

# Surf travel: the elephant in the room

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The effects of environmental degradation, including the effects of global warming induced by carbon emissions, will probably be more immediate and more profound on us surfers than on other members of the rich nations of the world. We are more sensitive to things like sea-level rise, storminess, coastal flooding and coastal pollution, because we spend our lives right there, on the coast – on the ‘front line’. The very source of the waves we ride is the weather and the climate; so we really ought to be concerned that the weather and climate don’t get altered so much that it ruins the coast and the waves. We are going to be on the receiving end of all these problems, but we are also helping to cause the problems in the first place.

In this chapter I am going to focus on surf travel, first addressing the question of whether or not all the travelling we do actually makes us less environmentally friendly than we should be. Then I am going to suggest how we might be able to lessen our environmental footprint associated with travel, and

hence not only help save ourselves from the immediate consequences of environmental degradation, but also become good role models and persuade other, non-surfing members of the community to become more environmentally aware.

## **Cars and Planes**

Until the industrial revolution, all the travelling we did was either on foot, on the backs of other animals, or using wind power if we travelled across the ocean. On land, the fuel we used to propel us along came from the food we ate or the food we gave to our horses, camels or elephants. And because of the way our digestive systems had evolved, burning carbohydrates faster than food grows was physically extremely difficult. As a result, the speed with which we travelled was governed by the speed at which we could burn those carbohydrates. Travelling was, therefore, sustainable.

Then, in the last couple of centuries came trains, cars, buses and, eventually, aeroplanes – all powered by fossil fuels. Today, our world is completely dominated by these vehicles, and we couldn't imagine what it would possibly be like without them.

Think of all the possible forms of transport you could use for a surf trip. For example, walking, cycling, horseback, bus, train, boat, ferry, car or plane. Most of these apart from the last two are rarely used for surf trips, and, if they are, they are invariably combined with either the car or the plane. Those two are the most convenient forms of transport for us, but, at the same time, the least environmentally friendly. Their use has increased dramatically in recent decades and continues to increase, not just among the surfing population, but throughout the entire population of the rich countries of the world.

Our use of the car has been increasing rapidly in the last half century while the use of public transport has decreased considerably (Figure 1). The graph does show some hope though – since around the mid 1990s, although the use of the car has still been increasing, that increase has slowed down. At the same time, the use of public transport is not decreasing at such a fast rate as it was a few years ago. But that is not really good enough: that graph from now on really needs to start to show a sharp decrease in the use of the car and a sharp

increase in the others. If we are to stand a chance in the next few years, the use of the car must fall below that of public transport, like it was until about 1955.

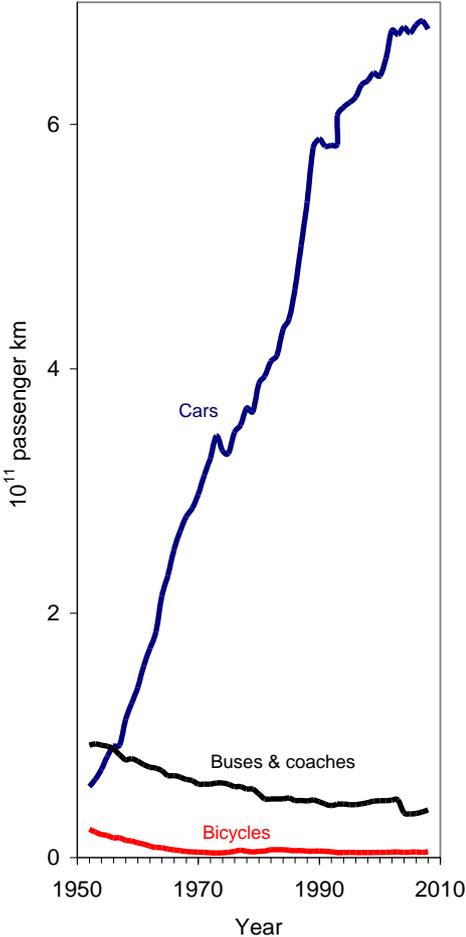
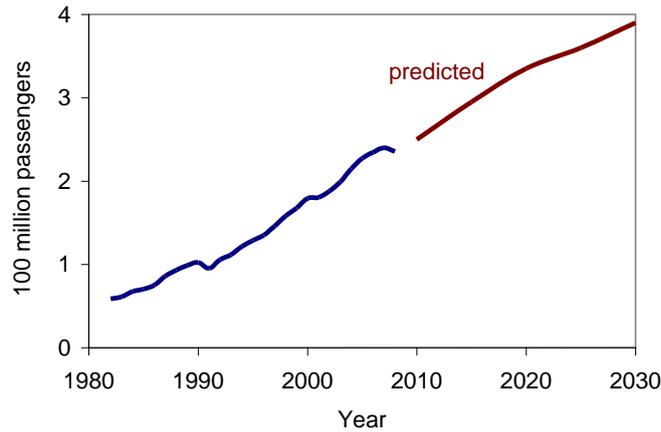


