

These articles were originally published in the Indonesian language on The Conversation website. The author is Achmad Sahri – a researcher at the Oceanographic Research Center, National Research and Innovation Agency (BRIN).

Commentary by Dale Chatwin: In their scope these two articles tell less than half the story of sperm whaling in Indonesian waters. The greatest threats to sperm whales in Indonesian waters were in fact British whalers and who sought sperm whales more extensively than the Americans between 1804 and the mid-1850s.

A fuller discussion, covering the activities of both the British and American fleets, can be found at: [British Sperm Whaling Activity to the North-West of Australia and in Indonesian and New Guinea Waters in the 1800s - Revised February 2022](#) . That study found that from 1804, British whaleships utilised the port of Kupang on southwest Timor as a major service port to support extensive whaling for sperm whales in the Indonesian Archipelago. During the next 50 years at least one in five British whaling voyages (over 300) undertook whaling in these waters. It also found that though American whaling were present they did not practice similar deployment strategies to the British. Overwhelmingly (and not shown by Sahri) the majority of the early American whaling fleet which ventured to Indonesia approached from the south-west and limited their forays to whaling below Java and the Sunda Islands. In the mid-1840s when extensive whaling grounds across the top of the North Pacific were identified vessels from the American fleet commenced transiting Indonesia to those grounds. Different routes were taken through the Archipelago, but most favoured a route which enabled them to undertake whaling as they crossed the Molucca, Celebes and Sulu Seas (as shown by Townsend).

Original articles can be found here:

Part 1 - <https://theconversation.com/cerita-perburuan-paus-komersial-di-indonesia-yang-kini-tinggal-sejarah-198417>

Part 2 - <https://theconversation.com/riset-laut-indonesia-pernah-jadi-lokasi-favorit-perburuan-paus-sperma-di-mana-saja-tempatnya-197999#>

Translated articles

This article is the first part of a series of articles about sperm whale hunting in Indonesia.

Whaling is a relatively old human activity at sea. The earliest whaling is thought to have started in 3000 BC, carried out by [Inuit people in the North Atlantic and North Pacific](#) using harpoons and targeting several types of whales near the coast.

In fact, if [cave drawings](#) are anything to go by, whaling activities have been documented [as early as 6000 BC in South Korea](#) .

The motivation for hunting these earliest whales was primarily to meet food needs or as a barter commodity.

Meanwhile, in the initial phase, commercial whaling only became popular since the 17th century . This trend emerged as the need for hunted products, especially whale oil and baleen brush, grew in Europe.

