge. Like the analogous Ahtna constellation, dangers associated with this malevolent being are assuaged by closely observing traditional values, taboos, and protocols. While I did not learn a specific Gwich'in eschatology associated with this being, one elder explained that the world will end when the relative positions of the stars in *Yahdii* become stretched or skewed. This prophecy underscores the role of *Yahdii* in the continuation of the world as well as society's responsibility to treat the world properly and live within the norms of established social constructs.¹⁰

While the prophetic and prognostic aspects of Gwich'in constellations are perhaps less pronounced than those described by Ahtna consultants, these concepts persist throughout the wider domain of Gwich'in astronomical knowledge. These celestial auguries and portents are interpreted by a *dazhan*, or else they are known through personal discovery and realization. This precept is illustrated by one elder who explained his own attempts to learn Gwich'in stellar knowledge. He explained:

All that time, I talked to quite a few person [elders], but they always tell me that lots of things that will happen tomorrow is always written with the star they said; up there. But that's all they said. And they never tell how it look or anything.

Although many aspects of Gwich'in astronomical knowledge belong to a specialized and sacred way of knowing, other aspects such as time-reckoning, stellar wayfinding, and predicting the weather based on the appearance of stars was once general knowledge, particularly in the Yukon Flats. However, the boundary between secular knowledge and

a *dazhan's* way of knowing is diffuse and probably always varied more by degree than by type. In addition, the potential to incarnate *Yahdii's* heart is seemingly open to anyone, given that it is the process of self-discovery, framed by teachings from the land, elders' words and stories, and personal experiences, which fundamentally leads to the realization of *Yahdii*. Knowledge bearers want you to discover this, but you must do the work yourself. In many respects, stargazing is an active spiritual experience where the observer seeks or affirms a relationship with *Yahdii* through processes of incarnation. Several middle-aged consultants recalled seeing elders before the 1970s who stood outside their cabins on clear nights to observe the stars for extended periods in bitterly cold weather. As children, these consultants were confused by this practice, given that one of the elders continued to regularly observe the stars after she was nearly blind.

Today, indigenous Gwich'in stellar knowledge is maintained by just a few traditional-knowledge bearers, and the word *Yahdii* is almost exclusively used to denote just the seven stars in the Big Dipper. The late elder Simon Francis Sr. summarized the endangered status of this knowledge in the following statement:

Yahdii, long time ago no white man, but he [Gwich'in people] know that star. He watch that star all the time. What time, all that. So even some old people know that yet, but not many people.

A Sketch of the Sahtúot'ine Constellation, *Yíhda/Yámqréya*

Stellar knowledge learned from Charlie Neyelle in Délı̄ne, Northwest Territories is remarkably like the Ahtna and Gwich'in conceptualizations found in Alaska, illustrating the maintenance of analogous systems in widely separated Northern Dene communities (>1,200 km apart). During my inaugural trip to Délı̄ne in October 2018, Charlie drew from his repertoire of stories in the Traveler cycle to contextualize and explain Sahtúot'ine stellar knowledge. At the beginning of this story cycle an *zıtsiné godı́* ("living spirit") that resonates through all things sends his two grandsons, *Yámqréya* ("the one who departed to go around the world") and *Yámgha* ("the one who is next to [the one who went] around the world"), to the bush to begin their spiritual training. The two brothers are instructed to use their minds to obtain knowledge about everything in the world. Through their dreams they experience what it is like to live as every object, being, and entity in the universe, thereby gaining its knowledge and establishing "magical ties" to everything. When the brothers finish dreaming, they conclude that it is time to

return to their grandfather having nothing else to learn. Charlie explained:

Both of them, they agree. They agree, I think they done everything, everything in the world. They learn how to live even [like] the tree. Even a flower, grass, all of it. They used to live with it. And they learn all the universal. They learn all this universal. And they have so much power. And they [are] using that power. So, they're both brothers, and they got nothing else to study no more. They figured they done everything, everything in the world. . . . So, they're both telling each other, "I think I went through the whole thing. And then nothing else that I can learn no more. So, well, we're both ready. Well, let's go to grandpa." Grandpa [is] a very powerful *zıtsiné*. . . . He's the one that [has] knowledge about everything.

After returning, their grandfather asked them who will be the first to go around the world to transform or "settle" everything as it is today. The younger and braver brother volunteered first, and so he received the name *Yámqréya*, while his older brother received the less significant name *Yámgha*. Both brothers were giant spiritual people or *nakwánáreze* ("ones who walk in front") who commenced their journeys traveling around the world in opposite directions to transform dangerous giant animals and beings as they went.

During an early part of his journey, *Yámqréya* ascended a narrow path between two mountains where he encountered a lion that snared people along its trail. *Yámqréya* used the knowledge from his dreams to think ahead of the lion, eventually killing it by shooting an arrow in its lower neck. As found in Ahtna and Gwich'in, the malevolent lion/tiger being incarnated in the stars as an unidentified constellation known by the archaic term *zemóqhdzí*.

After "settling" the lion/tiger, *Yámqréya* proceeded around the world from top to bottom, traveling in a sunwise direction. He invented indigenous technology, transformed flora and fauna, and shaped the landscape. In a vivid series of four related stories, a family of bears attempts to kill *Yámqréya* by sending him on a quest to dangerous places to obtain materials for building arrows. He characteristically overcomes each obstacle, procuring feathers from a giant eagle, sinew from a giant caribou, flint/obsidian from a giant frog, and spruce pitch from the transformed snot of giant wolverines. Accordingly, the completed arrow and each of the raw materials corresponds to a bright star: *k'ít'a* ("feather," α Tau), *kwé?* ("sinew," β Ori), *k'ídare* (arrowhead, α CMa), *ts'ı́ dzéh* ("spruce pitch," α Ori), and *k'ı́* ("arrow," α Aur).

Like the Ahtna and Gwich'in constellations, *Yámqréya's* spirit incarnated in the stars following the completion of his journey. However, Charlie also explained that the entire *Yámqréya* story

Table 3. Identification of asterisms in the Sahtúot'ine constellation *Yíhda* or *Yámqréya* and other conceptually related stars and constellations. Stars are identified by Bayer or else Flamsteed designations, when necessary, followed by common name in parenthesis.

Asterism	Translation	Stars
íts'ê belá	his left hand	24 Leo (Rasalas), 17 Leo (Algenubi)
sáq belá	his right hand	ζ UMa (Mizar)
íits'ê bekw'oné	his left leg	ζ Leo (Adhafera), 41 Leo (Algieba), η Leo (Al Jabhah), α Leo (Regulus)
sáq bekw'oné	his right leg	ν UMa (Alula Borealis), ξ UMa (Alula Australis), 72 Leo (Zubrah), δ Leo (Zosma), θ Leo (Chertan)
bekwí	his head	θ UMa (Alhaud V), φ UMa (Alhaud VII), υ UMa (Alhaud VI), 23 UMa (Alhaud IV), τ UMa (Alhaud II), 4 UMa (Althiba III), o UMa (Muscida), 15 UMa (Alhaud I)
bezhi/bezhine	his torso	ψ UMa, ν UMa (Alula Borealis), 37 LMi, 21 LMi, HIP 47029
zedzə	something's heart	λ UMa (Tania Borealis)
íits'ê beké	his left foot	α Leo (Regulus), o Leo (Subra)
sáq beké	his right foot	θ Leo (Chertan), β Leo
íits'ê begwóné	his left arm	ι UMa (Talitha), κ UMa (Alkaphrah), 10 UMa, HIP 44700, 38 Lyn, α Lyn
sáq begwóné	his right arm	ψ UMa, χ UMa (Taiyangshou), 5 CVn
télu/ʔetene	trail	Milky Way Galaxy
libóchə	ladle	calque term for Big Dipper (in Ursa Major); <i>Yámqréya</i> 's cooking vessel, also called <i>Yíhda</i>
ʔemóqhdzí	(archaic)	an unidentified constellation of an ancient Tiger-like figure
k'í	arrow	α Aur (Capella)
k'ít'a	feather of arrow	α Tau (Aldebaran)
dzéh	spruce pitch	α Ori (Betelgeuse)
kwéʔ	sinew	β Ori (Rigel)
k'íjdare	arrowhead	α CMa (Sirius)

began “recording” in the stars as the events unfolded, and it is all sitting in the sky waiting to be read. In other words, the stars are *Yámqréya*'s stored experiences of the world's transformation left for others to know and read. Charlie stated:

They place all this, like [what they learned] is still up there . . . *Yámqréya* did that. So, he get rid of all the giant, all these dinosaurs. And that all recording up there . . . When I had my tent out and look up at the sky, it just full of star. Just full of star and my dad told me don't look up there too much; because of all this, this *Yámqréya* settle everything. Settle everything, and they're recording up there. So, all these stories, these are all his story. Story will be sitting there [in the stars].

