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Cite this article: Stenton D. British sailor or Inuk? A reappraisal of the ancestry of human skeletal remains found in 1949 by Henry Larsen, Cape Felix, King William Island. *Polar Record* **60**(e16): 1–8. https://doi.org/10.1017/ S003224742400010X

Received: 20 February 2024 Revised: 30 April 2024 Accepted: 31 May 2024

Keywords:

Franklin expedition; Henry Larsen; human remains; King William Island; Cape Felix

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British sailor or Inuk? A reappraisal of the ancestry of human skeletal remains found in 1949 by Henry Larsen, Cape Felix, King William Island

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Abstract

In 1949, human skeletal remains discovered by RCMP Inspector Henry Larsen near Cape Felix, King William Island, Nunavut, were identified as an adult male of European ancestry and a member of the 1845 Franklin Northwest Passage Expedition. The identification has never been questioned and is considered significant to reconstructions of the fate of the Franklin expedition because the sailor's death presumably pre-dated the desertion of HMS Erebus and HMS Terror in April 1848 and because no other human remains of expedition personnel have ever been found between Victory Point and Cape Felix. The aim of this study was to re-examine the basis on which the ancestry of the skeleton was interpreted to be European. A review of archival records revealed previously unpublished details concerning the location and context of the discovery, and re-assessments of the antiquity and of key morphological attributes of the bones suggest they are those of an adult male Inuk and have no connection to the 1845 Franklin expedition.

Introduction

Beginning in the spring of 1859 and continuing to the present day, the northwest coast of King William Island between Cape Jane Franklin and Cape Felix has repeatedly been searched for traces of the 1845 Franklin expedition. Major discoveries made there in the 19th century revealed crucially important information about the fate of the expedition (McClintock, 1859), but interest in the area has been sustained for some contemporary investigators by the belief, reinforced by Inuit oral historical accounts, that it might contain a cache of expedition records deposited when the ships were deserted in April 1848 and the graves of some expedition personnel, including that of John Franklin, who died ten months prior to the desertion event (Schwatka, 1879; Gilder, 1881; Burwash, 1930; Woodman, 1991; Kowal, 1996; Gross & Taichman, 2017; Taichman, 2023; Taichman, 2024).

No evidence of expedition records has ever been found in the area (Cyriax, 1951; Woodman, 1995; Kowal, 1996) nor have any graves of expedition members pre-dating the desertion of the ships (i.e. between 12 September 1846 and 22 April 1848). The Victory Point cairn record found in 1859 revealed that 24 deaths had occurred prior to the desertion of the ships, a number that presumably included the 3 deaths that occurred while HMS *Erebus* and HMS *Terror* overwintered in 1845–1846 at Beechey Island where the 3 bodies were interred (Beattie & Geiger, 1987). The Victory Point record included the date of John Franklin's death (11 June 1847) and other wording revealing that Lieutenant Graham Gore had also died sometime during the preceding ten months, but nothing else is known about the circumstances of the deaths or of the methods of burial for these officers or for the other 19 fatalities.

Assuming that ice conditions were such that Franklin would not have departed Beechey Island prior to August 1846 and that he transited Peel Sound (Cyriax, 1939; Hickey, Savelle, & Hobson, 1993) over a relatively brief period of perhaps a few weeks (i.e. the ships were beset on 12 September 1846), it is possible that few, if any, men died during that time interval. In that context, speculation that the bodies of at least some of the other 21 fatalities, particularly officers, might have been interred on the shore of northwest King William Island during the nineteen months of besetment is not unwarranted. The discoveries of a Franklin expedition campsite at Cape Felix, a sawn driftwood log at Wall Bay and the original (i.e. 1847) text of the Victory Point cairn record confirm that shore parties visited the area during that time period. However, the death of the only member of the Franklin expedition known to have been buried in the area, thought to be Lieutenant John Irving, post-dated the April 1848 desertion of the ships and more than one hundred and sixty years of searching the roughly 40 km of shoreline between Cape Jane Franklin and Cape Felix has failed to produce any evidence that the activities of shore-based teams included burial details.

