

Journal of Interdisciplinary Science Topics

Where would The Proclaimers walk to for you?

Katherine Davies & Matthew Perkins
The Centre for Interdisciplinary Science, University of Leicester
27/03/2018

Abstract

The Proclaimers released their no.1 hit song, *I'm Gonna Be (500 miles)* in 1988, claiming that they would walk 500 miles to “fall down at your door”. In the song, they say this phrase 8 times, totalling 4000 miles of walking. This paper investigates the locations that The Proclaimers could reach, how long it would take them, and the quantities of Scottish delicacies they would need to consume to fuel their journey. It was found that they could reach the major cities of Cairo, New York, and Dubai, with the furthest being Lahore in Pakistan. The journey to Lahore would take them 53.5 days to complete, needing 832.5 bars of deep fried Mars bars, 237.9 kg of haggis, or 249.8 L of Irn-Bru to provide the energy for the journey.

Introduction

In 1988 The Proclaimers released their hit song, *I'm Gonna Be (500 miles)* [1]. In the song, they talk about how far they would be willing to walk to “fall down at your door”. Throughout the whole song they mention walking 500 miles several times.

Previous papers [2, 3] have worked out the likelihood of walking 500 miles and 500 more, without food. The paper found out that The Proclaimers would lose 1.3 % of their body fat after 500 miles, and then 2.8 % after 500 more. However, in this paper, the locations that The Proclaimers could walk to in a 4000-mile radius were found. The amounts of Scottish delicacies that would be required to reach these locations were then calculated. This is a new approach to analysing the famous hit song.

Method

In the song, *I'm Gonna Be (500 miles)*, the phrase “I would walk 500 miles” is mentioned a total of 8 times. This means that the total distance that they would be willing to walk is 4000 miles.

If it is assumed that the band start in Edinburgh, where they were born, we can find the destinations they could reach by searching in a 4000-mile radius from their birthplace, figure 1. This is also assuming that the band could walk on water, and that the area being walked on is flat.

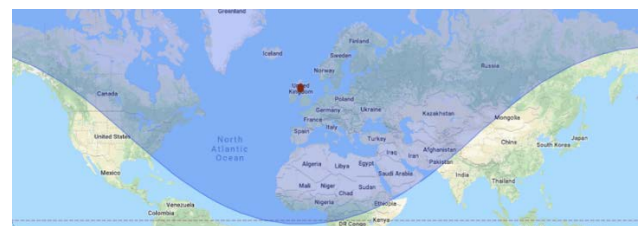


Figure 1 – Map of the world, the region shaded blue is the places that are located within 4000 miles of Edinburgh, shown by the red dot [4].

Within the 4000-mile radius includes the major cities listed in table 1.

Major City	Miles from Edinburgh
Moscow	1565
Cairo	2451
Jerusalem	2488
New York	3268
Dubai	3585

Table 1 – List of Major cities with their associated distances from Edinburgh [5].

The furthest major city that The Proclaimers could walk to is Lahore, Pakistan, which is located 3982 miles from Edinburgh, figure 2a. The city of Atlanta is just outside of this radius, lying at 4008 miles from Edinburgh, figure 2b.

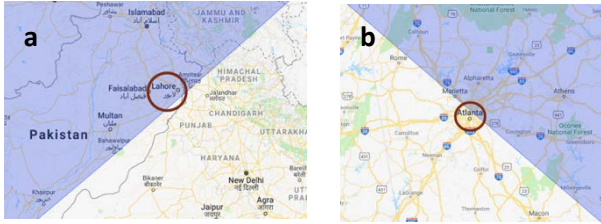


Figure 2 – Blue regions on maps represent the regions within the 4000-mile radius. (Left: a) Shows the city Lahore, just within the radius. (Right: b) Shows the city of Atlanta, just outside the radius [4].

Therefore, it will be assumed that the furthest major city that they can reach is Lahore, and so the distance that they will have to walk will be 3982 miles.

Equation 1 can be used to work out the time to walk 3982 miles. If they were walking at an average walking speed (3.1mph) v , the time, t , to reach this distance, d , can be worked out, assuming uniform speed [6].

$$t = \frac{d}{v} \tag{1}$$

The time worked out is equal to 1284.5 hours, which equates to 53.5 days of constant walking. In reality, this could not be achieved by a person without breaks, and so the time would be much longer than this.

When the hit song came out in 1988, the brothers were 25 years old. It is assumed that they were the average height and weight of a UK male of that age 5 ft. 10" and 180 lb [7, 8].