The Traveler constellation itself is referred to as either *Yíhda* or *Yámqréya*, and the Milky Way is his trail known as *télu/ʔetene*. Although the *Yámqréya* constellation is smaller than its

Ahtna and Gwich'in analogs the collective representation of stars remains unified in the mythology of ancient time. Aside from the Big Dipper, the *Yámqréya* constellation is largely comprised of extremely dim stars suggesting a specialized domain of knowledge (Table 3; Fig. 2). In addition, *Yámqréya*'s role as a gamekeeper is equally pronounced in the Sahtúot'ine system. The Big Dipper, also known as *Yíhda*, is conceptualized as *Yámqréya*'s cooking vessel containing all the flora and fauna in the world which he distributes to worthy people or those in need. All the plants, animals, and other entities that *Yámqréya* worked with are signified by the vast assemblage of unnamed stars, all flowing into the Big Dipper. Charlie explained:

Yámqréya, they said in the future you will see my Dipper. You will see my *Yíhda*. He said, “I will be there holding it.” When anybody ask him

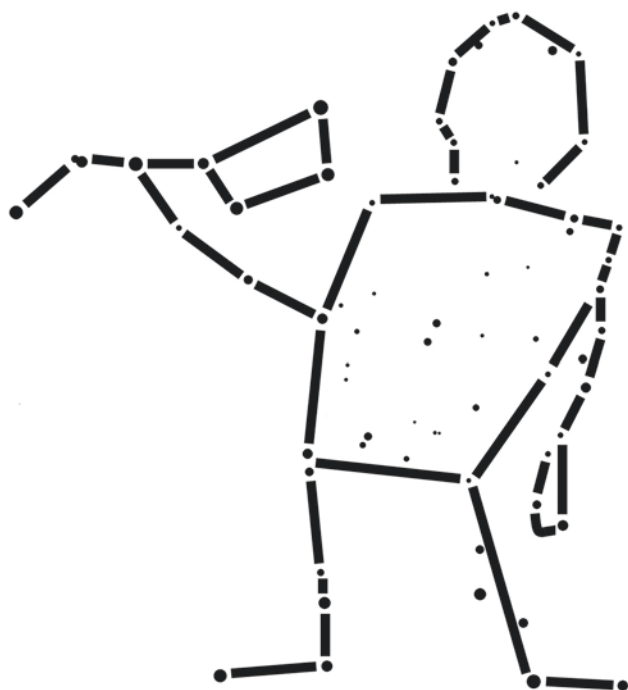


Figure 2. Star-and-stick diagram of the Sahtúot'íne constellation *Yíhda*, or *Yámqréya*.

about anything and then the Dippers, they come down . . . and then this is the one [all the flora and fauna in the world represented by stars] that goes into Dipper, and whatever you ask him, he'll give it to you.

Yámqréya's significance as a gamekeeper is further illuminated by the exclamation *Yíhda ʔajá* (“*Yíhda* happened”), which expresses a premonition of hunting or fishing luck, such as when a stone is found in the stomach of a lake trout or when a snowshoe hare is snared by a hind leg.

Yámqréya and *Yámqgha* also provide the Sahtúot'íne with a model for gaining visions and power through dreaming. Like the brothers' initial dreaming in the bush, establishing a “magical tie” (*ík'ó*) to something is accomplished by dreaming about it many times. Charlie commented on this process:

Like one person . . . he was a magical tie to fish. So, every bone, he dream about it. And then in the next bone, what is it, he dream about it. And then all of the scale; every scale. There are hundreds of scale. They're each [a] dream. He dream about it in a vision. And then he goes, and goes, and goes until he had a full knowledge of just one thing.

Taken collectively, the Sahtúot'íne stars are unified in the mythology of ancient time and depict a legacy of *Yámqréya's* stored experiences left for observant, and perhaps spiritually gifted,

Dene to read and know. In addition, *Yámqréya's* heart is explicitly referred to with the indefinite form, *ʔedzǎ* (“something's heart”), given that it is the embodiment of the world's collective heart or soul. Discovering the Traveler's heart and story in the stars is like a life riddle and a benchmark of wisdom and self-discovery where the individual begins to recognize his or her own soul as an ancient and connected part of the world and all things that *Yámqréya* transformed for the benefit of humanity. Likewise, there is a recognized eschatology tied to the malevolent lion/tiger constellation that particularly hinges on proper care and respect for the world. As Charlie stated, “That star tiger up there, he'll come back. And it's gonna come out if you don't take good care of it [the world].”

Additional Examples from this Study

Wider variations of the astronomical knowledge so far presented are found in places across the Northern Dene region. Although completely different systems localized to regions not yet investigated are plausible, our results suggest a larger pattern, both in terms of stellar nomenclature based on a body-part metaphor and on the association of this knowledge with the Traveler mythology and events of Distant Time. While this research is admittedly skewed towards Alaska and the Northwest Territories, we (traditional-knowledge bearers and co-researchers) have confirmed humanoid or therianthrope constellations of varying size in nine of the 11 Northern Dene ethnolinguistic groups investigated to date, all of which were previously glossed in linguistic and ethnographic sources as just the Big Dipper or Ursa Major. Moreover, constellations with a name cognate to “Gwich'in *Yahdii* and documented as referring to the Big Dipper are found in at least 17 other Dene languages occupying a contiguous area stretching from the Alaska-Yukon border region east to Hudson's Bay” (Cannon and Holton 2014:4). In the remaining Alaska Dene languages, terms previously glossed in linguistic sources as the Big Dipper, exhibit more variability, each derived from a verb stem describing the constellation's motion (Cannon 2014:58–59). Nonetheless, large humanoid constellations are common to both categories of terms, those cognate to Gwich'in *Yahdii* and those based on a verb stem describing the constellation's motion (e.g., *Nek'eltaeni*). Next, I provide abbreviated descriptions of humanoid constellations learned in other Northern Dene ethnolinguistic groups beginning with Upper Tanana.

Upper Tanana

The stars that delineate an Upper Tanana whole-sky constellation are nearly identical to the Ahtna

Table 4. Identification of asterisms in the Upper Tanana constellation *Yihdaa* or *Neek'e'eltiin* or *Che' T'iin*. Stars are identified by Bayer or else Flamsteed designations, when necessary, followed by common name in parenthesis.

