



Carbon audit of Touring programme, 2015

European tours

Summary

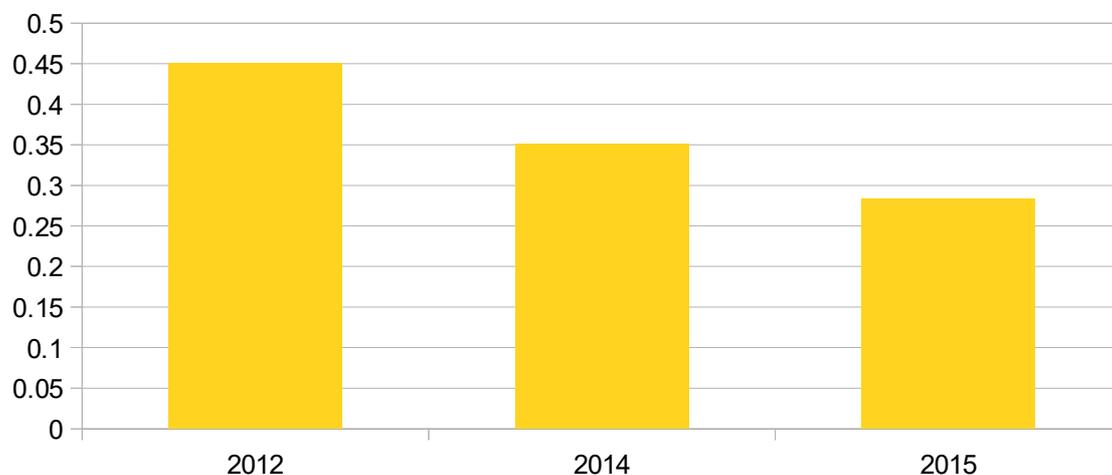
This is the third carbon audit of the ESC touring programme, and the second based on detailed information from tour leaders. We report here only on the tours to European destinations; a separate report covering remote tours will follow when we have all the data.

From the trips who submitted a report, the principal results for the 2015 European trips are as follows (with 2014 figures in brackets):

- *The mix of journeys was very similar to last year, with a solid majority of us (67%) of us travelling to tours by air (69%)*
- *25% of us made a low carbon journey (15%), with more rail travel and more "green" car journeys.*
- *17% of us offset our carbon emissions (7%)*

These last two factors meant that the average (net) carbon emission per tourer was reduced to about 280kg in 2015 (compared to the average net figure in 2014 of 350kg).

Fig.1: EUROPEAN TOURS
Net Carbon per tourer (tonnes)



Carbon Audit - approach

As for last year, we asked tour leaders to complete a short web-form for each tour, asking how members travelled for the return journey from home to the start of the tour. We tried to keep this as lightweight as possible, and leaders could complete the form online, send a paper or email summary later, or delegate it to a tour member. A big "thank you" is due to all those leaders and others who carefully collected the information.

This year, due to some unfortunate circumstances, leaders were not prompted as firmly as last year to return the form, and we had a lower return rate (44% compared to 67% in 2014). However, the returns included some of the more populous events on the programme, and we gathered data on more than 200 people, pretty well the same number as last year. This is a significant fraction of the total number of Eagle tourers, (better than 1 in 3) and we feel confident that this sample is reasonably representative of Eagles as a whole.

The rest of the report analyses the information that members have given us. The customary caution to give is that this process is not an exact science, but we are using as far as possible the same underlying models from year to year.

We shall be seeking feedback on how to improve the process for 2016.

Carbon Audit – overall results

The principal results from the survey are as follows (with 2014 figures given in brackets) :

- The mix of journey modes was similar to last year, with solid majority of us (67%) of us travelled to tours by air (69%)
- 25% of us made a low carbon journey (15%), with more rail travel and more "green" car journeys (equivalent emissions to four people in the car).
- An impressive 17% of us offset our carbon emissions (7%)
- These last two factors meant that the average (net) carbon emission per tourer was about 280kg in 2015 (350kg in 2014)

Results from our three surveys in 2012, 2014 and 2015 are shown in Fig.1, showing the net carbon per tourer for European tours. Some of this year-on-year improvement is from survey improvements, but a large part of it is due to people doing things differently.