Figure 1: Use of cars, buses and bicycles in the UK since 1952 (Don't worry about the units, just compare how the numbers have changed since 1952)<sup>1</sup>

Due to the immense distances we can cover in a short time, flying around the world is extremely popular. Half a century ago, most of us travelled from one continent to another by boat, which could take months. Then, a few years later, air travel went 'mainstream' and everything changed. Now we take it for granted that you can get to virtually any point on the planet from any other point in just over 24 hours. Figure 2 shows how air travel increased between 1982 and 2008, and how it is projected to grow in the next few years.



*Figure 2: Number of passengers passing through the U.K.'s airports from 1982 to 2008, then predicted from 2010 to 2030<sup>2</sup>*

Because planes take us so far in such a short time, they also burn vast amounts of fossil fuels, and therefore are a major contributor to global warming and resource depletion.

Nowadays, there are super-cheap short-haul flights everywhere, and it just doesn't make sense to do it any other way. As far as long-haul surf trips are concerned, well, to get from one continent to another we have almost always used the plane. But whereas before we would arrive somewhere and wonder what we were going to do for the next six months, nowadays we go on seven-day package deals to the Mentawais – something unheard-of 30 years ago. And the surfing elite – those whom we aspire to emulate – go from Hawaii to Maverick's to Ireland, or from Western Australia to South Africa to Chile, just for one swell.

There are two reasons why flying is probably the most effective way of pushing your ecological footprint sky high. Firstly, the emission of greenhouse gases per person per mile is around the same order of magnitude as if you drive on your own. But of course we tend to cover a lot more miles by plane; which is, of course, the whole idea of flying.

The other reason is that the overall effect on global warming by planes is thought to be a lot greater – more than double by some estimates – than from just the emission of greenhouse gases from their engines. Among other things, the vapour trails produced by high-flying jets modify the natural clouds, resulting in extra heat being trapped in the atmosphere<sup>3</sup>.

Short-haul flights are the worst. Getting the plane off the ground up in the air in the first place takes an immense amount of energy compared to when it is already up there cruising. Therefore, the fewer times you can take off and land, the better. So, ten 1,000-mile flights are much worse for the environment than one 10,000-mile flight. Figure 3 shows how the amount of greenhouse gases emitted per mile increases drastically as the length of your flight decreases.

Another negative effect of air travel on the environment is the contamination by the airport itself. Apart from atmospheric and acoustic pollution, airports take up a massive amount of natural land, and their constant expansion contributes to land destabilization and reduced biodiversity just the same as building a city.

