

**SHIPWRECK AT CAPE FLORA:
THE EXPEDITIONS OF BENJAMIN LEIGH SMITH,
ENGLAND'S FORGOTTEN ARCTIC EXPLORER**
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EXPEDITION ONE: SVALBARD, 1871

On Tuesday, May 16, 1871, while *Sampson* lay moored at Grimsby Docks on the Humber River awaiting favorable winds, Leigh Smith began a journal he would keep regularly for the next five months.¹ His companions for the expedition were an all-Norwegian crew from Tromsø. Only the mate and the captain, a “well-known” Norwegian sealing skipper and explorer by the name of Erik Andreas Ulve (1833–1896), spoke any English.² There is no indication that Leigh Smith spoke or understood more than a few words of Norwegian. In Tromsø, Leigh Smith mentions that five additional crewmembers came on board to make a crew of fourteen, suggesting that *Sampson* left England with a total complement of nine including Leigh Smith himself.

For the next five months, the Norwegians on board *Sampson* made seemingly little impression upon the Englishman, unlike the consistently negative impression they made on Lamont. His journal reveals a man preoccupied with winds and tides, rocks and islets, and ocean temperatures and depths, with only brief views of his own personality showing through a thick veneer of scientific curiosity. Most of the intimate glimpses were revealed in and around Tromsø, where Leigh Smith more than once remarked on the beauty and athleticism of the women of northern Norway. Yet, unlike Lord Dufferin, who could avidly linger for several pages on the attributes of Icelandic women, as soon as Leigh Smith opened one of these personal doors he just as quickly closed it, and returned to his observations of the winds and skies, flora and fauna, geology and oceanography.

Early on Friday morning, May 19th, *Sampson* crowded on all available canvas and sailed out of the Humber, shaping a course north by northeast for the west coast of Norway. In moderate to fine breezes, *Sampson* coursed

along between three and six knots, covering 239 nautical miles from noon on the 19th to noon the 21st, before running into shifting winds and fog and having its daily run cut to fifty-one nautical miles. Meandering along, Leigh Smith found his first chance to engage in some field research. With the dip of a survey bucket overboard, he collected samples of “great quantities of green stuff on the surface of the water [that] extended for several miles.” Nearby, Leigh Smith sighted a whale. His journal descriptions left something to be desired, and the “great quantities of green stuff” proved to be fish spawn, but he was finally off on his own and eager to make meaningful contributions to science. In the light winds, the all-Tromsø crew, anxious to be home after an extended absence, took to matching “their luck in getting favorable breezes whilst on deck.”³

During the afternoon of May 24th, after a cumulative run of 432 nautical miles from England, the crew sighted land to starboard they believed to be in the vicinity of Bergen. Leigh Smith began to notice the increased daylight in the more northerly latitudes and by midnight on the 24th he writes of “scarcely any darkness during the night-time.” He began a running comparison of the coast of Norway with that of Scotland, contrasting the latter with the “plentiful snow on [these Norwegian] mountain tops.” *Sampson* moved slowly northeastwards, passing several Norwegian cod-fishing boats. The weather was very warm and the seas smooth and the low clouds were so thick that they appeared to cut off the masts of the fishing boats. The *Sampson* crew dropped lines in fifty fathoms and fished up a meal of cod.⁴

By Saturday the 27th, still gliding along on smooth waters, both Leigh Smith and the crew became increasingly agitated about reaching Tromsø. Since he needed to engage more crew in that northern port to take with him to Svalbard, Leigh Smith was concerned lest he be too late and “the best men [already] all gone to Spitsbergen.” He seemed as well to absorb a lesson of caution when, with several of the crew, he lowered a dinghy and gave chase to a large shark that was “showing a fin about three feet above the water.” As they put a rifle bullet into it, the fish threw up its tail into the air “and fortunately for us did not touch the boat or our Arctic voyage would have ended in a very brief manner, as there were no boats that could be sent from the ship without some considerable delay getting them off the deck.”⁵

The next day the weather turned and *Sampson* began to reel off first eight and then nine and a half knots. With increasing winds and a heavy sea rising, the crew was forced to take in or reef much of the sail. The captain shaped a course eastward of the Lofoten Islands and into the Vestfjord with its shelter from both northwest and northeast winds. Leigh Smith began to regret all the calm sailing they had enjoyed, as “so much indulgent weather is not qualified to prepare one for an Arctic cruise.” By the evening of the 28th, with rain “blowing strong and thick [it] was not quite so comfortable on board as it had been during the former part of the voyage.”⁶

Early on the 29th, as *Sampson* passed the islands of Røst and entered Vestfjorden with its high surrounding mountains and variable winds and the schooner’s progress slowed again to a crawl, Leigh Smith decided that “a good steam launch would be a valuable addition to a sailing yacht.”⁷ Two years later, he would go this technological inspiration one better, when he chartered James Lamont’s screw steamer and Arctic veteran *Diana* and, with *Sampson* as a reserve tender, voyaged to Svalbard in relief of the Swedish polar expedition under Adolf Nordenskiöld.

As he entered this gateway to the north with its increasing disorientation from the elongated summer days, Leigh Smith also began a kind of Norwegian reverie, noting several coastal boats “of the old ancient style of Norsk vessels. They do not alter the rig of them or the hulls according to the modern style. They have one large square lugsail which does them good service with fair winds, but with head winds they have to lie neutral.” Alongshore he observed a long trend of rock and mountain and a few scattered huts, with little vegetation save the ubiquitous birch trees. The one modern vessel that overtook *Sampson* was the *Sophie*, an auxiliary screw-steamer bound for white or beluga whale hunting in Svalbard. Leigh Smith would later hear from another vessel that *Sophie* had caught seventy belugas around Svalbard in less than a month, which offered him further evidence that he might finance his expeditions through sea hunting. Gliding in calm winds through a narrow, fast-running tidal gut near a village he identifies as Sandtoiv, Leigh Smith has a “musical box” brought on deck, “being a very fine evening to give the crew a treat.” It’s one of many such gestures he would employ on his subsequent expeditions in order to bring small pieces of England to the Arctic.⁸

On June 1st, sixty nautical miles out from Tromsø, Leigh Smith recorded an outside temperature of 35° F and a cabin temperature of 42° and remarks that they had made it thus far without having to light a fire in the cabin. Picking through fickle winds and rocks and shoals, *Sampson* finally anchored in Tromsø on the afternoon of June 3rd. Numerous vessels were already in port, awaiting favorable winds for the reach to Svalbard.