Against this background, it is possible to revisit the 1949 discovery of human skeletal remains near Cape Felix by RCMP Inspector Henry Larsen, later identified as a young male of European ancestry and, on that basis, assumed to have been a member of the 1845 Franklin expedition (Larsen, 1949). The discovery was significant in that it appeared to support longstanding speculation that the bodies of some of the men who died during the besetment of the ships were taken ashore for burial and Inuit testimony about the existence of Franklin expedition burials on northwest King William Island (Cyriax, 1951; Woodman, 1991; Potter, 2016; Walpole, 2017).

Although the find itself is often cited, the details of Larsen's discovery are not well known, and most references to it have been drawn from a summary written by Cyriax in 1951 (Cyriax, 1951). Renewed interest in the Larsen collection, now held at the RCMP Historical Collections Unit in Regina, Saskatchewan, arose as a result of its potential to contribute to ongoing investigations of the geographical distribution of Franklin expedition fatalities (Stenton, 2018) and to DNA and isotope analyses attempting to identify skeletal remains of Franklin expedition personnel (Stenton, Keenleyside, Fratpietro, & Park, 2017; Keenleyside, Stenton, & Newman, 2021; Stenton, Fratpietro, Keenleyside, & Park, 2021a; Stenton, Keenleyside, Froesch, & Park, 2021b). This paper presents the details of the 1949 discovery and analysis of the remains and a re-evaluation of its interpretation. Important but previously overlooked aspects of the recovery context of the discovery and of the 1949 examination of the skeletal remains indicate that they almost certainly are those of an adult Inuk male and not a member of the 1845 Franklin Northwest Passage Expedition.

1949 Cape Felix patrol

The details of the discovery of the skeletal remains are contained in Henry Larsen's 1949 Patrol Report, written in diary form, and in related RCMP correspondence held by Library and Archives Canada (Larsen, 1949). In early August 1949, a four-member team led by Larsen searched for evidence of the 1845 Franklin expedition along the northwest coast of King William Island between Collinson Inlet and Cape Felix, followed by searches on Adelaide Peninsula in the Richardson Point and Starvation Cove areas (Fig. 1). After establishing a base camp on 5 August near Cape Jane Franklin, Larsen and Constable John Biensch departed on foot on 6 August for Cape Felix (Fig. 2). The remaining two team members, Corporal Seaforth Burton and Special Constable William Cashin, remained behind to search the Collinson Inlet area.

Larsen and Biensch reached the Cape Felix area on 8 August. En route they searched for cairns reported by Schwatka in 1879 near Wall Bay and on the northwest side of Cape Felix. None were located, but about a mile inland from the west side of Cape Felix Larsen built a cairn in which he deposited a note in a small bottle. He deposited at least one other cairn record in the area (Wonders, 1968). Over a two-day period, an extensive search of Cape Felix and the surrounding area was conducted including several miles of the coastline stretching eastward toward Cape Sidney. No traces of the Franklin expedition were found, but Larsen reported seeing numerous old tent rings, hearths containing fused carbonised masses of burnt fat and bone, and surface scatters of old and cracked caribou and polar bear bones. The general character and condition of the sites led Larsen to speculate that many of them were of considerable antiquity.

Larsen's search included the area at the tip of Cape Felix, but his report contains nothing to indicate that he visited the Franklin camp discovered there ninety years earlier by the McClintock search expedition (Hobson, 1859; Stenton, 2014). Had Larsen been at the site, the precise location of which was unknown until 2002

(Gross, 2003), it is unlikely he could have overlooked the remains of the stone cairn and tent rings and the numerous Franklin expedition surface artefacts (e.g. canvas, rope, glass, clay pipe fragments, nails and screws) that were still present when the site was first identified more than half a century later. This suggests that the large stone cairn standing at the site in 1859 and which was still partially intact in 1879 (Schwatka, 1879) had been further dismantled to the point where it was no longer a prominent feature of the landscape that would draw people to the location.