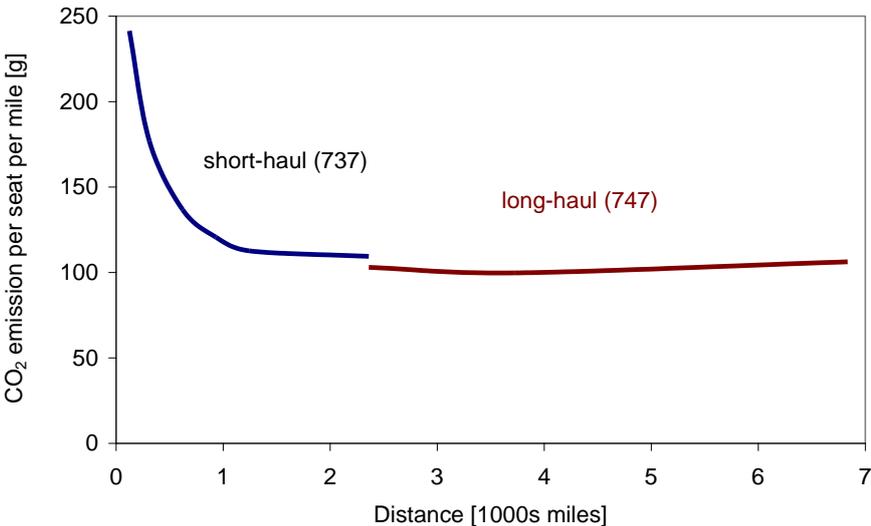


Figure 3: Approximate carbon dioxide emissions per mile as a function of flight distance: You can see that it is much better to take one long-haul flight than lots of short ones<sup>4</sup>

So, it looks like our ecological footprint due to travelling has increased dramatically over the last few decades, and is continuing to increase, principally due to the fact that we are using much more carbon-intensive forms of transport, including driving but particularly flying. This includes most of the population of the rich countries of the world, and, of course, includes us surfers. But how do we compare with the rest of the population?

## The Survey

Are we surfers more or less environmentally friendly than the average citizen? Is our carbon footprint bigger or smaller than that of the non-surfing citizens of this planet? Well, ideally, it ought to be smaller. One reason is that surfers ought to be more environmentally aware than most people because we depend on a very fragile part of Nature (the coast), and we'll be the first to notice when weird things start to happen to it, such as episodic coastal flooding, increased storminess or rises in sea-level. Another reason is that surfing, stripped down to its bare essentials, is a low-carbon activity, similar to walking or cycling. The act of riding waves itself doesn't burn any fuel, doesn't result in any emission of greenhouse gases and doesn't cost you anything apart from some wax and the wear and tear on your board and suit. When I started surfing I remember thinking how wonderful it was because of that very reason. Of course, at that time, I lived in a city and rode my bicycle to the same beach every day.

So, just out of curiosity, in 2009 I decided to check my own ecological footprint. At first I was convinced I was an environmentally-friendly surfer and that I practiced what I preached. But when I got the results I was shocked. My footprint was above average. I couldn't understand it – I have energy-saving light bulbs in every room of my well-insulated flat, I hardly use the heating, I recycle practically everything and buy locally-grown produce, plus I work from home. Alright, I *do* drive my car around a bit looking for surf, but I live less than 20 km from most of the spots I surf, and have a very efficient car. As it turned out, the big problem was the one long-haul flight I take once a year. As soon as I took that out of the equation my footprint went right down.

The next logical step was to look a little further and try to get some proper information on the footprints of surfers in general, not just me. So I put a survey on the internet. It was pretty simple and was designed to find out how much travelling surfers do, by road and by air. The values I got from the survey would then be plugged into an eco-footprint calculator<sup>5</sup>, together with average-citizen values for all other factors not attributable to travel (such as whether you use low-energy bulbs etc.). That way, I could avoid asking too many boring questions and, by keeping the other factors constant, I could directly test the effect of travelling on surfers' carbon footprints.

In the survey, these were the questions asked:

- (a) In what part of the world you live,
- (b) What size car you drive (if any),
- (c) How far you drive in a year, and
- (d) How many short-haul, medium-haul and long-haul flights you take a year.

The area of the world where you live was divided into four categories:

- (i) North America including Hawaii,
- (ii) Australia/New Zealand,
- (iii) Europe,
- (iv) Rest of the world including South America, Africa, Asia, and the Pacific Islands.

Comparisons could still be made between the last category and the others as long as the areas within it are assumed to be all similarly low consumers.

The carbon-footprint calculator needed an exact figure for the number of kilometres per year travelled by air, which I calculated from the average distances of long, medium and short haul flights. Then, to allow direct comparisons between distances covered by road and distances covered by air, the number of road kilometres per year was ‘normalized’, working on the principle that bigger cars emit more carbon for the same number of kilometres. For example, a typical 4x4 emits about 1.8 times as much carbon as a typical 2-door mini, so, 1,000 km in a 4x4 would have the same effect on your carbon footprint as 1,800 km in a 2-door mini.