Asterism	Translation	Stars
uche'	his tail	Big Dipper (in Ursa Major)
tl'ahts'ay ula'	his left hand	o Leo (Subra), α Leo (Regulus)
hqqsqq ts'ay ula'	his right hand	α Cas (Shedar), β Cas (Caph)
tl'ahts'ay uxol'	his left leg	a general region of stars
hqqsqq ts'ay uxol'	his right leg	a general region of stars
tl'ahts'ay udzagn'	his left ear	β Gem (Pollux)
tl'ahts'ay udziit	his left inner ear/hearing	α Gem (Castor)
hqqsqq ts'ay udzagn'	his right ear	α Aur (Capella)
hqqsqq ts'ay udziit	his right inner ear/hearing	β Aur (Menkalinan)
mijtsij	his nose	Messier object 45 (Pleiades)
unaagn'	his eyes	β Tau (Elnath), ι Aur (Hassaleh)
utthi'	his head	all the stars comprising the eyes, ears, and nose
uk'oh	his neck	the area bounded by the stars 31 Lyn, 15 Lyn, α Gem (Castor), β Aur (Menkalinan)
usak	his torso	15 Lyn, o UMa (Muscida), h UMa (Alhaid IV), 36 UMa, θ UMa (Alhaid V), ι UMa (Talitha), κ UMa, (Alkaphrah), 31 Lyn (Alsciaukat)
tl'ahts'ay uke'	his left foot	α Boo (Arcturus), η Boo (Murphrid), or the variation: δ Leo (Zosma), β Leo (Denebola)
hqqsqq ts'ay uke'	his right foot	γ Dra (Eltanin), β Dra (Rastaban)
tl'ahts'ay ugaan'	his left arm	a general region of stars
hqqsqq ts'ay ugaan'	his right arm	a general region of stars
udzeey	his heart	27 Lyn
san' tay'	star trail	Milky Way Galaxy
ugot	his knee	a single unidentified star

and Gwich'in configurations (Table 4). A significant variation is that this humanoid constellation is one of the notorious *Che' T'iin* ("tailed people") that the Traveler (*Yamaagn Teeshyaay*) killed during his ancient journey around the world.¹¹ For this reason, a consultant from Tetlin strongly rejected the beneficent interpretation of this constellation and referred it as a *gq* ("monster"). Nonetheless, he explained that the Traveler resides in an unseen realm above the stars and occasionally incarnates on earth as one of the chickadee species known as *Ts'igqak*. The appearance of a chickadee is regarded as a blessing. In addition, the *Che' T'iin* constellation points his hand up to the realm where *Yamaagn Teeshyaay* resides as a reminder for people to live by his example. The *Che' T'iin* constellation is also known as *Yihdaa*

or *Neek'e'eltiin* in other Upper Tanana communities and is comprised of at least 20 groups of stars named using a body-part term. A "morning star" called *Ikaay K'adeht'qq'a* (Arcturus or Altair) is an important time referent to determine hunting activities at dawn.

Yellowknives Dene and Koyukon

Although Yellowknives Dene and Koyukon traditional-knowledge bearers delineated humanoid constellations comprised of body-part asterisms, we are not yet able to confidently situate them in meaningful systems of knowing. However, in both cases, these humanoid constellations are about the size of the Sahtúot'ine constellation and are described with similar reverence. For example,

Table 5. Identification of asterisms in the Yellowknives Dene constellation *Yéhdāa* (Tetsót'ine dialect of *Dëne Sųhne*) or *Yihda* (Wüliùdeh dialect of Tłı̨chų). This table reflects a multilingual community. The first nine asterisms are given in the Tetsót'ine dialect of *Dëne Sųhne*, whereas the two final asterisms are given in the Wüliùdeh dialect of Tłı̨chų, as elicited in the field. Stars are identified by Bayer or else Flamsteed designations, when necessary, followed by common name in parenthesis.

Asterism	Translation	Stars
betthí	his head	υ UMa (Alhaid VI)
begáné	his arms	His right arm: α UMa (Dubhe), η UMa (Alhaid IV), τ UMa (Alhaid II). His left arm: β UMa (Merak), θ UMa (Alhaid V)
belá	his hands	his right hand: ο UMa (Muscida). His left hand: ι UMa (Talitha), κ UMa (Alkaphrah)
bezié	his torso	α UMa (Dubhe), β UMa (Merak), γ UMa (Phecda), δ UMa (Megrez)
bet'ás/benéné	his back	δ UMa (Megrez), ε UMa (Alioth), ζ UMa (Mizar), γ UMa (Phecda)
bek'arełka	place where he was hit with arrow	HIP 65477 (Alcor)
k'á nqlchéth	quiver (for arrows)	θ Boo (Asellus Primus)
betl'á	his buttocks	η UMa (Alkaid)
beké	his feet	His right foot: α CrB (Alphecca) or β Boo (Nekkar). His left foot: ε Boo (Izar) or γ Boo (Seginus)
whò tlı̨ lı̨la	star trail altogether	Milky Way Galaxy
<i>Yihda</i> wets'ekeè	<i>Yihda's</i> wife	β Cas (Caph), α Cas (Shedar), η Cas (Achird), γ Cas (Navi), δ Cas (Ruchbah), ε Cas (Segin)

one elder from Dettah, Northwest Territories, explained that his grandfather prayed to the constellation *Yéhdāa/Yihda* (Table 5, Fig. 3) every night around ten o'clock and then again in the early morning. *Yihda* also wears a quiver for arrows (*K'á Nqlchéth*) and he has a wife (*Yihda Wets'ekeè*) identified as the six brightest stars in Cassiopeia. The Milky Way is *Whò Tlı̨ lı̨la* ("star trail all together"). A variety of other stars not conceptually linked to *Yihda* are also named, several of which are important time referents.

Regardless of an association to stars, the Yellowknives Dene Traveler provides a salient model for seeking, gaining, and using knowledge and medicine power. One consultant described several hills in the Yellowknives Dene estate identified as "seats" or "platforms" where the Traveler figure, *Yamòqya/Yamòzha* ("the one who departed to go around the world/horizon"), rested or camped. These were important places to send young people to have visions and encounters with the nonhuman world. Other landscape features associated with the Traveler's "seats" are found throughout the Northern Dene region with specific locations identified by Gwich'in, Lower Tanana, and Sahtúot'ine consultants. Protocols such as not pointing at stars or casually talking about them are likewise common to the Yellowknives Dene, and at least a couple traditional-knowledge bearers associate aspects of stellar knowledge with *ı̨k'ò*.

Regarding the Koyukon constellation, *Ghed-edzuyhdle* ("those multiple objects which are moving along") or *Naagheltaale* ("that which is revolving") one elder explained that the optimal time to teach or talk about this constellation is when the stars (Table 6, Fig. 4) are intermittently visible through scattered or broken clouds. He also volunteered his stellar knowledge given that he no longer requires it in his advanced age, which provides valuable additional context regarding the dissemination of Dene stellar knowledge. Although this elder drew a picture of *Ghededzuyhdle* (mostly comprised of very dim stars) and encouraged me to write about it for others to learn, he cautioned:

If you talk with people, lots of people, then I don't know what going to happen. You can't see them no more, they said. So this, only me, my grandpa [a medicine person] give it to me. So, I give it away to other people. I tell them not to point at it, not to talk about it all the time.

