

Introduction to the report

Wild swimming or swimming in natural 'blue spaces', including rivers, lakes, or the sea is also referred to as open water swimming or cold water swimming. The Wild Swimming and Blue Spaces project aims to address the current lack of integrated information about the mental and physical health benefits of wild swimming alongside the risks related to water quality and safety aspects of specific blue spaces that people use for swimming.

Researchers in the School of English at the University of Nottingham and the School of English, Communication and Philosophy at Cardiff University are working on mobilising interdisciplinary knowledge and partnerships to combat health inequalities at scale. Our aim is to gain a broad understanding of the attitudes to, and knowledge of, the benefits and risks of wild swimming from multiple perspectives. This report outlines the methods and results from a corpus linguistic analysis of open text questions from a public survey commissioned as part of this project.

Methods of research

We used a linguistic approach called '**corpus linguistics**' which uses specialist software to identify **common patterns that occur in language**, including the frequency and usage of specific words in a **corpus** (plural 'corpora'). Two corpus linguistic analyses were used in this study:

Keywords

These are words that appear statically more saliently in a focus corpus (in this case our survey responses) than a reference corpus (usually a corpus of general language use).

Concordance lines

These are extracts of text from the corpus which show the context in which a keyword search term appears (also referred to as keyword in context, or KWIC). They are useful for close, qualitative analysis.



Data gathered for the study

We examined open responses from a public survey about wild swimming using corpus linguistics to highlight patterns in the language used by the public.

We commissioned YouGov to run the survey, which contained four open and 13 closed text questions co-designed by researchers on the Wild Swimming and Blue Spaces project and our project partners.

Our respondents were 2010 UK Adults with a household income of less than £20k, 38% of whom either currently wild swim or have wild swum in the past. We report here an examination of the responses to the following four open text questions:

- 1 What does the term 'wild swimming' mean to you?
- 2 What, if anything, would you say are the risks or dangers of wild swimming?
- 3 What, if anything, would encourage you to consider taking up (wild) swimming more regularly?
- 4 Explain the reasons that prevent you from going wild swimming more than you currently do.

In total, these survey questions generated 72,776 words of open text responses (15,099 for question one, 21,147 for question two, 13, 285 for question three and 23,245 for question four).

We carried out a [keywords analysis](#) for each question using the .uk web domain sub-corpus from EnTenTen20 corpus as a reference dataset. EnTenTen20 is available from Sketch Engine¹ and contains 100,437,519 words of English gathered from the web; the .uk web domain sub-corpus represents 7.9% of the full corpus. We examined the [top 50 keywords](#) keywords with a minimum frequency of 5 in our survey corpus, categorising them according to meaning or ‘semantic domain’, where possible (as shown below).

| | | |
|-------------------------|-----------------------|----------------------|
| ★ cleanliness/pollution | ★ ability | ★ financial |
| ★ transportation | ★ fears and anxieties | ★ relationships |
| ★ safety | ★ environmental | ★ nothing/resistance |
| ★ temperature | ★ (lack of) equipment | |



Analysis of the survey responses

1. What does wild swimming mean to you?

| Word | Word | Word | Word | Word |
|------------------|-----------------|-----------------|----------------|------------------|
| 1 swimming ... | 11 chlorinate ★ | 21 wild ... | 31 outdoor ★ | 41 anywhere ★ |
| 2 swim ... | 12 rivers ★ | 22 tarn ★ | 32 ie ... | 42 canal ★ |
| 3 lake ★ | 13 dk ... | 23 swimmer ... | 33 natural ★ | 43 estuary ★ |
| 4 outdoors ★ | 14 pond ★ | 24 etc ... | 34 designate ★ | 44 inland ★ |
| 5 lifeguard ★ | 15 lakes ★ | 25 nude ★ | 35 stream ★ | 45 non ... |
| 6 river ★ | 16 lido ★ | 26 sewage ★ | 36 eg ... | 46 dam ★ |
| 7 sea ★ | 17 pool ★ | 27 ocean ★ | 37 open ... | 47 somewhere ★ |
| 8 swimming ... | 18 wetsuit ★ | 28 water ★ | 38 quarry ★ | 48 supervision ★ |
| 9 unsupervised ★ | 19 reservoir ★ | 29 freshwater ★ | 39 cold ★ | 49 countryside ★ |
| 10 loch ★ | 20 ect ... | 30 waterway ★ | 40 clue ... | 50 outside ★ |

- Most of the keywords relate to the environment, especially locations for (wild) swimming
- The ‘cold’ temperature of the water, and cleanliness and pollution also form part of the way wild swimming is conceptualised by respondents

- Keywords relating to (lack of) equipment feature in the results. Some people said that wild swimmers wear wetsuits but most people who used these terms either said wild swimming meant that wild swimmers did not wear wetsuits or swam nude:

‘Swimming in the rivers wearing a wetsuit’ | ‘Swimming in the sea or open water without a wetsuit’ | ‘Probably something like swimming in the nude’ | ‘it’s probably something like swimming nude, doing yoga poses and drinking tea filtered through roadkill at this rate!’