The results in the graphs show averages for each geographical area. Where I’ve put ‘average citizens’, these are ‘official’ figures obtained from the website containing the footprint calculator. Where I’ve put ‘surfers’ I mean those people who filled out the survey, not *all* surfers. As I discuss in a minute, a survey like this cannot hope to capture the entire surfing population of every area of the world.

First of all, looking at the average number of kilometres travelled by air and by road (Figure 4), it seems that those in living in Australia and New Zealand tend to travel the most. This is not surprising, since surfers living in

those areas are quite isolated from the rest of the surfing world and traditionally tend to be avid travellers. North American surfers tend to drive more than anyone else, or at least drive bigger cars, which is no real surprise either. You might be wondering why the overall number of kilometres from the rest of the world (ROW) is so high, when this category represents the poorest areas. I suspect that most of the respondents are far more affluent than the average citizen in those countries, and therefore have enough money to travel just like us in Europe or North America. In summary, the results from this plot seem to be fairly logical, which suggests that there is probably nothing too weird about the data.

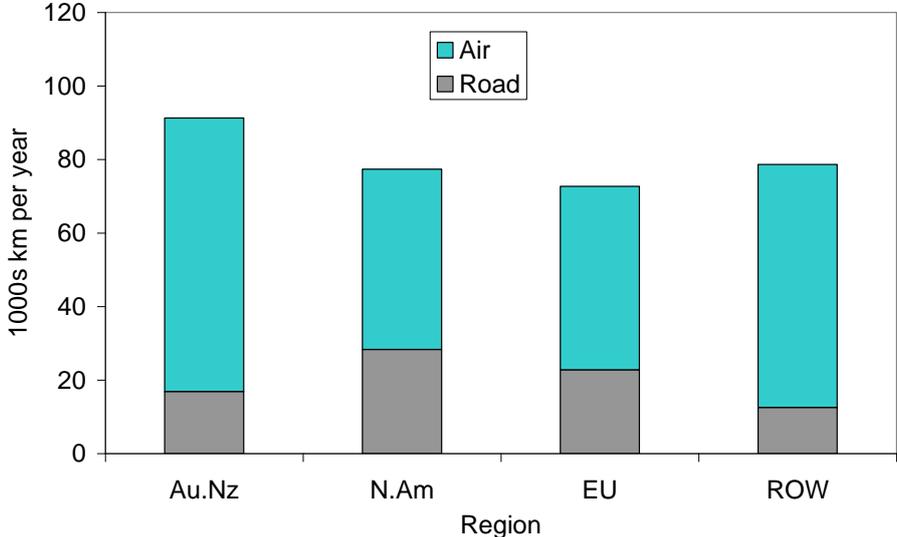


Figure 4: Average number of kilometres travelled by you, by air and by road. The road kilometres are normalized to be equivalent to those driven by a small 2-door car.

Next is the centrepiece of the experiment: the carbon footprint graph (Figure 5). Looking at the graph, the first thing we can see is that, in all cases, the carbon footprint of the survey participants is higher than that of the average citizen, which suggests that surfers emit more carbon into the atmosphere than normal people. In fact, combining all the geographical areas, the surfers’ average footprint is 32.8 global hectares (gha), compared with 16.8 gha for the average citizen – almost twice as much. The biggest differences are in the poorer countries, with a massive 352 per cent difference between the footprints of surfers and average citizens in ROW, compared with a modest 18 per cent

difference in North America. This is probably because surfers living in poor regions of the world are bound to be more affluent than the majority of people, otherwise they wouldn't be able to surf, or indeed have an internet connection to fill out the survey in the first place.