Tanacross, Upper Kuskokwim, and Dëne Sųhne

In the Tanacross and Upper Kuskokwim ethno-linguistic regions of Alaska, consultants described *Neek'e'elteen* ("that which moves following us") and *Noghiltale* ("that which moves back and forth"), respectively, as undelimited humanoid

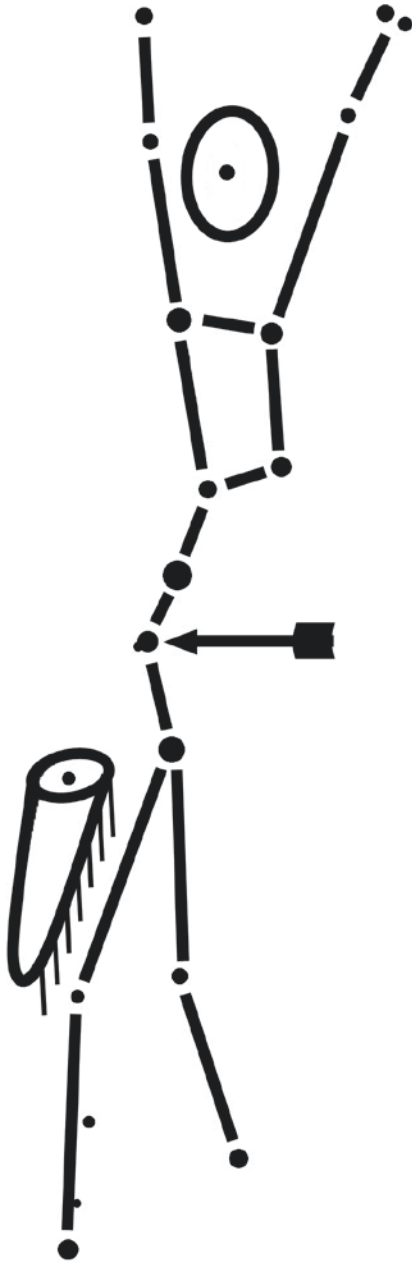


Figure 3. Star-and-stick diagram of the Yellowknives Dene constellation *Yéhdāa* (Tetsót'iné dialect of *Dëne Sų́hné*) or *Yihda* (Wiilùideh dialect of Tłìchų).

constellations. One Tanacross consultant described *Neek'e'elteen* as a “long man” or giant who pushed up the sky in ancient time after crawling beneath it on his hands and knees.¹² She also drew parallels between *Neek'e'elteen's* deeds and those of Jesus or God (*Wut'axdįht'eeey*), which is evocative of the Traveler known in Tanacross as *Yaamaagh Telch'eegh*. A second elder verified this connection by stating that the Traveler appeared in the stars after completing his journey around the world as the first *deshen* (“medicine person”).

Although she did not know the specific stars that compose this constellation, she emphasized that his heart was something that people formerly strived to discover in the sky.

Apparently, little is still known about an Upper Kuskokwim constellation called *Noghiltale* (“that which moves back and forth”), usually identified as the Big Dipper used for time-reckoning. One elder in Nikolai vaguely associated *Noghiltale* with a *nwho'an*: a hairy “ape-man” or brush man. The Pleiades is a group of caribou called *Midzish* pursued by two unidentified stars described as brothers.

During a pilot study of Dëne Sų́hné astronomical knowledge conducted in collaboration with the Smith's Landing First Nation, one elder associated the Big Dipper or *Yéhdāa* with the Traveler figure giant *Hochō/Hochok* (“the big one”). The Milky Way is a trail known by the unpossessed forms *Tųlu/Tųlu*, or alternatively, *Tthén Lu* (“frozen star”). A more concerted effort to learn from elders throughout the Dëne Sų́hné region will likely confirm a larger constellation based on the body-part metaphor.

Following the acceptance of this manuscript, a Lower Tanana consultant named and identified 25 groups of stars in the whole-sky constellation, *Nogheyole* (“the one who continually walks”), described as the Traveler, *Ch'eteetadkhanenh*. Preliminary work with a Hän elder in Alaska has yielded sparse results on traditional stellar knowledge.

In summary, my field research has identified two separate Dene conceptualizations of these large humanoid constellations: one as the incarnation of the ancient Dene Traveler or similar Distant Time figure (e.g., Giant), and one as a dangerous being that the ancient Traveler killed.¹³ The Traveler constellation also apparently extends to Dena'ina. This evidence is found in the “Dena'ina Topical Dictionary,” where the Traveler's name *Yubugh Tayqan* (“one who paddled around the world”) is glossed as an unidentified constellation in tandem with several other unidentified star groups based on phrases that incorporate body-part terms (Kari 2007:148). Star groups (Orion and the Pleiades) described as hunters pursuing an animal were uncommon in my field research; however, they were identified by single consultants in the Upper Kuskokwim and Dëne Sų́hné ethnolinguistic groups but not necessarily in lieu of a humanoid constellation.¹⁴

Discussion

Distribution of the Northern Dene Mythic Traveler Cycle

A Traveler-Transformer is a pan Northern Dene cosmogonic personage extensively documented

Table 6. Identification of asterisms in the Koyukon constellation *Ghededzuyhdle* or *Naagheltaale*. Stars are identified by Bayer or else Flamsteed designations, when necessary, followed by common name in parenthesis.

Asterism	Translation	Stars
tl'eghests'ene' belo'	his left hand	γ Leo (Algieba) or α Leo (Regulus)
nefneyhts'ene' belo'	his right hand	α UMi (Polairs)
tl'eghests'ene' betl'ene'	his left leg	Alkaphrah (χ UMa), Chara (β CVn), Co Caroli (α CVn)
nefneyhts'ene' betl'ene'	his right leg	handle of Big Dipper (in Ursa Major)
betlee'	his head	31 Lyn (Alsciaukat)
bedoghone'	his torso	region bounded by the stars α UMa (Dubhe), σ UMa (Muscida), α Lyn, ψ UMa
betsokk'e	his belly	region bounded by the stars δ UMa (Megrez), α UMa (Dubhe), ψ UMa, χ UMa (Taiyangshou)
tl'eghests'ene' bekaa'	his left foot	α CVn (Cor Caroli)
nefneyhts'ene' bekaa'	his right foot	η UMa (Alkaid), θ Boo (Asellus Primus)
tl'eghests'ene' betl'eele'	his left arm	α Lyn, ϵ Leo (Algenubi), γ Leo (Algieba)
nefneyhts'ene' betl'eele'	his right arm	σ UMa (Muscida), α UMi (Polairs)
bebet	his buttocks	stars not yet identified
benene'	his backbone	stars not yet identified
yokk'uł	sky neck	Milky Way Galaxy

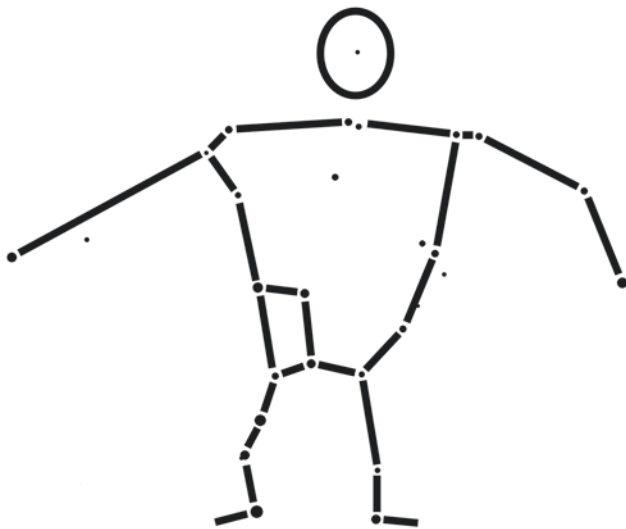


Figure 4. Star-and-stick diagram of the Koyukon constellation *Ghededzuyhdle* or *Naagheltaale*.

in the literature (Attla 1990; Blondin 1990, 1997; Brean 1975:17–19; Cruikshank 1979:83–98; David and Lovick 2017:128–141; de Laguna et al. 1995; Demit and Joe 2010; Goddard 1917; Helm 2000:281–286; Honigsmann 1954:100–104; Lowie

1912:195–200; Mason 1946:41–42; McClellan 1975:72–75; McClellan et al. 2007:31–39, 59–77; McKennan 1959:175–189; Moore 1999:85–108, 413–423; Moore and Wheelock [eds.] 1990:xix–xxi; Osgood 1932:89–91; Petitot 1886:16–43; Petitot and Habgood 1970; Ridington 1978:116–119, 1988:116–138; Rooth 1971:120–364; Sabourin and Edgi 1975; Schmitter 1910:21–25; Tenenbaum 2006:54–71; Voudrach 1965; Williamson 1955). Likewise, this figure extends to Pacific Coast Dene (Goddard 1903:74–78) and Apachean, where it has an analog in the Navajo *Monster-Slayer* and his twin brother *Born-for-Water* who, according to Griffin-Pierce (1997:6), “made the earth’s surface safe for humans by killing the monsters.” Perhaps not by coincidence, these Traveler-Transformer figures are also Navajo constellations (Griffin-Pierce 1992:81; Haile 1947:16). Moreover, Haile (1947) identifies that Navajo constellations are subdivided into numerous asterisms named after body parts, of which a portion of these humanoid figures also grasp a cane delineated in the stars.

In Ahtna, just a few episodes of the Traveler cycle are published. These stories are equated with *Ciil Hywaa* (“Smart Boy”) (Billum et al. 1979:91–95) or else they are projected on the Raven (Billum and Buck 1975).¹⁵ Four untranslated audio recordings of the Traveler by the name *Yabaaghe Tezyaann* are available through the Alaska Native

Language Archive. Apparently, no episodes of the Traveler by the name *Netseh Telyaanen* (“the one who leads us ahead”) in the Cantwell dialect of Ahtna are recorded. Other Dene languages that recognize the Traveler by a name cognate to *Yabaa-ghe Tezyaan* are Dena’ina, *Yubugh Tayqan* (Kari 2007:310), Tanacross, *Yaabaa Teeshaay* (Demit and Joe 2010), and Upper Tanana *Yamaagn Teeshyaay* (David and Lovick 2017:128–141).

As with other Northern Dene languages, the Gwich’in Traveler cycle is projected on at least two figures: *Ch’iteehàakwaii/Atachuukqii* and *Vasaagihdzak* (and variants thereof). While McKennan (1965:98–122) compiled the largest collection of Gwich’in Traveler texts, additional episodes and commentary appear in the following published sources: (Camsell and Barbeau 1915; Heine et al. 2007; McGary 1984:385–416; Mishler [ed.] 1995:22–43; Osgood 1936:164–166; Petitot 1976:61–66; Petitot and Habgood 1970:94–104; Vuntut Gwitchin First Nation and Smith 2009:12–16; Williams and Gabriel 1976).

The issue of conflated Gwich’in Traveler identities is not resolved by consensus among Gwich’in speakers. However, academics have long speculated that *Vasaagihdzak* is a borrowing from the analogous Cree figure, *Wesakidjak*, perhaps introduced during the fur trade (McGary 1984:165; McKennan 1965:89–90; Mishler [ed.] 1995:2–3). This scenario is probable, given that this name and parallel stories also appear in Dëne Sųhne as *Wisáketcak* (Lowie 1912:195), North Slavey as *Haskitjack* (Voudrach 1965:38), and Dane-zaa as *Watc’agic* (Goddard 1917:343) without exhibiting the regular sound changes expected in these divergent Dene languages.¹⁶ Also, other Gwich’in variants are rendered *Weesagajake*, *Vansangitik*, and *Sakeethuk* (Gwich’in Renewable Resource Board 2001:57–59, 65, 93–96), none of which have transparent etymologies without accounting for possible diffusion from the Cree where the Traveler-Transformer figure of this name is widely distributed (see Fisher 1946). In contrast, the Gwich’in Traveler *Ch’iteehàakwaii* (“the one who started out paddling among things”) has cognates or near cognates in Koyukon (*K’etetaalkkaanee*), Upper Kuskokwim (*Ch’ititazkane*), Lower Tanana (*Ch’eteetadhkanenh*), and Hän (*Ch’etatchekih*) (Thompson 1990:143–161).

Issues of exchanged or conflated Traveler identities are by no means isolated to the Gwich’in language area. Regarding the Dene Thá (South Slavey) Traveler figure, Moore and Wheelock state:

... culture heroes such as *Yamonhdeyi* “The Man Who Traveled Around The Edge” and *Mbetsun Yendéshéi* “Boy Raised by His Grandmother” are often interchanged in related Dene stories, and even within one community storytellers may disagree as to which particular culture hero

performed a certain feat (Moore and Wheelock 1990:xx).

Although this paper is primarily concerned with situating Northern Dene astronomical knowledge in a meaningful system of knowing and less with the distribution of mythology, it suffices to say that analogous North American Traveler cycles are equally widespread throughout the Algonquian language family (Chamberlain 1891; Fisher 1946). In addition, several recent sources identify the Cree and Ojibwe Traveler (*Wesakaychak/Nanaboujou*) and a malevolent panther or catlike figure (Ojibwe, *Gaadidnaway* [“Curly Tail”]/*Mishi Bizhiw* [“Great Panther”]) as constellations (see Gawboy and Morton 2014; Lee et al. 2014; Lee et al. 2016), suggesting at least a minimal Northern Dene-Algonquian connection with respect to stellar conceptualizations. To a lesser degree, the Traveler cycle extends to the Inuit (Oman 1995; Rasmussen 1931:209, 364–377; Thompson 1990:162–167; Ticasuk 1981) and Siouan families (Dorsey 1892). These story cycles frequently, but not exclusively overlap with the “earth-diver” motif primary distributed throughout northern Asia and northern North America (Berezkin 2007:110).

The Traveler as an Archetype of the Northern Dene Medicine Person and Vision Quest

The Northern Dene Traveler is variously described as the “First Man” (Demit and Joe 2010), “First Medicine Man” (Wright 1977), “Great Medicine Man” and “Lawmaker” (Blondin 1997:70), “Traveler” (Rooth 1971:364), “Transformer” (Ridington 1978:8), and the “foremost” Dene culture hero (Moore and Wheelock [eds.] 1990:xx), etc. In all its manifestations, the mythic Traveler cycle is a cosmogony of a Dene universe aptly described by Nelson (1983) as a “watchful world.” Regarding the Koyukon, he states:

Traditional Koyukon people live in a world that watches, in a forest of eyes. A person moving through nature—however wild, remote, even desolate the place may be—is never truly alone. The surroundings are aware, sensate, personified. They feel. They can be offended. And they must, at every moment, be treated with proper respect. All things in nature have a special kind of life, something unknown to contemporary Euro-Americans, something powerful (Nelson 1983:14).

Crucially, the nature of the world in Distant Time accounts for a humanlike agency perceived in seemingly all things animate and inanimate (i.e. animism). Nelson (1983:16) describes this agency as “the transformed embodiment of a formerly human spirit” that pervades Northern Dene attitudes towards nature. Concerning the broader

significance of ancient events and their bearing on indigenous Northern Dene ways of knowing, Nelson (1983:16) states: "Stories of the Distant Time are, first of all, an accounting of origins. They are a Koyukon version of Genesis, or perhaps of Darwin." Thompson (1990:3) similarly concludes that Distant Time stories are "the canon upon which Koyukon religion is based," of which the Traveler cycle is "the longest of these stories."

Of central importance to this paper is the interpretation of the Traveler and his ancient journey as an archetype of the Northern Dene medicine person and vision quest, respectively. Frank Speck was perhaps the first anthropologist to recognize the North American Traveler figure as a shamanic personality. For the eastern Algonquian, he states, "the Penobscot transformer cycle, *Gluska'be* appears in the mixed role of a shaman, trickster, and a somewhat altruistic culture-hero. His benevolence grows as the story of his career progresses" (Speck 1918:188).

With respect to the Northern Dene, Ridington (1978, 1988, 1990) significantly carried this interpretation forward as a theoretical model. Variations of this model were subsequently described and identified by Thompson (1990) and Guédon (2005:248–258) in their research with the Koyukon and Upper Tanana ethnolinguistic groups, respectively.

Ridington (1978) particularly explored the Traveler's role in the Dane-zaa Prophet Dance. Among his conclusions, Ridington posited that the mythic cycle of the Dane-zaa Traveler known as *Tsááyaa* (or *Yamadeya*) "provides a model for both the vision quest leading to personal medicine power and the dreamer's initiation leading to his power of mediating between living and dead" (Ridington 1978:18). In a subsequent paper, he states: "Both creation and culture hero stories describe significant dimensions of the ideal shaman's personality (Ridington 1990:71). Most recently, Ridington and Ridington (2013:38) conclude: "*Tsááyaa* was the first hunter, the first person to go on a vision quest, and a model for the first dreamer." Likewise, Guédon (2005:248) identifies the Dene Traveler as "the prototype of the human shaman."¹⁷

These interpretations are based on numerous parallels between the ancient Traveler's journey and the analogous process of becoming a Dene medicine person. Like the Dene Traveler who transformed dangerous animals into useful ones for the benefit of mankind, a Dene medicine person is likewise epitomized as a public figure who works in the interest of his or her society as a diagnostician, diviner, healer, and in a broader sense, a "transformer of malevolent powers into benevolent ones" (Ridington 1978:18).

Chad Thompson (1990) provides an especially useful summary of the Traveler's personality

as a medicine person in his analysis of the Koyukon Traveler cycle, as told by Catherine Attla (1990). In this extensive bilingual collection of Dene Traveler texts, *K'etetaalkkaanee* begins his journey as a young man who sleeps excessively, suggesting heavy dreaming and the commencement of a vision quest (Thompson 1990:14–15). Throughout his travels, *K'etetaalkkaanee* must "live out his dreams" and become a medicine person by overcoming obstacles and dangerous beings, which become the source of his medicine power (Thompson 1990:15). Thompson (1990:14) states:

A Koyukon medicine person will dream of obstacles and gain power from those dreams. When he or she experiences the obstacles in real life, medicine power is needed to overcome them, and when the obstacles have been conquered, the person's power is further strengthened. If an obstacle cannot be overcome, the person has reached an impasse and is unable to go forward or return.

By the end of his journey, *K'etetaalkkaanee* is a powerful medicine person who overcame the greatest of obstacles and challenges as he circled the world to gain his medicine power. In theory, he worked with or controlled seemingly everything on earth, inheriting each as a source of power. In Attla's version, he unexpectedly kills a group of "Little People" (*K'oyeedenaa Yoo*) near the end of his journey despite their kindness and generosity towards him (Thompson 1990:55). Attla explains that he did this "for the sake of the future" and that "if he let them live, the world would not be properly balanced" (Thompson 1990:55). In the final episode, *K'etetaalkkaanee* is permanently transformed into a bird and flies away as a Pine Grosbeak known in the Koyukon language as *kk'ogholdaale* ("the traveler") (Attla 1990:149; Guédon 2005:251). Although Thompson (1990:57) states that the Koyukon do not regard Pine Grosbeaks as having any "special power," I interpret *K'etetaalkkaanee*'s transformation into a bird as a salient and widespread shamanic trait as an interlocutor between "cosmic zones" (see Eliade 1964:157).

Similarly, the Dane-zaa Traveler, *Tsááyaa* became a swan person through the "intervention of a guardian spirit" during his vision quest undertaken as a boy (Ridington 1990:71). Like a swan, *Tsááyaa* became a sort of messenger between earth and sky, who "flies up from this world to bring down the spirit songs of people in heaven" (Ridington 1990:71). In addition, *Tsááyaa* is also linked to the sun and moon, demonstrating parallels with the stellar knowledge described in this paper. Ridington (1978:17–18) states:

The boy [Traveler] then takes the name *Saya* [*Tsááyaa*] sun-moon in the sky, and becomes "like

a soldier” overcoming the giant animals that ate people and transforming them into their present forms. An epic cycle of stories depicts him traveling, like the sun, around the world transforming the monsters into animals that may be of use to people and instructing humans in the arts of successful subsistence. Through his experience of transformation from boy to man in the vision quest, he is empowered to become the transformer of malevolent powers into benevolent ones. At the end of his cycle of transformation, he is said to have left the world and retreated to the moon, the sun’s shadow. It is said that he will return at the end of the world.¹⁸

The newly documented stellar knowledge presented in this paper encourages an extension of this model in at least several ethnolinguistic groups. To begin, I interpret the Traveler’s land-based journey around the world as both a social frame that edifies and as a model of an ideal medicine person in Dene society. The Traveler and other Distant Time stories are fundamental to Dene ways of knowing. As Nelson (1983:14) cogently states, they describe “the nature of nature.” They teach social norms, ancient history, and cosmology, and they frame attitudes, beliefs, and perceptions about the world. As McKennan (1965:98) states: “Before he [*Ch’iteehàakwaii*] left he taught the Indians all that he knew, and thus they obtained their canoes, bows and arrows, and most of their habits and customs.” These are all valid and crucial points that have been previously discussed and identified in Northern Dene ethnography. However, Northern Dene astronomical knowledge is poorly represented in the literature, especially as part of this seemingly “holistic” cosmology and worldview as described in Distant Time stories.

Nonetheless, the present study suggests that the Traveler’s enigmatic transformation to the stars in at least a handful of Northern Dene languages is a sacred component of their cosmology and worldview that embodies a way of knowing about the universe. The Traveler’s transformation to the sky explicitly marks the boundary between a general domain of knowledge and a medicine person’s way of knowing. Crucially, the mythic Traveler cycles usually end just as he completes his world-wide vision quest (the point at which he has fully gained his power to become a medicine person), or else his fate and whereabouts remain open-ended.

As identified by traditional-knowledge bearers in Alaska and Canada, the stars are the incarnated spirit of the Traveler as a medicine person after he completed his vision quest. While the land-based Traveler of mythology provides an underlying model that frames an array of social norms, attitudes, and beliefs, the incarnated Traveler in the stars is a more specific model and archetype of an idealized medicine person who

animates himself as the embodiment of the world’s collective soul back to the universe as a beneficent personage. This is, of course, why consultants identify him as a medicine person’s friend, ally and teacher, and “caretaker of the world.” He is a medicine person’s teacher who acquired all knowledge and power during his world-wide vision quest. In turn, he redistributes and directs this embodied power back to all things in the universe. His crouching stance, as depicted in the Ahtna and Gwich’in whole-sky constellations, is both protective and watchful over the world. He is also a gamekeeper or animal boss who ensures that his ancient contracts made with each species are honored with reciprocity. Animals give themselves to a worthy person in exchange for proper treatment, humility, and observance of relevant taboos and protocols. During historical times of scarcity, a medicine person would have conferred with *Yahdii*, *Nek’eltaeni*, or *Yíhda* to identify the specific problem or breach of taboo, or else divined the location of food resources from another sign, such as the aurora borealis.

In the context of this paper, stars are a specialists’ domain of Northern Dene cosmology, religion, and worldview that integrate with Distant Time stories known more broadly throughout Dene society. This deeper level of knowing is explicit in one elder’s statement: “The higher the power, the more schooling you’ve had . . . *Yahdii* is like the highest power. By the time you know about *Yahdii*, you know a lot.” This is a powerful statement that underscores the equivalence between knowing about the world and knowing *Yahdii*, as well as an equivalence between knowledge and power.

Similarly, Charles Hubbard explained that the especially sacred component of stars is knowing that *Nek’eltaeni*’s identity is that of *Netseh Telyaanen* (i.e., the Traveler, *Yabaaghe Tezyaan*). While this name discrepancy between the mythic Traveler and the constellation may seem incongruent, not calling a person, or thing of status (e.g., bears) by their personal name is well established in Northern Dene ethnology (Thompson 1990:104). Moreover, Thompson (1990:104) identified that medicine people frequently acquired a new name after death, perhaps shedding light on the nomenclature of these Dene Traveler constellations.

In addition, it is worth noting that Dene attitudes and perceptions towards stars closely parallel the ways that medicine people and other persons or things of status are treated, contributing to the enigmatic nature of Dene stellar knowledge. As a generalization, traditional-knowledge bearers do not readily talk about stars, point at them, or frequently address them by name. This perspective is nicely illustrated in the following statement provided by a late Upper Tanana elder from Tetlin, who explained that her mother forbade her from

even using the generic word for stars (*san'*). Apparently, naming a star and then pointing to a person is an act of cursing someone. This elder stated:

I don't know why star is very important not to tell. Young time, right now, kids, they don't understand. But our days, we can't say *san'*. Mom would just have a fit with us. *Ijijh* ["taboo/prohibited"] they say. . . . they make bad medicine to people. . . . *San'*, they call, and they point to just person. I don't know, just bad thing.

Similarly, a Koyukon traditional-knowledge bearer from Allakaket stated:

You're not supposed to point at them [stars] like this too, with one finger. No way! Them old people keep their hands away from that. They said if you point at stars something is going to happen, but I never see what they mean, you know. But there's things that might happen towards us, you know . . . there's somebody up there.

As a collective representation of the Traveler on earth and in the sky, the Ahtna, Gwich'in, and Sahtúot'ine constellations are powerful projections of a Northern Dene worldview that simultaneously link the past, present, and future while also relating the individual, the society, and the universe. Given the specialized nature of this sky-based knowledge, medicine people are likewise the keepers of a larger unified cosmology that they intimately knew from their dreams, travels, and understanding of their own spirit as an ancient and connected part of the world. As an image in the stars, Dene Traveler constellations are a sort of cosmogram. They are richly layered iconic and symbolic representations of an indigenous worldview, cosmology, and religion that encourages society to treat the world properly and to live within the norms of established Dene social constructs. However, a symbolic and iconic interpretation alone is overly simplistic as it does not fully account for the deeply individual experiences with this other-than-human person as a consummate world custodian, ally, teacher, gamekeeper, and as the embodiment and distributor of medicine power.

Although there is significant room to further develop interpretations of these constellations, my goal for this paper has been to further delineate Northern Dene astronomical knowledge and begin situating it in a meaningful system of knowing. I also hope to better demonstrate the value of the sky to Subarctic anthropology.

Despite McKennan's (1959:110) statement that "Starlore plays no part in their [Upper Tanana] mythology," I contest that the mythic Traveler cycle is the basis for understanding the Northern Dene constellations described in this paper. Also, the Traveler's covert transformation to the sky fills a vacancy in the anthropological literature

by providing a more holistic explanation and understanding of a Northern Dene Universe that links earth and sky in an existing and widespread cosmological narrative primarily known through the mythology of Distant Time. As a working theoretical model, the interpretation of the Ahtna, Gwich'in, and Sahtúot'ine constellations as worldview projections seems particularly valid with respect to the recontextualization that they apparently underwent with changes to religious ideology.

A Note on Religious Change

Throughout the Northern Dene region, the indigenous Traveler is now largely equated with Jesus (Mishler [ed.] 1995:23), God (Moore and Wheelock [eds.] 1990:3), or in some instances Noah (Rooth 1971:120–364). Although the Traveler is more properly a Transformer and messenger than a God-like Creator, stories from the Bible are usually interpreted as supportive, complementary, and reaffirming of indigenous Northern Dene beliefs and values as opposed to a competing religious ideology. For example, one consultant explained, "I'm a Christian, but I also go by *Yahdii*."

Nonetheless, erosion and recontextualization of the Traveler constellation were already underway by at least 1874, as evidenced in Radloff and Schiefner's (1874:11) German-Ahtna-Dena'ina dictionary where they gloss *Nakltanē* (i.e., *Nek'eltaeni*) as both Ursa Major and the Christian God. The following quote from Cornelius Osgood's (1937) *Ethnography of the Tanaina* provides supporting evidence:

This (*nákdéldáni*) is the common word in use for the Christian God introduced by the Russians. It seems also, however, to be an abbreviated form of the earlier *náq'óčkdéldáni*, a native deity . . . having discovered the term, two other informants, one in Kenai and the other in Tyonek, recognized it as aboriginal. At Kenai *náq'óčkdéldáni* is said to live in the north star and to travel round the sky all the time. . . . At Tyonek, *náq'óčkdéldáni* is said to embody the whole constellation of the Little Bear. When people lie down and think of *náq'óčkdéldáni* what they dream they think is real. Men appeal to him by holding up a hand saying, *kóxt'ana yéyóni* (you who made the people), and then they ask for what they wish (Osgood 1937:174).

As Alaska Dene religious ideologies shifted and became more syncretic with Christian concepts, the indigenous conception of these humanoid constellations shifted accordingly. The First Traditional Chief of the Ahtna region explained:

That's what they call *Nek'eltaeni*. Don't know why they call it a man, you know. . . . I guess Lord; must have been. . . . They don't know there was

a Lord [aboriginally]. They believe in wolverine. He's a man, you know. You see sometime [in the stars]. Got eye and nose and mouth, you know . . . star is just made by that guy there. . . . Everything just fit there. Must have been Lord, you know. But we don't know from beginning, you know. Only taught animal, we believe in animal . . . *Nek'el-taeni*, everything made by *Nek'eltaeni*.

In more culturally conservative households, Charles Hubbard stated that religion "was taught one on one and it went right along with nature. . . . If you didn't respect the world, you didn't respect *Nek'eltaeni*." However, through ongoing processes of religious change, he explained: "Missionaries basically eliminated him [*Nek'eltaeni*] and took his name and put it to their own God." This syncretism is likewise noted in the Tanacross region of Alaska, where the late elder Emma Northway identified a cognate humanoid constellation called *Neek'e'lteen* that was once more widely associated with the Christian God *Wut'axḏiẖt'eeey*. She explained:

Tanacross people, they say *Wut'axḏiẖt'eeey*. *Neek'e'lteen* [is] *Wut'axḏiẖt'eeey*. It's not only one village; everybody. They just pray for that thing like that [large humanoid constellation]. Not only Tanacross, the other people. They use their own language, and they call different; that *Neek'e'lteen*.

Today in Ahtna country, the word *Nek'eltaeni* is almost exclusively used to denote the Christian concept of God (cf. Kari 1990:330), whereas the collective memory of this constellation as a powerful and beneficent indigenous personage is limited to a handful of traditional-knowledge bearers. Again, in Gwich'in country, the word *Yahḏii* is now almost exclusively used to denote just the seven stars of the Big Dipper—if known at all. The unrelated term, *K'eegwaadhat*, denotes God in an Episcopal or Anglican context.

Finally, it is worth noting that the words "shaman" and "shamanism" were heavily stigmatized in Dene communities in the recent past, perhaps further distancing accessibility to this already covert body of stellar knowledge. In place of the word "shaman," the less stigmatized phrases "medicine man" and "spiritual/gifted person" are preferred in English conversations with Dene traditional-knowledge bearers. However, my experiences in the field suggest that this stigmatization is fading in Alaska and Canada. This change is perhaps primarily owed to younger Alaska Dene and Dene First Nations members engaged in endangered language and culture revitalization efforts to better preserve and connect with their indigenous heritage and spirituality while also following a Christian ideology. Regarding the presentation of medicine people's knowledge in this paper, a middle-aged Gwich'in first language

speaker and indigenous language advocate valuably suggested:

I wonder if you can share that people are of different opinions on this subject matter, but that the need to preserve the information outweighs losing it to obscurity. There must be a way to present the material without endorsing or condemning one way or the other [i.e., shamanism or Christianity].