Once *Sampson* was hauled alongside and moored to the Norwegian brig *Tromsøe*, Leigh Smith went ashore to collect his mail and engage in a bit of ethnographic research. “The houses are all built of wood, being varnished in the rooms gives them a light and cheerful appearance. The people dress well and look to be enjoying good health and I think the fashions are studied as much here as in any of our towns by both sexes. The women are very good-looking and for a small place they muster very strong.... People do not seem to care about going to bed here. I think they are acting on the old maxim, ‘Make hay while the sun shines,’ and as they have a long dreary winter, they intend to make up for the lost time.”⁹

The next day, a Sunday, Leigh Smith observed men and women rowing to church across the fjord. After dinner, he walked to a shipyard to see a small Arctic cutter named *Isbjørn* (*Polar Bear*), which was being fitted out to carry an Austro-Hungarian polar expedition led by the team of Karl Weyprecht and Julius von Payer “with a view of getting to Gillie’s Land.” Weyprecht was the leader of the maritime piece of the expedition, while Payer would be the explorer on the ground.¹⁰

The object of ‘Gillie’s Land’ was a long-time Arctic chimera, the location and naming of which had become something of an obsession for German and Austrian expeditions of the 1860s and 1870s inspired by the geographer August Petermann.¹¹ Petermann’s own desire was to see some major feature like Gillie’s Land named for King Wilhelm and the greater promotion of German polar exploration.¹² But it was Weyprecht and Payer’s pursuit of the Gillie’s Land mystery that led them further north and east the following summer and resulted in the discovery of Franz Josef Land.

Known variously as Gillie’s Land, Gillis-Land, Giles Land, or The Commander Giles Land, the land was reportedly first sighted east of Nordaustlandet in 1707 by Cornelis Giles, a Dutch whaling captain for whom the spot was initially named. Petermann, studying old charts and using those that actually mentioned it, placed it east of the eastern point

of Nordaustlandet by fifty nautical miles. The veteran Norwegian sealing captain Johan Kjeldsen (1840–1909) sighted it in 1876, five years after Leigh Smith’s first expedition, but it was no great land. It was most likely the ice-covered island with its glacial appearance that was eventually given the name White Island (Kvitøya).¹³ It would come to figure prominently in the balloon expedition of Salomon A. Andrée as the forlorn place where he and his crew finally perished. The island was often confused – as indeed it was during Leigh Smith’s first expedition – with Kong Karls Land, a group of islands in southeastern Svalbard first seen by the English whaler Thomas Edge in 1617.¹⁴

The pursuit of Gillis Land is what brought Weyprecht and Payer to Tromsø in the summer of 1871. On June 8th, Weyprecht came on board *Sampson* to introduce himself to Leigh Smith, and during their conversation Leigh Smith discerned that Weyprecht did not possess much confidence in the *Isbjørn*. Weyprecht explained his plan to trend along the south coast of Svalbard to “Walter Thymen’s Strait [Thymen Strædet; eventually named Freemansundet, a 35-km-long by 6-km-wide strait separating Barentsøya from Edgeøya], [and] if impeded by ice to take the boats across the ice to reach Gillie’s Land.”¹⁵

On the 11th, Weyprecht returned to *Sampson*, this time bringing Julius Payer with him. Together they dined on board with Leigh Smith, probably on some of the fresh cod caught by the crew the previous evening. These June 1871 meetings in Tromsø were of some moment, given Weyprecht and Payer’s discovery of Franz Josef Land the following summer and Leigh Smith’s own later explorations and shipwreck in that new-found archipelago.

Listening to the Austrian plans, Leigh Smith quietly began to formulate his own personal method of Arctic exploration. Already, his experiences along the coast of Norway had begun to teach him the values of patience, flexibility, and opportunism when it came to wind, tide, and weather. Soon he would add experience in the ice to his list of qualifications. In a note that was almost certainly added after his return from Svalbard, Leigh Smith proclaimed that, “in [his] own humble opinion, it is utterly impossible to form any definite plans before leaving as the winds prevailing from any quarter have a great influence on the ice in general.”¹⁶

This thought was the beginning of Leigh Smith's eventual voyaging strategy: go where conditions allowed you to go, and record such data as conditions allowed you to gather. As W.J.A. Grant wrote of the 1880 Franz Josef Land expedition, even Leigh Smith did not know exactly where they were going that year, since he had long decided "to be guided entirely by circumstances, and if the ice prevented him from getting far north, or finding anything fresh to do in one direction, he could then try somewhere else."¹⁷

In Tromsø, *Sampson* was loaded with three walrus boats to go with the ship's dinghy, along with "harpoons, lances, walrus lines and other gear requisite for the [walrus] boats during the voyage."¹⁸ On June 15th, *Sampson* rode the tide out of Tromsø and began to work its way north through light and inconsistent winds to the island of Sørøya, from where the expedition would take its departure for Svalbard. When they anchored on June 21st near an island Leigh Smith identified as Sanda, he went ashore to meet the foreman of the local fisheries, the appropriately named Mr. Roe, as well as his daughter, "a buxom, healthy-looking lass of twenty summers, rejoicing in the name of Petra Christine Marie Roe, who seemed to take great pleasure in waiting on us and would have fain prevailed us to have taken coffee enough to have lasted us for our Arctic cruise."¹⁹ The vision of Ms. Roe seemed to bring with it fresh breezes from the northwest, and the following day *Sampson* cleared from the northern coast of Norway bound for Svalbard.

After two days of steady winds that pushed *Sampson* a consistent six knots northwards, Leigh Smith on June 25th sighted his first iceberg at a position of 74°06' N, 24°26' E, approximately seventy-five nautical miles southeast of Bear Island (Bjørnøya). It was Leigh Smith's first view of Arctic ice and as such a harbinger of adventures to come. He "considered it a novelty and now begin to realise that we are in the Arctic seas." Two hours later, *Sampson* encountered an impassable barrier of ice barring the way to the north, and so the men shaped a course eastward in search of a way through. For the rest of the day, *Sampson* threaded through icebergs and pack-ice, before becoming trapped "in an artificial lake amongst the ice and [with] no outlet."²⁰

Thus began nearly two weeks of plodding back and forth amid ice-covered seas between lat. 73° and 75° N in the vicinity of Bjørnøya.

