APES: Invasive Species Video Cane Toads: An Unnatural History



Name:	Period:	
1. What threatened the sugar cane cro	<b>op</b> in the 1930's?	
2. What did Australians decide to do to	about the threatened sugar cane	crop? Why?
3. What is the term used to describe the proceeding egg laying and fertilization	1 0 1	
4. How many eggs can a female cane to	oad lay?	
5. What is the <b>life cycle</b> of a cane toad?	?	
6. Were the Cane Toads efficient at eat:	ing the Cane Grubs and Beetles?	Why or why not?
7. Where are the glands in the cane toa	ad that <i>produce the toxic material</i>	located?
8. What is an alternative use of the Car	ne Toad's toxin?	
9. What is the maximum penalty you c Toad?	can receive for carrying the drug f	from the Cane
10. How do Cane Toads kill fish?		

11. *Explain* how you feel the Cane Toad has changed the ecosystem of Australia.

## APES Practice Free Response Question (FRQ) (on a separate piece of paper)

1. *Invasive species* are one of the most serious threats to *indigenous (native) species*. One particularly damaging example is that of the **Cane Toad (***Bufo marinus***).** 

The Cane Toad is a native animal of South and Central America. In the early 1900's, cane toads were widely exported in an effort to use them as a biological control against beetles infesting sugarcane crops. In 1935, about 100 cane toads were shipped from Hawaii to Gordonvale, in northern Queensland. However, there had not been an adequate assessment of whether the toad would be able to do the job it had been imported for, and after the release it was found that the toad could not control the insects. Instead, it quickly established itself as another pest animal.

Today, ecologists are studying the impact of the toads on the natural environment of Australia. By understanding the way in which the toads interact with other forms of life, ecologists hope they can find a way to eradicate this terrible pest.

- (a) Describe **TWO** physical or behavioral adaptations that allow the cane toad to gain competitive advantage over populations of native species.
- (b) Describe **TWO** characteristics of a community that causes it to be more susceptible to an invasive species.
- (c) Explain how a nonnative species is introduced into a habitat or community. Do all nonnative species become invasive species? Support your answer.
- (d) How do invasive species threaten biodiversity? Discuss **ONE** strategy to control the cane toad. **Include the consequence or limitations of this strategy.**
- (e) Name **TWO** other introduced species and their location in the world where they have become an invasive species. How have each of these species impacted the habitats they have invaded?

## When answering an FRO remember to:

- 1. write in complete sentences
- 2. write legibly and number your answers (1a, 1b)
- 3. No abbreviations
- 4. Answer the whole question
- 5. Details, Details, Details
- **6.** Support your answers with <u>examples</u>
- 7. Minimum of 3 quality sentences per answer (do not repeat the same thing three different ways)
- 8. Answer all of the questions- don't leave anything blank. Try to write **something** you know about the topic if you are unsure.
- 9. Assume you are writing to someone that doesn't know anything about the subject- don't leave out details- cover all aspects of the topic.