The basal metabolic rate (BMR) is the basic number of calories needed to sustain the body, for an average male, without any form of exercise. This is calculated through the Harris-Benedict equation 2 as follows [9]:

$$BMR = 88.362 + (13.397 \times weight(kg)) + (4.799 \times height(cm)) - (5.677 \times age(yrs)) \tag{2}$$

$$BMR = 1893.5 \text{ kcal per day}$$

This means that the BMR of the Proclaimer's would burn 101,303.3 kcal throughout the 53.5 days each, without the addition of walking.

The Proclaimers would have burnt 398,200 kcal each walking those 3982 miles, based on an average of 100 kcal/mile [10]. This totals in 499,503.3 kcal burnt overall for the whole journey. In order to supply these calories, some staple Scottish foods were analysed for calorific content (see table 2). It was found that 832.5 bars of deep fried Mars bars, 237.9 kg of haggis, or 249.8 L of Irn-Bru would have to be consumed to fuel the walking.

Food	Calorific Value	Quantity
Deep Fried Mars Bar	600 kcal/bar	832.5 bars
Haggis	2.1 kcal/g	237.9 kg
Irn-Bru	2 kcal/ml	249.8 L

Table 2 – Scottish snacks, with their associated calorie contents, along with the quantity required to supply the required calories [11, 12, 13]

Conclusion

In summary, the Proclaimers claim to walk 4000 miles, means that they can reach cities such as Dubai and New York, with the furthest city they can reach being Lahore. The time that it would take for The Proclaimers to walk this distance was calculated to be 53.5 days. Over this time, they would have to consume 499,503.3 kcal in order to complete the journey. If the person in the song lives in a city further away than Atlanta, however, they will not be falling down at their door.

References

[1] Reid, C. & Reid, C. (1988) *I'm Gonna Be (500 Miles)*. In: Sunshine on Leith [vinyl 7" single]. 111 674, Chrysalis Records Ltd.

[2] Relton, P., Davis, S., Ramsden, A. & Clark, C. (2017) *I Would Walk 500 Miles*. Physics Special Topics, vol. 16. Available at: <https://journals.le.ac.uk/ojs1/index.php/pst/article/view/2457> [Accessed 27th March 2018]

- [3] Relton, P., Davis, S., Ramsden, A. & Clark, C. (2017) *I Would Walk 500 More*. Physics Special Topics, vol. 16. Available at: <https://journals.le.ac.uk/ojs1/index.php/pst/article/view/2518> [Accessed 27th March 2018]
- [4] Beattie, O. (2018). *Draw radius circles on a map*. Obeattie.github.io. Available at: obeattie.github.io/gmaps-radius/ [Accessed 21st February 2018].
- [5] Timeanddate.com (2018). *Distance Calculator - How far is it from Edinburgh – Scotland – United Kingdom....* Available at: <https://www.timeanddate.com/worldclock/distances.html?n=304> [Accessed 21st February 2018]
- [6] En.wikipedia.org (2018). *Walking*. Available at: <https://en.wikipedia.org/wiki/Walking> [Accessed 21st February 2018].
- [7] Onaverage.co.uk (2018a). *Average Male Height* | Onaverage.co.uk. Available at: <https://www.onaverage.co.uk/body-averages/average-male-height> [Accessed 20th February 2018].
- [8] Onaverage.co.uk (2018b). *Average Weight of a Man* | Onaverage.co.uk. Available at: <https://www.onaverage.co.uk/body-averages/average-weight-of-a-man> [Accessed 20th February 2018].
- [9] Roza, A.M. & Shizgal, H.M. (1984). *The Harris Benedict equation reevaluated: resting energy requirements and the body cell mass*. The American Journal of Clinical Nutrition, 40(1): 168-182. DOI: 10.1093/ajcn/40.1.168
- [10] Bumgardner, W. (2018). *How Many Calories Do You Burn Walking a Mile?* Verywell Fit. Available at: <https://www.verywellfit.com/walking-calories-burned-by-miles-3887154> [Accessed 20th February 2018].
- [11] Myfitnesspal.com (2018a). *Calories in Mars Bar Battered & Deep Fried - Calories and Nutrition Facts* | MyFitnessPal.com. Available at: <http://www.myfitnesspal.com/food/calories/mars-bar-battered-deep-fried-422818650?v2=false> [Accessed 20th February 2018].
- [12] Myfitnesspal.com (2018b). *Calories in Grant's Haggis (Updated) - Calories and Nutrition Facts* | MyFitnessPal.com. [online] Available at: <http://www.myfitnesspal.com/food/calories/grants-haggis-updated-645482181?v2=false> [Accessed 20th February 2018].
- [13] Irn-bru.co.uk (2018). *IRN-BRU | Drinks Nutritional Information*. Available at: <http://www.irn-bru.co.uk/drinks/drinks> [Accessed 20th February 2018].