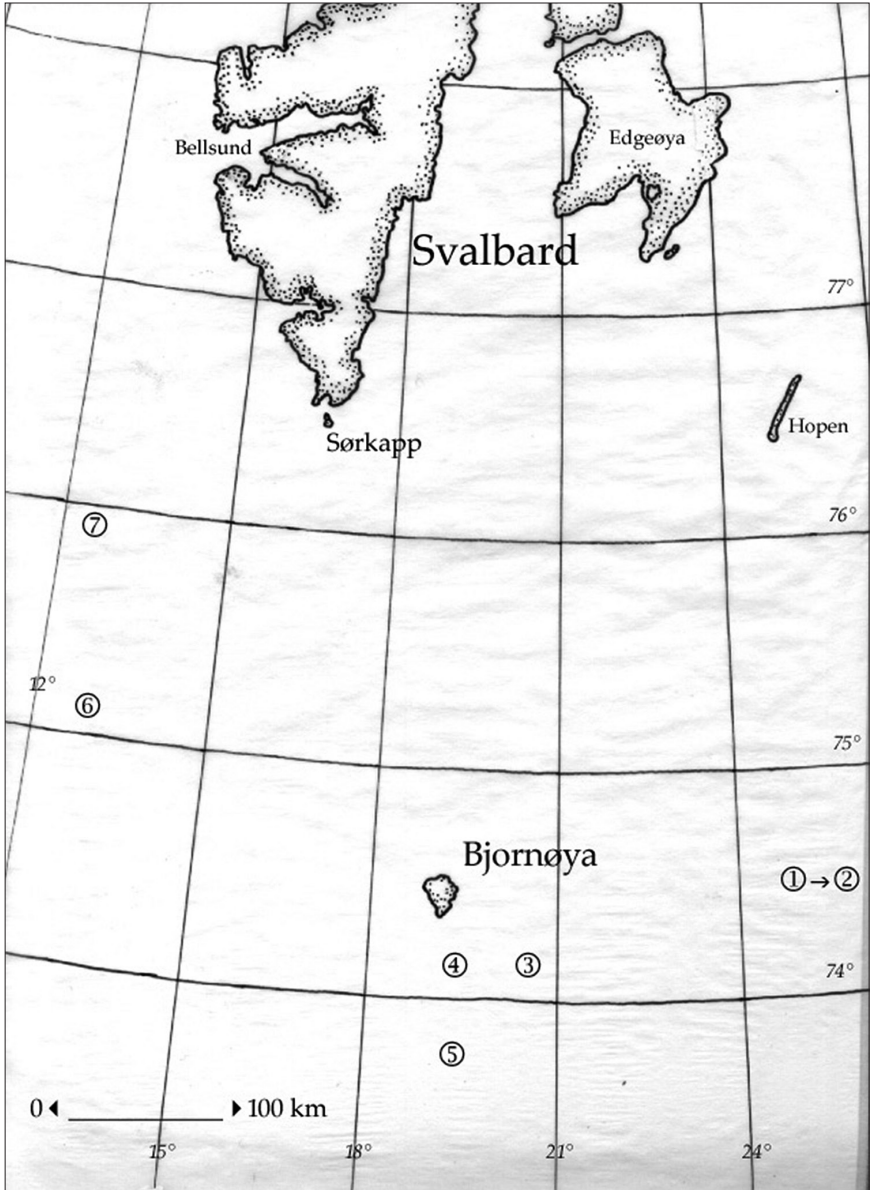


Fig. 13. Chart of Leigh Smith's first ocean stations, recorded around Bear Island (Bjørnøya), June 26-July 6, 1871. These locations testify to Sampson's difficulty in finding a route through the ice north and east of Bjørnøya, finally settling on an advance north along the west coast of Svalbard. Chart derived from Petermann, 1872, 'Originalkarte.'

Leigh Smith soon acclimatized to his chosen environment. “It seemed rather strange at first to be thumping so much against the ice but we seem to be quite reconciled to it and look upon it as a matter of course.”²¹ Like Weyprecht, Leigh Smith also started off in a search for the elusive Gile’s Land, but soon thought better of it and accordingly set course to the west of Bjørnøya. By July 6th, as *Sampson* continued to wallow along at a paltry knot and a half, Leigh Smith grew tired of the slow pace of the voyage, remarking that it was “three weeks since we sailed from Tromsø, a very long passage for such a short distance.”²²

Yet he was not one to waste any time. He used the meandering cruise to begin a series of ocean stations, recordings of both surface and deep ocean temperatures along with samples of ocean bottom sediments. These systematic efforts at scientific data collection was the major element that would set apart all of his Arctic voyages from those of earlier British Arctic tourists like Dufferin and Lamont. Between June 26th and July 7th, during the slow voyage from Tromsø to Svalbard, Leigh Smith carried out seven such ocean stations. In *The Depths of the Ocean*, the pioneering Scottish oceanographer John Murray credited these early deep ocean data from northern seas with helping define “warmer layers of water beneath the colder surface waters of the Arctic Ocean.”²³

On June 26th, Leigh Smith for the first time used what he referred to as a “Cassell’s deep-sea thermometer” to record ocean temperatures at various depths.²⁴ With this instrument, Leigh Smith began to record a series of ocean temperatures at various depths, and to use this data to speculate on the nature of the intricate and dimly understood oceanography around Svalbard. At his first station, he found his first counterintuitive evidence that the deeper he surveyed the warmer the ocean temperature became: 32.5° F at the surface, 34° at thirty fathoms, and 35.5° at a hundred fathoms. This initial data, along with similar results obtained during this same summer by Weyprecht on board *Isbjørn*, were the first of many such recordings that would support the idea that a layer of comparatively warmer Arctic seawater might exist between the surface and the bottom. In time, this current would become known as the West Spitsbergen Current. In just a few weeks, Leigh Smith had already come a long way from his first observations of “great quantities of green stuff” in the ocean.

The scope of his research widened as the expedition wore on. The following day, Leigh Smith was able to dredge up bottom sediments from 200 fathoms. For the next week, as *Sampson* wallowed around Bjørnøya, Leigh Smith continued to record ocean temperatures from the surface down to 230 fathoms.

In the first week of July, *Sampson* finally made some progress north, and at 4 a.m. on the morning of July 7th, large numbers of birds were seen flying toward what the crew assumed must be land. Svalbard was sighted twelve hours later, and by 8 p.m., Bellsund was forty nautical miles away to the east. After finding Green Harbor (Grønfyorden) clogged with ice, Leigh Smith continued north past Prins Karls Forland and made for Danskøya. He was now entering the historic waters that had beckoned him for so many years.

By July 12th, riding a light northeast breeze in moderate 40° F temperatures, *Sampson* was twenty nautical miles offshore of Albert I Land, northwest of Kapp Mitra. Leigh Smith writes of a “sea as smooth as glass, scarcely a ripple to be seen. No ice to be seen in any direction and any ordinary vessel could cruise here in perfect safety.”²⁵ The following day, as *Sampson* tacked to the east, the conditions changed rapidly: temperatures dropped, icebergs appeared to the north, and Amsterdamøya lay just ten nautical miles northeast.

With seemingly remote prospects for rounding Hakluythovden on the north point of Amsterdamøya, *Sampson* maneuvered toward Sörgattet, the strait that separates Danskøya from the mainland. Reluctant to risk *Sampson* in the shallow strait, a small boat was put over to collect water and eider duck eggs on Moseøya, a small islet off the southern point of Danskøya. There Leigh Smith picked up a blank cartridge “of English manufacture for [a] breech-loading fowling piece,” leading him to conclude that James Lamont on board his steamer *Diana* had recently passed that way.²⁶ Leigh Smith and his mates shot twenty eider ducks and collected a hundred eggs.

