

# RUSSIAN OCCUPATION OF ST. MATTHEW AND HALL ISLANDS, ALASKA: EXCAVATION RESULTS FROM THE 2012 ARCHAEOLOGICAL INVESTIGATION

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## ABSTRACT

St. Matthew and Hall islands are located in the Bering Sea, far from the Alaska mainland. The islands are uninhabited and seldom visited due to their relatively isolated position, lack of resources desired for development, and their status as part of a National Wildlife Refuge. St. Matthew and Hall islands are two of three islands that make up the Bering Sea unit of the Alaska Maritime National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service (USFWS). First discovered by the Russians between 1764 and 1766, little attempt was made to occupy or utilize these islands until 1809 when a fur-hunting expedition was sent to St. Matthew. In 2012, the USFWS attempted to locate the site of the 1809–1810 Russian hunting camp. Archaeological investigations focused on two sites: a previously recorded historic cabin site on St. Matthew and an unverified location on Hall Island. This report summarizes the findings of the 2012 archaeological investigation as they relate to the Russian use of these islands.

*Research is formalized curiosity. It is looking and prying with a purpose.*—Zora Neale Hurston

## INTRODUCTION

St. Matthew and Hall islands are located in the Bering Sea, far from the Alaska mainland. The islands are both uninhabited and seldom visited due to their relatively isolated position, lack of resources desired for development, and their status as part of a national bird sanctuary. St. Matthew and Hall islands are two of three islands that make up the Bering Sea unit of the Alaska Maritime National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service (USFWS). The other island within this unit is Pinnacle Island. The St. Matthew group is located approximately 266 km (165 mi) west of Nunivak Island, 322 km (200 mi) south of St. Lawrence Island, and 370 km (230 mi) north of the Pribilof Islands.

In order to obtain current data on the condition of the islands' fauna and flora, the USFWS has sent a team

of biologists to St. Matthew and Hall islands about once every five years. The usual duration of each visit is ten days. In 2012, the author accompanied the USFWS' interdisciplinary team of scientists. Archaeological efforts focused on conducting excavations at a late Thule site on St. Matthew Island and at two sites possibly related to an early nineteenth-century Russian hunting expedition. These sites include an earlier hypothesized fox trapping cabin near the northeast end of St. Matthew Island and a reported site on Hall Island. This article summarizes the information known about the Russian expedition prior to 2012, the effort taken in 2012 to locate any camp(s) associated with it, and recommendations for future research.

## ENVIRONMENTAL SETTING

St. Matthew Island (Fig. 1), also known as Bear Island by whalers (Dall 1870:249), as Gore Island by Captain Cook (*Harper's Weekly* 1875:1; Maynard 1898:306), and as St. Matwey or Choris Island by other explorers (e.g., Kotzebue 1821:294), measures approximately 51 km long (32 mi) x 5.6 km wide (3.5 mi) and comprises a total of 332 km<sup>2</sup> (128 mi<sup>2</sup>) of land. The island's terrain is generally hilly with prominent peaks and a series of ridges rising over 305 m (1,001 ft) above sea level. Sea-formed cliffs about the island ridges and provide nesting areas for a wide variety of seabirds. Elevation on the island ranges from sea level to 459 m (1,506 ft) at Cape Upright.

Hall Island is located 5.6 km (3.5 mi) northwest of St. Matthew, measures approximately 8 km long (5 mi) x 4 km wide (2.5 mi), and is dominated by towering cliffs, with the highest peak reaching 490 m (1,610 ft). A small stretch of beach on the southeast end of the island provides the only suitable landing area for boats. According to

early Russian explorers, Hall Island was known as Ostrov Morzhovoy (Walrus Island) (Teben'kov [1852] 1981: Map 20) or Ostrov Sindsha, probably for Lt. Synd, its alleged discoverer. Commodore Joseph Billings of the Imperial Russian Navy and Lt. Gavriil Sarychev are known to have anchored between Hall and St. Matthew islands on July 14, 1791. The former has been called "Hall" on American maps since 1875, presumably for a Lt. Robert Hall, who served with Captain Billings.

Adjacent to St. Matthew and Hall islands is Pinnacle Island, which is located 15 km (9.3 mi) south of Sugarloaf Mountain on St. Matthew. It measures 2.41 km (1.5 mi) x 1 km (0.6 mi). Historic accounts (Elliott 1881) report that Pinnacle Island was the site of volcanic activity in the late 1800s. These islands have been described as the most remote area in Alaska (Rozell 2012).

Numerous valleys with many small streams, ponds, and lakes dissect St. Matthew Island. Vegetation is dominated by low-growing arctic tundra plants and is quite lush in lowland areas. As elevation increases, the flora becomes

