

## CBHL & EBHL

### Birthday Celebrations in New York

Over the course of a week in June, three organisations came together in New York Botanic Gardens, to celebrate two birthdays: the Council for Botanical and Horticultural Libraries (CBHL) celebrated its 50th meeting, while its European sister organisation, the European Botanical and Horticultural Libraries group (EBHL), celebrated its 25th birthday. As has been the case over the last three years, Linnaeus Link partners also met to hold their business meeting at the same time.

The birthday celebrations included talks reminiscing about the foundation of both organisations, as well as a huge birthday cake and party hats for all! CBHL and EBHL were founded to promote and facilitate co-operation and communication between those working in botanical and horticultural libraries, archives and related institutions. This latest conference shows how well these aims have been attained and achieved.

The conference was a huge success, with over 100 librarians and archivists attending from all over North America and Europe, tremendously stimulating talks, and well-organised outings. Amongst the highlights were two talks on the history and botany of the High Line (a 1.5 mile linear park in Manhattan built on a section of disused New York central railway), followed by a walk along the High Line itself. The celebrations also included a fascinating presentation on the Welikia project, which aims to reconstruct the native landscape of the island of Mannahatta and of other New York boroughs (see <https://welikia.org/>), and a visit to Brooklyn

Botanical Garden, New York Botanical Garden (NYBG) and its Special Collections; a Linnaean exhibit was even displayed in honour of the Linnaeus Link meeting in the Rare Books Room.

The Linnean Society's Collections team was there in force: Lynda Brooks, Isabelle Charmantier and Gina Douglas chaired the Linnaeus Link business meeting, and gave two presentations: on the Society's digital online collections, and the Linnaeus Link Union Catalogue. Other presentations were varied and looked to the past (botany teaching aids, the Johannes Harder herbarium, and the history of the vasculum), the present (education programmes at Real Jardin Botanico de Madrid, providing access at the Silva Center), and the digital future (JSTOR Plants and Society, BIOfid, and digitisation efforts at Royal Botanic Gardens, Kew, Royal Horticultural Society and NYBG).

As always in conference, it was the social element that made it so enjoyable: to meet new and familiar faces, and see iconic places like the Statue of Liberty, while sharing professional advice and experiences, forging connections, and thinking about collaborations. Every year, the EBHL/Linnaeus Link meetings are a highlight in the calendar of the Collections team, and this year did not disappoint.

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BELOW:  
Celebrating the CBHL  
and EBHL birthdays  
in New York  
Courtesy NYBG



# THE LINNEAN SOCIETY FIELD TRIP: CUMBRAE

This year, the Linnean Society field trip took place on Scotland's most accessible island, the Isle of Cumbrae, in conjunction with the Field Studies Council (FSC). The FSC were amazing hosts and our tutor Jack Lucas was extremely knowledgeable about Cumbrae and the local ecology.

The first evening session consisted of setting humane traps for moths and mammals, as well as a camera trap to capture the nocturnal activities of otters. According to Jack, the mammal traps saw the same creatures returning for food, shelter and water—a luxury hotel for them. We ended the evening bird watching. Gannets can achieve diving speeds of up to 100 km/hour, enabling them to catch fish much deeper than other airborne seabirds; they are one of few birds to dive with their eyes open. We also spotted the lone resident dolphin of the bay named either 'Colin' or 'Kylie', depending on who you ask; dolphins are social creatures, yet this one is only ever seen alone.



While our camera trap was unsuccessful, others caught two lively large yellow underwings, a canis fly, and a few spiders too. The mammal traps caught field mice which were safely returned before a session of plankton sampling under the microscope.

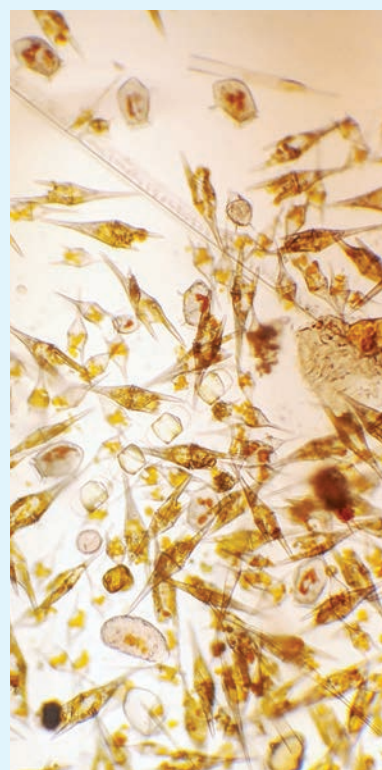
Quadrat sampling took us to the lower shore to study the sea urchins, crabs, starfish and brittle stars, and a talk on the natural history of Cumbrae rounded off the day.