Finding no fresh water, *Sampson* maneuvered around the west coast of Danskøya and came to anchor in three fathoms of water in Kobbefjorden, just east of a small islet named Postholmen that was situated in the middle of the small bay. The crew found a good place for filling water, along with shelter from all but westerly and southwesterly winds. Leigh Smith took

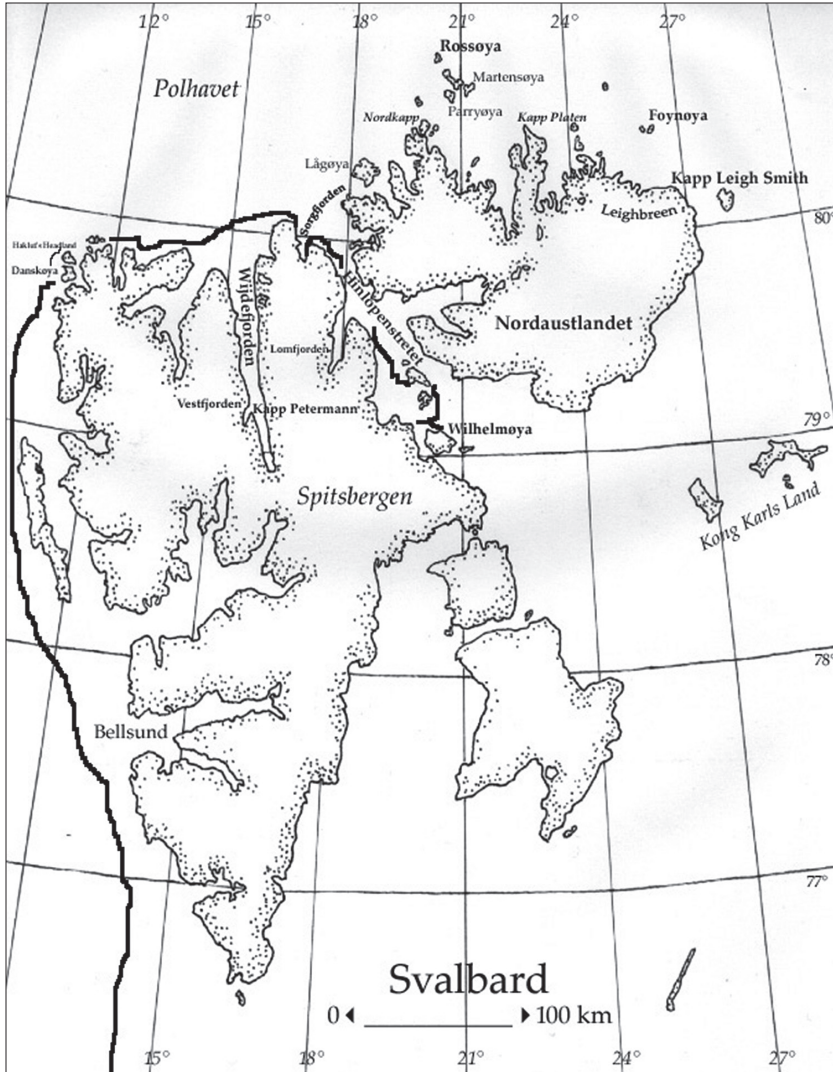


Fig. 14. Track of Sampson along Svalbard's west coast to Danskøya, round Hakluyt's Headland, and to Sorgfjorden (July 7-31, 1871). Sampson then penetrated Hinlopenstretet as far as Wilhelmøya (August 1-31, 1871). Tumlingodden, from where Leigh Smith and others thought they could sight 'Gile's Land' (from this point they were actually seeing Kong Karls Land), is the eastern point of Wilhelmøya. Petermann thought Gile's [Gillis] Land was actually further north and east. He was correct in believing that what Leigh Smith had seen was Kong Karls Land. Chart derived from Petermann, 1872, 'Originalkarte.'

his hunting dogs ashore on Danskøya and walked inland. He ascended a snow-filled ravine to the top of the ridge that would later be named for the American journalist-explorer Walter Wellman (Wellmankollen) and from there had a panoramic view of Smeerenburgfjorden. Northeast winds, he noted, had cleared the fjord of its ice.

As Leigh Smith returned to *Sampson*, another yacht anchored in Kobbefjorden, groaning with a catch of fifty seals and two whales all taken in Smeerenburgfjorden. The other vessel reported that ice still clogged Hakluythovden, and that James Lamont in his steamer had escaped southwards. On Saturday, July 15th, still another hunting yacht anchored in the bay and the crews of all three vessels joined on board *Sampson* where one of the men with a concertina provided some entertainment.

The following day, Leigh Smith recorded a balmy noontime temperature of 62° F. With bright sun and an easterly breeze, he decided on a miniature half-day expedition. Taking four men in one of the small boats, they pulled for Sørgattet, intent on a rowing circumnavigation of Danskøya. No seals were seen, and what ice there was had grounded in the shoal water of Smeerenburgfjorden. Rowing in the shoals against a strong tide, the five men reached the site of the abandoned whaling station of Smeerenburg on the southeast corner of Amsterdamøya. There Leigh Smith found great quantities of driftwood amongst the low and marshy flats.

The men then pulled through Danskegattet, the narrow strait separating Amsterdamøya from Danskøya. Leigh Smith noted the numerous rocks and shoals, and warned any vessel with a draft exceeding nine feet from attempting the passage. The boat rounded the northwest corner of Danskøya at Kapp DeGeer and returned to *Sampson* at 11 p.m. loaded “with 200 eggs which we had collected on our journey on the islands.”²⁷

The winds shifted around to the southwest on Monday, July 17th, and with them an expectation that the ice might have been pushed away from Hakluythovden. Accordingly, *Sampson* left Kobbefjorden at 2 p.m. and sailed northwards, rounding the headland three and a half hours later and shaping a course for Vogelsang Island (Fuglesangen). In dense fog, Leigh Smith ‘heard’ Fuglesangen before he saw it. “It is a great resort for the auks [little auks or dovekeys], guillemots and other birds which build their nests in the cliffs; they make a great noise which you can hear in still weather one or two miles out and in foggy weather is a good warning when approaching land.”²⁸

Just before midnight, *Sampson* anchored in Fair Haven in just two fathoms. Leigh Smith went ashore, most likely to the promontory at Ytre Norskøya, to look northward, and distressingly saw ice as far as the eye could see. There was no passage north or east. Ice pressed down on *Sampson* itself, and the crew was forced to put a line on shore and warp the ship close in toward land to avoid it. When the warp snapped later that night, *Sampson* was shifted around a point to a more secure anchorage.

The next morning, Leigh Smith went ashore again to check the state of the ice northwards, but found the same result. He also found several graves, “the coffins were of very rude construction and skeletons still in them. They are supposed to be the remains of sea-men buried here in the former whaling seasons at Spitsbergen. At that time these islands were used as a rendezvous and to try out the blubber, having had boilers erected on shore.”²⁹

By Friday, July 21st, after seeing another yacht use its small boats to tow itself eastward on the tide, *Sampson* put its own boats ahead to try the same thing. Rowing for four hours until the east-running tide played out, *Sampson* meandered to the mouth of Red Bay (Raudfjorden) before anchoring to some ice. Another day of towing with the tide put *Sampson* off Velkomstpynten, the northern edge of Reinsdyrflya and the entrance to Woodfjorden. “Here we find the benefit of a small ship as our moderate draft of water enables us to get close inshore and a few grounded icebergs keep the pressure of the smaller ice-floes clear of the ship.”³⁰

Leigh Smith took a dinghy and rowed the two miles to shore at Red Beach (Raudstranda), finding the beach sand “corresponding to the name ... given it by Parry’s expedition.” He commenced “a very rough journey” overland to a hill on the western shore of Liefdefjorden, in search of open water to the east. He returned to the ship six hours later cold, wet, and unsuccessful.³¹

