2004 California Envirothon
Wildlife Test
100 Points
Suggested Time To Complete This Test - 35 Minutes

Please write your team number on the top of each page. You may unstaple the test and work on the questions in any order; however, pages should be returned to the correct order when the test is turned in. You may chose to split your team and work on several questions at once or work on them together. Please show all work or thought processes, as you may receive partial credit.

1. Skull and Feeding Habits Identification:

A) Identify the skulls on the table numbered 1 - 5 using the names in the list below. Write the number of the skull, the animal's name, and whether that animal is an herbivore, carnivore, or omnivore. **(20 points)**

Black Bear	Badger	Mule Deer
Raccoon	Pocket Gopher	Striped Skunk
Opossum	Ground Squirrel	Grey Fox
Long-tailed Weasel	Bobcat	Coyote
Harbor Seal	Mountain Lion	

Skull Number   Animal Name   Carnivore/Herbivore/Omnivore?

a) _____   _____   _____

b) _____   _____   _____

c) _____   _____   _____

d) _____   _____   _____

e) _____   _____   _____

B) Identify the skulls on the table numbered 6 – 8 using the names in the list below. Write the number of the skull, the animal's name, and whether that animal is a granivore, insectivore, piscivore, or carnivore. **(12 points)**

Western Sandpiper	Great Blue Heron	Long-billed Curlew
Mallard	Brown Pelican	Pigeon
Cliff Swallow	House Finch	Hawk

<u>Skull Number</u>	<u>Bird Name</u>	<u>Typical Feeding Mode (granivore, insectivore, piscivore, or carnivore)</u>
a) _____	_____	_____
b) _____	_____	_____
c) _____	_____	_____

2. What are the items labeled 9 and 10? What type of animals did they come from and why were they cast? **(6 points)**

3. Draw a diagram of a food web showing at least 4 trophic (feeding) levels, labeling producers, decomposers, primary and other consumer levels, and which are herbivores, carnivores, etc. incorporating but not limited to the following organisms: fungi, earthworms, termites, vultures, foxes, mice, rabbits, pines, doves, snakes, cougar, grasses, deer, owls, and squirrels. Use arrows to show the associations among the organisms at one trophic level and the next. **(10 points)**
(Reference: http://www.planetpals.com/foodchain.html#chart)

4. How well do you know California birds? Which category best fits the following birds? **(7 points)**

a. Canada Goose   _____ Song Bird

b. Western Sandpiper   _____ Introduced Species

c. Golden Eagle   _____ Long-legged Wader

d. Yellow-rumped Warbler   _____ Waterfowl

e. Great Egret   _____ Shorebird

f. Starling   _____ Primary Cavity Nester

g. Acorn Woodpecker   _____ Raptor

5. Rampant development in places like southern California has greatly reduced habitat and carrying capacity for wildlife. Why would some pieces of remaining habitat be more valuable to wildlife than others? Incorporate the following terms and their definitions into your answer: habitat diversity, invasive species, edge effects, habitat fragmentation, connectivity, and wildlife corridors. **(10 points)**

6. The mountains of southern California were recently hit by devastating wildfires. Many feared that a huge fire could happen and what the potential effects of such an event would be.

(a) Name four of the factors that contributed to the extreme risk of a huge forest fire in southern California. **(4 points)**

1.   _____

2.   _____

3.   _____

4.   _____

(b) Describe three measures to reduce such fire risk. **(2 points)**

1. _____

2.   _____

(c) Name two of the potential negative effects of thousands of acres burning and how to reduce those effects **(4 points)**

1. _____

2. _____

7. How well do you know southern California mammals? Make the best match you can between the mammals and traits listed below. **(7 points)**

a. Badger   _____ Fossorial

b. Southern Sea Otter   _____ Uses Sonar

c. Pocket Gopher   _____ In the Weasel Family

d. CA Gray Whale   _____ Relative of the Raccoon

e. Ringtail   _____ Impressive Digging Claws

f. Desert Kangaroo Rat   _____ Extirpated from CA Wildlands

g. Grizzly Bear   _____ Drinks No Water

8. List two reasons that bats are considered beneficial and two common myths about them. **(4 points)**

9. Southern California has a variety of habitats that have developed in response to differences in soil type, exposure, slope, and many other factors but particularly the local abundance and availability of water. The availability of water to plants is a primary factor in determining the vegetational community able to persist on a particular piece of open space. Rank the following 7 plant communities from wettest to driest, 1 indicating the most mesic, to 7 indicating the most xeric. **(7 points)**

        a.   _____ Riparian Woodland
        b.   _____ Oak Woodland
        c.   _____ Coastal Salt Marsh
        d.   _____ Creosote Bush Scrub
        e.   _____ Chaparral
        f.   _____ Coastal Sage Scrub
        g.   _____ Fresh Water Marsh

10. Southern California has more than 100 species on the endangered species list. Name one species, its status (endangered or threatened), its habitat, why it was listed, and whether its population is recovering, stable, declining, or gone. **(7 points)**
(Reference: http://species.fws.gov; http://arkive.org; http://dfg.ca.gov)