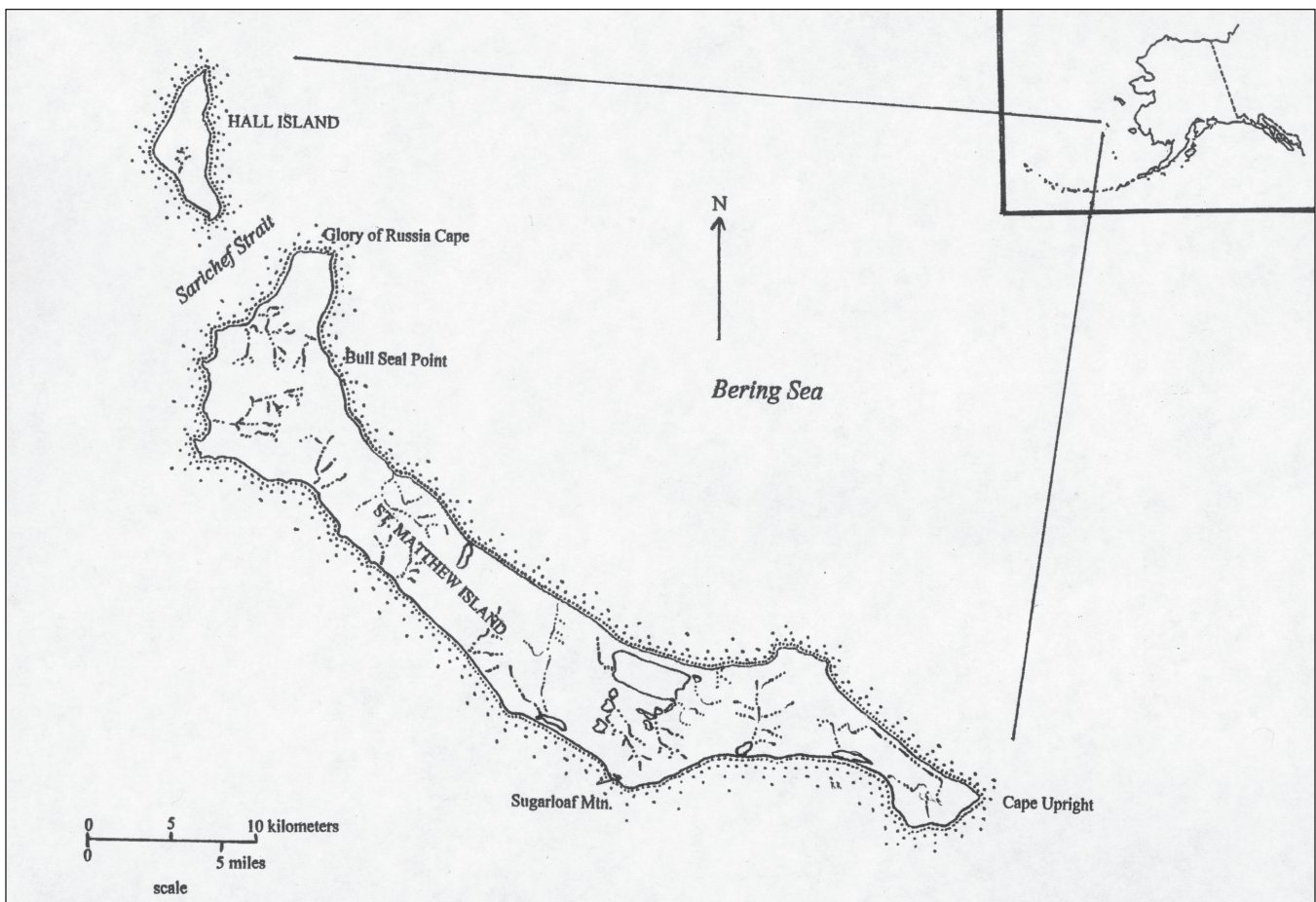


Figure 1. Project area map.

sparse and is replaced by rock scree dominated by lichens. Hall Island's vegetation is similar.

The mean annual temperature in these islands is 3.2 °C (37.9 °F) and precipitation 38.8 cm (15.3 in) per year. St. Matthew is probably the southern limit of winter pack ice in this part of the Bering Sea and is surrounded by ice for approximately seven months of the year and generally enveloped by fog the remaining five months (Stockton 1890).

Fauna indigenous to both St. Matthew and Hall islands originally included many terrestrial mammals (arctic fox and, at least in modern times, an occasional red fox) and marine mammals (polar bear, Steller sea lions, walrus, largha or spotted seal) that were actively harvested elsewhere in Alaska. Polar bears were once year-round residents of St. Matthew and Hall islands with populations of 250–300 estimated in 1874 (Elliott 1886). Bears continued to live year-round on these islands until the 1890s, with the last recorded observation by a party from the revenue cutter *Corwin*, which shot sixteen (Hanna 1920:122). Polar bears still occasionally visit the islands during the winter months (two bear sightings were made during the winter of 1942–1943 by military personnel on St. Matthew [Playdon, pers. comm., in Rausch and Rausch 1968:73]); however, the last sighting on the island was in 1982 when the remains of a bear that had recently been killed in an avalanche were found (Klein and Sowls 2011:433). There have been undocumented reports in more recent years of an occasional polar bear in the summer on St. Matthew. Bear trails made during the days when bears were once plentiful can still be seen on the island.

The Bering Sea National Wildlife Refuge was created in 1909 to protect its large breeding bird populations. Over one million seabirds and six other passerine and shorebird species commonly breed on St. Matthew and Hall islands (DeGange and Sowls 1978:22; Winker et al. 2002). Seabirds present that are harvested elsewhere in the Arctic include pelagic cormorants (*Phalacrocorax pelagicus*), Pallas's or thick-billed murre (*Uria lomvia*), least and crested auklets (genus *Aethia*), and tufted and horned puffins (genus *Fratercula*). Waterfowl include arctic and red-throated loons (genus *Gavia*), ducks (pintail, tufted, long-tailed, and harlequin), and eiders (common, king, and Steller's). Four species of freshwater fish in island lakes and streams on St. Matthew include trout, two species of sticklebacks (Gasterosteidae), and blackfish (*Dallia pectoralis*).

A botanist accompanied the 2012 field crew to the refuge to compile a detailed list of island flora. While this list is forthcoming (Romano et al. 2013), the St. Matthew Island flora is similar to that on Nunivak Island, the closest inhabited land to the refuge, and to mainland Alaska. Many indigenous plants important to Yupik and Inupiaq people in this region (Griffin 2001; Nuniwarmiut Taqnelluit n.d.) are also present on St. Matthew and Hall islands. They include plants useful as food, medicine, and utilitarian purposes (e.g., roseroot, saxifrage, marsh marigold, crowberry, nagoonberry, sorrel, wooly lousewort, cottongrass, fireweed, stinkweed, willow, sourdock, field horsetail, wild rye grass, monkshood, sedges, mosses, and lichen).

St. Matthew and Hall islands offered many species of terrestrial and marine mammals, birds, fish, and plants that could have been utilized by humans. To date, evidence of land use prior to the islands' "discovery" by the Russians only includes the location of a single house pit (XSM-001) on the northwestern end of St. Matthew Island that was occupied by Inuit people approximately three hundred years ago (Griffin 2013).

## HISTORICAL BACKGROUND

### HISTORIC EXPLORATION

St. Matthew Island was first documented by Lt. Synd of the Russian Navy during his explorations in the Arctic from 1764–1768. Coxe (1803:300) reproduced a chart from Synd's journal that depicts "I. Apost. Matthei" (St. Matthew Island). While the location plotted for St. Matthew is southwest of its true position, this is the first known reference to its existence. Captain Cook was next to reach St. Matthew when he noted the island on July 29, 1778. Cook believed that he was the first to discover the island and named it Gore Island (Cook 1842:347; Maynard 1898:306). Exploration of the island slowly followed with a number of ships stopping off and making observations of the island's flora and fauna.

The best historical description of St. Matthew Island and its resources can be found in Khlebnikov's (1994) *Notes on Russian America*, compiled sometime during the 1820s but not published until 1994. While it is unclear if Khlebnikov ever visited St. Matthew Island himself, he was able to obtain much information from a hunter, I. Arkhimandritov, who spent time on St. Matthew from the fall of 1809 to the summer of 1810. Khlebnikov



(1994:311) remarked that winter begins on St. Matthew by the middle of October, with cold winds coming predominantly from the north. The island is ice-locked from December until April. Spring begins in April, but the weather remains damp with thick fog so that summer is not really noticeable. Local plants described by the Russians on St. Matthew (Sv. Matvei) included edible roots such as bistort (*Polygonum viviparum* or *P. bistorta*; Russ. *makarsha*); a carrot-like plant; a potato-like plant found growing in the low-lying tundra; cloudberry; and crowberries.

Descriptions of the animals, fish, and invertebrates noted during his overwintering expedition included those from land (i.e., polar bear and white and blue arctic foxes) and sea (walrus, cod, halibut, sculpin, whales, sea urchin, shellfish), and locally available birds (e.g., murre, cormorant, horned puffin, tufted puffin, sea gull, crow).

According to Khlebnikov (1994:136, 314), Alexander Baranov, head of the Russian-American Company, directed district manager Emel'ian Larionov<sup>1</sup> in 1803 to send an *artel*<sup>2</sup> to St. Matthew. Baranov had instructed Larionov to send fifteen Russian and Unangan (Aleut) people from the Pribilofs to St. Matthew Island to hunt, but for some reason this directive was never followed. Not until after Fedor Burenin took over as the manager of the Russian-American Company was a party sent to St. Matthew. In 1809, Burenin had twenty Russians under the supervision of *baidarschik* (hunting boss or leader) Kulikov sent to St. Matthew where they were to spend the winter hunting. It is not known how many *baidarkas* (skin-covered kayaks that could hold one to two people) or *baidaras* (open skin or wooden boats that could hold up to forty people) were available to the crew, which could indicate how many camps it established. Reportedly, due to poor organization, Kulikov and more than half of his men suffered from scurvy and died of it. Arkhimandritov assumed leadership of the hunting party following Kulikov's death, and the remaining men returned to Unalaska in 1810. According to Arkhimandritov, they were able to obtain "a goodly number of arctic fox on the island as well as walrus tusks and bear skins" (Khlebnikov 1994:314).