Later that same day, Leigh Smith went ashore again, this time with better results. “In walking inland for about a half hour we came to a garden of Eden and no person would credit that flowers would grow in such a country and in such a short space of time. The ground was literally covered with a yellow flower similar to our primrose and several other kinds of which we gathered specimens. Here we found a beach inland as far as three or four miles which looked as if it had at one time been a sea-shore.”³²

Returning to *Sampson*, Leigh Smith found a number of other vessels, all waiting for the ice to clear and open a path eastwards. For five days, the ships waited for clear water, making repeated trips ashore for provender. As Leigh Smith remarked, “it will not require many visits to kill all on the ground.” Finally, on July 27th, the ice and the “very disagreeably cold” fog above it began to clear. *Sampson* sailed slowly toward Verlegenuken and the entrance to Hinlopenstretet. There, Leigh Smith was able to make his first deep-sea temperature recordings in two and a half weeks. At midnight, he also recorded his highest latitude yet on the voyage: 80°13′ N.³³

Seeing a mass of ice to the east and north, Leigh Smith decided at midnight on July 27th to penetrate southwards into Hinlopenstretet as far as possible. Even though at that moment the strait seemed relatively free of ice, Leigh Smith was by now convinced that ice conditions around Svalbard were never static for very long. *Sampson* would now spend the whole of August exploring Hinlopenstretet, a long passage that runs northwest to southeast and splits Svalbard in half.

Before proceeding into Hinlopenstretet, Leigh Smith explored Sorgfjorden, especially the area around Heclahamna. This was the first of his many nods to the history and, one might even say, the archaeology of British exploration of the Arctic. Parry’s *Hecla* had anchored in this harbor on the east side of Sorgfjorden in 1827, while the expedition’s boats were pulled over the ice toward the pole. Leigh Smith seemed anxious both to pay homage to Parry wherever he could, and to gently critique the national polar hero where he thought it appropriate. He disagreed with Parry’s idea of separating his small boats from the expedition’s mother ship. “In our case with a small vessel we are never far from our boats when they are absent and the crews reap great benefit from the rest and warmth they get on returning to ship which is far preferable to remaining in boats for a week in these regions.”³⁴

On Saturday, July 29th, Leigh Smith set out to climb a mountain on the south side of Sorgfjorden (“supposed to be two thousand feet in height”) and where he expected to find a cairn left there by Parry.³⁵ “After a long and very rough journey, we clambered to the summit of it where we were amply repaid for our labor. We had a good view of the coast from North Cape to Hakluyt’s Head including all the adjacent islands, and inland as far as eye could trace it seemed to be one immense glacier.” Leigh

Smith eventually found and dutifully rebuilt Parry's cairn, and gazing around him from this height the awesome panorama commanded a "very stillness [that] seemed to be quite oppressive to us." He was beginning to gain an appreciation for the feeling of relative scale one acquires amid the immensity of the Arctic landscape. After nine hours away, the forty-three-year-old returned to *Sampson* "very tired."³⁶

The next day, Leigh Smith recorded an almost uncomfortably warm noontime temperature of 72° F, prompting him to remark that if not for the surrounding ice on land and sea, "no person could imagine they were in the Arctic regions."³⁷ He went ashore to hoist the New Thames Yacht Club ensign at Crozier Point, on a flagstaff that had been erected there by Parry's crew. Triumphantly, he found several pieces of hemp rope, "about three-inch, Government private mark – a yellow thread in the strand – which could have been left here by no other vessel than the *Hecla*."³⁸ In the space of a few moments, he had made two direct connections with the great Parry.

On the 31st of July, *Sampson* weighed anchor and proceeded out of Sorgfjorden and into Hinlopenstretet. Leigh Smith remarked that the other *jakts*, still lying at anchor, showed no inclination to follow. And indeed the weather in the strait was very different from that prevailing within the sheltered bay. With strong winds blowing from the southeast and with fog, grounded icebergs, and large floes making navigation hazardous, *Sampson* worked southward toward Lomfjorden. The warmth had vanished – the temperature was forty degrees lower than it had been just a day earlier in Sorgfjorden. The transition was sudden and sharp, and a reminder of how quickly one's environment changed in the north. "Everything on deck is one mass of ice, the dense fog freezing as it settles on the ropes and sails and likewise on ourselves."³⁹

In the thick fog, they narrowly avoided a collision with the eight-mile-long Isrundingen, the sheer glacial edge of the Valhallfonna that flows into the west side of the strait. For Leigh Smith, the massive looming ice front was a "very close shave and made everyone on board open their eyes with astonishment."⁴⁰ As they cleared Isrundingen, *Sampson* came to anchor in five fathoms in a tiny bay on the north side of Lomfjorden. Here Leigh Smith recorded a rather extraordinary sight: one hundred or more beluga whales that all appeared to be floating erect in the bay, their white heads two feet above the surface. Unable to approach more closely

with harpoons, Leigh Smith speculated that perhaps a large stream flowing into the bay provided a source of food. He then rowed around Kapp Fanshawe to the bird cliffs at Alkefjellet, where he scattered thousands of guillemots by echoing his voice off the cliffs.

Sampson left Guillemot Bay (Lomfjorden) on August 4th, making a series of short tacks to avoid the icebergs. Leigh Smith sighted the Black Mountain (Svartberget) on the east side of the strait, the ‘black mountain’ that – like so many locales in Hinlopenstretet – would be used for longitude determinations in 1898 by the Swedish–Russian Arc-of-Meridian Expedition.⁴¹ That night, *Sampson* came to anchor under several grounded icebergs on the south side of Wahlbergøya. Two *jakts* on walrus hunts were already there. Leigh Smith recorded that the southern extremity of the island extended farther south than on existing charts, and provided *Sampson* with good shelter.

The snug anchorage appeared just in time. A gale soon sprang up and blew for two days. One of the other *jakts* narrowly missed destruction when the berg to which it was moored suddenly toppled over. When the storm finally moderated on the evening of August 6th, Leigh Smith went ashore with his dogs and, walking inland, found an extended beach where he found a collector’s paradise: plentiful shells and fossils, along with skeletons of both a polar bear and a walrus, and the ubiquitous Siberian driftwood that descends on every stony beach of Svalbard.

Looking eastward toward Torellneset on Nordaustlandet, Leigh Smith saw his way south blocked by ice. He longed for a clear sky “to see whether we can get a glimpse of Giles Land of which there is so much talk.” His comment leads one to believe that he was beginning to have his doubts about Giles Land, and not just because of his own experiences. “We have met with men this voyage in some of the vessels who positively affirm that they have seen it, and some state that they have been there, but from personal experience they are greatly addicted to lying.”⁴²

It is possible, through Captain Ulve, that Leigh Smith had encountered some of the Norwegian sealing captains who had so recently located what became known as Kong Karls Land. In 1853, a Norwegian ice pilot named Erik Eriksen, sighted Kong Karls Land from Edgeøya and mistook it for Giles Land.⁴³

Still, the lure of new and elusive lands in this fogbound seascape was compelling. Whenever the weather cleared, Leigh Smith would go ashore to ascend the nearest mountain and scan the southern horizon for Giles Land. As early as August 9th, while at anchor off Wahlbergøya, Leigh Smith had gone ashore, ascended a mountain, and through a break in the clouds and fog “we fancied we could see land in the far distance.”⁴⁴ This may have been Svenskøya in Kong Karls Land, laying more than 61.2 nautical miles to the southeast.