The final day saw the group experience some 'real' Scottish weather but some sandy shore analysis distracted everyone from the drizzle. Many worms were dug up, including lugworms and ragworms, with their beautiful colours and sinusoidal movement. It was easy to forget that they can bite...

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## FUN FACT:

"Curling stones are made from granite only found on Ailsa Craig, an island south of Cumbrae"



LEFT AND ABOVE:  
The study group on Cumbrae and plankton under the microscope; Images courtesy Leanne Melbourne

## PRESIDENT: DR SANDY KNAPP

The Society extends a warm welcome to our new President, Dr Sandra Knapp, who took on the role from Professor Paul Brakefield FRS at the Anniversary Meeting in May. Sandy has had a long association with the Society, having been a Fellow for 30 years, Secretary of the Evolution Specialist Group in 1993, and was an Officer for over 13 years (as Botanical Secretary 2001–14).

Sandy has already made significant contributions to the Society's development and output, and we know that she will lead the Society with great energy and vision. Her experience in botanical systematics/taxonomy is vast and varied: she has been honoured in

the scientific world for her research on the Solanaceae family, and is one of the most notable promoters of all things related to the wider understanding of natural history, often appearing on radio and TV. The Society is greatly honoured to have Sandy as President, in its 230th year.



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## CHANGES IN THE LIBRARY: LYNDA BROOKS RETIREMENT

At the end of July we said a bittersweet farewell to our Librarian of over 13 years, Lynda Brooks, who has decided to retire. During her time at the Society Lynda not only dealt with the daily running of our Library but oversaw the Library's role in several large projects, like the huge book move to our offsite storage, the installation of our lift and the refurbishment of the Library itself. A mine of information, we often hear comments from visitors on how accessible and informative her tours of the Society are, and according to many sources she is also a master of cataloguing.

Lynda was presented with a bespoke framed print of one her favourite images in our collections, from Edward Lear's *Illustrations of the Family of Psittacidae, or Parrots*. We will all miss Lynda's quick wit, but luckily she is returning as a volunteer one day a week

to carry on with some of her projects. In the meantime, please join us in wishing Lynda all the very best for her retirement.

In Lynda's stead, Dr Isabelle Charmantier has been deservedly promoted to the newly created role of Head of Collections, to whom the Librarian will report. Our new Librarian, Dorothy Fouracre, will start her role in September and we look forward to introducing her in the next issue.

RIGHT:  
Librarian Lynda Brooks retired in July  
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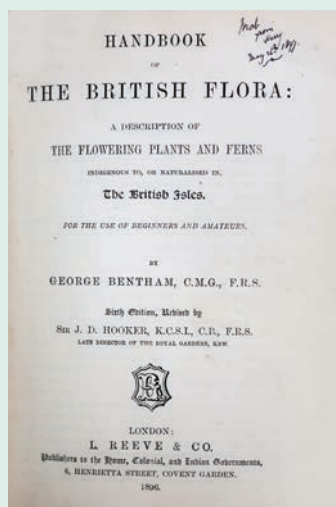




# A VICTORIAN CITIZEN SCIENTIST

## Mabel Hannen's Illustrated Handbook

Science was very fashionable in the Victorian era, especially amongst those with wealth and some education. Botany, while studied in true scientific depth by some, was also the domain of many amateur hobbyists who concentrated on the observation and recording of plant life. Since very little investment in instrumentation was required this past-time was easily accessible to the amateur, and was considered suitable for women in particular, involving as it did the description and sometimes painting of flowers. So it is not surprising that a newly-wed husband of means, such as the Rt Hon. Henry Hannen ('Harry'), would give his wife, Mabel, a present of the latest edition of the most respected handbook on Botany:



This was the sixth edition (1896) of the book by George Bentham FLS, an eminent botanist renowned for his classification of spermatophyta (seed plants) which, although disputed in its detail by some, formed the basis for the modern system of vascular plant taxonomy. This edition was revised by his friend Joseph Dalton Hooker, Director of the Royal Botanical Gardens, Kew and was published separately from a volume bearing illustrations of the plants.

Mabel Hannen's copy therefore contains no illustrations apart from her own additions.

Born Mabel Gould (1874–1941) to a wealthy family in Christchurch, New Zealand, she was a well-travelled young woman. Her father George Gould was a well-known businessman and her brother (also George), a NZ farmer/racehorse-breeder and chairman of the NZ Shipping Company, was grandfather to the British politician, Bryan Gould. It is likely that Mabel accompanied her father or brother on business trips and on one of these met Henry Hannen (1861–1933), a British Justice of the Peace. Their marriage took place in Tasmania (November 1896) but they soon travelled to England to take up residence at Holne Cottage, South Devon.