Litke (1987:116–117) echoed Khlebnikov's account of the 1809 expedition, while other historical accounts provide slightly different dates, numbers, and scenarios. Kotzebue (1821:294–295) stated that the men found themselves abandoned by the animals they intended to hunt with all members of the party starving but three hunters who prolonged their lives by eating a "poor clay"

that they had discovered. Elliott (1886:465, 1898:191) stated that five Russians and seven Unangan from St. Paul Island in the Pribilofs passed the winter of 1810–1811 on St. Matthew where they had been dropped off to collect polar bear furs. Four of the Russians are reported to have died of scurvy. Dall (1870:248, 326) wrote that the Russians who were left on St. Matthew by the company to collect sealskins all starved to death due to the disappearance of sea mammals.

While it is unclear how many Russian or Unangan hunters overwintered on St. Matthew Island, at the time of the expedition, the Russian-American Company was actively relocating Unangan from Unalaska to the Pribilof Islands (200 persons were sent there in 1810 [Khlebnikov 1994:140]), so it is likely that Unangan from Unalaska or the Russians' Pribilof camp served as hunters on Kulikov's crew as well.

Following the departure of the Russian hunters in 1810 there is no documentary evidence of the Russians ever attempting to settle or hunt on St. Matthew again. Additional historical accounts were not written until after the 1867 purchase of the Alaska Territory by the United States. Undoubtedly, possessing fresh water in the middle of the Bering Sea made the St. Matthew group attractive to both exploration and whaling ships that plied these waters. Large numbers of polar bears may have been attractive as sources of fresh meat and a deterrent to remaining on the islands for any length of time.

Rausch and Rausch (1968) compiled a detailed history of early visits to St. Matthew. A summary of these contacts is outlined in Table 1. The following discussion focuses on island explorations that related to Russian exploration and evidence for the 1809 camp(s).

Henry Elliott and Lieutenant W. Maynard, special agents of the U.S. government, visited St. Matthew in 1874 while reporting on the Pribilof Island seal rookeries. Upon Elliott's (1898:191) and Maynard's (1898:306) arrival, they found the island overrun by polar bears. Elliott (1886:464) stated that during his brief visit he must have observed no less than 250 or 300 bears. "During the nine days that we were surveying this island, we never were one moment, while on land, out of sight of a bear or bears; their white forms in the distance always answered to our search, though they ran from our immediate presence with the greatest celerity" (Elliott 1881:116). Sixteen bears were seen leaving one spot on Hall Island when Elliott and Maynard's ship made a landing. The bears were said to have been attracted to the walrus herds.

Elliott's party killed several of the bears while visiting the island; he stated that polar bear steaks were of "excellent quality" (Elliott 1881:116). Hunting of polar bears apparently became a popular sport among whaling and coastal vessels, with historical records often noting the killing of a large number of bears. The incremental effect of this increased hunting on the local bear population resulted in a general reduction in number. The Revenue Steamer *Corwin* (Healy 1887) reported that polar bears remained numerous on the islands in 1886; however, the U.S.S. *Thetis* reported in 1889 that, in spite of a lengthy search of the island, they could find no evidence of polar bears (Stockton 1890:175).

Elliott (1898:191) noted finding the "ruins of the huts which had been occupied by this unfortunate and discomfited party of [Russian] fur hunters who were landed there to secure polar bears in the depth of winter." While he made no mention of exactly where these "huts" were, he and Maynard added their location to their map of observed island features; however, this map was lost following their voyage and could not be included with their subsequent reports (Elliott 1881:115). A copy of Elliott and Maynard's 1875 map (Fig. 2) was found fortuitously just prior to the 2012 expedition. This map helped to confirm the location of the huts earlier noted by Elliott.<sup>3</sup>

Prior to the discovery of the map from the Elliott and Maynard expedition, there was some question as to

*Table 1. Explorations of St. Matthew Island, Alaska.*

Explorer/Expedition	Date	Purpose of Visit	Reference
Lt. Synd	1764 or 1766	European discovery of island	Coxe 1803:264–265, 300; Teben'kov [1852]1981:39
Captain James Cook	July 29, September 23, 1778	"discovery" of island	Cook 1842:327, 347
Billings Expedition	July 14, 1791	biological observations	Sauer 1802:234–236; Sarychev 1807
Russian and Unangan trappers from St. Paul	Winter 1809 or 1810	hunt polar bear for fur	Dall 1870:248, 326; Elliott 1886:465; Chamisso in Kotzebue 1821:294
Capt. F. P. Litke and Seniavin	1827	general observations	Kittlitz 1858:300; Litke 1987:116–117
H. W. Elliott and W. Maynard	August 1874	exploration, observations of flora and fauna	Elliott 1882; Maynard 1898
Two overwintering hunting parties	before 1891	hunt polar bear and fox for fur	<i>Dallas Morning News</i> 1892
Overwintering hunting party from sealing schooner <i>Mattie T. Dyer</i>	1891–1892	hunt polar bear and fox for fur	<i>Baltimore Sun</i> 1892; <i>San Francisco Morning Call</i> 1892
Two unnamed trappers	Winter 1912–1913	fox trapping	Hanna 1920:12
G. Dallas Hanna	1916	avifauna observations	Hanna 1920
USFWS	26 June–27 July 1977, May–August 1982, July 1997, July 2002, July 2007	observations of island fauna and flora	DeGange and Sowls 1978; Rhode 1987; Sowls et al. 1978
USFWS	1981	weather station erected on St. Matthew and several temporary navigation aids	USFWS 1983:8, 30
Lisa Frink	18–26 July 1997	investigate human occupation on western end of island	Frink 2000; Frink et al. 2001
Dennis Griffin and Debbie Steen	21 July–1 August 2002	investigate human occupation on eastern end of island	Griffin 2002, 2004
Dennis Griffin	30 July–6 August 2012	investigate human occupation on western end of St. Matthew and Hall islands	Griffin 2013

whether the Russian-Unangan “huts” were built on St. Matthew Island, Hall Island, or both. Modern researchers (i.e., Frink 2000; Klein pers. comm. 2002; Sowls pers. comm. 2002) had earlier considered a large rectangular mound located near the northeast end of St. Matthew (XSM-002) to have been the site of the earlier Russian occupation (Fig. 3). Hanna (1920) reported that the remains of a Russian hut were identified by his party on Hall Island in 1916. Evidence of a Hall Island structure had also been noted by Klein and Faye in 1963 when they reported a single timbered structure located on the top of a dry ridge above the island’s only beach access area. This structure measured approximately 15 ft. x 20 ft. (4.6 m x 6 m) and was made from timbers that they thought had been brought to the island (i.e., not driftwood). Hanna (1920:121) reported that during the Russian occupation, a party of five men from St. Paul Island landed on Hall

Island where they built a cabin. This party later had to leave the island due to marauding polar bears. There is little doubt that this later account references the 1809 expedition, but here the reason for the party’s departure is polar bears, rather than illness. The reported reason for the departure of the expedition may have been influenced more by late nineteenth-century accounts of hunting parties being killed by polar bears (e.g., *Dallas Morning News* 1892) than by actual information relating to the Russians. According to Arkhimandritov (Khlebnikov 1994:311), polar bears were not known to attack people, except in cases of extreme hunger or when wounded.