On August 12th, *Sampson* made a start in dense fog for Thumb Point (Tumlingodden), the eastern point of Wilhelmøya. The area was visited and given a preliminary survey in 1868 by the German *Grönland* expedition under Karl Koldewey.⁴⁵ When Leigh Smith cruised in the area, the name Wilhelmøya had not been settled, since it was not clear whether the area was a point of land sticking out from the mainland, or an island upon itself. As Leigh Smith writes: “This land called Thumb Point is supposed to be an island but no one has surveyed it accurately.”⁴⁶ Mooring to an iceberg in the vicinity of Kapp Freeden later that day, Leigh Smith began a series of local surveys in order to solve the problem.

On the morning of the 14th, he took one of the small boats and rowed to a bay on the northwest corner of Wilhelmøya. There he disembarked with a small team and began a walking circumnavigation of the island. Crossing a hill to the west side of the land, Leigh Smith shaped a course to the southward, hiking over soft, muddy ground for several miles. In the process he solved the problem. He crossed a hill to the southeast side of what he now knew to be an island, and walked into a flat area of swampy yellow clay.

More than twelve hours after leaving *Sampson*, the team was still trying to reach better ground along shore. The appearance of the sun for the first time in a fortnight cheered the men. At two a.m. on the 15th, after rounding the northeast corner of the island, they spied *Sampson* weighing anchor to the north and rushed to meet the ship before it disappeared. The ship sailed anyway, and the men took to their boat and did not regain the ship until it anchored off Tumlingodden at six a.m.

They had been away from the ship without food on a strenuous hike for twenty hours, but had answered the Thumb Point/Thumb Island question. The island and several features around it were later named by

Petermann after supporters of Koldewey's German polar expedition of 1868.⁴⁷

On Saturday, August 19th, Leigh Smith made another trip ashore to the summit of the mountain at Tumlingodden to look for Giles Land "and saw supposed land in that direction."⁴⁸ Indeed, *Place Names* notes that the mountain was "ascended by the Norw. sealing captain, E.A. Ulve, on Aug. 19, 1871 from where he sighted 'Gillis-Land.'"⁴⁹ It is clear enough that what they both were looking at was in fact Kong Karls Land.

New land or not, by the next day the novelty of the sighting 'Giles Land' had infected the entire crew. As they waited out the ice in hopes for a passage either east or north, even the ship's harpooner hiked to the top of the mountain and claimed to see the long-sought chimera in the distance.

Now, in late August, Leigh Smith saw no chance of progress south or east through the ice. The temperatures were falling daily. The first snow dusted the area on August 23rd. A vessel from Tromsø met up with *Sampson* on the 24th and reported that all passage beyond the North Cape (Nordkapp) of Nordaustlandet was blocked by a mass of ice. For Leigh Smith, still stuck on the southern end of Hinlopenstretet, and despite his modest successes to this point, the summer was rapidly becoming a lost one.

On the 28th, Leigh Smith rowed to the Bastion Islands (Bastianøyane) to hunt for polar bears and have one last look to the south and east. Ice was everywhere. There was no navigable water in either direction. He and his party lit a fire and took coffee in the lee of a rock. It was time to extricate *Sampson* from the strait. It was now cold enough that ice was beginning to form on still water. The sun dipped below the horizon for the first time on the 30th. At noon on the 31st, with all boats ahead rowing and towing, *Sampson* slipped from its iceberg mooring and floated on the ebb tide northwards. By midnight they had passed Wahlbergøya, halfway up the strait and, four hours later, passed Kapp Fanshawe.

At 10 a.m. on Friday, September 1st, *Sampson* rounded Shoal Point (Langgrunnodden) and, much to his delighted surprise, Leigh Smith found "the coast is quite clear as far as we can see eastward."⁵⁰ Two hours later, at Low Island (Lågøya), they found an abandoned Norwegian *jakt*, masts and spars cut away and all cargo removed, yet still riding at anchor inside of a reef. Having barely escaped Hinlopenstretet, a superstitious man might have turned around at this point. Instead, Leigh Smith

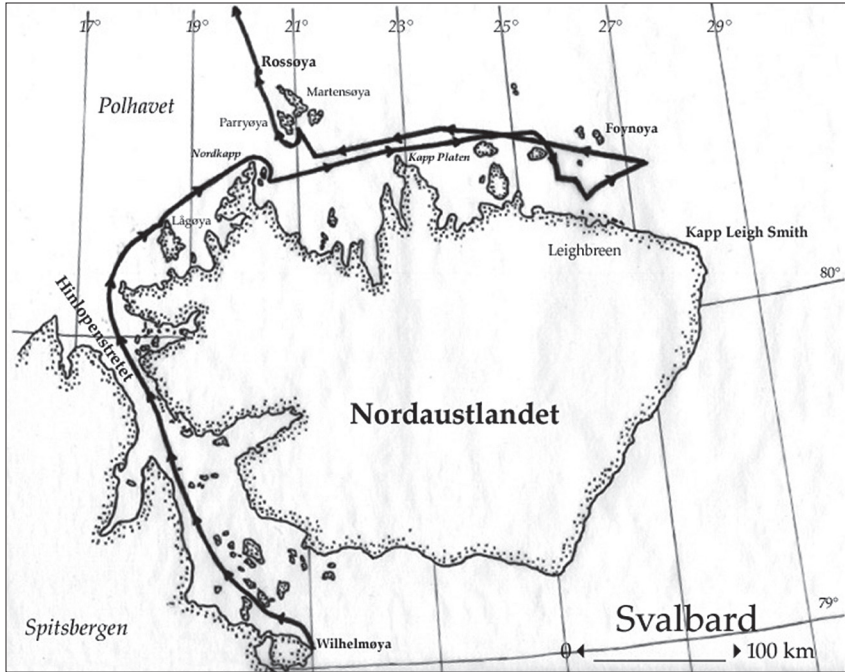


Fig. 15. The break-out from Hinlopenstretet (August 31, 1871) and the flying expedition eastwards past Kapp Platen (September 4, 1871), to Foynoya (September 5, 1871), to Kapp Leigh Smith (September 6, 1871). Sampson then retreated along the north coast of Nordaustlandet to the Seven Islands (Sjuøyane). There, north of Rossoya, Leigh Smith made his farthest north of lat. 81°25' N at 11 a.m. on September 11, 1871. Sampson then made for Wijdefjorden where Leigh Smith charted Vestfjorden (September 12–16, 1871). Chart derived from Petermann, 1872, 'Smyth' & Ulve's.'

continued east. It was a bold decision, especially given the lateness of the season, and Leigh Smith would be rewarded for it. Over the next ten days he made the majority of his significant Svalbard discoveries.