The cottage was originally a hunting lodge forming part of the large Holne Chase estate near Ashburton. Later it became the country residence of Henry's father, Lord James Hannen (1821–94), who had been appointed Lord of Appeal Chancery with a life peerage. This area of South Devon became one of Mabel's first sources of flower/plant observations and she carefully recorded each find meticulously with a date, location and a botanically accurate watercolour painting on the pages of her new handbook.

Henry became the Deputy Lieutenant of Kent, and he and Mabel soon made the more imposing residence at The Hall, West Farleigh in Kent, their home. Mabel continued with her specimen hunting in both Kent and Devon, and also during brief sojourns to Wales, Italy, France and Belgium. The latter provided a poignant 1919 entry at the ruins of Pervyse, a village destroyed during WW1. The data collection was extended by contributions from Henry as he travelled around, and later by both of Mabel's children, Mabel-Mary and Gertrude. Mabel's passion for plant hunting continued



after she retired as a widow to Rock House near Maidstone until just before her death in 1941.

In total the book contains 412 individual watercolours of plants found at more than 50 locations, and the data reflect that Mabel pursued her hobby over 40 years—from 1897 until the last date entry of 1938. This remarkable and beautiful catalogue may not have merited the attention of the 'serious scientists' of her day, but today, along with other similar journals, it provides an important resource allowing direct comparison of the incidence of plants at these locations. Towards this end the detailed data from this book has been collated and will be made available to the Linnean Society. But more importantly, perhaps, it is a work of art and a citizen scientist's 'labour of love' that deserves recognition and that should continue to inspire.

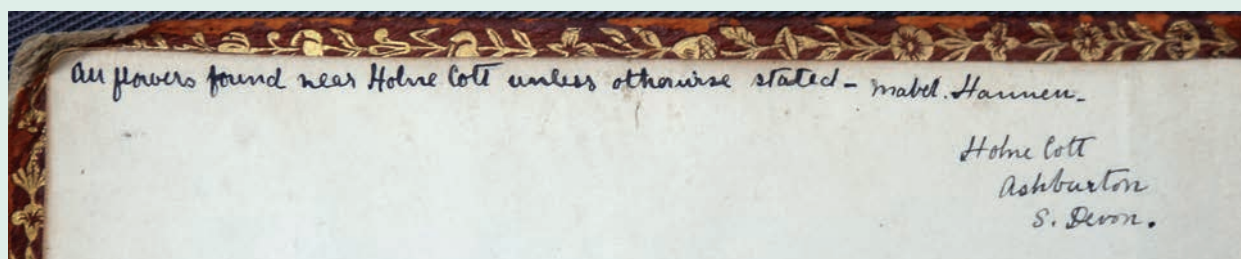
Dr Margaret-M. Town

ABOVE:  
Mabel Hannen's beautiful drawings of *Centaurea*  
All images © The Linnean Society of London

LEFT:  
George Bentham's *Handbook of British Flora* with the inscription "Mab from Harry May 26th 1897"

BELOW RIGHT:  
*Papaver* as illustrated by Hannen

BELOW LEFT:  
Mabel's note states "All flowers found near Holne Cott unless otherwise stated"





# Climate Change and Coralline Algae

## THE FATE OF OUR UK SHORES

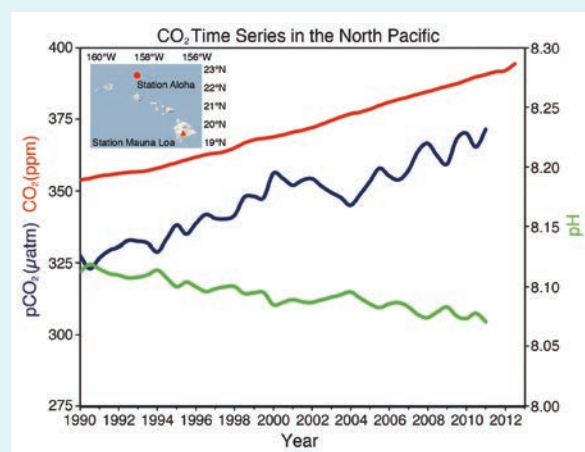
ABOVE:  
Fig. 1. Geniculated corallines, crusts and mærl/rhodoliths  
All images © Leanne Melbourne, except graph © IPCC WG1 2013  
doi:10.1017/CBO978

BELOW:  
Fig. 2. Increasing CO<sub>2</sub> concentrations from the 1960s and the corresponding increase in CO<sub>2</sub> concentrations in the ocean and pH decrease.

