Abstract

Successful programs for ex situ and in situ conservation and management of raptors require detailed knowledge about their pathogens. The purpose of this study was to identify the internal parasites of some captive raptors in Mexico, as well as to verify their impact in the health status of infected birds. Birds of prey were confiscated and kept in captivity at the Centro de Investigación y Conservación de Vida Silvestre (CIVS) in Los Reyes La Paz, Mexico State. For this, fecal and blood samples from 74 birds of prey (66 Falconiformes and eight Strigiformes) of 15 species, juveniles and adults from both sexes (39 males and 35 female), were examined for the presence of gastrointestinal and blood parasites. Besides, the oropharyngeal cavity was macroscopically examined for the presence of lesions compatible with trichomoniasis. Among our results we found that lesions compatible with Trichomonas gallinae infection were detected only in two Red-tailed hawks (Buteo jamaicensis) (2.7%); nevertheless, infected birds were in good physical condition. Overall, gastrointestinal parasites were found in 10 (13.5%) raptors: nine falconiforms (13.6%) and one strigiform (12.5%), which mainly presented a single type of gastrointestinal parasite (90%). Eimeria spp. was detected in Harris’s hawk (Parabuteo unicinctus), Swainson’s hawk (Buteo swainsoni), Red-tailed hawk (B. jamaicensis) and Great horned owl (Bubo virginianus); whereas trematodes eggs were found in Peregrine falcon (Falco peregrinus) and Swainson's hawk (B. swainsoni). Furthermore, eggs of Capillaria spp. were found in one Swainson’s hawk (B. swainsoni), which was also infected by trematodes. Hemoproteoziarian were detected in five (6.7%) falconiforms: Haemoproteus spp. in American kestrel (F. sparverius) and Leucocytozoon spp. in Red-tailed hawk (B. jamaicensis). Despite this, no clinical signs referable to gastrointestinal or blood parasite infection were observed in any birds. All parasites identified were recorded for the first time in raptors from Mexico. Furthermore, this represents the first report for T. gallinae, trematodes, Haemoproteus spp. and Leucocytozoon spp. in raptors from Latin America. Diagnosis and control of parasitic infections should be a part of the routine in health care evaluations for ex situ raptor populations. Finally, this information is also valuable for in situ conservation actions on these birds.

Keywords
Raptors, gastrointestinal parasites, hemoparasites, conservation, captivity.