

RESEARCH

Executive Summary

What's the Porpoise?

An Exploratory Action Research into Tourists' Interpretations of Stichting Rugvin's Interpretive Products



Research internship facilitated by Stichting Rugvin and Wageningen University

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Executive Summary

The purpose of this report is to investigate how the brochure and webpage about “the Zeelandic Whale”, Studio Porpoise and the webpage about Studio Porpoise (i.e. *interpretive products*) can be used to bring people into action to protect harbour porpoises. The brochure and webpage about “the Zeelandic Whale” are in use since the 2021 tourism high season, and Studio Porpoise and the webpage about Studio Porpoise from 2017 onwards. This research has been commissioned by Rugvin Foundation and executed by a tourism Master student from Wageningen University.

Rugvin wants to protect harbour porpoises. To do this Rugvin conducts natural scientific research on harbour porpoises in, among others, the Eastern Scheldt and actively informs the public about their findings using interpretive products. Harbour porpoises namely returned to the Eastern Scheldt after decades of absence, and the best hotspots for interactions and experiences with harbour porpoises in the Netherlands are found in the Eastern Scheldt. The harbour porpoise (*Phocoena phocoena*) currently enjoys a favourable conservation status in Dutch waters.

However, harbour porpoise conservation cannot be reached without including the human dimension using Rugvin’s interpretive products. It became especially clear that it is unfamiliar to Rugvin what the characteristics are of people who use Rugvin’s interpretive products. “People who use Rugvin’s interpretive products” include both people who are visiting (i.e. *visitors*) and residing (i.e. *locals*) in the Eastern Scheldt area. Visitors and local have in common that they are visiting a harbour porpoise hotspot to see and / or hear harbour porpoises. Collectively these people are therefore referred to as *tourists*. Touching upon other major research gaps, the information that tourists want to know about interactions and experiences with harbour porpoises, and concrete actions tourists want to take to protect harbour porpoises are also unclear. Furthermore, it is unknown in what ways tourists (want to) visit harbour porpoise hotspots, use the interpretive products and experience and interact with harbour porpoises. To clarify, *experiences with harbour porpoises* describe the seeing and hearing of harbour porpoises. The term *interactions with harbour porpoises* is used to explain that tourists engage with harbour porpoises without disrupting their natural behaviour. Taking all research gaps together, the results are consequently drawn from the research question:

“What does Rugvin need to incorporate in its interpretive products to elicit interpretations in the form of actions to protect harbour porpoises?”.

In order to unravel the answer to the research question, the intern did an online qualitative survey, semi-structured interviews and informal conversations, participant observation and a literature review. The survey was carried out to explore the tourists’ characteristics, and their information-related and use-related wishes for the interpretive products, actions to protect harbour porpoises as well as experiences and interactions with harbour porpoises. Paper survey invitations were handed out to tourists at all eight harbour porpoise hotspots that are indicated in the current brochure and webpage about “the Zeelandic Whale”. These hotspots are the jetty of Zierikzee (Studio Porpoise), the Schelphoek nature reserve, restaurant ‘t Oliegeultje / the harbour of Burghsluis, Roompot Marina / Oyster Pit, the harbour of Colijnsplaat, the harbour of Kats, Wemeldinge and near Gorishoek, Sint-Maartensdijk. To reach as many people as possible, paper survey invitations were also distributed from door to door in Zierikzee, Burghsluis, Serooskerke, Colijnsplaat, Kats, Wissenkerke, Kamperland, Wemeldinge, and Sint-Maartensdijk. Moreover, paper survey invitations were distributed aboard the ships of the national park hosts called MS Onrust, Marstrand Rondvaarten, Frisia Rondvaarten and the Amelia. The paper survey invitation was also disseminated via campgrounds and public spaces around the Eastern Scheldt. Online, the survey was promoted on the social media platforms of Rugvin and the intern.

Semi-structured interviews and informal conversations were used to gain in-depth insights into the tourists’ characteristics, and their information-related and use-related wishes for the interpretive products as well as experiences and interactions with harbour porpoises. At Studio Porpoise, the semi-structured interviews and informal conversations focussed on Studio Porpoise’s information pillar and webpage. At the harbour porpoise hotspots other than Studio Porpoise, semi-structured interviews and informal conversations were specifically held to form in-depth insights into the tourists’ characteristics and their wishes and needs for interactions and experiences with harbour porpoises. The brochure about “the Zeelandic Whale” was at the heart of semi-structured interviews that were conducted aboard the Amelia.