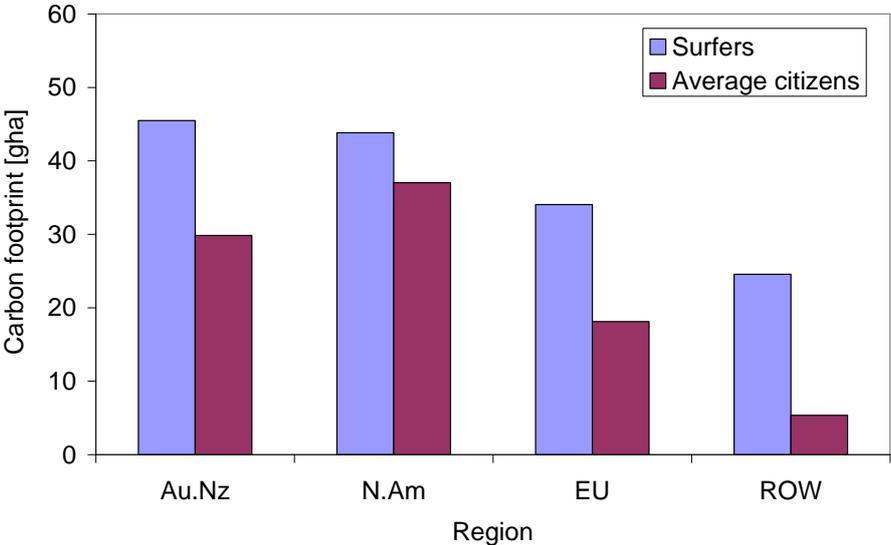
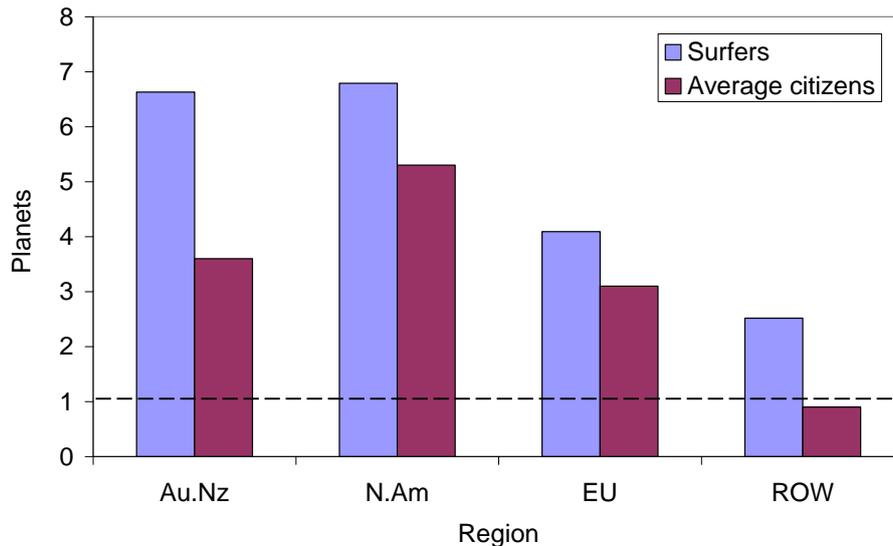


Figure 5: Carbon footprint in global hectares (gha) for surfers (survey participants) in each geographical area compared with the carbon footprint of the average citizen in that area.

Figure 6 shows the number of planets we would need to support us if the entire world population consumed the same as (a) surfers and (b) average citizens, in each geographical area. For example, if everybody in the world consumed as much as the average North American surfer, we would need about 6.8 planets to support us. Put another way, North American surfers are using up the Earth's resources 6.8 times as fast as those resources are being renewed. This test took into consideration the whole ecological footprint, not just the carbon footprint. I assumed that surfers are no different from average citizens when it comes to other factors that influence the ecological footprint, such as the amount of household waste we generate or the amount of second-hand clothes we buy, so the only influencing factor is the amount of travelling we do. In all cases, the figures are higher for surfers than for average citizens, and are all above the sustainable limit of one planet.



*Figure 6: Number of planets we would need if all the citizens of the Earth consumed the same as the average surfer or the average citizen in each geographical area. The dashed line is just to show how the results compare with a sustainable (one-planet) level of consumption.*

In summary, the results of this simple survey suggest that, as surfers, the contribution to our ecological footprint due to travelling is higher than that of the average citizen.

It might be understandable that the African surfers taking part in this survey travel a lot more than most Africans, because African surfers are necessarily much richer than the majority of African citizens. But North American surfers are even worse than other North Americans, who are already gobbling up the Earth’s resources faster than anybody else in the world.

Of course, this survey was a very simple one, with many assumptions made. It might turn out that the contributing factors other than travelling – those that I have simply assumed to be the same for surfers as for everybody else – are actually much less for surfers. If those factors had been added into the survey they might have been low enough to offset our high carbon emissions from travelling, putting our carbon footprint below that of the average citizen. But I doubt it. To compensate for the greenhouse gases generated by a small amount of travelling requires a lot of effort elsewhere.

