

Candidate 2 Assignment – The effect of air pollution on lichen

The evidence for this candidate has achieved the following marks for each section of this course assessment component.

Section	Mark available	Mark awarded	Comments	
1. Aim	1	0	The aim must clearly describe what is to be investigated. The aim provided is not sufficiently specific, inferring pollution in general rather than air pollution.	
2. Underlying environmental science	3	3	A good understanding of relevant environmental science is demonstrated, with appropriate discussion of sources of emissions, impact of the emissions on human health and the environment, and the lichens themselves as indicator species.	
3. Data collection and handling	6	a	0	The description of the methodology incorrectly states that lichens were gathered, when it was information that was gathered. This information relates to the coverage of trees by three forms of lichen.
		b	1	The raw data from the fieldwork is sufficient, with three trees assessed at each of three sites. The average column of the table is considered in section 3(d).
		c	1	The fieldwork data is presented in a table which has appropriate headings. The lichen score is indicated to be based on the key provided in the report.
		d	0	The mean values (averages) from the fieldwork data have been calculated, but one of the calculated values is incorrect.
		e	1	A table of data relevant to the aim is included. The data was obtained from an internet source.
		f	1	A reference for the source of the data is included, referenced in sufficient detail to allow it to be retrieved by a third party.
4. Graphical presentation	4	a	1	A bar graph is selected, which is the correct format for this type of data.
		b	1	The x-axis labels and y-axis scale are all suitable.
		c	0	The y-axis label and unit (score) have been omitted.
		d	1	Minor gridlines have been omitted, but average values have been rounded and correctly plotted and are easily checked.

5. Analysis	1	1	A valid comparison is made between the fieldwork data and the secondary source of data.	
6. Conclusion	1	1	Information in the analysis section provides a valid conclusion linking types of lichens present and location-specific levels of pollution.	
7. Evaluation	2	1	The methodology for measuring the extent of the lichens on the trees is correctly identified as a factor which could be expected to have a significant impact on the accuracy of the fieldwork data. Minimising this factor by 'measuring' how much of each lichen type is present on the trees is not realistic.	
8. Structure	2	a	1	The title was informative.
		b	1	The report was clear and concise, and flowed in a logical manner.
Total	20	15		