The discovery of the human skeletal remains was made on 8 August while Larsen and Biensch were walking north towards Cape Felix. The find was preceded by the discovery of a stone cache on a ridge described as situated half a mile inland from the beach near Cape Felix and at an estimated elevation of 200 feet (61 m) above sea level. Found in the cache were several Inuit artefacts including two whalebone harpoon heads, a whalebone knife handle and a bone or antler hook. Larsen's level of familiarity with the material culture of prehistoric Arctic populations is unknown, but the style of the harpoon heads reinforced his belief that many of the sites he observed near Cape Felix dated from the distant past: "the harpoons found are similar to those found in or at Point Hope Alaska and must have belonged to the race of people who inhabited this coast prior to the Eskimos" (Larsen, 1949, p. 6).

Nearby, confusingly described in the patrol report as situated 50 yards from the artefact cache but apparently corrected in other correspondence as just 50 feet from it, Larsen found a human skull partially embedded in the ground between rocks and moss. He noted that the skull appeared to be very old but provided no other details about its discovery.

The artefacts and human remains found by Larsen at Cape Felix together with other artefacts found at Victory Point were collected and forwarded to RCMP Headquarters in Ottawa. On 22 October 1949, RCMP Commissioner S. T. Wood sent a confidential letter to Dr. R. M. Anderson to arrange a telephone call for the purpose of obtaining Anderson's advice about who the RCMP might consult about the possible significance of the collections made by Larsen. Whether the telephone call was arranged and a recommendation was given by Anderson is unknown, but on 28 October, Wood asked Larsen to review a draft copy of a letter, dated 2 November 1949, inviting archaeologist Douglas Leechman at the National Museum of Canada to examine the collection (Leechman, 1949). The wording of the letter indicates that it formalised previous communication on the subject between Wood and Leechman.

Prior to being sent for examination by Leechman, the artefacts and the human remains were photographed by the RCMP Photographic Section on 1 November 1949 and shipped to Leechman via special messenger the following day (Fig. 3). In acknowledging receipt of the items, Leechman noted that he had previously seen them during a visit to Larsen's office, and he submitted his report a month later on 6 December. Commissioner Wood replied on 25 January 1950 and invited Leechman to select from the collection any items in which he might have had an interest, an offer which Leechman declined with the recommendation that the collection be kept together in the Regina museum.

Leechman described the artefacts Larsen had found near the human remains as consisting of two adze handles, two whaling harpoon heads, a caribou antler hook and an unidentified bone fragment, all thought to date to the late Thule or early Inuit period. Their current location is unknown, and no photographs of them have been found that might allow evaluation of their relative age.



Figure 1. Map of King William Island, Nunavut, showing approximate area searched by Larsen in August 1949. Base map courtesy of the Department of Culture and Heritage, Government of Nunavut.

From his examination of the skeletal remains, Leechman reached the following conclusions:

Various bones, obviously parts of a human skull, were found to belong to one individual only, and it was possible to reconstruct the cranium sufficiently to come to the following conclusion. It is probably the skull of a man of about 25 years of age, of the white race, and somewhat light and delicate, almost effeminate, in build. The skull was somewhat long-headed and is remarkable in that the metopic suture is still faintly visible. This suture is open in a pre-natal stage but normally is completely welded together. It divides the frontal bones in half from front to back. This suture is visible in 8.2% of Caucasians, 5.1% of Mongolians, and 2.1% of American Indians. (Leechman, 1949)

Based on Leechman's expert opinion and the geographical recovery context of the bones – southeast of where HMS *Erebus* and HMS *Terror* were beset and in the general vicinity of where a Franklin expedition a camp was known to exist – Larsen concluded that the remains could only have been those of a member of the Franklin expedition who had died prior to the April 1848 desertion of the ships near Victory Point:

