

# **TEACHERS RESOURCES**

# THE ILLUSTRATED ENCYCLOPAEDIA OF FXTINCT ANIMALS Sami Bayly

# **Teachers Resources by Robyn Sheahan-Bright**

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# INTRODUCTION

Discover the incredible features of some of the natural world's most fascinating extinct and critically endangered animals in the latest gorgeously illustrated encyclopaedia from award-winning author and illustrator Sami Bayly.

Pore over beautifully detailed illustrations of some of the most fascinating extinct and critically endangered animals in the natural world. Discover how these species fit into the history of the animal kingdom and why they have become extinct or are under threat.

Featuring facts and astonishing illustrations about sixty amazing animals, including the Western black rhino, thylacine, dodo, South Island giant moa and Tapanuli orangutan, as well as megafauna such as the giant wombat-like diprotodon and the crocodile-like Quinkana.

Children and adults alike will wonder at the contribution these animals have made to the natural world while being reminded of the importance of wildlife conservation.

# **THEMES & CURRICULUM TOPICS**

Several themes and curriculum topics (for primary school students) are covered in this book which might be related to areas covered under:

'Australian Curriculum' < http://www.australiancurriculum.edu.au/

### **SCIENCE**

#### **EXTINCT ANIMALS**

In her introduction, Sami Bayly writes: 'Extinction is not an unusual phenomenon. In fact, 99 per cent of species that have ever roamed the earth are now extinct. Most prehistoric animals no longer exist due to five mass extinction events that happened over a 540-million-year period. Research continues to this day to discover the exact conditions that caused the 'Big Five', but each one was the result of catastrophic events like cooling climate, volcanic eruptions or, in the case of dinosaur extinction, an asteroid colliding with the planet 65 million years ago. Today, the rate at which species are becoming extinct is thought to be 1000 to 10 000 times higher than the natural extinction rate. Hunting, overfishing, habitat destruction, pollution, climate change and the introduction of invasive species are all modern causes of extinction. If we aren't careful, the sixth mass extinction event could be a result of human choices and actions.' (p 7)

Sami Bayly further states that 'with over 900 species having been classified as extinct since 1500, and over 44 000 species threatened with extinction, it's vital we do our part to help conservation efforts while we still have the opportunity.' (p 7)

Each animal in this text is covered under the same headings: **Description**, **Extinction Status**, **Location/Habitat**, **Diet** and **Fun Facts**.

**Activity:** After you have finished studying this book, use these same headings to research another extinct animal which has not been included in this book.

**Activity:** Create a slogan and a poster aimed at educating the public about a particular extinct or critically endangered animal.

**Activity:** Study other books which focus on extinct animals and compare them to this one. [See **Bibliography**.]



**Activity:** Quiz students regarding the scientific names of some of these animals. e.g. What is a *Diceros bicornis longipes*? Answer: Western black rhinoceros.

Activity: Which of the animals in this book are critically endangered rather than extinct?

**Discussion Point:** Several animals native to Australia are extinct – for example, diprotodon. Research extinct Australian animals.

#### THE LIFE CYCLES AND HABITATS OF EXTINCT ANIMALS

**Activity:** Study the life cycles of any of the animals in this book. How long was their average lifespan prior to their species becoming extinct? Where did they live, what did they eat and how did they survive?

**Activity:** Study the **Geological Time Scale** and identify when exactly these animals roamed the earth.

**Activity:** Study how each of these extinct animals employed unique **survival skills** in order to avoid predators, or how they were predators themselves, prior to their extinction.

**Activity:** Which of the animals in this book employed **camouflag**e to protect themselves? Research the four main types of camouflage: concealing coloration, disruptive coloration, disguise and mimicry. [See 'Animal Camouflage: PowerPoint Lesson' *K5 Technology Lab* <<u>https://oakdome.com/k5/lesson-plans/multi-media/look-again-camouflage/index.php</u>>] Apply what you have learned to your research into extinct animals.

**Activity:** Research any other **special skills or features** which these extinct animals developed for finding food, protecting their territories and surviving harsh conditions. Why weren't these skills enough to save them from extinction?