In the sections below, we just look at the factors behind these results in a little more detail, and then draw some conclusions for next year.

Modes of travel

Fig.2 Modes of travel for European tours, 2015

No of members using each mode, 2014 figures shown hatched

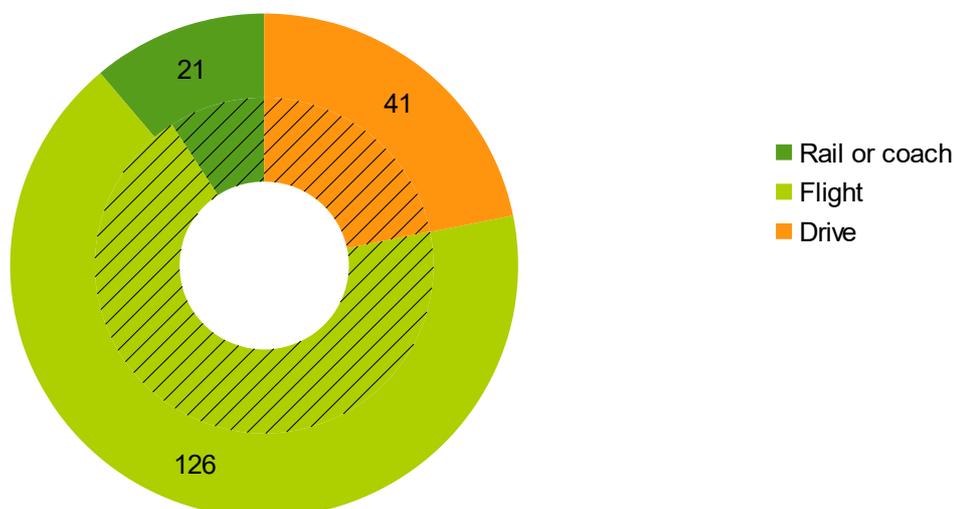


Fig. 2 shows a breakdown of the number of members by mode of transport. Not surprisingly, the great majority of us have travelled by air from the UK. About a quarter of members travelled by car, and this is discussed in more detail below. The figure also shows the corresponding result for 2014, in the inner hatched circle. The numbers for the two years are almost the same, with a modest increase in the number of rail passengers.

Comparison of travel modes

Figure 3 shows the average carbon emissions for the different modes of transport, and is based on the real data for the actual journeys made in 2015. The figure also shows the equivalent results for 2014. For instance, the figure for air journeys is slightly higher in 2015 because of a different mix of destinations to 2014.

There may be slight differences for rail journeys and air flights, but the broad comparisons are identical to last year. A return journey to a European destination that includes an air flight will emit nearly half a tonne of carbon, whereas a rail journey causes less than 50kg. That difference is seriously significant!

The biggest change from 2014 is a reduction in the average emission for car journeys, from a similar total number of journeys (Fig.2). We collected data this year to take more accurate account of the number of passengers AND the degree to which car journeys were "shared" over a number of weeks of skiing (or other activities). We weren't able to do this last year, so a fraction of this "decrease" may just be because we didn't previously ask the question!

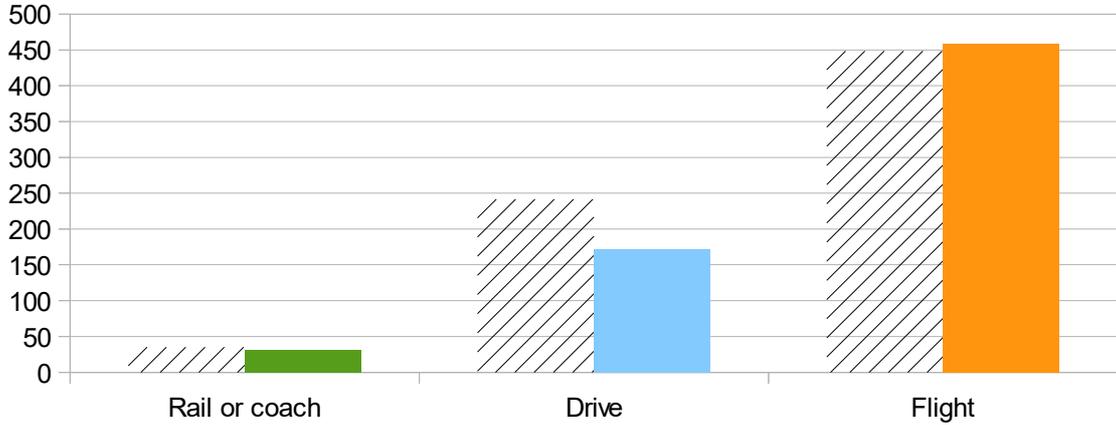
Also, cars vary enormously in their emissions, and this is reflected in vehicle taxation. A large car carrying only the driver can have a higher carbon cost than an economy flight. On the other hand, a more modest car with four passengers can emit less than 100kg for the return journey – though this is still two or three times that from travelling by rail.