Another point, which could make things even gloomier, is that the data is probably skewed towards a smaller carbon footprint than is realistic for surfers in general. That is to say, the real carbon footprint for surfers might be even

bigger than this survey suggests, because data from the high-end consumers amongst us is probably quite scarce. Those surfers with the biggest carbon footprints, such as those who know they are consuming excessively but don't care, or those who simply don't believe in global warming, would have been the least likely to waste time filling out some stupid survey.

In conclusion, according to the results of this study, we as surfers seem to be a long way from the ideal environmentally-friendly citizens we make ourselves out to be, and the main reason for that seems the amount of travelling we are doing by car and by plane.

## **What to do about it**

It seems that the travelling we do is the one thing that makes us surfers less environmentally friendly than average citizens and less environmentally friendly than we should be. To be absolutely sure we were contributing as little as possible to global warming, and, therefore, to ensure the preservation of the coastline and the continuation of surfing, perhaps we should stop travelling altogether. Perhaps surfing should only be done by those who live within walking or cycling distance to the coast. Would this work?

The problem is that, if you are a surfer, travelling, and all the experiences that go with it, is also one of those things that you will probably value more than any amount of material possessions or home comforts. If we had to give up travelling all together, surfing just wouldn't be the same. If we couldn't travel, we would lose out on the peripheral aspects that come with travelling – things that get absorbed by us effortlessly – a knowledge of the cultures and languages of the world, an openness and tolerance towards people of those different cultures, and, ironically, an enhanced awareness of the fragility of our environment. If we didn't travel, we would find it even more difficult to appreciate the frailty of our environment and the finiteness of the planet, and so we would be even less inclined to reduce our ecological footprint and persuade others to do the same.

Paradoxically, travelling makes us more environmentally aware, which, in turn, makes us realize that we should cut down on things like travelling.

So, is there a way out of this paradox? Is there some way we can still keep travelling, continue to soak up foreign cultures and tropical barrels, and continue to appreciate the miracle of our environment, but without destroying the very environment we have learned to value?

One thing we could do is mitigate the environmental destruction brought about by our travelling by creating a corresponding environmental ‘construction’. In other words, put back the biodiversity we removed, or remove the greenhouse gases we pumped into the atmosphere. As long as we could exactly compensate for our environmental damage in this way, we could take as many short-haul flights as we wanted and it wouldn’t matter.

Some surfing organizations and clothing brands that sponsor large surfing events, plus a few individual pro surfers, justify their huge environmental footprints by taking part in some mitigation scheme. This not only makes them feel better about it, but encourages us to imitate them.

The most well-known form of environmental abuse mitigation is carbon offsetting. This is a scheme that is supposed to neutralize the greenhouse-gas emissions associated with a particular activity by contributing just the right amount to a scheme that soaks up the greenhouse gases that your activity emitted. Typical ways of doing this range from the distribution of energy-saving light bulbs to developing countries, to replanting the Amazon rainforest. When you book a flight, for example, sometimes you are given the option to pay a bit more and ‘offset’ that flight, so that its effect on the environment is neutralized.

Of course, it is not that simple. If the effects of greenhouse-gas emissions and global warming are a long way from being understood by the best scientists in the world, so how can we possibly say that any mitigation schemes will work? In short, we can’t expect to reverse the effects of our environmental interference by interfering with it even more, especially since we don’t understand how it works.

So, mitigation schemes are not really getting to the root of the problem. They do nothing to encourage us to reduce our environmental damage – in fact all they really do is make us feel less guilty and relieve us of a responsibility.

A much better idea than mitigation might be to really try to reduce the ecological footprint of our travelling, not by giving up travelling altogether, but

by simply changing the *way* we travel. This could make a big difference to our footprint and, at the same time, maintain our environmental awareness, both of which would feed off each other. Putting more emphasis on travelling as an adventure in itself, rather than as a means to an end, might be the solution. Instead of getting to and from some spot as quickly as possible, collect up seconds of tube time as if they were marketable commodities, perhaps we should step back a little and enjoy the journey.

Until a few years ago most of us didn't have the slightest clue about global warming, resource depletion or loss of biodiversity, but we tended to automatically travel in a more environmentally friendly way. It wasn't just the fact that air travel and cheap short-haul flights were less available then, it was also seen to be much cleverer and cooler to travel a long way for a long time on as little money as possible.