Since this skull was found near Cape Felix, it could only have belonged to one of Sir John Franklin's men, and furthermore it could only have come from one of the men who died prior to the time the two ships "Erebus" and the "Terror" were abandoned near Victory Point, April 1848. Any remains of men who died after that time will only be found from Victory Point and southward and many skulls and skeletons have been found there; therefore, the skull found by us indicates that apparently some of the 9 Officers and 15 men including Sir John Franklin himself, who died prior to June 11, 1847, whilst the vessels were in sight of Cape Felix, were taken ashore and possibly buried along or near that point, although to date no graves have been found north of Victory Point or around Cape Felix. (Larsen, 1950)

Larsen correctly noted the fact that no graves attributable to the Franklin expedition had ever been found on King William Island between Victory Point and Cape Felix, but he suggested that fact did not preclude their existence given that the nature of the terrain, coupled with the likelihood of disturbance by Inuit, would make them difficult to identify. There is nothing controversial about Larsen's assessment on these points, and



Figure 2. RCMP Inspector Henry Larsen (I) and Constable John Biensch (r) on Cape Felix patrol, August 1949. Henry A. Larsen fonds, Library and Archives Canada, R1500.



Figure 3. Human skeletal remains found by Henry Larsen near Cape Felix, King William Island, August 1949: (a) fused parietals; (b) mandible; (c) temporal (?); (d) foramen magnum; (e) temporal; (f) frontal, zygomatics and maxilla; (g) occipital; (h) tibia; (i) unidentified; (j) unidentified (possible polar bear tooth?). Photo credit: RCMP, Henry A. Larsen fonds, Library and Archives Canada, R1500.

in any case, his attribution of the remains to the 1845 Franklin expedition was based solely on Leechman's analysis which was never questioned and as previously noted has been broadly accepted. A review of the details of the context of the discovery and of Leechman's analysis of the skeletal remains introduces doubt, however, about its European ancestry and attribution to the Franklin expedition.

Recovery context

Site location

Beyond establishing that it was discovered about one-half mile inland while walking towards Cape Felix and was thus south of the cape, the few details in the report make it difficult to approximate where Larsen found the human remains. Its described location is



Figure 4. Photograph of presumed human skull found 8 August 1949 near Cape Felix, King William Island. Inset: comparison of junction of lambdoid and sagittal sutures as seen in RCMP photograph of cranium. Photo credit: Henry Larsen, Henry A. Larsen fonds, Library and Archives Canada, R1500.

also difficult to reconcile with the topography near Cape Felix where elevations up to a mile inland of the northwest coast of King William Island appear to be below 20 metres (65 feet) above sea level, far less than Larsen's estimated 200 feet, suggesting either that the discovery site was much further inland or at a considerably lower elevation. An additional point regarding the discovery location is the described spatial association between the cache of Inuit artefacts and the human skull, a detail that appears not to have been a point of discussion with respect to the interpretation of its possible antiquity and ancestry. No temporal or cultural connection necessarily exists between the two discoveries simply because of the short distance separating them, but in light of other details, it is surprising that the possibility of such an association was not considered.

No in situ photographs of the finds were included in Larsen's reports, but the Henry A. Larsen fonds at Library and Archives Canada does contain photographs taken during the 1949 Cape Felix patrol. A search identified several images that could be matched with details in the patrol report, including one image thought to be the human cranium (Fig. 4). There is no scale in the photograph, but it appears to show a piece of weathered bone exhibiting morphology which is consistent with the right lateralposterior of an inverted human cranium. The depositional context matches Larsen's description of finding the skull partly embedded in a matrix of moss and rocks, and the photograph shows what appears to be one or more bones deeply embedded in moss, several thick pieces of which had been removed prior to taking the photograph. The other bones Larsen recovered are not visible or easily identifiable, and the orientation of the presumed cranium as photographed makes it difficult to identify diagnostic morphological landmarks. However, one possible landmark is the junction of the lambdoid and sagittal sutures which join the occipital bone with the left and right parietal and temporal bones. The occipital bone is not seen in the photograph, but it was recovered. What appear to be these same sutures are seen in the 1949 RCMP

