

ANSWER KEY

UNLESS OTHERWISE STATED, ALL QUESTIONS ARE WORTH 1 POINT

SECTION 1:

1. *Triadica Sebifera* (1pt if both genus and species are correct)
2. Benjamin Franklin shipped this into America as an ornamental and was to be cultivated for seed oil (1 pt for mentioning brought in as ornamental, 1 pt for cultivation for seed oil)
3. The sap in the leaves and the berries is poisonous and can harm animals if consumed. The prairie chicken population has been especially devastated. (1 pt for sap, 1 pt for berries)
4. The seed coat can be used in soap making, and the plant can also be used to make honey. (1 pt for soap, 1 pt for honey)

SECTION 2:

1. Giant Hogweed
2. Umbel (3 pts)
3. None of the above (2 pts)
4. 1 pt-Skin contact will cause phytophotodermatitis (or lime disease)
1 pt-skin contact will result in blisters (or burning)
1 pt-blisters as a result of increased sensitivity to UV light
1 pt-lack of treatment will result in hypopigmentation or hyperpigmentation on the skin

SECTION 3:

1. 0.21 (4 pts, 3 if answer is not rounded correctly)
2. 1 pt-The index would increase
1 pt-the amount of species is the same (+1 pt if mentions species richness)
1 pt-the species evenness increases (+1 pt if mentions relative abundance)
1 pt-the species abundance stays the same for all species except for the clubbed

tunicate, which decreases

SECTION 4:

1. Witchweed
2. It is parasitic
3. Annual
4. 1 pt-forces the plant to germinate
1 pt-seeds die b/c there are no plants around
1 pt-is done using ethylene gas
1 pt-doesn't remove all the seeds from soil
1 pt-treatment is considered expensive

SECTION 5:

- a) 2
- b) 8
- c) 5
- d) 9
- e) 6
- f) 7

- g) 4
- h) 3
- i) 1

SECTION 6:

1.

1 pt- Acclimatization societies are societies that tried to bring nonnative species to other areas

1 pt-they wanted nonnative species to become established in the wild

1 pt-brought over many species that became invasive

BONUS +1 if mentions Eugene Schlieffen

2.

1 pt-gives definition of a niche

1 pt-gives example of invasive that outcompetes native species

3.

1 pt-a ruderal species is a species that first colonizes disturbed land.

1 pt-ruderal species tend to have fast reproduction rates, which allows them to outcompete other species and become invasive.

4. Carbamates (2 pts)

5. Plant species are able to rapidly increase in distribution and abundance because they lose natural enemies upon introduction to a new area. (2 pts)

6.

2 pts-An island tends have more empty niches

2 pts-there tends to be less predators/natural enemies on an island

SECTION 7:

- 1. D
- 2. D
- 3. Convention on Biological Diversity (2 pts)
- 4. When an animal helps disperse seeds (2 pts)
- 5. 6,500
- 6. The Secretary of the Interior

SECTION 8:

- 1. *Pterois volitans*
- 2. Indo-Pacific (Ocean)
- 3. Every 2-4 days
- 4. Grunts, snapper, grouper, cleaner shrimp, fairy basslet, bridled cardinalfish, white grunt, bicolor damselfish, wrasses, striped parrotfish, dusky blenny, etc.
- 5. False
- 6. White Spotted Jellyfish

SECTION 9:

- 1. Purple Loosestrife
- 2. 1 pt-It is expensive/impractical
1 pt-it doesn't destroy the root system
- 3. Coleoptera
- 4. Any number around 2 million

5. Cattails, any wetland plant
6. 1 pt-forms dense monotypic stands
1 pt-is unsuitable for cover/food for wetland animals so food will be more scarce

SECTION 10:

1. Whitenose bat syndrome
2. No
3. It hitches on clothing when people go into infected caves
4. Big brown bat (*Eptesicus fuscus*), Eastern small-footed bat, Gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), Little brown bat (*Myotis lucifugus*), Northern long-eared bat (*Myotis septentrionalis*), Tricolored bat (*Perimyotis subflavus*)
1 pt for 1 species--give no more than 3 pts, -1 pts for each incorrect species but don't deduct more points than given
5. 68°F (±5)
6. hibernate

SECTION 11:

1. Soybean Cyst Nematode
2. North Carolina
3. juvenile
4. Either Phytophthora root rot, Pythium root rot, or Cythindrocladium black root rot (red crown rot)
5. Female
6. A few inches/year

SECTION 12:

1. A is Zebra mussel, B is quagga
2. B
3. Carried by ballast water
4. Invasional Meltdown
5. 3-5
6. Cupronickel alloys

SECTION 13:

1. Caulerpa
2. D
3. 1 pt-forms dense monotypic stands and smothers other plants and invertebrates
1 pt-outcompetes other species for food and light
1 pt-releases the toxin caulerpenyne
4. California
5. Bryopsidales
6. Fragments of it can regenerate, and can disperse when the plant is cut down (2 pts)