2. What, if anything, would you say are the risks or dangers of wild swimming?

| Word | Word | Word | Word | Word |
|------------------|-------------------|-------------------|-----------------|----------------|
| 1 hypothermia ★ | 11 tide ★ | 21 swimming ★ | 31 entangled ★ | 41 dangerous ★ |
| 2 drown ★ | 12 unsupervised ★ | 22 weils ★ | 32 currant ★ | 42 shock ★ |
| 3 undercurrent ★ | 13 swimmer ... | 23 weed ★ | 33 cold ★ | 43 germ ★ |
| 4 lifeguard ★ | 14 underwater ★ | 24 coldness ★ | 34 waterborne ★ | 44 pollutant ★ |
| 5 cramp ★ | 15 pollution ★ | 25 tangled ★ | 35 danger ★ | 45 submerged ★ |
| 6 sewage ★ | 16 undertow ★ | 26 sewerage ★ | 36 sting ... | 46 jelly ★ |
| 7 polluted ★ | 17 swim ... | 27 unclean ★ | 37 pollute ★ | 47 hidden ★ |
| 8 hyperthermia ★ | 18 unseen ... | 28 contaminated ★ | 38 tangle ★ | 48 debris ★ |
| 9 jellyfish ★ | 19 dk ... | 29 catching ★ | 39 alga ★ | 49 hazard ★ |
| 10 riptide ★ | 20 weil ★ | 30 rip ★ | 40 obstacle ★ | 50 water ... |

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- Respondents highlighted concerns over safety and injury most prominently, highlighting specific risks including shock and injury
- Cleanliness of the water was the second most prominent risk identified in these results

- Other concerns include germs and one specific disease (Weils). Movement of water and hazards associated with creatures living in the water also feature in these responses:

‘Pollution, currents, weather Weil's disease, jellyfish stings, shark bites, drowning, hypothermia.’

‘Jobbies mainly. It's absolutely disgusting that sewage is being poured into rivers and the sea.’

‘Waterborne diseases, viruses, nasties in the water’

3. What, if anything, would encourage you to consider taking up (wild) swimming more regularly?

| Word | Word | Word | Word | Word |
|----------------|------------------|------------------|---------------|------------------|
| 1 lifeguard ★ | 11 polluted ★ | 21 water ... | 31 heated ★ | 41 interested ☆ |
| 2 swimming ... | 12 pollute ★ | 22 somewhere ... | 32 sea ★ | 42 beginner ☆ |
| 3 swim ... | 13 na ☆ | 23 dont ... | 33 weather ★ | 43 experienced ☆ |
| 4 dk ... | 14 cleanliness ★ | 24 certify ★ | 34 persuade ☆ | 44 nearby ... |
| 5 swimmer ... | 15 warm ★ | 25 closer ... | 35 lake ★ | 45 supervision ★ |
| 6 nothing ☆ | 16 certified ★ | 26 none ☆ | 36 cleaner ★ | 46 river ★ |
| 7 wetsuit ★ | 17 trained ★ | 27 encourage ☆ | 37 someone ☆ | 47 raw ★ |
| 8 sewage ★ | 18 pool ★ | 28 absolutely ☆ | 38 guard ★ | 48 locally ... |
| 9 warmer ★ | 19 pollution ★ | 29 tempt ☆ | 39 indoor ★ | 49 disabled ☆ |
| 10 wild ... | 20 clean ★ | 30 safe ★ | 40 n ... | 50 cold ★ |

- Many respondents articulated that they could not be encouraged, tempted, or persuaded to wild swim
- Respondents did not often identify safety issues as something that needs to be addressed to encourage them to swim more often

- Some respondents said that warmer water would encourage them, whilst others highlighted that they felt less able to participate as a result of disability or lack of swimming experience, though some felt that with better access, wild swimming would be possible for them

‘Nothing on God’s Green Earth would **encourage** me to do it’ | ‘Nothing would ever **persuade** me to go **wild** swimming.’ | ‘**Wild swimming** is for **wild** animals. It’s not for humans. I would say, stay clear of **wild** water.’