photograph which supports the interpretation that the object in Figure 4 is the human cranium photographed by Larsen. It seems unlikely that Larsen would not have photographically documented the discovery, and a search of the 1949 Cape Felix patrol photographs in the Larsen fonds at Library and Archives Canada revealed no other possible images of the find. The visible portions of the calvaria appear bleached and weathered, whereas the base of the skull had a thick layer of moss adhering to it, suggesting that the cranium may have been moved for initial examination and was only approximately repositioned for the photograph.

Depositional and temporal contexts

In his report, Leechman did not comment on the appearance or condition of the bones as an indicator of their relative age or possible relevance with respect to their ancestry. Taking into account the many factors and processes affecting the preservation or degradation of exposed bone (Lyman, 1994), the observable characteristics of the human bones in the Cape Felix assemblage suggest they are of considerable antiquity, substantially pre-dating the mid-19th century. They exhibit significant bleaching and weathering, and extensive moss and lichen growth. Surface exfoliation, cracking and warping are also present, such as that seen on the lateral margin of the left eye orbit. The extent of tooth enamel loss is also noteworthy. All of the remaining teeth exhibit significant loss of enamel and exposure of dentine which also displays cracking and weathering indicative of exposure over a protracted period of time.

Because the specific effects of their environmental contexts are often not well understood, estimates of elapsed time based on assessments of weathering observed on archaeological bone specimens are inherently subjective. However, Franklin expedition skeletal remains recovered from surface contexts at sites elsewhere on King William Island offer a basis for general comparison with the Cape Felix assemblage. For example, hundreds of human bones found in the 1990s on the surface at site NgLj-2 located at Erebus



Figure 5. Composite image showing weathering of Cape Felix cranium and mandible (upper and lower left) compared with five crania and mandible from Franklin expedition sailors found at site NgLj-2, Erebus Bay. The good condition of the teeth in mandible NgLj-2:121 is representative of the condition of the teeth in all eight mandibles found at the site. When recovered in 1993, the Erebus Bay crania had been exposed to the elements for approximately 145 years. Photo credit: Cape Felix: RCMP, Henry A. Larsen fonds, Library and Archives Canada, R1500; NgLj-2: Anne Keenleyside.

Bay 90 km to the southwest of Cape Felix were bleached and weathered but substantially less than seen in the Cape Felix collection, and lichen growth was minimal (Fig. 5) (Keenleyside, 1994; Keenleyside, Bertulli, & Fricke, 1997, p. 38). By contrast, the degree of post-mortem deterioration apparent in the Cape Felix collection is far more advanced and signifies a period of exposure to the elements over a much longer time period. This is supported by the fact that if the Cape Felix skeletal assemblage were that of a member of the 1845 Franklin expedition, it would essentially be the same age as the skeletal remains found at Erebus Bay. Site NgLj-2 dates to 1848 and the earliest possible date for the presence of any remains of Franklin expedition personnel anywhere on King William Island is September 1846. Thus, the possible timing of the deposition of the two assemblages differed by less than two years making it difficult to explain the obviously more advanced weathering and deterioration of the bones in the Cape Felix assemblage. Furthermore, when evaluating the condition of the bones in the two assemblages, it should be noted that when recovered in 1993, the NgLj-2 assemblage had been exposed for nearly half a century longer than Cape Felix assemblage.