Sampson passed Nordkapp just before noon on September 2nd and came to anchor off South Castren's Island (Søre Castrénøyane) in eight fathoms. On shore for two hours, Leigh Smith found more driftwood than he had seen at any other point in Svalbard, not an inconsiderable observation given the amount of Siberian wood that drifts onto those remote shorelines. Two *jakts* that had been sea-hunting north of Russia in Novaya



Fig. 16. Norwegian walrus-hunting jakts off the northern coast of Svalbard, 1880 (courtesy Hancox Archive).

Zemlya showed up at the same anchorage. Leigh Smith politely sent over a bottle of brandy and some preserved meat and vegetables to each, and was rewarded with return gift of a Novaya Zemlya fox skin and some ptarmigan shot in Wijdefjorden.

A strong southwest gale forced *Sampson* from its temporary berth on the afternoon of the 3rd so she rounded North Castrén's Island (Nordre Castrénøyane) and found clear water to the east. By 8 a.m. on the 4th, they had crossed Nordenskiöldbukta and in thick fog stood three nautical miles north of Kapp Platen, still with clear water to the east. From here, Captain Ulve shaped a course northeast, and around 5 p.m. that afternoon, they sighted the small island of Drabanten. This tiny bar was later joined to Karl XII-øya by wave action, losing its identity in the process. Petermann's chart of *Sampson's* track does not show the vessel approaching the island(s), but Leigh Smith is clear in his journal that a boat from *Sampson* was sent through broken ice in search of seals or walrus on the island, but found neither.

Sampson stood its ground for several hours, the fog being too thick to maneuver in. When the fog cleared a bit the following morning, September 5th, *Sampson* cruised toward what emerged as two small islands and then a third island about three nautical miles to the southwest of the first two. These were the first confirmed sightings of Brochøya, Foynøya, and Schübelerøya, small islands that would figure so large in the *Italia* saga of 1928. Along with most of the other features Leigh Smith would soon after note in this sector of Svalbard, these islands were later named for accomplished nineteenth-century Norwegians. After the cruise, Captain Ulve handed the new geographic data to Professor Henrik Mohn of the University of Oslo. Mohn then consulted with August Petermann upon an eventual thirty-three new place names in northeast Svalbard, and Petermann published them in two articles and two charts in his *Mittheilungen*.⁵¹ Schübelerøya was named for a botanist at the University of Oslo while Brochøya honored a mathematician. Foynøya was named for the famous Tønsberg whaler Svend Foyn, whose explosive harpoon revolutionized the hunting and processing of whales in the nineteenth century.⁵²

From the newly discovered islands, *Sampson* tacked still further eastwards and, at noon on September 6th, came to the limits of Svalbard. “We can see land bearing from our present position SSE,” Leigh Smith writes, “stretching to a very low point to the sea and inland it appears to be one continuous glacier.”⁵³ Because of the fog, they had not been able to take their position for several days, but they figured *Sampson* to be thirty nautical miles east of Repøyane. The “very low point” they had seen Mohn and Petermann would later name Kapp Leigh Smith, the eastern limit of Svalbard, and the “continuous glacier” became Leighbreen.

From the masthead, there was still no ice to be seen to the east. Neither could they see any vessels, all other ships having made their retreat as it was now very late in the season. Leigh Smith was sorely tempted to attempt a rounding of this new northeast point of Svalbard, but he knew that if ice came in from the north, or they encountered an ice wall to the south, they would have no escape route. If they were trapped, they did not have enough supplies on board to support an overwintering.

At 4 p.m. on Wednesday, September 6th, they turned the ship around and tacked to the westward. Two hours later, *Sampson* passed a quarter mile north of what Leigh Smith called “Sampson Island,” bearing twenty

nautical miles east from Repøyane.⁵⁴ It was one of twenty-two new islands within Svalbard sighted and named during this one research cruise. On his very first attempt, Leigh Smith had done more than all the previous English explorers of this sector of Svalbard combined.

By the following morning, *Sampson* had cleared Repøyane and shaped a course for the Sjuøyane. Before abandoning the north for the year, Leigh Smith wanted to see the islands named after so many British naval explorers. He also had a notion to make one quick reconnaissance toward the pole itself.

Under a bright moon, *Sampson* approached the ice-shrouded Sjuøyane around midnight on September 7th and by the following afternoon was only two nautical miles off the southern edge of Martensøya. Drifting in Straumporten, the strait between Phippsøya and Parryøya, Leigh Smith sighted the same derelict *jakt* he had noted off Lågøya a week earlier. He thought she had most likely broken her anchors and floated north on the recent southerly winds. *Sampson* anchored in seven fathoms next to a large grounded iceberg on the east side of Parryøya, and Leigh Smith went ashore to pay a visit.

On the morning of 9th, Leigh Smith stepped ashore onto a sandy beach, where he located the usual large quantities of driftwood along with the backbone of a whale and reindeer tracks in the sand. Atop “a very peculiar rock which we will call Pinnacle Rock,” the shore party hoisted the New Thames ensign to celebrate the highest latitude they had yet attained.⁵⁵ From this height, Leigh Smith saw nothing but open water as far as he could see both north and west. As he had at Danskøya, he then rowed around Parryøya, and reaching a bay on the south side of Phippsøya, boarded the derelict *jakt*. She had not broken her anchor; someone had boarded her, cut away her anchors and cable, and set her adrift.

Ice from the east began to hem *Sampson* in, so the boats were employed to tow the ship through a reef off Parryøya that screened them from the force of the ice. Clearing the southeastern corner of the island and passing between Parryøya and Nelsonøya, *Sampson* headed north along the western edge of Sjuøyane, making for Table Island (Tavleøya). To the northeast, they saw the derelict yet again. As Leigh Smith noted, she was “driving away with the tide and no doubt she may accomplish what no human being has done, reach the North Pole.”⁵⁶ There is more

than a hint of a suggestion here that he longed to be on board and go along for the voyage.

At 7 p.m. on September 10th, *Sampson* arrived off Rossøya and Vesle Tavleøya, the northernmost islands in Svalbard, and a boat was lowered so Leigh Smith could go ashore. Again the New Thames ensign was hoisted, a salute fired, and Leigh Smith collected a few specimens of the northernmost rock in the world. He then rowed through the narrow strait separating the two small islands and circumnavigated Rossøya before returning to *Sampson*.

The only ice to be seen was a few grounded bergs. So, after retrieving the boat, *Sampson* hove to in a strong westerly gale. At 6 a.m. on September 11th, *Sampson* made sail and proceeded northward. For five hours she sailed north by west at five knots. Leigh Smith recorded that not an iceberg or ice of any description was to be seen.

Near 11 a.m., they finally approached the edge of the pack ice. This was no spot for a vessel to linger in. The seas were heavy, so the expedition turned around and began its retreat. When the sun appeared momentarily, they fixed their highest latitude at 81°25'00" N, just short of Nordenskiöld's record of 81°42' N of Svalbard in *Sofia* in 1868. This was the farthest north Leigh Smith would attain on any of his five expeditions. As they sailed southwest past Waldenøya, rather than celebrate his farthest north, Leigh Smith marveled that they had gone the entire Arctic cruise without the need of a fire in the cabin.

