General Information for the case study:

WRL reference	M02 D04	
Module	M02 Ecological Survey Techniques	
Data set	D04 Camera trapping to assess large mammal populations in Amazonia	
Research questions	1. Based on the camera trap sightings, how did the numbers of red brocket deer and ocelot present in the Pacaya-Samiria reserve change between 2009 and 2011? 2. How might the changes in the number of sightings of red brocket deer and ocelot be the result of the extreme high water levels during the flooded season of 2009?	
Keywords	Ecology; habitat; rainforest; **populations;** density dependent; predator prey; ecological sampling; **statistical testing; chi-squared; climate change; data handling**	
Potential Biology Curriculum links (UK)	**AQA**	3.2.1; 3.3.3; 3.4.1; 3.4.7; 3.5.1; 3.6.3; 3.7; 3.9
	edexcel	Unit 2; Unit 4; Appendix 10
	IB	Topic 1; Topic 5; TOK and extended essay.
	Camb. Pre-U	Section 5
	OCR	F212 - Mod 3; F215 - Mod 3
	WJEC	5.8
	SQA	Case studies; FH2j (3); H0AL; H0AM
	CCEA	2.2; 2.3; 4.4; Maths and Stats knowledge
Summary	Camera traps are used to assess the populations of red brocket deer and ocelot over a 2 year period in the Pacaya Samiria Nature Reserve in Peru and relate any observed changes to the unprecedented changes in flood levels. The first part of the study analyzes data for these two animals using the chi-squared statistical test to see if there has been any significant changes in population. Bar charts are also drawn. The second part of the investigation relates these significant changes to the possible effects of the floods on habitat and prey availability. This could also be widened to discuss the possible effects of climate change on animal populations. The data set also has some great camera trap photos which illustrate the wide biodiversity in these forests. **Difficulty:** **Research Q1 - chis-squared.: 6/10** **Research Q2 - possible cause and effects discussion : 6/10**	