Selected Abstracts From the Literature


Helminth communities of 171 fledged white-winged doves (Zenaida asiatica asiatica) from the expanding eastern population in Texas (USA) were examined from hosts collected June 11 to September 19, 1997, within their historical range, new breeding periphery, and an intermediate area. Eleven helminth species, representing 435 individuals, were found. Helminths occurred in 3 microhabitats, of which the small intestine was the most commonly occupied. Nematodes dominated numerically (76% of total worms), followed by cestodes (17%) and trematodes (7%). Infracommunities were species poor; the most complex infracommunity consisted of 3 helminth species that occurred in 3 host individuals, followed by 2 species that occurred in 13 hosts. The remaining 155 doves had 1 (70) or no (85) species. The overall helminth component community was species poor and was dominated by Ascaridia columbae, which occurred in 26% of the white-winged doves and accounted for 65% of all helminth individuals. Prevalence and abundance of A columbae varied by geographic region and host age but not by host sex. Helminth component communities varied by geographic region, host age, and host sex. These differences were primarily attributable to unique occurrences of uncommon species within specific host subpopulations. Results suggest that the white-winged doves’ multimodal regional abundance pattern, sympatry with other birds in the family Columbidae, and granivorous diet may be more important in shaping helminth community structure than the influences often associated with geographic range expansion.


A retrospective study was conducted to identify causes of morbidity and mortality of free-living raptors in northeast Colorado and the surrounding areas of Nebraska and Wyoming. The study included 409 raptors, representing 23 species, admitted to the Colorado State University Veterinary Teaching Hospital, Fort Collins, Colorado, USA, from 1995 to 1998. Causes of morbidity and mortality were identified as trauma (66.3%), orphaned young (15.6%), unknown (9.0%), infectious disease (4.4%), metabolic and nutritional disease (2.2%), toxicosis (2.0%), and degenerative disease (0.5%). Trauma was the most frequent cause of morbidity and mortality for all species and during all seasons.


Agricultural evaporation basins are used as a means to dispose of highly saline underground-tile-drainage water in San Joaquin Valley (California, USA). The hypersaline water conditions encourage high aquatic invertebrate production, primarily brine shrimp (Artemia franciscana), which attracts birds to these sites. Cool winter temperatures (<4°C) and hypersaline water conditions (>70,000 μg/kg) resulted in feather salt encrustation and salt toxicosis in ruddy ducks (Oxyura jamaicensis). During December 1998 and January 1999, approximately 200 dead and sick ruddy ducks were collected from an evaporation basin and 5 healthy control ruddy ducks were collected from a freshwater wetland. Brains contained ≥1890 ppm sodium (wet tissue mass) in 7 dead ducks and ≤1150 ppm in the control birds. Liver arsenic, lead, and mercury concentrations were <1 ppm in all birds examined. Manganese, molybdenum, and copper liver concentrations did not differ significantly (P > .05) between the 2 groups of ducks. The dead ducks had significantly higher liver selenium, cadmium, iron, and zinc than the controls, but the concentrations were not sufficient to cause toxicity. Significant gross and microscopic lesions in most of the dead birds included conjunctivitis, lens opacity and cataract formation, vascular congestion in various organs, most notably in the meninges of the brain, and myocardial and skeletal muscle degeneration.


Reference values for 18 plasma chemical variables in blue neck ostriches (Struthio camelus australis, n = 60, age 24–36 mo) were established for use in veterinary clinical practice with nonparametric statistics. The following values were established for the percentiles $P_{2.5}$ and $P_{97.5}$: sodium 147–157 mmol/L, calcium 2.4–4.8 mmol/L, inorganic phosphate 1.3–2.3 mmol/L, chloride 94–105 mmol/L, glucose 10.3–13.7 mmol/L, urea 0.5–0.8 mmol/L, uric acid 351–649 μmol/L, bile acids 8–33 μmol/L, total protein 39–56 g/L, albumin-globulin ratio 0.45–0.59, osmolality 304–330 mOsm/kg, alkaline phosphatase 69–217 IU/L, aspartate aminotransferase 243–418 IU/L, gamma-glutamyltransferase 0–1 IU/L, creatine kinase 1648–4894 IU/L, glutamate dehydrogenase 8–17 IU/L,