# **EVOLUTION** OF AUSTRALIAN BIOTA

## Chapter 2 The evolution of Australian flora and fauna

### STUDENT ACTIVITY

Record your results in Table CD2.1. Table CD2.1 Summary of the Huxley–Wilber	force debate		Linked to page 275	
Society that hosted the debate:	Date on which it took place:		Where it was held:	
Guest speaker:	Topic of presentation:			
Issue being debated:			che debate had Darwin's work <i>pecies</i> ' been published?	
Famous insult:				
Was Darwin present at the debate?	Describe Darwin's reported reaction to Wilberforce's review:			
Comparison:	Samuel Wilberforce		Thomas Henry Huxley	
Position held in society and reason why he was present:				
Sector of society represented:				
Brief outline of point of view:				
Evidence from the debate to support point of view (at least three points for each speaker)	:			
Preparation for the debate:				
Contribution/response to the insult:				
Which of the two reportedly got the upper hand at the debate?				

To prepare your discussion of the debate, read articles that recount the debate and discuss any inconsistencies in how the debate has been recorded. (See websites that follow on the next page.)

Information consistent across sources:		
Aspect of information inconsistent across sources:	First example of an inconsistent aspect or deficient information	Second example of an inconsistent aspect or deficient information

Evaluate the reliability of at least two sources: note who the author of each is, the type of source and the scientific standing of the publication and try to distinguish between fact and opinion in each source. In the columns of sources, name the source, state whether the inconsistency is stated as a fact or opinion and, if it is an opinion, provide words used in the source to demonstrate that it is an opinion.

Evaluate sources:	Source 1:	Source 2:	Source 3:
Name of source and organisation from which it comes			
Scientific standing of the publication			
Author qualification/role played in debate by the author			
Evidence of fact/opinion (words that are evidence)			
Reason why author/source may have been biased			
Conclusion: reliability of source			

Putting it all together

Discuss the debate: look at recounts of the debate and discuss inconsistencies in how the debate is recorded. Explain why these inconsistencies arose.



Visit this website which includes the following quotes on the debate: http://chi.gospelcom.net/DAILYF/2001/06/daily-06-30-2001.shtml

'An American, Dr. Draper, was to speak on the "Intellectual Development of Europe Considered with Reference to the Views of Mr. Darwin". He spoke for an hour, and then other speakers took off on the theme. A number of churchmen were on the platform, among them Bishop "Soapy Sam" Wilberforce.'

'The agnostic Thomas Huxley had been coaxed into attending the meeting. Wilberforce, carried away with words, turned to Huxley with a mocking question. Was it through his grandfather or grandmother that he claimed descent from a monkey?'

'The audience called on Huxley. He rose with defiance. Explaining Darwin's key ideas, he exposed what he claimed was Wilberforce's ignorance and error. He would not be ashamed of a monkey in his ancestry, he said. He would be ashamed to be "connected with a man who used great gifts to obscure the truth." The crowd applauded. Wilberforce was humiliated.'



Visit this website for further information on the debate www.americanscientist.org/template/AssetDetail/assetid/25957#23922

'Unfortunately there is no verbatim account, although summary reports were published in journals such as *The Guardian, The Athenaeum* and *Jackson's Oxford Journal*. Four contemporary letters written within months give us clues: Joseph Hooker to Darwin on July 2, John Richard Green to Sir William Boyd Dawkins on July 3, Balfour Stewart to David Forbes on July 4 and Huxley to Henry Dyster on September 9, 1860. How pivotal that session of the British Association for the Advancement of Science was in terms of shifting the weight of popular and scientific opinion to an evolutionary viewpoint is as unclear as what was actually said. Also uncertain is the damage that it did to the clerical cause against Darwinism. But the stakes were high for both sides—at Oxford most of all.'

### **Answers**

 Table CD2.1
 Summary of the Huxley–Wilberforce debate—answers

Society that hosted the debate: British Association for the Advancement of Science	Date on which it took place: 30 June 1860	Where it was held: Oxford University Museum	
Guest speaker: Dr John W. Draper of New York University	<b>Topic of presentation:</b> 'Intellectual development of Europe considered with reference to the views of Mr Darwin.'		
Issue being debated: Darwin's ideas on the evolution of species	. 'On the Origin of	How long prior to the debate had Darwin's work ' <i>On the Origin of Species</i> ' been published? It was published in the previous year.	

#### Famous insult:

Several versions exist but, in summary, Wilberforce alluded to Huxley's descent from apes, to which Huxley replied that he would be less ashamed to have a monkey ancestry than to be connected with a man (implying a man such as Wilberforce) who uses his talents to obscure the truth.

Was Darwin present	Describe Darwin's reported reaction to Wilberforce's review:		
at the debate?	Darwin was impressed with Wilberforce's ability to 'quiz me [Darwin]		
No	so splendidly'.		

Comparison:	Samuel Wilberforce	Thomas Henry Huxley
Position held in society and reason why he was present:	He was Bishop of Oxford and the honorary vice president of the meeting (most attending were not impressed by his lack of scientific knowledge or understanding).	He was a professor and a friend of Darwin. He was persuaded by Robert Chambers (a previous debating opponent of Wilberforce) to attend.
Sector of society represented:	Religious view—'implacable foe of evolutionary ideas'.	Scientific view.
Brief outline of point of view:	He opposed the Darwinian view. He was 'strongly against a theory which holds possible that a man may be descended from an ape'.	He strongly supported the Darwinian point of view that living things evolved by natural selection.
Evidence from the debate to support point of view (at least three points for each speaker)	<ul> <li>He was 'strongly against a theory which holds possible that a man may be descended from an ape'.</li> <li>He though Darwin was a threat to Christianity.</li> <li>He could not accept that all things came from 'one prototype'.</li> <li>He did not actually deny there was a struggle for existence.</li> <li>He mentioned the absence of transitional forms.</li> </ul>	<ul> <li>'A willingness to accept, a pedigree not listed in the Herald's College.'</li> <li>Skilfully defended the structure of Darwin's argument.</li> <li>Darwin's explanation is 'a logical arrangement of facts'.</li> </ul>
Preparation for the debate:	Wilberforce already opposed evolutionary ideas but was not very well versed in the scientific facts.	Huxley was exhausted by argument over evolution the night before, but agreed to attend in support of friends. He was well versed in the scientific facts.
Contribution/response to the insult:	Contribution—he suggested that Huxley's ancestry was questionable if evolution was true.	Response—he suggest he would rather have 'questionable ancestry' than have an ancestor who used his debating talent to cover up the truth.
Which of the two reportedly got the upper hand at the debate?	Most accounts imply that Huxley got the upper hand in the debate.	