

The Heliosphere in the Voices of Alaska

English	Alutiiq/Sugpiaq	Central Yup'ik	Iñupiaq	Lower Koyukon Athabaskan	Ten Kenaga' / Lower Tanana Athabaskan	Ts'msyen / Sm'algyax	ǂaad Kíl / Haida
atmosphere		ellarrlainaq	siḷa	yo	yok'et	ha	sangáay
Earth		nunarpak	nuna	nen'	nen'	ha'lidzog	hlan-gwáay tlagáay
heat	maqaq	kiiq <i>(environmental heat)</i>	uunnaq	hṯnaalk'ṯh <i>(environmental heat)</i>	khwnadheṯ	gyemk	káwsda
light	tanqik	tanqik	qaumaniq	yekkoyh	negholdrayh	goy'pa/laawks	gadgáay
Northern Lights	qiuryat	qiuryat	kiuḡuyat	yo yekkoyh	yoyekoyh	gisigwilgwelk	hlats'uḡ
particles	pelut <i>(lit. dust or ashes)</i>			k'eleye'	khwchaṯts'en'	k'aba ts'a'atiks	
shadow	talineq	tarenraq	taḡḡaq	yeege'	yik	gano'ots'n <i>(lit. instrument for soul/spirit)</i>	ǂánj
star	mit'aq <i>(northern)</i> agyaq <i>(southern)</i>	agyaq	uvluḡiaq	tloon'	sen'	bikbiyaals	k'aayhl'táa
Sun	macaq	akerta	siqiñiq	no'oy	sro	gyemk	juuyáay
year	uksuq	allrakuq	ukiuq	oghe		kóoṯ	tadáa

Acknowledgements

This work was conducted at the University of Alaska Fairbanks Geophysical Institute through a Cooperative Agreement with the NASA Goddard Space Flight Center. We acknowledge the Indigenous nations upon whose ancestral lands UAF and NASA GSFC campuses reside. In Fairbanks, our Troth Yedha' Campus is located on the ancestral lands of the Dena people of the lower Tanana River, and NASA GSFC is located on the ancestral lands of the Piscataway people. **Special thanks to the following Alaska Native language speakers for sharing their cultural knowledge for this book:**

Alutiiq/Sugpiaq: Dehrich Isuwiq Chya, Spiridon Gguitka Ash
Central Yup'ik: Nalugalria Joevahnta Usugan-Weddington
Iñupiaq: Hannah Paniyavluk Loon, Nellie Nigruaḡruk Cleveland,
 Ricky Qaagaḡliq Ashby
Lower Koyukon Athabaskan: Paul Mountain

Ten Kenaga'/Lower Tanana Athabaskan: David Engles, Siri Tuttle
Ts'msyen/Sm'algyax: Marcella Se'iga Liimii Da Ts'm Ksyen Asicksik,
 Gyibaawm Laxha (David R. Boxley)
ǂaad Kíl/Haida: Kihl Gúul Jáad Emily Edenshaw-Chafin,
 'Waats'asdiyei Joe Yates