‘Easy access for me as I am **disabled**’ | ‘A registered **disabled** club in my locality’

4. Explain the reasons that prevent you from going wild swimming more than you currently do

| Word | Word | Word | Word | Word |
|----------------|----------------|------------------|-------------------|---------------|
| 1 __na__ ... | 11 sewerage ★ | 21 dirty ★ | 31 nowhere ★ | 41 fear ☆ |
| 2 swimmer ... | 12 wetsuit ★ | 22 unsafe ★ | 32 waterway ★ | 42 dump ★ |
| 3 swim ... | 13 unclean ★ | 23 cant ☆ | 33 disable ☆ | 43 disabled ☆ |
| 4 sewage ★ | 14 pollution ★ | 24 cramp ☆ | 34 weed ★ | 44 toxic ★ |
| 5 swimming ... | 15 copd ... | 25 cleanliness ★ | 35 contaminated ★ | 45 na ... |
| 6 polluted ★ | 16 pollute ★ | 26 arthritis ☆ | 36 afraid ☆ | 46 pool ★ |
| 7 lifeguard ★ | 17 cold ★ | 27 dont ... | 37 danger ★ | 47 tide ★ |
| 8 drown ☆ | 18 scare ☆ | 28 frighten ☆ | 38 rubbish ★ | 48 obstacle ★ |
| 9 wild ... | 19 scared ☆ | 29 water ★ | 39 sea ★ | 49 asthma ☆ |
| 10 dk ... | 20 alga ... | 30 dangerous ★ | 40 underwater ★ | 50 anywhere ★ |

- Keywords denoting water cleanliness and water pollution feature most prominently in these results
- Ability was also a concern for our respondents who named ‘asthma’, ‘arthritis’ and disability as preventative conditions or health states

- Respondents also mentioned feelings of fear and anxiety about wild swimming, which often related to drowning, contact with wildlife, and their impact on wildlife

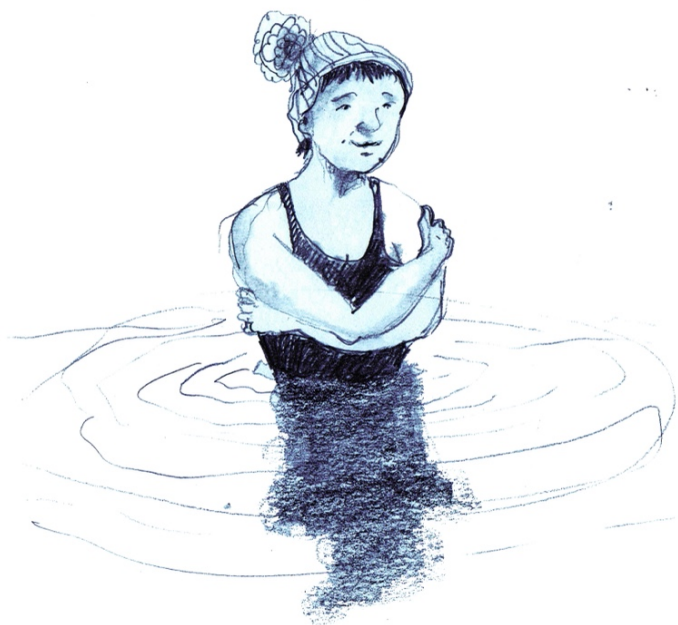
‘Dislike of being cold, **scared** of wildlife.’ | ‘A **fear** of Fish.’ | ‘**Scared** of deep water **scared** of drowning, standing on rubbish or squishing a cre[a]ture’ | ‘I’m **scared** I’d impact the wildlife negatively’

‘Not being a strong enough swimmer and **fear** of drowning’

My health is not good, I **can’t** drive myself as I lost my licence due to health problems, I need someone with me as I am **disabled** also there aren’t any changing facilities and no wheelchair access

Summary highlights of the analysis

- Our survey respondents named specific health risks associated with wild swimming (particularly the risk of drowning), along with **water quality**, **germs**, and **disease** as barriers to their participation.
- **Interaction with wildlife** was not framed as a benefit by respondents and was identified as (potentially) damaging for wildlife, which could be harmed or negatively impacted by their participation in wild swimming.



- The survey results revealed that **cold water** is a major factor affecting people's decision to wild swim.
- Several respondents were strongly **resistant to the idea** of wild swimming altogether and offered no further explanation as to why.
- Less able respondents said that they could be encouraged to wild swim with **better access** and **training**. This includes changing facilities with wheelchair access and transport to wild swimming sites.

Next steps

We will now work to understand whether there is an alignment between the benefits and risks of wild swimming articulated by our survey respondents and those reported in the news about this topic. These findings will be shared with our project partners who are interested in widening access and inclusion in wild swimming participation.

References

- [1] Adam Kilgarrieff, Vít Baisa, Jan Bušta, Miloš Jakubíček, Vojtěch Kovář, Jan Michelfeit, Pavel Rychlý, Vít Suchomel. The Sketch Engine: ten years on. Lexicography, 1: 7-36, 2014.

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