We have considered collecting car emission data from drivers, to make the survey

more accurate. We decided in the end that it was better to keep the survey as simple as possible.

Fig.3 Comparison of different modes of travel

Average Carbon emission, kg per tourer, 2015
(2014 figures shown hatched)



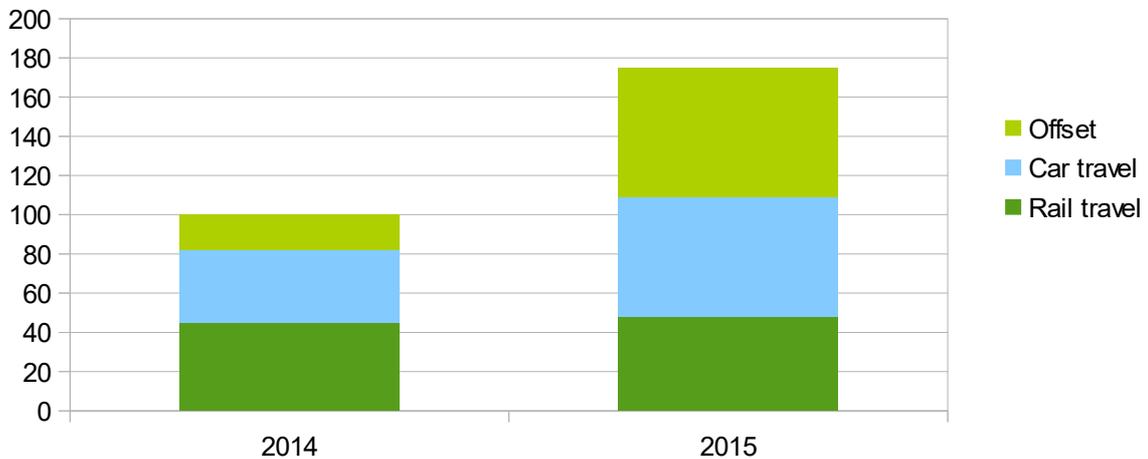
Discussion

The average carbon emission per tourer this last year was about 280kg, compared to an average for a journey including an air flight of about 460kg. This is good progress, but we want to keep on reducing this figure.

We can look to see how we have made progress by comparing the contributions to reducing the average from different factors (carbon offset, car journeys, rail travel), and this is shown in Figure 4 below. The contribution from rail travel is more or less the same, there has been a modest increase in the contribution from car journeys (more sharing) and a considerable increase from the purchase of carbon to offset (mainly for air travel).

Fig.4 Contributions to the reduced average

Reduction per tourer (kg)



Conclusions for 2016

We will be trying to reduce the club's average net carbon emissions further for the 2016 season, in the following ways:

Rail

The number of ski rail services is growing, especially to French and Swiss destinations. Both booking processes and the journey itself are getting simpler. The website advice will be simplified to reflect this, and publicised through the Newsletter.

Car travel

Encourage car sharing.

Carbon offsetting

The increase in the purchase of carbon for offsetting is an excellent step forward. Much of this was purchased through the Cochabamba credits purchased by the club, even though this had a low key launch. We can work to give this an even higher profile next season, through the following:

- **Tour leaders** – inform and suggest what they can do if they wish.
- **Remote trips** – encourage ALL remote trips to buy carbon credits to offset their emissions.

Steve Wright
Sept 2015

Climate Care, Eagles