



General Information for the case study:

WRL reference	M01 D02	
Module	M01 Ecosystems – Coral Reefs	
Data Set	D02 Variation in habitat quality between two Indonesian coral reefs	
Research questions	1. How does the habitat quality differ between the two study reefs (Pak Kasims and Kaledupa Double Spur)? 2. Is there evidence of increased human pressure or habitat deterioration at either of the reefs?	
Keywords	Biome; abiotic; biotic; coral; environmental monitoring; error bars; ecosystem; human effects; human activities; indicator species; over fishing; transect: sampling; standard deviation; standard error	
Potential Curriculum links for Biology	AQA	3.2.1; 3.2.11; 3.4.3; 3.4.6; how science works I & J
	edexcel	4.11; 7.3-11; 9.3-2; How science works - 5
	IB	Topic5; Option G.3
	Camb.Pre-U	Unit 5; App 3: Maths requirements.
	OCR	2.3.1; app. 2- 2 (e); 5.3.1
	WJEC	5.8; app 3 – handling data
	SQA	Case studies; FH2H (2); FH2J (2); HOAL; HOAM
	CCEA	2.2; 2.3; 4.4; Maths and Stats knowledge
Summary	<p>Two Indonesian coral reefs are compared using video footage taken along 6 transects. Keen students can do the full analysis of the raw data although data sheets are provided with the analysis completed. Video clips are provided for realism. The footage is then looked at for evidence of possible human activity. The analysis can be set at a number of different levels and includes plotting graphs, calculation of standard deviation and error and error bars. A ‘walk-through’ method on how research scientists actual analyze large sets of complex data is also provided and will appeal to the more able students who might be keen to carry out research as a career or at University.</p> <p>Difficulty: Research Q1 - 7/10 (lots of data to process) Research Q2 - 9/10</p>	