On Maynard and Elliott’s 1875 map, two sites were labeled “ruins.” Both sites were believed by the authors to represent the Russian-Unangan “huts” built during their winter sojourn of 1809. Looking at their map today it is clear that one of the “ruins” represents the prehistoric

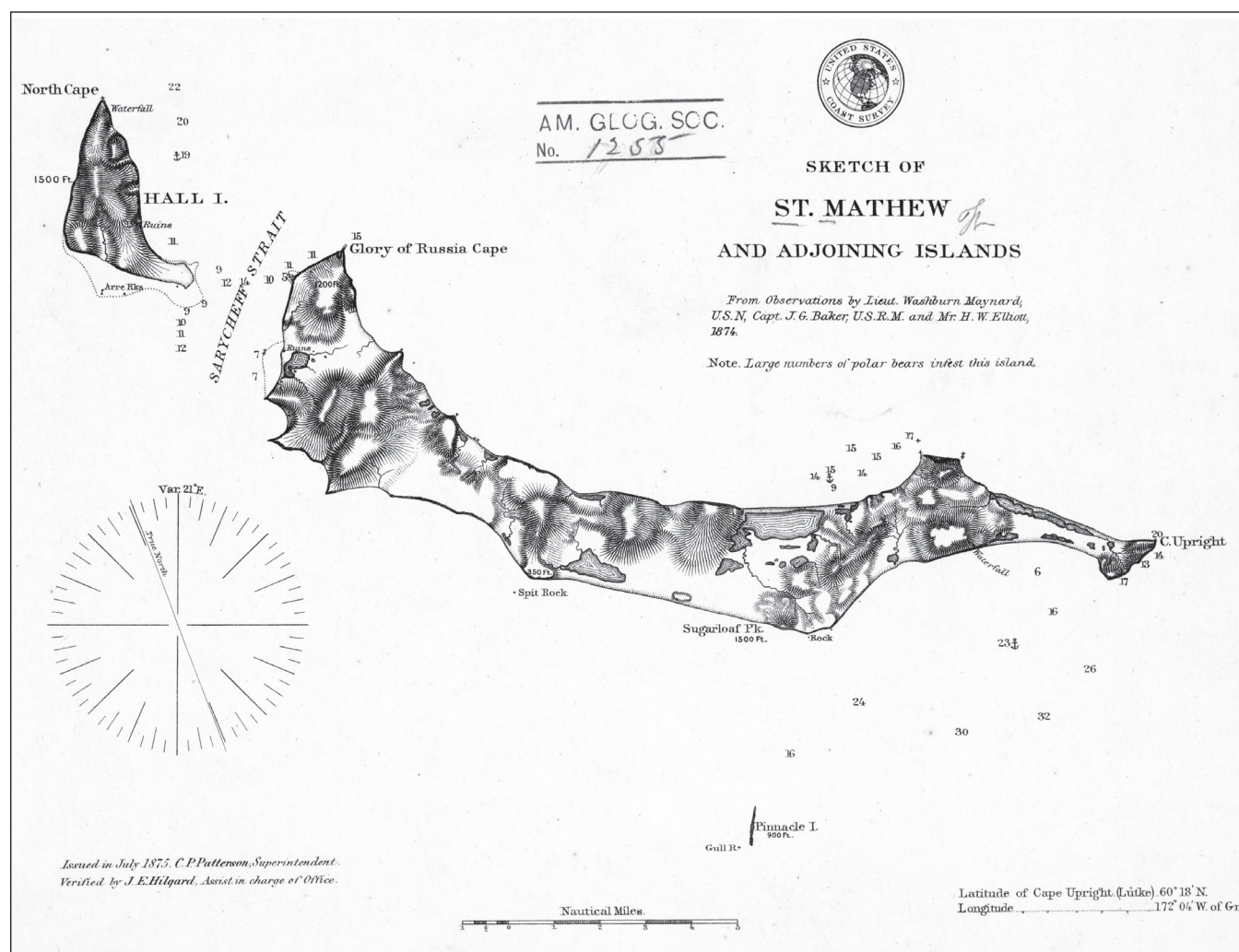


Figure 2. Elliot and Maynard 1875 map of St. Matthew and Hall Islands. Courtesy of NOAA and American Geographical Society Library, Milwaukee, WI, Rare Maps, Chart CS Alaska, digital ID# am005597.





*Figure 3. XSM-002, a possible Russian house site on St. Matthew Island.*

house recorded by Frink in 1997 (XSM-001). The second “ruins” located on Hall Island may be the location of the Russian occupation noted by Hanna (1920). Whether this was the only location used by the hunters is unknown. Excavations during the 2012 investigations tested all three of the locations (i.e., prehistoric Inuit house, reported Hall Island Russian site, and possible St. Matthew Russian site) to determine their dates of origin.

Archaeological sites on both St. Matthew and Hall islands were afforded unexpected protection by their incorporation into the National Wildlife Refuge system. The islands were recognized by the United States government for their abundance of seabird colonies and were set aside on February 27, 1909, (Executive Order 1037) by President Theodore Roosevelt as a bird refuge known as the Bering Sea Reservation (Hanna 1920:118). Its name was changed to Bering Sea Refuge in 1940. In 1970, the area was added to the nation’s wilderness system (Public Law 91-504) and is now referred to as the Bering Sea

Wilderness. The inclusion of St. Matthew and Hall islands into the U.S. refuge system undoubtedly protected them from later exploitation and settlement. Aside from use by the military during World War II (1942–1943 as an Army weather station and 1943–1945 as a Coast Guard radar station) both islands have rarely been visited and any archaeological sites that exist there are believed to have been left largely undisturbed.

#### **NINETEENTH-CENTURY OCCUPATION OF ST. MATTHEW AND HALL ISLANDS**

One objective of the 2012 archaeological investigation of St. Matthew and Hall islands was to locate and test the site(s) of the 1809–1810 Russian expedition. In order to be sure of the connection of the tested sites to the Russian expedition, it is important to understand the context for other sites that may exist on the islands. Such sites may relate to historical fur trapping or may have

been built by survivors of shipwrecks. These scenarios are described below along with their relation to St. Matthew and Hall islands.

#### FOX TRAPPING

The primary attraction of the Arctic to the Russians was the availability of furs for their home market, with sea otters and fur seals being the focus of most expeditions. The opportunity to harvest fox fur was also recognized early. Arctic foxes are indigenous only in the Arctic and on islands in the Bering Sea that are accessible from the mainland across the ice during the winter (Bailey 1993:2–3). Given the high price of fox furs in the Arctic from the early 1900s to 1930, people began to exploit native populations of foxes on the Alaska mainland and offshore islands. These efforts involved mainland people establishing extensive lines of fox traps throughout the Seward Peninsula and Yukon-Kuskokwim Delta and a few on Nunivak Island. In addition, some individuals turned their eyes toward other Bering Sea islands. Due to the restrictions in Alaska on hunting sea otters and fur seals, by 1913 fox furs had become very fashionable and the price for pelts rose. During the 1920s, the Alaska fur-farming industry grew very rapidly. By 1928, fur production had become the third largest industry in Alaska, surpassed only by mining and fishing (Bailey 1993:11). The popularity of fox furs did not last, and during the 1930s there was a sharp decline in fur prices.