Most of us are aware of the devastating effects of climate change on corals, especially with all the media coverage on the Great Barrier Reef. A massive study in 2016 found that over 90% of the corals on the Great Barrier Reef had experienced coral bleaching due to increasing temperatures.<sup>1</sup> Bleaching occurs when corals expel the algae living within them due to the rising hostile temperatures, causing them to lose their colour; if this process is prolonged the coral may die, as the algae provide nutrients that the coral cannot attain on their own. This will have disastrous consequences for not only the corals but the marine animals and plants that call the reefs their home.

### Coralline Algae

However, this piece isn't about coral reefs, but about calcifying habitat formers that are just as important to marine biodiversity along our UK shores. Coralline algae are a group of red algae (Rhodophyta) that produce calcium carbonate within their cell walls, giving them a hard chalky appearance.<sup>2</sup> Coralline algae can be split into two groups: geniculated (articulated) corallines and non-geniculate corallines. Geniculated corallines are 'tree-like' structures made up of alternating segments of calcified and non-calcified material, typically seen as turfs in tidal pools in the intertidal zone (Fig 1.). The non-geniculate corallines are completely calcified and can exist as crusts (the lovely pink purple splashes found over pebbles and rocks) or as mærl/rhodoliths—completely unattached forms. Here I am going to focus on mærl/ rhodoliths.



Mærl and rhodoliths have slightly different definitions, but as they provide the same ecosystem function, and for relative ease, we'll use mærl to discuss all unattached forms of coralline algae.<sup>3</sup> They are found from polar to tropical latitudes and intertidal to 150 m deep.<sup>4</sup> The UK shelf has some of the most extensive rhodolith beds in

Europe,<sup>5</sup> with the major UK rhodolith builders being *Lithothamnion corallioides*, *Lithothamnion glaciale* and *Phymatolithon calcareum*.<sup>6</sup> Mærl interlock together and form extensive beds that support high levels of biodiversity; the spaces created in the lattice are ideal homes to a wide variety of organisms.<sup>7</sup> They are known to be nursery grounds to commercial species of scallops,<sup>8</sup> so are of economic importance, but mærl are ecologically fragile and climate change is seen as a potential stressor. Previous research on the effects of climate change on coralline algae has focused on photosynthesis and calcification.<sup>9</sup> More recently researchers have realised the importance of analysing how their structural integrity is affected. Mærl beds are formed through fragmentation. A bit of mærl will break off, start to grow and eventually become a fully-formed mærl bed. Why is it important to analyse this? Changing the 3D structure will change the bed itself which will have an effect on the organisms that inhabit it, but also if fragments are too small they may suffocate due to sedimentation, but more on this later.

### What Exactly is Happening to our Oceans?

As a result of rising carbon dioxide concentrations and subsequent climate change, the UK sea surface temperatures have risen by 0.2 to 0.6 °C since the 1980s (Fig 2).<sup>10</sup> Additionally, CO<sub>2</sub> reacts with water, changing the chemistry of marine systems and lowering the pH of our oceans, making it harder for organisms like corals and coralline algae to calcify. Ocean acidification has led to a decrease in pH of 0.1 units globally since the pre-industrial era.<sup>11</sup>

How does ocean warming and acidification affect the structural integrity of mærl and the resulting ability to form habitats? Using the modelling package Finite Element Analysis (originally used in engineering but now widely used in the fields of palaeontology and zoology), our project created this FE model which accurately represents the stress build up within mærl in order to help assess different scenarios (Fig 3).<sup>12, 13</sup>

We assessed variation between species, between different time periods and between different future CO<sub>2</sub> and temperature scenarios.<sup>14</sup> Results showed that the colder temperate species from Scotland formed stronger skeletons than the warmer temperate species from Falmouth, England. In Scotland, where the temperatures are colder, growth is much slower and they are able to deposit more calcium carbonate, resulting in thicker cell walls, and hence a stronger structural integrity. Surprisingly, when comparing the same species from different time periods (100 years apart), there were no substantial changes in the structural integrity. Mærl are able to cope with many different pressures; a 2013 study by Ragazzola *et al* showed that growing mærl under projected CO<sub>2</sub> conditions initially puts them under severe pressure. Their structural