Participant observation was conducted to provide contexts, confirmations, and explanations for the findings of the surveys, interviews and informal conversations. Like the semi-structured interviews, informal conversations and distribution of survey invitations, the main focus was put on Studio Porpoise. What makes Studio Porpoise so special is that it has the reputation as the best and most easily accessible harbour porpoise hotspot. Moreover, Studio Porpoise is the only hotspot where not only harbour porpoises can be seen, but where

their underwater sounds can also be heard in real time. Studio Porpoise is also the only hotspot where all interpretive products can be used at the same time.

The literature review was carried out to grasp the theories, key concepts, research methods, and interpretive products central to this research. However, there is virtually nil peer-reviewed, social scientific literature available about interactions and experiences with harbour porpoises in the Netherlands, let alone in the Eastern Scheldt. Conservation plans, management plans, the interpretive products themselves and Internet sources in general were therefore taken counsel from as well. Besides, the knowledge gap explains why one of the side-goals of this research is to build a body of scientific knowledge on experiences and interactions with harbour porpoise in the Eastern Scheldt.

Tourists are typically native speakers of Dutch, German and French. However, most tourists are Dutch and visitors to Eastern Scheldt National Park. Other key characteristics of the studied tourists are that they are male adults and come to a harbour porpoise hotspot with their partner, family or alone. If they haven't learned already that harbour porpoises swim in the Eastern Scheldt through TV reports, they become aware of it because of the information signs in the Eastern Scheldt area and their encounters with harbour porpoises at a hotspot. Besides, most tourists are new to experiences and interactions with harbour porpoises, and unknowing how to recognise the sight and sound of the animals. The majority of the tourists who participated in this research also do not know that harbour porpoises are *cetaceans* (the umbrella term for whales, dolphins, and porpoises). If they do, they mostly know this from a TV report they watched. Nonetheless, tourists realise that harbour porpoises are mammals once they know what harbour porpoises are and read the brochure about "the Zeelandic Whale". The last main characteristics of tourists are that they visit Studio Porpoise when the weather is dry and between 12:00h and 15:00h.

It is also important to acknowledge that this research reveals locals help visitors to Eastern Scheldt National Park to catch sight and sound of harbour porpoises at Studio Porpoise. Moreover, a tourist information point and local entrepreneurs emerge as missing ways in which tourists can gain prior knowledge on harbour porpoises. In the interviews, regardless, some tourists highlighted they know from previous experiences that harbour porpoises swim near the Eastern Scheldt Storm Surge Barrier and restaurant 't Oliegeultje / the harbour of Burghsluis at low tide, and near Studio Porpoise at high tide. Additionally, some locals observed that harbour porpoise swam in groups of eight instead of the usual two or three near Studio Porpoise during lockdown. Locals also say that the weather forecasts are inaccurate, that it is general knowledge among citizens of Zierikzee that the button on the information pillar of Studio Porpoise is out of order, and that few visitors to Eastern Scheldt National Park know that the jetty of Zierikzee is a harbour porpoise hotspot.

When it comes to harbour porpoise sightings, whereas the majority of the tourists who took the questionnaire indicate they saw harbour porpoises during their trip to a hotspot, only the slight majority of the tourists who were interviewed at harbour porpoise hotspots say they saw one. The minority of the tourists who were interviewed aboard of the Amelia saw a harbour porpoise during the boat trip on the Eastern Scheldt. This harbour porpoise sighting happened at Goese Sas.

Tourists have various information-related wishes and needs for information on interactions and experiences with harbour porpoises as well as harbour porpoise conservation. In the brochure and on the webpage about "the Zeelandic Whale" most respondents want to read more information about how, where and when harbour porpoises in the Eastern Scheldt can be seen and heard. The information pillar of Studio Porpoise is chiefly read out of interest in experiencing harbour porpoise sounds and general information on harbour porpoises. Studio Porpoise's webpage draws most attention for its sound clips of examples of underwater sounds of harbour porpoises. When it comes to currently existing actions on Rugvin's website <https://rugvin.nl/> for protection of harbour porpoises, furthermore, tourists who took part in this research predominantly show interest in going on a harbour porpoise spotting excursion and sending Rugvin photos that clearly show the dorsal fin of a harbour porpoise and can be used for research. It should be emphasised that the nature of the action regarding dorsal fin photography is a citizen science project.