Skeletal remains

Inventory

The Cape Felix assemblage appears not to have been formally inventoried or described in detail, but, based on the 1949 photograph, the total number of human bones and bone fragments recovered was nine (Table 1). On the assumption that the tibia and the cranium were from the same person, it was concluded that the assemblage represented a single individual. There is no obvious reason to question that conclusion and the possibility of more than one individual being represented could only be determined through DNA analysis. Leechman did note, however, the presence of a non-human bone in the assemblage: "Accompanying the skull was a little more than half of a molar tooth from a polar bear, presumably included by accident" (Leechman, 1949). Larsen's report contains no mention of collecting human remains from any other location during the Cape Felix area search meaning that the polar bear tooth was

 Table 1. Inventory of skeletal remains collected by Larsen at Cape Felix, King

 William Island, Nunavut, 1949

Cranium	
Parietals (fused)	1
Frontal/Maxilla	1
Occipital	2
Temporal	2
Mandible	1
Tibia (diaphysis)	1
Unidentified	1
Polar bear tooth (?)	1
Total	10

presumably found commingled with the human bones. The presence of a broken polar bear tooth in the assemblage (Fig. 3) seems unusual, but no additional details about it, such as the possibility of it being worked (i.e. an artefact), were provided.

Leechman did not comment on the human bones that comprised the assemblage, but the small number and type of elements suggest the possibility that it was formed as a result of animal activity. Photographs of the bones show no obvious evidence of animal-induced damage to the cranium (e.g. gnawing or puncture marks) although it might have been difficult to identify given its extremely weathered and fragile condition. However, there appears to be evidence of animal damage to the tibia, the only post-cranial bone found. The absence of the proximal and distal portions of the tibia is a form of bone modification consistent with damage caused by large carnivores (Haynes, 1980; Lyman, 1994).

Analysis

Apart from the ancestral implication of a higher frequency of unfused metopic sutures in Europeans, the criteria on which the individual's age, sex, ancestry and physique were based were not stated. To the author's knowledge, the collection has never been reexamined and efforts to arrange a re-examination with the RCMP Historical Collections Unit were unsuccessful. However, opinions were solicited from five physical anthropologists concerning these same variables based on the morphological characteristics of the cranium and mandible as seen in photographs. As they are based on photographs that lack scales rather than first-hand examinations of the specimens, the opinions are provisional; however, all of the individuals consulted have decades of expertise in bioarchaeology.

On the question of age, they noted that eruption of the third molars (lost post-mortem) indicates an adult. Factoring in the difficulty of distinguishing between occlusal wear and significant post-mortem damage to the teeth, an estimate of mid-20s to mid-30s for chronological age was suggested. Based on the characteristics of the mandible, the sex of the individual was considered to be male. On these points, the recent evaluations align with Leechman's assessment. But on the crucial question of ancestry, the consensus of opinion was that the morphological characteristics of the bones were inconsistent with the interpretation that the remains were those of an individual of European ancestry. The anatomical attributes of the cranium and mandible were considered reliable indicators that the individual was an adult Inuk male. Although the skeleton was very incomplete, there was nothing to suggest that individual had a physique that would be considered gracile.

Summary and conclusion

The preceding discussion draws into question the belief that the human skeletal remains found by Henry Larsen at Cape Felix in 1949 were those of a sailor from the 1845 Franklin expedition. New details about the location and depositional context in which the remains were found, photographic evidence and expert opinion all support the proposition that the skeletal remains found at Cape Felix have no connection with the 1845 Franklin expedition. It is important to emphasise that in questioning the 1949 conclusions, the intent is not to criticise Leechman or Larsen but instead to consider the possibility that the former had misinterpreted diagnostic anatomical attributes of the skeletal remains which resulted in the latter misattributing them to the 1845 Franklin Northwest Passage Expedition.