Retreating southwestwards, *Sampson* bore up and made for Wijdefjorden, the crew intent on replenishing their meat and water supplies before returning home. In the event, the excursion turned into a chance for the crew to hunt before they returned to Tromsø and for Leigh Smith to engage in more surveying.

Sampson entered the large deep fjord and located a previously uncharted island off Kapp Petermann on the evening of September 12th. The ship came to anchor on the south side of the small island in eight fathoms. Boats were sent into both Vestfjorden and Austfjorden in search of reindeer. Leigh Smith began to chart Vestfjorden and write up a set of sailing directions for any vessel that might explore this remote corner of Svalbard in future summers. Working from a small boat, he sounded from the island to Kapp Petermann, finding no bottom at twenty-five fathoms until

he was half a mile from the kapp when he dredged up “stiff red clay” from seven fathoms.

New ice was already forming at the head of Vestfjorden, and it became difficult to row through it and continue the survey. But Leigh Smith carried on as far as he could reach into the mid-channel of Vestfjorden, finding no bottom at twenty-five fathoms as far as his miniature icebreaker could reach. By September 14th, the crew was returning from their hunting forays, and in calm, snowy weather, set to work skinning nearly thirty reindeer. Five-foot-long sharks, possibly Greenland sharks, appeared when the reindeer carcasses were set overboard for a cleaning, and the sharks themselves were caught and dissected for their livers. Thrown back overboard, Leigh Smith observed them swimming astern of the ship, not seeming “any worse for being subject to such an operation.”⁵⁷

At 1 p.m. on the September 16th, *Sampson* weighed anchor and headed down the bay, arriving at the entrance at midnight. They made for Møffen Island but sailed round it without seeing any walrus. After a stay at Velkomstpynten on the mainland, *Sampson* rounded Hakluythovden at 2 a.m. on September 20th, and in a strong north breeze set all sail for Tromsø. The return to the Norwegian mainland was very rapid, *Sampson* reeling off as many as nine knots running under square sails with the wind directly aft.

Recording a “very singular change” upward in the surface water temperature off Sørkapp, Leigh Smith began his analysis of the hundreds of ocean temperature measurements he had recorded during the cruise. “From the Prince Charles Foreland as we came further south we found the temperature of the water to be gradually decreasing owing no doubt to a current known to be constantly setting southwestward along the S coast of Spitsbergen, round the S. Cape and thence northward along the west coast. From the large quantities of ice between the NE land and Giles Land there must evidently be a stream of cold water coming southwestward with the current which checks all influence the Gulf Stream has on other parts of the coast.”⁵⁸

Leigh Smith was beginning to find a way to reconcile the relatively warm surface temperatures he recorded north and west of Svalbard with the colder temperatures he had recorded south and east of the islands both on the journey from Tromsø and then when *Sampson* was stuck at the southern end of Hinlopenstretet. “We have found when at the Henlopen

Straits south entrance that the temp of water never exceeded 31° at surface, whilst at the Seven Islands the temp of water at surface was never *less than 31° at surface* [italics added].”⁵⁹

Leigh Smith was correct that a cold, westward-setting blocking current that passed south of Svalbard would account for the ability of ships to pass up its west coast for long periods of the year, while ships like his own and Weyprecht’s *Isbjørn* were stopped if they tried to force a passage through to the elusive Giles Land east of Svalbard. Leigh Smith realized, however, that he had only one summer’s worth of data to rely upon. He was determined to return the following year to begin the creation of a series of observations over time that would contribute to a solution of the problem.

Early on the morning of September 27th, *Sampson* anchored again in Tromsø. The crew was disappointed on several counts. The entire haul from the cruise was thirty-three seals, eight bears, and forty-five reindeer. Only now were they told they would all receive an equal share in the voyage, which led to regret that they had not engaged more energetically in their hunting. In Tromsø, it had been the best summer for herring fisheries in twenty years. Had the crew stayed home and fished in their own waters, instead of following a wealthy English wanderer around Svalbard, they would have enjoyed a much more profitable season.

When Captain Ulve left *Sampson* in Tromsø, it was left to Leigh Smith to get the ship back to England with an all-Norwegian crew already resentful over their summer losses. Adding to their misgivings was Leigh Smith’s purchase of a polar bear cub from a ship recently arrived from Novaya Zemlya, which he named ‘Sampson’ and intended for delivery to the Zoological Gardens in Regents Park.

Leigh Smith himself was in a better mood. He flirted with a pretty young Tromsø woman, and received new visits from Weyprecht, whose *Isbjørn* had returned to the mainland but had to be towed in by steamer from Hammerfest. Julius Payer, denied any real chance for overland exploration during the expedition, had chosen to walk from Hammerfest. “Their voyage,” Leigh Smith writes, “has not answered their expectations in any respect. They have not got one polar bear or seal the whole voyage on account of the great quantities of ice on the east coast of Spitsbergen. They have failed in their attempt to reach Giles Land.”⁶⁰ It was a stark contrast to Leigh Smith’s own efforts.

Soon, however, Leigh Smith encountered disappointments of his own. The young woman was already engaged and, upon sailing from Tromsø on October 11th, *Sampson* the polar bear repeatedly attempted to escape. During one such episode, while the crew looked on with bemusement, Leigh Smith dove after the cub to grab its hind legs before it jumped over the taffrail. *Sampson* the ship fared little better, its desultory Tromsø crew unwilling to fight headwinds all the way to England. Unable to put much force behind his English commands to a Norwegian crew, Leigh Smith turned back. *Sampson* returned to Tromsø, dropped anchor, and ended her 1871 Arctic cruise on October 31st.

Such minor setbacks could not diminish the magnitude of his accomplishments. Leigh Smith had gained a summer of experiences with varying ice conditions north of Svalbard, had solved several geographic problems, located dozens of previously unknown islands, and initiated a series of ocean stations in the Arctic. His experiences with a small sailing vessel in such waters only intensified both his desire to return and to do so with a properly equipped screw steamer. His first expedition to Svalbard was critical in defining the complex northeastern coastline and eastern limits of Nordaustlandet, and pioneered Arctic oceanographic research. It established a pattern that Leigh Smith would follow on all four of his subsequent expeditions: draw up a general plan of geographic and oceanographic reconnaissance, then vary that plan according to the ever-shifting ice conditions between Greenland, Svalbard, and, eventually, the as-yet undiscovered Franz Josef Land.

Leigh Smith might be shocked to learn that the ice-laden East Spitsbergen Current that in the summer of 1871 blocked the passage of both his *Sampson* and Weyprecht's *Isbjørn*, is even today under intensive study.⁶¹ This current carries Arctic waters from the polar basin south between Franz Josef Land and Svalbard, then west along the southern coasts of Svalbard, where it rises up against the Spitsbergen Bank that runs from Edgeøya southwest to Bjørnøya. There, it sets up a confusing series of oceanographic phenomena as it clashes with the warmer waters of the West Spitsbergen Current as the latter flows north out of the North Atlantic. Nearly one hundred and fifty years later, these waters are still an extremely challenging arena in which to attempt navigation and scientific research.