To make sure that information is easy to understand, the respondents say that the brochure about "the Zeelandic Whale" and information pillar of Studio Porpoise must provide short facts and clearly divide texts per topic. The information under the header named "passport" in the brochure about "the Zeelandic Whale" is brought forward as an example of how short and concise the information should be. Tourists who took part in this study also indicate that the webpages about "the Zeelandic Whale" and Studio Porpoise are suitable places to give in-depth information.

Opportunities to boost successful interpretation also present themselves when looking at information respondents miss in the interpretive products. In *all* interpretive products, tourists who helped to carry out this research point out they miss information concerning how to recognise the sight and sound of harbour porpoises, when harbour porpoises can be spotted best at what hotspot, previous harbour porpoise sightings as documented on a wildlife sighting website such as <https://waarneming.nl/>, and seals. Shifting the attention to interpretive product-specific missing information, in the brochure about "the Zeelandic Whale" tourists miss a picture of a

harbour porpoise in its entirety, information about boat trips and overfishing, the URL of the webpage about “the Zeelandic Whale”, information about things you can do as an individual to protect harbour porpoises and the link between harbour porpoise conservation and current affairs. The webpage about “the Zeelandic Whale” misses a video showing how harbour porpoises dive and breathe, background information about the history of the Eastern Scheldt as well as the islands and the Zeelandic Battle against the water, and a critical analysis of the ammunition depot in Zierikzee that puts special emphasis on safety. Furthermore, in the texts on information pillar of Studio Porpoise tourists miss information regarding how many harbour porpoises live in the Eastern Scheldt and their seize relative to other animals, the distance between the information pillar and yellow buoy, a reference to the time harbour porpoises spend underwater that is the same in each language, and under what circumstances the Pile of Shells can be seen best. Why Studio Porpoise is called a studio is the one piece of information that respondents miss on the webpage about Studio Porpoise.

Tourists were also asked tips on how to make the interpretive products more user-friendly. The recommendations that stand out most encompass improving findability of the harbour porpoise hotspots and interpretive products, and improving accessibility of the interpretive products for deaf, blind, young, and elderly people. Findability-wise, respondents elucidate that they were unfamiliar with the existence of Rugvin’s interpretive products. They also missed the direction signs of the Harbour Porpoise Trail and clear descriptions on Rugvin’s website of how to get to Studio Porpoise. Mostly, to be more precise, tourists who played a part in this research explained they found Studio Porpoise out of random luck and with the help of a GPS. A tourist information point and clearer directions as well as direction signs are proposed as solution to make the interpretive products and harbour porpoise hotspots easier to find. In respect of accessibility, respondents specify that the brochure about “the Zeelandic Whale” can become easier to understand for younger people by adding a kid’s section (e.g. a comic strip). Suggestions tourists have for improving accessibility of the webpage about “the Zeelandic Whale” include working more with pictograms, adding text to speech audios, and using more contrasting colours and a design that follows the eyes of the reader as it were. Ways to make the information pillar of Studio Porpoise more accessible that respondents recommend are to work more with pictograms, give information in Braille script, and add a lamp that lights up when harbour porpoises swim nearby the jetty.

Other actions that tourists who participated in this research know for harbour porpoise conservation and recommend adding to the actions currently available on Rugvin’s website <https://rugvin.nl/> encompass the organising of an information evening for locals and a collaboration with WDC Deutschland. The partnership with WDC Deutschland is particularly interesting because its mission is similar to that of Rugvin: both organisations want to protect cetaceans. The respondents also suggest providing more information about the storm surge barrier and how it affects the lives of harbour porpoises that live in the Eastern Scheldt, captive marine mammals, and how to reduce plastic pollution.

In the last decades, interactions with cetaceans with a non-consumptive orientation have become a popular activity among tourists. It is hence important too to take into account tourists’ use-related wants for visits to harbour porpoise hotspots, the interpretive products, and experiences and interactions with harbour porpoises. In terms of visits to harbour porpoise hotspots, this research shows that most tourists are yearly or first-time visitors instead of daily visitors. Locals form the group of people who mainly visit a harbour porpoise hotspot on a weekly basis. Furthermore, most tourists come to Eastern Scheldt National Park for the full experience, as part of a trip, and experience harbour porpoise spotting as fun, special, beautiful, and blissful. Of the tourists who had wildlife interactions before, most tourists had interactions with dolphins, whales, and birds. Several new harbour porpoise hotspots emerged as well. Tourists who were involved in this research mentioned that they also visit the Plompe Toren, the cycling path between Roompot Marina / Oyster Pit and Colijnsplaat, Goese Sas, and restaurant De Heerenkeet in Kerkwerf for harbour porpoise interactions. Another place that tourists visit as part of their trip through Eastern Scheldt National Park and stands out is the nature reserve called Levensstrijd in Zierikzee. Levensstrijd is a distinctive spot because the Harbour Porpoise Trail goes through this area and locals explain that they visit Studio Porpoise as part of a trip to this nature reserve.