**RIGHT:**  
Fig. 4. Growth banding  
in määrl

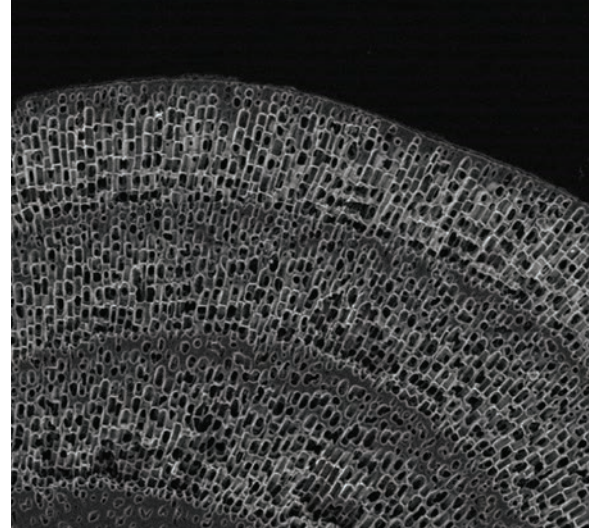
**BELOW:**  
Fig. 3. Models were  
created from Scanning  
Electron images of the  
internal structure

integrity dramatically decreases due to the increase in cell structure and thinness of the cell walls. Yet, if left in this condition (for around ten months), their growth rate slows and the cell walls thicken, resembling the internal structure under current CO<sub>2</sub> conditions. This shows the ability of määrl to acclimate to their surroundings.

### Other Pressures

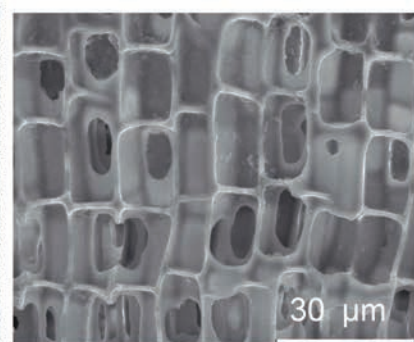
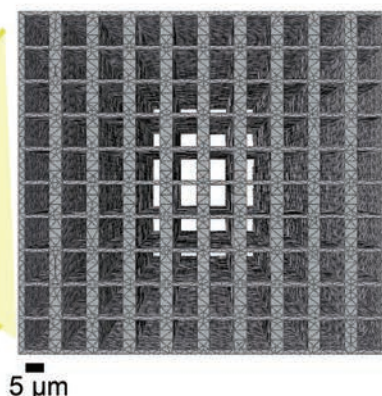
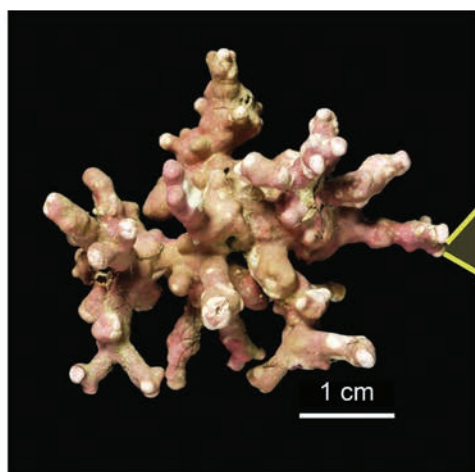
Alongside ocean warming and ocean acidification there are a wide range of factors that can affect these algal species. Increased sedimentation, where warmer, wetter winters lead to run off of silt into rivers and estuaries, can result in the suffocation of määrl.<sup>15, 16</sup> Scallop dredging, for example, is detrimental to these organisms as, in breaking them into smaller fragments, they are more susceptible to smothering.

Predictions that our oceans will see more frequent and intense storms is also bad news for mobile organisms along the seabed.<sup>17</sup> Increasingly stormier conditions will lead to more frequent collisions, with smaller määrl fragments becoming vulnerable to suffocation. Our project modelled the effect of increased loads on our structures (representing stormier conditions) and the results showed that internal stresses exceeded experimental breakage stresses.<sup>18</sup>



So even if these organisms are able to withstand increasing temperatures and corrosive waters, they will also have to face other less obvious pressures like increased sedimentation and stormier seas. These may have drastic consequences for the calcifying habitat formers found along our UK shores. Changes to these algal species can fundamentally change the nature of the beds they form, with consequences for the organisms that call these määrl beds home.

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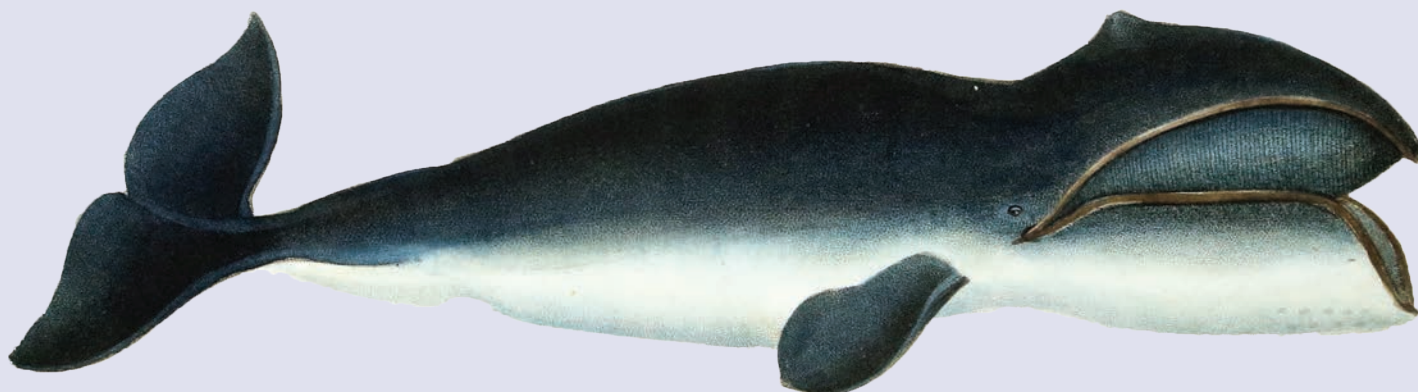


