Pennsylvania Envirothon Forestry Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What method should be avoided to ensure the prevention of invasive tree pests?

A. Burning firewood on-site

B. Bringing firewood from home

C. Purchasing local firewood

D. Using heat-treated wood

2. Which tree produces burrs as its fruit?

A. Red Oak

B. American Chestnut

C. Eastern Hemlock

D. White Ash

3. What effect do Emerald Ash Borers have on infected trees?

A. Only cause aesthetic damage

B. Girdling and death of branches and entire tree

C. Encourage new growth

D. Make trees more resilient

4. Where do Northern Fence Lizards spend most of their time?

A. In sandy burrows underground

B. On the ground in shrubby areas

C. In trees where they hunt and find safety

D. In open fields basking in the sun

5. How many eggs can a female Asian longhorned beetle lay?

A. 30 eggs

B. 60 eggs

C. 90 eggs

D. 120 eggs

6. Where do eastern box turtles typically burrow during the summer?

- **A. Underwater**
- **B. In rocks**
- **C. In logs or rotting vegetation**
- **D. In dense brush**

7. How are the stripes on a northern coal skink described?

- **A. Four pairs of light stripes with no dark bands**
- **B. Two pairs of light stripes enclosing a dark band**
- **C. Only one light stripe down the back**
- **D. No stripes at all**

8. What is the geographical range of eastern box turtles?

- **A. Most of California, from Oregon to Texas**
- **B. Most of Pennsylvania, from Maine to Georgia**
- **C. Primarily in Florida and Texas**
- **D. Only in the northeastern United States**

9. What color is the body of the Broadheaded Skink?

- **A. Gray to black**
- **B. Brown to olive-brown**
- **C. Striped green**
- **D. Peach to cream**

10. Are Broadheaded Skinks more active during the day or at night?

- **A. Day**
- **B. Night**
- **C. Early morning only**
- **D. Any time**

Answers

1. B
2. B
3. B
4. C
5. C
6. C
7. B
8. B
9. B
10. A

Explanations

1. What method should be avoided to ensure the prevention of invasive tree pests?

A. Burning firewood on-site

B. Bringing firewood from home

C. Purchasing local firewood

D. Using heat-treated wood

Bringing firewood from home is a method that should be avoided to prevent the spread of invasive tree pests. Firewood can harbor various insects and diseases that are often not visible to the naked eye. When firewood is transported long distances, it can introduce these invasive species into new areas where they may not have previously existed. This movement of pests can lead to devastating effects on local ecosystems, forestry, and agriculture. Using firewood obtained locally minimizes the risk because it typically comes from the same area, reducing the chance of introducing non-native pests. Burning firewood on-site or using heat-treated wood helps in controlling existing pests and pathogens. Heat treatment, for example, effectively kills many insect pests and diseases, making it a safer alternative. Therefore, avoiding the practice of bringing firewood from home is crucial in protecting native forests and their associated wildlife from invasive species.

2. Which tree produces burrs as its fruit?

A. Red Oak

B. American Chestnut

C. Eastern Hemlock

D. White Ash

The American Chestnut is the tree that produces burrs as its fruit. Burrs are spiny husks that encase the nuts which the American Chestnut produces. This characteristic, along with the tree's historical significance in American forests, makes the identification of the American Chestnut quite distinct. When the burrs mature, they split open to reveal one to three shiny, brown nuts, which were once a vital food source for wildlife and humans alike. In contrast, the other trees listed do not produce burrs. The Red Oak produces acorns, the Eastern Hemlock has small cones, and the White Ash produces seeds enclosed in a winged structure. Understanding the different reproductive structures of these trees is essential in forestry and ecological studies, especially when identifying species based on their fruits and seeds.

3. What effect do Emerald Ash Borers have on infected trees?

A. Only cause aesthetic damage

B. Girdling and death of branches and entire tree

C. Encourage new growth

D. Make trees more resilient

The correct answer highlights the severe impact that Emerald Ash Borers have on infected trees. These invasive pests lay their eggs on the bark of ash trees, and upon hatching, the larvae burrow into the tree and feed on the inner bark and vascular tissue. This feeding process disrupts the tree's ability to transport nutrients and water, effectively girdling the tree. This occurs when the larvae create extensive tunnels that cut off the necessary flow of sustenance, leading not only to the death of branches but ultimately to the death of the entire tree if the infestation is severe and not managed. As a result, infected trees exhibit a decline in health, vitality, and can eventually die, making the emerald ash borer a significant threat to ash tree populations.

4. Where do Northern Fence Lizards spend most of their time?

A. In sandy burrows underground

B. On the ground in shrubby areas

C. In trees where they hunt and find safety

D. In open fields basking in the sun

Northern Fence Lizards are typically found in wooded or shrubby environments, where they can take advantage of both hunting opportunities and safety from predators. While they are indeed known for their ability to climb and may spend time in trees, the primary context in which these lizards are often observed is on the ground amidst vegetation. This allows them to effectively hunt insects and find refuge from threats. Their habitats are generally characterized by a mix of sunlit areas where they can bask and shaded spaces to escape the heat or danger. Although they may utilize trees for climbing and safety from ground predators, they primarily engage in their daily activities on the ground. Therefore, this understanding of their behavior and habitat use points to the fact that Northern Fence Lizards exhibit a preference for spending most of their time not exclusively in trees but rather in a combination of ground and low shrub areas where they can thrive.

5. How many eggs can a female Asian longhorned beetle lay?

A. 30 eggs

B. 60 eggs

C. 90 eggs

D. 120 eggs

The female Asian longhorned beetle can lay a significant number of eggs, typically around 90. This high reproductive capacity is an essential aspect of their life cycle, as it allows the population to grow rapidly, which can lead to severe ecological impacts when they invade new areas. The larvae that hatch from these eggs are wood-borers, and their feeding habits can lead to significant damage to hardwood trees, posing a threat to forest ecosystems. Understanding the reproductive habits of the Asian longhorned beetle is critical for managing and controlling their populations effectively, as each female's ability to produce a large number of offspring contributes to the species' potential for disruption in affected regions.

6. Where do eastern box turtles typically burrow during the summer?

A. Underwater

B. In rocks

C. In logs or rotting vegetation

D. In dense brush

Eastern box turtles often burrow in logs or rotting vegetation during the summer months. This behavior is beneficial for several reasons. The decaying organic material provides a moist and cooler environment compared to the heat of the surface, helping the turtles regulate their body temperature. Additionally, logs and decomposing plants offer shelter from predators and harsh weather conditions. The structure of decayed logs can create microhabitats that are rich in moisture and provide foraging opportunities, making these locations ideal for resting and hiding from the intense summer heat. This habitat selection is crucial for the turtles' survival and reproductive success, as it enables them to conserve energy and remain safe during the warmer months.

7. How are the stripes on a northern coal skink described?

A. Four pairs of light stripes with no dark bands

B. Two pairs of light stripes enclosing a dark band

C. Only one light stripe down the back

D. No stripes at all

The northern coal skink is characterized by its distinctive color pattern, which includes two pairs of light stripes that run along its body, enclosing a darker central band. This striking coloration serves not only an aesthetic purpose but may also play a role in camouflage, helping the skink blend into its environment. The presence of these stripes, rather than being absent or simple in design, contributes to its identification and understanding of its behavior in natural habitats. Examining the other patterns mentioned—such as having no stripes or just one stripe down the back—clarifies that these features do not match the northern coal skink's typical appearance. The light stripes paired with a dark band create a unique visual signature that is essential for recognizing this species in the field.

8. What is the geographical range of eastern box turtles?

A. Most of California, from Oregon to Texas

B. Most of Pennsylvania, from Maine to Georgia

C. Primarily in Florida and Texas

D. Only in the northeastern United States

The eastern box turtle is primarily found in the eastern United States, and its geographical range does indeed extend from Maine in the north down to Georgia in the south, including most of Pennsylvania. This wide distribution allows them to inhabit a variety of environments, such as forests, grasslands, and wetlands, as well as urban areas. The eastern box turtle prefers habitats that provide sufficient cover and access to water, making states within this range suitable for their lifestyle. The other choices do not accurately represent the range of eastern box turtles; for instance, they are not found predominantly in California or exclusively in southern locations like Florida and Texas. Additionally, limiting their range to only the northeastern United States fails to acknowledge their presence in a broader swath of eastern territories.

9. What color is the body of the Broadheaded Skink?

A. Gray to black

B. Brown to olive-brown

C. Striped green

D. Peach to cream

The body of the Broadheaded Skink is typically brown to olive-brown, which allows it to blend into its forested and leaf-littered environment. This coloration provides essential camouflage from predators and helps it be less noticeable while hunting for insects and other small prey. The shades of brown and olive-brown can also vary among individuals, depending on habitat and environmental factors, but the overall appearance tends to skew towards this color range. This adaptive coloration is a significant aspect of the skink's survival strategy in its natural habitat. Other color options do not accurately reflect the typical appearance of this species, making brown to olive-brown the most suitable description.

10. Are Broadheaded Skinks more active during the day or at night?

A. Day

B. Night

C. Early morning only

D. Any time

Broadheaded Skinks are indeed diurnal, meaning they are primarily active during the day. This activity pattern is beneficial for thermoregulation and foraging, as they can bask in the sunlight to maintain their body temperature and hunt for insects and other small invertebrates more effectively when visibility is good. Being active during daylight hours also allows them to avoid some nocturnal predators. Although Broadheaded Skinks might exhibit some activity in the early morning or late afternoon when temperatures are milder, their main period of activity aligns with the daytime, making them adept at navigating their environment and finding food while using natural light to their advantage. Other activity patterns, such as being nocturnal or only active in early morning, do not accurately describe their behavior, reinforcing the understanding that their daily rhythms follow the sun.