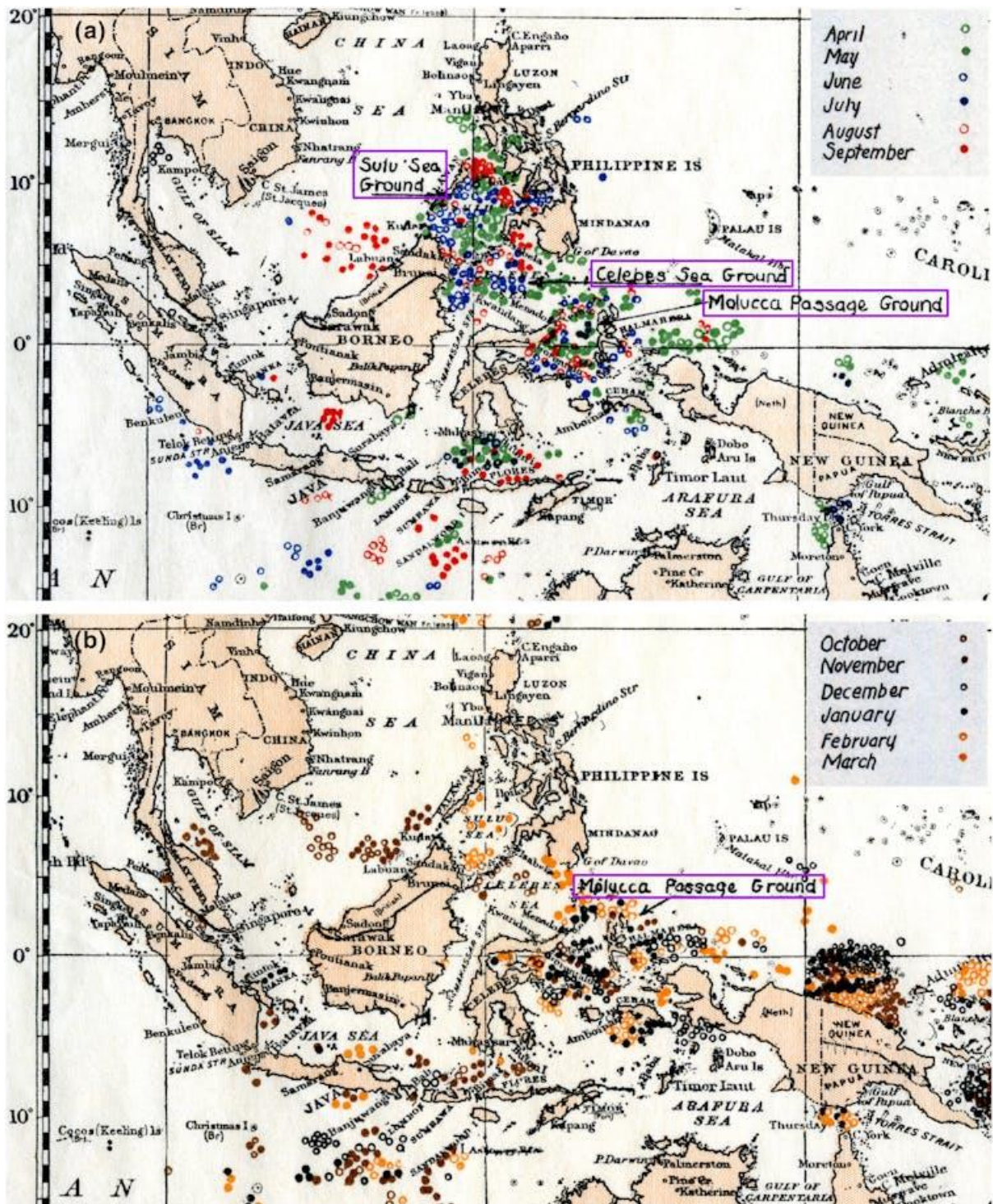
England, the Netherlands, Germany and the United States are four western countries that are keen on whale hunting. This type of sperm whale is more targeted by hunters because of its blubber layer *and* spermaceti organs (liquid wax on the head) which contribute a lot of oil. The global population of sperm whales was estimated at around 1.1 million before the peak of commercial whaling in the early 18th century .

Whale hunting at this time brought hunters from England and the United States to the Pacific Ocean and the Indian Ocean, including the waters of the Dutch East Indies, an area that is now the Indonesian archipelago.

Hunting sperm whales

The Indonesian seas – formerly known as the Dutch East Indies – were inseparable from the location of sperm whale hunting from the 18th to the early 20th century.

This finding was revealed from a global map of whaling activity published by researcher Charles H. Townsend from the New Bedford Whaling Museum, United States. The map presents monthly data on when and where United States and British ships hunted whales during 1761-1920 based on *logbooks* and journals documented by the crew of the hunting ships.



Map of sperm whale hunting locations in the Indonesian Archipelago between 1761–1920 compiled by Townsend (1935): (a) April–September and (b) October–March. (Author provided)

The map released in 1935 shows that, of the 5 whale species mapped globally by Townsend, two of them are found in Indonesian waters, namely the sperm whale and the humpback whale. However, only sperm whales have the most data.

Townsend's map mentions three hunting locations (called *whaling grounds* : sea waters where whales are easier to find) in Indonesian waters. Among them are the *Molucca Passage Ground* in the waters around North Maluku/Halmahera, *the Celebes Sea Ground* in the waters east of the island of Kalimantan and north of the island of Sulawesi, and *the Sulu Sea Ground* in the waters between the island of Kalimantan (including the state of Sabah, Malaysia) and the Philippines.

The research I conducted with my team strengthened the Townsend map. Research published in *the Journal of Biogeography* succeeded in creating a more detailed picture of sperm whale hunting in Indonesia.

The ups and downs of whaling

Whaling receded at the end of the 19th century due to the discovery of petroleum .

However, in the mid-20th century, poaching increased again—mainly due to oil shortages after World War II. England, Norway, the Netherlands, the Soviet Union and Japan were recorded as the dominant countries in whaling during the modern commercial period.



Southern Venturer, a large ship and floating whale processing facility that was once owned by a company from Scotland, England, Christian Salvesen Co. (South Georgia Museum)

This phase of hunting was characterized by the use of steam-powered ships and *harpoon cannons* introduced by Norwegian whalers in the mid-20th century. These ships are capable of processing game products into trade products on board and in the middle of the sea. The oil from these whales is widely used as raw material for various products, for example soap and margarine.

Apart from hunting baleen whales, especially *right whales*, modern hunters also target rorqual whales (mainly blue whales, humpback whales, fin whales and Sei whales) especially in high latitudes. Japan then followed by developing diesel engine ships.