The ancestry of the Cape Felix skeleton could be determined definitively through successful extraction and sequencing of DNA, but attempts to acquire a sample from the RCMP Historical Collections Unit for genetic analysis have been unsuccessful. The information presented in this review suggests, however, that until such time as the ancestry and other attributes of the skeletal remains can be confirmed conclusively through re-examination by a physical anthropologist and genetic analysis, its attribution to the 1845 Franklin expedition and the interpretive implications that derive from that conclusion should be considered unproven. Unresolved questions about the ancestry of the Cape Felix skeletal remains might also be of interest to the Government of Nunavut which for many years has been compiling information about Inuit human remains in the collections of national and international heritage facilities for the purposes of future repatriation.

Acknowledgements. I thank Robert Park for his helpful comments on an earlier version of this paper and the anonymous reviewers for their suggestions on improving the paper. Special thanks are extended to Owen Beattie, Jane Buikstra, Jerome Cybulski, Maria Liston and Janet Young for their expert advice and assistance concerning the anatomical attributes and ancestry of the Cape Felix skeletal remains. Sincere thanks are also extended to Edward Atkinson,

Nunavut Archivist, and to Ryan Shackleton, Connie Gunn, and David Martin at KnowHistory for their generous assistance with locating key archival documents in the Henry A. Larsen fonds at Library and Archives Canada.

Competing interests. The author declares none.

References

- Beattie, O. B., & Geiger, J. (1987). *Frozen in Time*. Saskatoon: Western Producer Prairie Books.
- Burwash, L. T. (1930). The Franklin Search. Canadian Geographical Journal, 1, 587–603.
- Cyriax, R. J. (1951). Recently discovered traces of the Franklin Expedition. *The Geographical Journal*, 117(2), 211–214.
- Cyriax, R. J. (1939). Sir John Franklin's Last Arctic Expedition: A Chapter in the History of the Royal Navy. London: Methuen & Co., Ltd.
- Gilder, W. H. (1881). Schwatka's Search: Sledging in the Arctic in Quest of the Franklin Records. London: S. Low, Marston, Searle and Rivington.
- Gross, T. (2003). The Bayne Project, Cape Felix, King William Island, NU, August 2003, Archaeological Permit No. 03-013A. Unpublished Report on File, Department of Culture and Heritage, Government of Nunavut.
- Gross, T., & Taichman, R. S. (2017). A comparative analysis of the Su-pung-er and Bayne testimonies related to the Franklin expedition. *Polar Record*, 53(6), 1–19.
- Haynes, G. (1980). Evidence of carnivore gnawing on Pleistocene and recent mammalian bones. *Paleobiology*, 6(3), 341–351.
- Hickey, C. G., Savelle, J. M., & Hobson, G. B. (1993). The route of Sir John Franklin's third Arctic expedition: An evaluation and test of an alternative hypothesis. *Arctic*, 46(1), 78–81.
- Hobson, W. R. (1859). Report of sledge journey, April-June 1859; Lt. William Hobson, in M'Clintock, Sir Francis Leopold: Arctic Expeditions 1848-1859. Library and Archives Canada, MG 24,H27, (Mfilm A-34).
- Keenleyside, A. (1994). An Analysis of Recently Discovered Human Skeletal Remains from the last expedition of Sir John Franklin. Unpublished report on file, Department of Culture and Heritage, Government of Nunavut.
- Keenleyside, A., Bertulli, M., & Fricke, H. C. (1997). The final days of the Franklin expedition: new skeletal evidence. Arctic, 50(1), 36–46.
- Keenleyside, A., Stenton, D. R., & Newman, K. (2021). The integration of isotopic and historical data to investigate the identification of crewmembers of the 1845 Franklin expedition. *Journal of Archaeological Science: Reports*, 40, 103200. doi:10.1016/j.jasrep.2021.103200
- Kowal, W. (1996). Final Report Project Supunger, Permit No. 94-778. Unpublished report on file, Department of Culture and Heritage, Government of Nunavut.
- Larsen, H. (1949). Patrol Report to King William Island and Return. Library and Archives Canada, "King William Island, N.W.T. - Patrol Reports by Supt. H. A. Larsen". R196 BAN 2106-00063-5, Box 2, File G-567-103.
- Larsen, H. (1950). Exhibits brought from King William Isl. by Insp. H. A. Larsen, Summer of 1949. Letter from H. A. Larsen to Commissioner S. T. Wood, January 20, 1950. Library and Archives Canada, "King William Island, N.W.T. - Patrol Reports by Supt. H. A. Larsen". R196 BAN 2106-00063-5, Box 2, File G-567-103.
- Leechman, D. (1949). Letter from D. Leechman to Commissioner S. T. Wood, December 6, 1949. Library and Archives Canada, "King William Island, N.W.T. - Patrol Reports by Supt. H. A. Larsen". R196 BAN 2106-00063-5, Box 2, File G-567-103.
- Lyman, R. L. (1994). Vertebrate Taphonomy. Cambridge: Cambridge University Press.
- McClintock, F. L. (1859). The Voyage of the "Fox" in the Arctic Seas: A Narrative of the Discovery of the Fate of Sir John Franklin and his Companions. London: John Murray.
- Potter, R. A. (2016). Finding Franklin: The Untold Story of a 165-Year Search. Montreal; Chicago: McGill-Queen's Press-MQUP.
- Schwatka, F. (1879). Notebook, 1878-1880, of Frederick Schwatka, Arctic Explorer and Leader of an Expedition in Search of Sir John Franklin (Misc. Vol. 163, MC 62.71). Mystic: The Maine Historical Association, Inc.