### **HUMANITIES & SOCIAL SCIENCES (HASS)**

<<u>https://www.australiancurriculum.edu.au/f-10-curriculum/humanities-and-social-sciences/</u> hass/>

#### **ENDANGERED WILDLIFE AND CONSERVATION**

**Discussion Point:** Read the following quote about some of the continuing threats to wildlife that have made other species extinct, and then discuss:

'The three subspecies that have gone extinct are the Caspian tiger, Bali tiger and Javan tiger. Sadly, their stories are the same: illegal poaching, poisoning and habitat loss caused them to become extinct. Even today, it is these same actions that are causing the remaining tiger species to drastically decline in number, which is why it's important that changes are made to prevent further extinctions from happening.' (p 18)

**Discussion Point:** Research the many threats to species globally. Read books such as Jeannie Baker's *Circle* (2016), which highlights the incredible journey made by the godwit and how that is threatened by multiple human interventions. Create a summary list of the species you have discovered.



#### **CLIMATE CHANGE**

**Activity:** 'Climate change' is a hotly contested subject between advocates arguing for the need to address climate change and deniers arguing that human beings have had no impact on biodiversity. The IFAW recently published an article suggesting that climate change 'affects at least <u>10,967 species</u> on the IUCN Red List, and projections suggest that if global temperatures increase by 2°C by 2100, about <u>18% of all species on land</u> will face a high risk of going extinct. More sensitive animals will fare even worse, with over <u>30% of insect pollinators and salamanders</u> facing high risks in this projection.' [See 'Which animals are most impacted by climate change?' *IFAW*, https://www.ifaw.org/au/journal/animals-most-impacted-climate-change. Research the role that climate change has had in the extinction of any animal. For example, the Bramble Cay melomys (*Melomys rubicola*), also known as the Bramble Cay mosaic-tailed rat, is a rodent that recently went extinct due to climate change. Write an essay outlining your findings.

**Activity:** Research the population decline, or critically endangered status, of any animal mentioned in this book, with regards to scientists having discovered the impact of climate change on that animal.

**Discussion Point:** How should our governments be responding to climate change in order to combat it?

#### HUNTING VERSUS PROTECTION OF WILDLIFE AND MORAL ISSUES

**Activity:** Some animals are considered so valuable that despite the fact hunting them is prohibited, they are still illegally poached for the products they yield. Research this topic further as a class, as well as ways in which humans can help to stop illegal wildlife trade.

**Activity:** Some animals (such as the Rocky Mountain locust or the thylacine) were considered pests because they destroyed crops; others were regarded as a danger to humans, and therefore faced efforts to eradicate them. How can we balance an animal's right to live with their effect on our human ecosystem?

#### VALUES

**Discussion Point:** Discuss the key values conveyed in this text.

### **ENGLISH LANGUAGE & LITERACY**

https://www.australiancurriculum.edu.au/f-10-curriculum/english/

The text of this book might be studied in relation to the following aspects:

**Activity:** The entries on each extinct animal are written in third person as expository texts. Invite students to write an expository text about any other animal which doesn't feature in this book, and which they have researched. There are different types of expository writing – e.g. descriptive, sequential, cause/effect, etc. [See **Bibliography**.] [See also **Visual Literacy** exercise below.] [See also **Worksheet 2** below.]

Activity: Test your students' comprehension by asking them questions about the written text. [See also **Worksheets 4, 5, 6** and **7**.]

Activity: Invite students to write an acrostic poem using the letters in 'Quinkana'.



**Activity:** After reading other published poems about extinct animals, write a lyrical poem about an extinct or endangered animal. [See **Bibliography**.]

**Activity:** The collective nouns for some of the animals in this book are included in the text. Discover other such collective nouns. [See **Worksheet 9**.]

**Activity:** Read picture books about extinct animals. Then invite students to write a simple cumulative text as the basis for a picture book about an extinct animal of their choosing. [See **Bibliography**.]

### VISUAL LITERACY

<https://www.australiancurriculum.edu.au/f-10-curriculum/the-arts/visual-arts/>\_

The visual text in this book has been created by a natural history illustrator, and she artfully combines it with her written text to illustrate features of the various animals described.

**Activity:** The **cover** of the book depicts a number of extinct animals. Identify each of them. What does this cover suggest to you about the book's content? Which elements convey the message that Sami Bayly expresses in her introduction?

Activity: The title page is without images. Draw an appropriate image for this page.

**Discussion Point:** The **format** of the book is standardised, with an image on a page either before or after an expository text. Illustrate the expository text you wrote. [See **English Language & Literacy** exercise above.] Make a display of the texts and images created by each student. You can also copy them and make them into a class book.

**Activity:** The **medium** employed is watercolour. Sami has studied natural history illustration and uses a careful drawing style to document the features of each of these animals. Sami says: 'I am inspired by artists like William T. Cooper, Bernard Durin and other natural history illustrators, after seeing their work whilst growing up'. Research natural history illustration and study the work of other artists in this field. Then create your own detailed sketch of the animal you have written about in the exercise above.

Activity: Create a collage image of a bubal hartebeest in its habitat. [See Worksheet 1 below.]

**Activity:** Encourage students to use critical literacy skills to unearth further meaning in this text by looking closely at the images and explaining what they see, and then explaining what the text says and how the two texts add meaning to each other. [See also **Worksheet 3**.]

**Activity:** Invite students to illustrate the cumulative picture book animal story they wrote under **English Language & Literacy** above. [Discuss the conventions of the picture book format before embarking on this exercise.]

#### **CREATIVE ARTS**

There are many creative activities suggested by this text: **1. Craft:** Make a **model** of any of the animals included in this text, e.g. Sunda pangolin. [See **Bibliography**.]

2. Craft: Create an extinct animal mobile. [See Worksheet 8.] [See Bibliography.]

**3. Craft:** Create a **mask of an extinct animal** using appropriate materials such as hair, feathers, etc.

4. Games: Invite students to play board games which feature extinct creatures. [See Bibliography.]

**5. Craft: Create a diorama** depicting a woolly mammoth in its habitat. [See **Bibliography** for relevant resources.]

6. Script: Create a book trailer to promote this book. [See Bibliography for relevant resources.]

### **LEARNING TECHNOLOGIES**

Activity: Research topics suggested in these notes online.

### **MATHEMATICS**

**Activity:** Investigate mathematical facts about these animals, such as the rate at which their population diminished before becoming extinct, etc.

# CONCLUSION

This is a companion to Sami Bayly's earlier books, *The Illustrated Encyclopaedia of Ugly Animals*, *The Illustrated Encyclopaedia of Dangerous Animals* and *The Illustrated Encyclopaedia of Peculiar Pairs in Nature*. It is similarly precisely and beautifully illustrated, and carefully researched, while it provides tribute to some of the animals that have become extinct or are critically endangered.

Sami Bayly's work honours these amazing animals as a reminder to human beings to treasure the species that currently exist and endeavour to ensure that further species are not lost.

# **ABOUT THE AUTHOR/ILLUSTRATOR**

**Sami Bayly** is a natural history illustrator based in Newcastle, NSW, who loves all things weird and wonderful. She finds beauty and importance in all animals regardless of their appearance, and hopes to share her appreciation with others.

Sami's first book, *The Illustrated Encyclopaedia of Ugly Animals*, won the Children's Indie Book of the Year Award and the Australian Book Design Award for Younger Readers. It was a CBCA Honour Book and was shortlisted for an ABIA Book of the Year for Younger Children and longlisted for the ABA Booksellers' Choice 2020 Book of the Year Awards. Her second book, *The Illustrated Encyclopaedia of Dangerous Animals*, was a CBCA Honour Book, an ABIA Book of the Year for Younger Children, won an Australian Book Design Award for Children's Non-Fiction Illustrated Book and was shortlisted for the Children's Indie Book of the Year 2021. *The Illustrated Encyclopaedia of Peculiar Pairs* was a CBCA Honor Book, won a CBCA Sun Project Shadowers' Choice Award and The Wilderness Society Environment Award for Children's Literature, and was longlisted for Children's Indie Book of the Year Award. Sami's most recent books are *How We Came to Be: Surprising Sea Creatures* and *How We Came to Be: Creatures of Camouflage*, which was longlisted for the CBCA Eve Pownall Award.

To keep up to date, you can follow Sami on Instagram: https://www.instagram.com/samibayly



# **ABOUT THE AUTHOR OF THE NOTES**

**Dr Robyn Sheahan-Bright AM** operates justified text writing and publishing consultancy services, and is widely published on children's literature, publishing history and Australian fiction. In 2011, she was the recipient of the CBCA (Qld Branch) Dame Annabelle Rankin Award for Distinguished Services to Children's Literature in Queensland; in 2012, the CBCA (National) Nan Chauncy Award for Distinguished Services to Children's Literature in Australia; and in 2014, the QWC's Johnno Award. In 2021, she was appointed a Member of the Order of Australia.

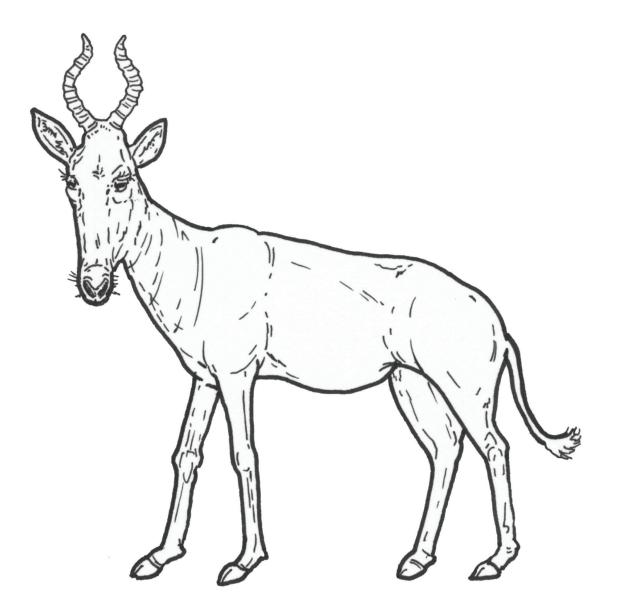




# WORKSHEETS

### WORKSHEET 1. CREATE A COLLAGE OF A BUBAL HARTEBEEST

Enlarge this image to A3 size on a photocopier and then encourage students to use a range of detailed materials, colours and textures to achieve a collage effect.





### WORKSHEET2.CREATEANALPHABETOFOTHEREXTINCT ANIMALS

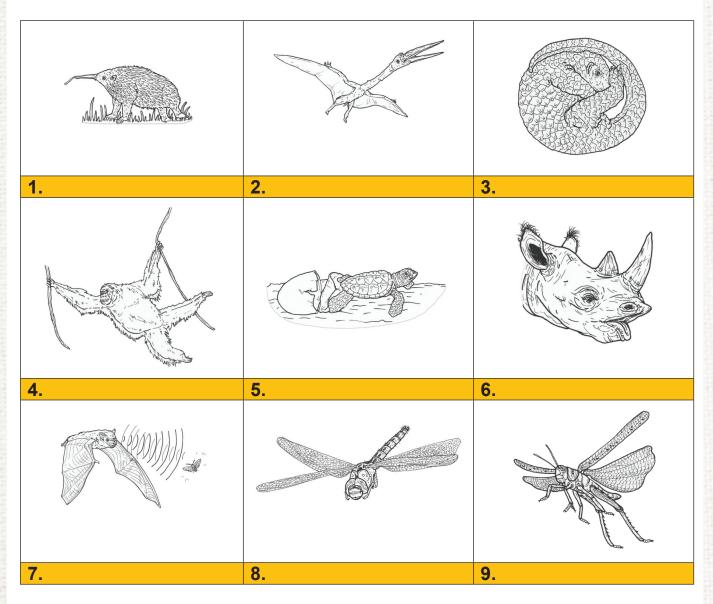
Find extinct animals that don't appear in this book and write one 'interesting fact' beside them. (Enlarge this sheet to A3 on a photocopier to give you more space.)

|   | Extinct Animal                  | Interesting Fact |
|---|---------------------------------|------------------|
| Α |                                 |                  |
| В | e.g. Bramble Cay melomys        |                  |
| С |                                 |                  |
| D | e.g. Desert bettong             |                  |
| Е |                                 |                  |
| F |                                 |                  |
| G |                                 |                  |
| Н |                                 |                  |
| I |                                 |                  |
| J |                                 |                  |
| Κ |                                 |                  |
| L |                                 |                  |
| Μ |                                 |                  |
| Ν |                                 |                  |
| 0 |                                 |                  |
| Ρ |                                 |                  |
| Q |                                 |                  |
| R |                                 |                  |
| S |                                 |                  |
| Т |                                 |                  |
| U |                                 |                  |
| V |                                 |                  |
| W | e.g. Western rufous bristlebird |                  |
| X |                                 |                  |
| Υ |                                 |                  |
| Ζ |                                 |                  |



# WORKSHEET 3. IDENTIFY THIS EXTINCT ANIMAL

Name these animals, each of which is included in this book.



**Answers: 1.** Hackett's giant echidna **2.** Quetzalcoatlus **3.** Sunda pangolin **4.** Tapanuli orangutan **5.** Hawksbill sea turtle **6.** Western black rhino **7.** Christmas Island pipistrelle **8.** Griffinfly **9.** Rocky Mountain locust



### WORKSHEET 4. EXTINCT ANIMALS (GENERAL) QUIZ

- 1. What are the nine categories the IUCN lists for extinction risks?
- 2. How many species of skink are there in the world?
- 3. What does the term 'apex predator' mean?
- 4. What are arthropods?
- 5. What is the heaviest insect in the world today?
- 6. Why did some insects become so large during the Carboniferous period?
- 7. What is a monotreme?
- 8. What does 'extinct in the wild' mean?
- 9. What ability did Pterosaurs evolve?

10. On the geological time scale, in which period did the diprotodon, giant ground sloth, glyptodont, Hackett's giant echidna, megalania, Navassa rhinoceros iguana, Quinkana, sabre-toothed cat and woolly mammoth live?

**Answers: 1.** The IUCN's categories for extinction risks are: not evaluated, data deficient, least concern, near threatened, vulnerable, endangered, critically endangered, extinct in the wild and extinct. (p 7) **2.** There are around 1500 species of skink in the world, with 320 of them living in Australia alone. (p 25) **3.** An apex predator is on the top of the food chain and faces no threats from other animals. (p 33) **4**. They are 'animals with segmented bodies and exoskeletons but no backbones. Modern arthropods include lobsters, crabs, spiders, centipedes and insects.' (p 38) **5.** It is 'the giant wētā, a New Zealand/Aotearoa species of flightless cricket. It can reach weights of 70 grams, which is only a tiny fraction of how heavy giant millipedes were!' (p 38) **6.** It is 'thought that giant insects were able to grow to such huge sizes because of a lack of large predators and the abundance of oxygen in the air during the Carboniferous period.' (p 45) **7.** They are 'egg-laying mammals, like the modern-day echidna and platypus.' (p 49) **8.** This classification denotes animals that have existed only in captivity for some time. (p 77) **9.** They were 'the first animals after insects to evolve the ability of powered flight.' (p 82) **10.** The Pleistocene period. (Both the giant ground sloth and the woolly mammoth also lived into the Holocene period.)



## WORKSHEET 5. EXTINCT ANIMALS (SPECIFIC) QUIZ

Each of the questions below relates to one of the 60 animals in this book.

- 1. What purpose do the wrinkles on an African forest elephant have?
- 2. The black mamo (a nectar-eating honeycreeper bird) was found where?
- 3. When did the bluebuck or blue antelope become extinct?
- 4. What does the name of the bubal hartebeest mean?
- 5. How did the bulldog rat on Christmas Island become extinct?
- 6. The Caspian tiger is one of three tiger species that are now extinct. What are the others?
- 7. What was the paddle-like extension on the face of the Chinese paddlefish used for?
- 8. What caused the Christmas Island pipistrelle to become extinct?
- 9. What distinguishes the Christmas Island whiptail skink from other reptiles in Australia?
- 10. How large was the extinct Delcourt's giant gecko?
- 11. What distinguished the diprotodon from other marsupials?

12. The dodo fell prey to animals introduced by Dutch sailors visiting Mauritius. How long did it take them to become extinct?

- 13. How is it thought that Dunkleosteus, the giant fish, became extinct?
- 14. What does the name of the critically endangered crocodile, the gharial, mean?
- 15. How big was the giant ground sloth?
- 16. How large was the prehistoric giant millipede?
- 17. Why was the glyptodont, an ancient relative of the Armadillo, hunted by humans??
- 18. What Old Norse name did the great auk, a flightless bird, have?
- 19. What distinguished the griffinfly from other flying insects?
- 20. Where did the giant Haast's eagle live?

Answers: 1. 'They can store pockets of water after going for a dip or being rained on. This way they can stay cooler for longer.' (p 9) 2. Moloka'i, one of the six major islands of Hawai'i. (p 10) 3. Around 1800 (p 13) 4. ""Bubal" translates to "buffalo" in Greek. "Hartebeest" comes from the Dutch words for "deer" and "beast".' (p 14) 5. 'Black rats were introduced to the island by sailors in 1899, and the disease-ridden fleas that lived in their fur soon spread to bulldog rats.' (p 17). **6.** 'The three subspecies that have gone extinct are the Caspian tiger, Bali tiger and Javan tiger.' (p 18) **7.** 'This amazing body part, known as a rostrum, was adapted to enable the paddlefish to sense electricity in other creatures through the many tiny cells that covered it.' (p 21) 8. 'Species such as the giant centipede and yellow crazy ant introduced to their habitat might have had a hand in their decline.' (p 22) 9. 'This skink is Australia's first reptile to go extinct since colonisation.' (p 25) 10. It was 'the size of a small house cat.' (p 26) 11. It is 'the largest marsupial to have ever lived.' (p 29) 12. 'The dodo was first described by Dutch sailors in 1598 and the last bird is thought to have been seen in 1688.' (p 30) 13. 'Because of an event called the Devonian mass extinction, which wiped out up to 80 per cent of all species on earth at the time.' (p 33) 14. It 'comes from the word "ghara", which is a traditional mud pot in Pakistan and India, because the end of the male crocodile's snout is often compared to the water-storing pots.' (p 34) 15. 'Around 3.5 metres tall, weighed 4000 kilograms and had 18-centimetre-long claws.' (p 37) 16. It was 'known to have weighed 50 kilograms and grown as long as 2.6 metres - that's approximately the length of a car!' (p 38) 17. 'Early people used glyptodonts' giant shells for protection and shelter after killing them and eating their meat.' (p 41) 18. "Geirfugl", which means "spearbird" in Old Norse (the language spoken by Vikings).' (p 42) 19. 'The griffinfly was the largest flying insect to have ever lived.' (p 45) 20. It 'lived on the South Island of New Zealand/Aotearoa, including on Stewart Island.' (p 46)



## WORKSHEET 6. EXTINCTANIMALS (SPECIFIC) QUIZ (CONT.)

21. What distinguished the Hackett's giant echidna from other monotremes?

22. How do scientists imagine that Hawksbill sea turtles know to return to the same beaches where they were born to lay eggs?

- 23. What made the teeth of the helicoprion shark so interesting?
- 24. Why is the name of an Irish elk so misleading?
- 25. The Japanese river otter was found where until extinction by 1979?
- 26. What has critically endangered the kakapo, found in Aotearoa/ New Zealand?
- 27. Why are Kangaroo Island assassin spiders also known as pelican spiders?
- 28. The Lake Pedder earthworm became extinct due to what very local human intervention?
- 29. What led to the extinction of laughing owls in New Zealand/Aotearoa from 1914?
- 30. How large were the megalania, an ancient species of monitor lizard found in Australia? 31. What does the name 'minmi', a species of dinosaur that lived in Australia, derive from?
- 32. Where did the Navassa rhinoceros iguana live?
- 33. What curious way did the northern gastric-brooding frog give birth?
- 34. Passenger pigeons used a technique called 'predator satiation' to survive prior to becoming extinct. What was it?
- 35. The Polynesian tree snail is a hermaphrodite, which means what?
- 36. What animal was the pugnacious wedge-seal closely related to?
- 37. Where did the quagga derive its name from?
- 38. What distinguished the Quetzalcoatlus from other animals?
- 39. The Quinkana was one of the last land-dwelling crocodiles from what area in what country?
- 40. Why was the Réunion starling sometimes known as the hoopoe starling?

(p 50) 23. They had 'spiral jaws, called "tooth whorls". It is believed each tooth had a different function depending on where it sat in the spiral.' (p 53) 24. Because 'this animal wasn't exclusively found in Ireland and it wasn't even an elk!' (p 54) 25. They 'used to be widespread in Japan, but due to hunting, their range decreased to just Shikoku Island.' (p 57) 26. Because 'they're the only flightless parrot in the world', introduced predators can easily prey on them. (p 58) 27. 'Because the shape of their head and jaws resembles a pelican's head and beak.' (p 61) 28. The one location in which these earthworms could be found was flooded in 1972 to create a hydro-electric dam.' (p 62) 29. 'Habitats were significantly impacted through grazing and burning. On top of that, animals like weasels and ferrets were introduced to control a rabbit plague and these animals also preyed on laughing owls." (p 65) **30.** They 'could grow to over 6 metres in length.' (p 66) **31.** 'From Minmi Crossing in Queensland, where their fossils were found.' (p 69) **32.** Navassa Island, 'a small, 5.2-square-kilometre island between Jamaica and Haiti.' (p 70) **33.** It gave birth out of its mouth. (p 73) **34.** In such large flocks, 'predators would become overwhelmed and unable to damage the overall flock.' (p 74) **35.** It 'has both male and female sex organs.' (p 77) 36. "Double tusk" walruses, also known as dusignathines. Despite this, they still maintain the 'seal' in their name.' (p 78) 37. 'The name "quagga" is onomatopoeic and is thought to come from the sound these animals made - 'kwa-ha-ha'. It is also the word the Khoikhoi people of South Africa use for zebra.' (p 81) 38. 'It 'is the largest flying animal to have ever lived'. It grew 'to 3.6 metres tall, with a colossal wingspan of up to 12 metres.' (p 82) 39. Queensland, Australia. (p 85) 40. 'Because scientists mistakenly believed it was a kind of hoopoe ... extravagant-looking birds with fan crowns, not unlike the Réunion starling's crest.' (p 86)



**Answers:** 21. It had 'a spiky body, weighed around 30 kilograms and was around 1 metre long. It is the biggest monotreme to have ever lived.' (p 49) 22. Scientists 'believe it could have something to do with the phases and position of the moon or with magnetic fields.'

## WORKSHEET7.EXTINCTANIMALS(SPECIFIC)QUIZ(CONT.)

41. What is the origin of the scientific name for Ridley's stick insect, Pseudobactricia ridleyi?

42. Destructive swarms of the Rocky Mountain locust could consist of up to how many locusts?

43. The sabre-toothed cat is one of the Smilodon genus known as Smilodon fatalis. How many Smilodon species are there?

44. How rare are the critically endangered saolas found in the Annamite Mountains on the border of Laos and Vietnam?

45. Sloan's urania possessed a coloration that warded predators away from their toxic insides. What was it called?

46. Where can the critically endangered southern corroboree frog be found?

47. The southern pig-footed bandicoot became extinct due to land clearing and the introduction of foreign predators, as well as what other factor?

48. Why was the South Island giant moa unable to fly?

49. What does the 'extinct in the wild' South American bird the Spix's macaw eat?

50. What uses did human beings make of the Steller's sea cow apart from eating their meat?

- 51. Sunda pangolins are poached for meat and for what other product?
- 52. Tapanuli orangutans are threatened by deforestation for the production of what?
- 53. What does the name of the thylacine mean?
- 54. The giant snake the Titanoboa was as big as what vehicle?
- 55. How crucially endangered is the small species of porpoise known as the vaquita?
- 56. The western black rhinoceros shared a mutualistic relationship with what bird?
- 57. What two threats have made the western lowland gorilla critically endangered?
- 58. The white swamphen was found on what island?

59. Why have scientists been able to locate so many specimens of the extinct woolly mammoth, some 30,000 years old or more?

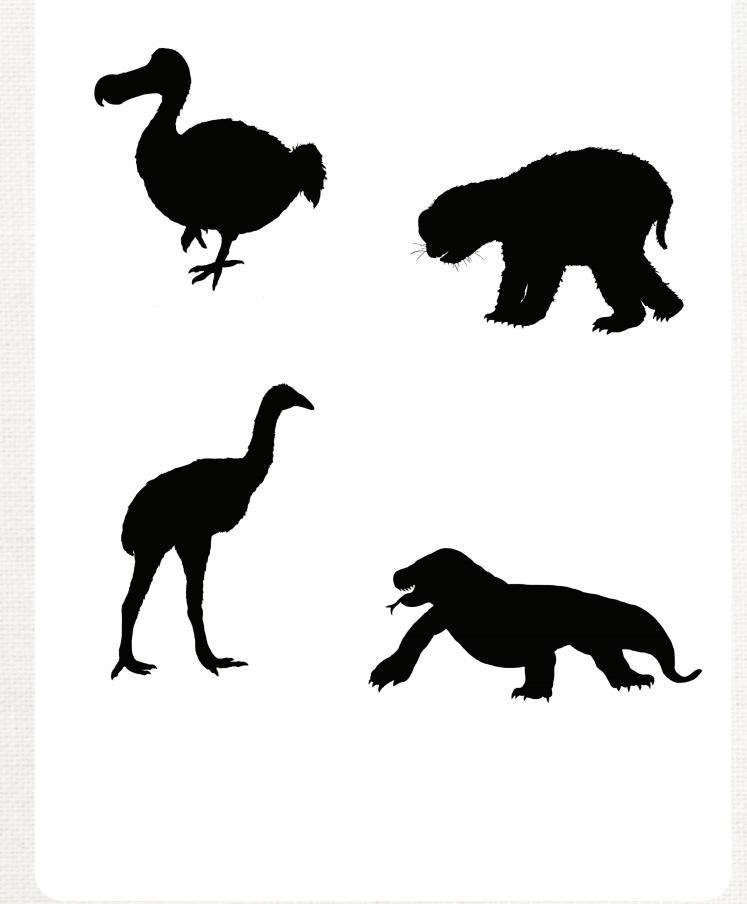
60. Which two invasive predators led to the extinction of the Yunnan lake newt?

Answers: 41. The root of "bactricia" means "little stick". 'This stick insect's scientific name actually translates to "false little stick".' (p 89) **42.** '12.5 trillion locusts' (p 90). **43.** Three – '*Smilodon populator, Smilodon gracilis* and *Smilodon fatalis*.' (p 93) **44.** They are the 'rarest large animal in the world.' (p 94) **45.** Aposematism (p 97). 46. They live 'in an area no bigger than 45 square kilometres in Kosciuszko National Park in New South Wales, Australia.' (p 98) 47. As 'Europeans took over land previously cared for by First Nations people, the practice of cultural burning was stopped. When grasslands were burned, it gave the bandicoots a fresh food source and new places to reside.' (p 101) 48. These 'giant moas couldn't fly because they had no trace of wings at all.' (p 102) 49. 'Spix's macaws are granivores and frugivores, meaning they predominantly eat seeds and fruits.' (p 105) 50. Their 'milk was made into butter, their blubber into oil and their skin into leather ... the hunters even used the hides to cover their boats.' (p 106) 51. 'They are considered the most trafficked animal in the world and their scales alone have been known to sell for hundreds of dollars, as they are considered to have medicinal properties.' (p 109) 52. Palm oil (p 110) 53. It means 'dog-headed pouched one', referring to the fact that thylacines are marsupials.' (p 113) 54. They were 'around the length of a school bus and weighed about as much as a small car.' (p 114) 55. 'Vaquitas are sadly the rarest marine mammal in the world, with only ten remaining.' (p 117) 56. The 'red-billed oxpecker.' (p 118) 57. 'Poaching for their meat and skins, and diseases like the Ebola virus.' (p 121) 58. Lord Howe Island (p 122). 59. They've been very well preserved 'because they were found in frozen ground, which slowed the process of decay.' (p 125) 60. 'American bullfrogs and grass carp.' (p 126)



### WORKSHEET 8. EXTINCT ANIMAL MOBILE

Enlarge this sheet to A3 size and stick it on craft paper. Invite students to cut out the animals, then attach them to fishing line and hang them from a straw, a metal hanger or an embroidery hoop to create an extinct animal mobile. [See 'How to Make a Mobile' *Wikihow* <<u>http://www.wikihow.com/Make-a-Mobile</u>>]



### WORKSHEET 9. EXTINCT ANIMALS COLLECTIVE NOUNS

This book records that:

The collective noun for a group of rats is a 'colony'. 'Bulldog rats lived in small colonies around the island.' (p 17)

The collective name for a group of passenger pigeons was a 'flock' (p 74).

The collective noun for a group of locusts is a 'swarm' (p 90).

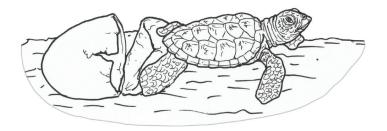
The collective noun for a group of gorillas is a 'troop' (p 121).

Try to discover the collective nouns for the following animals: **1.** A ... of woolly mammoths.

2. A ... of western black rhinos.

- **3.** A ... of laughing owls.
- 4. A ... of sabre-toothed (wild) cats.
- 5. A ... of quaggas (zebras).
- 6. An ... of dodos.
- 7. An ... of moas.
- 8. A ... of crocodiles.
- 9. A ... of Caspian tigers.
- 10. A ... of Hawksbill sea turtles.

<u>Answers</u>: 1. herd 2. crash 3. parliament 4. destruction 5. herd or dazzle 6. extinction 7. extinction 8. bask, float or nest. 9. streak or ambush 10. bale, dole or nest.





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