

## **PARK WILDLIFE/ECOSYSTEMS: (ANSWERS)**

- A22:** *According to a banding study performed from 1981-2004, there are nearly 140 different species of birds that inhabit Northampton Park.*
- A23:** *Of the 140 documented species of birds found in Northampton Park, 3 are denoted by the NYS DEC as threatened. They are the Pied-billed Grebe, Henslow's Sparrow, and the Northern Harrier.*
- A24:** *Of the bird species found in Northampton, 9 are designated as Special Concern by the State DEC, many of which are raptors. They are; Sharp-shinned Hawk, Cooper's Hawk, Northern Goshawk, Red-shouldered Hawk, Common Nighthawk, Red-headed Woodpecker, Horned Lark, Golden-winged Warbler, and Vesper Sparrow.*
- A25:** *The most widely distributed carnivores in the world, numerous red fox call Northampton Park home.*
- A26:** *With only 3-5% of all mammals demonstrating this trait, fox are one of those rare species that are monogamous. The family unit is the core of their social structure, headed by a mated pair which monopolizes breeding. Subordinates within a group are typically the young of the mated pair, which remain with their parents to assist in caring for new kits.*
- A27:** *Infinitely more complex than a simple chain, and interrelated by predator-prey and consumer-resource interactions representative of an entire ecological system, the food web is an integral and critical relationship network that all living things depend on.*
- A28:** *Scientific studies have demonstrated that human interference of stable ecosystems, such as the recent action in Northampton Park, alters energy channels in a food web and results in a loss of both diversity and stability. As fragile as a house of cards, removal of a single entity causes collapse of the entire ecosystem.*
- A29:** *Bioaccumulation, or biomagnification, refers to the accumulation of toxins as one moves up the food web. At each stage of the web, the amount of toxin stored in an organism's body increases as it feeds on lower contaminated individuals within the web. In one study of a food web in Lake Ontario, scientists found a concentration of pesticide 630 times greater in gulls than in primary consumers (zooplankton in the lake). Biomagnification has serious consequences for all species, but is particularly dangerous for predator species at the top of long food webs. Predators, such as humans and raptors are at extreme risk because the degree of biomagnification is extremely high by the time it reaches their trophic level.*