

1999 Missouri Envirothon Wildlife Station

Wildlife

W1. Before settlement, much of northern Missouri was tallgrass prairie. Would you describe this planted native grass site as a good representation of pre-settlement prairie?

Circle one: Yes No

Explain your selection:

The site lacks the native forb and legume diversity of native prairies.

W2. According to Aldo Leopold, referred to by many as the father of conservation, why is his statement, diversity is stability true regarding plant and animal relations:

Diverse plant populations provide a variety of different forage opportunities, that if for some weather related reason, a certain plant does not produce well, another plant can fill its need for wildlife.

W3. Name two native grasses and two native legumes you might find on a native tallgrass prairie site:

Grasses – big and/or little bluestem, indiagrass, switchgrass, sideoats gramma, eastern gama grass

Legumes – leadplant, catsclaw sensitive briar, prairie clover, slender lespedeza, senna, pencil flower, Partridge pea

W4. Why are legumes (native or domestic) so important to bobwhite quail and other ground nesting birds?

Legumes attract many insects, which are crucial to a young bird's diet and legume green matter provides needed moisture for the birds.

Soils

S1. Native prairies left a legacy of fertile, rich black soil. Choose one answer as to why this is true:

- A. Over 50% of the plant mass of many tallgrass prairie grasses are below the soil surface
- B. Roots decomposed and regenerated in the soil, thus adding organic matter
- C. The diversity of flora supported a rich diversity of fauna in the soil
- D. All of the above
- E. None of the above

S2. What community would you expect to find where, at 1 foot, deep gray mottles are present in the soil horizon and above this in the soil horizon orange rust colored areas exist:

- a. an oak/hickory forest
- b. a glade community
- c. a dry prairie
- d. a wetland
- e. a deep lake

S3. Soil surface disturbance by disking or fire affects plant composition that develops on the site during the growing season?

True False

S4. In general, annual plants produce less seed and are deeper rooted than perennial plants?

True False

Forest

F1. The bark of shagbark hickory can be an important habitat element of:

- A. pileated woodpecker
- B. gray bat
- C. collared lizard
- D. eastern bluebird

F2. Missouri's state bird is: (select one) a or b

- A. Mostly found nesting in the interior of overstocked dense forest
- B. Mostly found nesting in more open landscapes, near woodland edges adjacent to grasslands

F3. What is Missouri's state bird?

Eastern bluebird

F4. The white oak group takes one year to produce a mature acorn and the red oak group takes two years to develop mature acorns. If your woodland management objective is to produce wild turkey habitat, choose the correct management scenario. When thinning the woodland:

- A. Remove most of the red oak
- B. Remove most of the white oak
- C. Leave an equal balance of red and whiteoaks
- D. None of the above.

Briefly explain your reasoning for the selection you made in question #4

If for some reason there is a failure of acorn production in any given year for one of the oak groups, the other oak group is more likely to provide this valuable mast crop.

Aquatics

A1. Bobwhite quail obtain much of their water requirements from insect and green plant material, and therefore a pond is not an essential element for their survival?

True False

A2. Although ponds are not a typical wetland, a pond can provide an important element towards the life cycle of many migratory ducks. Select the most likely element that a MO pond might provide for many migratory ducks:

- A. nesting habitat
- B. breeding habitat
- C. resting habitat

A3. Name 3 mammals you might find frequently swimming in the waters of a Missouri pond.

Beaver, muskrat, river otter

A4. What type of wildlife might a small fishless pond be of value too?

- A. Amphibians
- B. Birds
- C. Mammals

Briefly explain why you chose what you did.

Many fish species are predators of amphibians. A fishless pond eliminates this, thus allowing more young amphibians to mature.

A5. Shallow water around pond margins and in a pond's tailwaters can produce more diverse plant communities, than deeper water. If water level management capabilities exist for the pond, plant diversity in the shallows can be enhanced by:

- A. Lowering the water depth early in the season (even eliminating it) and then gradually allowing the water to re-flood these areas in early fall.
- B. Maintaining a stable water level over these shallows from beginning to end of the growing season.