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# PART ONE: HEADING NORTH

## THE EXTRAORDINARY DIARY OF FRANK EDWARDS



With the 67th meeting of the International Whaling Commission (IWC) taking place in Brazil in early September, we wanted to take a closer look at a more recent addition to the Linnean Society's collections

Frank Edwards was born in 1860. As black sheep of the family turned reluctant whale-hunter, he experienced the dangers and splendours of the high Arctic seas first-hand. On the U.S. Whaler Abram Barker (part of the official North Pacific whaling fleet of 1888) he journeyed from San Francisco via Honolulu as far North as Point Barrow on the North-Alaskan coast. In the almost 12 months he spent as an ordinary crew member on the Abram Barker, he encountered vast shifting ice-fields, polar bears and Northern Lights, alongside the people who call these harsh regions their home. And he also encountered, for the first time in his life, the creatures for which hundreds of ships risked the dangers of pack ice, extreme weather and high seas—whales.

His diary was generously donated to the Linnean Society by the Edwards family in order to make it accessible to researchers. It is of particular interest for its descriptions of "the natives" as Frank Edwards calls them, as well as for what might be gleaned about various whale populations and how they were hunted in the years of decline after the peak of commercial whaling.

### Frank Edwards

As the eldest son born into a respectable family, the expectation was that Frank would eventually take over the family plumbing business and lead an ordinary life. This, however, was not to be. After "getting a girl into trouble", Frank married her to legitimise the child. The marriage does not seem to have been a happy one—the family regarded it as disastrous. He ran up debts and was eventually discovered to be stealing from the family business. This was probably the last straw, and the consensus was that he needed to be out of

trouble's way. Therefore, he was engaged as an ordinary seaman by a ship about to leave Bristol Docks. Nevertheless, the family seems to have been very fond of its "black sheep"—Frank's father was so overcome with emotion when seeing off his son that he ended up proffering his umbrella as a rather strange goodbye present.

It seems that Frank still managed to enjoy life as a sailor, and the family story goes that he was in a drinking den in San Francisco when his drink was spiked and he woke up to find himself on the Whaler Abram Barker on 29 November 1887. (It is interesting that in his diary Frank does not make any direct mention of having been drugged or "shanghaied". Reading the beginning of his account, the impression is that he was conscious when the ship left San Francisco, though he twice mentions not being allowed to go on land.)

### The Journey

The Abram Barker left San Francisco on the 29 November 1887, reaching Honolulu, Hawaii on 16 March 1888. This period of time is summarised retrospectively in the diary and shows the ship at sea, busily hunting whales in the Central Pacific Ocean during the winter months.

With the coming of spring, the Abram Barker started making its way up into the North Pacific. It is not entirely clear where exactly the ship cleared the Aleutian Islands (or "Fox Islands" as Frank calls them), but it entered the Bering Sea on 14 April 1888. It passed the island of St. Paul, heading for "Cook's Strait" (i.e. Etolin Strait), between Nunivak Island and the Alaskan mainland. Delayed by ice, it reached St. Lawrence Island and passed over to the Siberian coast, spending some time around the Chukchi Peninsula, where names like "Blubber Bay" (probably Provideniya, Siberia)<sup>1</sup> point to its importance in the history of whaling.

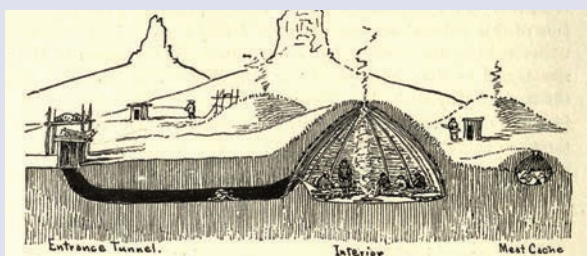
Eventually it anchored at Point Hope on the Alaskan coast, a place steeped in indigenous and Western whaling history. The arms of Point Hope inlet reach out into the sea, bringing whales close to the shore. It is considered to be one of the oldest continually occupied

### ABOVE:

'Black sheep' Frank Edwards was soon introduced to his quarry on the high seas—whales  
© The Linnean Society of London

### BELOW:

Semi-subterranean indigenous house, possibly similar to that described by Frank in his diary  
© BHL/ University of California Libraries





sites in North America.<sup>2</sup> A manned whaling station was located—according to Frank ten men were stationed there for two years at a time. The *Abram Barker* replenished its coal and supplies here near Cape Lisburne.

