# Earth and Environmental Science - Preliminary COURSE Assessment Task: Research Task and podcast

Date to be completed: Monday 16<sup>th</sup> August, Week 6 Term 3 2021

Worth: 30%

### Outcomes to be assessed from the Syllabus:

Preliminary outcomes	A student:
EES 11-1	Develops and evaluates questions and hypotheses for scientific investigation
EES 11-3	Conducts investigations to collect valid and reliable primary and secondary data and information
EES 11-6	Solves scientific problems using primary and secondary data, critical thinking skills and scientific processes
EES 11-7	Communicates scientific understanding using suitable language and terminology for a specific audience or purpose
EES 11- 11	Describes human impacts on the Earth in relation to hydrological processes, geological processes and biological changes

This task will require you to conduct a second hand investigation on an introduced species found in since European settlement to answer the following inquiry question:

How do introduced species affect the Australian environment and ecosystems?

#### You will need to:

Write a report including appropriate diagrams and bibliography (max 8 pages including the bibliography)

- Conduct an investigation into an introduced species researching:
  - The reason for introducing the species
  - The biotic and abiotic effects of the species
  - The area affected by the species
  - The control or mitigation methods
  - The economic impact of the species
  - The ways in which the introduced species has contributed to the decline or extinction of native Australian species

Submit a podcast (max 3 minutes)

 Create a podcast about your chosen introduced species from the viewpoint of a selected stakeholder ie local politician, scientist or expert on the introduced species, a farmer or owner of a plant nursery or a journalist from a media organisation running a story on the outbreak. <u>Podcasts</u> are an audio platform designed to entertain or inform an audience about a subject in bite size chunks - right at our fingertips. The format of a podcast allows the creator to communicate with a given purpose or audience about their desired subject area. Scientists can communicate a scientific understanding of a topic in many ways. "While many of us may not be inclined to sit and read a 2000 word length article, many will listen to a Podcast while doing other tasks such as commuting to work or completing housework" (Forbes, 2018).

This task is designed to allow you to develop your skills in communicating scientifically. You are to create a PODCAST maximum 3 minutes. It needs to be submitted to your classroom teacher via the shared google classroom or other.

#### The Scenario

This scenario has been created to allow you to base your Podcast on the information that you researched. There has been outbreak of an introduced species. What introduced species? The introduced species you have researched and collected information on in the previous section.

There are concerns that a your introduced species has evolved and it will turn into an natural disaster.

You need to choose one and take the role of one of the following key stake holders:

- Local politician with an interest in informing the local community
- A Scientist or expert on the introduced species
- A farmer or owner of a plant nursery
- A Journalist from a media organisation running a story on the outbreak.
- Other of your choice (talk to your classroom teacher)

Your podcast should be given from the viewpoint of the stakeholder you have chosen. In your podcast you need to outline the role you (as the stakeholder) would play in preventing the introduced species from spreading and becoming a natural disaster.

Make sure that you respond to each point on page 1. For example, "The reason for introducing the species", explain this for your introduced species in your podcast.

Please familiarise yourself with the marking schedule and ensure that you address the criteria for both the report and the podcast.

## Bibliography

BOOKS				
	Year of publication in brackets	Title of book in italics	Name of publisher	
WEBSITES				
Author	Date published if available	Title of Article	Title of website in italics	From URL
	If no date available write (n.d.)			
MAGAZINES				
Author	Date	Title of Article	Name of Magazine	Volume, issue, pages
PERSONAL CONVERSATIONS AND EMAILS				
Person's name	Date	How you know them	Nature of communication	
VIDEOS, DVDS, TV SHOWS ETC				
Producer and writer / director or for youtube the person who uploaded video		Title and type of resource	Country and company producing video / or the URL	