Fox trapping occurred throughout the winter, but the most efficient time for trapping was between May and early June when adult fox populations were the lowest. On St. Matthew Island, there was no known Native population that could assist in the harvest of fox furs. Arctic foxes and, occasionally, red foxes (Sauer 1802:236; 2002 personal observations of author) live on the island. Fox hunters from Nome and the Alaska mainland apparently frequented St. Matthew during the early twentieth century, but little information on these early endeavors is known aside from their occasional mention in newspaper accounts (Art Sowls, pers. comm. 2002), historical accounts (Beals 1944; Hanna 1920:121; Hunt 1975; unpublished trapper journals from 1912–1913 in Rhode 1987), and the discovery of a number of abandoned fox-trapping cabins throughout St. Matthew. The success or failure of these early trapping attempts remains largely unknown; additional information on the trappers and their harvest tallies needs to be collected.

During the winter of 1912–1913, two trappers are reported to have lived on St. Matthew, where they kept a journal of their efforts to trap arctic foxes. In 1920, the journal was in the possession of the Coast Guard Service in Washington, D.C. (Hanna 1920:121) with sources reporting that the trappers' success ranged from "almost worthless" to "considerable success." Also during the winter of 1912–1913, Max Gottschalk, a legendary and unscrupulous trapper from Nome, overwintered on St. Matthew along with two other trappers (Hunt 1975:258–260). Gottschalk's efforts "yielded rich results" with arctic foxes and other fur bearers. Later efforts to trap foxes on St. Matthew are substantiated by the large number of historic cabins seen on St. Matthew. Klein (pers. comm. September 10, 2002) recorded the location of numerous fox-trapping structures on the island (Fig. 4); however, the ages of these structures are unknown. Klein believed that many of them represented substantial cabins used by trappers, while others were temporary small structures only large enough for a man to sleep in. Temporary structures tended to be located along St. Matthew's west coast and could have served as overnight shelter for trappers following their trap lines or perhaps later for World War II military personnel.

In addition to these later cabin sites, several late nineteenth-century newspaper accounts document the existence of structures built on St. Matthew by hunting parties who were dropped off by sealing vessels to overwinter. Early newspaper accounts (e.g., *Baltimore Sun* 1892) relate the abandonment of three hunters on St. Matthew by the *Mattie T. Dyer* in 1891, with one surviving to be rescued by the *Bear* during the summer of 1892<sup>4</sup> (*San Francisco Morning Call* 1892:7). Another newspaper article (*Dallas Morning News* 1892:1) recounts that two prior parties of "Indian" hunters had been left by ships to overwinter on St. Matthew but that all of these hunters were devoured by polar bears. Each hunting party would have built a cabin to use for the winter, the remains of which could be represented by some of the cabin sites noted by Klein. The difficulty is in dating these historic structures. Cabin remains found on St. Matthew and Hall islands may also represent the efforts of shipwreck survivors.

#### SHIPWRECKS

In reviewing the Alaska shipwreck records of the Bureau of Ocean Energy Management (Burwell 2011; Tornfelt and Burwell 1992), I have noted that only one



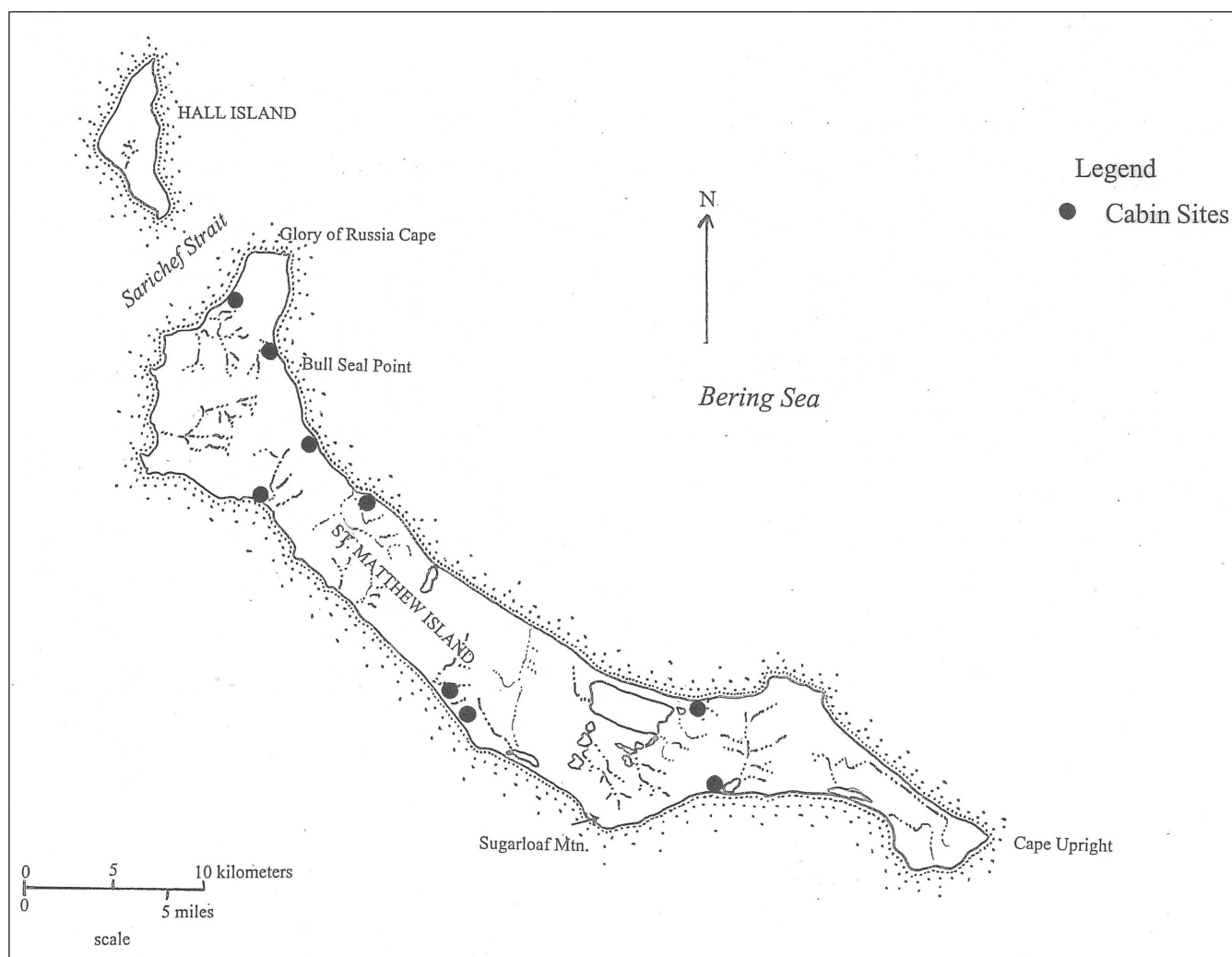


Figure 4. Fox-trapping cabin sites as recorded by David Klein. Original in possession of the author.

nineteenth-century ship is reported to have wrecked near St. Matthew, the schooner *Forward* that sank June 3, 1856, approximately 75 miles to the west (*New Orleans Times-Picayune* 1856; *Sacramento Daily Union* 1856). It is not known if this wreck had any survivors. In 1916, the *Great Bear* journeyed to St. Matthew to rescue the inhabitants of another unnamed shipwreck<sup>5</sup> (*Seattle Daily Times* 1916) and wrecked off Pinnacle Island, seven miles from St. Matthew's southwest coast. The shipwrecked crew established a camp on St. Matthew's southwest shore, where the Coast Guard Cutter *McCullough* rescued the crew eighteen days later. A photograph of the survivors' camp (*Popular Mechanics* 1916) shows a series of tents, rather than a cabin.

The possibility that other ships have wrecked near St. Matthew is quite high, as the island provided a rare opportunity to stop for fresh water or supplies (e.g., polar bear meat). In an era of newspapers reporting on ships in the Arctic (late nineteenth and early twentieth centu-

ries), a number of ships had evidently become locked in the ice surrounding St. Matthew but all of them managed to escape with the ships intact (e.g., *William Baylies* May 2, 1907; U.S.R.C. *Unalga* June 11, 1916). Crews of other ships may have found themselves in the same predicament but may have not been so fortunate to escape. Shipwreck survivors may have constructed cabins on the island while awaiting rescue. No mention of such rescues has yet been found, but any survivors would have had to deal with the resident polar bear population.

#### PREVIOUS ARCHAEOLOGICAL EXCAVATION RESULTS

Prior to 2012, archaeological investigations on St. Matthew Island were extremely limited, with no studies occurring on Hall Island. Those on St. Matthew focused on general opportunistic surveys and recording of sites. The first informal cultural resource investigation

on the island occurred in 1957, when David Klein conducted limited testing of a house-like depression (XSM-001) located at the northwest end of St. Matthew Island. Klein was a biologist with the USFWS and conducted the testing as a favor for Frederick Hadley West from the University of Alaska Fairbanks (UAF). Klein's efforts verified the existence of an Inuit house through the recovery of Thule pottery. The first professional cultural resource investigation on the island occurred in 1976, led by E. James Dixon from the University of Alaska Fairbanks. This investigation was directed toward identifying evidence of early Pleistocene occupation of the island (Dixon 1976; Dixon, et al. 1986), but yielded negative results. Following this effort, the USFWS began inviting professional archaeologists to join their crew of biologists who attempted to visit St. Matthew and Hall islands about once every five years to conduct bird and mammal population surveys. Archaeologist Lisa Frink accompanied the biologists to the northwest end of St. Matthew in 1997 and conducted a survey along the northern and eastern shorelines. Frink (1997, 2000; Frink et al. 2001) identified and conducted limited testing of four sites during her ten-day survey, including the prehistoric semisubterranean house that had been tested earlier by Klein (XSM-001) and three historic cabin sites. One of these cabin sites (XSM-002) was later believed by some to be the site of the 1809 Russian expedition camp. In 2002, Griffin and Debbie Steen spent ten days surveying the southern third of St. Matthew Island, locating six historic sites. Five sites related to the island's World War II military occupation, with the sixth site (XSM-006) a structure probably related to fox trapping (Griffin 2002, 2004).

In an effort to locate and verify the camp(s) established by the 1809 Russian hunting party, the 2012 archaeological investigations focused on Hall Island, which had never been visited by an archaeologist, and revisiting sites XSM-002 and XSM-006 on St. Matthew.

## 2012 EXCAVATIONS

Archaeological investigations in 2012 were limited by personnel restrictions (only one archaeologist was part of the crew) and weather constraints; the 2012 field crew was only able to spend six days working on the islands. Aside from three biologists stationed on Hall Island, expedition members were dropped off on St. Matthew Island where the majority of fieldwork took place. Of the six days allot-

ted for archaeological fieldwork, three were spent excavating at the prehistoric house site (XSM-001) and one day at XSM-002. Toward the end of the trip I was fortunate to spend five hours visiting Hall Island, where I was able to locate and test the earlier reported cabin site (XSM-011). I also briefly revisited site XSM-006 in order to collect wrought-iron spikes in order to identify particular periods of occupation. The following describes the results of the 2012 testing efforts at these three sites.

### XSM-011

During the end of the 2012 expedition, we tried to locate the house depression on Hall Island noted by Elliott and Maynard in 1874 and by Hanna (1920) in 1916, which they believed was related to the 1809–1810 Russian expedition. Only one area at the southeast end of the island is suitable for watercraft landing. This area is where the periodic USFWS camps are established and is also the site of a historic walrus haul-out area. Above this beach on a high terrace is reportedly the location of the earlier noted depression. With the help of several biologists, survey transects were conducted (Fig. 5), but initially no sign of the structure was encountered, until I recalled the words of Oregon's Coquille tribal elder Don Ivy, "a good place to live is a good place to live." I returned to the location where two bird biologists had their tents pitched to examine the surrounding area in more detail. Directly east of their camping area was a large grassy mound somewhat rectangular in shape. The mound measured 9 x 8.5 m with a height varying from 0.4 m along the north and east sides to 0.7 m to the south and with no visible berm to the west. Orientation of the long axis was 68°. If this was the site of an earlier structure, given the absence of a berm, the opening to the house would likely have been on the southwestern face.

Khlebnikov (1994) stated twenty people were sent to St. Matthew Island in 1809 to overwinter. Other accounts mention a smaller crew size (e.g., twelve by Elliott [1886]; five by Hanna [1920]). The single house identified on Hall Island is likely too small for twenty men to overwinter. The crew size would need to be much smaller or, conversely, other winter camps would need to have been established on St. Matthew to house some of the crew.

Within the grassy berm, a rectangular outline could be made out measuring 5 (78°) x 3.5 m. Depth was difficult to distinguish due to the heavy grass cover, but it was not pronounced. A 1 x 1 m test unit was placed near



*Figure 5. Overview of XSM-011 looking north. Arrows indicate house depression and rock pile. Photo: Marc Romano.*

the southern end of the depression. Below a thick sod layer, a very dark-brown clay loam was found. The clay was pushed through quarter-inch screen mesh with great difficulty. Level 1 (0–10 cm below surface) revealed little more than the sod layer that covered the entire feature. Level 2 (10–20 cm below surface) revealed a number of driftwood log fragments that may be from a collapsed roof or benches within the buried structure. Not until excavations within Level 3 (20–30 cm below surface) were finishing could the makeup of the feature be ascertained. By 27 cm below surface the remains of a milled plank floor were seen running along the entire excavation unit. The wooden timbers noted earlier were undoubtedly from driftwood logs with knots and branch ends clearly visible during the excavation (Fig. 6). In contrast, the planks appear to be uniform in size, milled and forming a flat floor to the structure. Directly on top of this wooden floor I discovered a number of artifacts or tools that had been abandoned. These included a modified walrus tusk, a wrought-iron bolt fragment, and four groundstone cobbles, three of which were black basalt and one green metamorphic or quartzite, and

all of which exhibited abrasions along both faces. Due to the short time available, I was only able to excavate the southwest quarter of the test unit to the clay substrate. While removing the milled flooring, I discovered a second layer of milled wood, this layer placed perpendicular to the first, lying directly on top of the sterile clay substrate. Between the two wood layers, a white glass trade bead was recovered in situ at 29 cm below surface, linking this structure to its probable Russian-Unangan construction. Total soils excavated at this site were 0.3 m<sup>3</sup>.

A possibly related feature consisting of a pile of twenty three rocks approximately 1 m in diameter and 27 cm high was located near the cliff edge approximately 28 m from the house (Fig. 7); however, this feature could have also been constructed at a later date by other island visitors.

#### ARTIFACT ANALYSIS<sup>6</sup>

Analysis of artifacts recovered from the site include:

**walrus tusk:** A heavily weathered, modified walrus tusk with rounded end. The top of the tusk is convex, rath-





*Figure 6. Milled wood floor with logs at XSM-011, probable site of a Russian camp in 1809.*





Figure 7. Rock feature with house depression in background at XSM-011.

er than flattened, suggesting that it was not hammered as a stake. A notch is present near one end but the poor condition makes it impossible to tell if this is a product of human modification or weathering. Use unknown.

**groundstone:** Four circular-to-oval flat beach cobbles that exhibit grinding scars along both flat faces. Three are basalt, two of which are over 14 cm in diameter. The remaining basalt cobble is approximately 7 x 10 cm. The fourth cobble (8 x 11 cm) is of green metamorphic material or quartzite and exhibits the same grinding scars as those found on the basalt cobbles.

**white glass trade bead:** Type WIIa14 (Kidd and Kidd 1970), a circular wire-wound bead (2–4 mm) of opaque white glass. The Russians first brought their beads for their trade in the Pacific from Europe across Siberia and from China through the Mongolian border town of Kiakhta. These early beads were dominated by small seed beads up to 5 mm in diameter. Beads that dominate collections from Alaska dating before 1840 are irregular, semitranslucent medium blue and white seed beads coated with clear glass (Francis 1988:341). The bead recovered at XSM-011 most resembles this variety of bead.

**milled wood plank:** An analysis of one of the floor's milled planks revealed it to be from one of three species of spruce: *Picea sitchensis*, *P. glauca*, or *P. mariana* (Claire Alix, pers. comm. March 7, 2013).

**wrought-iron spike:** A single, poorly preserved wrought-iron spike was recovered. It has a square shank, but the head and point configuration could not be ascertained. X-ray fluorescence (XRF) analysis of the spike was conducted to determine its elemental composition, discussed below.

## XSM-002

The Bull Seal Point site was recorded by Frink in 1997 and comprised a 5.3 x 3.3 m “pit with a slight berm surrounding the dug in floor” (Frink 1997:5). Seventeen perpendicular pieces of wood were also noted to the south of the depression. Frink excavated two 0.2 x 0.2 x 0.35 m test pits within the large depression, recovering charcoal, a nail, and unidentified metal fragments, but insufficient information to link this structure to the Russian expedition of 1809–1810 or later historic fox-trapping activities.

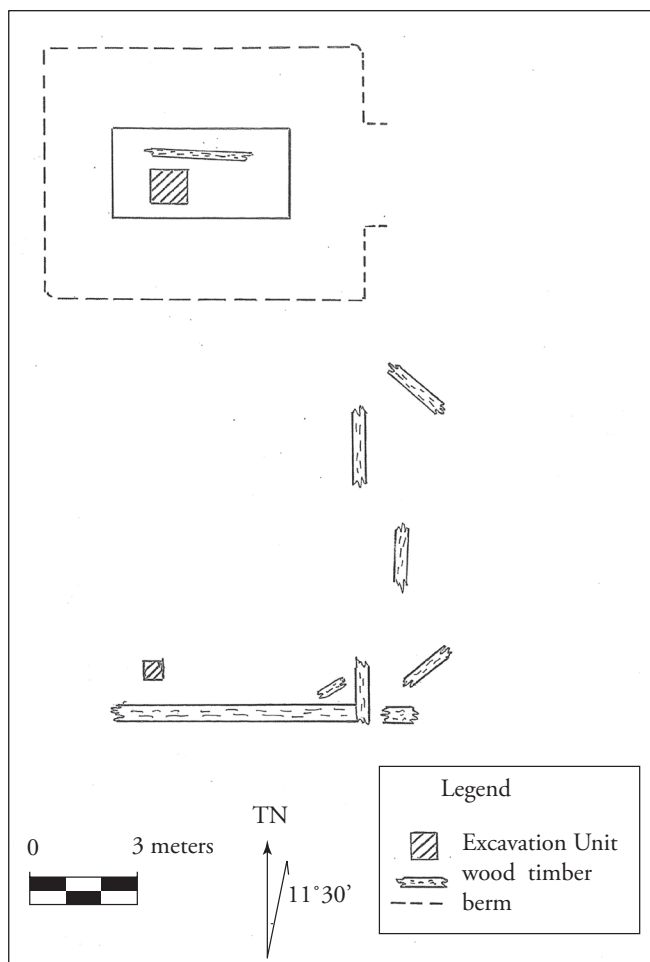


Figure 8. Site map of XSM-002, the Bull Seal Point site.

When revisited in 2012, the central site feature appeared to consist of a large grassy mound, in a rectangular shape with rounded edges (Fig. 8). Within the mound was an inner depression measuring approximately 5 (90°) x 2.5 x 0.4 m, with the external berm extending the structure an additional one to two meters in all directions. A 0.3 m wide break in the berm is visible to the east, denoting the probable entrance to the structure. The 2012 investigations consisted of excavating a 1 x 1 m unit within the depression and a 0.5 x 0.5 m unit within the larger plank-strewn area to the south, noted by Frink. Total excavated soils were 0.2 m<sup>3</sup>.

The 2012 test unit was placed near the southwest corner of the depression. Evidence that the structure had burned in the past is evident throughout the unit with the remains of burned milled timbers exposed within the sod layer. Excavations within this unit extended 23 cm in depth with the sterile substrate first detected in some portions of the structure by 15 cm below surface. Level 1 (0–10 cm) revealed an abundance of burnt wood and many large

wrought-iron spikes. A few round wire-drawn nails and a piece of clear glass were also recovered. Level 2 (10–20 cm below surface) was very similar in results with more burnt wood, large spikes, and nail fragments. The presence of wrought-iron spikes suggests a nineteenth-century feature, while the round wire nails suggest a very late nineteenth- to early twentieth-century construction. The large burnt timbers may have been salvaged from a nineteenth-century shipwreck and used in the later construction of a twentieth-century cabin, possibly for fox trapping. This structure later burned to the ground, although how and when remains unknown.

A 0.5 x 0.5 m unit was placed within an area to the south where numerous milled planks could be seen. Frink noted this area could be the remains of an ancillary feature. No artifacts or structural remains were recovered from this excavation; sterile clay was found directly beneath the sod layer.