Conclusion

In this paper, I have reported on an enigmatic area of Northern Dene stellar knowledge that stems from a decade of comparative ethnological research in Alaska and Canada. Drawing from interviews, linguistic elicitation, and a long-term experienced-based approach, Northern Dene traditional-knowledge bearers have helped me and my co-researchers document and understand a rich domain of astronomical knowledge. The Ahtna, Gwich'in, and Sahtúot'íne systems that feature a Traveler constellation particularly illustrate the independent maintenance of analogous systems in widely separated Northern Dene communities (>1,200 km apart). While fully anticipating other alternative systems and ways of knowing localized to specific groups, this research simply posits a general pattern across the Northern Dene region, both in terms of stellar nomenclature based on a body-part metaphor and on the association of this knowledge with the Traveler mythology and related events and figures of Distant Time. Moreover, at least minimal elements of these systems appear to extend to Navajo and the Algonquian family.

Although the humanoid constellations described in this paper exhibit variability, they are an integral component of the traditional beliefs and practices of Ahtna, Gwich'in, and Sahtúot'íne medicine people. While the land-based Traveler recounted in Northern Dene mythology edifies social norms, attitudes, beliefs, and perceptions about the world, the incarnated Traveler in the stars is a sacred component of Dene cosmology and worldview that completes the archetype of an idealized medicine person. Nonetheless, the potential to incarnate this beneficent personage in the stars is seemingly open to anyone under the right circumstances and mindset, suggesting a diffuse boundary between secular ways of knowing and a medicine person's way of knowing, perhaps varying more by degree than by type. In any case, stargazing is an active spiritual experience in the context of seeking or affirming a relationship to the Ahtna, Gwich'in, or Sahtúot'íne Traveler constellations through processes of incarnation.

As a cosmogram, the Traveler constellation is a powerful projection of an indigenous Northern Dene worldview that links the past, present, and

future. It is also uniquely personal while simultaneously embodying a broader cultural ethos that underscores society's responsibility to observe traditional values and to live within the norms of established Dene social constructs. In sum, the Traveler constellation is spun in larger "webs of significance" (see Geertz 1973:5) that relate the individual, the society, and the universe. Moreover, this conceptualization is inextricably linked to and balanced with an opposing malevolent and watchful figure in the stars, illustrating a celestial dichotomy between the sacred and the profane. However, as religious ideologies shifted, these constellations largely underwent recontextualization and erosion.

Although a significant body of research has addressed Northern Dene religious change, the astronomical knowledge presented in this paper exposes the extent to which an earlier basis from which these changes occurred remains unknown in the academic sphere. Nonetheless, these knowledge systems endure as viable, although covert oral traditions and practices. While these results have broader implications for Northern Dene ethnology, they also encourage closer attention to the sky in other related studies throughout the circum-polar north. However, anthropology, in general, has been slow to recognize the value of the sky as an important domain of linguistic and cultural knowledge.

In conclusion, this paper delineates well over 100 newly documented star names across a handful of Northern Dene languages, and for the first time, begins to situate this stellar knowledge in meaningful ways of knowing. While my own immersion into these knowledge systems centered on a heuristic process that has spanned a decade of learning perhaps this research will serve as a bridge towards better recognizing the rich astronomical heritage of indigenous Subarctic peoples.

Obvious future directions for this time-sensitive research are to continue delineating Northern Dene astronomical knowledge systems at the discretion of traditional-knowledge bearers and Dene stakeholders. These knowledge systems will no doubt reveal wider relationships and variability across the greater Na-Dene and Algonquian language families. However, this documentation will especially benefit from a long-term approach and careful problematization of social categories so as not to tacitly project Western constructs on Dene knowledge systems. For example, bright stars are not necessarily the most important stars, the North Star (Polaris) may have little value in wayfinding, a constellation identified as an animal may not actually be a literal animal, but instead a therianthrope or Traveler figure, and

English colloquialisms such as "Little Dipper" and "Morning Star" may correspond to the Pleiades and Arcturus rather than Ursa Minor and Venus, respectively. Relationships, perceptions, and beliefs associated with other celestial bodies and atmospheric phenomena are likewise incredibly productive topics for ethnological inquiry. Finally, the earth and sky are not exclusive to one another; rather, they are part and parcel to a unified cosmology and worldview. It is at the intersection of these domains where meaningful relationships between social processes and order and cosmological processes and order can be found.

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Endnotes

1. As a cover term, I prefer “Traveler,” given that it more closely approximates the indigenous names for this collective personage.
2. We use the words “shaman” and “medicine person” with some reticence as interchangeable and imperfect cover terms, preferring to default to the respective Dene terminology for language specific contexts. Consultants use both cover terms when speaking in English with a preference for the latter phrase, “medicine people.” As cover terms, we approximately follow Descola (2013:20) in the respect that a medicine person or shaman is “a mediator between human beings and spirits with whom he can, at will, enter into contact by means of a voyage of the soul (in trance or a dream) that enables him to mobilize their help in such a way as to prevent or ease the misfortunes of humans.”
3. One elder explained that the *Dastneay Gggay* are on earth, and they sit in trees and use bows and arrows.
4. For the Dane-zaa, Mills (1986:86) states: “Four Times, the Duneza say, *Yaqesati* has destroyed the world when its pattern became too divergent from the harmony of the original plan. . . . The Duneza believe that the world is going to end because too many people have forgotten, or never learned, to respect the forces necessary to keep the world going.”
5. See Cannon and Holton (2014:4) for a discussion on the etymology of the word, *Yahdii*.
6. This description reflects an expanded and slightly revised list of asterisms than reported in Cannon and Holton (2014:3).
7. The Dakelh (Carrier) constellation, *Yih̄ta* (Ursa Major), possesses a walking stick also identified as a “magical staff” (Morice 1893:194).
8. The description of *vidrii* as a “red star” is somewhat metaphorical because 27 Lyn is classified as a 4.8-magnitude whitish-blue main-sequence star [color index: B–V = 0.04].
9. Variations are *K’iidàk Gahàaqil* (“they went/rose straight up”) and *Vành Oozhrii* (“it is naming the morning”).
10. Gwich’in elders know of “Little People” called *Daaluu Dinjii*, who live underground. However, I did not learn that they are associated with the stars, as found in the Ahtna region.
11. This is supported by an unpublished story about the Upper Tanana Traveler, *Tsa’ Ushq̄q̄*, (“Smart Beaver”), who killed the leader of the *Che’*

T’iin whose spirit or ghost became the unidentified constellation, *Yih̄daa* (Tyone and Kari 1994).

12. This figure is known as *Yochwx* (“big sky”) in the adjacent Lower Tanana ethnolinguistic group.
13. Jules Jetté (1898–1906), Nelson and Vanstone (1978:56–58), and Charlie Brush (1985) each recorded stories about Raven killing a medicine person who became the Koyukon constellation *No-sekgheltaale* (“that which is revolving *its body*”).
14. One elder from Łútsēlk’é, NT identified a constellation of seven hunters called *názée dēné* (“the hunters”) pursuing a group of muskoxen (*ɔjěre*) represented by the Pleiades, known as *yaidelaze* (translated colloquially as “a group of small things thrown up into the air”). The three brightest stars in Orion’s Belt (δ Ori, ε Ori, ζ Ori) are chasing the muskoxen while the four below them near the Orion Nebula (σ Ori, c Ori, θ Ori, ι Ori) are returning to earth to tell their story. See MacDonald (1998:84–88) for possible Inuit connection.
15. Consultants described the Traveler *Ciil Hwyyaa* as a fox, wolverine, or lynx-like person and identified the Milky Way as *Ciil Hwyyaa Yates Ghilyaa* (“Smart Boy stepped over the sky”).
16. Dēne Sųłné elders told us *Sagithuk* stories that are nearly identical to Alaskan Gwich’in *Vasaagihdzak* stories.
17. Translated from the French: “*Yamangtéchai*, le Voyageur, est un homme de pouvoir, le prototype du chamane humain” (Guédon 2005:248).
18. Petitot (1876:261) glossed the Dane-zaa term *Yēshta* as Ursa Major, a term cognate to Gwich’in *Yahdii*.

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