Pertaining to use of the interpretive products, this study uncovers tourists read the brochure about “the Zeelandic Whale” seldom / for the first time when they stand at a harbour porpoise hotspot. The clarification that respondents give is that they know the content by heart after reading it a few times. In this study it shines through as well that tourists find it difficult to bring the current brochure about “the Zeelandic Whale” on a cycling or walking trip in Eastern Scheldt National Park because of its size. To make it easier to bring the brochure on a trip, alternatively, suggestions are to create a brochure that has a smaller size (e.g. A5 paper size or a square accordion fold brochure), and to work more with a digital format such as an app that can be found using QR-codes and contains an offline map with walking and cycling routes. The webpage about “the Zeelandic Whale” is never read at a harbour porpoise hotspot. Tourists explain in their answers that they do this because they want to use the webpage to gain background information. Next, relating to Studio Porpoise, this research shows that tourists almost always read the text on the information pillar, prefer to sit on the antenna or the rocks at the seaside or the side of a bench that faces the sea, press the button half of the time, point at something and take photos around a

quarter of the time, almost never scan the QR-code on the information pillar, and barely use binoculars. Tourists who helped to carry out this research clarify that the antenna is the best place to sit, relax, spot harbour porpoises, and enjoy the beautiful surroundings / sea views. They also explain that they like to press the button to get a direct indication of the presence of harbour porpoises. Especially once a harbour porpoise is spotted, furthermore, this research reveals that tourists stop reading the text on the information pillar, start pressing the button and point into the direction where they see the animal. Nevertheless, the noisy sounds coming from the speaker make that tourists refrain from pressing the button when the water is choppy (e.g. when the waves are big or a boat sails near the yellow buoy). Photos are largely taken of (sailing) ships, the Zeeland Bridge, the information pillar of Studio Porpoise itself, and the people with whom the tourists are experiencing and interacting with harbour porpoises together. In addition, the observation that tourists barely scan the QR-code mirrors their wish to read the webpage about Studio Porpoise as a reference at home. The observation that tourists barely use binoculars is backed up by the survey finding that most tourists do not specially visit a harbour porpoise hotspot for harbour porpoise interactions, and the comments of survey respondents and interviewees that tower viewers should be placed at all hotspots.

Recommendations are also given on how to make the interpretive products meet tourists' use-related wants more. Respondents recommend letting *all* interpretive products be more specific about Rugvin's knowledge on the relationship between the tide and the best chances for interactions and experiences with harbour porpoises. Besides, this study makes known that tourists do not only want to use the interpretive products for experiences and interactions with harbour porpoises, but also to discover what other things they can see and do in Eastern Scheldt National Park (i.e. how they can get the full experience). A survey respondent hints that the full experience can be better highlighted by drawing more on the trademark of the organisation Nationaal Park Oosterschelde.

The final facet of use-related wants central to this investigation relates to experiences and interactions with harbour porpoises. Delving into sonic harbour porpoise experiences, this research brings to light tourists want to hear underwater sounds of harbour porpoises as well as sounds of harbour porpoises that come to the surface to breathe. To get to recognise these sounds, tourists need to be able to listen to examples of harbour porpoise sounds. As to the species of interest, this research shows that tourists want to have interactions and experiences with both harbour porpoises and seals. Focussing on improvements that can be made to experiences and interactions with harbour porpoises that the interpretive products currently provide, additionally, respondents suggest working with guides and collaborating with Happen en Trappen (a Dutch cycling organisation). A guide is seen as a person from Rugvin who is present at the jetty of Zierikzee and whom tourists can ask questions. Particularly the chance to ask questions about harbour porpoises to a real person is considered valuable. The collaboration with Happen en Trappen is recommended as a way to combine harbour porpoise spotting with sporting, while simultaneously creating benefits for local entrepreneurs and raising funds Rugvin can use for its research on harbour porpoises. Tapping into research on harbour porpoises, moreover, a survey respondent proposes Rugvin uses unmotorised boats for its research and that pedal drive kayaks are a suitable sustainable alternative to the currently used Rigid Inflatable Boat.