Point Barrow, the northernmost point of all the territory of the United States, was also the most northerly land reached by the *Abram Barker*. Plans to reach remote Wrangel Island and Herald Island further north were thwarted by thick ice, and the ship ventured south again, initially bound for the “Right Whale grounds” in the Sea of Okhotsk (towards Japan). However, poor whaling prospects and perhaps the lateness of the season led to the decision to return to San Francisco, arriving back in San Francisco harbour on 4 November 1888.

### The People of the High Arctic

Trade between whaling boats and the indigenous Arctic people was hugely important, and relations with the *Abram Barker* seem to have been quite cordial on the whole, with indigenous people even joining the crew.

Seal skins, reindeer skins, walrus skins, “squirrel skin”, fresh meat, local crafts and whalebone were traded by the indigenous people for tobacco, Western fabrics such as calico, glass, and articles of food. Alcohol was clearly most desirable, but there was an official ban in place on selling or trading alcohol to the native population. Nevertheless, alcohol was clearly obtained and (too) much enjoyed as Frank noted: “I saw men, women and children about 10 years of age hopelessly drunk with it, lying on the back in this bitter weather.”

Encountering “the natives” for the first time at Indian Point, Frank described the men as having the crown of their hair shaved and wearing no headgear. Women tattoo their faces and are “fashionable” in traded calico they have made into a loose outside shirt.

The people living on King’s Island Frank refers to as “Nacuras”. This does not seem correspond to any of the acknowledged indigenous peoples’ names, and could simply derive from the native word for bay, “nakh”.<sup>3</sup> Frank recorded native names (or approximations) on various occasions, i.e. “Masinkas” for people encountered near Indian Point. This seems to be an old name for a few families “around the Bering Strait”.<sup>4</sup> These names may potentially be interesting for the history of indigenous people of the Arctic, as they might otherwise be lost.

He described how the men on King’s Island have a hole on each side of their mouth in which they insert coloured glass or crystal, and that the women



LEFT:  
The perils of  
19th-century whaling:  
stuck in the ice  
© The Linnean Society  
of London

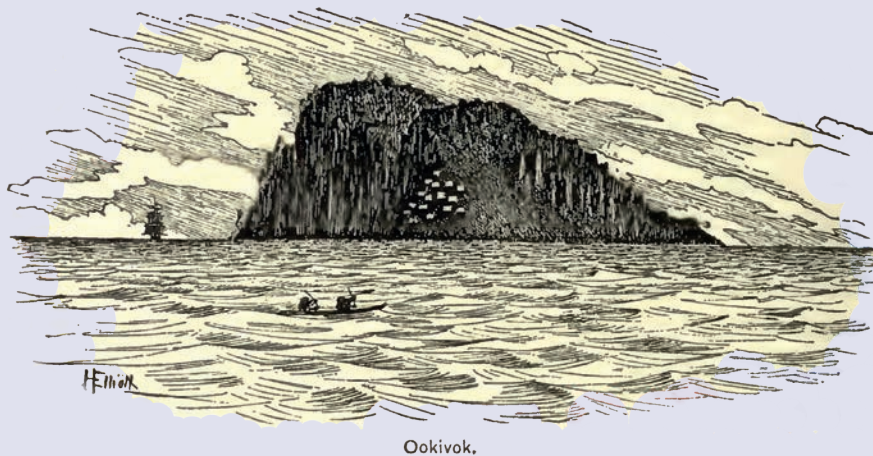
tattoo their faces. They used a small and light boat called a “cayack” (made from walrus hide), seating only one, with one paddle. Frank was so fascinated by these kayaks that he “got a small model of one from them for tobacco”.

He also admired their survival skills, recounting how they “live underground in winter time, a house being dug out and lined with skins etc., which make them exceedingly warm”. This seems to have been a common practice dating back well over a thousand years—confirmed by archaeological findings at Point Hope, where the people had built semi-subterranean houses, for use during the winter.<sup>5</sup>

When in Port Clarence, he noted the tents erected as temporary accommodation and observed that at the rear of the tents, a “most ugly fashioned head” or a stuffed bird on a pole was positioned to “keep the Devil from entering their tents”. Overall Frank’s accounts show much curiosity and respect for the indigenous people who manage to thrive in an environment that he himself found challenging.