Outcome	Α	В	С	D	E		
Report							
EES11-1 Develops and evaluates questions and hypotheses for scientific investigation	Effectively investigates each of the following factors for chosenintroduced species: - reason for introducing the species - biotic and abiotic effects of the species - area affected by the species - control or mitigation methods - economic impact of the species	Investigates each of the following factors for chosen introduced species: - reason for introducing the species - biotic and abiotic effects of the species - area affected by the species - control or mitigation methods - economic impact of the species	Investigates each of the following factors for chosen introduced species to varying degrees - reason for introducing the species - biotic and abiotic effects of the species - area affected by the species - control or mitigation methods - economic impact of the species	Mentions how each of the following factors for chosen introduced species: - reason for introducing the species - biotic and abiotic effects of the species - area affected by the species - control or mitigation methods - economic impact of the species	Little to no information.		
	10- 9 marks	8- 7 marks	6- 5 marks	4- 3 marks	2- 0 marks		
EES11-3 Conducts investigations to collect valid and reliable primary and secondary	Bibliography contains only references cited in text and diagrams  5 marks	Bibliography contains references cited  4- 2 marks			References cited not listed in bibliography  1- 0 marks		
data and information	Demonstrates extensive	Demonstrates thorough	Demonstrates sound	Demonstrates basic			
EES11-6 Solves scientific problems using primary and secondary data, critical thinking skills and scientific processes	knowledge and understanding of ways in which the introduced species has contributed to the decline or extinction of native Australian species	knowledge and understanding of ways in which the introduced species has contributed to the decline or extinction of native Australian species	knowledge and understanding of ways in which the introduced species has contributed to the decline or extinction of Native Australian species	knowledge and understanding of ways in which the introduced species has contributed to the decline or extinction of Native Australian species	Little to no information.		
μισοσοσσο	All claims effectively backed with valid evidence 10- 9 marks	Most claims effectively backed with valid evidence 8-7 marks	Makes some effort to back up claims with valid evidence 6- 5 marks	Evidence used to back up claims lack validity 4- 3 marks	2- 0 marks		
EES11-7 Communicates scientific understanding using suitable language and terminology for a specific audience or purpose	Well-written scientific report withcontinuity of thought/argument throughout text Use of appropriate scientificterminology	Well-written scientific report withcontinuity of thought  Use of scientific terminology and conventions	Structured scientific report  Basic use of scientific terminology and/ or conventions  Secondary sourced information is used text of	Basic scientific report  Basic use of terminology and/ or conventions  Background information is used text of report	Basic report		

Report	and conventions  Secondary sourced information is paraphrased and seamlessly incorporated into text  Appropriate illustrations and diagrams are used	Secondary sourced information is paraphrased into text of report  Illustrations and diagrams are used to explain information	report  Illustrations and diagrams are used to explain information	An appropriate illustration is used in the report	
	to explain information.  10- 9 marks	8- 7 marks	6- 5 marks	4- 3 marks	2- 0 marks
EES11-7 Communicates scientific understanding using suitable language and terminology for a specific audience or purpose Podcast	The delivery of podcast is logical and coherent AND the podcast has a clear structure.  Includes a clear introduction and conclusion  Volume of voice, music, and effects enhance the presentation AND podcast is recorded in a quiet environment without background noise.  Well-rehearsed, smooth delivery in a conversational style  Expression and rhythm engage the listener.  Highly effective enunciation and presenter's speech is clear and intelligible.	The delivery of podcast is logical AND the podcast has a clear structure.  Includes an introduction and conclusion  Volume of voice or music, or effects enhance presentation AND podcast is recorded in a quiet environment  Well-rehearsed delivery in a conversational style  Expression or rhythm engage the listener.  Highly effective enunciation and presenter's speech is clear and intelligible.	The delivery of podcast is logical with structure.  Includes an introduction and/ or conclusion  Volume of presentation is considered and background noise is present but low  Delivery is flat  Listener's engagement wanes  Speech is not always clear	The podcast has structure Only introduction or conclusion Volume of presentation is uneven, background noise is distracting Delivery is flat and unrehearsed Listeners engagement has not been considered Speech can be difficult to understand	Basic podcast
	10- 9 marks	8- 7 marks	6- 5 marks	4- 3 marks	2- 0 marks

Total: /45

Feedback: