

# Nature and Environment Myth-Busting

Natural Science · Answer Key · 20 Questions

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**1. Despite the myth that ostriches bury their heads in sand to hide, what is their actual observed behavior when threatened or incubating eggs?**

- A) They lie flat against the ground to blend in
- B) They rotate their eggs or check the earth for predators**
- C) They dig holes to cool their feet
- D) They enter a state of hibernation

**2. The persistent conspiracy that 'chemtrails' are chemical agents sprayed by aircraft ignores the science of contrails. At what minimum altitude and temperature are contrails primarily formed?**

- A) Above 5,000 meters and below -10°C
- B) Above 8,000 meters and below -40°C**
- C) Above 2,000 meters and below 0°C
- D) Above 10,000 meters and below -50°C

**3. While some believe bats are blind, which suborder of bats possesses well-developed vision and uses it for navigation in addition to echolocation?**

- A) Microchiroptera
- B) Vespertilionidae
- C) Megachiroptera**
- D) Molossidae

**4. The 'lemming mass suicide' myth originated from a 1958 Disney documentary. What is the actual cause of lemming population 'crashes'?**

- A) Deliberate altruistic population control
- B) Extreme weather patterns and food scarcity
- C) Migration attempts that fail due to physical exhaustion**
- D) Predation by arctic foxes during mass dispersal

**5. Many believe that goldfish have a three-second memory. Studies by researchers like Dr. Culum Brown have shown that goldfish can retain information for how long?**

- A) Up to 3 months**
- B) Up to 1 hour
- C) Up to 24 hours
- D) Up to 1 week

**6. The urban legend that human scent makes mother birds abandon their chicks is false. What is the biological reason for this lack of abandonment?**

- A) Birds have a highly developed sense of smell for social bonding
- B) Most birds have a poorly developed sense of smell**
- C) Birds lack the neurological capacity to reject offspring
- D) Birds rely on UV vision rather than olfactory cues

**7. It is often rumored that lightning never strikes the same place twice. What is the geological reality regarding lightning strikes on tall structures?**

- A) They strike the same structure multiple times per storm**
- B) They only strike granite-based formations
- C) They are repelled by metal shielding
- D) They strike randomly with no structural preference

**8. Some theorists claim the 'Great Pacific Garbage Patch' is a solid island of trash. What is its actual physical state?**

- A) A massive, dense floating landfill
- B) A diffuse soup of microplastics and suspended debris**
- C) A concentrated area of abandoned fishing nets only
- D) A collection of sunken industrial waste on the seafloor

**9. The myth that bulls are enraged by the color red is debunked by bovine biology. Which physical cue actually triggers a bull's charge during a bullfight?**

- A) The specific wavelength of red light
- B) The movement and agitation of the cape**
- C) The smell of the matador's perfume
- D) The high-pitched sound of the audience

**10. It is a common misconception that polar bears have clear fur. What is the actual color of their hair shafts?**

- A) Transparent and hollow**
- B) Pure white
- C) Translucent and solid
- D) Off-white and pigmented

**11. While often claimed to be 'relics' of a past world, which of the following is scientifically classified as a living fossil due to its lack of morphological change?**

- A) The Platypus
- B) The Coelacanth**
- C) The Komodo Dragon
- D) The Giant Panda

**12. The belief that owls are the wisest birds is a cultural construct. Which bird species actually demonstrates the highest cognitive problem-solving ability in controlled studies?**

- A) Great Horned Owl
- B) Common Raven**
- C) Barn Owl
- D) Peregrine Falcon

**13. Conspiracy theories regarding 'crop circles' often ignore human intervention. What botanical evidence characterizes genuine human-made crop circles?**

- A) Stalks that are cleanly cut or snapped at the base**
- B) Stalks that show evidence of radiation mutation
- C) Stalks that have undergone cellular expansion
- D) Stalks that are permanently bent at high-pressure angles

**14. Some claim that wolves howl at the moon. What is the actual reason for communal wolf howling?**

- A) Reflecting moonlight to improve nocturnal hunting
- B) Communication to identify territory and rally the pack**
- C) To signal the arrival of prey
- D) Response to the gravitational pull on pack behavior

**15. The myth that daddy longlegs (harvestmen) are the most venomous spiders in the world is incorrect. Why is this claim factually impossible?**

- A) They are not spiders and lack venom glands**
- B) They are spiders but have fangs too small to penetrate human skin
- C) Their venom is specific to plants
- D) They have no venom production capability

**16. The 'Great Lakes' water level mystery is often linked to occult theories. What is the actual scientific driver of lake level fluctuations?**

- A) Underground volcanic activity
- B) Net basin water supply (precipitation minus evaporation)**
- C) Large scale oceanic shifting
- D) Artificial diversion by deep-state entities

**17. Some believe that earthworms 'come up for air' during rain to avoid drowning. What is the primary evolutionary reason for this surface emergence?**

- A) To facilitate migration across surfaces
- B) To avoid ultraviolet radiation
- C) To escape carbon dioxide buildup in soil**
- D) To search for higher-quality food sources

**18. The 'perpetual motion' conspiracy in biology often points to the heart. What is the energetic reality of cardiac function?**

- A) It requires constant external glucose and oxygen input**
- B) It operates via a zero-point energy vacuum
- C) It functions on stored magnetic potential
- D) It is a self-sustaining system independent of systemic blood flow

**19. Contrary to the myth that chameleons change color for camouflage, what is their primary trigger for color shifting?**

- A) Ambient temperature and light intensity
- B) Social signaling and emotional state**
- C) Mimicry of background texture
- D) Subconscious reaction to predators

**20. The misconception that sharks have no bones is widely held. What is their skeleton actually composed of?**

- A) Flexible chitinous structures
- B) Hardened fibro-cartilage**
- C) Ossified calcium phosphate
- D) Compressed collagenous fibers