The organisation Nationaal Park Oosterschelde emerged as key stakeholder in this research since they recur most as creator of the information signs at harbour porpoise hotspots. However, this study makes clear as well that signs with information on harbour porpoises are missing at half of the hotspots, being the Schelphoek nature reserve, the harbour of Kats, the harbour of Colijnsplaat and near Gorishoek, Sint-Maartensdijk. Using tips of tourists who cooperated in this research and observations of the researcher, furthermore, the following hotspots surface as most suitable for interactions and experiences with harbour porpoises: the jetty of Zierikzee (Studio Porpoise), the mask of Wemeldinge, the Plompe Toren, the cycling path between the jetty of Zierikzee and the Plompe Toren, restaurants 't Oliegeultje and De Heerenkeet, the Schelphoek nature reserve, Goese Sas, the harbour of Kats, the cycling path between Roompot Marina / Oyster Pit and Colijnsplaat, and the spot near Gorishoek, Sint-Maartensdijk.

There are many ways to stimulate people to protect harbour porpoises using Rugvin's interpretive products. Rugvin is chiefly recommended to:

1. Upgrade the brochure about "the Zeelandic Whale" – by including a picture of a harbour porpoise in its entirety, a kid's edition, information about boat trips and overfishing, things you can do as an individual to protect harbour porpoises, the link between harbour porpoise conservation and current affairs, the URLs of the webpages the QR-codes refer to, and by using a brochure size that is easier to bring on a trip (e.g. A5 size or square accordion fold brochure)
2. Upgrade the webpage about "the Zeelandic Whale" – by adding a video of a diving and breathing harbour porpoise, background information on the history of the Eastern Scheldt and the Zeelandic battle against the water, a critical analysis of the ammunition depot in Zierikzee with special emphasis on safety, a soundscape, text to speech audios, more pictograms, contrasting colours, a design that follows the eyes of the readers more, and by making an offline version (i.e. an app)

3. Upgrade Studio Porpoise – by incorporating an off button, a button that can be pressed to listen to examples of harbour porpoise sounds, more pictograms, texts in Braille script, a lamp that lights up
Rugvin is chiefly recommended to (continued):

when harbour porpoises swim nearby the jetty, the number of harbour porpoises that swim in the Eastern Scheldt, the size of harbour porpoises relative to other animals, the distance between the information pillar and yellow buoy, under what circumstances the Pile of Shells can be seen best, and a description of the time harbour porpoises spend underwater that is similar in all languages

4. Upgrade the webpage about Studio Porpoise – by explaining why it is called a studio and including a soundscape (e.g. sounds of boats, waves, and harbour porpoises that come to the surface to breathe)
Generally, to boost successful interpretation, is advised too that Rugvin keeps educating the public

through TV reports, focusses on the harbour porpoise hotspots that emerge as most suitable in this research and publishes all interpretive products in Dutch, German and French. Striving to meet tourists' use-related wants as much as possible, furthermore, this research implies that all interpretive products should not only focus on harbour porpoise interactions, but also on seal interactions and other things to see and do in Eastern Scheldt National Park. Though, specifically for harbour porpoise interactions, Rugvin is suggested to ensure all interpretive products include a link to a tidal chart, more descriptions on how to recognise the sight and sound of harbour porpoises, and knowledge on when harbour porpoises can be spotted best at what hotspot. To help tourists find the interpretive products and harbour porpoise hotspots, Rugvin is recommended to create an information point in Zierikzee, information evenings for locals and clear direction signs, and to place signs with information on harbour porpoise at all hotspots. Moreover, to show tourists how to contribute to protection of harbour porpoises, it is urged that Rugvin promotes land-based and water-based harbour porpoise excursions, starts and promotes a dorsal fin photography research that is rooted in citizen science, and has a guide present at the jetty of Zierikzee whom tourists can ask questions. For the purposes of sustainability and transparency, lastly, Rugvin is encouraged to explain in its interpretive products how they conduct research in a sustainable manner and to consider using a pedal drive kayak for their research.

Some points arise that require further investigation if the advice is implemented. These include the information-related and use-related preferences of tourists with different demographic backgrounds, how tourists behave at Studio Porpoise at sunset, the knowledge of sailors about the most suitable harbour porpoise hotspots, and the feasibility to adjust the sound installation of Studio Porpoise. Besides, Rugvin is recommended to make sure that the design of the interpretive products and selection of harbour porpoise hotspots match the interests of people other than tourists who also have a stake in interactions and experiences with harbour porpoises in Eastern Scheldt National Park. Examples of such stakeholders are the organisation Nationaal Park Oosterschelde, national park hosts, local entrepreneurs, and local municipalities.