If you could find uncrowded surf using limited resources, you were a hero, like those guys in the magazines. Instead of flying half way round the world to chase one swell, quivers of boards, jet-skis and helicopters leaving a trail of greenhouse gases behind them, those guys would be on the road for a long time, discovering hidden pointbreaks in remote areas, living among the local population and sending back fascinating stories to the magazines just when we thought they had been lost forever. We wanted to be just like them.

Nowadays you might say that things are obviously different: you might think that all the places that were undiscovered 30 years ago now have surf camps or are serviced by organized boat trips. But you will find that there are plenty more undiscovered, unsurfed or forgotten surf spots even nowadays. There are countless examples of recent 'discoveries', many of which are very close to existing surf populations – spots that have, for some reason, been ignored or perhaps missed by local surfers and/or other travellers.

So how can we convince other surfers to want to travel in a more environmentally-friendly way?

One thing we can do is 'un-sell' modern air travel and all the hassle that goes with it. If you think about it, air travel is pretty stressful. When we have to put up with the same madness over and over again, the novelty tends to wear off. For example, how many times have you been stuck in that queue before the x-ray machine, checking your watch every few seconds, wondering if your

boards are going to make it to the other end, and perhaps imagining being dragged off and tortured in your own country for being a terrorist? In the end, you just want to get it over with and get to your destination. Usually, that part of the trip just fades away as a bad memory instead of being an integral part of the experience.

And at the same time, we can try to ‘re-sell’ the idea of travelling on a low budget in novel ways, perhaps using examples of new surf spots that have been discovered recently and amazing adventures that people have had on the way. My own stories are humble ones, but even now, in 2013, I am still discovering unsurfed big-wave spots in a part of Europe that has had a thriving surfing population for many decades, but limited road access to the coast away from the main cities and a culture that prioritizes solidarity over individualism.

Recently, some great examples of novel ways of travelling have been published, including the award-winning 2010 film by Cyrus Sutton, *Stoked and Broke*<sup>6</sup>, and Christian Beamish’s extraordinary book *Voyage of the Cormorant*<sup>7</sup>.

But is anyone actually taking any notice, or are these and other excellent pieces of work just part of some underground movement, followed by people who have already had the right idea for years? Even though some of us already realize that travelling in a more sustainable way can be much more fulfilling than all that jet-setting, it still seems that the vast majority of surfers are either not receiving the message properly, missing the point, or simply not interested.

For example, my survey was conducted through the Surfers Path, a publication with a global readership of over 50,000. I was expecting a response from at least a couple of thousand individuals, but I obtained less than 200. In 2011 I published the definitive *Guide to Sustainable Surfing*<sup>8</sup>, downloadable free through many websites, and available for one euro from Amazon. Again, there was very little response from the general surfing population.

And just to show that it is not just me, as part of a special ‘green’ issue<sup>9</sup>, the staff of *Australian Surfing Life* magazine sent out messages to the top 45 professional surfers asking them if they could provide tips for young surfers about how to be environmentally aware. Out of the 45 surfers they only got two replies.

The message isn’t getting out to surfers, so logically it is not getting out beyond surfers into the mainstream ‘public’ media. Sometimes it is maddening

how journalists fail to notice the blindingly obvious. For example, this quote from a website describing a BBC documentary:

“But the ocean isn’t just about food. In ancient Hawaii, chiefs used surfing competitions to show off their power and prowess. Nowadays big-wave surfers do the same, monitoring conditions around the world to ensure they are in the right place at the right time when the giants come rolling in. If only all our relationships with the sea were so benign. [...] And since the oceans absorb 50% of the carbon dioxide that we release into the atmosphere by burning fossil fuels, we are continually increasing the acidification of the oceans.”<sup>10</sup>

So how do those surfers get there “when the giants come rolling in”? By bicycle?

Turning back to the problem of convincing the surfers themselves, why is it such an effort to change their behaviour to something that is obviously to their advantage? Is it something to do with the way the message is being put out there? Or is it something deeper, something to do with the very nature of surfing?