**Part Two will appear in the next issue of *PuLSe*.**

Elaine Charwat FLS



Ookivok.

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4. See: [http://images.ourontario.ca/Partners/CKLPL/CKLPL003331246pf\\_0007.pdf](http://images.ourontario.ca/Partners/CKLPL/CKLPL003331246pf_0007.pdf)
5. Peregrine, P.N. & Ember, M. 2001. *Encyclopedia of Prehistory*. Vol. 2, Arctic and Sub-Arctic (p. 140).

## FORTHCOMING EVENTS 2018

3 Oct  
Lunchtime  
Lecture  
12.30–13.00

**The Weird and Wonderful World of Mosses**  
**Speaker:** Prof Jeff Duckett FLS,  
*Past President British Bryological Society & International Association of Bryologists*

18 Oct  
Evening Lecture  
18.00–19.00

**Science Policy Lecture 2018: Lost Prophets, Deluded Wizards, Addicted Alchemists, and Us**  
*In association with the Systematics Association*  
**Speaker:** Mustafa Zaidi,  
*Director of Research at Clarmond & Advisor to Synchronicity Earth*

31 Oct  
Lunchtime  
Lecture  
12.30–13.00

**Hallowe'en Lecture 2018: Frightful Tales from the World of Venom**  
**Speaker:** Dr Ronald Jenner,  
*Natural History Museum, London*

7 Nov  
Evening Lecture  
18.00–19.00

**Sir Julian Huxley Lecture 2018: Marine Benthic Systems**  
*In association with the Systematics Association*  
**Speaker:** Dr Katrin Linse,  
*British Antarctic Survey*

8 Nov  
Evening Lecture  
18.00–19.00

**Darwin Lecture 2018: Targeting Vulnerability—Improving Childhood Survival, Growth and Development in Low Income Settings**  
*In association with the Royal Society of Medicine*  
**Speaker:** Prof Judd Walson, *Natural History Museum, London & University of Washington*

15 Nov  
Evening Lecture  
18.00–19.00

**Great Ape Minds and Human Evolution: Understanding our Closest Living Relatives, the Chimpanzees and Bonobos**  
**Speaker:** Dr Zanna Clay, *Durham University*

3 Dec  
Evening Lecture  
18.00–19.00

**Founder's Day 2018: A Brush with Flowers**  
**Speaker:** Philip Mould OBE FLS,  
*BBC 'Fake or Fortune?'*

5 Dec  
Lunchtime  
Lecture  
12.30–13.00

**The Future of Coralline Algae**  
**Speaker:** Dr Leanne Melbourne, *The Linnean Society of London & University of Bristol*

**REGISTRATION IS ESSENTIAL FOR ALL EVENTS:**

<https://www.linnean.org/events>

**Please check our website for other events not listed here**



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Charity Reference No. 220509

## Medals and Awards 2019



With huge congratulations from all at the Linnean Society to this year's medal and prize recipients, the Society would like to call on Fellows to start nominating candidates for 2019. As a reminder of our medal and prize categories:

- **The Linnean Medal:** awarded to a botanist or a zoologist for service to science
- **The Bicentenary Medal:** awarded to a biologist under the age of 40 years in recognition of excellent work
- **The Darwin-Wallace Medal:** awarded to persons who have made major advances in evolutionary biology
- **The HH Bloomer Award:** awarded to an amateur naturalist for an important contribution to biological knowledge
- **The Irene Manton Prize:** a prize of £1,000 to a PhD student for the best botany thesis in an academic year
- **The Jill Smythies Award:** a prize of £1,000 to a botanical artist for outstanding illustrations
- **The John C Marsden Medal:** awarded for the best doctoral thesis in biology
- **The John Spedan Lewis Medal:** to an individual who is making a significant and innovative contribution to conservation

To nominate candidates, visit [www.linnean.org/medals](http://www.linnean.org/medals) and complete the online form. All nominations should be entered no later than 30 November 2018. We look forward to hearing from you!

ABOVE: The 2018 medal and award winners © The Linnean Society of London

### Prof Giorgio Pilleri FMLS (1925–2018)

Very sadly we learned of the death of Prof Giorgio Pilleri in early September. Having been a Fellow for 45 years and a Foreign Member since 1985, Pilleri's fantastic work focused on cetaceans. He is particularly known for his work with blind river dolphins. <https://dolphinproject.com/blog/the-captive-history-of-blind-river-dolphins/>



All articles welcome – please submit news, reviews, events and articles in MS Word format to the Editor at [leonie@linnean.org](mailto:leonie@linnean.org). Accompanying images must be a high resolution JPEG or TIFF with appropriate permission and copyright.