After commercial hunting ends

The discovery of petroleum in the 1860s and the emergence of substitutes for whale products (such as vegetable oil and other substitutes for baleen brush) made whaling no longer profitable.

Since the 60s, whaling has also begun to decline due to the decline in the global whale population and other determining factors such as the moratorium on whaling by the International Whaling Commission (IWC) in 1986.

Meanwhile, Japan and Norway continued to hunt whales after that under the protection of "scientific research" permits and always raised objections to the moratorium on whaling set by the IWC.

In the 21st century, there are still countries that still hunt whales, such as Canada, Iceland, Japan, Norway, Russia, South Korea, the United States, and people on the Faroe Islands, in Denmark.

Countries that support whaling, especially Iceland, Japan and Norway, want to lift the IWC moratorium, especially for certain types of whale stocks. Meanwhile, anti-whaling countries and environmental activists reject lifting the moratorium.



Traditional whale hunting in Lamalera Village, Lembata Island, East Nusa Tenggara has been going on for hundreds of years. Keith Michael Taylor/shutterstock

To accommodate traditional practices that are still carried out by several communities in the world, traditional whaling is still permitted with strict regulations. One example is in Lamalera, East Nusa Tenggara. This practice is part of the local culture and has been recorded by Portuguese sailors since the 1600s.

In Lamalera, sperm whales are the main hunting target, with catches varying each year. They caught 5 in 1973; an average of 40 per year between the 1960s and the mid-1990s, a total of 13 from 2002-2006, an average of 20 per year from 2008 to 2014, and only caught 3 in 2015.

Read more: Lamalera traditional whale hunting can be sustainable. Two initial steps that can be taken.

Unfortunately, the Indonesian government does not yet have a formal position (approving or rejecting) regarding this tradition.

This article is the second part of a series of articles about sperm whale hunting in Indonesia.

The Indonesian Sea – formerly known as the Dutch East Indies – cannot be separated from the location of sperm whale hunting by hunters from England and the United States from the 18th century to the early 20th century.

This finding was revealed from a global map of whaling activity published by researcher Charles H. Townsend from the New Bedford Whaling Museum, United States. The map presents monthly data on when and where United States and British ships hunted whales during 1761-1920 based on *logbooks* and journals documented by the crew of the hunting ships. The map released in 1935 shows that of the five whale species mapped globally by Townsend, two of them are found in Indonesian waters, namely the sperm whale and the humpback whale. However, only sperm whales have the most data. This shows that in the past, Indonesia was a favorite location for hunting sperm whales.

The research I conducted with my team strengthened the Townsend map. Research published in *the Journal of Biogeography* succeeded in creating a more detailed picture of sperm whale hunting in Indonesia.



Sperm whale mother and calf. Gabriel Barathieu/Flickr

Our study is very important because data on the presence of sperm whales in Indonesian seas is currently very rare. Expensive survey costs generally become an obstacle to data collection activities. For this reason, whaling data is an alternative source for uncovering information regarding the distribution of sperm whales in the past, as well as provisions for preserving this species in the future.

Four important locations from the ancient era

Townsend's map only mentions three hunting locations (called *whaling grounds* : sea waters where whales are easier to find) in Indonesian waters. Among them are the *Molucca Passage Ground* in the waters around North Maluku/Halmahera, *the Celebes Sea Ground* in the waters east of the island of Kalimantan and north of the island of Sulawesi, and *the Sulu Sea Ground* in the waters between the island of Kalimantan (including the state of Sabah, Malaysia) and the Philippines.

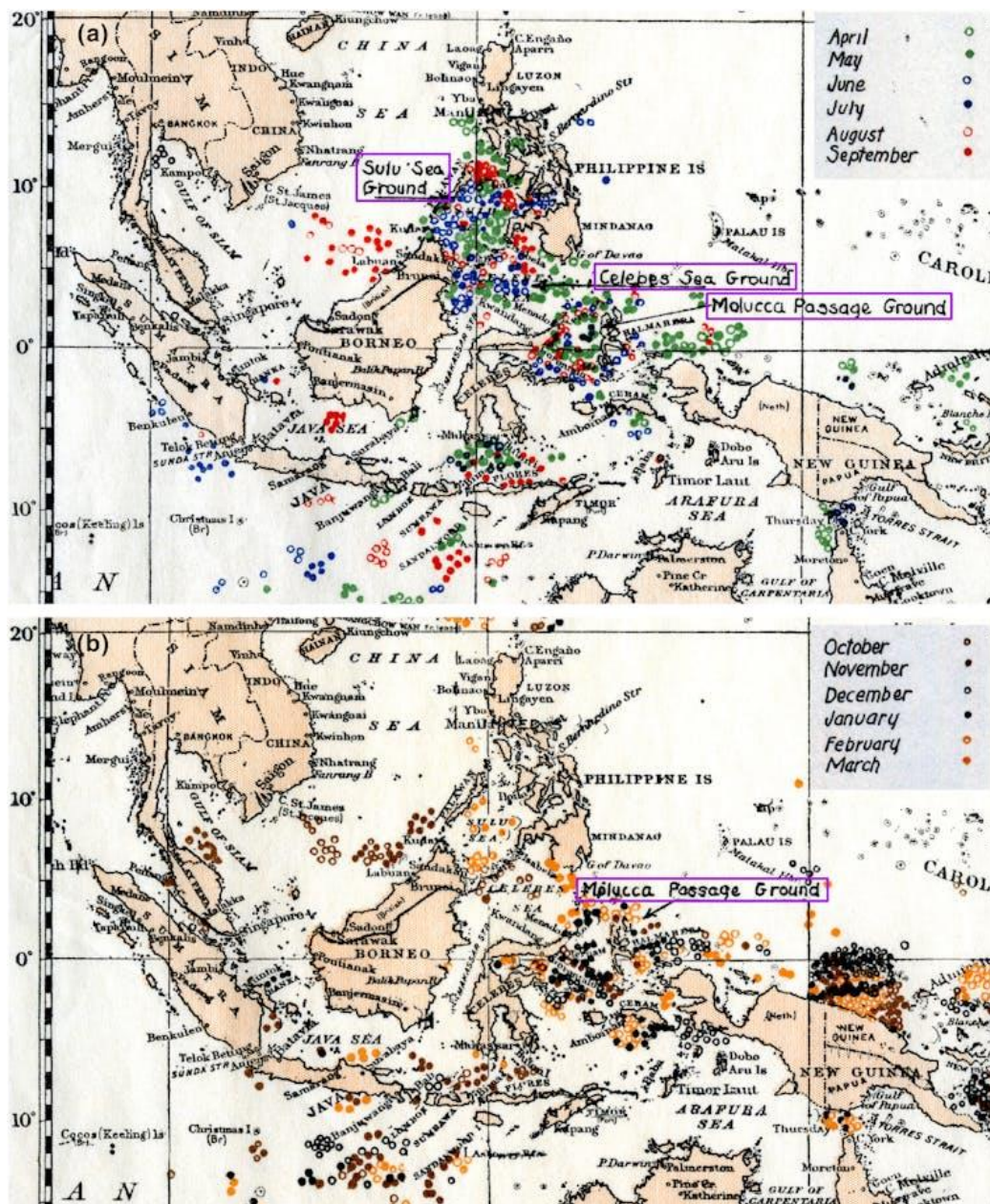


Figure 1. Map of sperm whale hunting locations in the Indonesian Archipelago between 1761–1920 compiled by Townsend (1935): (a) April–September and (b) October–March. (Author provided)

We then used the hunting data to reconstruct sperm whale habitat in the past using species distribution modeling (*Species Distribution Model* or SDM). This reconstruction using modeling is also the first in research into past sperm whale habitats in Indonesia.

So that the results are comprehensive, the modeling also adds environmental variables that determine the distribution of sperm whales, such as sea depth, seabed slope, and seabed topography (seabed ridges, seamounts, and continental shelves).

As a result, our research succeeded in identifying four important locations or core habitats for sperm whales in the past – the locations are slightly different from the results of Townsend's analysis. The four locations are the western Banda Sea, *Molucca Passage Ground* , waters in northern Papua, and *Sulu Sea Ground* .

Our research also divides sperm whale hunting locations by three months based on the seasons in Indonesia (namely, the east season or southeast monsoon (June – August), the west season or southwest monsoon (December – February), and two transition seasons (transition 1 in March – May; and transition 2 during September – November). This division is more detailed than the Townsend map which only divides whaling locations by six months (April – September and October – March).

This division finally revealed new information that, in some locations, sperm whales can only be found in certain seasons . For example, in the past, sperm whales could not be found in northern Papua during the southeast monsoon season, nor in the Sulawesi Sea during the southwest monsoon season.

Sperm whales were also not found in southern Java in transition season 1 (between March – May) and in the Torres Strait south of Merauke in transition season 2 between September – November.

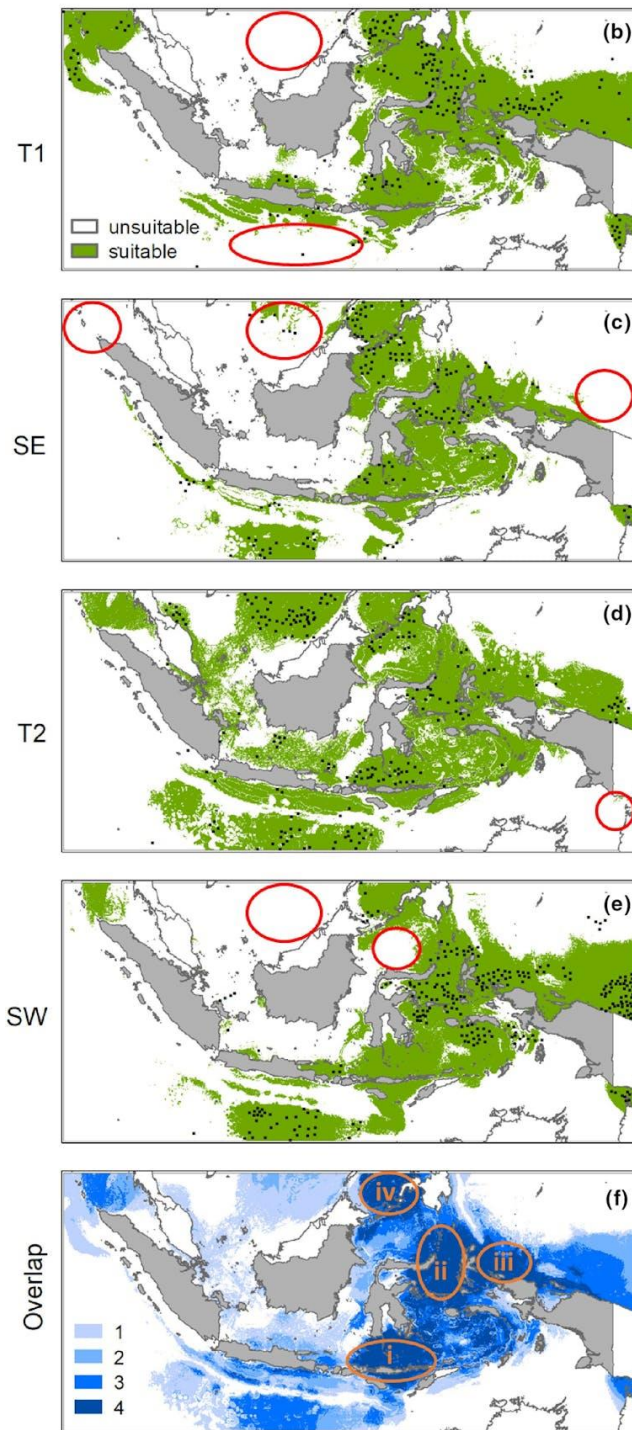


Figure 2. Habitat of sperm whales in the past (green area) results of species distribution modeling based on seasons in Indonesia: (b) T1 = Transition 1 or transition 1 (March–May), (c) SE = Southeast monsoon or monsoon southeast (June–August), (d) T2 = Transition 2 or transition 2 (September–November), (e) SW = Southwest monsoon or southwest monsoon (December–February). Sperm whales cannot be found in certain seasons marked by red circles. The final map (f) shows the overlap of sperm whale habitats across the 4 seasons. There are 4 areas that are core habitats where sperm whales can always be found throughout the season (dark blue): (i) western Banda Sea, (ii) Molucca Passage Ground, (iii) northern Papua, (iv) Sulu Sea Ground. (Author Provided)

Seeing the impact of hunting

Since the second half of the 19th century, whaling began to decline with the discovery of substitutes for whale products and a moratorium on commercial whaling by the International Whaling Commission.

However, there are still traditional whaling practices carried out by a number of communities around the world.

One example is in Lamalera, East Nusa Tenggara, . This practice is part of the local culture and has been recorded by Portuguese sailors since the 1600s .

Although poaching still exists, its impact is difficult to measure because there is no definitive data on the current population size of sperm whales in the four main locations we found. What is clear is that the International Union for Conservation of Nature or IUCN classifies sperm whales as a vulnerable or *Vulnerable* species because their population has declined drastically and the population recovery process is relatively slow.

For this reason, we need more research on the condition and distribution of the sperm whale population in Indonesia. Based on information from the past, we can at least prioritize studies in areas that have been detected as core habitat for sperm whales in the past. Adequate scientific information can provide input for management and protection strategies for these animals, especially due to the increase in fishing activities and ship traffic in Indonesian waters.