I stated earlier that travelling in a more sustainable way needs to be portrayed as something really cool and exciting, something that is done by surfing role-models that all other surfers will try to emulate. At the moment, it is not being portrayed like that. At the moment, the majority of the material out there only serves to make people feel guilty about what they are not doing and what they should be doing. Most surfers can’t be bothered to read something that is going to make them feel bad about themselves and take their fun away.

The other problem, of course, is the vested interest by large multinational clothing companies that control the images put out in the media of our role-models, and, therefore, try to control the behaviour of the people who follow those role-models. This includes making people buy a certain brand of wetsuit because they want to be like a certain pro surfer who is wearing one. But perhaps, albeit inadvertently, it also makes people wish that one day they could be just like their heroes in the magazines and spend their lives chasing swells from Hawaii to Australia to South America and back again.

So, there is another layer to this complicated problem. We surfers could be a shining example of a social group that manages to enjoy life at a much smaller environmental cost than most others – role-models for the non-surfing

population to follow. But the elite pro surfers are also role-models for surfers. And if they don't change, most of us won't change, and then we can't persuade the rest of the population to change.

## **Summary**

To summarize, travelling by car and especially by plane, chiefly done by people in the rich nations of the world, is one of the worst things for carbon emissions and global warming. As a social group, surfers are just as bad as everybody else and, according to a simple survey, could actually be worse.

But we surfers are on the environmental 'front line' and any adverse effects of climate change will affect us earlier and to a greater extent than other, non-surfing citizens of the rich nations. For that reason, it is in our own interests to be more environmentally conscious than the rest of the population, and, in doing so we should be a shining example to everybody else.

So, something doesn't add up. If we are going to be good role models we can't be hypocrites and have a larger ecological footprint than everybody else. We need to cut down our ecological footprint, a large part of which is due to travelling, particularly flying.

But most people agree that travelling is part of the essence of surfing, so we can't just stop travelling. However, one way we can cut down is by travelling in a different way, avoiding a lot of carbon-intensive modes of travel such as short-haul flights, and changing our general philosophy to a slower, more environmentally-aware form of travel.

Even if some surfers are already doing this, the vast majority are not. It seems that they are either unaware of the problems or are uninterested in learning about them. Somehow, the message is not reaching the general surfing population. This is perhaps because the image of travelling in a more sustainable way is not successfully being 'marketed' – it is not as cool and exciting as jet-setting around the planet chasing swells.

So, perhaps more effort needs to be made to promote sustainable surf travelling through videos and articles, to make surfers think it is cool to travel like that, while at the same time revealing the unattractive part of jet-setting such as the stress of airports and timetables (currently censored out). Perhaps the

large clothing companies need to be somehow persuaded (by other large clothing companies?) that their profits will suffer if they don't start to contribute to the promotion of more sustainable travelling.

If surfers are persuaded to be truly environmentally friendly as a social group, we will have a great opportunity to be a role model for the rest of society, which, in turn, might just help to persuade some non-surfing members of the population to become more environmentally friendly. Which, might, eventually, feed back to us and help to save our coastlines, the oceans and enable us to continue surfing.

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<sup>1</sup> Department for Transport, 2010. *Transport Statistics Great Britain*. Statistical Release, November 2010

<sup>2</sup> Ibid

<sup>3</sup> [http://www.grida.no/publications/other/ipcc\\_sr/?src=/climate/ipcc/aviation/064.htm](http://www.grida.no/publications/other/ipcc_sr/?src=/climate/ipcc/aviation/064.htm)

<sup>4</sup> Jardine, C. 2008. *Calculating the Environmental Impact of Aviation Emissions*, 2<sup>nd</sup> Ed, Environmental Change Institute, University of Oxford

<sup>5</sup> <http://www.myfootprint.org/>

<sup>6</sup> <http://www.theinertia.com/business-media/stoked-and-broke-review-cyrus-sutton-surf-film/>

<sup>7</sup> Beamish, C. 2012. *The Voyage of the Cormorant*. Patagonia Books, 323 pp

<sup>8</sup> <http://www.surfscience.org/reports>

<sup>9</sup> Australian Surfing Life, 2009. Seven surfers committed to change. *Australian Surfing Life* **252**: 87-95

<sup>10</sup> <http://www.bbc.co.uk/nature/humanplanetexplorer/environments/oceans#p00gxmg1>