#### ARTIFACT ANALYSIS

Analysis of artifacts from XSM-002 sought to determine if this site is related to the early nineteenth-century Russian overwintering expedition or a later use of the island, possibly related to early twentieth-century fox-trapping activities. Such a determination hinges on the ages of the wrought-iron spikes, wire nails, and the sample of milled wood. From the single 1 x 1 m excavation unit, fragments of forty three spikes were recovered (Fig. 9). Of these, 77% were broken with only the proximal ends recovered. One possible explanation for this breakage pattern is that the wood used in the structure's construction is from a shipwreck and, prior to its reuse, Natives or fur hunters attempted to salvage the spikes, but they snapped during the recovery effort, with the beams later incorporated in the structure's construction. Alternatively, the spikes may have snapped off when shipwreck timbers washed up on the beach. Extremely cold temperatures, like those found in the Bering Sea, would have made the wrought iron brittle and likely to break if repeatedly battered against rocks and timbers. The wrought-iron spikes all had four-faceted, mold-formed tapered heads, square shanks, and sharp chisel points. Such spikes are commonly referred to as ship's nails or barge spikes and were in common use in ship construction from at least 1850 through the 1920s (Graham and Emery 1923:38; Andrew McConathy, pers. comm. April 27, 2013). Round wire nails were manufactured from 1890 to the present (Visser





*Figure 9. Wrought-iron spikes recovered from excavations at XSM-002.*

1997). The presence of both of these artifacts places the age of the structure sometime after 1890.

Evidence that the structural timbers in XSM-002 had been burned following abandonment was found throughout the excavation unit. A well-preserved fragment of the milled wood was analyzed by Claire Alix, UAF, and identified as *Pseudotsuga* sp., most probably *Pseudotsuga menziesii*—Douglas fir. Only five to seven species of *Pseudotsuga* are native to western North America and eastern Asia; no species are native to Russia (Claire Alix, pers. comm. March 7, 2013).

The large number of spikes recovered from such a small area within the house site and the fact that the structure was made from fir timbers suggest that the cabin was constructed from shipwrecked timbers, possibly from the *Great Bear*, wrecked off Pinnacle Island on August 10, 1916. Built in Fort Blakeley, Washington, and designed for sailing among the ice, the *Great Bear* was built only of wood, with a hull 29 inches thick. The 14-inch ribs were placed only 2 inches apart, making the vessel almost all frame for extra strength. The *Great Bear* had a double hull with planking “inside and out” which was “through bolted and cross bolted in every conceivable manner” (Spitzer 2009:21–22). Such construction could account for the wood and many spikes used in the construction of the house at XSM-002.

Shipbuilding began on the Puget Sound in the early 1860s. Ships built in the Pacific Northwest would have likely been built from Douglas fir, since it was tough and resisted rot. The majority of whaling ships that plied the Bering Sea were constructed in New England, where oak would have been the dominant species used.

### XSM-006

First recorded by Griffin in 2002, Big Lake Fox Trapping Cabin and Cache consisted of the remains of a large semisubterranean house and collapsed cache, south of Big Lake in the southern half of St. Matthew Island. Both features were surrounded by raised earthen mounds (similar to but more extensive than that seen at XSM-002), were built from milled wood using wrought-iron spikes (i.e., four-faceted, mold-formed, tapered head, square shank, and a sharp chisel point) and round wire nails. Due to the similarity in spikes, an effort was made to revisit this site in order to collect a sample of a wrought iron spike and several round wire nails. Given the current state of

preservation, these features were likely built during the early twentieth century.

XRF examination of three spikes from XSM-011, XSM-002, and XSM-006 was conducted by Loren Davis and Alex Nyers from Oregon State University and focused on the concentrations of iron, cobalt, manganese, and light earth elements. Composition of the spike from XSM-006 differed from that of spikes recovered from both XSM-011 and XSM-002, which are more similar. XSM-006 is believed to have been occupied in the early twentieth century. If the timbers from XSM-002 were from the *Great Bear* shipwreck, construction of this feature would date to the same time period.

XRF analysis identified differences in spikes recovered from these two sites, perhaps because the wood (with spikes) derived from ships constructed on different coasts. Although spikes recovered from XSM-011 and XSM-002 were similar in chemical composition, the sample size was extremely small; conclusions must await analysis of a larger sample. XSM-011 appears to be the site of the Russian 1809 hunting camp. XSM-002 is likely more recent than the Russian expedition and likely postdates 1890, based on the wooden timbers used in the hut’s construction and the presence of round wire nails. The dating of XSM-002 is inconclusive and will need to be reconsidered in the future.

### SUMMARY AND RECOMMENDATIONS

While the 2012 fieldwork was limited, I believe the location of the 1809–1810 Russian overwintering camp has been identified on Hall Island (XSM-011). This identification is based both on locating a site that compares favorably with early historical descriptions (i.e., Elliott and Maynard’s 1875 map) and on the recovered artifacts, including an early glass trade bead and the presence of milled wood. Preservation of the house appears to be quite good, with little sign of disturbance aside from weathering. Given the high number of tools recovered from the limited area excavated (five tools in a unit of 1 m<sup>2</sup> and 30 cm deep) and the percentage of the site that remains unexcavated (i.e., 94%), this site likely possesses significant data on early Russians in Alaska and their interaction with Unangan hunters. The remoteness of Hall Island has resulted in less opportunity for damage to the site, but creates cost and logistical obstacles in planning future archaeological investigations. Future excavations should include a minimum of two archaeologists and more time.

While the cultural material is not deep, adequate time will be needed to properly excavate the site and look for ancillary features. Such an investigation could provide valuable and rare data on this early period of Alaska history.

All historical accounts of the Russian hunting expedition mention the death of a number of Russian hunters, but no sign of burials near the Hall Island site was identified. Whether the deceased were buried and left on Hall or St. Matthew islands or reburied elsewhere following departure in the summer of 1810 is unknown. Temporary burial areas would have undoubtedly been needed during the winter months in order to protect the deceased from marauding polar bears. Further investigations are needed to identify such areas. However, given the low-lying tundra vegetation and the minimal disturbance that would have resulted from the excavation of a burial, it is unlikely that surface changes would be pronounced enough to recognize such features.

Site XSM-002 does not appear to be related to the earlier Russian expedition and likely was constructed after 1870. Its possible relationship to early twentieth-century shipwrecks needs further study. Due to its preservation and historic artifacts, site XSM-006 likely dates to the early twentieth century and probably relates to fox-trapping activities.

## ENDNOTES

1. Larionov reportedly went insane during the spring of 1806 and died in June of the same year (Khlebnikov 1994:140). He was replaced as manager by Moscow merchant Fedor Burenin, who served as the manager of the Russian-American Company's Unalaska office until 1813.
2. An *artel* is a cooperative association, like a hunting party. Members lived communally.
3. The map was discovered thanks to a fortuitous meeting with John Cloud, a historian with the National Oceanic and Atmospheric Administration (NOAA) who works closely with the staff at the American Geographical Society Library in Milwaukee.
4. The other two hunters are said to have left St. Matthew on a small skiff, fearing that they would not be rescued. Evidence of a temporary camp of the sailors on Hall Island was discovered but both sailors were believed to have drowned (Healy 1892).
5. A bottle was discovered on the Pribilof Islands with a note that had been supposedly written by a man ship-

wrecked on St. Matthew Island (*Popular Mechanics* 1916). No evidence of a survivor or mention of finding evidence of another shipwreck is recorded following the rescue of the crew of the *Great Bear*.

6. Materials recovered from the 2012 investigations are temporarily curated at the USF&WS Regional Office in Anchorage with permanent curation at the University of Alaska Museum, Fairbanks.

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