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INCIDENCE OF URBAN VERTEBRATE PEST PROBLEMS IN THE GREATER OMAHA, NEBRASKA AREA

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Human interactions with wildlife and vertebrate pest species are a common occurrence in metropolitan areas. There are a number of common encounters, however, each urbanized location has unique problems. Additionally, within each metropolitan area there is a gradient of encounters based on localized habitats, urban intensity, and length of urbanization. Information obtained from public inquiries directed to the University of Nebraska-Extension in Douglas County, Nebraska were used to compile a review of these interactions in the Omaha, Nebraska metropolitan area (Table 1). Data were collected from May to December 1990. Approximately 25% of all "pest" inquiries concerned vertebrate species. In the spring, the plains gartersnake (*Thamnophis radix*) and the eastern cottontail rabbit (*Sylvilagus floridanus*) were the most encountered vertebrate pest species. The eastern mole (*Scalopus aquaticus*) was the species most frequently a problem in the fall. Problems with big brown bats (*Eptesicus fuscus*) were most numerous in the fall and involved young of the year. Raccoon (*Procyon lotor*) encounters also were more numerous in the fall, however, data collection began in May after the usual birthing period. Road kill observations in the area point to an opossum (*Didelphis virginiana*) population higher than data depict in the Omaha area. It is believed that opossums, due to their nocturnal habits, are not encountered by the public very often.

Common vertebrate pests such as the house mouse (*Mus musculus*) and Norway rat (*Rattus norvegicus*) accounted for very few inquiries. It is assumed that the public utilized commercial pest control companies for these species.

Information on the location of specific species problems in relation to urban structure was summarized by using zip code and address data. Pigeons (*Columba livia*) and big brown bats were most often encountered in the inner city location of Omaha, which is primarily comprised of large, older buildings. Gartersnakes and eastern gray squirrels (*Sciurus niger*) were most numerous in the older residential areas. These locations have large mature trees, back alleys, and vacant lots with piles of debris. The gartersnake populations in these locations are much greater than in any other habitat including any non-urban locations. Newer urbanized areas and suburban locations are most frequently visited by eastern moles, voles (*Microtus spp.*), and pocket gophers (*Geomys bursarius*). Residential areas near parks, cemeteries, and semi-developed common areas had the highest incidents of ground squirrels (*Spermophilus tridecemlineatus*). Urban locations adjacent to channelized waterways or semi-natural riparian habitats allowed for skunk (*Mephitis mephitis*), beaver (*Castor canadensis*), and woodchuck (*Marmota monax*) encounters.

The metropolitan Omaha, Nebraska population has diverse and unique interactions with the local wildlife. The magnitude of these encounters (approximately

3,000 in 1990) demonstrates the need for public education. Proper public awareness will lessen both human and ecosystem stress.

TABLE 1. Number of inquiries concerning vertebrate species encounters in Omaha, Nebraska from 1 May 1990 to 29 November 1990.

| | MAY/JUNE | JULY/AUGUST | SEPT./NOVEMBER |
|--------------------------------------|----------|------------------------|----------------|
| REPTILIA | | | |
| <i>Thamnophis radix</i> | 56 | 17 | 20 |
| Other Reptiles | 5 | 1 | 3 |
| AVIAN | | | |
| <i>Columba livia</i> | 17 | 3 | 2 |
| Other Birds | 24 | 20 | 26 |
| MAMMALIAN | | | |
| <i>Eptesicus fuscus</i> | 3 | 6 | 18 |
| <i>Didelphis virginiana</i> | 2 | 1 | 9 |
| <i>Blarina brevicauda</i> | 1 | 0 | 1 |
| <i>Scalopus aquaticus</i> | 30 | 42 | 56 |
| <i>Spermophilus tridecemlineatus</i> | 24 | 21 | 17 |
| <i>Spermophilus frankiini</i> | 0 | 2 | 1 |
| <i>Geomys bursarius</i> | 7 | 5 | 13 |
| <i>Sylvilagus floridanus</i> | 50 | 8 | 21 |
| <i>Microtus</i> spp. | 7 | 11 | 6 |
| <i>Mus musculus</i> | 2 | 4 | 13 |
| <i>Peromyscus</i> spp. | 0 | 1 | 1 |
| <i>Marmota monax</i> | 6 | 4 | 1 |
| <i>Sciurus niger</i> | 16 | 14 | 23 |
| <i>Castor canadensis</i> | 1 | 2 | 3 |
| <i>Rattus norvegicus</i> | 1 | 1 | 6 |
| <i>Canis latrans</i> | 1 | 0 | 0 |
| <i>Canis familiaris</i> | 1 | 0 | 0 |
| <i>Procyon lotor</i> | 7 | 10 | 26 |
| <i>Mephitis mephitis</i> | 0 | 1 | 5 |
| <i>Felis domesticus</i> | 1 | 2 | 4 |
| <i>Odocoileus virginianus</i> | 1 | 0 | 0 |
| | | Vertebrate Pest Total | 723 |
| Non-pest Questions | 11 | 7 | 22 |
| | | Vertebrate Grand Total | 763 |