- Stenton, D. R. (2014). A most inhospitable coast: The report of Lieutenant William Hobson's 1859 search for the Franklin expedition on King William Island. *Arctic*, 67(4), 511–522.
- Stenton, D. R. (2018). Finding the dead: bodies, bones and burials from the 1845 Franklin northwest passage expedition. *Polar Record*, 54, 197–212. doi: 10.1017/s0032247418000359
- Stenton, D. R., Fratpietro, S., Keenleyside, A., & Park, R. W. (2021a). DNA identification of a sailor from the 1845 Franklin northwest passage expedition. *Polar Record*, 57, e14. doi: 10.1017/S0032247421000061
- Stenton, D. R., Keenleyside, A., Fratpietro, S., & Park, R. W. (2017). DNA analysis of human skeletal remains from the 1845 Franklin expedition. *Journal* of Archaeological Science: Reports, 16, 409–419. doi: 10.1016/j.jasrep.2017.03.041
- Stenton, D. R., Keenleyside, A., Froesch, P., & Park, R. W. (2021b). A Franklin expedition officer's burial at Two Grave Bay, King William Island, Nunavut. *Journal of Archaeological Science Reports*, 35, 102687. doi: 10.1016/ j.jasrep.2020.102687

- Taichman, R. S. (2023). Sŭ-pung-er's pillar: The recent significant discovery of a relic related to the Franklin expedition. *Polar Record*, 59, e29. doi: 10.1017/ S0032247423000177
- Taichman, R. S. (2024). Franklin's "Cemented Tomb": The Jamme Report of 1928 Revisited. *Polar Record*, 60(e6), 1–7. doi:10.1017/S003224742300 0347
- Walpole, G. (2017). Relics of the Franklin expedition: Discovering artifacts from the doomed Arctic voyage of 1845. Jefferson, NC: McFarland.
- Wonders, W. C. (1968). Search for Franklin. Canadian Geographical Journal, 126(4), 116–127.
- Woodman, D. C. (1991). Unravelling the Franklin Mystery: Inuit Testimony. Montréal: McGill-Queen's University Press.
- Woodman, D. C. (1995). Franklin's Vaults. In M. Bertulli, Survey of Cape Felix, King William Island, June 1995. Appendix C. Unpublished report on file, Department of Culture and Heritage, Government of Nunavut.